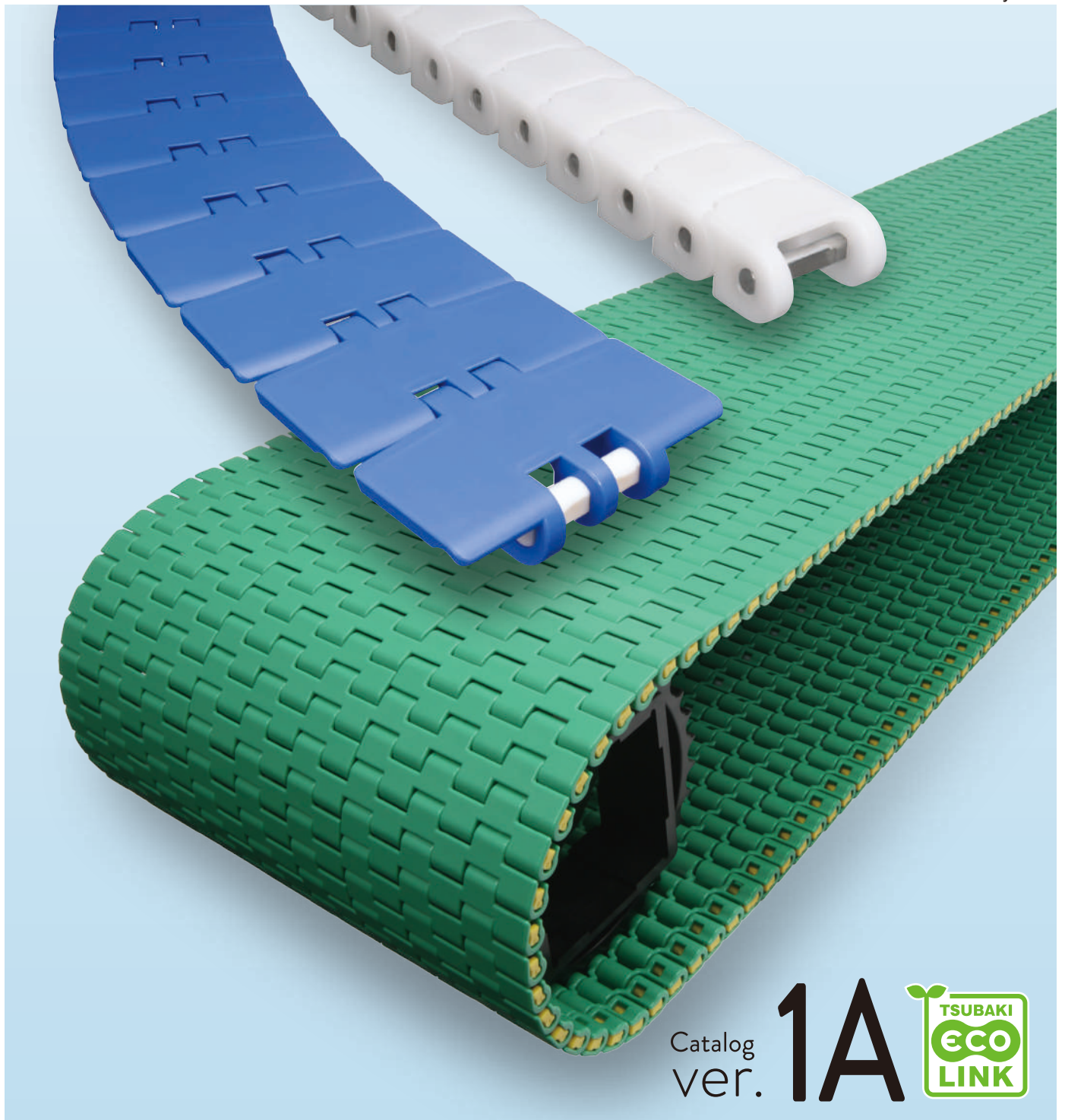


# TSUBAKI TOP CHAIN & SPROCKET

Chains for Conveyance



Catalog  
ver.

**1A**



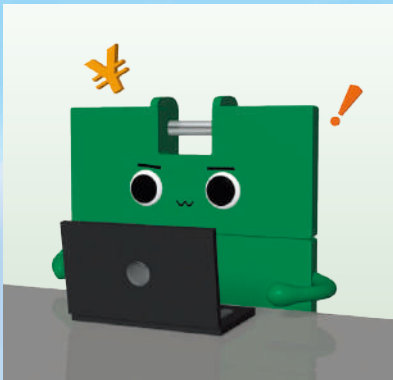
For a Greater Connection with Customers and the World

# You need a...

## Tsubakimoto Advances Development with

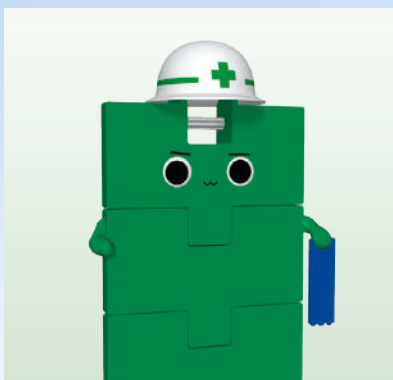
Updated  
points!

### **Top chain model numbering has been rearranged.**



#### Easy to get product information

Drawings are readily downloaded from our website.  
This helps design and procurement.



#### Identify the actual products using the model number

Concise model numbering make it easier to identify  
products.

# LINK!

## New Model Numbering and Order Methods

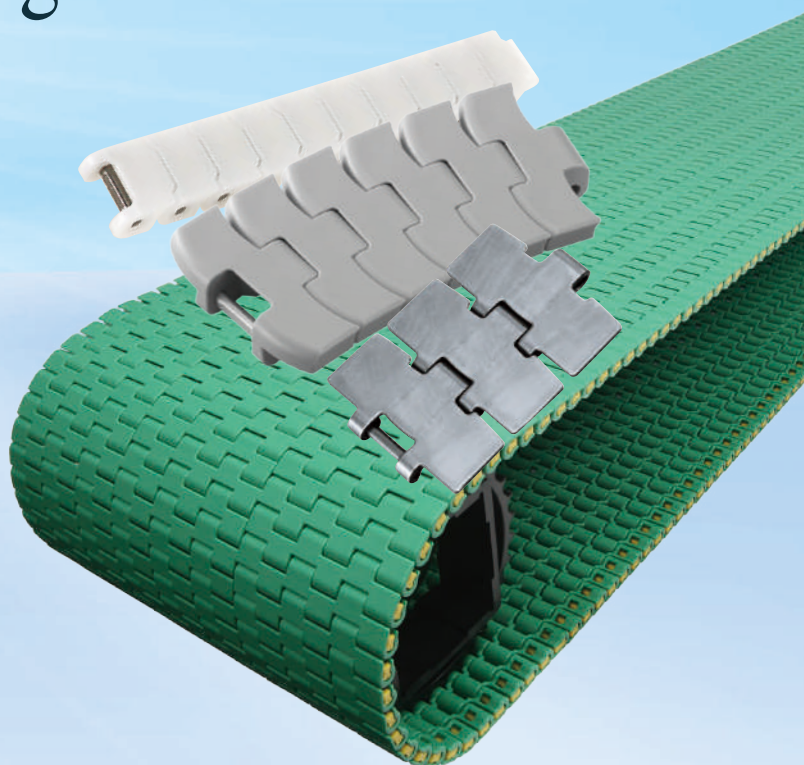
### Ordering with the former model number

To order 20 links of the WT1515-W Low Friction/Anti-Wear (LFG), 300-mm-wide chain

Model number **WT1515-W300-LFG**

Quantity **20L**

Single-line model numbering makes ordering easy!



### How to order using the new model numbering system

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit	Quantity	Unit
<b>WT</b>	<b>15</b>	<b>15</b>	<b>- W300</b>	<b>- LFG</b>	<b>+ 20</b>	<b>L</b>	<b>1</b>	<b>H</b>
	15: 15 mm	5: Closed type	W300: 300 mm	LFG: Low friction/ anti-wear (Color: Green)	20: 20	L: Link		H: Piece

Note: Please see "How to Order" on page 3, and also refer to the relevant product page for details.  
Please keep in mind that not all changes in model numbering and order methods apply to all chain types.

# How to Order

Place orders using the basic structure of model numbers as specified below.

## 1. Basic structure of model numbers

The basic structure of top chain model numbers is shown as below.

Refer to the relevant product page to assure its arrangement because some numbers may have different arrangements.

### 1 Plastic Modular Chain

#### Chain

Model number									
Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit	Quantity	Unit	
<b>WT</b>	<b>15</b>	<b>15</b>	<b>- W150 -</b>	<b>LFG</b>	<b>+ 20</b>	<b>L</b>	<b>1</b>	<b>H</b>	
	15: 15 mm	5: Closed type	W150:150 mm	LFG: Low friction/ Wear resistant series (Link color: Green)	20: 20	L: Link		H: Piece	

#### Sprockets

Model number								
Chain type	Shape of sprocket	Chain series	Teeth	Bore diameter	Bore shape	Quantity	Unit	
<b>WT -</b>	<b>SW</b>	<b>1500</b>	<b>- 32T</b>	<b>40</b>	<b>S</b>	<b>1</b>	<b>K</b>	
	SW: Split				S: Square		K: Piece	

### 2 Plastic Top Chain

#### Chain

Model number									
Chain type	Top plate width	Pin type	Material mark	Number of links	Unit	Quantity	Unit		
<b>TTP</b>	<b>826</b>	<b>P</b>	<b>- ALF</b>	<b>+ 20</b>	<b>L</b>	<b>1</b>	<b>H</b>		
	826: 82.6 mm	P: Plastic pins	ALF: Advanced low friction/ Wear resistant series (Link color: Light blue)	20: 20	L: Link		H: Piece		

#### Sprockets

Model number					
Chain type	Teeth	Bore diameter	Quantity	Unit	
<b>TTP -</b>	<b>21T</b>	<b>30</b>	<b>1</b>	<b>K</b>	
				K: Piece	

### 3 Plastic Roller Table

Refer to page 5 for plastic roller table.

### 4 Plastic Block Chain

#### Chain

Model number									
Chain type	Chain size	Pin type	Material mark	Number of links	Unit	Quantity	Unit		
<b>RSP</b>	<b>40</b>	<b>P</b>	<b>- LFB</b>	<b>+ 20</b>	<b>L</b>	<b>1</b>	<b>H</b>		
		P: Plastic pins	LFB: Low friction/ Wear resistant series (Link color: Brown)	20: 20	L: Link		H: Piece		

## 5 Snap Cover Chain

Refer to page 5 for snap cover chain.

## 6 Stainless Steel Top Chain

Refer to page 5 for stainless steel top chain.

## 7 Top Chain Accessories

### Plastic Rails

Model number						Quantity	Unit
Plastic rail type	Rail thickness	Rail length		Material grade			
<b>PR-PH</b>	<b>5</b>	<b>20</b>	-	<b>W</b>	<b>1</b>	<b>H</b>	
PH: PH rail	5: 5 mm	20: 20 mm		W: 10-100		H: Piece	

### Set Collar

Model number						Quantity	Unit		
Top chain components	Set collar	Keyway		Bore shape	Bore diameter				
<b>TP-C</b>	-	<b>SC</b>		<b>K</b>	-	<b>R</b>	<b>25M</b>	<b>1</b>	<b>K</b>
				None: Without keyway K: With keyway		R: Round S: Square	25M: 25 mm		K: Piece

### Highly Rotational Return Roller

Model number				Quantity	Unit
Top chain accessories	Code	Outside diameter			
<b>TP</b>	-	<b>IR</b>	<b>60</b>	<b>1</b>	<b>K</b>
		IR: Highly rotational return roller			K: Piece

### Dedicated Rail

Model number					
Top chain component	Code	Length	Unit	Quantity	Unit
<b>TP-C</b>	<b>19067VT-PR+</b>	<b>60</b>	<b>M</b>	<b>1</b>	<b>H</b>
			M: m		H: Piece

# How to Order

Place orders using the basic structure of the model numbers as specified below.

## 1. Basic structure of model numbers

The basic structure of top chain model numbers is shown as below.

Refer to the relevant product page to assure its arrangement because some numbers may have different arrangements. With regard to end links and options, see page 6.

### 3 Plastic Roller Table

#### Chain

Model number							Quantity	Unit		
Chain type	Material mark	Number of links	End link	Options						
<b>ST305</b>	-	<b>SS</b>	+	<b>100L</b>	-	<b>JKR</b>	-	<b>P</b>	<b>1</b>	<b>H</b>
		SS: SS series								H: Piece

### 5 Snap Cover Chain

#### Base chain

Model number							Quantity	Unit		
Chain size	Base chain material mark	Snap cover chain	Material of plastic cover	Number of links	End link					
<b>RS40</b>	-	<b>SS</b>	<b>SC</b>	<b>A</b>	+	<b>20L</b>	-	<b>JR</b>	<b>1</b>	<b>H</b>
		SS: SS Series		Chain with plastic covers A: Standard (Color: White)						H: Piece

#### Joint link

Model number							Quantity	Unit
Chain size	Base chain material mark	Snap cover chain	Material of plastic cover	Joint link				
<b>RS40</b>	-	<b>SS</b>	<b>SC</b>	<b>A</b>	-	<b>JL</b>	<b>1</b>	<b>K</b>
		SS: SS series		Chain with plastic covers A: Standard (Color: Light blue)				K: Piece

### 6 Stainless Steel Top Chain

#### Chain

Model number							Quantity	Unit			
Chain type	Top plate width	Base chain material mark	Number of links	End link	Options						
<b>TS</b>	<b>826</b>	-	<b>LMCNP</b>	+	<b>20L</b>	-	<b>PKR</b>	-	<b>P</b>	<b>2</b>	<b>H</b>
	826: 82.6 mm		LMCNP: Lambda series								H: Piece

## 2. End links and options

### 2-1 About the base chain material mark

Base chain material marks that included “-” are no longer used in new model numbers.

No other changes have been made.

Old base chain material mark	LM-SC■	LMC-SC■	NP-SC■	SS-SC■	LMC-NP
New base chain material mark	LMSC■	LMCSC■	NPSC■	SSSC■	LMCNP

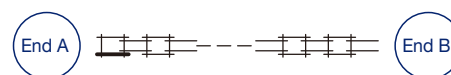
Note: Enter “A” or “E” in the box ■ for material of plastic cover. A: Standard E: Electroconductive

### 2-2 About the end links

Specify the end links for both ends of the chain referring to the table below.

The following shows the abbreviations of end links.

J: Joint link, R: Inner link, P: Outer link, O: Offset link, K: Pre-assembled



Chain type	End links	End A	End B	End links	End A	End B
Plastic Roller Table ST RT	JKR			RR		
Snap Cover Chain	JR			RR		
Stainless Steel Top Chain	PKR			RR		
TS TSA	PKPK			PKOK		

### 2-3 About the options

Option	Name of option	Description
P	Initial elongation mitigation	Mitigates chain elongation that occurs when operation is first initiated. Note: TN-PC, TNU, TRU, and TTKU are not included.
2 3 4	Matched and tagged chain	The length of top chains may vary within a scope of tolerance. Matched and tagged chains are available in order to minimize the relative difference within the total length of the parallel strands of chains.  2: Two parallel strands. Place orders in a quantity multiplied by two. 3: Three parallel strands. Place orders in a quantity multiplied by three. 4: Four parallel strands. Place orders in a quantity multiplied by four. Note: TO and TU are not included.

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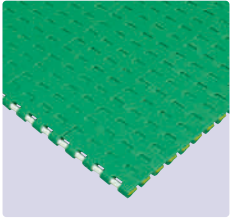
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Description of Chain Type

Tsubaki Top Chain Lineup

Plastic Top Chain Materials

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# Tree Layout of Our Lineup

How to Order

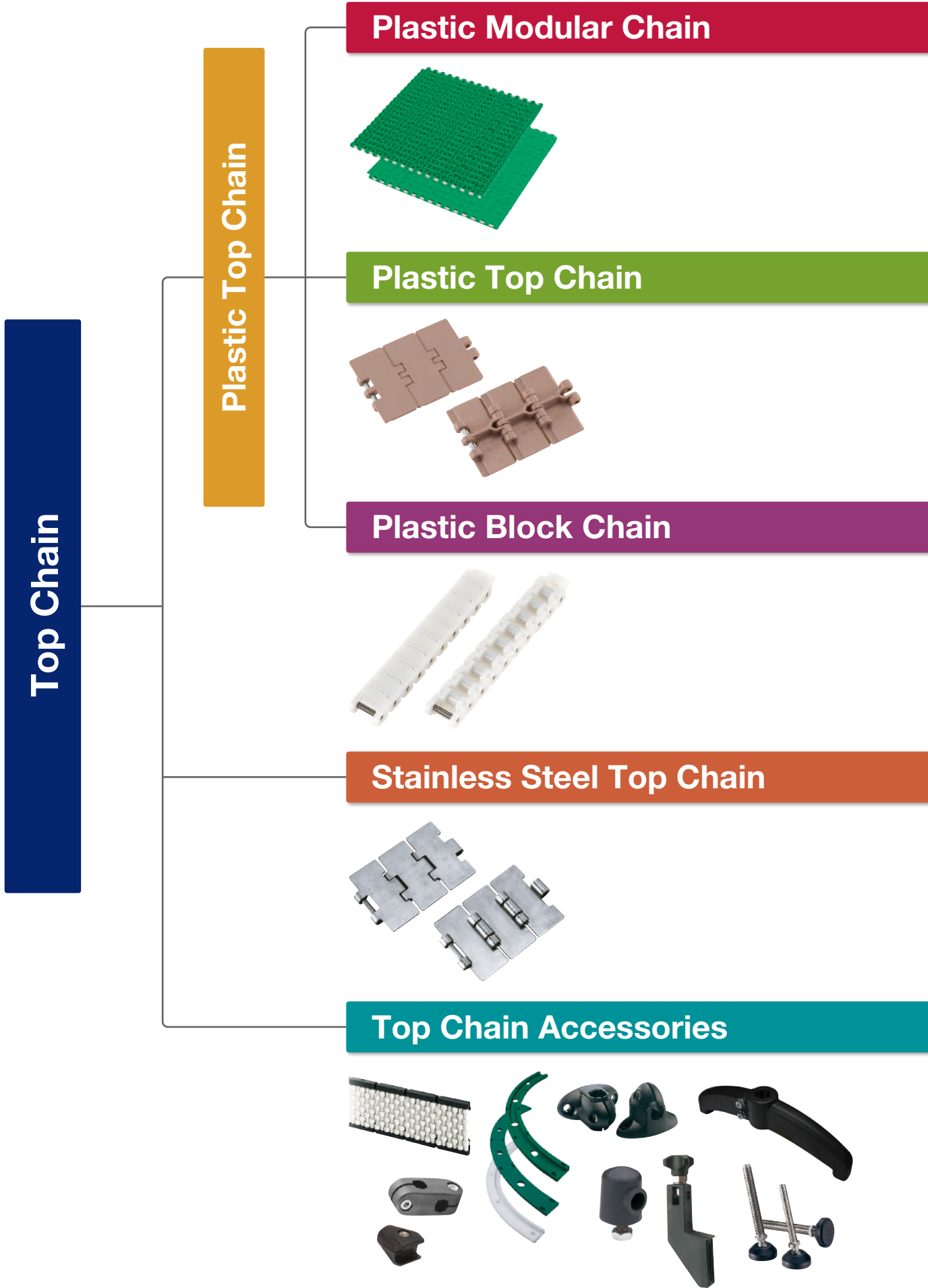
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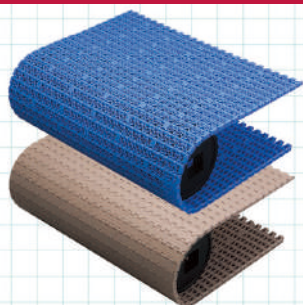
Description of Chain Type

Tsubaki Top Chain Lineup

Plastic Top Chain Materials

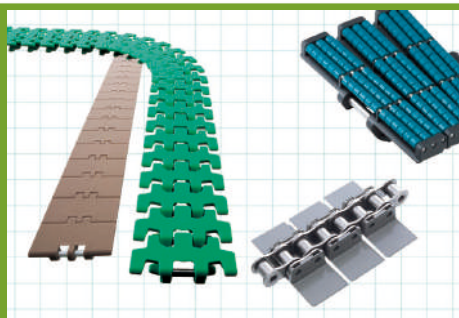


## Tree Layout of Our Lineup



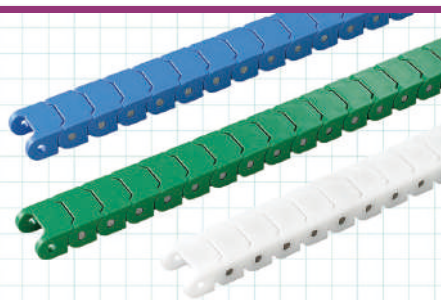
Plastic modular chains use an alternating combination of interconnected modular engineering plastic links to transport items in large quantities on wide, belt-shaped conveyors. Chain-sprocket engagement ensures reliable drive without any slippage. Different link types are available according to application and type of conveyed products: closed, open, and net types. In addition, the lineup has been expanded to include magnetic, rubber, and flight types suitable for inclined conveyance.

Conveying surfaces are available in widths as narrow as 50 mm. Plastic modular chains offer a wider conveying surface than plastic block chains or plastic top chains.



Top plates and chain parts are made of engineering plastic and are connected by pins. Another type features plates of engineering plastic combined with steel base chains. Another type includes rollers attached to a plastic top plate chain. The rollers rotate freely and reduce line pressure during accumulation.

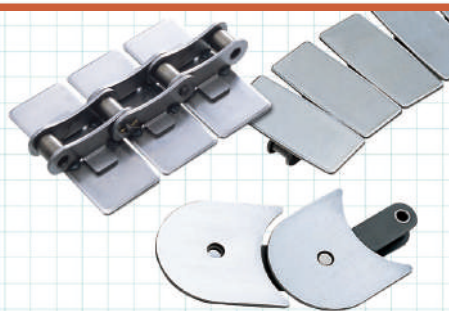
Top plate width ranges from 48.5 mm to 304.8 mm, and can be selected to match the conveyed products.



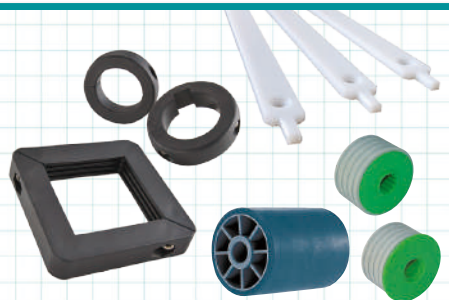
Plastic block chains feature a simple structure in which block-shaped links are connected by connecting pins.

The small pitch (9.525 mm to 25.4 mm) of plastic block chain allows smaller-diameter sprockets to be used, reducing the dead space between conveyors and ensuring smooth transfer of conveyed products from one conveyor to another.

Link width is narrow, ranging from 13 mm to 63 mm, enabling plastic block chains to be installed in confined spaces.



Stainless steel top chains use highly corrosion-resistant stainless steel as key components. Two models are available: one in which top plates are integrated as a chain, and another model in which the two components are mechanically joined. Stainless steel top chains generally have greater maximum allowable load than plastic top chain products.



These items are used as peripheral devices for conveyors. They are available in a wide range of shapes and materials for the best combination to suit individual applications.

Various conveyor parts are available, such as plastic rails, set collars, chain guide parts, frame support parts, product guide parts, bearing units, and disconnecting and connecting tools for top chains.

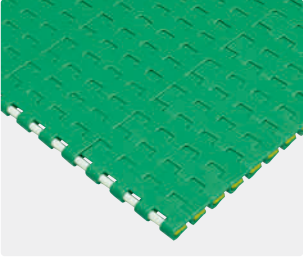
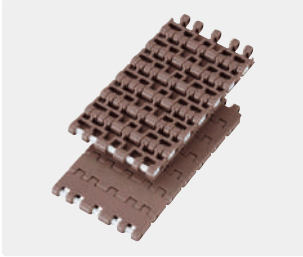
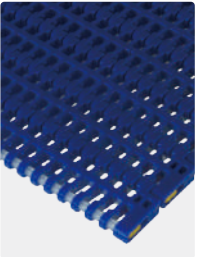
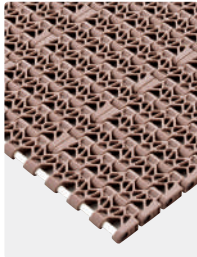
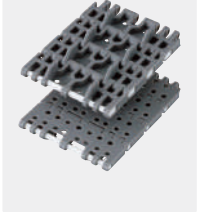
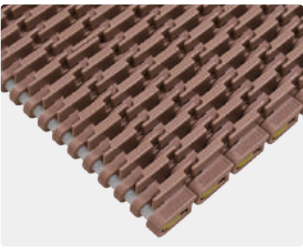

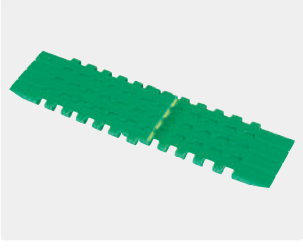
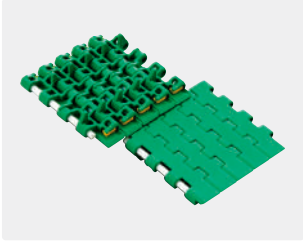
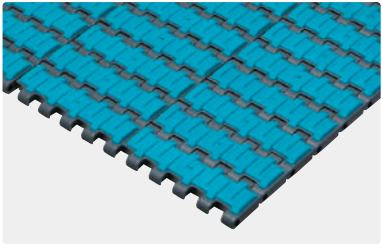
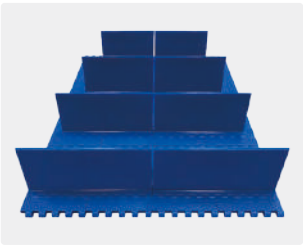
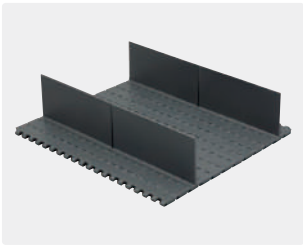


TSUBAKI ECOLINK

The Tsubaki Eco Link logo is used only on products that satisfy the standards for environmental friendliness set by the Tsubaki Group.

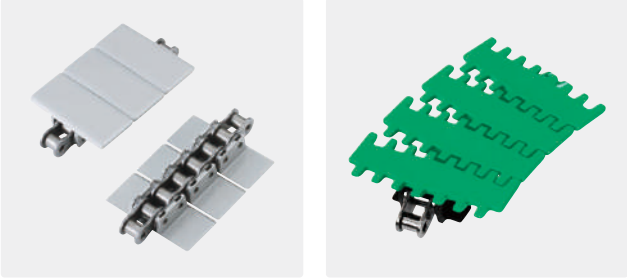


# Description of Chain Type

## Plastic Modular Chain

	Lineup		Description
Closed Type	<p>[Wide type]</p> 	<p>[Mold-to-width type]</p> 	<p><b>[Closed Type]</b></p> <ul style="list-style-type: none"> <li>The wide type has a brickwork structure built by interconnecting the modular links. The mold-to-width type is made of single modules. These have no drainage openings on the surface of the flat plates, and are generally applied to a wide range of industries.</li> <li>Our additional product line includes models with tab guide attachments, float-preventive tabs, and surface with slippage prevention. Other models include magnetic types and flight types.</li> </ul>
Open Type/Net Type	<p>[Wide type]</p> 	<p>[Mold-to-width type]</p>  	<p><b>[Open Type/Net Type]</b></p> <ul style="list-style-type: none"> <li>The wide type has a brickwork structure built by interconnecting the modular links. The mold-to-width type is made of single modules. The surface of plates has openings for draining/cooling applications and has excellent washability in comparison with closed types.</li> <li>Hinged models with larger openings and models with large slits perforated on a closed type are also available.</li> </ul>
Raised Rib Type		 <p>Transfer plate</p>	<p><b>[Raised Rib Type]</b></p> <ul style="list-style-type: none"> <li>Used together with transfer plates, this type is ideal for preventing conveyed products from getting jammed or tipping over during transfer onto other conveyors or machines.</li> <li>The plate structure with large openings yields greater drainage effects.</li> </ul>
GTO & TOD			<p><b>[GTO &amp; TOD]</b></p> <ul style="list-style-type: none"> <li>Possible to transfer orthogonally due to tapered side of the plate, thereby preventing conveyed products from getting jammed.</li> <li>Tapering is available for either the right or left side.</li> </ul>
Rubber Type			<p><b>[Rubber Type]</b></p> <ul style="list-style-type: none"> <li>With the modular links made of a soft material combined into a brickwork structure, high friction is achieved on the surface of the plate, thereby preventing conveyed products from slipping during inclined conveyance.</li> </ul>
Flight Type			<p><b>[Flight Type]</b></p> <ul style="list-style-type: none"> <li>With flights installed, items such as boxes, cases, and bulk loads can be conveyed on an inclined conveyor.</li> <li>The height of the flights and the intervals between them can be customized upon request.</li> </ul>

## Description of Chain Type

## Plastic Top Chain

	Lineup	Description
Snap Top Chain		<p><b>[Snap Top Chain]</b></p> <ul style="list-style-type: none"> <li>● Consists of snap top plates and base chain. The “legs” of the top plates are designed to snap the plates onto the outer links of the base chain.</li> <li>● Suitable for heavy loads and long conveyor applications due to high allowable loads (except SS and PC series).</li> <li>● It is also possible to replace top plates only.</li> <li>● Treating the base chain with an anticorrosive is also available.</li> </ul>
Gripper Chain		<p><b>[Gripper Chain]</b></p> <ul style="list-style-type: none"> <li>● Gripper chains are used to hold products from both sides to convey them vertically.</li> <li>● A selection of the grip rubber shape and material is available.</li> <li>● Top plates and grip rubbers can be replaced.</li> </ul>
Plastic Accumulation Chain		<p><b>[Plastic Accumulation Chain]</b></p> <ul style="list-style-type: none"> <li>● The rolling of rollers prevents scratches on conveyed products.</li> <li>● Suitable for applications with an accumulation to reduce damage on the bottom of the products and line pressure.</li> </ul>
Plastic Universal Chain	<p><b>[Plastic Universal Chain]</b></p> <ul style="list-style-type: none"> <li>● Small sideflex radius allows conveyor installation in confined spaces.</li> <li>● With minimized spaces between chain links, stable conveyance is secured.</li> </ul>	
Plastic Crescent Chain	<p><b>[Plastic Crescent Chain]</b></p> <ul style="list-style-type: none"> <li>● Allows horizontal circular conveyance.</li> <li>● Stable conveyance is secured thanks to constant gap between chain links.</li> </ul>	
Plastic Roller Table	<p><b>[Plastic Roller Table]</b></p> <ul style="list-style-type: none"> <li>● The rolling of rollers prevents scratches on conveyed products.</li> <li>● The gap between plastic rollers does not change even when the chain bends because the rollers are aligned with the pitch line of the base chain.</li> </ul>	

## Plastic Block Chain

	Description
Snap Cover Chain	<p><b>[Snap Cover Chain]</b></p> <ul style="list-style-type: none"> <li>● Higher maximum allowable load than plastic block chain. Ideal for long conveyors.</li> <li>● Plastic covers prevent damage to the conveyed products.</li> </ul>

# Tsubaki Top Chain Lineup

## Plastic Modular Chain

 Mold-to-Width Type

How to Order




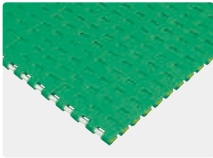
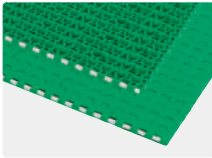
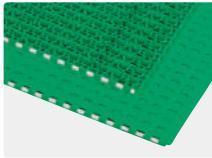
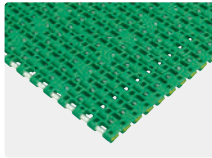
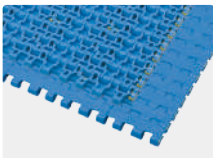
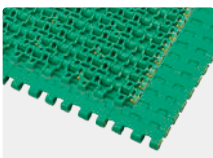


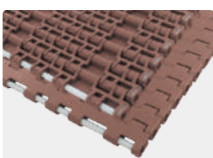

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Tree Layout of Our Lineup

Description of Chain Type

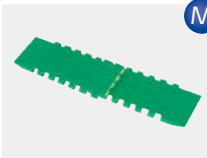
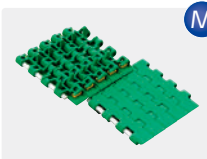
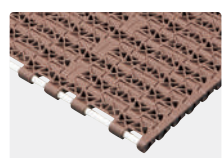
Tsubaki Top Chain Lineup

Plastic Top Chain Materials

Chain Pitch mm	Chain Type					
	Closed Type		Open Type			
4.5		—	—	—	—	
	WT0400 series WT0405-W...page 51					
7.5		—	—	—	—	
	WT0700 series WT0705-W...page 53					
12.7		—	—	—	—	
	BT4 series BTC4-M...page 125					
15					—	
	WT1500 series WT1505-K...page 55	WT1500 series WT1505G-K...page 57	WT1500 series WT1505GTO-K...page 59	WT1500 series WT1506-K...page 97		
		—	—		—	
	WT1510 series WT1515-W...page 61			WT1510 series WT1516-W...page 99		
				—	—	
	WT1510 series WT1515G-W...page 63	WT1500 series WT1505G-M...page 126	WT1510 series WT1515G-M...page 127			
			—	—	—	
BT5 series BTC5...page 122	BT5 series BTC5-A...page 122					

Tsubaki Top Chain Lineup

 Mold-to-Width Type

	Chain Type					Chain Pitch mm
	Net Type	Raised Rib Type	GTO & TOD	Rubber Type	Flight Type	
	—	—	—	—	—	4.5
	—	—	—	—	—	7.5
	—	—	—	—	—	12.7
	—	—	 <p>WT1500 series WT1505TOD-M...page 139</p>	—	—	15
	—	—	 <p>WT1500 series WT1505GTO-M...page 138</p>	—	—	
	—	—	—	—	—	
	 <p>BT5 series BTN5...page 111</p>	—	—	—	—	

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Tree Layout of Our Lineup

Description of Chain Type



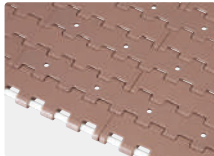
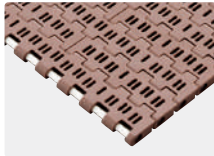
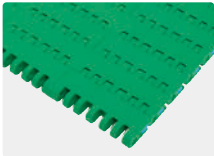
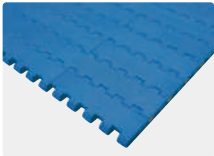
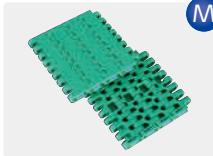


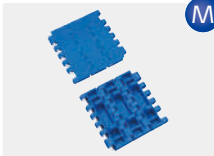

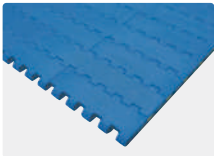
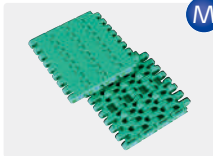

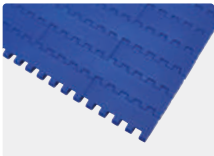
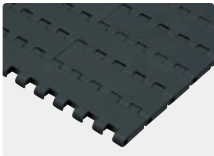
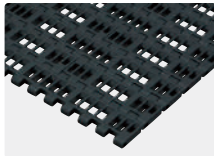
Tsubaki Top Chain Lineup

Plastic Top Chain Materials

# Tsubaki Top Chain Lineup

## Plastic Modular Chain

 Mold-to-Width Type

Chain Pitch mm	Chain Type				
	Closed Type			Open Type	
15					
19.05	 BT6 series BTC6...page 65	 BT6 series BTC6-T...page 67		 BT6 series BTCP6...page 103	 BT6 series BTO6...page 101
25.4	 WT2500 series WT2505-K...page 71	 WT2510 series WT2515-W...page 73	  WT2500 series WT2505-M...page 131	 WT2500 series WT2506-K...page 106	
	  WT2510 series WT2515G-M...page 133	 WT2510 series WT2515G-W...page 75	  WT2500 series WT2505G-M...page 132		
	 WT2520 series WT2525-K...page 79				
	 WT2250 series WT2250FT...page 69				
	 WT2250 series WT2250FG...page 105				

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Tsubaki Top Chain Lineup

Plastic Top Chain Materials



Tsubaki Top Chain Lineup

 Mold-to-Width Type  Non Slip

	Chain Type					Chain Pitch mm
	Net Type	Raised Rib Type	GTO & TOD	Rubber Type	Flight Type	
 BT5 series BTN5-A...page 113	—	—	—	—	—	15
 BT6 series BTN6...page 115	—	—	—	—	—	
—	 WT1900 series WT1907-K...page 117	—	—	—	—	19.05
—	—	 WT2500 series WT2505TOD-M...page 140	—	—	—	
—	—	—	—	—	 WT2510 series WT2515F-W...page 77	25.4
—	—	—	—	—	—	
—	—	—	—	 WT2250 series WT2250VG...page 121	 WT2250 series WT2250FT flight type...page 123	

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Tree Layout of Our Lineup

Description of Chain Type

Tsubaki Top Chain Lineup

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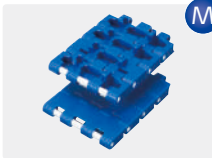
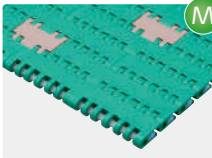
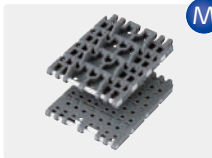

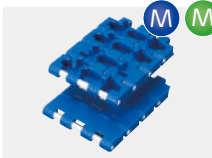
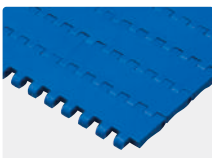
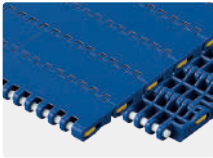
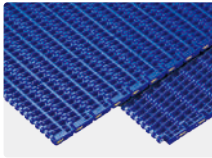
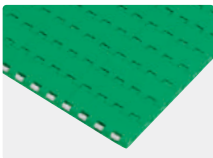
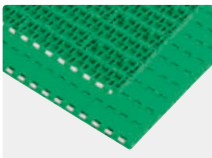

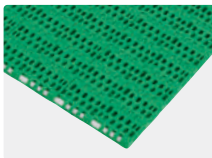
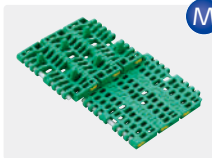
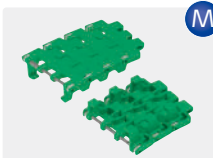
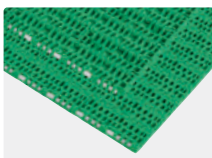
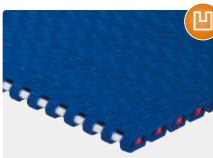
# Tsubaki Top Chain Lineup

## Plastic Modular Chain

 Mold-to-Width Type

 Magnetic Type

 Non Slip

Chain Pitch mm	Chain Type				
	Closed Type			Open Type	
25.4					—
				—	—
27.2		—	—		—
30					
		—	—		—
31.75		—	—	—	—

How to Order

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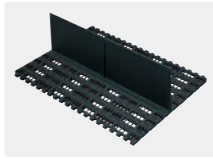
Tree Layout of Our Lineup

Description of Chain Type

Tsubaki Top Chain Lineup

Plastic Top Chain Materials

Tsubaki Top Chain Lineup

	Chain Type					Chain Pitch mm
	Net Type	Raised Rib Type	GTO & TOD	Rubber Type	Flight Type	
	—	—	—	—	 <p>WT2250 series WT2250FG flight type...page 123</p>	25.4
	—	—	—	—	—	
	—	—	—	—	—	
	—	—	—	—	—	27.2
	—	—	—	—	—	30
	—	—	—	—	—	
	—	—	—	—	—	31.75

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Tree Layout of Our Lineup

Description of Chain Type

Tsubaki Top Chain Lineup

Plastic Top Chain Materials

# Tsubaki Top Chain Lineup



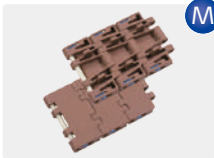
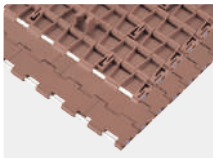
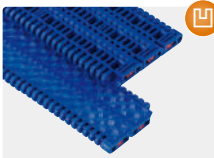
## Plastic Modular Chain



Mold-to-Width Type



Non Slip

Chain Pitch mm	Chain Type				
	Closed Type			Open Type	
38	—	—	—	 WT3810 series WT3816-K...page 110	—
38.1	 WT3830 series WT3835-K...page 94	 M WT3830 series WT3835G-M...page 135	 WT3830 series WT3835-T...page 95	—	—
50.8	 Non Slip BT16 series BTH16...page 96	—	—	—	—
57.15	—	—	—	—	—

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Tsubaki Top Chain Lineup

Plastic Top Chain Materials

# Tsubaki Top Chain Lineup

	Chain Type					Chain Pitch mm
	Net Type	Raised Rib Type	GTO & TOD	Rubber Type	Flight Type	
	—	—	—	—	—	38
	—	 <p>WT3820 series WT3827-K...page 119</p>	—	—	—	38.1
	—	—	—	—	—	50.8
	—	 <p>WT5700 series WT5707-K...page 120</p>	—	—	—	57.15

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# Tsubaki Top Chain Lineup

## Plastic Top Chain

Chain Pitch mm	Chain Type				Plastic Roller Table
	Plastic Top Chain—Straight Running			Snap Top Chain	
9.525	—	—	—	—	 ST300...page 245
	—	—	—	—	 RT300...page 247
12.7	—	—	—	—	 ST400...page 245
	—	—	—	—	 RT400...page 247
15.875	—	—	—	—	 ST500...page 245
	—	—	—	—	 RT500...page 247

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# Tsubaki Top Chain Lineup

	Chain Type					Chain Pitch mm
	Plastic Top Chain-Sideflexing Running			Gripper Chain	Plastic Accumulation Chain	
	—	—	—	—	—	9.525
	—	—	—	—	—	
	 <p>TTUPM-P (Plastic pins) ...page 199</p>	—	—	—	—	12.7
	 <p>TTUPM-PC (Plastic pins) ...page 200</p>	—	—	—	—	
	—	—	—	—	—	15.875
	—	—	—	—	—	

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Description of Chain Type

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# Tsubaki Top Chain Lineup

## Plastic Top Chain

Chain Pitch mm	Chain Type				
	Plastic Top Chain—Straight Running			Snap Top Chain	Plastic Roller Table
19.05					
	TTPM (Stainless steel pins) ...page 173	TPM-SN (Stainless steel pins) ...page 185	TPM-SN (Plastic pins) ...page 185	TN...page 229	RT600...page 247
	—	—	—		—
				TNU...page 231	
19.23			—	—	—
	TP-YS (Stainless steel pins) ...page 249	TP-YST (Stainless steel pins) ...page 250			
19.265		—	—	—	—
	TPM (Stainless steel pins) ...page 184				
25.4		—	—	—	—
	TPRF TPRF2040 (Stainless steel pins)...page 187				
30	—	—	—	—	—
31.75	—	—	—	—	—

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Tree Layout of Our Lineup

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Tsubaki Top Chain Lineup

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Tsubaki Top Chain Lineup

	Chain Type					Chain Pitch mm
	Plastic Top Chain-Sideflexing Running			Gripper Chain	Plastic Accumulation Chain	
	—	—	—	—	—	19.05
	—	—	—	—	—	
	—	—	—	—	—	19.23
	 TPUM (Stainless steel pins) ...page 209	—	—	—	—	19.265
	 TTUPS-H (Stainless steel pins)...page 207	 TTUPM838H (Special double-layer D-type plastic pins)...page 211	—	 TP-1843-G...page 236	—	25.4
	—	—	—	—	 TP-30UTW-LAP (Stainless steel pins)...page 242	30
	 TPUSR TPUSR550 (Stainless steel pins) (Plastic pins)...page 215	 TPUSR TPUSR826 (Stainless steel pins) (Plastic pins)...page 215	—	—	—	31.75

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Tree Layout of Our Lineup

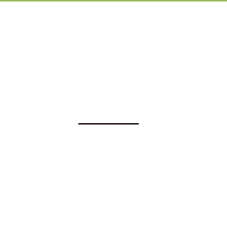

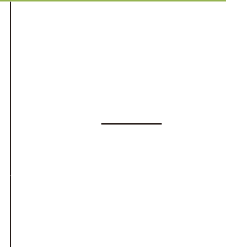
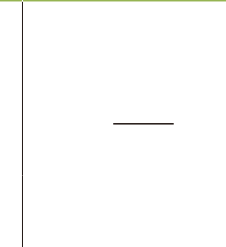
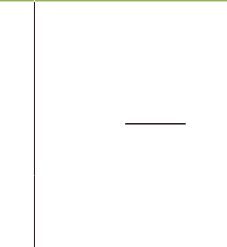
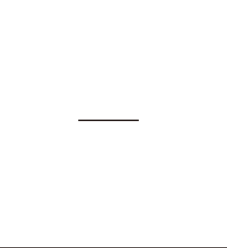
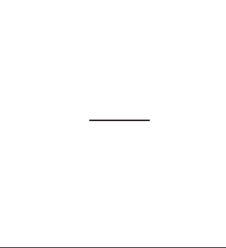
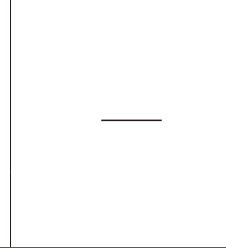
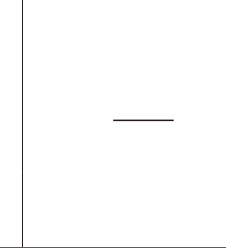
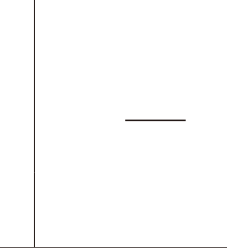


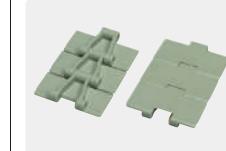
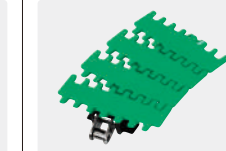


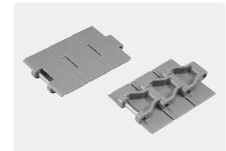

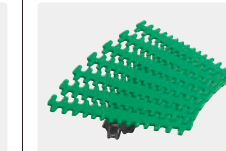






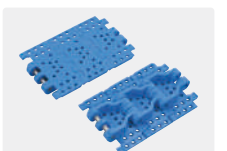
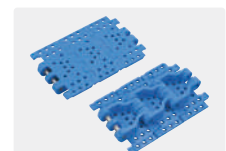
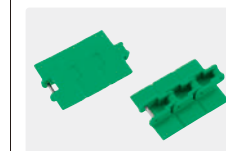



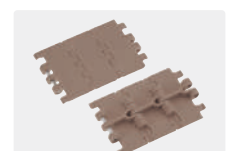



Description of Chain Type

Tsubaki Top Chain Lineup

Plastic Top Chain Materials

# Tsubaki Top Chain Lineup

## Plastic Top Chain

Chain Pitch mm	Chain Type				
	Plastic Top Chain—Straight Running			Snap Top Chain	Plastic Roller Table
36					
					
38.1	 TTP (Stainless steel pins) ...page 165	 TTP (Plastic pins) ...page 167	 TP-OTD (Stainless steel pins) ...page 177	 TP-PT...page 233	
	 TTPT (Stainless steel pins) ...page 171	 TPS (Stainless steel pins) ...page 179	 TPS (Plastic pins) ...page 179	 TP-PTS...page 234	
	 TPF (Stainless steel pins) ...page 175	 TTPDH (Stainless steel pins) ...page 172	 TPSS (Stainless steel pins) ...page 183	 TP-1873-T...page 235	
	 TPH (Stainless steel pins) ...page 181	 TPH (Plastic pins) ...page 181	 TPRF TPRF2060 (Stainless steel pins)...page 189		
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Plastic Top Chain Materials

# Tsubaki Top Chain Lineup

	Chain Type					Chain Pitch mm
	Plastic Top Chain-Sideflexing Running			Gripper Chain	Plastic Accumulation Chain	
	TP-UB36 (Stainless steel pins) ...page 217	TP-UB36 (Plastic pins) ...page 217	—	—	TP-36UTW-LAP (Stainless steel pins)...page 243	36
	TP-36AK TP-36AK1 (Stainless steel pins)...page 226	TP-36AK TP-36AK1-TMF (Stainless steel pins)...page 226	TP-36AK TP-36AK2 (Stainless steel pins)...page 226	—	—	
	TTUP (Stainless steel pins) ...page 191	TTUP (Plastic pins) ...page 193	TTUP (T)-M (Stainless steel pins)...page 197	TP-1873-G...page 237	—	
	TTUPH (Stainless steel pins) ...page 195	TTUPS (Stainless steel pins) ...page 198	TPU-LH (Stainless steel pins) ...page 204	—	TTPDH-LBP (Stainless steel pins)...page 239	
	TPU (Stainless steel pins) ...page 201	TPU (Plastic pins) ...page 203	TP-880TAB (Stainless steel pins)...page 204	—	TPUS-LBP (Stainless steel pins)...page 240	
	TPUT-LH (Stainless steel pins) ...page 205	TPUS (Stainless steel pins) ...page 206	TPU-USR (Stainless steel pins) ...page 212	—	TPUS-Y-LAP (Stainless steel pins)...page 241	
	TTUP-LLPC (Stainless steel pins)...page 213	TPUH-BO (Stainless steel pins)...page 214	TPUS-Y-T (Stainless steel pins)...page 250	—	—	

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# Tsubaki Top Chain Lineup

## Plastic Top Chain

Chain Pitch mm	Chain Type					
	Plastic Top Chain—Straight Running			Snap Top Chain	Plastic Roller Table	
50	—	—	—	—	—	
	—	—	—	—	—	
63.5	—	—	—	—	—	
76.2	—	—	—	—	—	

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# Tsubaki Top Chain Lineup

	Chain Type				Chain Pitch mm
	Plastic Top Chain-Sideflexing Running		Gripper Chain	Plastic Accumulation Chain	
 <p>TPUN (Stainless steel pins) ...page 219</p>	 <p>TPUN-LH TPUN550 (Stainless steel pins)...page 221</p>	 <p>TPUN-LH TPUN535 (Stainless steel pins)...page 221</p>	—	—	50
 <p>TP-50UNS (Stainless steel pins)...page 222</p>	 <p>TP-50UNS-D76 (Stainless steel pins)...page 223</p>	 <p>TP-50UN-T95 (Stainless steel pins)...page 224</p>	—	—	
 <p>TPCC TPCC420 (Stainless steel pins)...page 225</p>	 <p>TPCC TPCC420-T (Stainless steel pins)...page 225</p>	—	—	—	63.5
 <p>TORP (Stainless steel pins) ...page 227</p>	 <p>TOSP (Stainless steel pins) ...page 227</p>	—	—	—	76.2

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Plastic Top Chain Materials

# Tsubaki Top Chain Lineup

## Plastic Block Chain

Chain Pitch mm	Chain Type			Chain Pitch mm	Chain Type		
	Plastic Block Chain		Snap Cover Chain		Plastic Block Chain		Snap Cover Chain
9.525		—		19.05			
	RSP (Stainless steel pins) RSP35...page 281		RF-SC RF06B-SC...page 297		RSP (Stainless steel pins) RSP60...page 281	RSP (Plastic pins) RSP60P...page 283	RS-SC RS60-SC...page 297
12.7				19.05			—
	RSP (Stainless steel pins) RSP40...page 281	RSP (Plastic pins) RSP40P...page 283	RS-SC RS40-SC...page 297		RSP60-CU (Stainless steel pins)...page 291	RSP60P-CU (Stainless steel pins)...page 291	
	—		—				—
		RSP-SL (Stainless steel pins) RSP40-SL300...page 285			RSP-2 (Stainless steel pins)...page 290	RSP-CU-2 (Stainless steel pins)...page 293	
12.7			—	19.05	—		—
	RSP-PO8PF (Stainless steel pins)...page 287	RSP-PO8PFT (Stainless steel pins)...page 288				RSP-PO12-2S (Stainless steel pins)...page 289	
			—			—	—
	RSP40-T-CU (Stainless steel pins)...page 295	RSP-PC082 steel pins (Unichrome)...page 299		RSP-PO12SB (Stainless steel pins)...page 299			
15.875		—		25.4		—	
	RSP (Stainless steel pins) RSP50...page 281		RS-SC RS50-SC...page 297		RSP (Stainless steel pins) RSP80...page 281		RS-SC RS80-SC...page 297
15.875		—	—	31.75	—	—	
	RSP-SL (Stainless steel pins) RSP50-SL350...page 285						RS-SC RS100-SC...page 297

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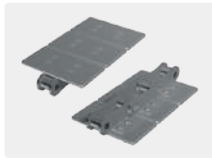
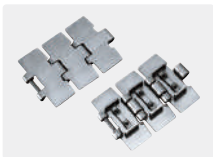




Tree Layout of Our Lineup

Description of Chain Type

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Plastic Top Chain Materials

## Stainless Steel Top Chain

Chain Pitch mm	Chain Type				
	Stainless Steel Top Chain				
38.1					
	TT...page 305	TS...page 307	TSA...page 307	TS-CTP...page 309	TSA-HTP...page 309
					
	TTU...page 310	TTKU...page 311	TRU...page 312	TO...page 313	TU...page 314

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# Tsubaki Top Chain Lineup

Top chain accessories are used in the locations shown on the conveyor drawing on the right. Refer to the relevant product page for details.

## Frame Support Parts ..... page 369

A variety of accessories in a variety of shapes are available for supporting the conveyors and control panels.

	Support Head (BH)		Side Top Bracket (STB)		Connecting Joint (CJ)
	Threaded Tube End (SRB)		Support Base (SB)		Universal foot (UF)

## Product Guide Parts ..... page 379

Can be used as a necessary accessory for the conveyor to, for example, ensure stable transfer of conveyed products and prevent products from falling, and for things like guide adjustment and sensor setting.

	Guide Rail (GR)		Accumulation Roller Side Guide (ARG)		Roller Module Side Guide (ARG)
	Guide Rail Clamp (GRC, GHA, GHB)		T-shaped Clamp (TC)		Cross Block (CC)
	Photosensor Clamp (FSC)		Clamp Lever (CL)		Guide Bracket (GRB)
	Spacer (SP)		Adjustable Head (SH)		Knob (HD)
	Guide Pin Clamp Pin Bracket Pin (GP, CP, BP)		Tray Supporter (TS)		Fixing Washer (MP)



**Set Collar** ..... page 357



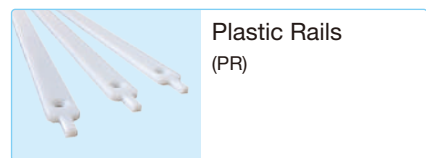
Set Collar (SC)

**Bearing Units** ..... page 395

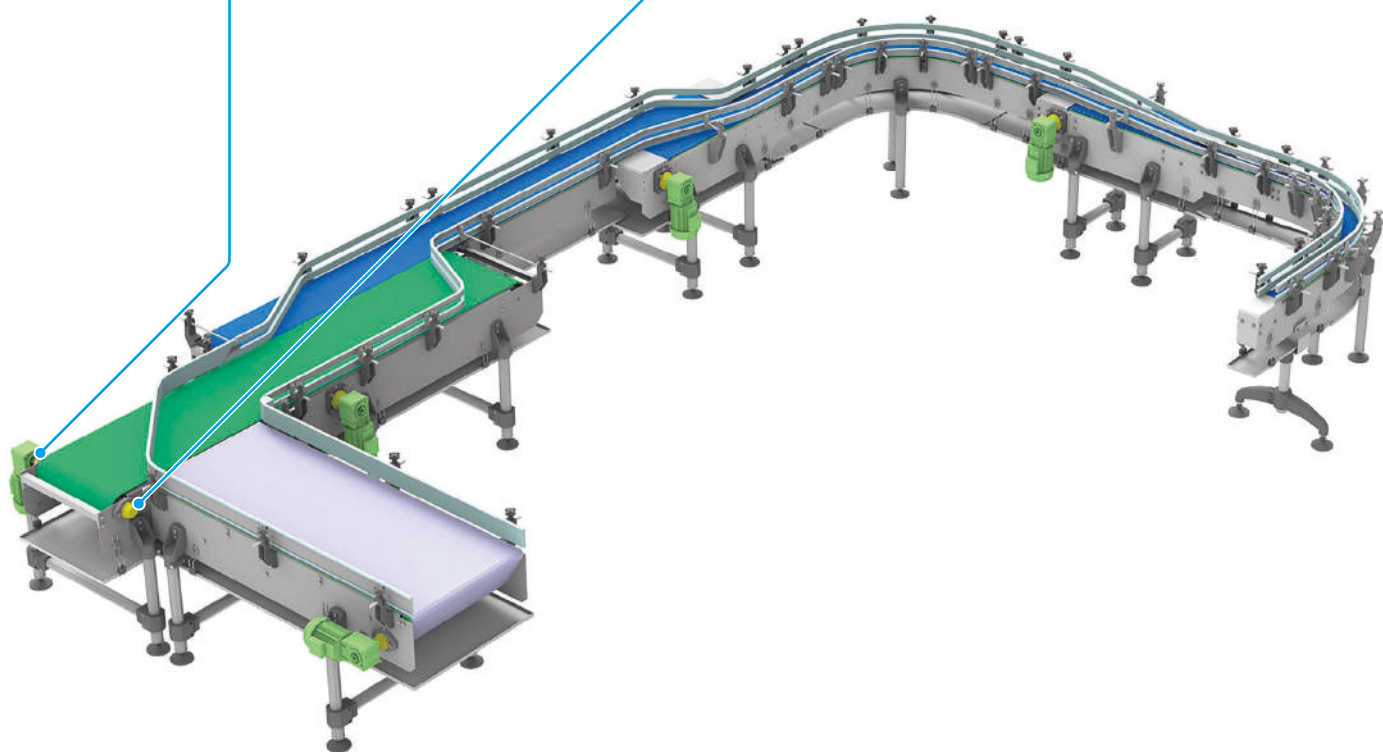


Bearing Units  
 • Diamond Flange  
 • Square Flange (UCFL, UCF)

**Plastic Rails** ..... page 323

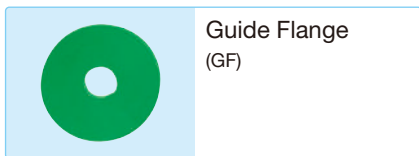


Plastic Rails (PR)



**Chain Guide Parts** ..... page 359

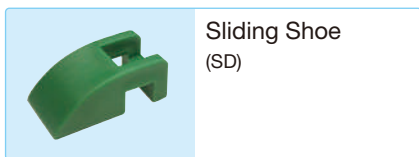
Various accessories for the conveyor's return-way, conveyor-to-conveyor connection parts, and transfers are available.



Guide Flange (GF)



Return Roller (RR)



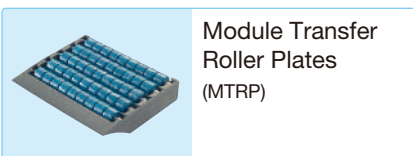
Sliding Shoe (SD)



Spacer (SP)



Washer (WS)



Module Transfer Roller Plates (MTRP)

**Disconnecting and Connecting Tools for Top Chains** ... page 399



Disconnecting and Connecting Tools (AST)

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# Plastic Top Chain Materials

## Plastic Top Chain Materials

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- Low Friction Series Material mark: NLF ..... 36
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- Freezer Series Material mark: LTW ..... 39
- Chemical Resistant Series Material mark: Y ..... 39
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- Electroconductive Series Material mark: E ..... 40
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- Pin Type ..... 47
- Pin Shapes ..... 48

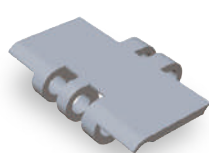
Note: Contact a Tsubaki representative for chain material not shown above.

Standard Chain

Standard Series



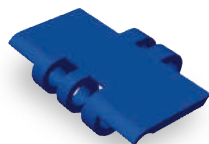
General-purpose polyacetal chain links



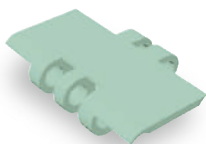
Link color: Gray



Link color: White



Link color: Blue



Link color: Sky blue

General-purpose type

Uses a commercial-grade polyacetal resin with excellent mechanical properties makes this chain ideal for general applications.

Electrostatic preventive

Features electrostatic properties to prevent adhesion of dust and wear dust from static electricity (Link color: gray, blue, green and sky blue).

- Note: 1. Refer to the chain material table on the relevant product page, since some products may have their own chain material mark.  
 2. For the product link colors, refer to the relevant product page.  
 3. Some products, such as plastic roller tables and plastic universal chain, do not use the description "Standard Series".

LF

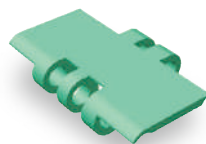
Low Friction/Wear Resistant Series



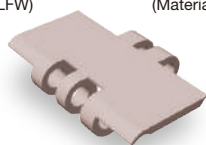
Low-friction wear-resistant polyacetal chain links



Link color: White  
(Material mark: LFW)



Link color: Green  
(Material mark: LFG)



Link color: Brown  
(Material mark: LFB)

Applications

- ▶ Versatile type of chain that can be used in a wide range of applications
- ▶ Ideal in harsh conditions (high speeds, high loads) where chain elongation is accelerated resulting in short chain replacement cycles
- ▶ Ideal in high line pressure conditions where conveyed products may be damaged

Protects conveyed products

Coefficient of friction is 15% to 45% lower than standard series, resulting in reduced line pressure during accumulation and minimizing potential scratching or other damage to conveyed products.

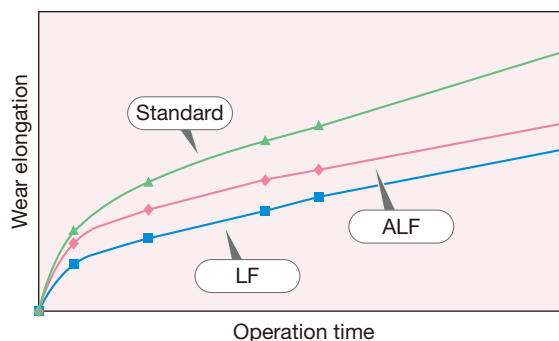
Long life (compared to standard series)

Chain life is 1.2 to 2 times longer than standard series because of lower chain load.

Smooth divergence and accumulation of conveyed products

Less required drive power

Wear elongation on standard/LF/ALF chain



Industry and Food Sanitation Act Compatibility Icons



Can manufacturing



Beverages



Tires



Machined parts



Logistics



Pharmaceuticals



Bakery/Food



Batteries



Semiconductors and solar panels



This icon indicates food sanitation act approval.

Food Sanitation Act (Japan's Ministry of Health Notification No.370)

Note: Use may be restricted under certain conditions such as speed, conveyed products, weight, environment, or application. Contact a Tsubaki representative for applications and conditions not indicated in this catalog.

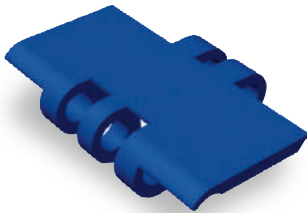
# Plastic Top Chain Materials

## CB

### Low Friction/Wear Resistant Series



## Special low-friction wear-resistant polyacetal chain links



Link color: Blue  
(Material mark: CB)

Applications

- ▶ Ideal in high line pressure conditions where conveyed products may be damaged

### ■ Protects conveyed products

Coefficient of friction is lower than standard series, resulting in reduced line pressure during accumulation. Minimizing potential scratching or other damage to conveyed products.

### ■ Smooth divergence and accumulation of conveyed products

### ■ Less required drive power

Applicable chain:

WT2515G-M, WT2515-W, WT2515G-W, WT2515F-W, TTUPM838H

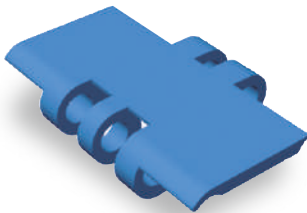
Note: As this chain uses a silicone-based lubricant, refrain from using it where there is a risk of peeling during the printing process, or in cases where silicone will have a harmful effect.

## ALF

### Advanced Low Friction/Wear Resistant Series



## Advanced low-friction wear-resistant polyacetal chain links



Link color: Light blue  
(Material mark: ALF)

Applications

- ▶ Before the packaging process where lubricants cannot be used, and wear debris generation matters
- ▶ Dry lubricated processes in the beverage industry
- ▶ Accumulating conveyors
- ▶ High-speed conveyance such as printing press, single-file conveyors, inspection machinery, and conveyors in the beverage industry

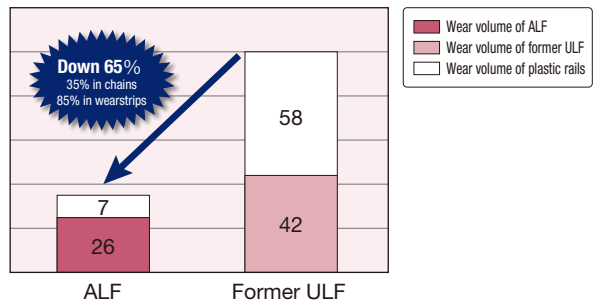
### ■ Protects conveyed products

This is our original material for dry conveyance treated with a silicone-based lubricant, which greatly minimizes wear debris in no-lube conditions while retaining the same friction coefficient with the former ULF series.

### ■ Smooth divergence and accumulation of conveyed products

### ■ Less required drive power

#### ■ Comparison of wear volume with the former ULF series



- The above graph shows the results of Tsubaki in-house tests. The wear volume of the former ULF series is represented as 100.
- Compared with the former ULF, wear debris is greatly reduced in ALF, especially for wearstrips. For further reduction of wear debris, we recommend using low friction/wear resistant PLF wearstrips.

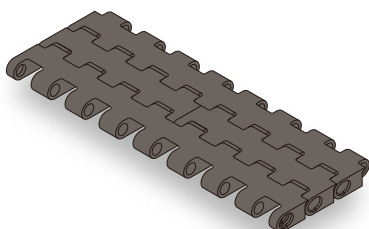
Note: 1. As this chain uses a silicone-based lubricant, refrain from using it where there is a risk of repeling during the printing process, or in cases where silicone will have a harmful effect.

2. As of the end of September 2018, former ULF series is no longer available for sale.

# NLF Low Friction Series



## Low friction polyacetal chain links



Link color: Dark gray  
(Material mark: NLF)

Applications

- ▶ Versatile type of chain that can be used in a wide range of applications
- ▶ Ideal in high line pressure conditions where conveyed products may be damaged

### ■ Protects conveyed products

Coefficient of friction is 10% to 30% lower than standard series, resulting in reduced line pressure during accumulation and minimizing potential scratching or other damage to conveyed products.

### ■ Smooth divergence and accumulation of conveyed products

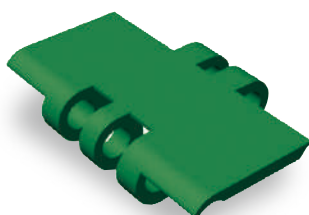
### ■ Less required drive power

Note: Max. allowable load is equal to standard series.

# WR Low Friction Series



## Corrosion resistant polyacetal chain links



Link color: Dark green  
(Material mark: WR)

Applications

- ▶ When using chemicals such as sodium hypochlorite
- ▶ Ideal in high line pressure conditions where conveyed products may be damaged

### ■ Protects conveyed products

Coefficient of friction is 7% to 28% lower than standard series, resulting in reduced line pressure during accumulation and minimizing potential scratching or other damage to conveyed products.

### ■ Corrosion resistant

Improved resistance to corrosion from sodium hypochlorite and similar chemicals. Ideal for food conveyors.

### ■ Smooth divergence and accumulation of conveyed products

### ■ Less required drive power

Note: Max. allowable load is equal to standard series.

### Industry and Food Sanitation Act Compatibility Icons



Can manufacturing



Beverages



Tires



Machined parts



Logistics



Pharmaceuticals



Bakery/Food



Batteries



Semiconductors and solar panels



Food Sanitation Act (Japan's Ministry of Health Notification No.370)

### Recommended industry

This icon indicates food sanitation act approval.

Note: Use may be restricted under certain conditions such as speed, conveyed products, weight, environment, or application. Contact a Tsubaki representative for applications and conditions not indicated in this catalog.

# Plastic Top Chain Materials

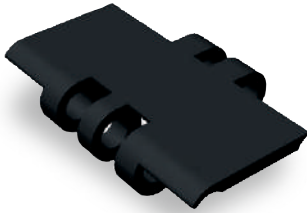
## High-Function Chain

# KV

## Heat Resistant/High Speed Series



### Special engineering plastic chain links



Link color: Black  
(Material mark: KV150, KV180, KV250)

#### Applications

- ▶ Conveyance of solar panels after lamination process
- ▶ Conveyance of printed circuit boards after drying oven
- ▶ Conveyance in shrink tunnels
- ▶ Conveyance of rice cookers
- ▶ Conveyance at exit of baking oven
- ▶ Conveyance in various drying ovens
- ▶ Conveyance in washing process using hot water or high-concentrate chemicals
- ▶ Conveyance of syringes during ▶ drying process
- ▶ High-speed conveyance at exit of seamer in beverage filling/capping machinery

#### Maximum usable temperature

Withstands temperatures up to 150°C (KV150 series), 180°C (KV180 series), or 250°C (KV250 series)

#### High conveyance speed

Can be used at speeds up to 200 m/min (for plastic top chain).

#### Chemical resistance

Excellent resistance to the chemicals used for cleaning and sterilization.

#### Electroconductive

Surface electrical resistance is low ( $1 \times 10^6 \Omega \cdot \text{cm}$ ) and the chain does not generate static electricity. Suitable for preventing dust adhesion and sparks.

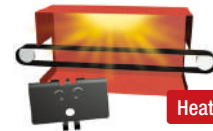
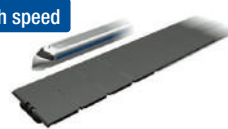
#### Flame retardant

Conforms to UL standard V-0 classification (UL's highest flame-resistant classification). (Except KV150 series)

#### Noise

2 dB to 3 dB louder compared to standard series.

High speed



Heat resistant

Applicable chain: BTC6, TPU826-T, RSP40, etc.

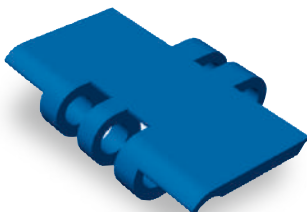
- Note: 1. KV150 series does not conform to Japan's Food Sanitation Act.  
2. KV150 series is only for dry conditions.  
3. Also refer to page 417 regarding the use of KV series chain.  
4. Operating temperature range: -20°C to 150°C for KV150 series, -20°C to 180°C for KV180 series, -20°C to 250°C for KV250 series.

# HG

## Low Friction/Wear Resistant Series



### Low-friction wear-resistant polyacetal chain links



Link color: Navy blue  
(Material mark: HG)

#### Applications

- ▶ Before the packaging process where lubricants cannot be used, and wear debris generation matters
- ▶ High-speed conveyance such as printing process, single-file conveyors, inspection machinery, and conveyors in the beverage industry
- ▶ Dry lubricated processes in the beverage industry

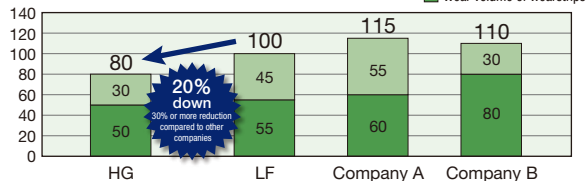
#### Solution to wear debris

Wear resistance increased by 20% compared with low friction/wear resistant (LF) series. Can be replaced with low friction/wear resistant (HG) series without modifying the conveyor or changing the sprockets. (When replacing the chain, we also recommend replacing the wearstrips. Low friction/wear resistant PLF/PMW plastic wearstrips are recommended.)

#### Protects conveyed products

Coefficient of friction is equal to low friction/wear resistant series (LF) and is 15% to 45% lower than standard series, resulting in line pressure reduction during accumulation and minimizing potential scratching or other damage to conveyed products.

#### Comparison of wear volume with other chain material



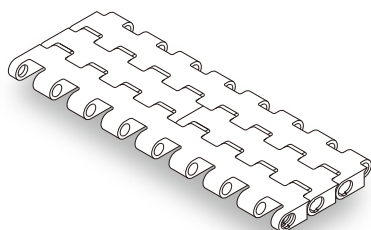
- The above graph shows the results of Tsubaki in-house tests. The wear volume of the LF series is represented as 100.  
Chain type: TTP826 Chain speed: 60 m/min, normal temperature, dry conditions  
Note: Company A: Wear-resistant specs, polyester links  
Company B: Wear-resistant specs, polyacetal links

Applicable chain: WT1506-K, TTP826, RSP50, etc.

# HTW High Temperature Series



## Polypropylene chain links



Link color: White  
(Material mark: HTW)

Applications

- ▶ Chain for use in warmers and coolers in beverage plants
- ▶ Conveyors for batteries
- ▶ Slightly inclined conveyors

### Maximum usable temperature: 105°C

Ideal chain for use in coolers and warmers in beverage plants where hot water is used.

### Chemical resistant

Excellent chemical resistance, including to acids and alkaline substances.

### High friction

Coefficient of friction is 1.2 to 1.6 times the standard series. Can be used at a slight incline under dry conditions.

### Lightweight

About 40% lighter than polyacetal chains. Easy to handle and can reduce drive power requirements.

Applicable chain: WT1907-K, WT2506-K, TTPM500, etc.

- Note: 1. Max. allowable load is approx. 40% of standard series.  
2. Operating temperature range: 5°C to 105°C.

# HS High Speed Series (only for dry conditions)



## Special engineering plastic chain links



Link color: Beige  
(Material mark: HS)

Applications

- ▶ High-speed conveyor for canning industry conveying empty cans

### Maximum speed

High limiting PV value of 230 m/min (straight line). Prevents melting at high speed.

Applicable chain: TPU826-T, TP-OTD32, etc.

- Note: 1. Max. allowable load is approx. 80% of standard series.  
2. Available only with stainless steel pins.  
3. Only for dry conditions.  
4. Stainless steel rails (polished cold-rolled steel) should be used for high-speed applications. Use special polyamide (SJ-CNO) plastic rails depending on the application.  
5. Operating temperature range: -20°C to 50°C

### Industry and Food Sanitation Act Compatibility Icons



### Recommended industry



Note: Use may be restricted under certain conditions such as speed, conveyed products, weight, environment, or application. Contact a Tsubaki representative for applications and conditions not indicated in this catalog.

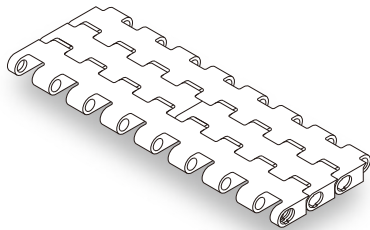
# Plastic Top Chain Materials

## LTW

### Freezer Series



## Polyethylene chain links



Link color: White  
(Material mark: LTW)

#### Applications

- ▶ Freezer conveyor for frozen foods
- ▶ Conveying dry ice

#### Low temperature environments

Can be used under temperatures as low as  $-70^{\circ}\text{C}$ . ( $-20^{\circ}\text{C}$  for standard series).

#### Chemical resistance

Excellent corrosion resistance to chemicals.

Applicable chain: BTN5, BTC6, BTN6, BTC8

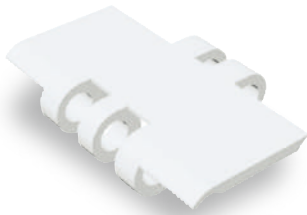
- Note:
1. Max. allowable load is approx. 33% of standard series.
  2. For use under  $-20^{\circ}\text{C}$ , a special sprocket is required. Contact a Tsubaki representative.
  3. Operating temperature range:  $-70^{\circ}\text{C}$  to  $60^{\circ}\text{C}$

## Y

### Chemical Resistant Series



## Special engineering plastic chain links



Link color: Matte white  
(Material mark: Y)

#### Applications

- ▶ Conveyors for production lines for lithium-ion batteries and similar products
- ▶ Chemical cleaning processes for printed circuit boards and silicon wafers
- ▶ Conveyor at exit of aseptic filling room used in the beverage industry
- ▶ Conveyance in food processing lines that use chemical cleaning solutions

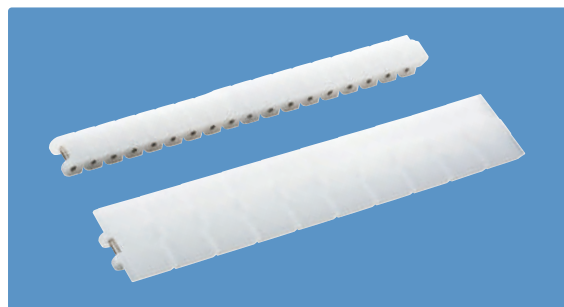
#### Chemical resistance

Shows corrosion resistance to most chemicals, including organic solvents, inorganic acids, alkalis, oxidizers, and acetic acid.

#### Impact resistance

Plastic has greater resistance to chipping and shattering than standard chain.

Applicable chain: TTP826, TPRF2040, RSP35, etc.



- Note:
1. Max. allowable load is approx. 50% of standard series.
  2. Coefficient of friction is equal to standard series.
  3. Do not use in locations where open flames are present or in high-temperature environments.



# SY

## Super Chemical Resistant Series



### Special engineering plastic chain links



Link color: Matte white  
(Material mark: SY)

Applications

- ▶ Conveyors for production lines for lithium-ion batteries and similar products
- ▶ Chemical cleaning processes for printed circuit boards and silicon wafers
- ▶ Conveyor at exit of aseptic filling room in the beverage industry
- ▶ Conveyance in food processing lines that use chemical cleaning solutions

#### ■ Titanium pin

Y series pin replaced with titanium (diamond knurled), thereby enhancing chemical resistance.

#### ■ Chemical resistance

Shows stronger corrosion resistance to chemicals such as hydrochloric acid and sulfuric acid.

Applicable chain: TTP826, RSP40, etc.

Note: 1. Max. allowable load is approx. 50% of standard series.

2. Coefficient of friction is equal to standard series.

3. D pins and plastic pin type are not available.

4. Do not use in locations where open flames are present or in high-temperature environments.

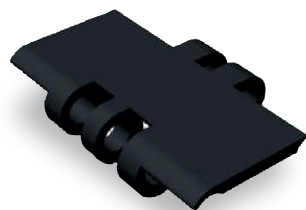
5. Operating temperature range: -20°C to 80°C

# E

## Electroconductive Series



### Special engineering plastic chain links



Link color: Black  
(Material mark: E)

Applications

- ▶ Conveying printed circuit boards after soldering
- ▶ Conveying solar panels to cutting machines before and after the lamination process
- ▶ Protection against electrostatic discharge at accumulation of can conveyance
- ▶ Protection against electrostatic discharge after washing/drying machines
- ▶ Conveying automotive parts (electrical components)

#### ■ Excellent electroconductivity

Specific volume resistivity:  $1 \times 10^6 \Omega \cdot \text{cm}$   
(Standard series:  $1 \times 10^{14} \text{ to } 10^{15} \Omega \cdot \text{cm}$ )

#### ■ Antistatic

Outstanding electroconductivity prevents electrical noise and sparking.

Note: Entire conveyor must be grounded, using steel sprockets and rails.

Applicable chain: WT0705-W, TTP826P, RSP35, etc.

Note: 1. Max. allowable load is approx. 70% of standard series.

2. Coefficient of friction is equal to standard series.

### Industry and Food Sanitation Act Compatibility Icons



Can manufacturing



Beverages



Tires



Machined parts



Logistics



Pharmaceuticals



Bakery/Food



Batteries



Semiconductors and solar panels



Food Sanitation Act (Japan's Ministry of Health Notification No.370)

### Recommended industry

This icon indicates food sanitation act approval.

Note: Use may be restricted under certain conditions such as speed, conveyed products, weight, environment, or application. Contact a Tsubaki representative for applications and conditions not indicated in this catalog.

# Plastic Top Chain Materials

## DIA

### Impact Resistant Series (only for dry conditions)



#### Special engineering plastic chain links



Link color: Cream  
(Material mark: DIA)

#### Applications

- ▶ Conveying machine parts with moderate weights
- ▶ Transporting of trays in bakeries
- ▶ Transporting food products directly on the chain in dry condition
- ▶ Slightly inclined food transport conveyors

#### ■ Super-high impact resistance

Plastic resists chipping even if the chain is subjected to mechanical impact. In addition, in the unlikely event that the chain breaks, the plastic tends not to shatter. Ideal for preventing contamination by foreign matter.

#### ■ High friction

Coefficient of friction is 1.2 times the standard series. Can be used at a slight incline under dry conditions.

#### ■ Lightweight

About 20% lighter than polyacetal top chain. Easy to handle and can reduce drive power requirements.

#### ■ Impact resistance (resistance to chipping or shattering when subjected to mechanical impact)

DIA >> DIY > Standard series



Applicable chain: BTC8H-826-M, TPUSR550-T, RSP60-2, etc.



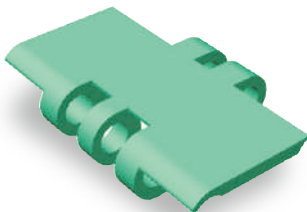
Note: 1. Max. allowable load is approx. 75% of standard series.  
2. Only for dry conditions.

## DIY

### Impact Resistant Series (for dry and wet conditions)



#### Special engineering plastic chain links



Link color: Green  
(Material mark: DIY)

#### Applications

- ▶ Conveying food products or containers under wet conditions
- ▶ Situations in which equipment is frequently sterilized
- ▶ Situations in which using polyacetal chain—where there is the chance of chipping or shattering—would be problematic

#### ■ High impact resistance

Compared to polyacetal plastic chains, this plastic is more resistant to chipping or shattering even when the chain is subjected to mechanical impact.

#### ■ Chemical resistance

Excellent resistance to chemicals used for cleaning and sterilization. Ideal for conveyors that are sterilized or cleaned frequently.

#### ■ Non-sticky

Conveyed products tend not to stick to the chain.

#### ■ Impact resistance (resistance to chipping or shattering when subjected to mechanical impact)

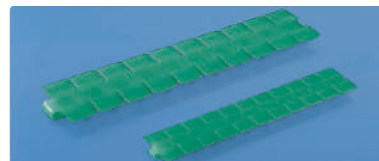
DIA >> DIY > Standard series



#### ■ UV resistance

Excellent weatherability compared to polyacetal plastic chains.

Applicable chain: BTC6, TPRF2040, RSP60, etc.



Note: 1. Max. allowable load is approx. 75% of standard series.  
2. Coefficient of friction is equal to standard series.  
3. Shattered fragments may scatter under certain conditions, such as during use at low temperatures.  
4. Do not use in locations where open flames are present or in high-temperature environments.

# MWS Antibacterial/Mold Resistant Series



## Low-friction wear-resistant polyacetal chain links with antimicrobial formula



Link color: Cream  
(Material mark: MWS)

Applications

- ▶ Suitable to use in bottling plants where conveyors should be washed
- ▶ For conveyors where food product is placed directly on the conveyor or before cans are sealed
- ▶ Ideal in wet conditions caused by moisture and dew condensation (especially the exit and entrance of shower equipment, retort unloader, etc.)
- ▶ Ideal for mold prevention and conditions where the conveyor becomes dirty easily from the surrounding condition

### Antibacterial/Mold resistant

This chain employs a proprietary antimicrobial agent developed in collaboration with an antimicrobial agent manufacturer. As well as being effective against the most dangerous bacteria in the food industry, such as colon bacillus (E.coli), staphylococcus, and lactobacillus, its anti-mold properties are effective against blue and other forms of mold.

### Long lasting

For long-lasting performance, the antimicrobial agent is inorganic. It is mixed uniformly into the plastic material during the manufacturing process. Even if wear eventually occurs on the chain surface, the antibacterial and anti-mold functions remain strong.

### Safety

Highly safe antimicrobial agent. The base material complies with Japan's Food Sanitation Act (Japan's Ministry of Health Notification No.20). Additional antimicrobial and anti-mold functions ensure further safety.

### Advanced functions

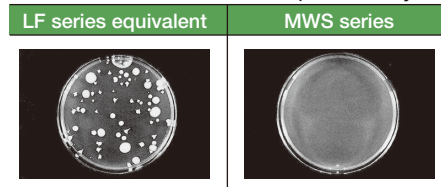
Virtually no change in performance arises from the addition of the antimicrobial agent, ensuring superb low-friction and anti-wear properties. The link material is low friction/wear resistant series (LF).

Note: 1. Max. allowable load is equal to standard series.

2. Coefficient of friction is equal to low friction/wear resistant series (LF).

### Antibacterial/Mold Resistant

■ Status after 24 hours at 35°C (saccharomyces)



\* Test method

Antibacterial products: Test for Antimicrobial activity and efficacy I (1995), in accordance with film contact method  
Organization contracted to perform test: Japan Food Research Laboratories  
Issued date of certificate of analysis: August 6, 1997  
Issued number of certificate of analysis: No. 397050652-002

### Test Results for Antimicrobial Activity (Compared to LF series equivalent chain)

Test strain	Test specimen	Immediately after inoculation	After 24 hours at 35°C
E. coli	MWS series	2.4×10 <sup>5</sup>	Not detected
	(LF series equivalent)	2.4×10 <sup>5</sup>	2.0×10 <sup>7</sup>
Staphylococcus aureus	MWS series	1.4×10 <sup>5</sup>	Not detected
	(LF series equivalent)	1.4×10 <sup>5</sup>	2.9×10 <sup>4</sup>
Saccharomyces (a type of yeast)	MWS series	2.1×10 <sup>3</sup>	Not detected
	(LF series equivalent)	2.1×10 <sup>3</sup>	7.9×10 <sup>2</sup>
Lactobacillus	MWS series	1.2×10 <sup>4</sup>	Not detected
	(LF series equivalent)	1.2×10 <sup>4</sup>	50
Pathogenic E. coli O-157 (H7)	MWS series	6.0×10 <sup>4</sup>	Not detected
	(LF series equivalent)	6.0×10 <sup>4</sup>	1.8×10 <sup>3</sup>

### Test Results for Fungal Growth (Compared to LF series equivalent chain)

Test fungus	Test specimen	After 7 days	After 14 days	After 21 days
Blue mold	MWS series	0	0	0
	(LF series equivalent)	1	1	3

### Method of Rating Test Results

Rating	Description
0	No fungus growth evident
1	Trace fungus growth evident (coverage of less than 10% of surface of test specimen)
2	Light fungus growth evident (coverage of 10% to 30% of surface of test specimen)
3	Moderate fungus growth evident (coverage of 30% to 60% of surface of test specimen)
4	Heavy fungus growth evident (coverage greater than 60% of surface of test specimen)

Test method

- Conforms to ASTM G21 (Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi)
- Organization contracted to perform test: Japan Food Research Laboratories
- Issued date of certificate of analysis: July 18, 1997 / Issued number of certificate of analysis: No. 397050653-001

### Industry and Food Sanitation Act Compatibility Icons



### Recommended industry



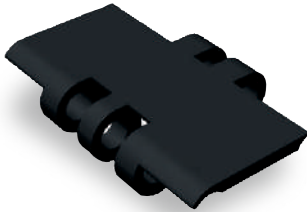
Note: Use may be restricted under certain conditions such as speed, conveyed products, weight, environment, or application. Contact a Tsubaki representative for applications and conditions not indicated in this catalog.

# Plastic Top Chain Materials

## MPD/MPW Metal Detectable Series



### Special engineering plastic chain links



Link color: Black  
(Material mark: MPD/MPW)

#### Applications

- ▶ Conveying rubber compounds
- ▶ Conveyors on which food products are carried directly on the chain surface before entering packaging machine
- ▶ Food product (such as frozen noodles) can be placed directly on the chain surface (Material mark: MPW)
- ▶ Transporting of trays in bakeries (Material mark: MPD)

#### ■ Detectable by a metal detector

Even if the chain is broken and entered into rubber compounds or food products, broken chips and fragments can be detected by metal detectors.

#### ■ Impact resistance

Does not chip easily even when the chain is subjected to mechanical impact.

Applicable chain: TTUP826, RSP60-CU-2, etc.

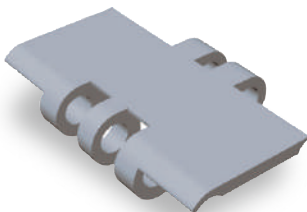


- Note:
1. MPD series is only for dry conditions. MPW series is for dry and wet conditions.
  2. Max. allowable load of MPD series is 80% of standard series and MPW series is 40% of standard series.
  3. Operating temperature range: -20°C to 80°C (MPD series), -20°C to 60°C (MPW series)

## SE Electrostatic Preventive Series



### Special polyacetal chain links



Link color: Gray  
(Material mark: SE)

#### ■ Electrostatic Preventive

Specific volume resistivity:  $1 \times 10^{13} \Omega \cdot \text{cm}$   
[Standard series (link color: white):  $1 \times 10^{14 \text{ to } 15} \Omega \cdot \text{cm}$ ]

#### ■ Static electricity prevention

Counters dust and wear dust adhesion caused by static electricity. (counters static electricity when conveyance is dry)

Applicable chain: TPRF2040, RSP40, etc.

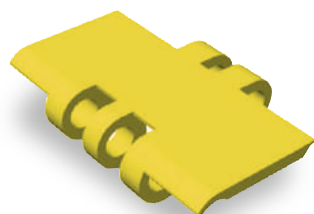
- Note:
1. Electrostatic preventive properties have been added to standard series gray, blue, and green chain.
  2. Max. allowable load and coefficient of friction are equal to those of standard series.
  3. Entire conveyor must be grounded, using steel sprockets and rails.

MF

## Middle Friction Series (only for dry conditions)



## Special polyacetal chain links



Link color: Yellow  
(Material mark: MF)

Applications

- ▶ Inclined conveyance in a range of 3 to 5 degrees
- ▶ Prevents excessive slippage on printing press conveyors and inspection machines

Note: This depends on conveyed products.

### ■ Ideal for inclined conveyance

Material has a moderate degree of friction; ideal for incline conveyors.

### ■ Stable conveyance

Prevents misalignment that occurs during startup and stoppage. Also prevents slippage as the chain accelerates.

Applicable chain: BTC6, TTUP826P, RSP40, etc.

- Note:
1. Max. allowable load is approx. 75% of standard series.
  2. Coefficient of friction is 1.1 times the standard series.
  3. Only for dry conditions.
  4. Operating temperature range: -20°C to 80°C

AR

## Acid Resistant Series



## Special engineering plastic chain links



Link color: White  
(Material mark: AR)

### ■ Corrosion resistance

Excellent corrosion resistance compared to standard and low friction/wear resistant (LF) series.

### ■ Corrosion prevention

Resists corrosion by soapy water containing sodium hypochlorite.

Applicable chain: TTP826, RSP35, etc.

- Note:
1. If exposed to stronger acids or alkalis, use chemical resistant (Y) or a super chemical resistant (SY) series.
  2. Max. allowable load is approx. 90% of standard series.
  3. Coefficient of friction is equal to standard series.
  4. Plastic pin type is not available.
  5. Do not use where chains are exposed to hot water that exceeds 60°C
  6. Operating temperature range: -20°C to (60) 80°C
  7. Operating temperature of (60) is for wet conditions.

## Industry and Food Sanitation Act Compatibility Icons



Can manufacturing



Beverages



Tires



Machined parts



Logistics



Pharmaceuticals



Bakery/Food



Batteries

Semiconductors  
and solar panels

Food Sanitation Act (Japan's  
Ministry of Health Notification No.370)

This icon indicates food  
sanitation act approval.

Note: Use may be restricted under certain conditions such as speed, conveyed products, weight, environment, or application. Contact a Tsubaki representative for applications and conditions not indicated in this catalog.

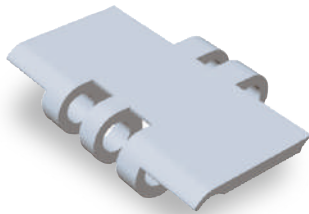
# Plastic Top Chain Materials

## UVR

### Ultraviolet Resistant Series



#### Special polyacetal chain links



Link color: Light gray  
(Material mark: UVR)

#### Applications

- ▶ Conveyance in outdoor environments where items are exposed to UV rays
- ▶ As a measure against UV degradation for longer life than standard series

#### ■ UV resistance

Excellent resistance to outdoor UV degradation (discoloration, loss of strength) compared to standard and low friction/wear resistant (LF) series.

Applicable chain: TTP826, TTPH826P, RSP50, etc.

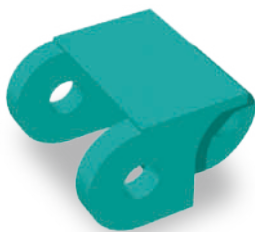
- Note:
1. Max. allowable load and coefficient of friction are equal to those of standard series.
  2. Plastic pin type is available.
  3. Operating temperature range: -20°C to (60) 80°C
  4. Operating temperature of (60) is for plastic pin type under wet condition.

## PFS

### Food Conveying Series



#### Polyacetal chain links



Link color: Nile blue  
(Material mark: PFS)

#### Applications

- ▶ Conveyance in a room temperature cooling process in bread production lines
- ▶ Other conveyor applications in food production lines

#### ■ Compliance with PIM

Uses Tsubaki original material that comply with the EU's Plastic Implementation Measure (PIM).

Applicable chain: TTP826, RSP40-T-CU, etc.

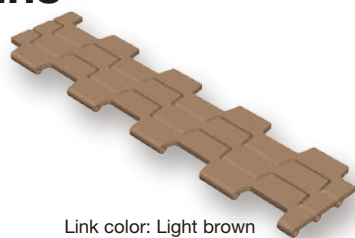
- Note:
1. Max. allowable load and coefficient of friction are equal to those of standard series.
  2. PIM (EU Plastics Implementation Measure) is essential regulation for offering plastic products in the EU that may come into direct contact with conveyed foods.
  3. Plastic pin types do not conform to PIM (EU Plastics Implementation Measure).

## Special-Function Chain

## PK150 Heat/Radiation/Vacuum Resistant Series



## PEEK polymer chain links and pins



Link color: Light brown  
(Material mark: PK150)

## Applications

- ▶ Use in high temperature environments such as drying furnaces and ovens. Use as transfer units to/from ovens
- ▶ Environment using chemicals for cleaning/sterilization
- ▶ Conveyors in vacuums conveyor

- Maximum usable temperature: 150°C

- Chemical resistance

Excellent corrosion resistance to chemicals.

- Radiation resistance

Radiation resistance marks the highest level among thermoplastics.

- Low gas emission under vacuum conditions

- Uses materials certified by the United States' FDA (Food and Drug Administration)

Applicable chain: WT0405-W only

Note: Operating temperature range: -20°C to 150°C

## UPE Low Temperature/Chemical Resistant Series



## UHMW-PE chain links



Link color: Matte white  
(Material mark: UPE)

## Applications

- ▶ Conveyance in frozen food warehouses
- ▶ Freezer conveyor for frozen foods
- ▶ Food conveyors that use chemicals for cleaning and as a measure against foreign matter contamination
- ▶ Conveyance requiring chemical resistance, such as conveying rechargeable batteries
- ▶ Environment using chemicals for cleaning/sterilization

- Low temperature environments

Can be used under temperatures as low as -70°C (-20°C for standard series)

- Impact resistance

Has excellent impact resistance and minimizes contamination by foreign matter even under low temperatures. Compared to polyacetal chains, it has 13 times the impact resistance under ambient temperature and 26 times under low temperature.

- Wear resistance

Under ambient temperatures, the amount of wear is reduced by approx. 80% compared to polyacetal chains.

- Chemical resistance

Excellent corrosion resistance to chemicals.

- Uses materials certified by the United States' FDA (Food and Drug Administration)

Applicable chain: RSP80 only

- Note:
1. Max. allowable load is approx. 30% of standard series.
  2. Operating temperature range: -70°C to 60°C.
  3. For use under -20°C, a special sprocket is required. Contact a Tsubaki representative.
  4. For wearstrip material, we recommend stainless steel (cold-rolled steel). UHMW-PE is not recommended because it is the same material as the chain.

## Industry and Food Sanitation Act Compatibility Icons



Can manufacturing



Beverages



Tires



Machined parts



Logistics



Pharmaceuticals



Bakery/Food



Batteries



Semiconductors and solar panels



This icon indicates food sanitation act approval.

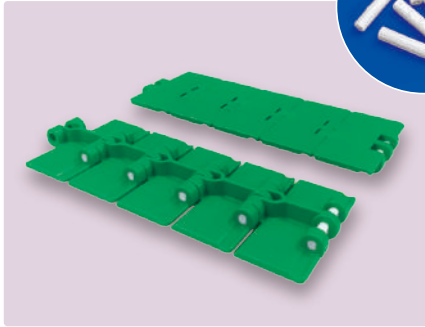
Food Sanitation Act (Japan's Ministry of Health Notification No.370)

Note: Use may be restricted under certain conditions such as speed, conveyed products, weight, environment, or application. Contact a Tsubaki representative for applications and conditions not indicated in this catalog.

# Plastic Top Chain Materials

## Pin Type Plastic Pins

### Special engineering plastic



#### Applications

- ▶ **Easy disposal:** Reduced disposal costs
- ▶ **Electromagnetic waves:** Metal detectors, heating equipment, others
- ▶ **Water lubricant:** Ideal when wear life is shortened due to the use of stainless steel pins

#### ■ Allowable load roughly equal to stainless steel pins (80% to 100%)

Improvements have been made to the structure of both the thick plastic pins and the hinges.

#### ■ Long life

A combination of proprietary Tsubaki materials allows the chain to exhibit outstanding wear resistance between the pins and bushes under dry, soapy water, or wet conditions. The chain works particularly well when using water as the lubricant.

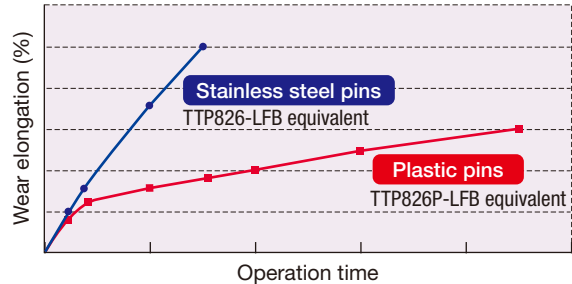
#### ■ Lightweight

15% to 25% lighter than stainless steel pin top chains. Easy to handle and effective in reducing noise and required power.

#### ■ Easy disposal

As the entire chain is made of engineering plastic, it can be disposed of as is.

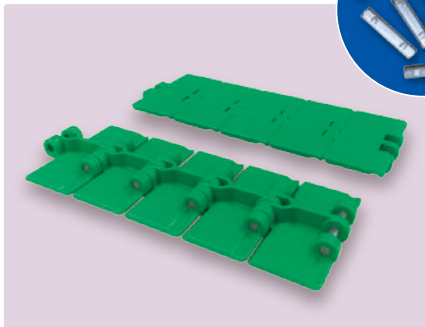
#### ■ Wear Resistance Test with Water Lubrication



- Note: 1. Also refer to page 420 regarding the use of plastic pin chain.  
 2. Operating temperature range: -20°C to (60) 80°C  
 3. Operating temperature of (60) is for wet conditions.

## Pin Type Stainless Steel Pins

### Most commonly used connecting pins in the world



#### Applications

- ▶ Ideal for situations that demand heat resistance, such as exposure to ambient hot temperatures or water temperatures greater than 60°C

#### ■ World standard

Most commonly used connecting pins in the world.

#### ■ Assured allowable load

Supports top chain strength.

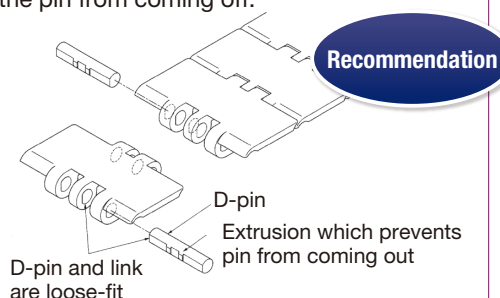


## Pin Shapes

D-pins, knurled pins, and special double-layer D-type plastic pins are used in plastic top chains and plastic block chains. Slit pins (SP) and special engineering plastic pins (EP) are used in plastic modular chains and plastic top chains.

### D-pins

The cross section is a protruding D-shape, which allows the pin to easily catch the base chain, and prevents the pin from coming off.



#### ■ Loose fit (D-pin)

- When the shafts and holes are fitted together, there is a continuous loose fit.
- The tolerance of the hole is larger than that of the shaft (pin or bush).

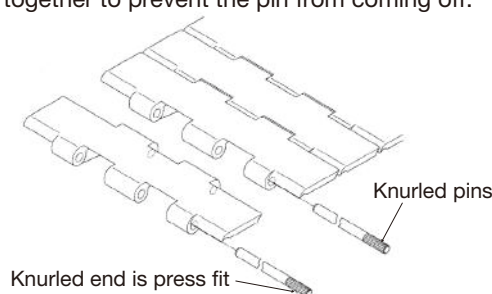
#### ■ Knurled pins and D-pins

- Chain strength and other performance factors are identical.
- D-pins are particularly recommended for use in the following operating environments.
  - Operating temperatures are either higher or lower than normal.
  - When the chain will be exposed to chemicals. (Chemicals: those indicated by “○” or “△” in the corrosion resistance table on page 402.)
  - When the chain will be exposed to ultraviolet light (outdoor use).

Note: Usable chain shape will vary according to chain type and chain materials.

### Knurled Pins

A knurling process is applied to one end of the connecting pin. The chain and the knurled part are fit together to prevent the pin from coming off.

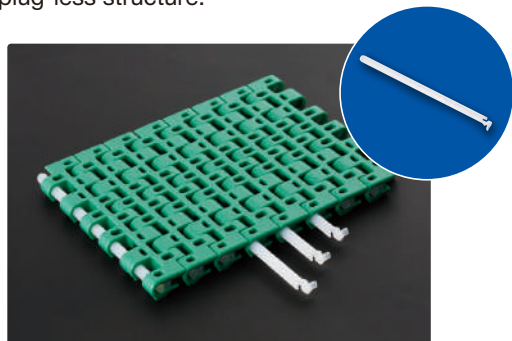


#### ■ Press fit (knurled pin)

- When the shafts and holes are fit together, there is a continuous interferential fit.
- The tolerance of the hole is smaller than that of the shaft (pin or bush).

### Slit pin (SP)

Pins which combine plugs and pins. Easy to handle with plug-less structure.



Applicable chain: WT0705-W, WT1515-W,  
WT1516-W, WT1515G-M

- Note:
1. If there is no slit pin (SP) in the model numbering, the pin and plug system will be used.
  2. For a chain width of 50 mm and 100 mm, the pin and plug system is available.

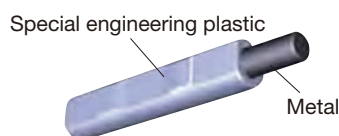
### Special engineering plastic (EP) pin

By using special engineering plastic pins, the wear elongation has been halved at the initial use stage compared to polypropylene pins. As a result, about 2 to 6 times longer life can be expected before reaching the wear elongation limit of 2.6%.  
Applicable chain: WT2505 (G)-M

### Special double layer D-type plastic pin

By combining both plastic and metal pins, the double layer D-type plastic pin possesses all the features of plastic while preventing floating through magnetism.

[Outside: Special engineering plastic (white)]  
(Core: Metal)



Applicable chain: TTUPM838H only

Note: When connecting or disconnecting the chain, use punches with a 6 to 7.5 mm diameter. Punches with a smaller diameter may knock out the core metal pins.

# Guide for Selecting Plastic Top Chain Materials

Refer to plastic top chain materials pages in detail.

## Choose by chain material

	Chain material	Material mark	Page	Applications	General purpose	Reduce amount of wear dust	Low friction (slides easily)	High friction (does not slide easily)	Chemical resistant (will not easily corrode)	High-speed operation
Standard Chain	Standard <small>Note: 2</small>	—	34		●	▲		●		
	Low friction/Wear resistant	LFW	34		●	●	●			
		LFG	34		●	●	●			
		LFB	34		●	●	●			
	Low friction/Wear resistant	CB	35		●	●	●			
	Advanced low friction/Wear resistant	ALF	35			●	◎			
	Low friction	NLF	36		●		●			
Low friction	WR	36				●		▲		
High-Function Chain	Heat resistant/High speed	KV150 (dry)	37							●
		KV180	37					●	●	
		KV250	37					●	●	
	Low friction/Wear resistant	HG	37			◎	●			
	High temperature	HTW	38				●	●		
	High speed <small>(only for dry conditions)</small>	HS	38							●
	Freezer	LTW	39							
	Chemical resistant	Y	39					●		
	Super chemical resistant	SY	40					◎		
	Electroconductive	E	40							
	Impact resistant <small>(only for dry conditions)</small>	DIA	41					●		
	Impact resistant <small>(for dry and wet conditions)</small>	DIY	41					●		
	Antibacterial/Mold resistant	MWS	42			●	●			
	Metal detectable <small>(only for dry conditions)</small>	MPD	43					●		
	Metal detectable <small>(for dry and wet conditions)</small>	MPW	43							
	Electrostatic preventive	SE	43			▲				
	Middle friction <small>(only for dry conditions)</small>	MF	44					●		
Acid resistant	AR	44						●		
Ultraviolet resistant	UVR	45								
Food conveying	PFS	45								
Special-Function Chain	Heat/Radiation/Vacuum resistant	PK150	46						●	
	Low temperature/Chemical resistant	UPE	46			●			●	

Note: 1. “◎” Excellent “●” Good “▲” Sufficient

2. Link color: Electrostatic preventive properties have been added to standard series gray, blue, and green chain.

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Tree Layout of Our Lineup

Description of Chain Type

Tsubaki Top Chain Lineup

Plastic Top Chain Materials

# Guide for Selecting Plastic Top Chain Materials

	For high-temperature environments	For low-temperature environments	Only for dry conditions	Superior electroconductive	Highly impact resistant	Ultraviolet resistant	Prevent propagation of bacteria	Metal detachable	Material mark	Chain material	
									—	Standard <small>Note: 2</small>	Standard Chain
									LFW	Low friction/ Wear resistant	
									LFG		
									LFB		
									CB	Low friction/Wear resistant	
									ALF	Advanced low friction/Wear resistant	
									NLF	Low friction	
									WR	Low friction	
	●		●	●					KV150 (dry)	Heat resistant/ High speed	High-Function Chain
	●			●					KV180		
	●			●					KV250		
									HG	Low friction/Wear resistant	
	●								HTW	High temperature	
			●						HS	High speed <small>(only for dry conditions)</small>	
		●							LTW	Freezer	
					●	●			Y	Chemical resistant	
					●	●			SY	Super chemical resistant	
				●					E	Electroconductive	
			●		◎				DIA	Impact resistant <small>(only for dry conditions)</small>	
					●	●			DIY	Impact resistant <small>(for dry and wet conditions)</small>	
							●		MWS	Antibacterial/Mold resistant	
			●					●	MPD	Metal detectable <small>(only for dry conditions)</small>	
								●	MPW	Metal detectable <small>(for dry and wet conditions)</small>	
									SE	Electrostatic preventive	
			●						MF	Middle friction <small>(only for dry conditions)</small>	
									AR	Acid resistant	
						●			UVR	Ultraviolet resistant	
									PFS	Food conveying	
	●								PK150	Heat/Radiation/Vacuum resistant	Special-Function Chain
		●			●				UPE	Low temperature/ Chemical resistant	

How to Order

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Tree Layout of Our Lineup

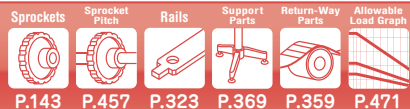
Description of Chain Type

Tsubaki Top Chain Lineup

Plastic Top Chain Materials

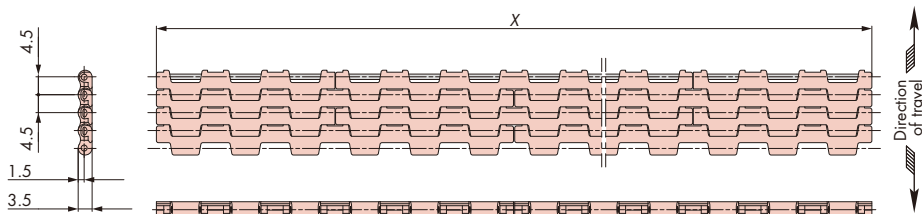
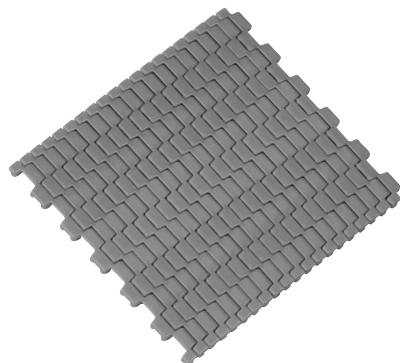
# Plastic Modular Chain WT0405-W

**WT0400 Series**  
Straight Running (Wide Type)



## Features

1. The smallest pitch of 4.5 mm in Tsubaki's all plastic top chain lineup enables compact conveyor layouts.
2. It can be used as in-line transfer unit between conveyors, due to the elimination of dead space.
3. Usable under vacuum conditions due to its superior radiation resistance and less outgassing.
4. Employed PEEK resin which excels in heat resistant (max. 150°C), chemical resistant, sliding property.



Chain pitch mm	Open area %	Backflex radius mm
4.5	1.4	5

## Chain Material Table

Special-Function Chain		
Material	Heat resistant/Radiation resistant/ Vacuum resistant	
Material mark	PK150	
Link color	Light brown	
Max. allowable load kN/m {kgf/m}	1.8{183}	
Chain mass kg/m <sup>2</sup>	3	
Max. allowable speed m/min	With lube	100
	No lube	60
Operating temperature range °C	-20 to 150	
Pin material	PEEK	
Available	○	

- Note: 1. "○": Made-to-order product. Not available for other chain materials that are not listed in the chain material table on the left.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the chain material table left is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Refer to page 441 for the installation of wearstrip for a multi-strand application.
4. Number of links per unit (chain width): 200 (W90 to 945)

## Tsubaki Model Table

Chain width X mm	Heat resistant/Radiation resistant/Vacuum resistant
	Chain type
90	WT0405-W90-PK150
135	WT0405-W135-PK150
180	WT0405-W180-PK150
225	WT0405-W225-PK150
270	WT0405-W270-PK150
315	WT0405-W315-PK150
360	WT0405-W360-PK150
405	WT0405-W405-PK150
450	WT0405-W450-PK150
495	WT0405-W495-PK150

Chain width X mm	Heat resistant/Radiation resistant/Vacuum resistant
	Chain type
540	WT0405-W540-PK150
585	WT0405-W585-PK150
630	WT0405-W630-PK150
675	WT0405-W675-PK150
720	WT0405-W720-PK150
765	WT0405-W765-PK150
810	WT0405-W810-PK150
855	WT0405-W855-PK150
900	WT0405-W900-PK150
945	WT0405-W945-PK150

- Note: 1. Standard nominal widths are in increments of 45 mm. Custom widths are avail able. Contact a Tsubaki representative for more information.
2. The chain width X is the nominal width and the actual width is about -0.4% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature is 0.00006/°C at the basis of 20°C.

## Model Numbering

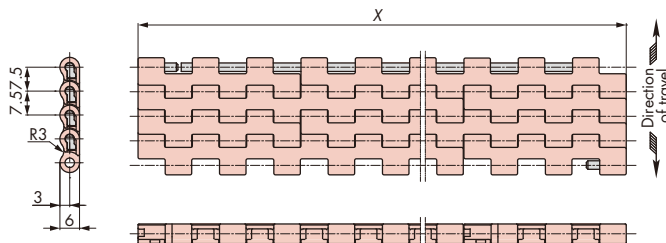
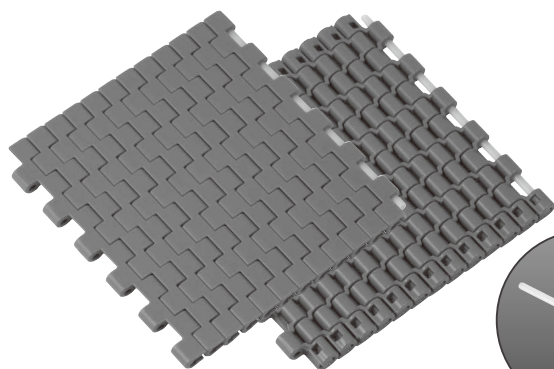
Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>04</b>	<b>05</b>	<b>- W180</b> <small>Note: 2</small>	<b>- PK150</b>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
	04: 4.5 mm	5: Closed type				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.



**Features**

1. Suitable to convey unstable and small products due to its small pitch of 7.5 mm.
2. A dead space of 19 mm between conveyors is possible with use of an R3 nose bar.
3. Adopts slit pin system, all-in-one pin with a plug, to the chain width of 50 mm and 100 mm.
4. Reduces an average of 6.5 dB compared to 15 mm-pitch plastic modular chain.



Chain pitch mm	Open area %	Backflex radius mm
7.5	1	10

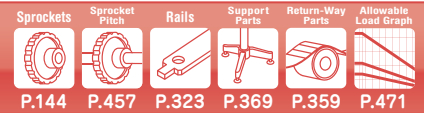
**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	2.5{255}								
Chain mass kg/m <sup>2</sup>	5.9								
Max. allowable speed m/min	With lube	50{50}							
	No lube	50{30}							
Operating temperature range °C	-20 to {60}80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	○	△	△	△	△

**High-Function Chain**

High-Function Chain						
Material	Low friction/Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	HG	E	MWS	SE	MF	UVR
Link color	Navy blue	Black	Cream	Gray	Yellow	Light gray
Max. allowable load kN/m {kgf/m}	2.5{255}	1.75{179}	2.5{255}		1.85{189}	2.5{255}
Chain mass kg/m <sup>2</sup>	5.9					
Max. allowable speed m/min	With lube	50{50}			-	50{50}
	No lube	50{30}				
Operating temperature range °C	-20 to {60}80				-20 to 80	-20 to {60}80
Pin material	Special engineering plastic					
Plug material	Polyacetal					
Plug color	Yellow					
Available	△	△	△	△	△	△ Note: 5

- Note: 1. "○": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. The allowable speed indicated in (the value in parentheses) is the value when using UHMW-PE nose bar. No lubrication is allowed when using SJ-CNO nose bar.  
 4. Operating temperature of (the value in parentheses) is for wet conditions.  
 5. UVR series are not supported for slit-pin type products.  
 6. Number of links per unit (chain width): 200 (W50 to 1500).



**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Standard B
	Chain type	Chain type	Chain type
50	WT0705-W50-ALF-SP	WT0705-W50-LFG-SP	WT0705-W50-B-SP
100	WT0705-W100-ALF-SP	WT0705-W100-LFG-SP	WT0705-W100-B-SP
150	WT0705-W150-ALF	WT0705-W150-LFG	WT0705-W150-B
200	WT0705-W200-ALF	WT0705-W200-LFG	WT0705-W200-B
250	WT0705-W250-ALF	WT0705-W250-LFG	WT0705-W250-B
300	WT0705-W300-ALF	WT0705-W300-LFG	WT0705-W300-B
350	WT0705-W350-ALF	WT0705-W350-LFG	WT0705-W350-B
400	WT0705-W400-ALF	WT0705-W400-LFG	WT0705-W400-B
450	WT0705-W450-ALF	WT0705-W450-LFG	WT0705-W450-B
500	WT0705-W500-ALF	WT0705-W500-LFG	WT0705-W500-B
550	WT0705-W550-ALF	WT0705-W550-LFG	WT0705-W550-B
600	WT0705-W600-ALF	WT0705-W600-LFG	WT0705-W600-B
650	WT0705-W650-ALF	WT0705-W650-LFG	WT0705-W650-B
700	WT0705-W700-ALF	WT0705-W700-LFG	WT0705-W700-B
750	WT0705-W750-ALF	WT0705-W750-LFG	WT0705-W750-B
800	WT0705-W800-ALF	WT0705-W800-LFG	WT0705-W800-B
850	WT0705-W850-ALF	WT0705-W850-LFG	WT0705-W850-B
900	WT0705-W900-ALF	WT0705-W900-LFG	WT0705-W900-B
950	WT0705-W950-ALF	WT0705-W950-LFG	WT0705-W950-B
1000	WT0705-W1000-ALF	WT0705-W1000-LFG	WT0705-W1000-B
1050	WT0705-W1050-ALF	WT0705-W1050-LFG	WT0705-W1050-B
1100	WT0705-W1100-ALF	WT0705-W1100-LFG	WT0705-W1100-B
1150	WT0705-W1150-ALF	WT0705-W1150-LFG	WT0705-W1150-B
1200	WT0705-W1200-ALF	WT0705-W1200-LFG	WT0705-W1200-B
1250	WT0705-W1250-ALF	WT0705-W1250-LFG	WT0705-W1250-B
1300	WT0705-W1300-ALF	WT0705-W1300-LFG	WT0705-W1300-B
1350	WT0705-W1350-ALF	WT0705-W1350-LFG	WT0705-W1350-B
1400	WT0705-W1400-ALF	WT0705-W1400-LFG	WT0705-W1400-B
1450	WT0705-W1450-ALF	WT0705-W1450-LFG	WT0705-W1450-B
1500	WT0705-W1500-ALF	WT0705-W1500-LFG	WT0705-W1500-B

Note: 1. Standard nominal widths are in increments of 50 mm. Custom widths are available. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table on the left is about -0.9% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table on the left which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.  
 3. Slit pin type for the chain width of W50 mm and W100 mm.

**Model Numbering**

Chain type	Chain pitch	Link shape	Chain width	Material mark	Pin retention system	Number of links	Unit
<b>WT</b>	<b>07</b>	<b>05</b>	<b>- W100</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>- SP</b>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	07: 7.5 mm	5: Closed type			None: Pin and plug SP: Slit pin (all-in-one pin with a plug)		L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

Closed

Open

Net

Wide Type

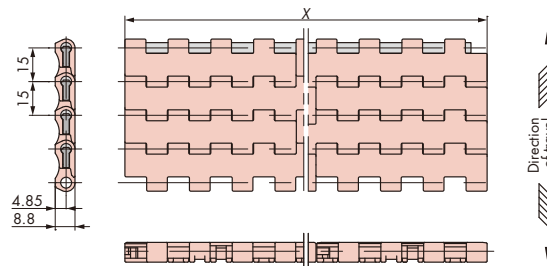
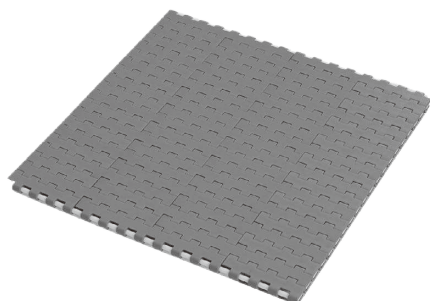
Raised-Rib

Rubber

Digest

## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 15 mm pitch. Suitable for conveying small and lightweight containers.
3. In combination with TOD chains, it is unnecessary to use dead plates and is possible to transfer products between conveyors with less with fewer remaining products.
4. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
15	2	15

## Chain Material Table

### Standard Chain

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5{1070}								
Chain mass kg/m <sup>2</sup>	6.7								
Max. allowable speed m/min	With lube		50(50)						
	No lube		50(30)						
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	○ Note: 6	△	○ Note: 6	○ Note: 6	△

### High-Function Chain

High-Function Chain									
Material	Low friction/Wear resistant	High temperature	Chemical resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	Y	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	Matte white	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5{1070}	4.25 {434}	5.83 {594}	8.0{816}	10.5 {1070}		7.8{796}	10.5 {1070}	
Chain mass kg/m <sup>2</sup>	6.7	4.5	6.7						
Max. allowable speed m/min	With lube		50(50)			-		50(50)	
	No lube		50(30)			50(30)			
Operating temperature range °C	-20 to (60)80	5 to 105	5 to 80	-20 to (60)80			-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic	Polypropylene			Special engineering plastic				
Plug material	Polyacetal	Polypropylene			Polyacetal				
Plug color	Yellow	Blue			Yellow				
Available	○ Note: 6	△	△ Note: 7	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. The allowable speed (the value in parentheses) of each chain are for products that use nose bars made of ultrahigh molecular weight polyethylene. For products with nose bars made of SJ-CNO (special polyamide), use them without lubrication.  
 4. Operating temperature of (the value in parentheses) is for wet condition.  
 5. Number of links per unit (chain width): 500 (K03 to 06), 400 (K09 to 18), 200 (K21 to 30), 160 (K33 to 39), 140 (K42 to 48), 120 (K51 to 60), 100 (over K63).  
 6. Chain widths from 1,600.2 mm (K63) to 1,828.8 mm (K72) : "△" Made-to-order products (RFQ).  
 7. Only a chain width of 76.2 mm (K03) is available.  
 8. Sprocket dedicated for the BT5 series cannot be used.



**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant HG	Low friction/Wear resistant LFG	Low friction NLF
	Chain type	Chain type	Chain type	Chain type
76.2	WT1505-K03-ALF	WT1505-K03-HG	WT1505-K03-LFG	WT1505-K03-NLF
152.4	WT1505-K06-ALF	WT1505-K06-HG	WT1505-K06-LFG	WT1505-K06-NLF
228.6	WT1505-K09-ALF	WT1505-K09-HG	WT1505-K09-LFG	WT1505-K09-NLF
304.8	WT1505-K12-ALF	WT1505-K12-HG	WT1505-K12-LFG	WT1505-K12-NLF
381.0	WT1505-K15-ALF	WT1505-K15-HG	WT1505-K15-LFG	WT1505-K15-NLF
457.2	WT1505-K18-ALF	WT1505-K18-HG	WT1505-K18-LFG	WT1505-K18-NLF
533.4	WT1505-K21-ALF	WT1505-K21-HG	WT1505-K21-LFG	WT1505-K21-NLF
609.6	WT1505-K24-ALF	WT1505-K24-HG	WT1505-K24-LFG	WT1505-K24-NLF
685.8	WT1505-K27-ALF	WT1505-K27-HG	WT1505-K27-LFG	WT1505-K27-NLF
762.0	WT1505-K30-ALF	WT1505-K30-HG	WT1505-K30-LFG	WT1505-K30-NLF
838.2	WT1505-K33-ALF	WT1505-K33-HG	WT1505-K33-LFG	WT1505-K33-NLF
914.4	WT1505-K36-ALF	WT1505-K36-HG	WT1505-K36-LFG	WT1505-K36-NLF
990.6	WT1505-K39-ALF	WT1505-K39-HG	WT1505-K39-LFG	WT1505-K39-NLF
1066.8	WT1505-K42-ALF	WT1505-K42-HG	WT1505-K42-LFG	WT1505-K42-NLF
1143.0	WT1505-K45-ALF	WT1505-K45-HG	WT1505-K45-LFG	WT1505-K45-NLF
1219.2	WT1505-K48-ALF	WT1505-K48-HG	WT1505-K48-LFG	WT1505-K48-NLF
1295.4	WT1505-K51-ALF	WT1505-K51-HG	WT1505-K51-LFG	WT1505-K51-NLF
1371.6	WT1505-K54-ALF	WT1505-K54-HG	WT1505-K54-LFG	WT1505-K54-NLF
1447.8	WT1505-K57-ALF	WT1505-K57-HG	WT1505-K57-LFG	WT1505-K57-NLF
1524.0	WT1505-K60-ALF	WT1505-K60-HG	WT1505-K60-LFG	WT1505-K60-NLF
1600.2	WT1505-K63-ALF	WT1505-K63-HG	WT1505-K63-LFG	WT1505-K63-NLF
1676.4	WT1505-K66-ALF	WT1505-K66-HG	WT1505-K66-LFG	WT1505-K66-NLF
1752.6	WT1505-K69-ALF	WT1505-K69-HG	WT1505-K69-LFG	WT1505-K69-NLF
1828.8	WT1505-K72-ALF	WT1505-K72-HG	WT1505-K72-LFG	WT1505-K72-NLF

Note: 1. Standard nominal widths are in increments of 3 inches (76.2 mm). Custom widths or width wider than 1,828.8 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about -0.6% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,828.8 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,828.8 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

**Model Numbering**

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>15</b> 15:15 mm	<b>05</b> 5: Closed type	<b>- K24</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b> L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

Closed

Open

Net

Wide Type

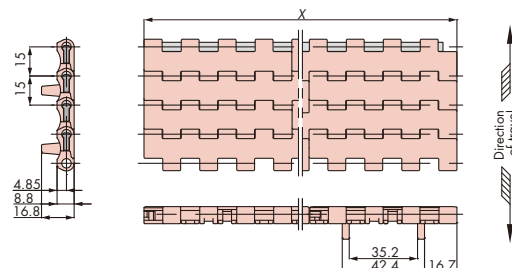
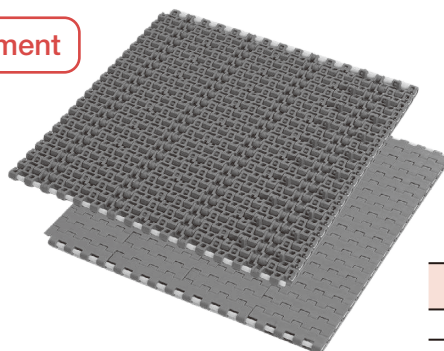
Raised-Rib

Rubber

Digest

**Features**

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 15 mm pitch. Suitable for conveying small and light weight containers.
3. Suitable for the layout with side transfer between conveyors thanks to tab guide attachment.
4. In combination with TOD chains, it is unnecessary to use dead plates and is possible to transfer products between conveyors with less with fewer remaining products.
5. Lightweight and easy-handling due to all plastic-made chain.

**Tab Guide Attachment**


Chain pitch mm	Open area %	Backflex radius mm
15	2	15

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5{1070}								
Chain mass kg/m <sup>2</sup>	6.7								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	○ Note: 7	△	○ Note: 7	○ Note: 7	△

**High-Function Chain**

High-Function Chain							
Material	Low friction/Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	HG	HTW	E	MWS	SE	MF	UVR
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray
Max. allowable load kN/m {kgf/m}	10.5{1070}	4.25 {434}	8.0{816}	10.5 {1070}		7.8{796}	10.5 {1070}
Chain mass kg/m <sup>2</sup>	6.7	4.5	6.7				
Max. allowable speed m/min	With lube	50	50	-		50	50
	No lube	50		30			
Operating temperature range °C	-20 to (60)80	5 to 105	-20 to (60)80			-20 to 80	-20 to (60)80
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic				
Plug material	Polyacetal	Polypropylene	Polyacetal				
Plug color	Yellow	Blue	Yellow				
Available	△	△	△	△	△	△	△

- Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet conditions.
4. When using WT-N1500-12T30 solid sprocket, set the key length of the sprocket engaging module with tab guide attachment to 30 mm.
5. Cannot be used with nose bar.
6. Number of links per unit (chain width): 240 (K06 to 18), 120 (K21 to 48), 100 (over K51).
7. Chain widths from 1,600.2 mm (K63) to 1,828.8 mm (K72): "△" Made-to-order products (RFQ).
8. Sprocket dedicated for the BT5 series cannot be used.

**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF
	Chain type	Chain type	Chain type
152.4	WT1505G-K06-ALF	WT1505G-K06-LFG	WT1505G-K06-NLF
228.6	WT1505G-K09-ALF	WT1505G-K09-LFG	WT1505G-K09-NLF
304.8	WT1505G-K12-ALF	WT1505G-K12-LFG	WT1505G-K12-NLF
381.0	WT1505G-K15-ALF	WT1505G-K15-LFG	WT1505G-K15-NLF
457.2	WT1505G-K18-ALF	WT1505G-K18-LFG	WT1505G-K18-NLF
533.4	WT1505G-K21-ALF	WT1505G-K21-LFG	WT1505G-K21-NLF
609.6	WT1505G-K24-ALF	WT1505G-K24-LFG	WT1505G-K24-NLF
685.8	WT1505G-K27-ALF	WT1505G-K27-LFG	WT1505G-K27-NLF
762.0	WT1505G-K30-ALF	WT1505G-K30-LFG	WT1505G-K30-NLF
838.2	WT1505G-K33-ALF	WT1505G-K33-LFG	WT1505G-K33-NLF
914.4	WT1505G-K36-ALF	WT1505G-K36-LFG	WT1505G-K36-NLF
990.6	WT1505G-K39-ALF	WT1505G-K39-LFG	WT1505G-K39-NLF
1066.8	WT1505G-K42-ALF	WT1505G-K42-LFG	WT1505G-K42-NLF
1143.0	WT1505G-K45-ALF	WT1505G-K45-LFG	WT1505G-K45-NLF
1219.2	WT1505G-K48-ALF	WT1505G-K48-LFG	WT1505G-K48-NLF
1295.4	WT1505G-K51-ALF	WT1505G-K51-LFG	WT1505G-K51-NLF
1371.6	WT1505G-K54-ALF	WT1505G-K54-LFG	WT1505G-K54-NLF
1447.8	WT1505G-K57-ALF	WT1505G-K57-LFG	WT1505G-K57-NLF
1524.0	WT1505G-K60-ALF	WT1505G-K60-LFG	WT1505G-K60-NLF
1600.2	WT1505G-K63-ALF	WT1505G-K63-LFG	WT1505G-K63-NLF
1676.4	WT1505G-K66-ALF	WT1505G-K66-LFG	WT1505G-K66-NLF
1752.6	WT1505G-K69-ALF	WT1505G-K69-LFG	WT1505G-K69-NLF
1828.8	WT1505G-K72-ALF	WT1505G-K72-LFG	WT1505G-K72-NLF

Note: 1. Standard nominal widths are in increments of 3 inches (76.2 mm). Custom widths or width wider than 1,828.8 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about -0.6% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,828.8 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,828.8 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

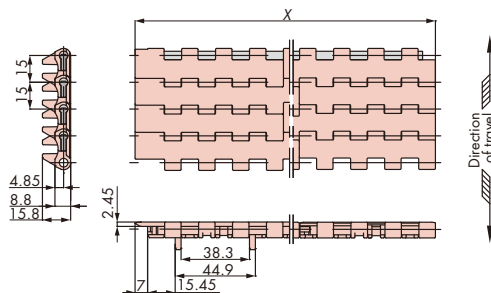
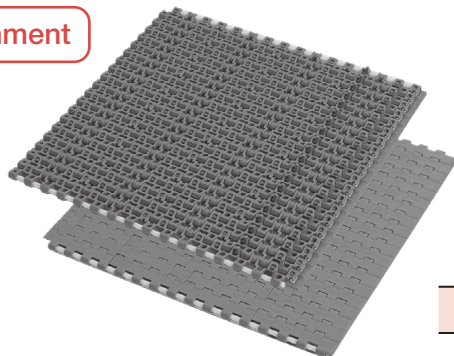
**Model Numbering**

Chain type	Chain pitch	Link shape	Tab guide attachment	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>15</b> 15:15 mm	<b>05</b> 5: Closed type	<b>G</b> G: Tab guide attachment	<b>- K24</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b> L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

**Features**

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 15 mm pitch. Suitable for conveying small and light weight containers.
3. Extended plate edges facilitate smoother right-angle transfers.
4. Lightweight and easy-handling due to all plastic-made chain.

**Tab Guide Attachment**


Chain pitch mm	Open area %	Backflex radius mm
15	2	15

**Chain Material Table**
**Standard Chain**

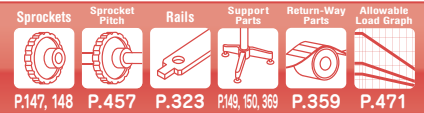
Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5{1070}								
Chain mass kg/m <sup>2</sup>	6.7								
Max. allowable speed m/min	With lube	50(50)							
	No lube	50(30)							
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	○ Note: 7	△	○ Note: 7	○ Note: 7	△

**High-Function Chain**

High-Function Chain								
Material	Low friction/Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5{1070}	4.25{434}	8.0{816}	10.5{1070}		7.8{796}	10.5{1070}	
Chain mass kg/m <sup>2</sup>	6.7	4.5	6.7					
Max. allowable speed m/min	With lube	50	50(50)				-	50(50)
	No lube	50(30)	30	50(30)				50(30)
Operating temperature range °C	-20 to (60)80	5 to 105	-20 to (60)80			-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic					
Plug material	Polyacetal	Polypropylene	Polyacetal					
Plug color	Yellow	Blue	Yellow					
Available	△	△	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. The allowable speed (the value in parentheses) of each chain are for products that use nose bars made of ultrahigh molecular weight polyethylene. For products with nose bars made of SJ-CNO (special polyamide), use them without lubrication.
4. Operating temperature of (the value in parentheses) is for wet condition.
5. When using WT-N1500-12T30 solid sprocket, set the key length of the sprocket engaging module with tab guide attachment to 30 mm.
6. Number of links per unit (chain width): 240 (K09 to 18), 120 (K21 to 48), 100 (over K51).
7. Chain widths from 1,607.2 mm (K63) to 1,835.8 mm (K72) : "△" Made-to-order products (RFQ).
8. Sprocket dedicated for the BT5 series cannot be used.



**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF
	Chain type	Chain type	Chain type
235.6	WT1505GTO-K09-ALF	WT1505GTO-K09-LFG	WT1505GTO-K09-NLF
311.8	WT1505GTO-K12-ALF	WT1505GTO-K12-LFG	WT1505GTO-K12-NLF
388.0	WT1505GTO-K15-ALF	WT1505GTO-K15-LFG	WT1505GTO-K15-NLF
464.2	WT1505GTO-K18-ALF	WT1505GTO-K18-LFG	WT1505GTO-K18-NLF
540.4	WT1505GTO-K21-ALF	WT1505GTO-K21-LFG	WT1505GTO-K21-NLF
616.6	WT1505GTO-K24-ALF	WT1505GTO-K24-LFG	WT1505GTO-K24-NLF
692.8	WT1505GTO-K27-ALF	WT1505GTO-K27-LFG	WT1505GTO-K27-NLF
769.0	WT1505GTO-K30-ALF	WT1505GTO-K30-LFG	WT1505GTO-K30-NLF
845.2	WT1505GTO-K33-ALF	WT1505GTO-K33-LFG	WT1505GTO-K33-NLF
921.4	WT1505GTO-K36-ALF	WT1505GTO-K36-LFG	WT1505GTO-K36-NLF
997.6	WT1505GTO-K39-ALF	WT1505GTO-K39-LFG	WT1505GTO-K39-NLF
1073.8	WT1505GTO-K42-ALF	WT1505GTO-K42-LFG	WT1505GTO-K42-NLF
1150.0	WT1505GTO-K45-ALF	WT1505GTO-K45-LFG	WT1505GTO-K45-NLF
1226.2	WT1505GTO-K48-ALF	WT1505GTO-K48-LFG	WT1505GTO-K48-NLF
1302.4	WT1505GTO-K51-ALF	WT1505GTO-K51-LFG	WT1505GTO-K51-NLF
1378.6	WT1505GTO-K54-ALF	WT1505GTO-K54-LFG	WT1505GTO-K54-NLF
1454.8	WT1505GTO-K57-ALF	WT1505GTO-K57-LFG	WT1505GTO-K57-NLF
1531.0	WT1505GTO-K60-ALF	WT1505GTO-K60-LFG	WT1505GTO-K60-NLF
1607.2	WT1505GTO-K63-ALF	WT1505GTO-K63-LFG	WT1505GTO-K63-NLF
1683.4	WT1505GTO-K66-ALF	WT1505GTO-K66-LFG	WT1505GTO-K66-NLF
1759.6	WT1505GTO-K69-ALF	WT1505GTO-K69-LFG	WT1505GTO-K69-NLF
1835.8	WT1505GTO-K72-ALF	WT1505GTO-K72-LFG	WT1505GTO-K72-NLF

- Note: 1. Standard nominal widths are in increments of 3 inches (76.2 mm) with a 7 mm extension of the side of the chain. Custom widths or width wider than 1,835.8 mm. Contact a Tsubaki representative for more information.
2. The chain width X is the nominal width and the actual width is about -0.6% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.
3. The chain with a width narrower than 1,835.8 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,835.8 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

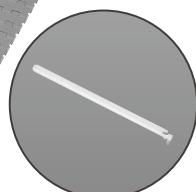
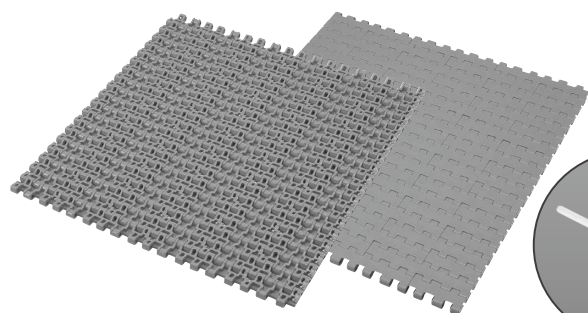
**Model Numbering**

Chain type	Chain pitch	Link shape	Tab guide attachment	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>15</b>	<b>05</b>	<b>G</b>	<b>TO</b>	<b>- K24</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	15:15 mm	5: Closed type	G: Tab guide attachment					L: Link

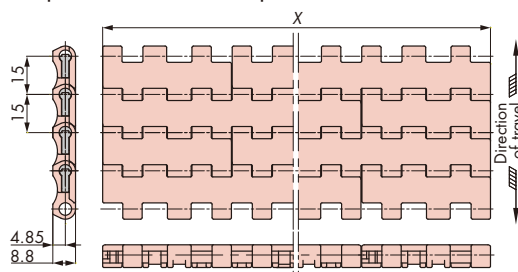
- Note: 1. Do not leave space between letters and symbols.
2. Please check the chain width in the Tsubaki model table above.
3. Please check the chain material and material marks in the chain material table on the left.
4. Minimum quantity: 2, maximum quantity: 99999.

**Features**

1. Can be a chosen width with 50 mm increments.
2. 15 mm pitch. Suitable for conveying small and lightweight containers.
3. Suitable not only for the conveyance of bottles in the beverage industry but also for machined parts.
4. Adopts slit pin system, all-in-one pin with a plug, to the chain width of 50 mm and 100 mm.
5. Possible to replace to the belt conveyor due to the standard nominal width of 50 mm and 100 mm.
6. In combination with a TOD chain, it is unnecessary to use a dead plate and is possible to transfer products between conveyors with less with fewer remaining products.



Slit pin



Chain pitch mm	Open area %	Backflex radius mm
15	2	15

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5{1070}								
Chain mass kg/m <sup>2</sup>	6.7								
Max. allowable speed m/min	With lube	50{50}							
	No lube	50{30}							
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	○	△	○	△	△

**High-Function Chain**

High-Function Chain							
Material	Low friction/Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	E	MWS	SE	MF	UVR	
Link color	Navy blue	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5{1070}	8{816}	10.5{1070}		7.8{796}	10.5{1070}	
Chain mass kg/m <sup>2</sup>	6.7						
Max. allowable speed m/min	With lube	50{50}				-	50{50}
	No lube	50{30}					
Operating temperature range °C	-20 to (60)80				-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic						
Plug material	Polyacetal						
Plug color	Yellow						
Available	△	△	△	△	△	△ Note: 5	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction.

The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.

3. The allowable speed (the value in parentheses) of each chain are for products that use nose bars made of ultrahigh molecular weight polyethylene. For products with nose bars made of SJ-CNO (special polyamide), use them without lubrication.

4. Operating temperature of (the value in parentheses) is for wet conditions.

5. UVR series are not supported for slit-pin type products.

6. Number of links per unit (chain width): 500 (W50 to 150), 400 (W200 to 450), 200 (W500 to 750), 160 (W800 to 950), 140 (W1000 to 1200), 120 (W1250 to 1500), 100 (over W1550).

**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG
	Chain type	Chain type
50	WT1515-W50-ALF	WT1515-W50-LFG
	WT1515-W50-ALF-SP	WT1515-W50-LFG-SP
100	WT1515-W100-ALF	WT1515-W100-LFG
	WT1515-W100-ALF-SP	WT1515-W100-LFG-SP
150	WT1515-W150-ALF	WT1515-W150-LFG
200	WT1515-W200-ALF	WT1515-W200-LFG
250	WT1515-W250-ALF	WT1515-W250-LFG
300	WT1515-W300-ALF	WT1515-W300-LFG
350	WT1515-W350-ALF	WT1515-W350-LFG
400	WT1515-W400-ALF	WT1515-W400-LFG
450	WT1515-W450-ALF	WT1515-W450-LFG
500	WT1515-W500-ALF	WT1515-W500-LFG
550	WT1515-W550-ALF	WT1515-W550-LFG
600	WT1515-W600-ALF	WT1515-W600-LFG
650	WT1515-W650-ALF	WT1515-W650-LFG
700	WT1515-W700-ALF	WT1515-W700-LFG
750	WT1515-W750-ALF	WT1515-W750-LFG
800	WT1515-W800-ALF	WT1515-W800-LFG
850	WT1515-W850-ALF	WT1515-W850-LFG
900	WT1515-W900-ALF	WT1515-W900-LFG
950	WT1515-W950-ALF	WT1515-W950-LFG
1000	WT1515-W1000-ALF	WT1515-W1000-LFG

Note: 1. Standard nominal widths are in increments of 50 mm. Custom widths or width wider than 1,000 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table on the left is about -0.5% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table on the left which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.  
 3. The chain with a width narrower than 1,000 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,000 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

**Model Numbering**

Chain type	Chain pitch	Link shape	Chain width	Material mark	Pin retention system	Number of links	Unit
<b>WT</b>	<b>15</b> 15:15 mm	<b>15</b> 5: Closed type	<b>- W100</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>- SP</b>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b> L: Link
					None: Pin and plug SP: Slit pin (all-in-one pin with a plug)		

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

Closed

Open

Net

Wide Type

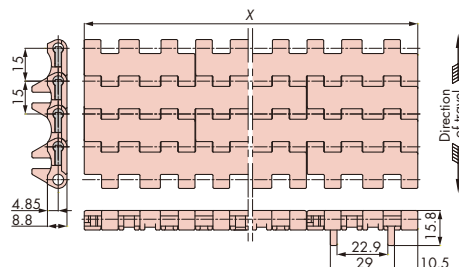
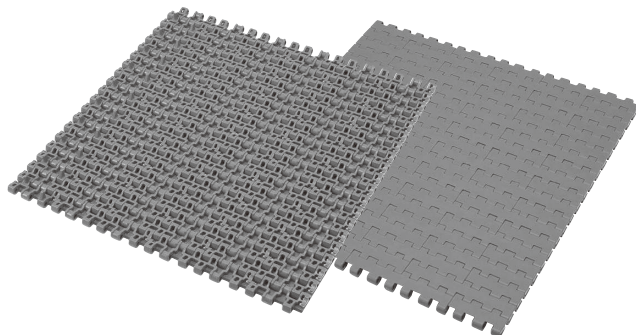
Raised-Rib

Rubber

Digest

**Features**

1. Can be a chosen width with 50 mm increments.
2. 15 mm pitch. Suitable for conveying small and light weight containers.
3. Suitable not only for the conveyance of bottles in the beverage industry but also for machined parts.
4. Suitable for the layout with side transfer between conveyors thanks to tab guide attachment.
5. In combination with a TOD chain, it is unnecessary to use a dead plate and is possible to transfer products between conveyors with less with fewer remaining products.

**Tab Guide Attachment**


Chain pitch mm	Open area %	Backflex radius mm
15	2	15

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5{1070}								
Chain mass kg/m <sup>2</sup>	6.7								
Max. allowable speed m/min	With lube	50{50}							
	No lube	50{30}							
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	○	△	○	△	△

**High-Function Chain**

High-Function Chain							
Material	Low friction/Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	E	MWS	SE	MF	UVR	
Link color	Navy blue	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5{1070}	8{816}	10.5{1070}		7.8{796}	10.5{1070}	
Chain mass kg/m <sup>2</sup>	6.7						
Max. allowable speed m/min	With lube	50{50}				-	50{50}
	No lube	50{30}					
Operating temperature range °C	-20 to (60)80				-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic						
Plug material	Polyacetal						
Plug color	Yellow						
Available	△	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction.

The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.

3. The allowable speed (the value in parentheses) of each chain are for products that use nose bars made of ultrahigh molecular weight polyethylene. For products with nose bars made of SJCNO (special polyamide), use them without lubrication.

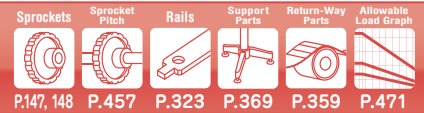
4. Operating temperature of (the value in parentheses) is for wet conditions.

5. When using WT-N1500-12T30 solid sprocket, set the key length of the sprocket engaging module with tab guide attachment to 20 mm.

6. When using WTS1500 (machined types) solid sprocket, the hub needs to be machined to have a proper diameter.

7. Number of links per unit (chain width): 240 (W100 to 450), 120 (W500 to 1200), 100 (over W1250).





**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG
	Chain type	Chain type
100	WT1515G-W100-ALF	WT1515G-W100-LFG
150	WT1515G-W150-ALF	WT1515G-W150-LFG
200	WT1515G-W200-ALF	WT1515G-W200-LFG
250	WT1515G-W250-ALF	WT1515G-W250-LFG
300	WT1515G-W300-ALF	WT1515G-W300-LFG
350	WT1515G-W350-ALF	WT1515G-W350-LFG
400	WT1515G-W400-ALF	WT1515G-W400-LFG
450	WT1515G-W450-ALF	WT1515G-W450-LFG
500	WT1515G-W500-ALF	WT1515G-W500-LFG
550	WT1515G-W550-ALF	WT1515G-W550-LFG
600	WT1515G-W600-ALF	WT1515G-W600-LFG
650	WT1515G-W650-ALF	WT1515G-W650-LFG
700	WT1515G-W700-ALF	WT1515G-W700-LFG
750	WT1515G-W750-ALF	WT1515G-W750-LFG
800	WT1515G-W800-ALF	WT1515G-W800-LFG
850	WT1515G-W850-ALF	WT1515G-W850-LFG
900	WT1515G-W900-ALF	WT1515G-W900-LFG
950	WT1515G-W950-ALF	WT1515G-W950-LFG
1000	WT1515G-W1000-ALF	WT1515G-W1000-LFG

- Note: 1. Standard nominal widths are in increments of 50 mm. Chain width wider than 1,000 mm is also available. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table on the left is about -0.5% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table on the left which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.  
 3. The chain with a width narrower than 1,000 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,000 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.  
 4. Select mold-to-width type of WT1515G-M50 for WT1515G-W with a chain width of 50 mm.  
 5. The position of tab guide attachment of WT1515G-W100 is different from that of WT1515G-M100.

**Model Numbering**

Chain type	Chain pitch	Link shape	Tab guide attachment	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>15</b>	<b>15</b>	<b>G</b>	<b>- W100</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	15:15 mm	5: Closed type	G: Tab guide attachment				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

Closed

Open

Net

Wide Type

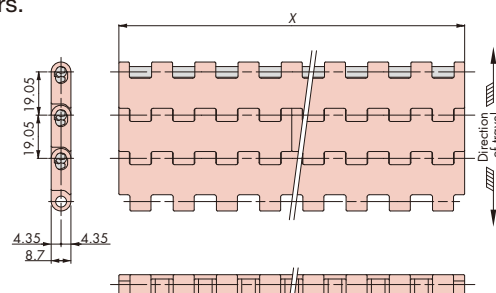
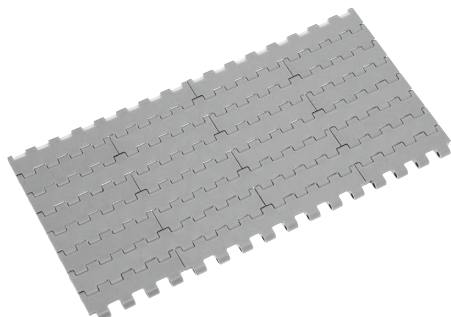
Raised-Rib

Rubber

Digest

**Features**

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 19.05 mm pitch. Suitable for conveying small and light weight containers.
3. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
19.05	3	15

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	12.8{1300}								
Chain mass kg/m <sup>2</sup>	6.56								
Max. allowable speed m/min	With lube	50							
	No lube	50							
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Snap attachment material	Polyacetal								
Snap attachment color	White								
Available	△	△	△	△	△	○	○	△	△

**High-Function Chain**

High-Function Chain													
Material	Heat resistant/High speed		Low friction/Wear resistant	High temperature	Freezer	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	KV150	KV250	HG	HTW	LTW	E	DIA	DIY	MWS	SE	MF	UVR	
Link color	Black		Navy blue	White	White	Black	Cream	Green	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	12.8{1300}			5.1 {520}	4.22 {430}	9.0 {910}	9.8 {1000}		12.8{1300}		9.5 {962}	12.8 {1300}	
Chain mass kg/m <sup>2</sup>	13.12		6.56	4.40	4.50	6.56	5.25	8.55	6.56				
Max. allowable speed m/min	With lube	-	50	50		15	50	-	50			-	50
	No lube	50		50		15	50	50	50			50	50
Operating temperature range °C	-20 to 150	-20 to 250	-20 - (60)80	5 to 105	-70 to 60	-20 to (60)80	-20 to 80	-20 to 80	-20 to (60)80			-20 to 80	-20 to (60)80
Pin material	SUS304		Special engineering plastic	Polypropylene	Polyethylene	Special engineering plastic							
Snap attachment material	Special engineering plastic		Polyacetal	Special engineering plastic	Polyethylene	Polyacetal							
Snap attachment color	Beige		White	Beige	Red	White							
Available	○	○	△	△	△	△	△	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition. This product can be used in wet conditions at 60 to 80°C if the pin material is changed to stainless steel. In this case, the initial length of the chain increases by about 1%, and the chain's approximate mass is the same as that of the KV250 series.
4. The surface finish of the module was changed from a mirror finish to a textured finish as of October 2013. (Except DIA/DIY, KV, LTW series)
5. Number of links per unit: 54.

### Tsubaki Model Table

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFB
	Chain type	Chain type
76.2	BTC6-762-ALF	BTC6-762-LFB
152.4	BTC6-1524-ALF	BTC6-1524-LFB
228.6	BTC6-2286-ALF	BTC6-2286-LFB
304.8	BTC6-3048-ALF	BTC6-3048-LFB
381.0	BTC6-3810-ALF	BTC6-3810-LFB
457.2	BTC6-4572-ALF	BTC6-4572-LFB
533.4	BTC6-5334-ALF	BTC6-5334-LFB
609.6	BTC6-6096-ALF	BTC6-6096-LFB
685.8	BTC6-6858-ALF	BTC6-6858-LFB
762.0	BTC6-7620-ALF	BTC6-7620-LFB
838.2	BTC6-8382-ALF	BTC6-8382-LFB
914.4	BTC6-9144-ALF	BTC6-9144-LFB
990.6	BTC6-9906-ALF	BTC6-9906-LFB
1066.8	BTC6-10668-ALF	BTC6-10668-LFB
1143.0	BTC6-11430-ALF	BTC6-11430-LFB

- Note: 1. Standard nominal widths are in increments of 76.2 mm. Custom widths or width wider than 1,143 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about -0.3% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,143 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,143 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

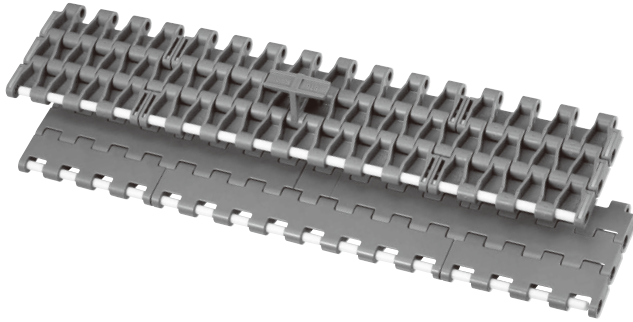
### Model Numbering

Chain type	Link shape	Chain pitch	Chain width	Material mark	Number of links	Unit
<b>BT</b>	<b>C</b>	<b>6</b>	<b>- 7620</b> <sup>Note: 2</sup>	<b>- LFB</b> <sup>Note: 3</sup>	<b>+ 80</b> <sup>Note: 4</sup>	<b>L</b>
	C: Closed type	6:19.05 mm				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. 7620: 762 mm. Chain width is indicated up to the first decimal place. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

**Features**

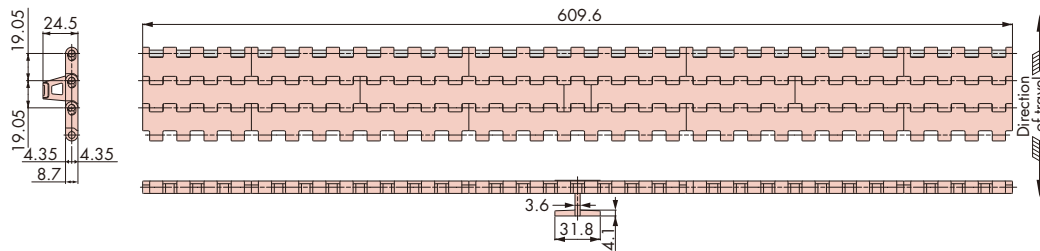
1. BTC6 with float-preventive tabs, which prevents chains from coming off the track.
2. The surface of the chain is free from scratching thanks to float-preventive tabs, which are suspended on the return-way.
3. Easy disconnecting/connecting and reduction of maintenance time due to adopting snap attachments.


**With Float-preventive Tab**

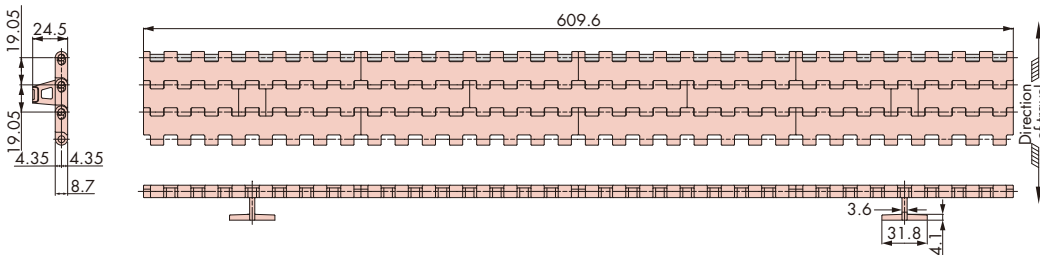
Chain pitch mm	Open area %	Backflex radius mm
19.05	3	15

**Drawing (Reference)...** chain width 609.6 mm

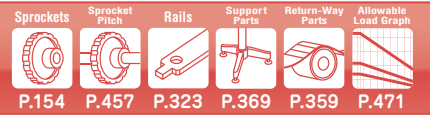
- ◆ Arrangement of float-preventive tabs in one row...center, 2 link intervals



- ◆ Arrangement of float-preventive tabs ... 76.2 mm from both ends



Note: The above is a reference diagram. To arrange float-preventive tabs other than those above, contact a Tsubaki representative.



**Chain Material Table**

**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	12.8{1300}								
Chain mass kg/m <sup>2</sup>	6.56								
Max. allowable speed m/min	With lube	50							
	No lube	50							
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Snap attachment material	Polyacetal								
Snap attachment color	White								
Available	△	△	△	△	△	△	△	△	△

**High-Function Chain**

High-Function Chain										
Material	Low friction Wear resistant	High temperature	Freezer	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	HG	HTW	LTW	E	DIA	DIY	MWS	SE	MF	UVR
Link color	Navy blue	White	White	Black	Cream	Green	Cream	Gray	Yellow	Light gray
Max. allowable load kN/m {kgf/m}	12.8 {1300}	5.1 {520}	4.22 {430}	9.0 {910}	9.8 {1000}		12.8{1300}		9.5 {962}	12.8 {1300}
Chain mass kg/m <sup>2</sup>	6.56	4.40	4.50	6.56	5.25	8.55	6.56			
Max. allowable speed m/min	With lube	50		15	-	50		-	50	
	No lube	50		15	50	50		50	50	
Operating temperature range °C	-20 to (60)80	5 to 105	-70 to 60	-20 to (60)80	-20 to 80	-20 to (60)80			-20 to 80	-20 to (60)80
Pin material	Special engineering plastic	Polypropylene	Polyethylene	Special engineering plastic						
Snap attachment material	Polyacetal	Special engineering plastic	Polyethylene	Polyacetal						
Snap attachment color	White	Beige	Red	White						
Available	△	△	△	△	△	△	△	△	△	△

- Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition. This product can be used in wet conditions at 60 to 80°C if the pin material is changed to stainless steel. In this case, the initial length of the chain increases by about 1%, and the chain's approximate mass is the same as that of the BTC6 (KV series).
4. The chain with a width narrower than 1,143 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,143 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.
5. Compared to the chain specifications above, the approximate mass of the chain with float-preventive tabs increases by 0.1 kg/m for the 2-link spacing 1-row arrangement and 0.2 kg/m for the 2-link spacing 2-row arrangement.
6. The chain width X is the nominal width and the actual width is about -0.3% (at the ambient temperature of 20°C) for the standard chain listed in chain material table above. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table above is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.
7. Number of links per unit: 54.

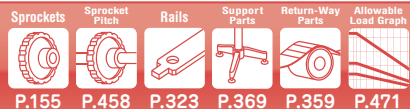
**Model Numbering**

Chain type	Link shape	Chain pitch	Chain width	Tab	Material mark	Special configuration	Number of links	Unit
<b>BT</b>	<b>C</b>	<b>6</b>	<b>- 7620</b> <small>Note: 2</small>	<b>- T</b>	<b>- LFB</b> <small>Note: 3</small>	<b>- TK</b>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	C: Closed type	6:19.05 mm						L: Link

- Note: 1. Do not leave space between letters and symbols.
2. 7620: 762 mm. Chain width is indicated up to the first decimal place.
3. Please check the chain material and material marks in the chain material table above.
4. Minimum quantity: 2, maximum quantity: 99999.

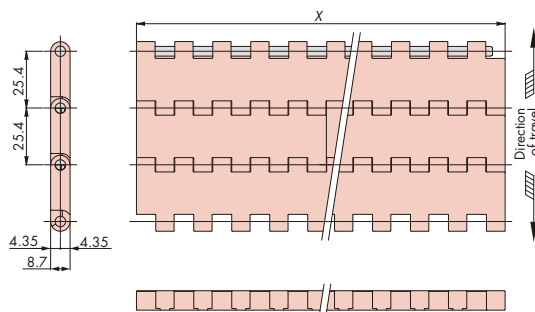
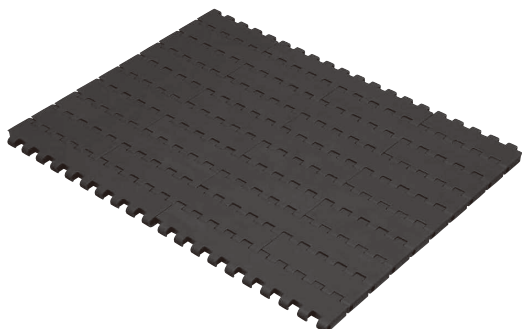
# Plastic Modular Chain WT2250FT

**WT2250 Series**  
Straight Running (Wide Type)



## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
25.4	3	25

## Chain Material Table

	Standard Chain	High-Function Chain
Material	Standard	High temperature
Material mark	G	HTW
Link color	Gray	White
Max. allowable load kN/m {kgf/m}	12.8{1305}	6.4{650}
Chain mass kg/m <sup>2</sup>	9.6	6.9
Max. allowable speed m/min	With lube	50
	No lube	
Operating temperature range °C	-20 to (60)80	5 to 105
Pin material	Special engineering plastic	Polypropylene
Snap attachment material	Polyacetal	Polypropylene
Snap attachment color	Light blue	Brown
Available	△	△

- Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table on the left.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the chain material table on the left is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition.
4. Number of links per unit: 40.

## Tsubaki Model Table

Chain width X	Standard G	High temperature HTW
	Chain type	Chain type
85	WT2250FT-W85-G	WT2250FT-W85-HTW
170	WT2250FT-W170-G	WT2250FT-W170-HTW
255	WT2250FT-W255-G	WT2250FT-W255-HTW
340	WT2250FT-W340-G	WT2250FT-W340-HTW
425	WT2250FT-W425-G	WT2250FT-W425-HTW
510	WT2250FT-W510-G	WT2250FT-W510-HTW
595	WT2250FT-W595-G	WT2250FT-W595-HTW
680	WT2250FT-W680-G	WT2250FT-W680-HTW
765	WT2250FT-W765-G	WT2250FT-W765-HTW
850	WT2250FT-W850-G	WT2250FT-W850-HTW

Chain width X	Standard G	High temperature HTW
	Chain type	Chain type
935	WT2250FT-W935-G	WT2250FT-W935-HTW
1020	WT2250FT-W1020-G	WT2250FT-W1020-HTW
1105	WT2250FT-W1105-G	WT2250FT-W1105-HTW
1190	WT2250FT-W1190-G	WT2250FT-W1190-HTW
1275	WT2250FT-W1275-G	WT2250FT-W1275-HTW
1360	WT2250FT-W1360-G	WT2250FT-W1360-HTW
1445	WT2250FT-W1445-G	WT2250FT-W1445-HTW
1530	WT2250FT-W1530-G	WT2250FT-W1530-HTW
1615	WT2250FT-W1615-G	WT2250FT-W1615-HTW

- Note: 1. Standard nominal widths are in increments of 85 mm. Custom widths or width wider than 1,615 mm. Contact a Tsubaki representative for more information.
2. The chain width X is the nominal width which expands and contracts due to temperature change. As a guideline, expansion and contraction are 0.00012/°C for the standard (G) series and 0.00011/°C for the HTW series at the basis of 20°C.

## Model Numbering

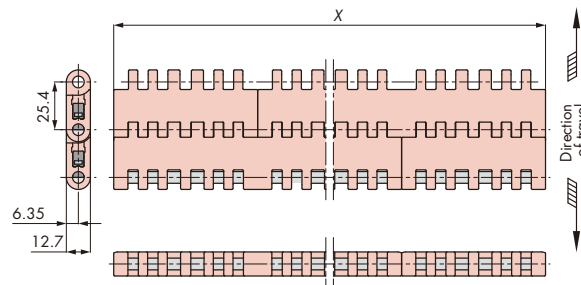
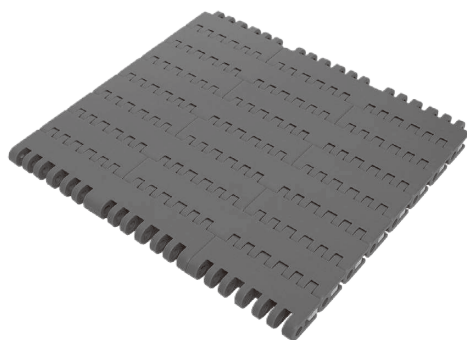
Chain type	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT2250</b>	<b>FT</b>	<b>- W340</b> <small>Note: 2</small>	<b>- G</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
					L:Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.



**Features**

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Improved strength of the chain is due to an increase in hinges and thicker joints of the modules.
3. In combination with TOD chains, it is unnecessary to use dead plates and is possible to transfer products between conveyors with less with fewer remaining products.
4. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
25.4	3	20

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	29.4{3000}								
Chain mass kg/m <sup>2</sup>	12.6								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	0 to 80			0 to (65)80			0 to 80	0 to (65)80	0 to 80
Pin material	Polypropylene								
Slide plug material	Polypropylene								
Slide plug color	Blue								
Available	△	△	△	△	○	△	○	△	△

**High-Function Chain**

High-Function Chain							
Material	Low friction/Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	E	MWS	SE	MF	UVR	
Link color	Navy blue	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	29.4{3000}	20.6{2100}	29.4{3000}		21.8{2224}	29.4{3000}	
Chain mass kg/m <sup>2</sup>	12.6						
Max. allowable speed m/min	With lube	50				-	50
	No lube					50	
Operating temperature range °C	0 to (65)80	0 to 80	0 to (65)80	0 to 80			
Pin material	Polypropylene						
Slide plug material	Polypropylene						
Slide plug color	Blue						
Available	△	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction.

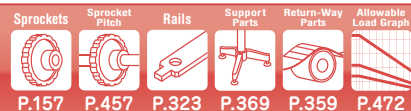
The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.

3. Operating temperature of (the value in parentheses) is for wet conditions.

4. The link color of the slide plug was changed from yellow to blue as of December 2013.

5. Number of links per unit (chain width): 160 (K03 to 18), 100 (K21 to 27), 70 (K30 to 36), 50 (K39 to 48), 40 (over K51).





### Tsubaki Model Table

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG
	Chain type	Chain type
76.2	WT2505-K03-ALF	WT2505-K03-LFG
152.4	WT2505-K06-ALF	WT2505-K06-LFG
228.6	WT2505-K09-ALF	WT2505-K09-LFG
304.8	WT2505-K12-ALF	WT2505-K12-LFG
381.0	WT2505-K15-ALF	WT2505-K15-LFG
457.2	WT2505-K18-ALF	WT2505-K18-LFG
533.4	WT2505-K21-ALF	WT2505-K21-LFG
609.6	WT2505-K24-ALF	WT2505-K24-LFG
685.8	WT2505-K27-ALF	WT2505-K27-LFG
762.0	WT2505-K30-ALF	WT2505-K30-LFG
838.2	WT2505-K33-ALF	WT2505-K33-LFG
914.4	WT2505-K36-ALF	WT2505-K36-LFG
990.6	WT2505-K39-ALF	WT2505-K39-LFG
1066.8	WT2505-K42-ALF	WT2505-K42-LFG
1143.0	WT2505-K45-ALF	WT2505-K45-LFG
1219.2	WT2505-K48-ALF	WT2505-K48-LFG
1295.4	WT2505-K51-ALF	WT2505-K51-LFG
1371.6	WT2505-K54-ALF	WT2505-K54-LFG
1447.8	WT2505-K57-ALF	WT2505-K57-LFG
1524.0	WT2505-K60-ALF	WT2505-K60-LFG

Note: 1. Standard nominal width are increments of 3 inches (76.2 mm). Custom widths or width wider than 1,524 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table on the left is about -0.3% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table on the left which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.

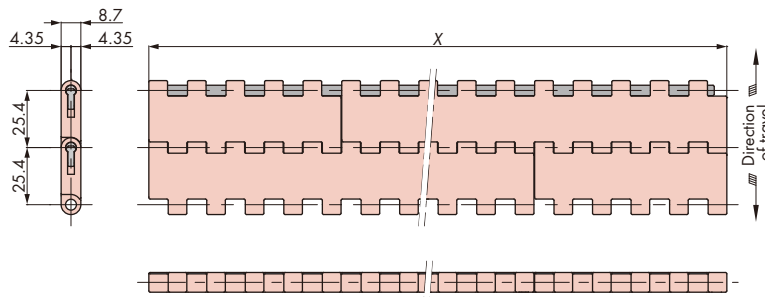
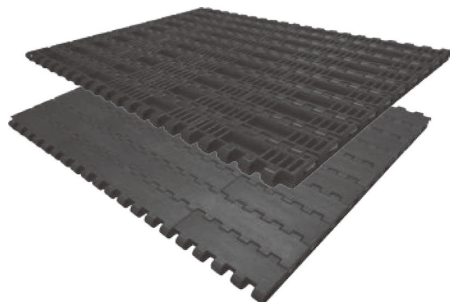
### Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>25</b> 25: 25.4 mm	<b>05</b> 5: Closed type	<b>- K24</b> <sup>Note: 2</sup>	<b>- LFG</b> <sup>Note: 3</sup>	<b>+ 80</b> <sup>Note: 4</sup>	<b>L</b> L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

**Features**

1. Mass handling is possible due to the wide carry-way, which is the combination of a 170 mm module with a 85 mm module in a brick-layered array.
2. Suitable to convey beverage containers.
3. Easy disconnecting/connecting and reduction of maintenance time due to the adoption of a pin and plug system.


**Bevedolphin**

Chain pitch mm	Open area %	Backflex radius mm
25.4	2	25

**Chain Material Table**
**Standard Chain**

Standard Chain										
Material	Standard			Low friction/Wear resistant				Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	CB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Blue	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	12.8{1305}									
Chain mass kg/m <sup>2</sup>	8.6									
Max. allowable speed m/min	With lube	50								
	No lube									
Operating temperature range °C	-20 to (60)80									
Pin material	Special engineering plastic									
Plug material	Polyacetal									
Plug color	Yellow									
Available	△	△	△	△	△	△	○	○	△	△

**High-Function Chain**

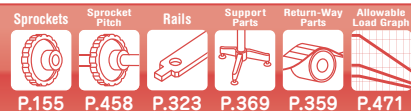
High-Function Chain								
Material	Low friction Wear resistant	High Temperature	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	12.8{1305}	6.4{650}	9.0{914}	12.8{1305}		9.47{966}	12.8{1305}	
Chain mass kg/m <sup>2</sup>	8.6	5.7	8.6					
Max. allowable speed m/min	With lube	50					-	50
	No lube						50	
Operating temperature range °C	-20 to (60)80	5 to 105	-20 to (60)80			-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic					
Plug material	Polyacetal	Polypropylene	Polyacetal					
Plug color	Yellow	Blue	Yellow					
Available	○	△	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.

3. Operating temperature of (the value in parentheses) is for wet conditions.

4. Number of links per unit (chain width): 200 (W85 to 425), 100 (W510 to 935), 80 (W1020 to 1190), 50 (W1275 to 1785), 40 (over W1870).



## Tsubaki Model Table

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant HG	Low friction/Wear resistant CB
	Chain type	Chain type	Chain type
85	WT2515-W85-ALF	WT2515-W85-HG	WT2515-W85-CB
170	WT2515-W170-ALF	WT2515-W170-HG	WT2515-W170-CB
255	WT2515-W255-ALF	WT2515-W255-HG	WT2515-W255-CB
340	WT2515-W340-ALF	WT2515-W340-HG	WT2515-W340-CB
425	WT2515-W425-ALF	WT2515-W425-HG	WT2515-W425-CB
510	WT2515-W510-ALF	WT2515-W510-HG	WT2515-W510-CB
595	WT2515-W595-ALF	WT2515-W595-HG	WT2515-W595-CB
680	WT2515-W680-ALF	WT2515-W680-HG	WT2515-W680-CB
765	WT2515-W765-ALF	WT2515-W765-HG	WT2515-W765-CB
850	WT2515-W850-ALF	WT2515-W850-HG	WT2515-W850-CB
935	WT2515-W935-ALF	WT2515-W935-HG	WT2515-W935-CB
1020	WT2515-W1020-ALF	WT2515-W1020-HG	WT2515-W1020-CB
1105	WT2515-W1105-ALF	WT2515-W1105-HG	WT2515-W1105-CB
1190	WT2515-W1190-ALF	WT2515-W1190-HG	WT2515-W1190-CB
1275	WT2515-W1275-ALF	WT2515-W1275-HG	WT2515-W1275-CB
1360	WT2515-W1360-ALF	WT2515-W1360-HG	WT2515-W1360-CB
1445	WT2515-W1445-ALF	WT2515-W1445-HG	WT2515-W1445-CB
1530	WT2515-W1530-ALF	WT2515-W1530-HG	WT2515-W1530-CB
1615	WT2515-W1615-ALF	WT2515-W1615-HG	WT2515-W1615-CB

- Note: 1. Standard nominal widths are in increments of 85 mm. Custom widths or width wider than 1,615 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about -0.3% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,615 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,615 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

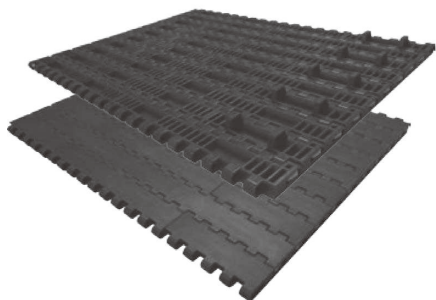
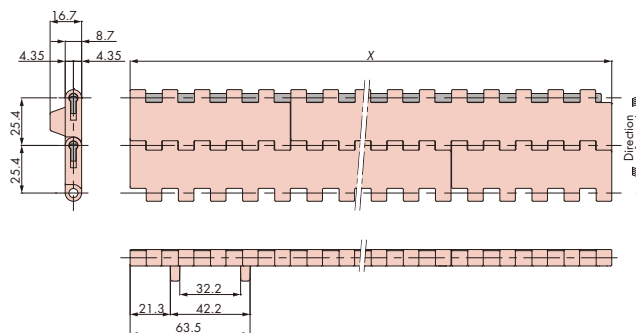
## Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>25</b> 25: 25.4 mm	<b>15</b> 5: Closed type	<b>- W340</b> <small>Note: 2</small>	<b>- CB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b> L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

**Features**

1. Mass handling is possible due to the wide carry-way, which is the combination of a 170 mm module with a 85 mm module in a brick-layered array.
2. Suitable to convey beverage containers.
3. Easy disconnecting/connecting and reduction of maintenance time due to the adoption of a pin and plug system.
4. Suitable for layouts with side transfer between conveyors thanks to tab guide attachment.

**Tab Guide Attachment**

**Bevedolphin**


Chain pitch mm	Open area %	Backflex radius mm
25.4	2	25

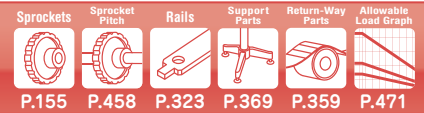
**Chain Material Table**
**Standard Chain**

Standard Chain										
Material	Standard			Low friction/Wear resistant				Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	CB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Blue	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	12.8{1305}									
Chain mass kg/m <sup>2</sup>	8.6									
Max. allowable speed m/min	With lube	50								
	No lube									
Operating temperature range °C	-20 to (60) 80									
Pin material	Special engineering plastic									
Plug material	Polyacetal									
Plug color	Yellow									
Available	△	△	△	△	△	△	○	○	△	△

**High-Function Chain**

High-Function Chain								
Material	Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	12.8{1305}	6.4{650}	9.0{914}	12.8{1305}		9.47{966}	12.8{1305}	
Chain mass kg/m <sup>2</sup>	8.6	5.7	8.6					
Max. allowable speed m/min	With lube	50					-	50
	No lube						50	
Operating temperature range °C	-20 to (60) 80	5 to 105	-20 to (60) 80			-20 to 80	-20 to (60) 80	
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic					
Plug material	Polyacetal	Polypropylene	Polyacetal					
Plug color	Yellow	Blue	Yellow					
Available	○	△	△	△	△	△	△	

- Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition.
4. Number of links per unit (chain width): 140 (W85 to 425), 60 (W510 to 1190), 40 (over W1275).



**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant HG	Low friction/Wear resistant CB
	Chain type	Chain type	Chain type
85	WT2515G-W85-ALF	WT2515G-W85-HG	WT2515G-W85-CB
170	WT2515G-W170-ALF	WT2515G-W170-HG	WT2515G-W170-CB
255	WT2515G-W255-ALF	WT2515G-W255-HG	WT2515G-W255-CB
340	WT2515G-W340-ALF	WT2515G-W340-HG	WT2515G-W340-CB
425	WT2515G-W425-ALF	WT2515G-W425-HG	WT2515G-W425-CB
510	WT2515G-W510-ALF	WT2515G-W510-HG	WT2515G-W510-CB
595	WT2515G-W595-ALF	WT2515G-W595-HG	WT2515G-W595-CB
680	WT2515G-W680-ALF	WT2515G-W680-HG	WT2515G-W680-CB
765	WT2515G-W765-ALF	WT2515G-W765-HG	WT2515G-W765-CB
850	WT2515G-W850-ALF	WT2515G-W850-HG	WT2515G-W850-CB
935	WT2515G-W935-ALF	WT2515G-W935-HG	WT2515G-W935-CB
1020	WT2515G-W1020-ALF	WT2515G-W1020-HG	WT2515G-W1020-CB
1105	WT2515G-W1105-ALF	WT2515G-W1105-HG	WT2515G-W1105-CB
1190	WT2515G-W1190-ALF	WT2515G-W1190-HG	WT2515G-W1190-CB
1275	WT2515G-W1275-ALF	WT2515G-W1275-HG	WT2515G-W1275-CB
1360	WT2515G-W1360-ALF	WT2515G-W1360-HG	WT2515G-W1360-CB
1445	WT2515G-W1445-ALF	WT2515G-W1445-HG	WT2515G-W1445-CB
1530	WT2515G-W1530-ALF	WT2515G-W1530-HG	WT2515G-W1530-CB
1615	WT2515G-W1615-ALF	WT2515G-W1615-HG	WT2515G-W1615-CB

- Note: 1. Standard nominal widths are in increments of 85 mm. Custom widths or width wider than 1,615 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about -0.3% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,615 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,615 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.  
 4. Mold-to-width type of WT2515G-W can also be possible to use as 85 mm width of WT2515G-M330.

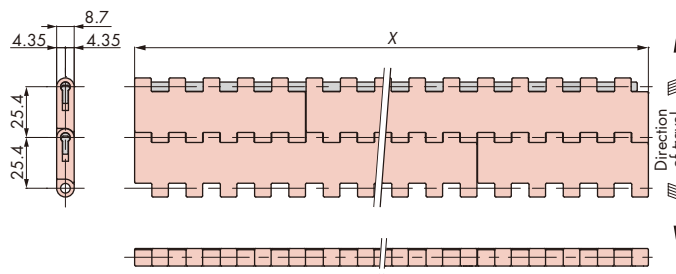
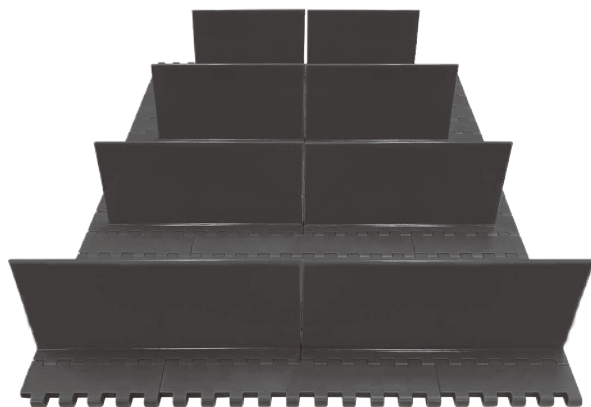
**Model Numbering**

Chain type	Chain pitch	Link shape	Tab guide attachment	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>25</b> 25: 25.4 mm	<b>15</b> 5: Closed type	<b>G</b> G: Tab guide attachment	<b>- W340</b> Note: 2	<b>- CB</b> Note: 3	<b>+ 80</b> Note: 4	<b>L</b> L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

**Features**

1. Plastic modular chains with flight can be possible for vertical transportation.
2. Enables conveyance of boxes, cases and bulk items vertically.
3. Easy disconnecting/connecting and reduction of maintenance time due to the adoption of a pin and plug system.



Chain pitch mm	Open area %	Backflex radius mm
25.4	2	Note

Note: Backflex radius depends on flight formation and height.

**Chain Material Table**

	Standard Chain	High-Function Chain
Material	Low friction/ Wear resistant	High temperature
Material mark	CB	HTW
Link color	Blue	White
Max. allowable load kN/m {kgf/m}	12.8{1305}	6.4{650}
Chain mass kg/m <sup>2</sup>	8.6	5.7
Max. allowable speed m/min	With lube	50
	No lube	
Operating temperature range °C	-20 to (60) 80	5 to 105
Pin material	Special engineering plastic	Polypropylene
Plug material	Polyacetal	Polypropylene
Plug color	Yellow	Blue
Available	△	△

Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet conditions.
4. The chain mass shown in the chain material table above indicates the mass without flight module. Contact a Tsubaki representative for more information.

**Tsubaki Model Table**

Chain width X	Low friction/Wear resistant CB	High temperature HTW
	Chain type	Chain type
170	WT2515F-W170-CB	WT2515F-W170-HTW
255	WT2515F-W255-CB	WT2515F-W255-HTW
340	WT2515F-W340-CB	WT2515F-W340-HTW
425	WT2515F-W425-CB	WT2515F-W425-HTW
510	WT2515F-W510-CB	WT2515F-W510-HTW
595	WT2515F-W595-CB	WT2515F-W595-HTW
680	WT2515F-W680-CB	WT2515F-W680-HTW
765	WT2515F-W765-CB	WT2515F-W765-HTW
850	WT2515F-W850-CB	WT2515F-W850-HTW

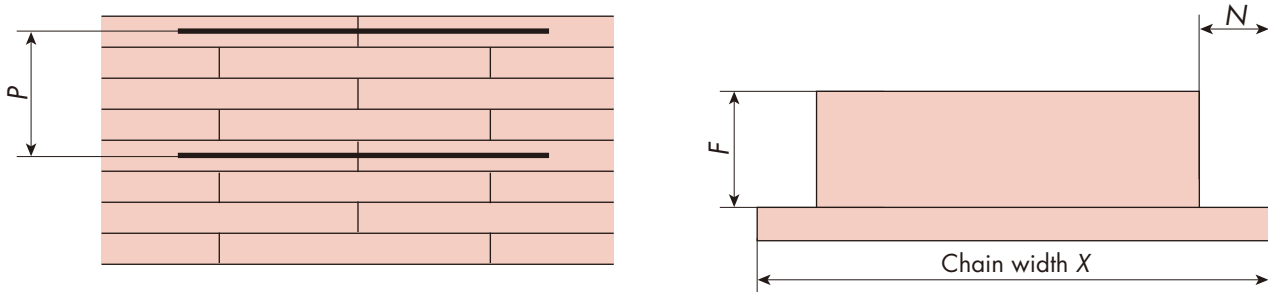
Note: 1. Standard nominal widths are in increments of 85 mm. Widths wider than 850 mm are available. Contact a Tsubaki representative for more information.

2. The chain width X is the nominal width and the actual width is about -0.3% (at the ambient temperature of 20°C) for the standard chain listed in chain material table above. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table above is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.
3. The chain with a width narrower than 1,615 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,615 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene. (HTW series not included.)
4. Please refer to the model numbering on the right for Tsubaki model numbers.

**Flight Dimensions**

The following dimensions must be determined in order to install flights:

- P = flight mount spacing (It can be mounted starting as small as 50.8 mm. Contact a Tsubaki representative for more information.)
- F = flight height (Select from 50.8 mm, or 76.2 mm.)
- N = indent (Select from 17 mm, 34 mm, or 51 mm. Indents are necessary to support the chain on the return-way using rollers or the like.)  
 Note: With 0 mm indent, the chain cannot be received by the rollers on the return-way.



**Model Numbering**

■ Standard Combinations

Chain type	Chain pitch	Link shape	Flight	Chain width	Material mark	Pitch of flight	Flight height	Indent	Number of links	Unit
<b>WT</b>	<b>25</b>	<b>15</b>	<b>F</b>	<b>W340</b> <sup>Note: 2</sup>	<b>HTW</b> <sup>Note: 3</sup>	<b>10L</b> <sup>Note: 4</sup>	<b>F2</b>	<b>N3</b>	<b>+ 80</b> <sup>Note: 5</sup>	<b>L</b>
	25: 25.4 mm	5: Closed type				10L: Every 10 links	F2: 2 inches (50.8 mm) F3: 3 inches (76.2 mm)	N0: 0 mm N1: 17 mm N3: 34 mm N5: 51 mm		L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table on the left.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. It can be installed as small as every 2 links.  
 5. Minimum quantity: 2, maximum quantity: 99999.

■ Special Combinations

Chain type	Chain pitch	Link shape	Flight	Chain width	Material mark	Special configuration	Number of links	Unit
<b>WT</b>	<b>25</b>	<b>15</b>	<b>F</b>	<b>W340</b> <sup>Note: 2</sup>	<b>HTW</b> <sup>Note: 4</sup>	<b>TK</b>	<b>+ 80</b> <sup>Note: 5</sup>	<b>L</b>
	25: 25.4 mm	5: Closed type						L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table on the left.  
 3. Contact a Tsubaki representative if special elements other than the standard configuration, such as chain width, flight installation interval, flight height, indent interval, etc., are included.  
 4. Please check the chain material and material marks in the chain material table on the left.  
 5. Minimum quantity: 2, maximum quantity: 99999.

Closed

Open

Wide Type

Net

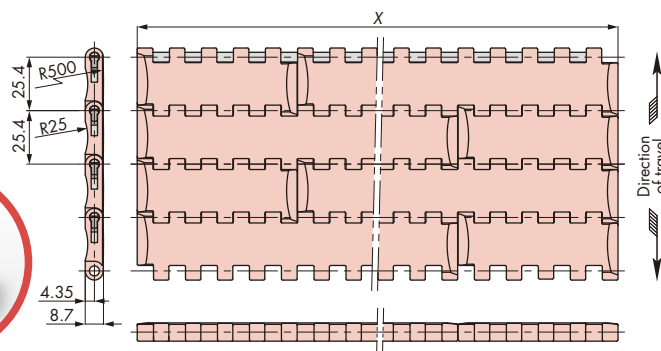
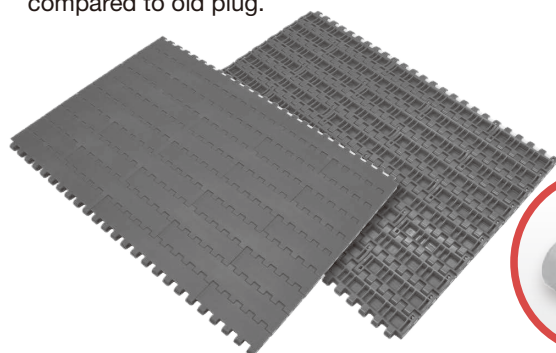
Raised-Rib

Rubber

Digest

## Features

1. Suitable to convey stacked cardboard sheets.
2. The chain's top surface has a slightly convex shape where stacked heavy sheets slightly slip into, thereby preventing the sheets from slipping.
3. The backside surface has a rounded shape, which is suitable to wind around the round bar of 50 mm and minimize dead space between the conveyors.
4. Easy to disconnect/connect due to the adoption of new plug, of which the required force to insert plug decreased to 60%, compared to old plug.



Chain pitch mm	Open area %	Backflex radius mm
25.4	1	25

## Chain Material Table

## Standard Chain

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	12.8{1305}								
Chain mass kg/m <sup>2</sup>	8.6								
Max. allowable speed m/min	With lube		50						
	No lube		50						
Operating temperature range °C	-20 to (60) 80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	○	△	△	△	△	△	△	△

## High-Function Chain

High-Function Chain								
Material	Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	12.8{1305}	5.1{522}	9.0{914}	12.8{1305}		9.47{966}	12.8{1305}	
Chain mass kg/m <sup>2</sup>	8.6	5.7	8.6					
Max. allowable speed m/min	With lube		50				-	50
	No lube		50				50	50
Operating temperature range °C	-20 to (60) 80	5 to 105	-20 to (60) 80			-20 to 80	-20 to (60) 80	
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic					
Plug material	Polyacetal	Polypropylene	Polyacetal					
Plug color	Yellow	Blue	Yellow					
Available	△	△	△	△	△	△	△	

Note: 1. "○": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

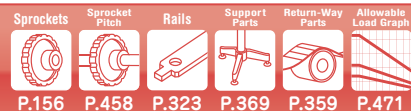
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.

3. Operating temperature of (the value in parentheses) is for wet condition.

4. Number of links per unit (chain width): 200 (K03 to 18), 100 (K21 to 36), 70 (K39 to 48), 50 (K51 to 72), 40 (over K75).

5. The plug has been updated to a new one as of October 2020. This new plug performs the same as the old one (prevents pin from coming out). Note that the new plug cannot be used for chains that use the old plug.





### Tsubaki Model Table

Chain width X	Standard B Chain type	Chain width X	Standard B Chain type
76.2	WT2525-K03-B	685.8	WT2525-K27-B
152.4	WT2525-K06-B	762.0	WT2525-K30-B
228.6	WT2525-K09-B	838.2	WT2525-K33-B
304.8	WT2525-K12-B	914.4	WT2525-K36-B
381.0	WT2525-K15-B	990.6	WT2525-K39-B
457.2	WT2525-K18-B	1066.8	WT2525-K42-B
533.4	WT2525-K21-B	1143.0	WT2525-K45-B
609.6	WT2525-K24-B		

- Note: 1. Standard nominal width are increments of 3 inches (76.2 mm). Custom widths or width wider than 1,143 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about -0.3% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,143 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,143 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

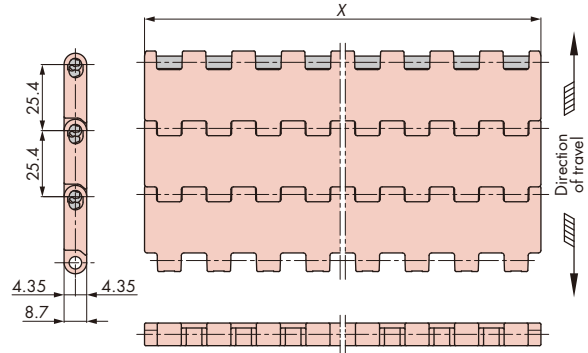
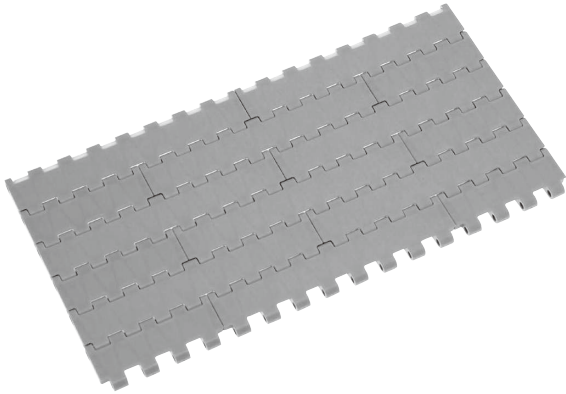
### Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>25</b> 25: 25.4 mm	<b>25</b> 5: Closed type	<b>- K24</b> <sup>Note: 2</sup>	<b>- B</b> <sup>Note: 3</sup>	<b>+ 80</b> <sup>Note: 4</sup>	<b>L</b> L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 25.4 mm pitch. Suitable for conveying medium-sized containers.
3. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
25.4	2.5	25

## Chain Material Table

### Standard Chain

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	12.8{1300}								
Chain mass kg/m <sup>2</sup>	5.90								
Max. allowable speed m/min	With lube	50							
	No lube	50							
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Snap attachment material	Polyacetal								
Snap attachment color	White								
Available	△	△	△	△	△	○	○	△	△

### High-Function Chain

High-Function Chain										
Material	Low friction Wear resistant	High temperature	Freezer	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	HG	HTW	LTW	E	DIA	DIY	MWS	SE	MF	UVR
Link color	Navy blue	White	White	Black	Cream	Green	Cream	Gray	Yellow	Light gray
Max. allowable load kN/m {kgf/m}	12.8 {1300}	5.1 {520}	4.22 {430}	9.0 {910}	9.8{1000}		12.8{1300}		9.5 {962}	12.8 {1300}
Chain mass kg/m <sup>2</sup>	5.90	4.10		5.90	5.25	7.90	5.90			
Max. allowable speed m/min	With lube	50		15	50	-	50		-	50
	No lube	50		15	50	50	50		50	50
Operating temperature range °C	-20 to (60)80	5 to 105	-70 to 60	-20 to (60)80	-20 to 80	-20 to (60) 80			-20 to 80	-20 to (60)80
Pin material	Special engineering plastic	Polypropylene	Polyethylene	Special engineering plastic						
Snap attachment material	Polyacetal	Special engineering plastic	Polyethylene	Polyacetal						
Snap attachment color	White	Beige	Red	White						
Available	△	△	△	△	△	△	△	△	△	△

Note: 1. "O": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. Operating temperature of (the value in parentheses) is for wet condition.  
 4. Number of links per unit: 40.

### Tsubaki Model Table

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFB
	Chain type	Chain type
76.2	BTC8-762-ALF	BTC8-762-LFB
152.4	BTC8-1524-ALF	BTC8-1524-LFB
228.6	BTC8-2286-ALF	BTC8-2286-LFB
304.8	BTC8-3048-ALF	BTC8-3048-LFB
381.0	BTC8-3810-ALF	BTC8-3810-LFB
457.2	BTC8-4572-ALF	BTC8-4572-LFB
533.4	BTC8-5334-ALF	BTC8-5334-LFB
609.6	BTC8-6096-ALF	BTC8-6096-LFB
685.8	BTC8-6858-ALF	BTC8-6858-LFB
762.0	BTC8-7620-ALF	BTC8-7620-LFB
838.2	BTC8-8382-ALF	BTC8-8382-LFB
914.4	BTC8-9144-ALF	BTC8-9144-LFB
990.6	BTC8-9906-ALF	BTC8-9906-LFB
1066.8	BTC8-10668-ALF	BTC8-10668-LFB
1143.0	BTC8-11430-ALF	BTC8-11430-LFB

- Note: 1. Standard nominal widths are in increments of 76.2 mm. Custom widths or width wider than 1,143 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about +0.1% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,143 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,143 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

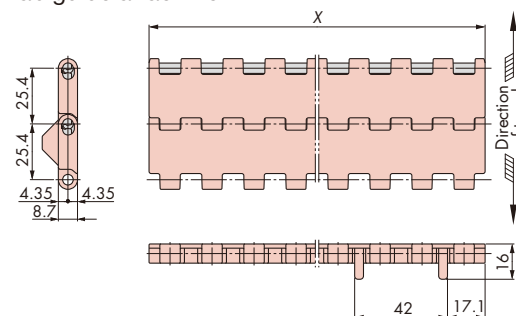
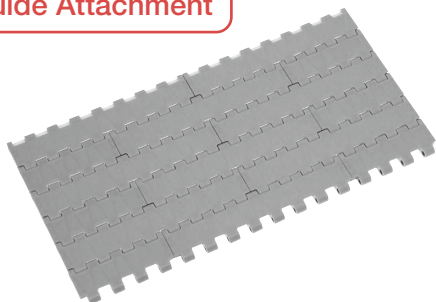
### Model Numbering

Chain type	Link shape	Chain pitch	Chain width	Material mark	Number of links	Unit
<b>BT</b>	<b>C</b>	<b>8</b>	<b>- 7620</b> <small>Note: 2</small>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	C: Closed type	8: 25.4 mm				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. 7620: 762 mm. Chain width is indicated up to the first decimal place. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

**Features**

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 25.4 mm pitch. Suitable for conveying medium-sized containers.
3. Suitable for layouts with side transfer between conveyors thanks to tab guide attachment.
4. Lightweight and easy-handling due to all plastic-made chain.

**Tab Guide Attachment**


Chain pitch mm	Open area %	Backflex radius mm
25.4	2.5	25

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	12.8{1300}								
Chain mass kg/m <sup>2</sup>	5.90								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Snap attachment material	Polyacetal								
Snap attachment color	White								
Available	△	△	△	△	△	○	○	△	△

**High-Function Chain**

High-Function Chain										
Material	Low friction Wear resistant	High temperature	Freezer	Electroconductive	Impact resistant		Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	HG	HTW	LTW	E	DIA	DIY	MWS	SE	MF	UVR
Link color	Navy blue	White	White	Black	Cream	Green	Cream	Gray	Yellow	Light gray
Max. allowable load kN/m {kgf/m}	12.8 {1300}	5.1 {520}	4.22 {430}	9.0 {910}	9.8{1000}		12.8{1300}		9.5 {962}	12.8 {1300}
Chain mass kg/m <sup>2</sup>	5.90	4.10		5.90	5.25	7.90	5.90			
Max. allowable speed m/min	With lube	50		15	50	-	50		-	50
	No lube					50			50	
Operating temperature range °C	-20 to (60) 80	5 to 105	-70 to 60	-20 to (60)80	-20 to 80	-20 to (60) 80		-20 to 80	-20 to (60) 80	
Pin material	Special engineering plastic	Polypropylene	Polyethylene	Special engineering plastic						
Snap attachment material	Polyacetal	Special engineering plastic	Polyethylene	Polyacetal						
Snap attachment color	White	Beige	Red	White						
Available	△	△	△	△	△	△	△	△	△	△

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

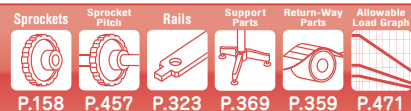
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction.

The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.

3. Operating temperature of (the value in parentheses) is for wet conditions.

4. The chain mass with tab guide attachment increases by 0.5 kg/m from the value specified in the chain material table above. (The attachments are installed for every two links on only one side of the chain.)

5. Number of links per unit: 40.



**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFB
	Chain type	Chain type
76.2	BTC8-762-A-ALF	BTC8-762-A-LFB
152.4	BTC8-1524-A-ALF	BTC8-1524-A-LFB
228.6	BTC8-2286-A-ALF	BTC8-2286-A-LFB
304.8	BTC8-3048-A-ALF	BTC8-3048-A-LFB
381.0	BTC8-3810-A-ALF	BTC8-3810-A-LFB
457.2	BTC8-4572-A-ALF	BTC8-4572-A-LFB
533.4	BTC8-5334-A-ALF	BTC8-5334-A-LFB
609.6	BTC8-6096-A-ALF	BTC8-6096-A-LFB
685.8	BTC8-6858-A-ALF	BTC8-6858-A-LFB
762.0	BTC8-7620-A-ALF	BTC8-7620-A-LFB
838.2	BTC8-8382-A-ALF	BTC8-8382-A-LFB
914.4	BTC8-9144-A-ALF	BTC8-9144-A-LFB
990.6	BTC8-9906-A-ALF	BTC8-9906-A-LFB
1066.8	BTC8-10668-A-ALF	BTC8-10668-A-LFB
1143.0	BTC8-11430-A-ALF	BTC8-11430-A-LFB

- Note: 1. Standard nominal widths are in increments of 76.2 mm. Custom widths or width wider than 1,143 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about -0.1% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,143 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,143 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

**Model Numbering**

Chain type	Link shape	Chain pitch	Chain width	Tab guide attachment	Material mark	Number of links	Unit
<b>BT</b>	<b>C</b>	<b>8</b>	<b>- 7620</b> <small>Note: 2</small>	<b>- A</b>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	C: Closed type	8: 25.4 mm		G: Tab guide attachment			L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. 7620: 762 mm. Chain width is indicated up to the first decimal place. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain BTC8S

**BT8 Series**

Straight Running (Wide Type)

Sprockets



P.156

 Sprocket  
Pitch


P.458

Rails



P.323

 Peripheral  
Parts


P.369

 Return-Way  
Parts

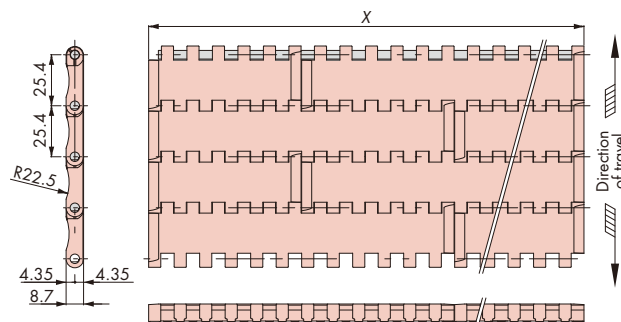
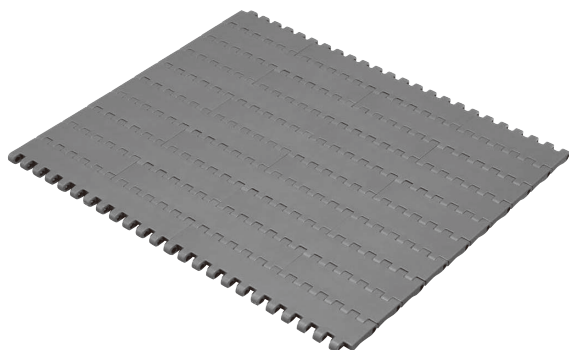

P.359

 Allowable  
Load Graph


P.471

## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
25.4	3	25

## Chain Material Table

Standard Chain	
Material	Standard
Material mark	B
Link color	Blue
Max. allowable load kN/m {kgf/m}	12.8{1305}
Chain mass kg/m <sup>2</sup>	8.5
Max. allowable speed m/min	With lube
	No lube
Operating temperature range °C	-20 to (60) 80
Pin material	Special engineering plastic
Snap attachment material	Polyacetal
Snap attachment color	Light blue
Available	△

Note: 1. "△": Made-to-order product (RFQ). Not available for other chain materials that are not listed in the chain material table on the left.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition.
4. Number of links per unit (chain width X): 120 (304.8 mm or less), 60 (381 to 1,676.4 mm), 40 (over 1,752.4 mm).

## Tsubaki Model Table

Chain width X	Standard chain B
	Chain type
76.2	BTC8S-762-B
152.4	BTC8S-1524-B
228.6	BTC8S-2286-B
304.8	BTC8S-3048-B
381.0	BTC8S-3810-B
457.2	BTC8S-4572-B
533.4	BTC8S-5334-B
609.6	BTC8S-6096-B
685.8	BTC8S-6858-B

Chain width X	Standard chain B
	Chain type
762.0	BTC8S-7620-B
838.2	BTC8S-8382-B
914.4	BTC8S-9144-B
990.6	BTC8S-9906-B
1066.8	BTC8S-10668-B
1143.0	BTC8S-11430-B

Note: 1. Standard nominal width are increments of 3 inches (76.2 mm). Custom widths or width wider than 1,143 mm. Contact a Tsubaki representative for more information.

2. The chain width X is the nominal width which expands and contracts due to temperature change. As a guideline, expansion and contraction specifications are 0.00012/°C based on 20°C.

## Model Numbering

Chain type	Link shape	Chain pitch	Chain type	Chain width	Material mark	Number of links	Unit
<b>BT</b>	<b>C</b>	<b>8</b>	<b>S</b>	<b>- 7620</b> <sup>Note: 2</sup>	<b>- B</b>	<b>+ 80</b> <sup>Note: 3</sup>	<b>L</b>
	C: Closed type	8: 25.4 mm					L: Link

Note: 1. Do not leave space between letters and symbols.

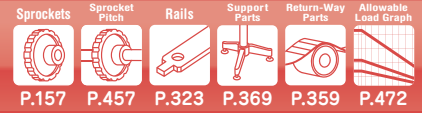
2. 7620: 762 mm. Chain width is indicated up to the first decimal place. Please check the chain width in the Tsubaki model table above.

3. Minimum quantity: 2, maximum quantity: 99999

# Plastic Modular Chain BTM8H

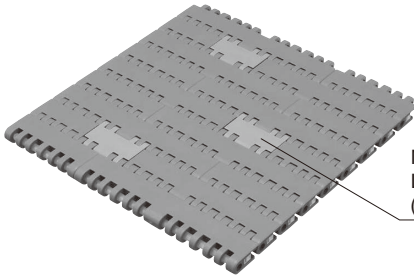
BT8 Series

Straight Running/Magnetic Type (Wide Type)

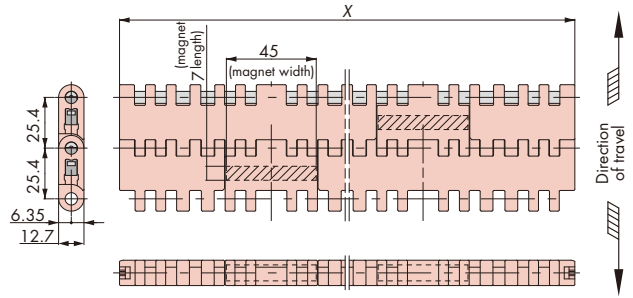


## Features

1. Magnet embedded links can be convey magnetic products vertically.
2. It is free from damage caused by interfering product and flight module.

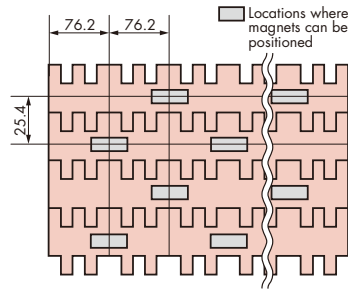


Magnet embedded part  
Low friction/Wear resistant (LFB) (Link color: brown)



### •Magnet Model Diagram

Locations where the magnets can be positioned can be selected as desired to match the application and conveyed products.



Chain pitch mm	Open area %	Backflex radius mm
25.4	3	25

## Chain Material Table

Material	Standard Chain							High-Function Chain						
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	MF
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow
Max. allowable load kN/m {kgf/m}	26.4 {2700}									18.5 {1890}		26.4 {2700}		19.5 {1998}
Chain mass kg/m <sup>2</sup>	12.6 Note: 4													
Max. allowable speed m/min	No lube	50												
Operating temperature range °C	0 to 80													
Pin material	Special engineering plastic													
Slide plug material	Polypropylene													
Slide plug color	Blue													
Available	△	△	△	△	△	△	△	△	△	△	△	△	△	△

- Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.
2. The maximum allowable load indicates the value specified when loads are evenly applied to the entire surface of the chain in a widthwise direction. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width.
3. Standard nominal width begins at 6 inches (152.4 mm) with increments of 76.2 mm. Magnet links are configured every 2 links or larger for a chain width of 152.4 mm.
4. The chain mass shown in the chain material table above indicate the mass without magnet. Add 0.02 kg per magnet.
5. The BTM8H is only for dry conditions. For inclined conveyance applications, the conveyor must be designed to accommodate usage conditions, such as the kind of objects to be conveyed and inclination angle. Please fill out the inquiry sheet on page 486 and contact a Tsubaki representative.
6. The color of the slide plug was changed from yellow to blue as of December 2013.
7. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table above is about -0.3% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table above which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.
8. Number of links per unit: 40.

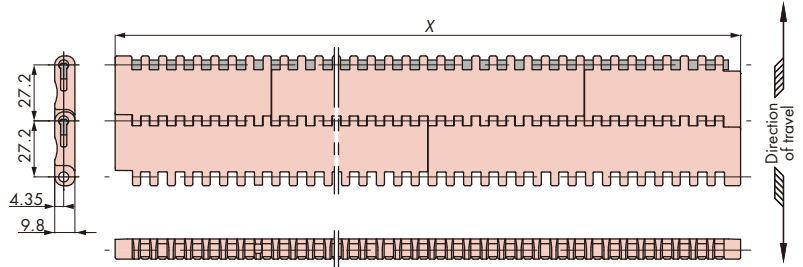
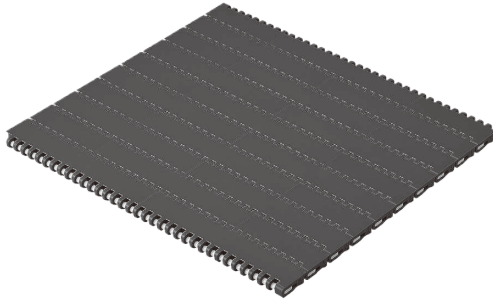
## Model Numbering

Chain type	Link shape	Chain pitch	Chain type	Chain width	Material mark	Special configuration	Number of links	Unit
<b>BT</b>	<b>M</b>	<b>8</b>	<b>H</b>	<b>- 3048</b> <sup>Note: 2</sup>	<b>- LFG</b> <sup>Note: 3</sup>	<b>- TK</b> <sup>Note: 4</sup>	<b>+ 80</b> <sup>Note: 5</sup>	<b>L</b>
M: Magnetic type      8: 25.4 mm								L: Link

- Note: 1. Do not leave space between letters and symbols.
2. 3048: 304.8 mm. Chain width is indicated up to the first decimal place.
3. Please check the chain material and material marks in the chain material table above.
4. Magnet-mounting positions should be designed according to operational conditions.
5. Minimum quantity: 2, maximum quantity: 99999.

### Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Suitable to convey containers, foods and rubber sheets.
3. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
27.2	1.2	30

### Chain Material Table

#### Standard Chain

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	15.4{1570}								
Chain mass kg/m <sup>2</sup>	7.6								
Max. allowable speed m/min	With lube			50					
	No lube			50					
Operating temperature range °C	-20 to (60) 80	0 to 80	-20 to (60) 80						
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic						
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	○ Note: 5	△	△	△	○ Note: 5	△	△	△

#### High-Function Chain

High-Function Chain							
Material	Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	HG	HTW	E	MWS	SE	MF	UVR
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray
Max. allowable load kN/m {kgf/m}	15.4{1570}	10.8{1100}	10.8{1099}	15.4{1570}		11.4{1162}	15.4{1570}
Chain mass kg/m <sup>2</sup>	7.6	5.2	7.6				
Max. allowable speed m/min	With lube			50			-
	No lube			50			50
Operating temperature range °C	-20 to (60) 80	5 to 105	-20 to (60) 80			-20 to 80	-20 to (60) 80
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic				
Plug material	Polyacetal	Polypropylene	Polyacetal				
Plug color	Yellow	Blue	Yellow				
Available	△	△	△	△	△	△	△

Note: 1. "O": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. Operating temperature of (the value in parentheses) is for wet conditions.  
 4. Number of links per unit (chain width): 200 (K09 to 18), 100 (K21 to 36), 80 (K39 to 48), 50 (over K51).  
 5. Chains with widths of 1,600.2 mm (K63) to 1,905.0 mm (K75) are "△": made-to-order products (RFQ).



**Tsubaki Model Table**

Chain width X	Standard B	Low friction/Wear resistant LFB
	Chain type	Chain type
228.6	WT2705-K09-B	WT2705-K09-LFB
304.8	WT2705-K12-B	WT2705-K12-LFB
381.0	WT2705-K15-B	WT2705-K15-LFB
457.2	WT2705-K18-B	WT2705-K18-LFB
533.4	WT2705-K21-B	WT2705-K21-LFB
609.6	WT2705-K24-B	WT2705-K24-LFB
685.8	WT2705-K27-B	WT2705-K27-LFB
762.0	WT2705-K30-B	WT2705-K30-LFB
838.2	WT2705-K33-B	WT2705-K33-LFB
914.4	WT2705-K36-B	WT2705-K36-LFB
990.6	WT2705-K39-B	WT2705-K39-LFB
1066.8	WT2705-K42-B	WT2705-K42-LFB
1143.0	WT2705-K45-B	WT2705-K45-LFB
1219.2	WT2705-K48-B	WT2705-K48-LFB
1295.4	WT2705-K51-B	WT2705-K51-LFB
1371.6	WT2705-K54-B	WT2705-K54-LFB
1447.8	WT2705-K57-B	WT2705-K57-LFB
1524.0	WT2705-K60-B	WT2705-K60-LFB
1600.2	WT2705-K63-B	WT2705-K63-LFB
1676.4	WT2705-K66-B	WT2705-K66-LFB
1752.6	WT2705-K69-B	WT2705-K69-LFB
1828.8	WT2705-K72-B	WT2705-K72-LFB
1905.0	WT2705-K75-B	WT2705-K75-LFB

- Note: 1. Standard nominal widths are in increments of 3 inches (76.2 mm). Chain width wider than 1,905 mm. Contact a Tsubaki representative for more information.  
 2. The minimum width begins at 50.8 mm with increments of 1/3 inches, by using cut modules.  
 3. The chain width X is the nominal width and the actual width is about -0.3% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 4. The chain with a width narrower than 1,905 mm must be used when ambient temperature is higher than 40°C. A chain width wider than 1,905 mm is available in case of replacing the pins with those made of polypropylene.

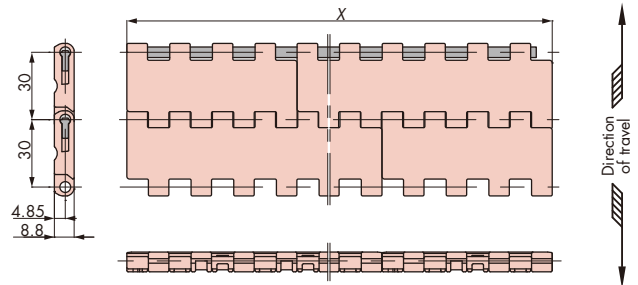
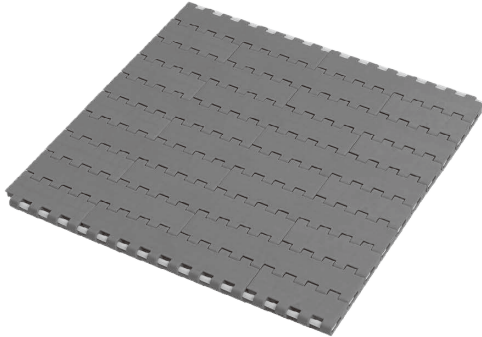
**Model Numbering**

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>27</b> 27: 27.2 mm	<b>05</b> 5: Closed type	<b>K24</b> <small>Note: 2</small>	<b>B</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b> L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Can be possible to drive coaxially with the WT1500 series due to a 30 mm pitch.
3. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
30	4	30

## Chain Material Table

### Standard Chain

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5{1070}								
Chain mass kg/m <sup>2</sup>	6.3								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	○ Note: 5	△	○ Note: 5	○ Note: 5	△

### High-Function Chain

High-Function Chain							
Material	Low friction Wear resistant	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	E	MWS	SE	MF	UVR	
Link color	Navy blue	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5{1070}	8.0{816}	10.5{1070}		7.8{796}	10.5{1070}	
Chain mass kg/m <sup>2</sup>	6.3						
Max. allowable speed m/min	With lube	50				-	50
	No lube					50	
Operating temperature range °C	-20 to (60) 80				-20 to 80	-20 to (60) 80	
Pin material	Special engineering plastic						
Plug material	Polyacetal						
Plug color	Yellow						
Available	△	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. Operating temperature of (the value in parentheses) is for wet conditions.  
 4. Number of links per unit (chain width): 200 (K03 to 18), 100 (K21 to 36), 70 (K39 to 48), 50 (K51 to 72), 40 (over K75)  
 5. Chains with widths of 1,600.2 mm (K63) to 1,828.8 mm (K72) are "△": made-to-order products (RFQ).

**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF
	Chain type	Chain type	Chain type
76.2	WT3005-K03-ALF	WT3005-K03-LFG	WT3005-K03-NLF
152.4	WT3005-K06-ALF	WT3005-K06-LFG	WT3005-K06-NLF
228.6	WT3005-K09-ALF	WT3005-K09-LFG	WT3005-K09-NLF
304.8	WT3005-K12-ALF	WT3005-K12-LFG	WT3005-K12-NLF
381.0	WT3005-K15-ALF	WT3005-K15-LFG	WT3005-K15-NLF
457.2	WT3005-K18-ALF	WT3005-K18-LFG	WT3005-K18-NLF
533.4	WT3005-K21-ALF	WT3005-K21-LFG	WT3005-K21-NLF
609.6	WT3005-K24-ALF	WT3005-K24-LFG	WT3005-K24-NLF
685.8	WT3005-K27-ALF	WT3005-K27-LFG	WT3005-K27-NLF
762.0	WT3005-K30-ALF	WT3005-K30-LFG	WT3005-K30-NLF
838.2	WT3005-K33-ALF	WT3005-K33-LFG	WT3005-K33-NLF
914.4	WT3005-K36-ALF	WT3005-K36-LFG	WT3005-K36-NLF
990.6	WT3005-K39-ALF	WT3005-K39-LFG	WT3005-K39-NLF
1066.8	WT3005-K42-ALF	WT3005-K42-LFG	WT3005-K42-NLF
1143.0	WT3005-K45-ALF	WT3005-K45-LFG	WT3005-K45-NLF
1219.2	WT3005-K48-ALF	WT3005-K48-LFG	WT3005-K48-NLF
1295.4	WT3005-K51-ALF	WT3005-K51-LFG	WT3005-K51-NLF
1371.6	WT3005-K54-ALF	WT3005-K54-LFG	WT3005-K54-NLF
1447.8	WT3005-K57-ALF	WT3005-K57-LFG	WT3005-K57-NLF
1524.0	WT3005-K60-ALF	WT3005-K60-LFG	WT3005-K60-NLF
1600.2	WT3005-K63-ALF	WT3005-K63-LFG	WT3005-K63-NLF
1676.4	WT3005-K66-ALF	WT3005-K66-LFG	WT3005-K66-NLF
1752.6	WT3005-K69-ALF	WT3005-K69-LFG	WT3005-K69-NLF
1828.8	WT3005-K72-ALF	WT3005-K72-LFG	WT3005-K72-NLF

Note: 1. Standard nominal widths are in increments of 3 inches (76.2 mm). Custom widths or width wider than 1,828.8 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table on the left is about -0.6% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table on the left which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.  
 3. The chain with a width narrower than 1,828.8 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,828.8 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

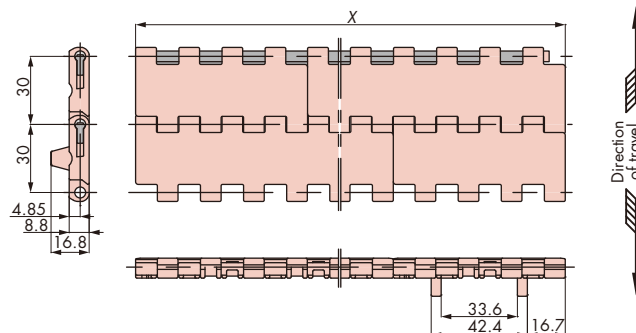
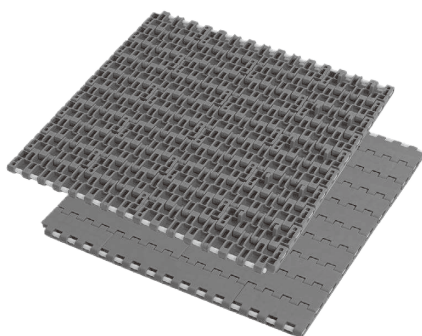
**Model Numbering**

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>30</b> 30: 30 mm	<b>05</b> 5: Closed type	<b>- K24</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b> L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

**Features**

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Can be possible to drive coaxially with the WT1500 series due to 30 mm pitch.
3. Suitable for layouts with side transfer between conveyors thanks to tab guide attachment.
4. Lightweight and easy-handling due to all plastic-made chain.

**Tab Guide Attachment**


Chain pitch mm	Open area %	Backflex radius mm
30	4	30

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5{1070}								
Chain mass kg/m <sup>2</sup>	6.3								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	○ Note: 5	△	○ Note: 5	○ Note: 5	△

**High-Function Chain**

High-Function Chain							
Material	Low friction Wear resistant	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	E	MWS	SE	MF	UVR	
Link color	Navy blue	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5{1070}	8.0{816}	10.5{1070}		7.8{796}	10.5{1070}	
Chain mass kg/m <sup>2</sup>	6.3						
Max. allowable speed m/min	With lube	50				-	50
	No lube					50	
Operating temperature range °C	-20 to (60) 80				-20 to 80	-20 to (60) 80	
Pin material	Special engineering plastic						
Plug material	Polyacetal						
Plug color	Yellow						
Available	△	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.

3. Operating temperature of (the value in parentheses) is for wet conditions.

4. Number of links per unit (chain width): 140 (K06 to 18), 60 (K21 to 48), 40 (over K51).

5. Chains with widths of 1,600.2 mm (K63) to 1,828.8 mm (K72) are "△": made-to-order products (RFQ).

### Tsubaki Model Table

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF
	Chain type	Chain type	Chain type
152.4	WT3005G-K06-ALF	WT3005G-K06-LFG	WT3005G-K06-NLF
228.6	WT3005G-K09-ALF	WT3005G-K09-LFG	WT3005G-K09-NLF
304.8	WT3005G-K12-ALF	WT3005G-K12-LFG	WT3005G-K12-NLF
381.0	WT3005G-K15-ALF	WT3005G-K15-LFG	WT3005G-K15-NLF
457.2	WT3005G-K18-ALF	WT3005G-K18-LFG	WT3005G-K18-NLF
533.4	WT3005G-K21-ALF	WT3005G-K21-LFG	WT3005G-K21-NLF
609.6	WT3005G-K24-ALF	WT3005G-K24-LFG	WT3005G-K24-NLF
685.8	WT3005G-K27-ALF	WT3005G-K27-LFG	WT3005G-K27-NLF
762.0	WT3005G-K30-ALF	WT3005G-K30-LFG	WT3005G-K30-NLF
838.2	WT3005G-K33-ALF	WT3005G-K33-LFG	WT3005G-K33-NLF
914.4	WT3005G-K36-ALF	WT3005G-K36-LFG	WT3005G-K36-NLF
990.6	WT3005G-K39-ALF	WT3005G-K39-LFG	WT3005G-K39-NLF
1066.8	WT3005G-K42-ALF	WT3005G-K42-LFG	WT3005G-K42-NLF
1143.0	WT3005G-K45-ALF	WT3005G-K45-LFG	WT3005G-K45-NLF
1219.2	WT3005G-K48-ALF	WT3005G-K48-LFG	WT3005G-K48-NLF
1295.4	WT3005G-K51-ALF	WT3005G-K51-LFG	WT3005G-K51-NLF
1371.6	WT3005G-K54-ALF	WT3005G-K54-LFG	WT3005G-K54-NLF
1447.8	WT3005G-K57-ALF	WT3005G-K57-LFG	WT3005G-K57-NLF
1524.0	WT3005G-K60-ALF	WT3005G-K60-LFG	WT3005G-K60-NLF
1600.2	WT3005G-K63-ALF	WT3005G-K63-LFG	WT3005G-K63-NLF
1676.4	WT3005G-K66-ALF	WT3005G-K66-LFG	WT3005G-K66-NLF
1752.6	WT3005G-K69-ALF	WT3005G-K69-LFG	WT3005G-K69-NLF
1828.8	WT3005G-K72-ALF	WT3005G-K72-LFG	WT3005G-K72-NLF

- Note: 1. Standard nominal widths are in increments of 3 inches (76.2 mm). Custom widths or width wider than 1,828.8 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table on the left is about -0.6% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table on the left which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.  
 3. The chain with a width narrower than 1,828.8 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,828.8 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

### Model Numbering

Chain type	Chain pitch	Link shape	Tab guide attachment	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>30</b>	<b>05</b>	<b>G</b>	<b>- K24</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	30: 30 mm	5: Closed type	G: Tab guide attachment				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

Closed

Open

Net

Wide Type

Raised-Rib

Rubber

Digest

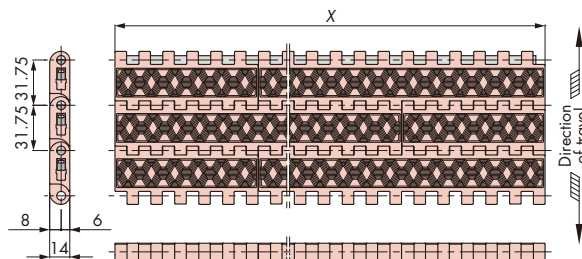
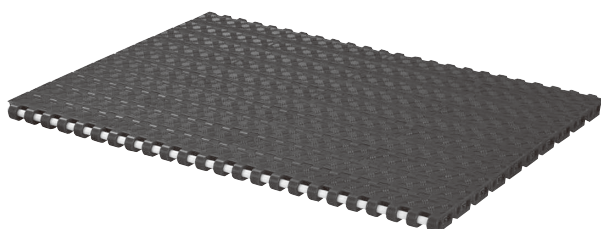
# Plastic Modular Chain WT3109-W

**WT3100 Series**  
Straight Running (Wide Type)



## Features

- Possible to make low-height conveyor, height 220 mm at the lowest, by using chain with a smaller pitch than BTH16 of which the chain pitch is 50.8 mm.
- Special uneven surface can prevent products from slipping.
- Suitable for human conveyor due to its non-slippery surface.
- It is possible to extend the wear life of the lower surface of the chain link by making the thickness of the lower surface 2 mm thicker than that of the upper surface and thus increasing the wear margin.
- A slide plug type pin stopper is adopted to allow the easy connection and disconnection of the chain with just a screwdriver.



Chain pitch mm	Open area %	Backflex radius mm
31.75	0.1	35

## Chain Material Table

Material	Standard Chain		High-Function Chain	
	Standard	Low friction Wear resistant	Low friction Wear resistant	Electroconductive
Material mark	B	LFB	HG	E
Link color	Blue	Brown	Navy blue	Black
Max. allowable load kN/m {kgf/m}	25{2540}			17.5{1778}
Chain mass kg/m <sup>2</sup>	13.8			
Max. allowable speed m/min	With lube	15		
	No lube			
Operating temperature range °C	-20 to (60) 80			
Pin material	Special engineering plastic			
Slide plug material	Polyacetal			
Slide plug color	Red			
Available	△	△	△	△

- Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table on the left.
- Fill out the inquiry sheet on page 488 and contact a Tsubaki representative.
  - Values for max. allowable load assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table left are for chain that is one meter (1 m) in width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
  - Operating temperature of (60) is for wet conditions.
  - Number of links per unit (chain width): 120 (W300 to 400), 60 (W500 to 900), 40 (W1000 to 1200), 30 (over W1300).

## Tsubaki Model Table

Chain width X	Standard B Chain type	Chain width X	Standard B Chain type	Chain width X	Standard B Chain type	Chain width X	Standard B Chain type
300	WT3109-W300-B	600	WT3109-W600-B	900	WT3109-W900-B	1200	WT3109-W1200-B
400	WT3109-W400-B	700	WT3109-W700-B	1000	WT3109-W1000-B		
500	WT3109-W500-B	800	WT3109-W800-B	1100	WT3109-W1100-B		

- Note: 1. Standard nominal widths are in increments of 100 mm. Chain width wider than 1,200 mm. Contact a Tsubaki representative for more information.
2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table above is about -0.3% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table above which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.
3. Safety interlock should be necessary for human-conveying equipment.
4. In case of using chains for human conveyor, Product Liability Act should be considered. In addition, it is necessary to acquire detailed information for the appropriate usage and to exchange safety confirmation sheet.

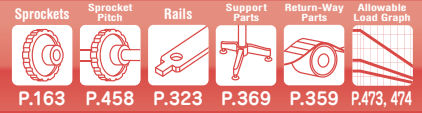
## Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>31</b> 31: 31.75 mm	<b>09</b> 9: Slip-preventive surface	<b>- W1200</b> <small>Note: 2</small>	<b>- B</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b> L: Link

- Note: 1. Do not leave space between letters and symbols.
2. Please check the chain width in the Tsubaki model table above.
3. Please check the chain material and material marks in the chain material table above.
4. Minimum quantity: 2, maximum quantity: 99999.

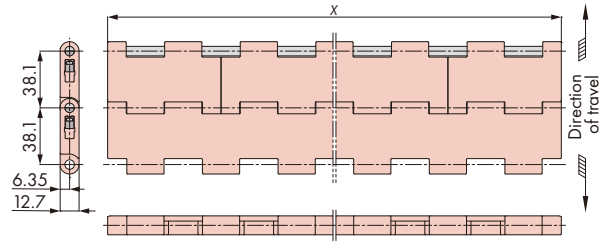
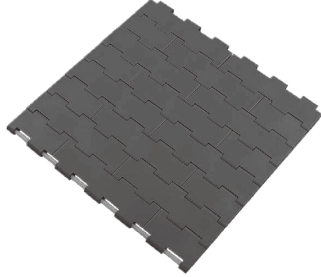
# Plastic Modular Chain WT3835-K

**WT3830 Series**  
Straight Running (Wide Type)



## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Lightweight and easy-handling due to all plastic-made chain.
3. A slide plug type pin stopper is adopted to allow the easy connection and disconnection of the chain with just a screwdriver.



Chain pitch mm	Open area %	Backflex radius mm
38.1	2	40

## Chain Material Table

Material	Standard Chain							High-Function Chain											
	Standard			Low friction/Wear resistant		Advanced low friction/Wear resistant	Low friction		Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant				
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	HTW	E	MWS	SE	MF	UVR			
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	White	Black	Cream	Gray	Yellow	Light gray			
Max. allowable load kN/m {kgf/m}	12.8{1300}										6.5 {663}	9.0 {910}	12.8{1300}		9.5 {962}	12.8 {1300}			
Chain mass kg/m <sup>2</sup>	9.5										7.0		9.5						
Max. allowable speed m/min	With lube		50													-		50	
	No lube															50		50	
Operating temperature range °C	0 to (60)80										5 to 105		0 to (60)80			0 to 80			
Pin material	Special engineering plastic										Polypropylene		Special engineering plastic						
Slide plug material	Polypropylene																		
Slide plug color	Blue																		
Available	△	△	△	△	△	○	△	○	△	△	△	△	△	△	△	△			

- Note: 1. "O": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. Operating temperature of (the value in parentheses) is for wet conditions.  
 4. The color of the slide plug was changed from yellow to blue as of December 2013.  
 5. Number of links per unit (chain width): 80 (K06 to 18), 50 (K21 to 36), 40 (K39 to 48), 30 (over K51).

## Tsubaki Model Table

Chain width X	Low friction/Wear resistant LFB	Low friction NLF	Chain width X	Low friction/Wear resistant LFB	Low friction NLF	Chain width X	Low friction/Wear resistant LFB	Low friction NLF
	Chain type	Chain type		Chain type	Chain type		Chain type	Chain type
152.4	WT3835-K06-LFB	WT3835-K06-NLF	685.8	WT3835-K27-LFB	WT3835-K27-NLF	1219.2	WT3835-K48-LFB	WT3835-K48-NLF
228.6	WT3835-K09-LFB	WT3835-K09-NLF	762.0	WT3835-K30-LFB	WT3835-K30-NLF	1295.4	WT3835-K51-LFB	WT3835-K51-NLF
304.8	WT3835-K12-LFB	WT3835-K12-NLF	838.2	WT3835-K33-LFB	WT3835-K33-NLF	1371.6	WT3835-K54-LFB	WT3835-K54-NLF
381.0	WT3835-K15-LFB	WT3835-K15-NLF	914.4	WT3835-K36-LFB	WT3835-K36-NLF	1447.8	WT3835-K57-LFB	WT3835-K57-NLF
457.2	WT3835-K18-LFB	WT3835-K18-NLF	990.6	WT3835-K39-LFB	WT3835-K39-NLF	1524.0	WT3835-K60-LFB	WT3835-K60-NLF
533.4	WT3835-K21-LFB	WT3835-K21-NLF	1066.8	WT3835-K42-LFB	WT3835-K42-NLF			
609.6	WT3835-K24-LFB	WT3835-K24-NLF	1143.0	WT3835-K45-LFB	WT3835-K45-NLF			

- Note: 1. Standard nominal width are increments of 3 inches (76.2 mm). Custom widths or width wider than 1,524 mm.  
 2. The chain width X is the nominal width and the actual width is about -0.1% (at the ambient temperature of 20°C) for the standard chain listed in chain material table above. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table above is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.

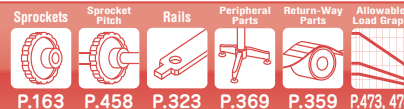
## Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>38</b>	<b>35</b>	<b>- K24</b> <small>Note: 2</small>	<b>- LFB</b> <small>Note: 3</small>	<b>+</b> <b>80</b> <small>Note: 4</small>	<b>L</b>
	38: 38.1 mm	5: Closed type				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

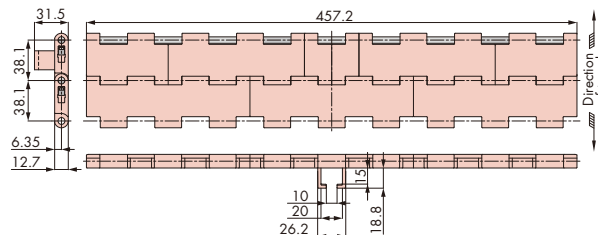
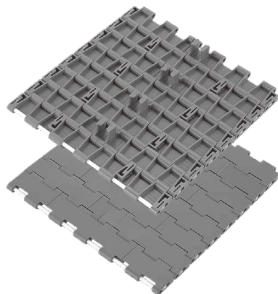
# Plastic Modular Chain WT3835-T

**WT3830 Series**  
Straight Running (Wide Type)



## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. WT3835 with float-preventive tabs, which prevents chains from floating, is suitable for vacuum conveyors.
3. Lightweight and easy-handling due to all plastic-made chain.
4. A slide plug type pin stopper is adopted to allow the easy connection and disconnection of the chain with just a screwdriver.



With float-preventive tab

\*The above is a reference diagram. BTC6 chain with float-preventive tabs or holes for vacuum operation are also available. Contact a Tsubaki representative for more information.

Chain pitch mm	Open area %	Backflex radius mm
38.1	2	40

## Chain Material Table

### Standard Chain

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m (kgf/m)	12.8{1300}								
Chain mass kg/m <sup>2</sup>	9.5								
Max. allowable speed m/min	50								
Operating temperature range °C	0 to (60)80								
Pin material	Special engineering plastic								
Slide plug material	Polypropylene								
Slide plug color	Blue								
Available	△	△	△	△	△	△	△	△	△

### High-Function Chain

High-Function Chain								
Material	Low friction/Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m (kgf/m)	12.8{1300}	6.5{663}	9.0{910}	12.8{1300}		9.5{962}	12.8{1300}	
Chain mass kg/m <sup>2</sup>	9.5	7.0	9.5					
Max. allowable speed m/min	50						50	50
Operating temperature range °C	0 to (60) 80	5 to 105	0 to (60) 80			0 to 80	0 to (60) 80	
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic					
Slide plug material	Polypropylene							
Slide plug color	Blue							
Available	△	△	△	△	△	△	△	

- Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. Operating temperature of (the value in parentheses) is for wet condition.  
 4. The chain mass shown in the chain specification above is the mass without float-preventive tabs. If there are float-preventive tabs, add 0.2 kg every 2 links.  
 5. The color of the slide plug was changed from yellow to blue as of December 2013.  
 6. The chain width X is the nominal width and the actual width is about -0.1% (at the ambient temperature of 20°C) for the standard chain listed in chain material table above. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table above is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 7. Number of links per unit (chain width): 20 (over K18).

## Model Numbering

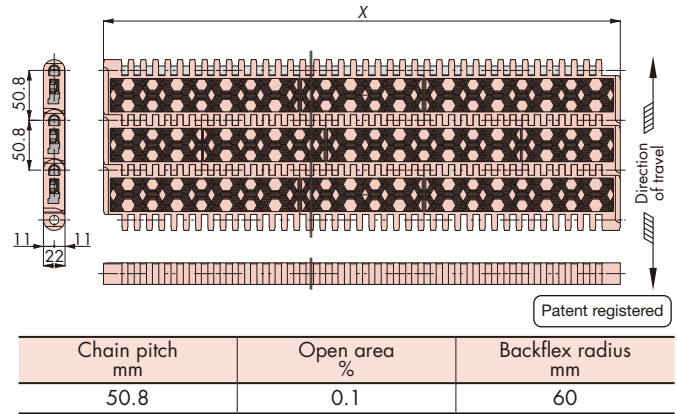
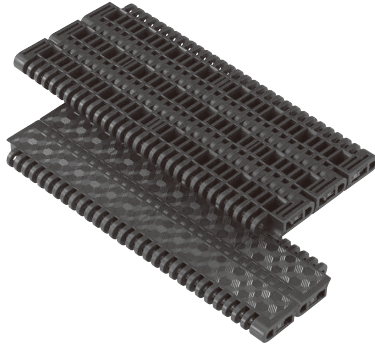
Chain type	Chain pitch	Link shape	Tab	Chain width	Material mark	Special configuration	Number of links	Unit
<b>WT</b>	<b>38</b>	<b>35</b>	<b>T</b>	<b>- K18</b>	<b>- LFB</b>	<b>- TK</b>	<b>+ 80</b>	<b>L</b>
	38: 38.1 mm	5: Closed type		K18: 457.2 mm	Note: 2		Note: 3	L: Link

- Note: 1. Do not leave space between letters and symbols. 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.



**Features**

1. Plastic modular chains with the highest allowable load of 62kN/m and high rigidity.
2. Suitable for mass handling and for conveying heavy product such as vehicles and carts.
3. Special uneven surface can prevent products from slipping.
4. Suitable for human conveyor due to its non-slipper surface.
5. A slide plug type pin stopper is adopted to allow the easy connection and disconnection of the chain with just a screwdriver.



**Chain Material Table**

Material	Standard Chain		High-Function Chain	
	Standard	Low friction/Wear resistant	Low friction/Wear resistant	Electroconductive
Material mark	B	LFB	HG	E
Link color	Blue	Brown	Navy blue	Black
Max. allowable load kN/m {kgf/m}	62{6330}			43.4{4431}
Chain mass kg/m <sup>2</sup>	21.7			
Max. allowable speed m/min	With lube	15		
	No lube			
Operating temperature range °C	-20 to (60) 80			
Pin material	Special engineering plastic			
Slide plug material	Polyacetal			
Slide plug color	Red			
Available	△	△	△	△

- Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table on the left.
2. Fill out the inquiry sheet on page 489 and contact a Tsubaki representative.
  3. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the chain material table on the left, is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
  4. Operating temperature of (the value in parentheses) is for wet condition.

**Tsubaki Model Table**

Chain width X	Standard B Chain type	Chain width X	Standard B Chain type
400	BTH16-4000-B	900	BTH16-9000-B
500	BTH16-5000-B	1000	BTH16-10000-B
600	BTH16-6000-B	1100	BTH16-11000-B
700	BTH16-7000-B	1200	BTH16-12000-B
800	BTH16-8000-B	1300	BTH16-13000-B

- Note: 1. Safety interlock should be necessary for human-conveying equipment.
2. In case of using chains for human conveyor the Product Liability Act should be considered. In addition, it is necessary to acquire detailed information offer the appropriate usage and to provide the safety confirmation sheet.
  3. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table above is about -0.3% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table above which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.

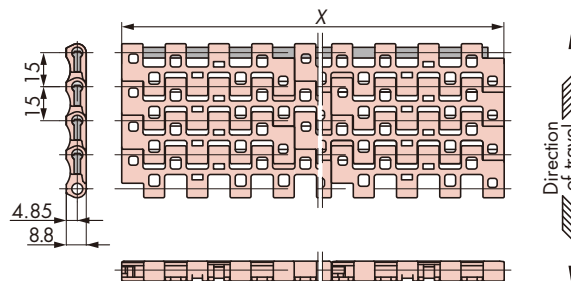
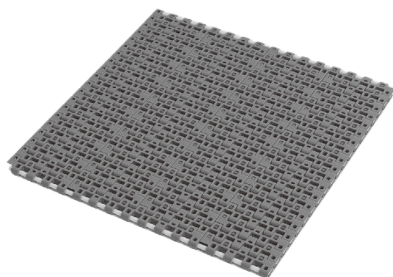
**Model Numbering**

Chain type	Link shape	Chain pitch	Chain width	Material mark	Number of links	Unit
<b>BT</b>	<b>H</b>	<b>16</b>	<b>- 13000</b>	<b>- B</b>	<b>+ 80</b>	<b>L</b>
						L: Link
H: High-strength type		16: 50.8 mm				

- Note: 1. Do not leave space between letters and symbols.
2. 13000: 1,300 mm. Chain width is indicated up to the first decimal place. Please check the chain width in the Tsubaki model table above.
  3. Please check the chain material and material marks in the chain material table above.
  4. Minimum quantity: 2, maximum quantity: 99999.

**Features**

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 15 mm pitch. Suitable for conveying small and light weight containers.
3. The perforated surface is effective to drain excess water and lubricant.
4. In combination with TOD chains, it is unnecessary to use dead plates and is possible to transfer products between conveyors with less with fewer remaining products.
5. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
15	26	15

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5{1070}								
Chain mass kg/m <sup>2</sup>	6.7								
Max. allowable speed m/min	With lube	50(50)							
	No lube	50(30)							
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	○ Note: 6	△	○ Note: 6	○ Note: 6	△

**High-Function Chain**

High-Function Chain							
Material	Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	HG	HTW	E	MWS	SE	MF	UVR
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray
Max. allowable load kN/m {kgf/m}	10.5{1070}	4.25{434}	8.0{816}	10.5{1070}		7.8{796}	10.5{1070}
Chain mass kg/m <sup>2</sup>	6.7	4.5	6.7				
Max. allowable speed m/min	With lube	50(50)	50	50(50)		—	50(50)
	No lube	50(30)	30	50(30)			
Operating temperature range °C	-20 to (60)80	5 to 105	-20 to (60)80			-20 to 80	-20 to (60)80
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic				
Plug material	Polyacetal	Polypropylene	Polyacetal				
Plug color	Yellow	Blue	Yellow				
Available	△	△	△	△	△	△	△

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ).

Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. The allowable speed (the value in parentheses) of each chain are for products that use nose bars made of ultrahigh molecular weight polyethylene. For products with nose bars made of SJCNO (special polyamide), use them without lubrication.
4. Operating temperature of (the value in parentheses) is for wet condition.
5. Number of links per unit (chain width): 500 (K03 to 06), 400 (K09 to 18), 200 (K21 to 30), 160 (K33 to 39), 140 (K42 to 48), 120 (K51 to 60), 100 (over K63).
6. Chains with widths of 1,600.2 mm (K63) to 1,828.8 mm (K72) are "△": made-to-order products (RFQ).

**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF
	Chain type	Chain type	Chain type
76.2	WT1506-K03-ALF	WT1506-K03-LFG	WT1506-K03-NLF
152.4	WT1506-K06-ALF	WT1506-K06-LFG	WT1506-K06-NLF
228.6	WT1506-K09-ALF	WT1506-K09-LFG	WT1506-K09-NLF
304.8	WT1506-K12-ALF	WT1506-K12-LFG	WT1506-K12-NLF
381.0	WT1506-K15-ALF	WT1506-K15-LFG	WT1506-K15-NLF
457.2	WT1506-K18-ALF	WT1506-K18-LFG	WT1506-K18-NLF
533.4	WT1506-K21-ALF	WT1506-K21-LFG	WT1506-K21-NLF
609.6	WT1506-K24-ALF	WT1506-K24-LFG	WT1506-K24-NLF
685.8	WT1506-K27-ALF	WT1506-K27-LFG	WT1506-K27-NLF
762.0	WT1506-K30-ALF	WT1506-K30-LFG	WT1506-K30-NLF
838.2	WT1506-K33-ALF	WT1506-K33-LFG	WT1506-K33-NLF
914.4	WT1506-K36-ALF	WT1506-K36-LFG	WT1506-K36-NLF
990.6	WT1506-K39-ALF	WT1506-K39-LFG	WT1506-K39-NLF
1066.8	WT1506-K42-ALF	WT1506-K42-LFG	WT1506-K42-NLF
1143.0	WT1506-K45-ALF	WT1506-K45-LFG	WT1506-K45-NLF
1219.2	WT1506-K48-ALF	WT1506-K48-LFG	WT1506-K48-NLF
1295.4	WT1506-K51-ALF	WT1506-K51-LFG	WT1506-K51-NLF
1371.6	WT1506-K54-ALF	WT1506-K54-LFG	WT1506-K54-NLF
1447.8	WT1506-K57-ALF	WT1506-K57-LFG	WT1506-K57-NLF
1524.0	WT1506-K60-ALF	WT1506-K60-LFG	WT1506-K60-NLF
1600.2	WT1506-K63-ALF	WT1506-K63-LFG	WT1506-K63-NLF
1676.4	WT1506-K66-ALF	WT1506-K66-LFG	WT1506-K66-NLF
1752.6	WT1506-K69-ALF	WT1506-K69-LFG	WT1506-K69-NLF
1828.8	WT1506-K72-ALF	WT1506-K72-LFG	WT1506-K72-NLF

Note: 1. Standard nominal widths are in increments of 3 inches (76.2 mm). Custom widths or width wider than 1,828.8 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about -0.6% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,828.8 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,828.8 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

**Model Numbering**

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>15</b> 15:15 mm	<b>06</b> 6: Open type	<b>- K24</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>+</b> <b>80</b> <small>Note: 4</small>	<b>L</b> L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

Closed

Open

Net

Wide Type

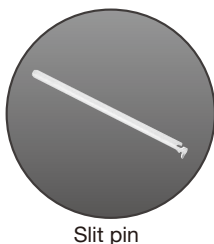
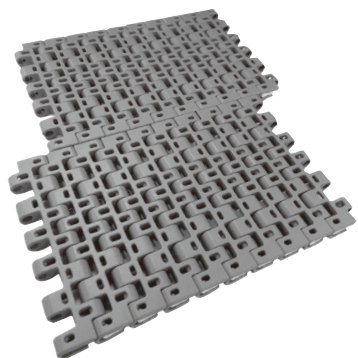
Raised-Rib

Rubber

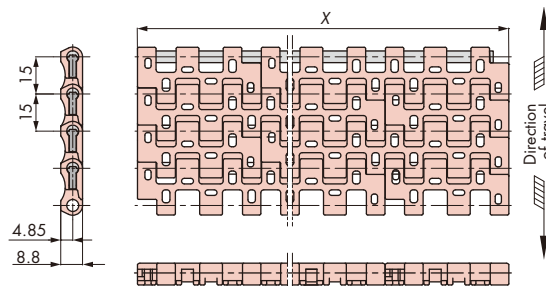
Digest

**Features**

1. Can be a chosen width with 50 mm increments.
2. Suitable not only for the conveyance of bottles in the beverage industry but also for machined parts.
3. Adopts slit pin system, all-in-one pin with a plug, to the chain width of 50 mm and 100 mm.
4. The perforated surface is effective to drain excess water and lubricant.
5. Possible to replace the belt conveyor due to a standard nominal width of 50 mm and 100 mm.
6. In combination with a TOD chain, it is unnecessary to use a dead plate and is possible to transfer products between conveyors with less with fewer remaining products.



Slit pin



Chain pitch mm	Open area %	Backflex radius mm
15	25	15

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5{1070}								
Chain mass kg/m <sup>2</sup>	6.7								
Max. allowable speed m/min	With lube	50(50)							
	No lube	50(30)							
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	○	△	○	△	△

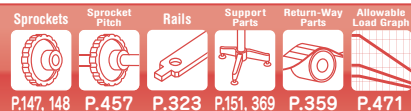
**High-Function Chain**

High-Function Chain								
Material	Low friction/Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5{1070}	4.25{434}	8.0{816}	10.5{1070}		7.8{796}	10.5{1070}	
Chain mass kg/m <sup>2</sup>	6.7	4.5	6.7					
Max. allowable speed m/min	With lube	50(50)					—	50(50)
	No lube	50(30)	30	50(30)				
Operating temperature range °C	-20 to (60)80	5 to 105	-20 to (60)80			-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic					
Plug material	Polyacetal	Polypropylene	Polyacetal					
Plug color	Yellow	Blue	Yellow					
Available	△	△ Note: 5	△	△	△	△	△ Note: 5	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ).

Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. The allowable speed (the value in parentheses) of each chain are for products that use nose bars made of ultrahigh molecular weight polyethylene. For products with nose bars made of SJ-CNO (special polyamide), use them without lubrication.
4. Operating temperature of (the value in parentheses) is for wet condition.
5. HTW and UVR series are not supported for slit-pin type products.
6. Number of links per unit (chain width): 500 (W50 to 150), 400 (W200 to 450), 200 (W500 to 750), 160 (W800 to 950), 140 (W1000 to 1200), 120 (W1250 to 1500), 100 (over W1550).



## Tsubaki Model Table

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG
	Chain type	Chain type
50	WT1516-W50-ALF	WT1516-W50-LFG
	WT1516-W50-ALF-SP	WT1516-W50-LFG-SP
100	WT1516-W100-ALF	WT1516-W100-LFG
	WT1516-W100-ALF-SP	WT1516-W100-LFG-SP
150	WT1516-W150-ALF	WT1516-W150-LFG
200	WT1516-W200-ALF	WT1516-W200-LFG
250	WT1516-W250-ALF	WT1516-W250-LFG
300	WT1516-W300-ALF	WT1516-W300-LFG
350	WT1516-W350-ALF	WT1516-W350-LFG
400	WT1516-W400-ALF	WT1516-W400-LFG
450	WT1516-W450-ALF	WT1516-W450-LFG
500	WT1516-W500-ALF	WT1516-W500-LFG
550	WT1516-W550-ALF	WT1516-W550-LFG
600	WT1516-W600-ALF	WT1516-W600-LFG
650	WT1516-W650-ALF	WT1516-W650-LFG
700	WT1516-W700-ALF	WT1516-W700-LFG
750	WT1516-W750-ALF	WT1516-W750-LFG
800	WT1516-W800-ALF	WT1516-W800-LFG
850	WT1516-W850-ALF	WT1516-W850-LFG
900	WT1516-W900-ALF	WT1516-W900-LFG
950	WT1516-W950-ALF	WT1516-W950-LFG
1000	WT1516-W1000-ALF	WT1516-W1000-LFG

Note: 1. Standard nominal widths are in increments of 50 mm. Custom widths or width wider than 1,000 mm. Contact a Tsubaki representative for more information.

2. The chain width X is the nominal width and the actual width is about -0.4% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.

3. The chain with a width narrower than 1,000 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,000 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

## Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Pin retention system	Number of links	Unit
<b>WT</b>	<b>15</b> 15: 15 mm	<b>16</b> 6: Open type	<b>- W100</b> <sup>Note: 2</sup>	<b>- ALF</b> <sup>Note: 3</sup>	<b>- SP</b> Blank: Pin and plug SP: Slit pin (all-in-one pin with a plug)	<b>+ 80</b> <sup>Note: 4</sup>	<b>L</b> L: Link

Note: 1. Do not leave space between letters and symbols.

2. Please check the chain width in the Tsubaki model table above.

3. Please check the chain material and material marks in the chain material table on the left.

4. Minimum quantity: 2, maximum quantity: 99999.

Closed

Open

Net

Wide Type

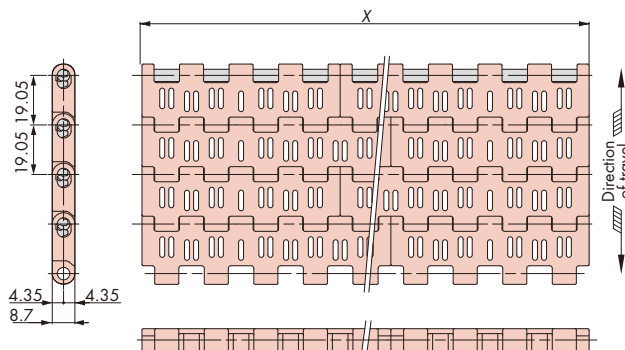
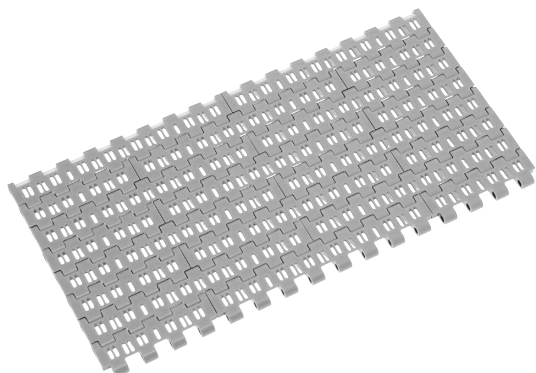
Raised-Rib

Rubber

Digest

**Features**

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 19.05 mm pitch. Suitable for conveying small and light weight containers.
3. The perforated surface is effective to drain excess water and lubricant.
4. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
19.05	17	15

**Chain Material Table**
**Standard Chain**

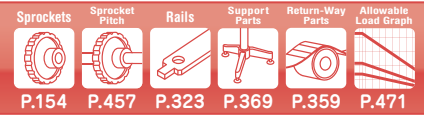
Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	12.8{1300}								
Chain mass kg/m <sup>2</sup>	6.56								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Snap attachment material	Polyacetal								
Snap attachment color	White								
Available	△	△	△	△	△	○	○	△	△

**High-Function Chain**

High-Function Chain								
Material	Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	12.8{1300}	5.1{520}	9.0{910}	12.8{1300}		9.47{962}	12.8{1300}	
Chain mass kg/m <sup>2</sup>	6.56	4.40	6.56					
Max. allowable speed m/min	With lube	50					—	50
	No lube						50	
Operating temperature range °C	-20 to (60)80	5 to 105	-20 to (60)80			-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic					
Snap attachment material	Polyacetal	Special engineering plastic	Polyacetal					
Snap attachment color	White	Beige	White					
Available	△	△	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition. This product can be used in wet conditions at 60 to 80°C if the pin material is changed to stainless steel. In this case, the initial length of the chain increases by about 1%, and the chain's approximate mass is the same as that of the KV250series of BTC6.
4. Number of links per unit: 54.



**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFB
	Chain type	Chain type
76.2	BTO6-762-ALF	BTO6-762-LFB
152.4	BTO6-1524-ALF	BTO6-1524-LFB
228.6	BTO6-2286-ALF	BTO6-2286-LFB
304.8	BTO6-3048-ALF	BTO6-3048-LFB
381.0	BTO6-3810-ALF	BTO6-3810-LFB
457.2	BTO6-4572-ALF	BTO6-4572-LFB
533.4	BTO6-5334-ALF	BTO6-5334-LFB
609.6	BTO6-6096-ALF	BTO6-6096-LFB
685.8	BTO6-6858-ALF	BTO6-6858-LFB
762.0	BTO6-7620-ALF	BTO6-7620-LFB
838.2	BTO6-8382-ALF	BTO6-8382-LFB
914.4	BTO6-9144-ALF	BTO6-9144-LFB
990.6	BTO6-9906-ALF	BTO6-9906-LFB
1066.8	BTO6-10668-ALF	BTO6-10668-LFB
1143.0	BTO6-11430-ALF	BTO6-11430-LFB

- Note: 1. Standard nominal widths are in increments of 76.2 mm. Widths wider than 1,143 mm are available. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about +0.1% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,143 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,143 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

**Model Numbering**

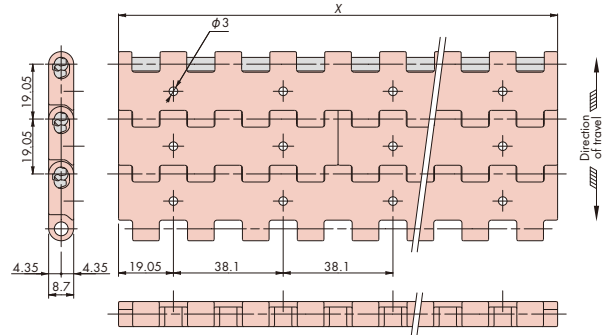
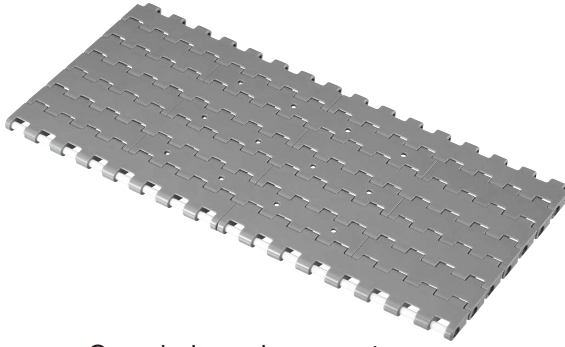
Chain type	Link shape	Chain pitch	Chain width	Material mark	Number of links	Unit
<b>BT</b>	<b>O</b>	<b>6</b>	<b>- 7620</b> <small>Note: 2</small>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	O: Open type	6: 19.05 mm				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. 7620: 762 mm. Chain width is indicated up to the first decimal place. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

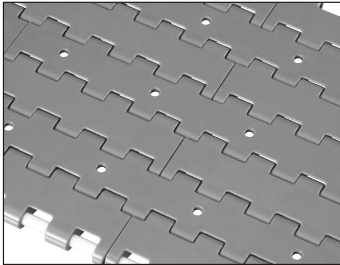
**Features**

1. Perforated type of BTC6. Possible to use for vacuum conveyors. Flights can be fixed using these holes.
2. Easy disconnecting/connecting and reduction of maintenance time due to adopting snap attachments.

**Drawing (Reference)**



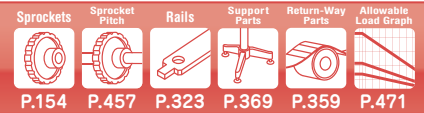
Open holes enlargement



Note: Contact a Tsubaki representative if a holed position other than shown in this drawing is required.

Chain pitch mm	Open area %	Backflex radius mm
19.05	When there is no hole 3%	15





**Chain Material Table**

**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	12.8{1300}								
Chain mass kg/m <sup>2</sup>	6.56								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Snap attachment material	Polyacetal								
Snap attachment color	White								
Available	△	△	△	△	△	○	○	△	△

**High-Function Chain**

High-Function Chain										
Material	Low friction Wear resistant	High temperature	Freezer	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	HG	HTW	LTW	E	DIA	DIY	MWS	SE	MF	UVR
Link color	Navy blue	White	White	Black	Cream	Green	Cream	Gray	Yellow	Light gray
Max. allowable load kN/m {kgf/m}	12.8 {1300}	5.1 {520}	4.22 {430}	9.0 {910}	9.8 {1000}		12.8{1300}		9.5 {962}	12.8 {1300}
Chain mass kg/m <sup>2</sup>	6.56	4.40	4.50	6.56	5.25	8.55	6.56			
Max. allowable speed m/min	50		15	50	—	50	50		—	50
	No lube				50		50			
Operating temperature range °C	-20 to (60)80	5 to 105	-70 to 60	-20 to (60)80					-20 to 80	-20 to (60)80
Pin material	Special engineering plastic	Polypropylene	Polyethylene	Special engineering plastic						
Snap attachment material	Polyacetal	Special engineering plastic	Polyethylene	Polyacetal						
Snap attachment color	White	Beige	Red	White						
Available	△	△	△	△	△	△	△	△	△	△

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ).

- Not available for other chain materials that are not listed in the chain material table above.
- The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
- Operating temperature of (the value in parentheses) is for wet condition. This product can be used in wet conditions at 60 to 80°C if the pin material is changed to stainless steel. In this case, the initial length of the chain increases by about 1%, and the chain's approximate mass is the same as that of the KV250 series of BTC6.
- The chain with a width narrower than 1,143 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,143 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.
- Contact a Tsubaki representative for information about the diameter of holes other than φ3 (up to φ6) and positions other than those shown in the drawing.
- The chain width X is the nominal width and the actual width is about +0.1% (at the ambient temperature of 20°C) for the standard chain listed in chain material table above. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table above is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.
- Number of links per unit: 54.

**Model Numbering**

Chain type	Link shape	Chain pitch	Chain width	Material mark	Special configuration	Number of links	Unit
<b>BT</b>	<b>CP</b>	<b>6</b>	<b>- 7620</b> <small>Note: 2</small>	<b>- LFB</b> <small>Note: 3</small>	<b>- TK</b> <small>Note: 4</small>	<b>+ 80</b> <small>Note: 5</small>	<b>L</b>
	CP: Hole	6: 19.05 mm					L: Link

- Do not leave space between letters and symbols.
- 7620: 762 mm. Chain width is indicated up to the first decimal place. Contact a Tsubaki representative for chain width.
- Please check the chain material and material marks in the chain material table above.
- You will need to include a drawing in order to specify hole positioning.
- Minimum quantity: 2, maximum quantity: 99999.

Closed

Open

Net

Wide Type

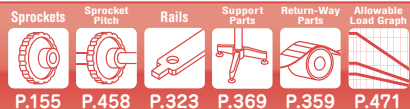
Raised-Rib

Rubber

Digest

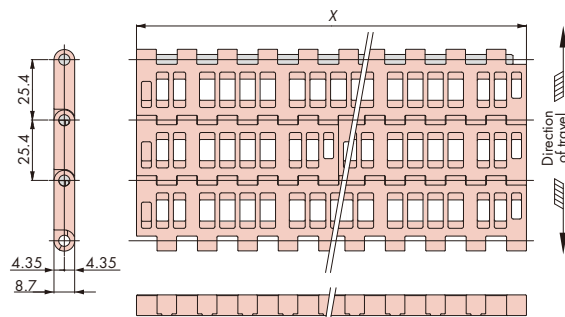
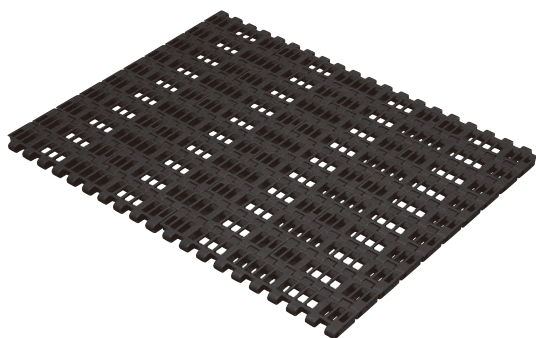
# Plastic Modular Chain WT2250FG

**WT2250 Series**  
Straight Running (Wide Type)



## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 25.4 mm pitch. Suitable for conveying medium-sized containers.
3. The perforated surface is effective to drain excess water and lubricant.
4. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
25.4	23	25

## Chain Material Table

	Standard Chain	High-Function Chain
Material	Standard	High temperature
Material mark	G	HTW
Link color	Gray	White
Max. allowable load kN/m {kgf/m}	12.8{1305}	6.4{650}
Chain mass kg/m <sup>2</sup>	7.9	5.6
Max. allowable speed m/min	With lube	50
	No lube	50
Operating temperature range °C	-20 to (60)80	5 to 105
Pin material	Special engineering plastic	Polypropylene
Snap attachment material	Polyacetal	Polypropylene
Snap attachment color	Light blue	Brown
Available	△	△

- Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table on the left.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the chain material table on the left is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition.
4. Number of links per unit: 40.

## Tsubaki Model Table

Chain width X	Standard G	High temperature HTW	Chain width X	Standard G	High temperature HTW
	Chain type	Chain type		Chain type	Chain type
85	WT2250FG-W85-G	WT2250FG-W85-HTW	935	WT2250FG-W935-G	WT2250FG-W935-HTW
170	WT2250FG-W170-G	WT2250FG-W170-HTW	1020	WT2250FG-W1020-G	WT2250FG-W1020-HTW
255	WT2250FG-W255-G	WT2250FG-W255-HTW	1105	WT2250FG-W1105-G	WT2250FG-W1105-HTW
340	WT2250FG-W340-G	WT2250FG-W340-HTW	1190	WT2250FG-W1190-G	WT2250FG-W1190-HTW
425	WT2250FG-W425-G	WT2250FG-W425-HTW	1275	WT2250FG-W1275-G	WT2250FG-W1275-HTW
510	WT2250FG-W510-G	WT2250FG-W510-HTW	1360	WT2250FG-W1360-G	WT2250FG-W1360-HTW
595	WT2250FG-W595-G	WT2250FG-W595-HTW	1445	WT2250FG-W1445-G	WT2250FG-W1445-HTW
680	WT2250FG-W680-G	WT2250FG-W680-HTW	1530	WT2250FG-W1530-G	WT2250FG-W1530-HTW
765	WT2250FG-W765-G	WT2250FG-W765-HTW	1615	WT2250FG-W1615-G	WT2250FG-W1615-HTW
850	WT2250FG-W850-G	WT2250FG-W850-HTW			

- Note: 1. Standard nominal widths are in increments of 85 mm. Custom widths or width wider than 1,615 mm. Contact a Tsubaki representative for more information.
2. The chain width X is the nominal width which expands and contracts due to temperature change. As a guideline, expansion and contraction are 0.00012/°C for the standard (G) series and 0.00011/°C for the HTW series at the basis of 20°C.

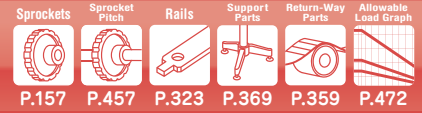
## Model Numbering

Chain type	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT2250</b>	<b>FG</b>	<b>- W340</b> <small>Note: 2</small>	<b>- G</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
FG: Open type					L: Link

- Note: 1. Do not leave space between letters and symbols.
2. Please check the chain width in the Tsubaki model table above.
3. Please check the chain material and material marks in the chain material table above.
4. Minimum quantity: 2, maximum quantity: 99999.

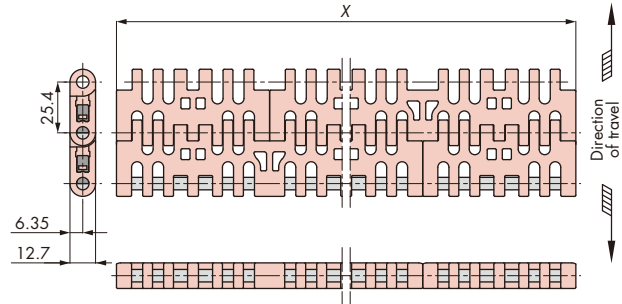
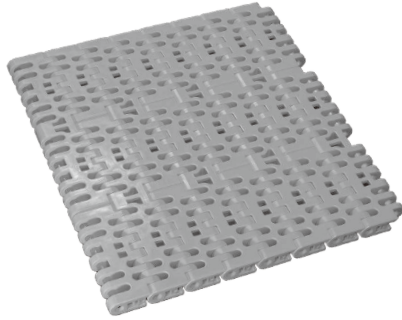
# Plastic Modular Chain WT2506-K

**WT2500 Series**  
Straight Running (Wide Type)



## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. The perforated surface is effective to drain excess water and lubricant which is remained and also suitable for showering units.
3. Improved strength of the chain is due to an increase in hinges and thicker joints of the modules.
4. In combination with TOD chains, it is unnecessary to use dead plates and is possible to transfer products between conveyors with less with fewer remaining products.
5. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
25.4	16	20

## Chain Material Table

High-Function Chain	
Material	High temperature
Material mark	HTW
Link color	White
Max. allowable load kN/m {kgf/m}	26.2{2675}
Chain mass kg/m <sup>2</sup>	8.1
Max. allowable speed m/min	With lube
	No lube
50	
Operating temperature range°C	5 to 105
Pin material	Polypropylene
Snap attachment material	Polypropylene
Snap attachment color	Blue
Available	△

- Note: 1. "△": Made-to-order product (RFQ). Not available for other chain materials that are not listed in the chain material table on the left.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the chain material table on the left. is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. The color of the slide plug was changed from yellow to blue as of December 2013.
4. Number of links per unit (chain width): 160 (K09 to 18), 100 (K21 to 27), 70 (K30 to 36), 50 (K39 to 48), 40 (over K51).

## Tsubaki Model Table

Chain width X	High temperature HTW Chain type	Chain width X	High temperature HTW Chain type	Chain width X	High temperature HTW Chain type	Chain width X	High temperature HTW Chain type
76.2	WT2506-K03-HTW	838.2	WT2506-K33-HTW	1600.2	WT2506-K63-HTW	2362.2	WT2506-K93-HTW
152.4	WT2506-K06-HTW	914.4	WT2506-K36-HTW	1676.4	WT2506-K66-HTW	2438.4	WT2506-K96-HTW
228.6	WT2506-K09-HTW	990.6	WT2506-K39-HTW	1752.6	WT2506-K69-HTW	2514.6	WT2506-K99-HTW
304.8	WT2506-K12-HTW	1066.8	WT2506-K42-HTW	1828.8	WT2506-K72-HTW	2590.8	WT2506-K102-HTW
381.0	WT2506-K15-HTW	1143.0	WT2506-K45-HTW	1905.0	WT2506-K75-HTW	2667.0	WT2506-K105-HTW
457.2	WT2506-K18-HTW	1219.2	WT2506-K48-HTW	1981.2	WT2506-K78-HTW	2743.2	WT2506-K108-HTW
533.4	WT2506-K21-HTW	1295.4	WT2506-K51-HTW	2057.4	WT2506-K81-HTW	2819.4	WT2506-K111-HTW
609.6	WT2506-K24-HTW	1371.6	WT2506-K54-HTW	2133.6	WT2506-K84-HTW	2895.6	WT2506-K114-HTW
685.8	WT2506-K27-HTW	1447.8	WT2506-K57-HTW	2209.8	WT2506-K87-HTW	2971.8	WT2506-K117-HTW
762.0	WT2506-K30-HTW	1524.0	WT2506-K60-HTW	2286.0	WT2506-K90-HTW	3048.0	WT2506-K120-HTW

- Note: 1. Standard nominal widths are in increments of 3 inches (76.2 mm). Custom widths or width wider than 3,048 mm. Contact a Tsubaki representative for more information.
2. The chain width X is the nominal width and the actual width is about -0.6% (at the ambient temperature of 20°C) for the HTW series. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the HTW series is 0.00011/°C for at the basis of 20°C.

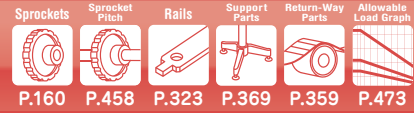
## Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>25</b>	<b>06</b>	<b>- K24</b> <small>Note: 2</small>	<b>- HTW</b>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
	25: 25.4 mm	6: Open type				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

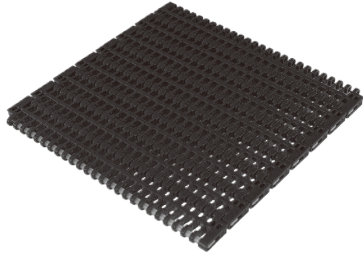
# Plastic Modular Chain WT2706-K

**WT2700 Series**  
Straight Running (Wide Type)

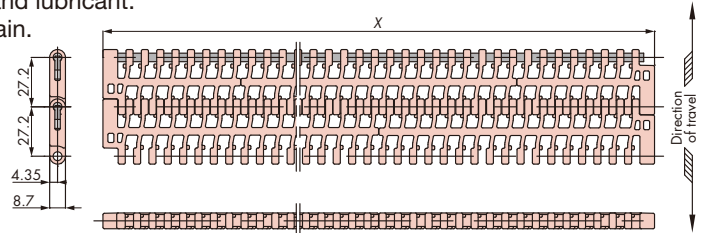


## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Suitable to convey containers, foods and rubber sheets.
3. The perforated surface is effective to drain excess water and lubricant.
4. Lightweight and easy-handling due to all plastic-made chain.



Metal detection plug  
(color: dark blue)



Chain pitch mm	Open area %	Backflex radius mm
27.2	38	20

## Chain Material Table

Material	Standard Chain										High-Function Chain										
	Standard			Low friction/Wear resistant			Advanced low friction/wear resistant		Low friction		Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant				
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	HTW	E	MWS	SE	MF	UVR					
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	White	Black	Cream	Gray	Yellow	Light gray					
Max. allowable load kN/m (kgf/m)	15.4{1570}										7.7 {785}	10.8 {1099}	15.4{1570}			11.4 {1162}	15.4 {1570}				
Chain mass kg/m <sup>2</sup>	5.8										4.0		5.8								
Max. allowable speed m/min	50										50										
Operating temperature range °C	-20 to (60)80	0 to 80		-20 to (60)80										5 to 105		-20 to (60)80			-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic	Polypropylene		Special engineering plastic										Polypropylene		Special engineering plastic					
Plug material	Polyacetal										Polypropylene		Polyacetal								
Plug color	Yellow										Blue		Yellow								
Available	△	○ <sup>Note: 5</sup>	△	△	△	△	○ <sup>Note: 5</sup>	△	△	△	△	△	△	△	△	△					

- Note: 1. "O": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. Operating temperature of (the value in parentheses) is for wet condition.  
 4. Number of links per unit (chain width): 200 (K09 to 18), 100 (K21 to 36), 80 (K39 to 48), 50 (over K51).  
 5. Chains with widths of 1,600.2 mm (K63) to 1,905.0 mm (K75) are "△": made-to-order products (RFQ).

## Tsubaki Model Table

Chain width X	Standard B		Low friction/Wear resistant LFB		Chain width X	Standard B		Low friction/Wear resistant LFB		Chain width X	Standard B		Low friction/Wear resistant LFB	
	Chain type	Chain type	Chain type	Chain type		Chain type	Chain type	Chain type	Chain type		Chain type	Chain type	Chain type	Chain type
228.6	WT2706-K09-B	WT2706-K09-LFB	WT2706-K09-LFB	WT2706-K09-LFB	838.2	WT2706-K33-B	WT2706-K33-LFB	WT2706-K33-LFB	WT2706-K33-LFB	1447.8	WT2706-K57-B	WT2706-K57-LFB	WT2706-K57-LFB	
304.8	WT2706-K12-B	WT2706-K12-LFB	WT2706-K12-LFB	WT2706-K12-LFB	914.4	WT2706-K36-B	WT2706-K36-LFB	WT2706-K36-LFB	WT2706-K36-LFB	1524.0	WT2706-K60-B	WT2706-K60-LFB	WT2706-K60-LFB	
381.0	WT2706-K15-B	WT2706-K15-LFB	WT2706-K15-LFB	WT2706-K15-LFB	990.6	WT2706-K39-B	WT2706-K39-LFB	WT2706-K39-LFB	WT2706-K39-LFB	1600.2	WT2706-K63-B	WT2706-K63-LFB	WT2706-K63-LFB	
457.2	WT2706-K18-B	WT2706-K18-LFB	WT2706-K18-LFB	WT2706-K18-LFB	1066.8	WT2706-K42-B	WT2706-K42-LFB	WT2706-K42-LFB	WT2706-K42-LFB	1676.4	WT2706-K66-B	WT2706-K66-LFB	WT2706-K66-LFB	
533.4	WT2706-K21-B	WT2706-K21-LFB	WT2706-K21-LFB	WT2706-K21-LFB	1143.0	WT2706-K45-B	WT2706-K45-LFB	WT2706-K45-LFB	WT2706-K45-LFB	1752.6	WT2706-K69-B	WT2706-K69-LFB	WT2706-K69-LFB	
609.6	WT2706-K24-B	WT2706-K24-LFB	WT2706-K24-LFB	WT2706-K24-LFB	1219.2	WT2706-K48-B	WT2706-K48-LFB	WT2706-K48-LFB	WT2706-K48-LFB	1828.8	WT2706-K72-B	WT2706-K72-LFB	WT2706-K72-LFB	
685.8	WT2706-K27-B	WT2706-K27-LFB	WT2706-K27-LFB	WT2706-K27-LFB	1295.4	WT2706-K51-B	WT2706-K51-LFB	WT2706-K51-LFB	WT2706-K51-LFB	1905.0	WT2706-K75-B	WT2706-K75-LFB	WT2706-K75-LFB	
762.0	WT2706-K30-B	WT2706-K30-LFB	WT2706-K30-LFB	WT2706-K30-LFB	1371.6	WT2706-K54-B	WT2706-K54-LFB	WT2706-K54-LFB	WT2706-K54-LFB					

- Note: 1. Standard nominal widths are in increments of 3 inches (76.2 mm). Chain width wider than 1,905 mm. Contact a Tsubaki representative for more information.  
 2. The minimum width begins at 50.8 mm with increments of 1/3 inches, by using cut modules.  
 3. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table above is about -0.4% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table above is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 4. The chain with a width narrower than 1,905 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,905 mm is available chain tension in case of replacing the pins with those made of polypropylene.

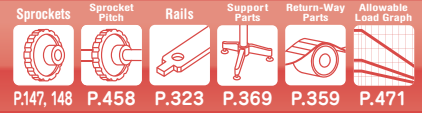
## Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Special configuration	Number of links	Unit
<b>WT</b>	<b>27</b>	<b>06</b>	<b>- K24</b> <sup>Note: 2</sup>	<b>- B</b> <sup>Note: 3</sup>	<b>- TK</b> <sup>Note: 5</sup>	<b>+ 80</b> <sup>Note: 4</sup>	<b>L</b>
	27: 27.2 mm	6: Open type					L: Link

- Note: 1. Do not leave space between letters and symbols. 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above. 4. Minimum quantity: 2, maximum quantity: 99999.  
 5. The metal detection plug method is a made-to-order product (RFQ). Please specify "metal detection plug method". (Not available for HTW series)

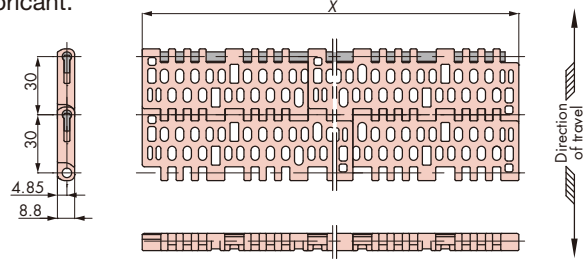
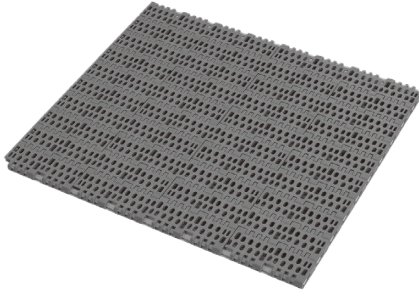
# Plastic Modular Chain WT3086-K

**WT3080 Series**  
Straight Running (Wide Type)



## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Can be possible to drive coaxially with the WT1500 series due to a 30 mm pitch.
3. The simple structure consisting of four components facilitates component replacements and reduces the maintenance time.
4. The perforated surface is effective to drain excess water and lubricant.
5. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
30	27	30

## Chain Material Table

Material	Standard Chain						High-Function Chain									
	Standard			Low friction/Wear resistant			Advanced low friction/wear resistant	Low friction		Low friction Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	MF	UVR	
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5 {1070}										8.0 {816}	10.5 {1070}		7.8 {796}	10.5 {1070}	
Chain mass kg/m <sup>2</sup>	6.0															
Max. allowable speed m/min	50														—	50
Operating temperature range °C	0 to 80			0 to (65)80			0 to 80	0 to (65)80	0 to 80	0 to (65)80	0 to 80	0 to (65)80	0 to 80			
Pin material	Polypropylene															
Plug material	Polyacetal															
Plug color	Yellow															
Available	△	△	△	△	○	△	△	△	△	△	△	△	△	△	△	

- Note: 1. "○": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition.
4. Number of links per unit (chain width): 200 (K170 to 425), 100 (K510 to 850), 70 (K935 to 1190), 50 (K1275 to 1785), 40 (over K1870).

## Tsubaki Model Table

Chain width X	Low friction/Wear resistant LFG Chain type	Chain width X	Low friction/Wear resistant LFG Chain type	Chain width X	Low friction/Wear resistant LFG Chain type
170	WT3086-K170-LFG	680	WT3086-K680-LFG	1190	WT3086-K1190-LFG
255	WT3086-K255-LFG	765	WT3086-K765-LFG	1275	WT3086-K1275-LFG
340	WT3086-K340-LFG	850	WT3086-K850-LFG	1360	WT3086-K1360-LFG
425	WT3086-K425-LFG	935	WT3086-K935-LFG	1445	WT3086-K1445-LFG
510	WT3086-K510-LFG	1020	WT3086-K1020-LFG	1530	WT3086-K1530-LFG
595	WT3086-K595-LFG	1105	WT3086-K1105-LFG		

- Note: 1. Standard nominal widths are in increments of 85 mm. Custom widths or width wider than 1,530 mm. Contact a Tsubaki representative for more information.
2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table above is about -0.7% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table above which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.

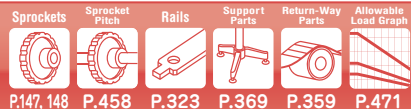
## Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>30</b>	<b>86</b>	<b>- K340</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>+</b> <b>80</b> <small>Note: 4</small>	<b>L</b>
	30: 30 mm	6: Open type				L: Link

- Note: 1. Do not leave space between letters and symbols. 2. Please check the chain width in the Tsubaki model table above.
3. Please check the chain material and material marks in the chain material table above. 4. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT3086G-K

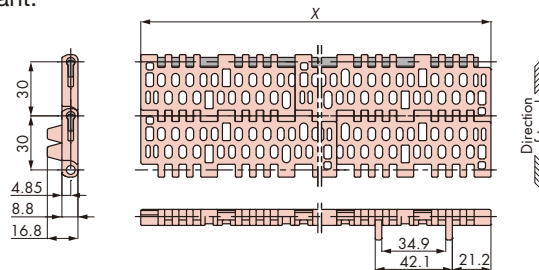
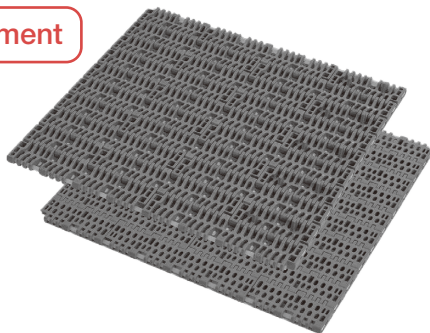
**WT3080 Series**  
Straight Running (Wide Type)



## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Can be possible to drive coaxially with the WT1500 series due to a 30 mm pitch.
3. The simple structure consisting of five components facilitates component replacements and reduces the maintenance time.
4. Suitable for layouts with side transfer between conveyors thanks to tab guide attachment.
5. The perforated surface is effective to drain excess water and lubricant.

### Tab Guide Attachment



Chain pitch mm	Open area %	Backflex radius mm
30	27	30

## Chain Material Table

Material	Standard Chain								High-Function Chain							
	Standard		Low friction/ Wear resistant			Advanced low friction/wear resistant			Low friction		Low friction Wear resistant	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	MF	UVR	
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5 {1070}										8.0 {816}	10.5 {1070}		7.8 {796}	10.5 {1070}	
Chain mass kg/m <sup>2</sup>	6.0															
Max. allowable speed m/min	50													— 50	50	
Operating temperature range °C	0 to 80		0 to (65)80			0 to 80			0 to (65)80	0 to 80	0 to (65)80	0 to 80	0 to (65)80	0 to 80		
Pin material	Polypropylene															
Plug material	Polyacetal															
Plug color	Yellow															
Available	△	△	△	△	○	△	△	△	△	△	△	△	△	△	△	

- Note: 1. "O": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. Operating temperature of (the value in parentheses) is for wet condition.  
 4. Number of links per unit (chain width): 140 (K170 to 425), 60 (K510 to 1190), 40 (over K1275).

## Tsubaki Model Table

Chain width X	Low friction/Wear sistant LFG Chain type	Chain width X	Low friction/Wear sistant LFG Chain type	Chain width X	Low friction/Wear sistant LFG Chain type	Chain width X	Low friction/Wear sistant LFG Chain type
170	WT3086G-K170-LFG	595	WT3086G-K595-LFG	1020	WT3086G-K1020-LFG	1445	WT3086G-K1445-LFG
255	WT3086G-K255-LFG	680	WT3086G-K680-LFG	1105	WT3086G-K1105-LFG	1530	WT3086G-K1530-LFG
340	WT3086G-K340-LFG	765	WT3086G-K765-LFG	1190	WT3086G-K1190-LFG		
425	WT3086G-K425-LFG	850	WT3086G-K850-LFG	1275	WT3086G-K1275-LFG		
510	WT3086G-K510-LFG	935	WT3086G-K935-LFG	1360	WT3086G-K1360-LFG		

- Note: 1. Standard nominal width is increments of 85 mm. Chain width wider than 1,530 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table above is about -0.7% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table above which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.

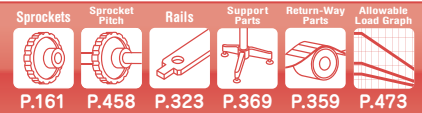
## Model Numbering

Chain type	Chain pitch	Link shape	Tab guide attachment	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>30</b>	<b>86</b>	<b>G</b>	<b>- K340</b> <sup>Note: 2</sup>	<b>- LFG</b> <sup>Note: 3</sup>	<b>+ 80</b> <sup>Note: 4</sup>	<b>L</b>
	30: 30 mm	6: Open type	G: Tab guide attachment				L: Link

- Note: 1. Do not leave space between letters and symbols. 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above. 4. Minimum quantity: 2, maximum quantity: 99999.

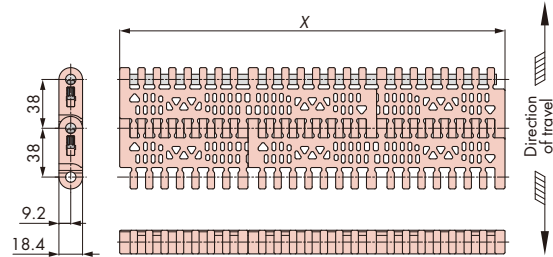
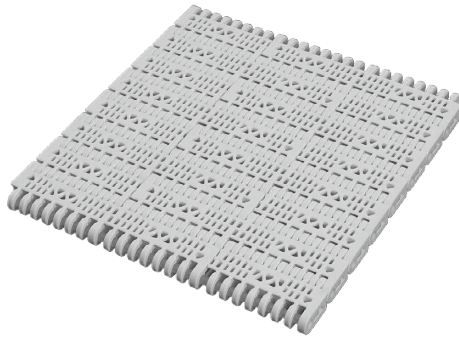
# Plastic Modular Chain WT3816-K

## WT3810 Series Straight Running (Wide Type)



### Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Suitable for heavy-loaded conveyor.
3. The perforated surface is effective to drain excess water and lubricant which is remained and also suitable for showering units.
4. In combination with TOD chains used in the WT1500 and WT2500 series, it is unnecessary to use a dead plate and is possible to transfer products with fewer remaining products.
5. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
38	28	40

### Chain Material Table

High-Function Chain	
Material	High temperature
Material mark	HTW
Link color	White
Max. allowable load kN/m {kgf/m}	30{3058}
Chain mass kg/m <sup>2</sup>	9.8
Max. allowable speed m/min	With lube
	No lube
Operating temperature range °C	5 to 105
Pin material	Polypropylene
Slide plug material	Polypropylene
Slide plug color	Blue
Available	△

- Note: 1. "△": Made-to-order product (RFQ). Not available for other chain materials that are not listed in the chain material table on the left.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the chain material table on the left is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. The color of the slide plug was changed from yellow to blue as of December 2013.
4. Number of links per unit (chain width): 80 (K200 to 400), 40 (K500 to 1200), 20 (over K1300)

### Tsubaki Model Table

Chain width X	High temperature HTW Chain type	Chain width X	High temperature HTW Chain type	Chain width X	High temperature HTW Chain type	Chain width X	High temperature HTW Chain type
200	WT3816-K200-HTW	1100	WT3816-K1100-HTW	2000	WT3816-K2000-HTW	2900	WT3816-K2900-HTW
300	WT3816-K300-HTW	1200	WT3816-K1200-HTW	2100	WT3816-K2100-HTW	3000	WT3816-K3000-HTW
400	WT3816-K400-HTW	1300	WT3816-K1300-HTW	2200	WT3816-K2200-HTW	3100	WT3816-K3100-HTW
500	WT3816-K500-HTW	1400	WT3816-K1400-HTW	2300	WT3816-K2300-HTW	3200	WT3816-K3200-HTW
600	WT3816-K600-HTW	1500	WT3816-K1500-HTW	2400	WT3816-K2400-HTW	3300	WT3816-K3300-HTW
700	WT3816-K700-HTW	1600	WT3816-K1600-HTW	2500	WT3816-K2500-HTW	3400	WT3816-K3400-HTW
800	WT3816-K800-HTW	1700	WT3816-K1700-HTW	2600	WT3816-K2600-HTW	3500	WT3816-K3500-HTW
900	WT3816-K900-HTW	1800	WT3816-K1800-HTW	2700	WT3816-K2700-HTW		
1000	WT3816-K1000-HTW	1900	WT3816-K1900-HTW	2800	WT3816-K2800-HTW		

- Note: 1. Standard nominal widths are in increments of 100 mm. Chain width wider than 3,500 mm. Contact a Tsubaki representative for more information.
2. The chain width X is the nominal width and the actual width is about -0.3% (at the ambient temperature of 20°C) for the HTW series. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the HTW series is 0.00011/°C for at the basis of 20°C.

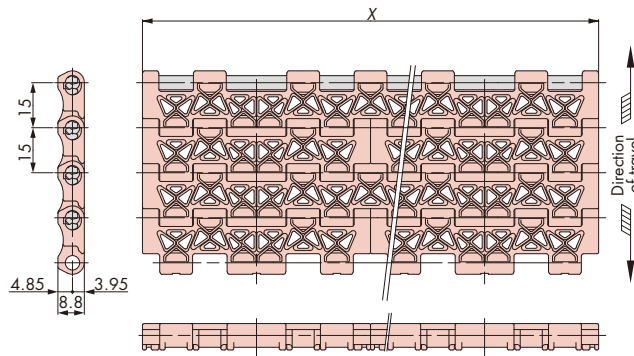
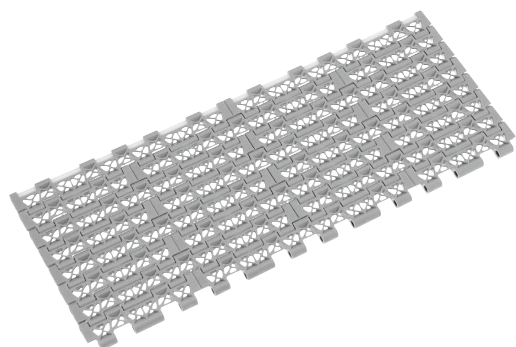
### Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>38</b>	<b>16</b>	<b>- K300</b> <small>Note: 2</small>	<b>- HTW</b> <b>+</b>	<b>80</b> <small>Note: 3</small>	<b>L</b>
	38: 38 mm	6: Open type				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

**Features**

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 15 mm pitch. Suitable for conveying small and light weight containers.
3. Easy to wash with 30% open area.
4. In combination with a TOD chain, it is unnecessary to use a dead plate and is possible to transfer products between conveyors with fewer remaining products.
5. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
15	30	15

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/ wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5}{1070}								
Chain mass kg/m <sup>2</sup>	5.9								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Snap attachment material	Polyacetal								
Snap attachment color	White								
Available	△	△	△	△	△	○	○	△	△

**High-Function Chain**

High-Function Chain								
Material	Low friction Wear resistant	Freezer	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	LTW	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5 {1070}	3.43 {350}	7.4 {750}	10.5 {1070}		7.8 {792}	10.5 {1070}	
Chain mass kg/m <sup>2</sup>	5.9	4.1	5.9					
Max. allowable speed m/min	With lube	50					—	50
	No lube	15						50
Operating temperature range °C	-20 to (60)80	-70 to 60	-20 to (60)80			-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic	Polyethylene	Special engineering plastic					
Snap attachment material	Polyacetal	Polyethylene	Polyacetal					
Snap attachment color	White	Red	White					
Available	△	△	△	△	△	△	△	

- Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition. This product can be used in wet conditions at 60 to 80°C if the pin material is changed to stainless steel. In this case, the initial length and chain mass increase slightly. Contact a Tsubaki representative for more information.
4. Number of links per unit: 68.



**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFB
	Chain type	Chain type
76	BTN5-760-ALF	BTN5-760-LFB
152	BTN5-1520-ALF	BTN5-1520-LFB
228	BTN5-2280-ALF	BTN5-2280-LFB
304	BTN5-3040-ALF	BTN5-3040-LFB
380	BTN5-3800-ALF	BTN5-3800-LFB
456	BTN5-4560-ALF	BTN5-4560-LFB
532	BTN5-5320-ALF	BTN5-5320-LFB
608	BTN5-6080-ALF	BTN5-6080-LFB
684	BTN5-6840-ALF	BTN5-6840-LFB
760	BTN5-7600-ALF	BTN5-7600-LFB
836	BTN5-8360-ALF	BTN5-8360-LFB
912	BTN5-9120-ALF	BTN5-9120-LFB
988	BTN5-9880-ALF	BTN5-9880-LFB
1064	BTN5-10640-ALF	BTN5-10640-LFB
1140	BTN5-11400-ALF	BTN5-11400-LFB
1216	BTN5-12160-ALF	BTN5-12160-LFB
1292	BTN5-12920-ALF	BTN5-12920-LFB
1368	BTN5-13680-ALF	BTN5-13680-LFB
1444	BTN5-14440-ALF	BTN5-14440-LFB
1520	BTN5-15200-ALF	BTN5-15200-LFB
1596	BTN5-15960-ALF	BTN5-15960-LFB
1672	BTN5-16720-ALF	BTN5-16720-LFB
1748	BTN5-17480-ALF	BTN5-17480-LFB
1824	BTN5-18240-ALF	BTN5-18240-LFB

- Note: 1. Standard nominal widths are in increments of 76 mm. Chain width wider than 1,824 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table on the left is about -0.2% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table on the left which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.  
 3. The chain with a width narrower than 1,824 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,824 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.  
 4. Sprockets for WT1500 series can be used.

**Model Numbering**

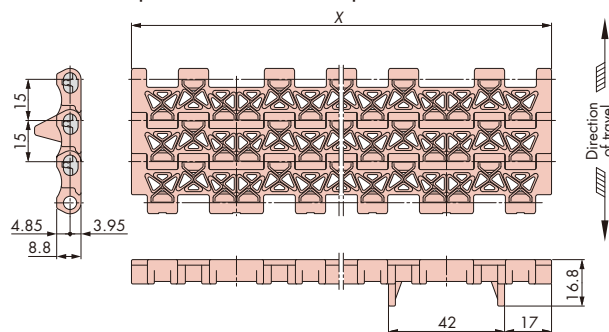
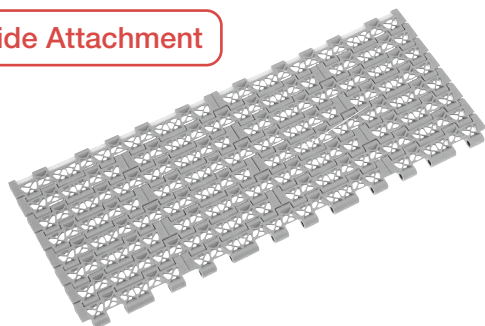
Chain type	Link shape	Chain pitch	Chain width	Material mark	Number of links	Unit
<b>BT</b>	<b>N</b>	<b>5</b>	<b>- 7600</b> <small>Note: 2</small>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	N: Net type	5: 15 mm				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. 7600: 760 mm. Chain width is indicated up to the first decimal place. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

## Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 15 mm pitch. Suitable for conveying small and light weight containers.
3. Easy to wash with 30% open area.
4. Suitable for layouts with side transfer between conveyors thanks to tab guide attachment.
5. In combination with TOD chains, it is unnecessary to use dead plates and is possible to transfer products between conveyors with less with remaining products.
6. Lightweight and easy-handling due to all plastic-made chain.

## Tab Guide Attachment



Chain pitch mm	Open area %	Backflex radius mm
15	30	15

## Chain Material Table

## Standard Chain

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/ wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	10.5{1070}								
Chain mass kg/m <sup>2</sup>	5.9								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Snap attachment material	Polyacetal								
Snap attachment color	White								
Available	△	△	△	△	△	○	○	△	△

## High-Function Chain

High-Function Chain								
Material	Low friction Wear resistant	Freezer	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	LTW	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	10.5 {1070}	3.43 {350}	7.4 {750}	10.5 {1070}		7.8 {792}	10.5 {1070}	
Chain mass kg/m <sup>2</sup>	5.9	4.1	5.9					
Max. allowable speed m/min	With lube	50					—	50
	No lube	15						50
Operating temperature range °C	-20 to (60)80	-70 to 60	-20 to (60)80			-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic	Polyethylene	Special engineering plastic					
Snap attachment material	Polyacetal	Polyethylene	Polyacetal					
Snap attachment color	White	Red	White					
Available	△	△	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition. This product can be used in wet conditions at 60 to 80°C if the pin material is changed to stainless steel. In this case, the initial length and chain mass increase slightly. Contact a Tsubaki representative for more information.
4. When using WT-N1500-12T30 solid sprocket, set the key length of the sprocket engaging module with tab guide attachment to 30 mm.
5. With tab guide attachment, the approximate chain weight will be 0.5 kg/m higher than the approximate chain weight in the chain material table above. (Tab guide attachments are attached every two links and only on one side of the chain.)
6. Number of links per unit: 68.

**Tsubaki Model Table**

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFB
	Chain type	Chain type
76	BTN5-760-A-ALF	BTN5-760-A-LFB
152	BTN5-1520-A-ALF	BTN5-1520-A-LFB
228	BTN5-2280-A-ALF	BTN5-2280-A-LFB
304	BTN5-3040-A-ALF	BTN5-3040-A-LFB
380	BTN5-3800-A-ALF	BTN5-3800-A-LFB
456	BTN5-4560-A-ALF	BTN5-4560-A-LFB
532	BTN5-5320-A-ALF	BTN5-5320-A-LFB
608	BTN5-6080-A-ALF	BTN5-6080-A-LFB
684	BTN5-6840-A-ALF	BTN5-6840-A-LFB
760	BTN5-7600-A-ALF	BTN5-7600-A-LFB
836	BTN5-8360-A-ALF	BTN5-8360-A-LFB
912	BTN5-9120-A-ALF	BTN5-9120-A-LFB
988	BTN5-9880-A-ALF	BTN5-9880-A-LFB
1064	BTN5-10640-A-ALF	BTN5-10640-A-LFB
1140	BTN5-11400-A-ALF	BTN5-11400-A-LFB
1216	BTN5-12160-A-ALF	BTN5-12160-A-LFB
1292	BTN5-12920-A-ALF	BTN5-12920-A-LFB
1368	BTN5-13680-A-ALF	BTN5-13680-A-LFB
1444	BTN5-14440-A-ALF	BTN5-14440-A-LFB
1520	BTN5-15200-A-ALF	BTN5-15200-A-LFB
1596	BTN5-15960-A-ALF	BTN5-15960-A-LFB
1672	BTN5-16720-A-ALF	BTN5-16720-A-LFB
1748	BTN5-17480-A-ALF	BTN5-17480-A-LFB
1824	BTN5-18240-A-ALF	BTN5-18240-A-LFB

- Note: 1. Standard nominal widths are in increments of 76 mm. Chain width wider than 1,824 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table on the left is about -0.2% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction of the standard chain listed in chain material table on the left which will be affected by the ambient temperature is 0.00012/°C at the basis of 20°C.  
 3. The chain with a width narrower than 1,824 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,824 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.  
 4. Sprockets for WT1500 series can be used.

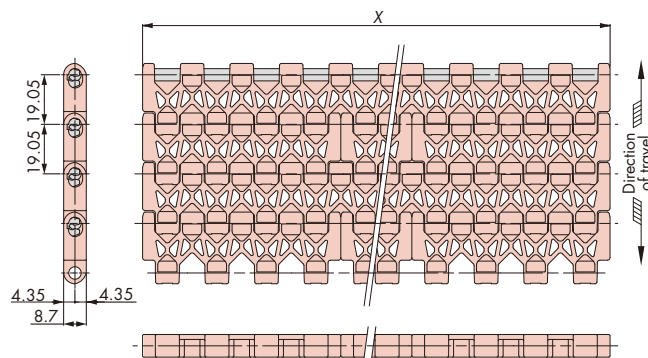
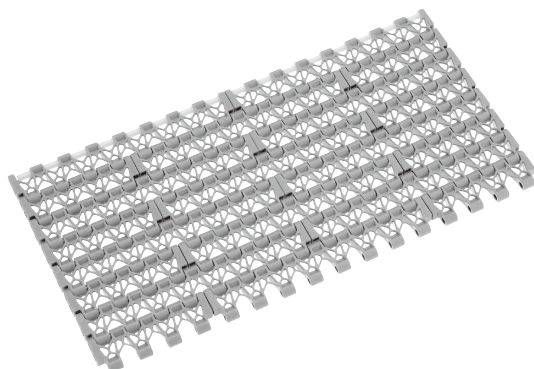
**Model Numbering**

Chain type	Link shape	Chain pitch	Chain width	Tab guide attachment	Material mark	Number of links	Unit
<b>BT</b>	<b>N</b>	<b>5</b>	<b>- 7600</b> <small>Note: 2</small>	<b>- A</b>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	N: Net type	5: 15 mm		A: Tab guide attachment			L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. 7600: 760 mm. Chain width is indicated up to the first decimal place. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

**Features**

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. 19.05 mm pitch. Suitable for conveying small and light weight containers.
3. The simple structure consisting of four components facilitates component replacements and reduces the maintenance time.
4. Easy to wash with 53% open area.
5. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
19.05	53	15

**Chain Material Table**
**Standard Chain**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/ wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	11.6{1180}								
Chain mass kg/m <sup>2</sup>	5.58								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Snap attachment material	Polyacetal								
Snap attachment color	White								
Available	△	△	△	△	△	○	○	△	△

**High-Function Chain**

High-Function Chain									
Material	Low friction Wear resistant	High temperature	Freezer	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	LTW	E	MWS	SE	MF	UVR	
Link color	Navy blue	White	White	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	11.6 {1180}	4.6 {472}	3.82 {390}	8.1 {830}	11.6{1180}		8.6 {873}	11.6 {1180}	
Chain mass kg/m <sup>2</sup>	5.58	3.70	3.80	5.58					
Max. allowable speed m/min	With lube	50		15	50		—	50	
	No lube						50		
Operating temperature range °C	-20 to (60)80	5 to 105	-70 to 60	-20 to (60)80			-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic	Polypropylene	Polyethylene	Special engineering plastic					
Snap attachment material	Polyacetal	Special engineering plastic	Polyethylene	Polyacetal					
Snap attachment color	White	Beige	Red	White					
Available	△	△	△	△	△	△	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition. This product can be used in wet condition at 60 to 80°C if the pin material is changed to stainless steel. In this case, the initial length of the chain increases by about 1%. Contact a Tsubaki representative as the chain's approximate mass of the chain will increase.
4. Number of links per unit: 54.

### Tsubaki Model Table

Chain width X	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFB
	Chain type	Chain type
76.2	BTN6-762-ALF	BTN6-762-LFB
152.4	BTN6-1524-ALF	BTN6-1524-LFB
228.6	BTN6-2286-ALF	BTN6-2286-LFB
304.8	BTN6-3048-ALF	BTN6-3048-LFB
381.0	BTN6-3810-ALF	BTN6-3810-LFB
457.2	BTN6-4572-ALF	BTN6-4572-LFB
533.4	BTN6-5334-ALF	BTN6-5334-LFB
609.6	BTN6-6096-ALF	BTN6-6096-LFB
685.8	BTN6-6858-ALF	BTN6-6858-LFB
762.0	BTN6-7620-ALF	BTN6-7620-LFB
838.2	BTN6-8382-ALF	BTN6-8382-LFB
914.4	BTN6-9144-ALF	BTN6-9144-LFB
990.6	BTN6-9906-ALF	BTN6-9906-LFB
1066.8	BTN6-10668-ALF	BTN6-10668-LFB
1143.0	BTN6-11430-ALF	BTN6-11430-LFB

- Note: 1. Standard nominal widths are in increments of 76.2 mm. Chain width wider than 1,143 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about -0.3% (at the ambient temperature of 20°C) for the standard chain listed in chain material table on the left. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,143 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,143 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

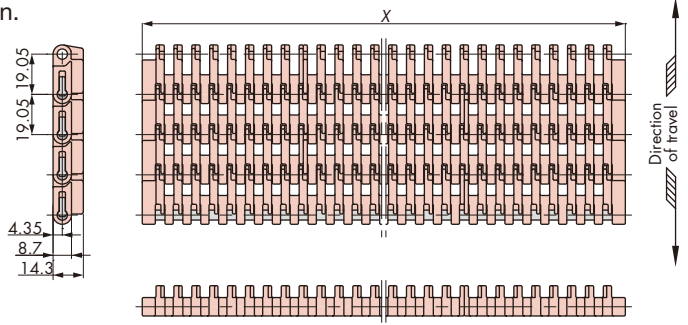
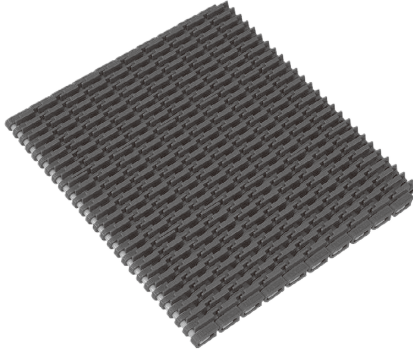
### Model Numbering

Chain type	Link shape	Chain pitch	Chain width	Material mark	Number of links	Unit
<b>BT</b>	<b>N</b>	<b>6</b>	<b>- 7620</b> <small>Note: 2</small>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	N: Net type	6: 19.05 mm				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. 7620: 762 mm. Chain width is indicated up to the first decimal place. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

### Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Suitable for conveying small products, rubber sheet and for showering unit.
3. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
19.05	20	90

### Chain Material Table

#### Standard Chain

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/ wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN/m {kgf/m}	22.2{2265}								
Chain mass kg/m <sup>2</sup>	11.0								
Max. allowable speed m/min	With lube	50							
	No lube								
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Plug material	Polyacetal								
Plug color	Yellow								
Available	△	△	△	△	△	○	△	○	△

#### High-Function Chain

High-Function Chain							
Material	Low friction Wear resistant	High temperature	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	MWS	SE	MF	UVR	
Link color	Navy blue	White	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	22.2{2265}	12.8{1306}	22.2{2265}		16.4{1676}	22.2{2265}	
Chain mass kg/m <sup>2</sup>	11.0	7.5	11.0				
Max. allowable speed m/min	With lube	50				—	50
	No lube					50	
Operating temperature range °C	-20 to (60)80	5 to 105	-20 to (60)80		-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic	Polypropylene	Special engineering plastic				
Plug material	Polyacetal	Polypropylene	Polyacetal				
Plug color	Yellow	Blue	Yellow				
Available	△	△	△	△	△	△	

- Note: 1. "O": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. Operating temperature of (the value in parentheses) is for wet condition.  
 4. Number of links per unit (chain width): 200 (K09 to K18), 100 (K21 to K36), 80 (K39 to K48), 60 (over K51).

### Tsubaki Model Table

Chain width X	Low friction/Wear resistant LFB	Low friction NLF
	Chain type	Chain type
228.6	WT1907-K09-LFB	WT1907-K09-NLF
304.8	WT1907-K12-LFB	WT1907-K12-NLF
381.0	WT1907-K15-LFB	WT1907-K15-NLF
457.2	WT1907-K18-LFB	WT1907-K18-NLF
533.4	WT1907-K21-LFB	WT1907-K21-NLF
609.6	WT1907-K24-LFB	WT1907-K24-NLF
685.8	WT1907-K27-LFB	WT1907-K27-NLF
762.0	WT1907-K30-LFB	WT1907-K30-NLF
838.2	WT1907-K33-LFB	WT1907-K33-NLF
914.4	WT1907-K36-LFB	WT1907-K36-NLF
990.6	WT1907-K39-LFB	WT1907-K39-NLF
1066.8	WT1907-K42-LFB	WT1907-K42-NLF
1143.0	WT1907-K45-LFB	WT1907-K45-NLF
1219.2	WT1907-K48-LFB	WT1907-K48-NLF
1295.4	WT1907-K51-LFB	WT1907-K51-NLF
1371.6	WT1907-K54-LFB	WT1907-K54-NLF
1447.8	WT1907-K57-LFB	WT1907-K57-NLF
1524.0	WT1907-K60-LFB	WT1907-K60-NLF
1600.2	WT1907-K63-LFB	WT1907-K63-NLF
1676.4	WT1907-K66-LFB	WT1907-K66-NLF
1752.6	WT1907-K69-LFB	WT1907-K69-NLF
1828.8	WT1907-K72-LFB	WT1907-K72-NLF
1905.0	WT1907-K75-LFB	WT1907-K75-NLF

- Note: 1. Standard nominal widths are in increments of 3 inches (76.2 mm). Custom widths or width wider than 1,905 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table on the left is about -0.5% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table on the left is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.  
 3. The chain with a width narrower than 1,905 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,905 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.

### Model Numbering

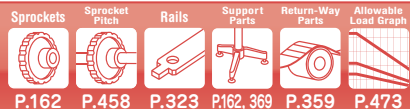
Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>19</b>	<b>07</b>	<b>- K24</b> <small>Note: 2</small>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
	19: 19.05 mm	7: Raised rib				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table on the left.  
 4. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT3827-K

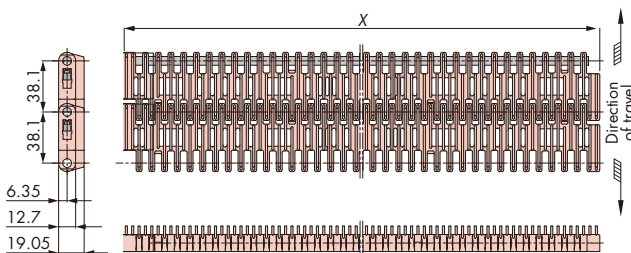
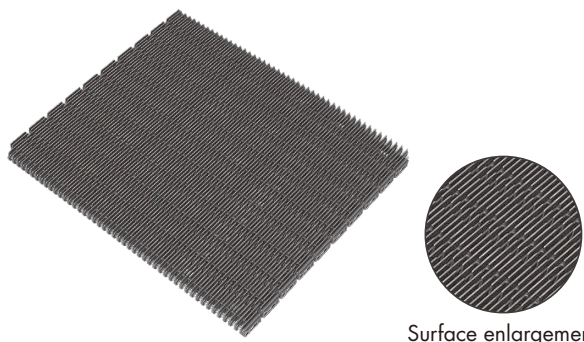
## WT3820 Series

Straight Running/Raised-Rib Type (Wide Type)



### Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Suitable for showering units.
3. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
38.1	17	50

### Chain Material Table

Material	Standard Chain							High-Function Chain							
	Standard			Low friction/Wear resistant			Advanced low friction/wear resistant	Low friction		Low friction Wear resistant	High temperature	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	HTW	MWS	SE	MF	UVR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	White	Cream	Gray	Yellow	Light gray
Max. allowable load kN/m {kgf/m}	30.9{3153}										15.6 {1592}	30.9{3153}		22.9 {2333}	30.9 {3153}
Chain mass kg/m <sup>2</sup>	12.7										8.7	12.7			
Max. allowable speed m/min	50													—	50
Operating temperature range °C	0 to 80			0 to (65)80			0 to 80	0 to (65)80	0 to 80	0 to (65)80	5 to 105	0 to (65)80	0 to 80		
Pin material	Polypropylene														
Slide plug material	Polypropylene														
Slide plug color	Blue														
Available	△	△	△	△	△	△	○ Note: 6	△	△	△	△	△	△	△	△

- Note: 1. "○": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition.
4. The color of the slide plug was changed from yellow to blue as of December 2013.
5. Number of links per unit (chain width): 80 (K18), 30 (K24 to 48), 20 (over K54).
6. Chains with widths of 1,676.4 mm (K66) to 2,438.4 mm (K96) are "△": made-to-order products (RFQ).

### Tsubaki Model Table

Chain width X	Low friction/Wear resistant LFB Chain type	Chain width X	Low friction/Wear resistant LFB Chain type	Chain width X	Low friction/Wear resistant LFB Chain type
457.2	WT3827-K18-LFB	1219.2	WT3827-K48-LFB	1981.2	WT3827-K78-LFB
609.6	WT3827-K24-LFB	1371.6	WT3827-K54-LFB	2133.6	WT3827-K84-LFB
762.0	WT3827-K30-LFB	1524.0	WT3827-K60-LFB	2286.0	WT3827-K90-LFB
914.4	WT3827-K36-LFB	1676.4	WT3827-K66-LFB	2438.4	WT3827-K96-LFB
1066.8	WT3827-K42-LFB	1828.8	WT3827-K72-LFB		

- Note: 1. Standard nominal widths are in increments of 152.4 mm (6 inches). Custom widths or width wider than 2,438.4 mm. Contact a Tsubaki representative for more information.
2. The chain width X is the nominal width and the actual width of the standard chain listed in chain material table above is about -0.4% (at an ambient temperature of 20°C). The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table above is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.

### Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>38</b>	<b>27</b>	<b>- K24</b> <small>Note: 2</small>	<b>- LFB</b> <small>Note: 3</small>	<b>+</b> <b>80</b> <small>Note: 4</small>	<b>L</b>
	38: 38.1 mm	7: Raised rib				L: Link

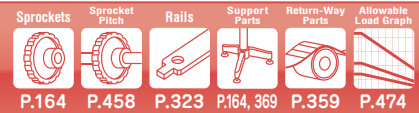
- Note: 1. Do not leave space between letters and symbols.
2. Please check the chain width in the Tsubaki model table above.
3. Please check the chain material and material marks in the chain material table above.
4. Minimum quantity: 2, maximum quantity: 99999.



# Plastic Modular Chain WT5707-K

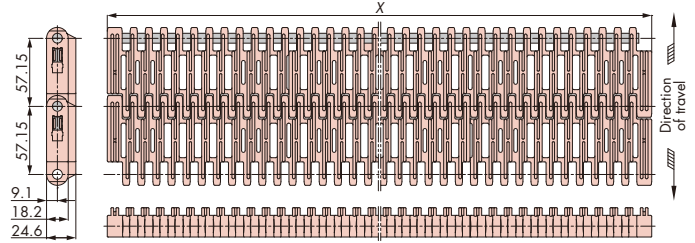
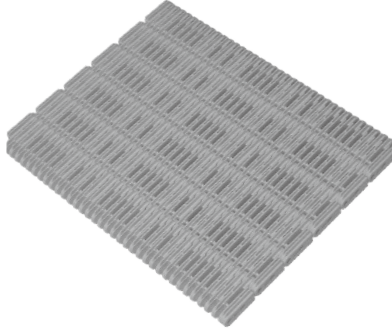
## WT5700 Series

Straight Running/Raised-Rib Type (Wide Type)



### Features

1. Mass handling is possible due to the wide carry-way, which is a combination of a wide module with a narrow module in a brick-layered array.
2. Suitable for mass handling showering units due to the highest allowable load in raised-rib series.
3. Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm
57.15	23	70

### Chain Material Table

Material	Standard Chain							High-Function Chain								
	Standard			Low friction/Wear resistant		Advanced low friction/wear resistant		Low friction		Low friction Wear resistant	High temperature	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	HTW	MWS	SE	MF	UVR	
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	White	Cream	Gray	Yellow	Light gray	
Max. allowable load kN/m {kgf/m}	51{5204}										35 {3571}	51{5204}		38 {3851}	51 {5204}	
Chain mass kg/m <sup>2</sup>	17.2										11.3	17.2				
Max. allowable speed m/min	50															
	With lube	—														50
No lube	50														50	
Operating temperature range °C	0 to 80			0 to (65)80		0 to 80		0 to (65)80	0 to 80	0 to (65)80	5 to 105	0 to (65)80	0 to 80			
Pin material	Polypropylene															
Slide plug material	Polypropylene															
Slide plug color	Blue															
Available	△	△	△	△	△	△	○	△	△	△	△	△	△	△	△	

- Note: 1. "○": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.  
 3. Operating temperature of (the value in parentheses) is for wet condition.  
 4. The color of the slide plug was changed from yellow to blue as of December 2013.  
 5. Number of links per unit (chain width): 40 (K18), 20 (K24 to 36), 10 (over K42).

### Tsubaki Model Table

Chain width X	High temperature HTW Chain type	Chain width X	High temperature HTW Chain type	Chain width X	High temperature HTW Chain type
457.2	WT5707-K18-HTW	1371.6	WT5707-K54-HTW	2286.0	WT5707-K90-HTW
609.6	WT5707-K24-HTW	1524.0	WT5707-K60-HTW	2438.4	WT5707-K96-HTW
762.0	WT5707-K30-HTW	1676.4	WT5707-K66-HTW	2590.8	WT5707-K102-HTW
914.4	WT5707-K36-HTW	1828.8	WT5707-K72-HTW	2743.2	WT5707-K108-HTW
1066.8	WT5707-K42-HTW	1981.2	WT5707-K78-HTW	2895.6	WT5707-K114-HTW
1219.2	WT5707-K48-HTW	2133.6	WT5707-K84-HTW	3048.0	WT5707-K120-HTW

- Note: 1. Standard nominal widths are in increments of 152.4 mm (6 inches). Custom widths or width wider than 3,048 mm. Contact a Tsubaki representative for more information.  
 2. The chain width X is the nominal width and the actual width is about -0.3% (at the ambient temperature of 20°C) for the HTW series. The width will expand or contract due to temperature change. The ratio of both expansion and contraction which will be affected by the ambient temperature of the standard chain listed in chain material table above is 0.00012/°C and 0.00011/°C for HTW series at the basis of 20°C.

### Model Numbering

Chain type	Chain pitch	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>57</b>	<b>07</b>	<b>- K24</b> <small>Note: 2</small>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
						L: Link

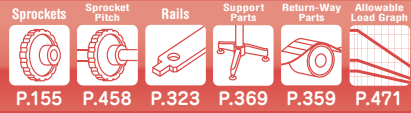
57: 57.15 mm      7: Raised rib

- Note: 1. Do not leave space between letters and symbols. 2. Please check the chain width in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above. 4. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT2250VG

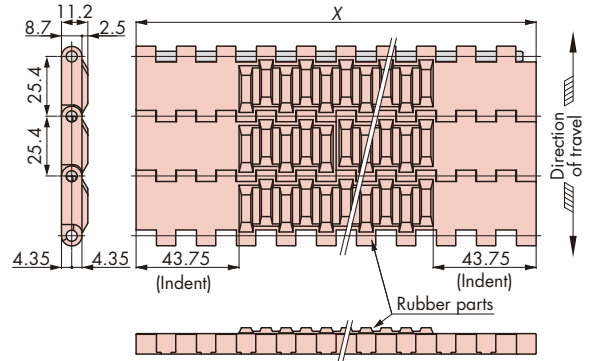
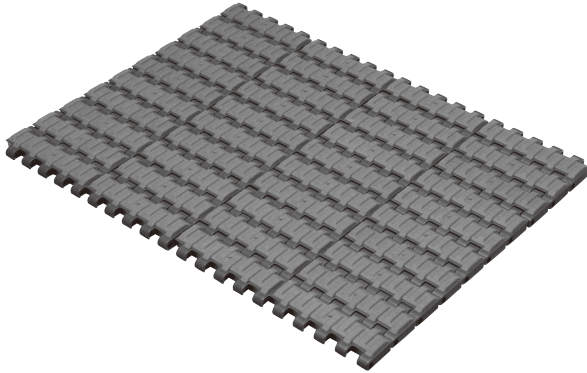
## WT2250 Series

Straight Running/Rubber Type (Wide Type)



### Features

1. Possible to convey boxes and items in bulk vertically due to friction created by the rubber surface.



Chain pitch mm	Open area %	Backflex radius mm
25.4	3	30

### Chain Material Table

Standard Chain		
Material		Standard
Material mark		G
Link color	Chain body	Gray
	Rubber parts	Blue
Max. allowable load kN/m {kgf/m}		12.8{1305}
Max. allowable load kg/m <sup>2</sup>		11.3
Max. allowable speed m/min	With lube	50
	No lube	
Operating temperature range °C		-20 to {60}80
Pin material		Special engineering plastic
Snap attachment material		Polyacetal
Snap attachment color		Light blue
Available		△

- Note: 1. "△": Made-to-order product (RFQ). Not available for other chain materials that are not listed in the chain material table on the left.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition.
4. Base chain material: polyacetal. Rubber part material: thermoplastic rubber.
5. Number of links per unit: 40.

### Tsubaki Model Table

Chain width X	Standard G	Chain width X	Standard G
	Chain type		Chain type
85	WT2250VG-W85-G	935	WT2250VG-W935-G
170	WT2250VG-W170-G	1020	WT2250VG-W1020-G
255	WT2250VG-W255-G	1105	WT2250VG-W1105-G
340	WT2250VG-W340-G	1190	WT2250VG-W1190-G
425	WT2250VG-W425-G	1275	WT2250VG-W1275-G
510	WT2250VG-W510-G	1360	WT2250VG-W1360-G
595	WT2250VG-W595-G	1445	WT2250VG-W1445-G
680	WT2250VG-W680-G	1530	WT2250VG-W1530-G
765	WT2250VG-W765-G	1615	WT2250VG-W1615-G
850	WT2250VG-W850-G		

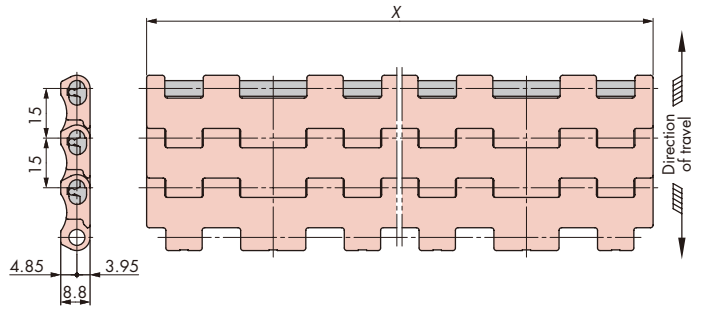
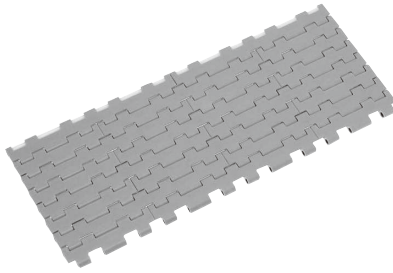
- Note: 1. Standard nominal widths are in increments of 85 mm. Chain width wider than 1,615 mm. Contact a Tsubaki representative for more information.
2. Chain width X is the nominal width which expands and contracts due to temperature change. As a guideline, expansion and contraction specifications are 0.00012/°C based on 20 °C.
3. Indent, where rubber is not attached, should be necessary to support the chain on the return-way when using return rollers.
4. No indent is available for the chain widths of 85 mm and 170 mm.

### Model Numbering

Chain type	Link shape	Chain width	Material mark	Number of links	Unit
<b>WT2250</b>	<b>VG</b>	<b>- W340</b> <small>Note: 2</small>	<b>- G</b>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
VG: Rubber type					L: Link

- Note: 1. Do not leave space between letters and symbols.
2. Please check the chain width in the Tsubaki model table above.
3. Minimum quantity: 2, maximum quantity: 99999.

**BTC5**



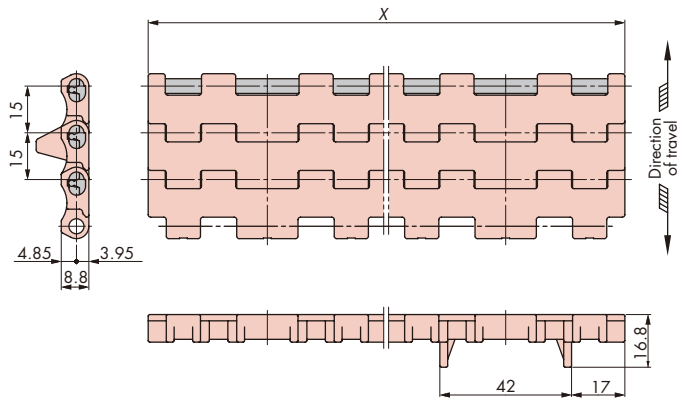
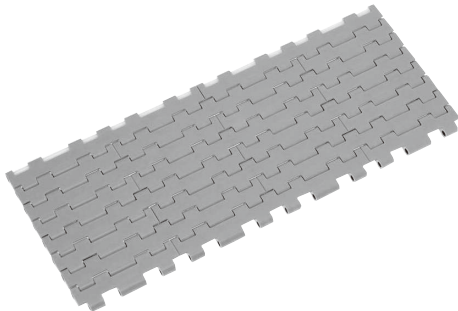
### Chain Material Table

Material	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m <sup>2</sup>	Operating temperature range °C	Pin material
LFB	15	Brown	2.5	10.5{1072}	7.90	-20 to (60)80	Special engineering plastic
MWS		Cream					
ALF		Light blue					

- Note: 1. Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition. This product can be used in wet conditions at 60 to 80°C if the pin material is changed to stainless steel. In this case, the initial length and chain mass increase slightly. Contact a Tsubaki representative for more information.
4. The chain with a width narrower than 1,824 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,824 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.
5. Number of links per unit: 68.

**BTC5-A**

### Tab Guide Attachment



### Chain Material Table

Material	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m <sup>2</sup>	Operating temperature range °C	Pin material
LFB	15	Brown	2.5	10.5{1072}	7.90	-20 to (60)80	Special engineering plastic
MWS		Cream					
ALF		Light blue					

- Note: 1. Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.
2. The maximum allowable load indicates the value specified for a normal temperature (20°C) when loads are evenly applied to the entire surface of the chain in a widthwise direction. The value differs depending on use conditions (temperature, speed, etc.). Refer to the load diagram of the chain. The maximum allowable load shown in the above chain material table is specified in a unit of 1 m chain width. Calculate the maximum allowable load of the chain to be examined by multiplying the maximum value per meter by its width X.
3. Operating temperature of (the value in parentheses) is for wet condition. This product can be used in wet conditions at 60 to 80°C if the pin material is changed to stainless steel. In this case, the initial length and chain mass increase slightly. Contact a Tsubaki representative for more information.
4. The chain with a width narrower than 1,824 mm must be used when ambient temperatures are higher than 40°C. A chain width wider than 1,824 mm is available under 80% of the maximum chain tension in case of replacing the pins with those made of polypropylene.
5. With tab guide attachments, the approximate chain weight will be 0.5 kg/m higher than the approximate chain weight in the chain material table above. (tab guide attachments are attached every two links and only on one side of the chain.)
6. Number of links per unit: 68.

## WT2250FT Flight Type and WT2250FG Flight Type

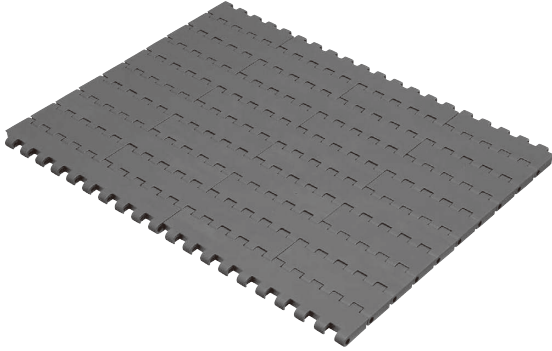
Plastic modular chain that allows inclined conveyance of bulk materials.

### Flight-Attachable Chain

#### WT2250FT-G and WT2250FT-HTW

(Refer to page 69 for maximum allowable load and other parameters)

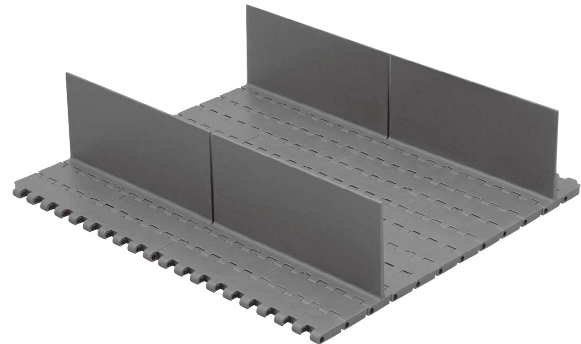
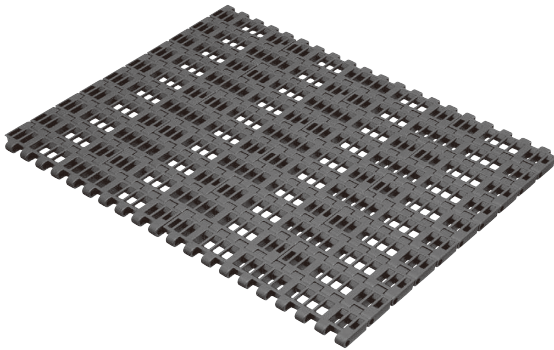
Inclined conveyor with attached flights



#### WT2250FG-G and WT2250FG-HTW

(Refer to page 105 for maximum allowable load and other parameters)

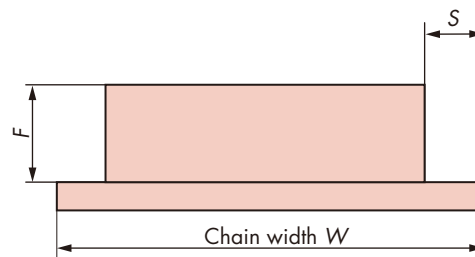
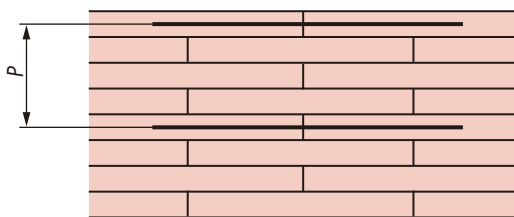
Example of flight type



### Flight Dimensions

The below dimensions must be determined in order to install flights:

- $P$  = flight attachable spacing (Flights can be attached at integral multiples of the chain pitch of 25.4 mm.)
- $F$  = flight height (Select from 25.4 mm, 50.8 mm, or 76.2 mm.)
- $S$  = indent (Required to support the chain with rollers, etc. on the return-way. 17 mm, 34 mm, or 51 mm)



Note: Made-to-order product (RFQ).

**WT2250FT/FG Flight Type Plastic Modular Chain Inquiry Sheet**

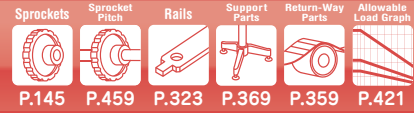
Please fill out the following information and contact a Tsubaki representative when placing an order for or inquiring about WT2250FT/FG Flight Type Plastic Modular Chain.

WT2250FT/FG Inquiry Sheet			
Company		Your name	
Contact number (fax)		E-mail address	
1. Chain type	FT (closed type) · FG (open type)		
2. Chain width <i>W</i>	mm (Standard chain width begins at 170 mm and available in 85 mm increments)		
3. Chain material	Standard G (Link color: Gray) High Temperature HTW (Link color: White)		
4. Flight attachable spacing <i>P</i>	mm (Flights can be attached at integral multiples of the chain pitch of 25.4 mm.)		
5. Flight height <i>F</i>	25.4 mm · 50.8 mm · 76.2 mm · Other (          mm)		
6. Indent <i>S</i>	17 mm · 34 mm · 51 mm · Other (          mm)		
7. Equipment	① Description	New installation · Remodeling (Existing:          )	
	② Layout	Layout sketch:	
	③ Horizontal conveyance distance	Drive side:          mm	Driven side:          mm
Conveyed product	① Conveyed product		
	② Mass	kg/m <sup>2</sup>	
	③ Conveying speed	m/min	
	④ Temperature of conveyed product	from          to          °C	
	⑤ Ambient temperature	from          to          °C	
	⑥ Amount of product	kg/min	
	⑦ Impact	No · Yes (Description:          )	

# Plastic Modular Chain BTC4-M

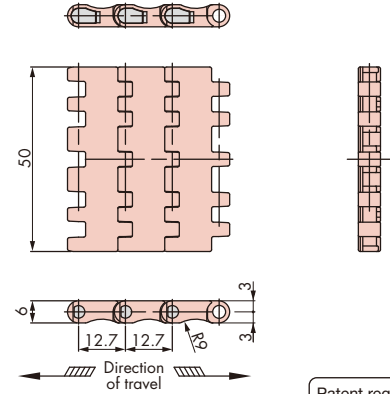
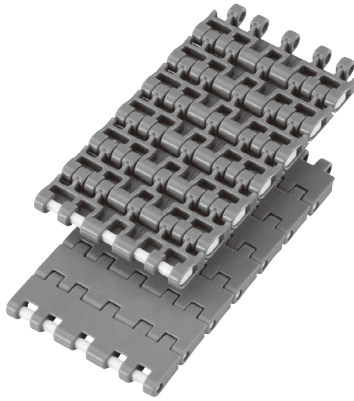
**BT4 Series**

Straight Running (Mold-to-Width Type)



## Features

- 12.7 mm pitch. Suitable for conveying small and lightweight containers.
- The backside surface has a rounded shape, which is suitable to wrap around the 18 mm diameter shaft, effectively minimizing the dead space between conveyors.
- Suitable for accumulation and/or transfer due to its unique multi-hinge structure.
- Lightweight and easy-handling due to all plastic-made chain.



Patent registration

Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
12.7	0.2	10	240

## Chain Material Table

Material	Standard Chain										High-Function Chain									
	Standard				Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction/Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	-	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	Y	E	DIA	DIY	MWS	SE	MF	UVR	
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Matte White	Black	Cream	Green	Cream	Gray	Yellow	Light gray	
Max. allowable load kN {kgf}	0.49{50}										0.27 {28}	0.34 {35}	0.38{39}		0.49{50}		0.36 {37}	0.49 {50}		
Chain mass kg/m	0.25										0.2	0.25	0.2	0.3	0.25					
Max. allowable speed m/min	50												-	50		-	50			
	50												50	50		50	50			
Operating temperature range °C	-20 to {60}80												-20 to 80	-20 to {60}80		-20 to 80	-20 to {60}80			
Pin material	Special engineering plastic																			
Available	●	△	△	△	●	●	●	●	△	△	△	△	△	△	△	○	△	△	△	

Note: 1. "●": Standard products, "○": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet condition.  
 3. Available only for dedicated plastic pins.  
 4. The color of connecting pin is orange. Base chain pins are white.

## Tsubaki Model Table

Chain width	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFW	Low friction/Wear resistant LFG	Low friction/Wear resistant LFB	Standard
	Chain type	Chain type	Chain type	Chain type	Chain type
50	<b>BTC4-500-M-ALF</b>	<b>BTC4-500-M-LFW</b>	<b>BTC4-500-M-LFG</b>	<b>BTC4-500-M-LFB</b>	<b>BTC4-500-M</b>

Note: Standard products.

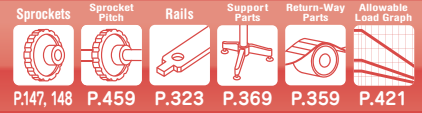
## Model Numbering

Chain type	Link shape	Chain pitch	Chain width	Mold-to-width	Material mark	Number of links	Unit
<b>BT</b>	<b>C</b>	<b>4</b>	<b>- 500</b>	<b>- M</b>	<b>- LFB</b> <small>Note: 2</small>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
	C: Closed type	4: 12.7 mm	500: 50 mm				L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT1505G-M

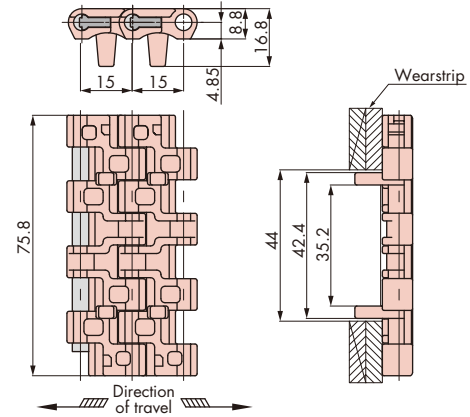
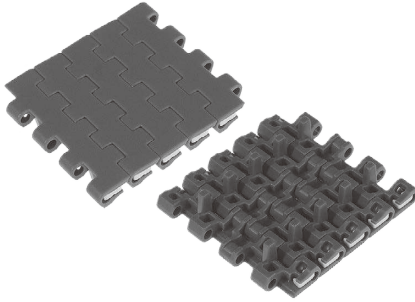
**WT1500 Series**  
Straight Running (Mold-to-Width Type)



## Features

- 15 mm pitch. Suitable for conveying small and light weight containers.
- Suitable for a single filer, which consists of multiline conveyors with a speed difference, due to use of tab guide attachment.
- Lightweight and easy-handling due to all plastic-made chain.

### Tab Guide Attachment



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
15	2	15	240

## Chain Material Table

Material	Standard Chain								High-Function Chain							
	Standard				Low friction/Wear resistant				Low friction				High-Function Chain			
Material mark	-	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	MF	UVR
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow	Light gray
Max. allowable load kN {kgf}	0.8{81}											0.56 {56.7}	0.8{81}		0.59 {60.2}	0.8 {81}
Chain mass kg/m	0.6															
Max. allowable speed m/min	With lube	120														
	No lube	50														
Operating temperature range °C	-20 to (60)80														-20 to 80	-20 to (60)80
Pin material	Special engineering plastic															
Plug material	Polyacetal															
Plug color	Yellow															
Available	△	△	△	△	△	○	△	○	○	△	△	△	△	△	△	△

- Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet condition.  
 3. Nose bars (sliding types, integrated-bearing types) cannot be used.  
 4. Sprocket dedicated for the BT5 series cannot be used.  
 5. When using WT-N1500-12T30 solid sprocket, set the key length of the sprocket engaging module with tab guide attachment to 30 mm.

## Tsubaki Model Table

Chain width	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF
	Chain type	Chain type	Chain type
75.8	WT1505G-M300-ALF	WT1505G-M300-LFG	WT1505G-M300-NLF

Note: Made-to-order products.

## Model Numbering

Chain type	Chain pitch	Link shape	Tab guide attachment	Mold-to-width	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>15</b>	<b>05</b>	<b>G</b>	<b>- M</b>	<b>300</b>	<b>- LFG</b>	<b>+ 80</b>	<b>L</b>
	15:15 mm	5: Closed type	G: Tab guide attachment		300: 75.8 mm	Note: 2	Note: 3	L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT1515G-M

WT1510 Series

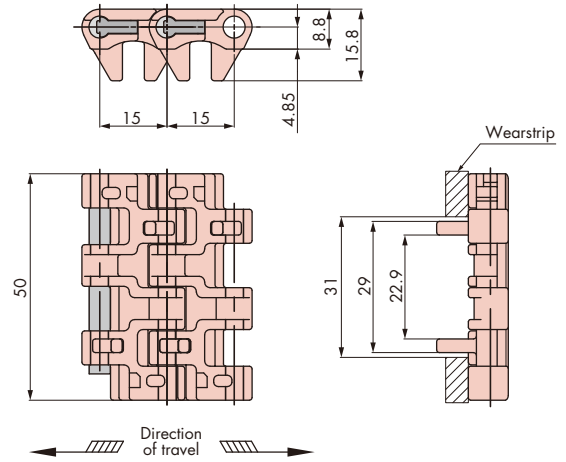
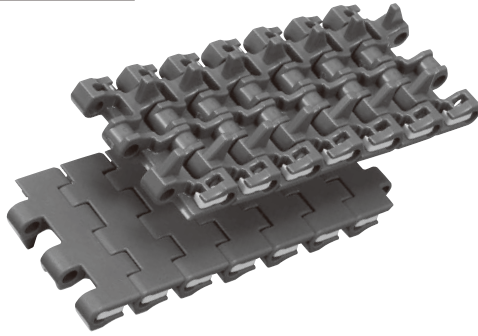
Straight Running (Mold-to-Width Type)

## Features

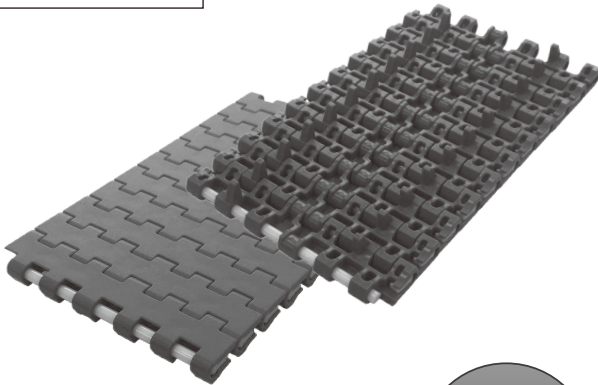
1. 15 mm pitch. Suitable for conveying small and light weight containers.
2. Suitable for a single filer, which consists of multilane conveyors with a speed difference, due to use of tab guide attachment.
3. Lightweight and easy-handling due to all plastic-made chain.

### Tab Guide Attachment

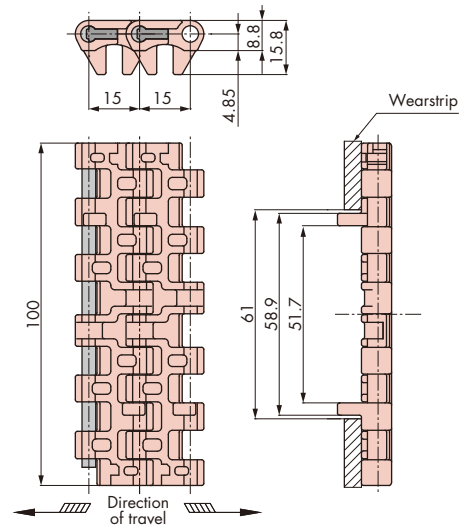
WT1515G-M50



WT1515G-M100



Slit pin



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
15	2	15	240



Chain Material Table

Material	Standard Chain								High-Function Chain								
	Standard				Low friction/Wear resistant		Advanced low friction/Wear resistant	Low friction		Low friction Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant		
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	MF	UVR	
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN {kgf}	M50	0.53{54}										0.37 {38}	0.53{54}		0.39 {40}	0.53 {54}	
	M100	1.06{108}										0.74 {76}	1.06{108}		0.78 {80}	1.06 {108}	
Chain mass kg/m	M50									0.4							
	M100									0.8							
Max. allowable speed m/min	With lube									120(50)						—	120 (50)
	No lube									50(30)							
Operating temperature range °C									-20 to (60)80						-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic																
Plug material	Polyacetal																
Plug color	Yellow																
Available	○	△	△	△	△	○	△	○	○	△	○	△	△	△	△	△	△ Note: 7

- Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The allowable speed (the value in parentheses) of each chain are for products that use nose bars made of ultrahigh molecular weight polyethylene. For products with nose bars made of SJ-CNO (special polyamide), use them without lubrication.  
 3. Operating temperature of (the value in parentheses) is for wet condition.  
 4. When using WT-N1500-12T30 solid sprocket, set the key length of the sprocket engaging module with tab guide attachment to 20 mm.  
 5. When using WT-S1500 (machined types) solid sprocket, the hub needs to be machined to have a proper diameter.  
 6. Nose roller cannot be used.  
 7. UVR series are not supported for slit-pin type products.

Tsubaki Model Table

◆ Slit pin system

Chain width	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF	Standard
	Chain type	Chain type	Chain type	Chain type
50	WT1515G-M50-ALF-SP	WT1515G-M50-LFG-SP	WT1515G-M50-NLF-SP	WT1515G-M50-SP
100	WT1515G-M100-ALF-SP	WT1515G-M100-LFG-SP	WT1515G-M100-NLF-SP	WT1515G-M100-SP

Note: Made-to-order products.

◆ Pin and plug system

Chain width	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF	Standard
	Chain type	Chain type	Chain type	Chain type
50	WT1515G-M50-ALF	WT1515G-M50-LFG	WT1515G-M50-NLF	WT1515G-M50
100	WT1515G-M100-ALF	WT1515G-M100-LFG	WT1515G-M100-NLF	WT1515G-M100

Note: Made-to-order products.

Model Numbering

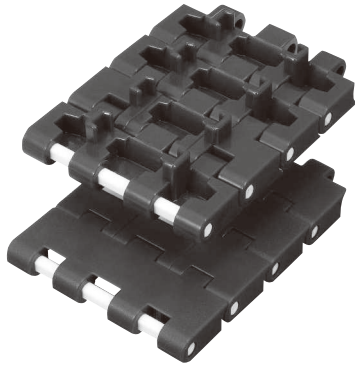
Chain type	Chain pitch	Link shape	Tab guide attachment	Mold-to-width	Chain width	Material mark	Pin retention system	Number of links	Unit
<b>WT</b>	<b>15</b>	<b>15</b>	<b>G</b>	<b>- M</b>	<b>50</b>	<b>- LFG</b> <small>Note: 2</small>	<b>- SP</b>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
	15: 15 mm	5: Closed type	G: Tab guide attachment		50: 50 mm 100: 100 mm		None: Pin and plug SP: Slit pin (all-in-one pin with a plug)		L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table.  
 3. Minimum quantity: 2, maximum quantity: 99999.

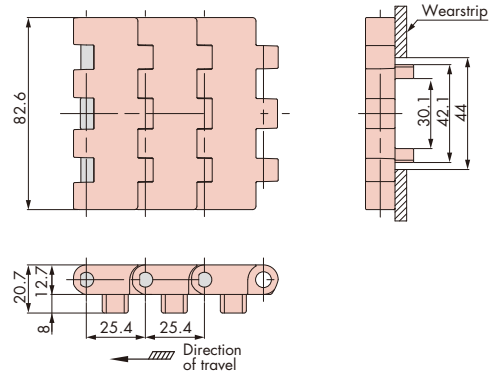
## Features

1. Suitable for conveying trays with a parallel strand.
2. The product lineup includes BTC8H-M closed type which is suitable for horizontal conveyors and BTM8H-M magnet type which is suitable for vertical conveyors.
3. Magnetic type enables the conveyance of metal trays vertically.

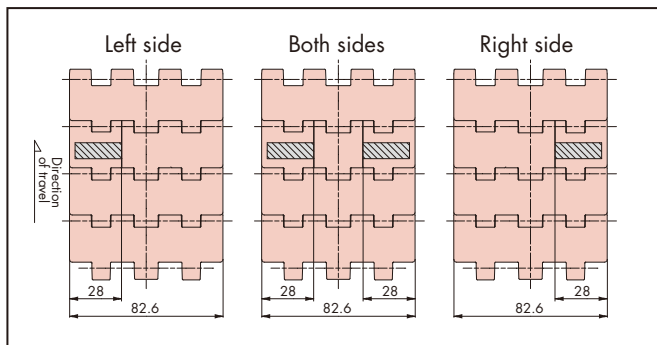
### Tab Guide Attachment



#### ● Closed Type BTC8H-M (Without magnet)

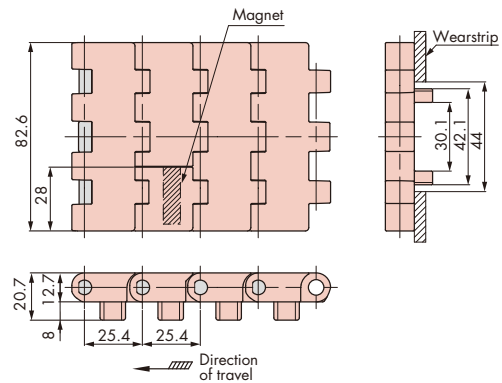


#### ● Magnet Configuration

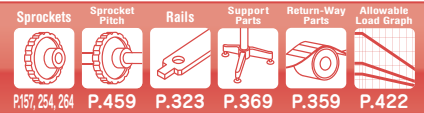


Magnets can be incorporated into BTM8H-M magnetic type on either the left side or the right side with respect to the direction of travel, or on both sides, and with any spacing desired. Specify the placement and spacing of the magnets when ordering.

#### ● Magnetic Type BTM8H-M (With magnet)



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
25.4	0.1	25	120



**Chain Material Table**

**Standard Chain**

Standard Chain										
Material	Standard				Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	W	B	BL	G	LFW	LFG	LFB	ALF	NLF	WR
Link color	White	Blue	Sky blue	Gray	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	1.47{150}									
Chain mass kg/m	BTC8H	1.2								
	BTM8H	1.2 <sup>Note: 4</sup>								
Max. allowable speed m/min	With lube	50 <sup>Note: 3</sup>								
	No lube									
Operating temperature range °C	-20 to {60}80									
Pin material	Special engineering plastic									
Available	BTC8H	△	●	△	●	△	△	△	△	△
	BTM8H	△	△	△	△	△	△	△	△	△

**High-Function Chain**

High-Function Chain									
Material	Low friction Wear resistant	High temperature	Electroconductive	Impact resistant	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	HTW	E	DIA	MWS	SE	MF	UVR	
Link color	Navy blue	White	Black	Cream	Cream	Gray	Yellow	Light gray	
Max. allowable load kN {kgf}	1.47{150}	0.59{60}	1.03{105}	1.14{116}	1.47{150}		1.09{111}	1.47{150}	
Chain mass kg/m	BTC8H	0.8	1.2	1.0	1.2				
	BTM8H	1.2 <sup>Note: 4</sup>	0.8 <sup>Note: 4</sup>	1.2 <sup>Note: 4</sup>	1.0 <sup>Note: 4</sup>	1.2 <sup>Note: 4</sup>			
Max. allowable speed m/min	With lube	50 <sup>Note: 3</sup>			—	50 <sup>Note: 3</sup>		—	50 <sup>Note: 3</sup>
	No lube	50 <sup>Note: 3</sup>			50 <sup>Note: 3</sup>	50 <sup>Note: 3</sup>		50 <sup>Note: 3</sup>	50 <sup>Note: 3</sup>
Operating temperature range °C	-20 to {60}80	5 to {60}80	-20 to {60}80	-20 to 80	-20 to {60}80		-20 to 80	-20 to {60}80	
Pin material	Special engineering plastic								
Available	BTC8H	△	△	△	△	△	△	△	△
	BTM8H	△	△	△	△	△	△	△	△

- Note: 1. "●": Standard products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.
- 2. Operating temperature of (the value in parentheses) is for wet condition.
- 3. BTM8H-M is only for dry conditions. It cannot be used under conditions where it is exposed to water or steam. Since magnets are sensitive to heat, do not store or use them in an environment exceeding 80°C.
- 4. Chain mass for BTM8H-M does not include the mass of the magnets shown in the above chain material table. Add 0.015 kg for per magnet.
- 5. Available only for dedicated plastic pins. The color of connecting pin is orange. Base chain pins are white.

**Tsubaki Model Table**

**◆Closed Type (Without magnet)**

Chain width	Standard G	Standard B
	Chain type	Chain type
82.6	<b>BTC8H-826-M-G</b>	<b>BTC8H-826-M-B</b>

Note: Standard products.

**◆Magnetic Type (With magnet)**

Chain width	Standard G	Standard B
	Chain type	Chain type
82.6	BTM8H-826-M-G-TK	BTM8H-826-M-B-TK

- Note: 1. Made-to-order products (RFQ).
- 2. Refer to model numbering for the Tsubaki model no.

**Model Numbering**

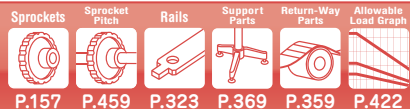
Chain type	Link shape	Chain pitch	Chain type	Chain width	Mold-to-width	Material mark	Special configuration	Number of links	Unit
<b>BT</b>	<b>M</b>	<b>8</b>	<b>H</b>	<b>826</b>	<b>M</b>	<b>B</b> <sup>Note: 2</sup>	<b>- TK</b> <sup>Note: 3</sup>	<b>+ 80</b> <sup>Note: 4</sup>	<b>L</b>
C : Closed type		8: 25.4 mm	826: 82.6 mm		None: Closed type		TK: Magnetic type	L: Link	
M: Magnetic type									

- Note: 1. Do not leave space between letters and symbols.
- 2. Please check the chain material and material marks in the chain material table above.
- 3. Chain with magnets requires confirmation of the magnet configuration in each case with customers. Contact a Tsubaki representative for more information.
- 4. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT2505-M

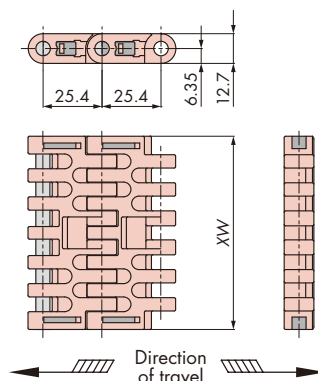
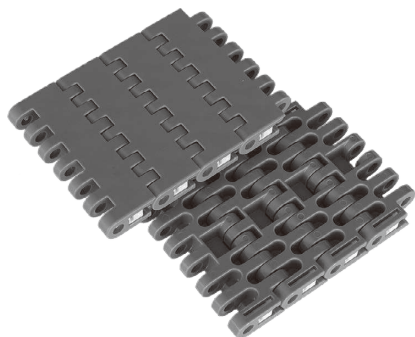
## WT2500 Series

Straight Running (Mold-to-Width Type)



### Features

- 25.4 mm pitch. Suitable for conveying medium-sized containers.
- Promising to prolong lifetime against wear due to special engineering plastic pins.
- Lightweight and easy-handling due to all plastic-made chain.



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
25.4	3	20	120

### Chain Material Table

Material	Standard Chain										High-Function Chain								
	Standard				Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant		
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	HTW	E	MWS	SE	MF	UVR		
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	White	Black	Cream	Gray	Yellow	Light gray		
Max. allowable load kN (kgf)	M325	3.0{306}										1.2{122}	2.1{214}	3.0{306}		2.2{224}	3.0{306}		
	M450	4.5{459}										1.8{183}	3.2{321}	4.5{459}		3.3{337}	4.5{459}		
Chain mass kg/m	M325	1.0										0.7		1.0					
	M450	1.4										0.9		1.4					
Max. allowable speed m/min	With lube	120										50		120		—	120		
	No lube																		
Operating temperature range °C	0 to 80 Note: 4, 5				0 to (65)80 Note: 4, 5			0 to 80 Note: 4, 5	0 to (65)80 Note: 4, 5	0 to 80 Note: 4, 5	0 to (65)80 Note: 4, 5	5 to 105	0 to 80	0 to (65)80	0 to 80				
Pin material	Polypropylene/Special engineering plastic Note: 4										Polypropylene								
Slide plug material	Polypropylene																		
Slide plug color	Blue																		
Available	△	△	△	△	△	○	△	○	△	△	△	△	△	△	△	△	△		

- Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet condition.  
 3. The color of the slide plug was changed from yellow to blue as of December 2013.  
 4. If the pin material is special engineering plastic, add "EP" to the end. Only the standard chain listed in chain material table above [excluding standard (W/B/BL) series] and HG series are available.  
 5. (60) applies when pins are made of special engineering plastic and use under wet condition.

### Tsubaki Model Table

Chain width XW	Advanced low friction/Wear resistant ALF		Low friction/Wear resistant LFG	
	Chain type		Chain type	
82.6	WT2505-M325-ALF	WT2505-M325-ALF-EP	WT2505-M325-LFG	WT2505-M325-LFG-EP
114.3	WT2505-M450-ALF	WT2505-M450-ALF-EP	WT2505-M450-LFG	WT2505-M450-LFG-EP

Note: Made-to-order products.

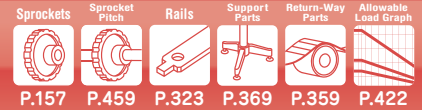
### Model Numbering

Chain type	Chain pitch	Link shape	Mold-to-width	Chain width	Material mark	Pin material	Number of links	Unit
<b>WT</b>	<b>25</b>	<b>05</b>	<b>- M</b>	<b>450</b>	<b>- LFG</b> <small>Note: 2</small>	<b>- EP</b>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
	25: 25.4 mm	5: Closed type		325: 82.6 mm 450: 114.3 mm		None: Polypropylene EP: Special engineering plastic		L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT2505G-M

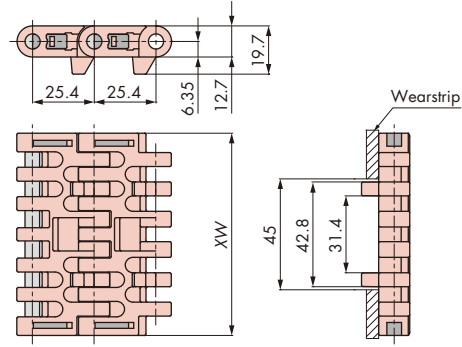
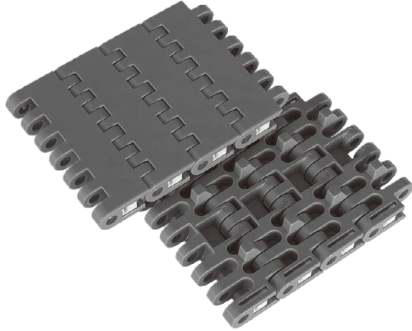
**WT2500 Series**  
Straight Running (Mold-to-Width Type)



## Features

- 25.4 mm pitch. Suitable for conveying medium-sized containers.
- Suitable for a single filer, which consists of multilane conveyors with a speed difference, due to use of tab guide attachments.
- Promising to prolong lifetime against wear due to special engineering plastic pins.
- Lightweight and easy-handling due to all plastic-made chain.

### Tab Guide Attachment



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
25.4	3	20	120

## Chain Material Table

Material	Standard Chain								High-Function Chain								
	Standard				Low friction/Wear resistant		Advanced low friction/Wear resistant	Low friction		Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	HTW	E	MWS	SE	MF	UVR
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	White	Black	Cream	Gray	Yellow	Light gray
Max. allowable load kN {kgf}	M325	3.0{306}										1.2{122}	2.1{214}	3.0{306}		2.2{224}	3.0{306}
	M450	4.5{459}										1.8{183}	3.2{321}	4.5{459}		3.3{337}	4.5{459}
Chain mass kg/m	M325	1.1										0.7		1.1			
	M450	1.5										1.0		1.5			
Max. allowable speed m/min	With lube	120										50		120		—	120
	No lube																
Operating temperature range °C	0 to 80 Note: 4, 5				0 to {65}80 Note: 4, 5		0 to 80 Note: 4, 5	0 to {65}80 Note: 4, 5	0 to 80 Note: 4, 5	0 to {65}80 Note: 4, 5	5 to 105	0 to 80	0 to {65}80	0 to 80			
Pin material	Polypropylene/Special engineering plastic Note: 4										Polypropylene						
Slide plug material	Polypropylene																
Slide plug color	Blue																
Available	△	△	△	△	△	●	△	○	△	△	△	△	△	△	△	△	△

- Note: 1. "●": Standard product, "○": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet condition.  
 3. The color of the slide plug was changed from yellow to blue as of December 2013.  
 4. If the pin material is special engineering plastic, add "EP" to the end. Only the standard chain listed in chain material table above [excluding standard (W/B/BL) series] and HG series are available.  
 5. {60} applies when pins are made of special engineering plastic and use under wet condition.

## Tsubaki Model Table

Chain width XW	Advanced low friction/Wear resistant ALF		Low friction/Wear resistant LFG	
	Chain type		Chain type	
82.6	WT2505G-M325-ALF	WT2505G-M325-ALF-EP	<b>WT2505G-M325-LFG</b>	WT2505G-M325-LFG-EP
114.3	WT2505G-M450-ALF	WT2505G-M450-ALF-EP	<b>WT2505G-M450-LFG</b>	WT2505G-M450-LFG-EP

Note: Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.

## Model Numbering

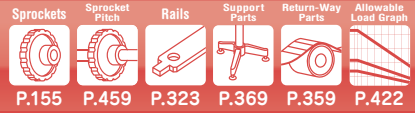
Chain type	Chain pitch	Link shape	Tab guide attachment	Mold-to-width	Chain width	Material mark	Pin materials	Number of links	Unit
<b>WT</b>	<b>25</b>	<b>05</b>	<b>G</b>	<b>- M</b>	<b>450</b>	<b>- LFG</b> Note: 2	<b>- EP</b>	<b>+ 80</b> Note: 3	<b>L</b>
	25: 25.4 mm	5: Closed type	G: Tab guide attachment		325: 82.6 mm 450: 114.3 mm		None: Polypropylene EP: Special engineering plastic		L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT2515G-M

**WT2510 Series**

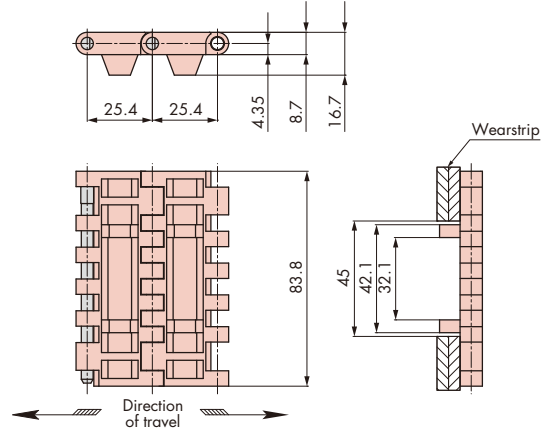
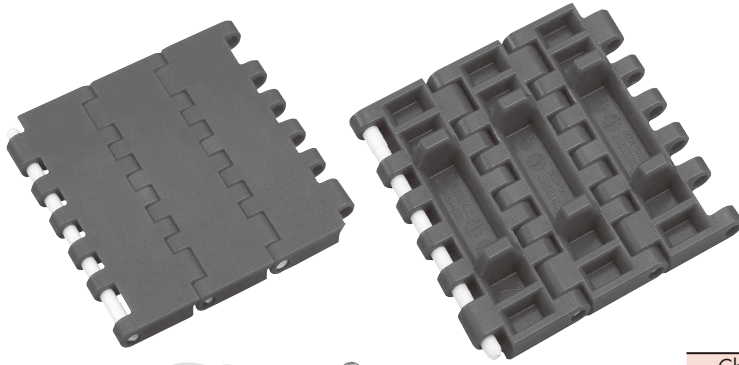
Straight Running (Mold-to-Width Type)



## Features

- Highly effective for preventing foreign substance contamination through the adoption of a special stepped plastic connecting pin that is built by integrating a plug and pin.
- Easy handling with a simple plug and pin system.
- Lightweight and easy-handling due to all plastic-made chain.

### Tab Guide Attachment



**Bevedolphin**

Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
25.4	2	25	120

## Chain Material Table

Material	Standard Chain										High-Function Chain									
	Standard				Low friction/Wear resistant				Advanced low friction/Wear resistant	Low friction		Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant		
Material mark	—	W	B	BL	LFW	IFG	IFB	CB	ALF	NLF	WR	HG	HTW	E	MWS	SE	MF	UVR		
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Blue	Light blue	Dark gray	Dark green	Navy blue	White	Black	Cream	Gray	Yellow	Light gray		
Max. allowable load kN {kgf}	1.9{190}										0.76 {76}	1.33 {133}	1.9{190}		1.41 {141}	1.9 {190}				
Chain mass kg/m	0.8										0.5	0.8								
Max. allowable speed m/min	100										50	100								
	With lube																			
No lube											50	100								
Operating temperature range °C	-20 to (60)80										5 to (60)80	-20 to (60)80		-20 to 80	-20 to (60)80					
Pin material	Special engineering plastic																			
Available	△	△	△	△	△	△	△	○	△	△	△	△	△	△	△	△	△	△		

Note: 1. "O": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet condition.  
 3. The color of connecting pin is orange. Base chain pins are white.

## Tsubaki Model Table

Chain width	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant HG	Low friction/Wear resistant CB
	Chain type	Chain type	Chain type
83.8	WT2515G-M330-ALF	WT2515G-M330-HG	WT2515G-M330-CB

Note: Made-to-order products.

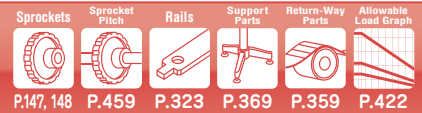
## Model Numbering

Chain type	Chain pitch	Link shape	Tab guide attachment	Mold-to-width	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>25</b>	<b>15</b>	<b>G</b>	<b>- M</b>	<b>330</b>	<b>- CB</b>	<b>+ 80</b>	<b>L</b>
	25: 25.4 mm	5: Closed type	G: Tab guide attachment		330: 83.8 mm	Note: 2	Note: 3	L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT3005G-M

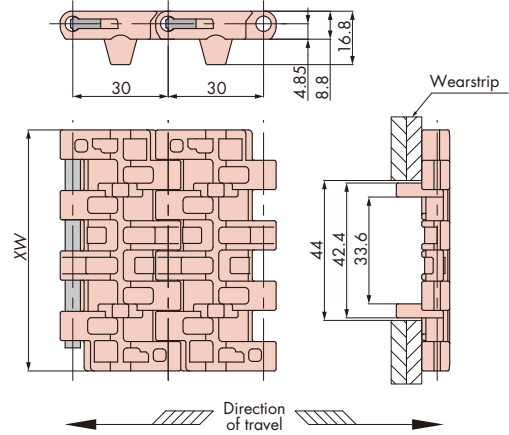
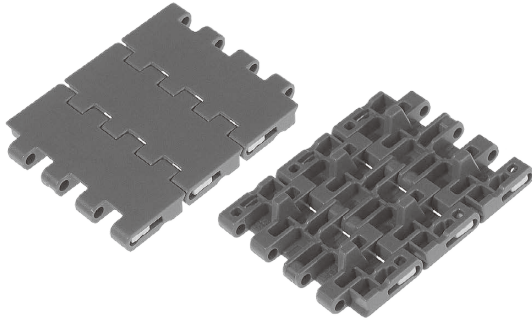
**WT3000 Series**  
Straight Running (Mold-to-Width Type)



## Features

1. Can be possible to drive coaxially with WT1500 series due to a 30 mm pitch.
2. Suitable for a single filer, which consists of multilane conveyors with a speed difference, due to use of tab guide attachments.
3. Lightweight and easy-handling due to all plastic-made chain.

### Tab Guide Attachment



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
30	4	30	140

## Chain Material Table

Material	Standard Chain											High-Function Chain						
	Standard				Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant		
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	MF	UVR		
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow	Light gray		
Max. allowable load kN {kgf}	M300	0.8{81.1}											0.56 {56.8}	0.8{81.1}		0.59 {60.2}	0.8 {81.1}	
	M450	1.2{122.0}											0.84 {85.4}	1.2{122.0}		0.89 {90.6}	1.2 {122.0}	
Chain mass kg/m	M300												0.6					
	M450												0.8					
Max. allowable speed m/min	With lube												120		—	120		
	No lube												50					
Operating temperature range °C	-20 to (60)80													-20 to 80	-20 to (60)80			
Pin material	Special engineering plastic																	
Plug material	Polyacetal																	
Plug color	Yellow																	
Available	△	△	△	△	△	△	△	○	△	○	△	△	△	△	△	△		

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
2. Operating temperature of (the value in parentheses) is for wet condition.

## Tsubaki Model Table

Chain width XW	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF
	Chain type	Chain type	Chain type
75.8	WT3005G-M300-ALF	WT3005G-M300-LFG	WT3005G-M300-NLF
113.8	WT3005G-M450-ALF	WT3005G-M450-LFG	WT3005G-M450-NLF

Note: Made-to-order products.

## Model Numbering

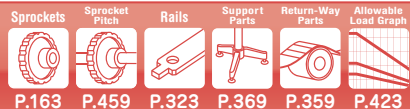
Chain type	Chain pitch	Link shape	Tab guide attachment	Mold-to-width	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>30</b>	<b>05</b>	<b>G</b>	<b>- M</b>	<b>300</b>	<b>- LFG</b>	<b>+ 80</b>	<b>L</b>
	30: 30 mm	5: Closed type	G: Tab guide attachment		300: 75.8 mm 450: 113.8 mm		Note: 2 Note: 3	L: Link

Note: 1. Do not leave space between letters and symbols.  
2. Please check the chain material and material marks in the chain material table above.  
3. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT3835G-M

**WT3830 Series**

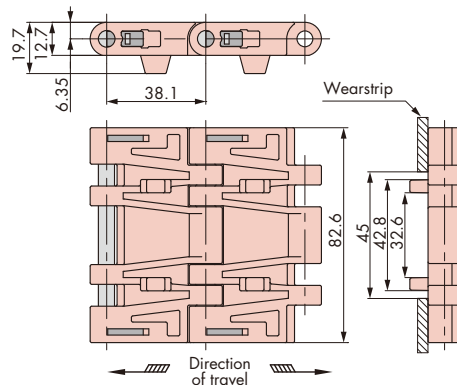
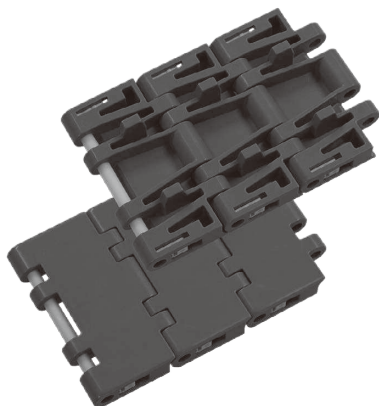
Straight Running (Mold-to-Width Type)



## Features

- Mold-to-width type with 82.6 mm-width is lined up in WT3835-K. Suitable for conveying containers.
- A slide plug type pin stopper is adopted to allow the easy connection and disconnection of the chain with just a screwdriver.

### Tab Guide Attachment



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
38.1	2	40	80

## Chain Material Table

Material	Standard Chain								High-Function Chain								
	Standard				Low friction/Wear resistant		Advanced low friction/Wear resistant	Low friction		Low friction Wear resistant	High temperature	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	HTW	E	MWS	SE	MF	UVR
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	White	Black	Cream	Gray	Yellow	Light gray
Max. allowable load kN {kgf}	1.2{122.4}											0.5 {51}	0.84 {85.7}	1.2{122.4}	0.89 {90.6}	1.2 {122.4}	
Chain mass kg/m	1.0											0.7	1.0				
Max. allowable speed m/min	100											50	100				
Operating temperature range °C	-20 to {60}80											5 to 105	-20 to {60}80			-20 to 80	-20 to {60}80
Pin material	Special engineering plastic											Polypropylene	Special engineering plastic				
Slide plug material	Special engineering plastic											Polypropylene					
Slide plug color	Special engineering plastic											Blue					
Available	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△

Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

- Operating temperature of (the value in parentheses) is for wet condition.
- The color of the slide plug was changed from yellow to blue as of December 2013.
- Use solid sprockets. Split sprockets cannot be used.

## Tsubaki Model Table

Chain width	Low friction/Wear resistant LFB	Low friction NLF	High temperature HTW
	Chain type	Chain type	Chain type
82.6	WT3835G-M325-LFB	WT3835G-M325-NLF	WT3835G-M325-HTW

Note: Made-to-order products.

## Model Numbering

Chain type	Chain pitch	Link shape	Tab guide attachment	Mold-to-width	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>38</b>	<b>35</b>	<b>G</b>	<b>- M</b>	<b>325</b>	<b>- LFB</b> <small>Note: 2</small>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
	38: 38.1 mm	5: Closed type	G: Tab guide attachment		325: 82.6 mm			L: Link

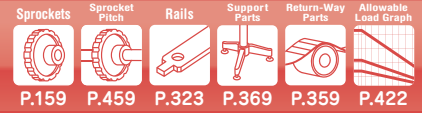
- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.



# Plastic Modular Chain BTO8-M

## BT8 Series

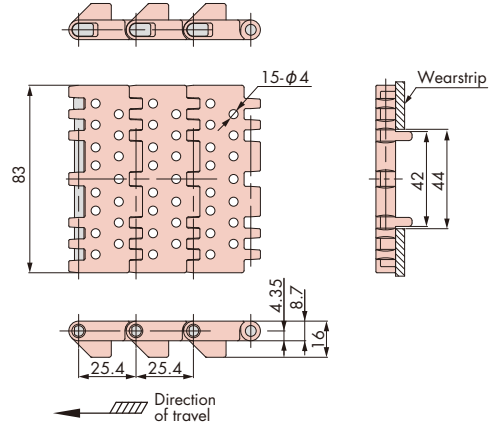
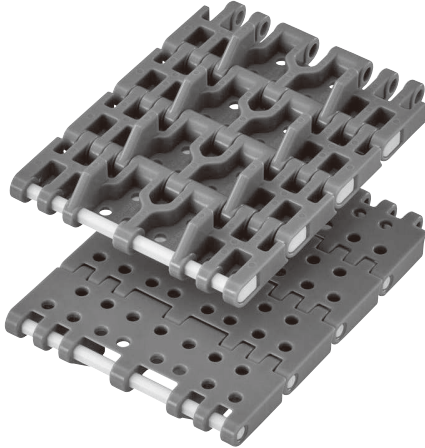
Straight Running (Mold-to-Width Type)



### Features

1. Possible to convey and transfer small products stably and smoothly due to its unique link structure.
2. Effective for draining excess water and/or lubricant due to its perforated surface.
3. Lightweight and easy-handling due to all plastic-made chain.

### Tab Guide Attachment



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
25.4	9.3	20	120

### Chain Material Table

Material	Standard Chain										High-Function Chain					
	Standard				Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction/Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	MF	UVR
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow	Light gray
Max. allowable load kN {kgf}	1.08{110}										0.76{77}	1.08{110}	0.80{81}	1.08{110}		
Chain mass kg/m	0.7															
Max. allowable speed m/min	50														—	50
Operating temperature range °C	-20 to {60}80														-20 to 80	-20 to {60}80
Pin material	Special engineering plastic															
Available	○	△	△	△	○	○	○	○	△	△	△	△	△	△	△	△

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet condition.  
 3. The color of connecting pin is orange. Base chain pins are white.

### Tsubaki Model Table

Chain width	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFW	Low friction/Wear resistant LFG	Low friction/Wear resistant LFB	Standard
	Chain type	Chain type	Chain type	Chain type	Chain type
83	BTO8-830-M-ALF	BTO8-830-M-LFW	BTO8-830-M-LFG	BTO8-830-M-LFB	BTO8-830-M

Note: Made-to-order products.

### Model Numbering

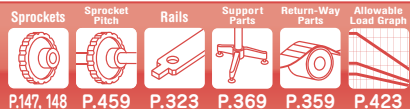
Chain type	Link shape	Chain pitch	Chain width	Mold-to-width	Material mark	Number of links	Unit
<b>BT</b>	<b>O</b>	<b>8</b>	<b>830</b>	<b>M</b>	<b>LFB</b> <small>Note: 2</small>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
	O: Open type	8: 25.4 mm	830: 83 mm				L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT3086G-M

**WT3080 Series**

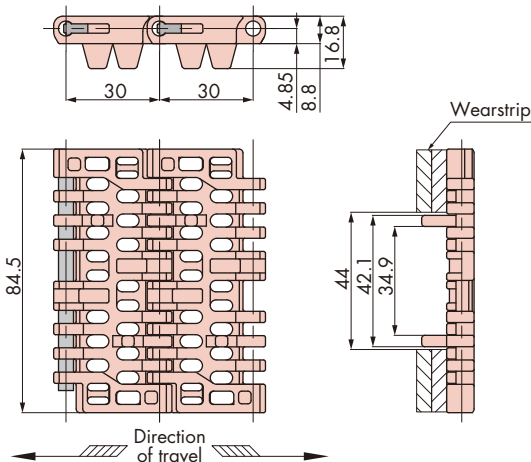
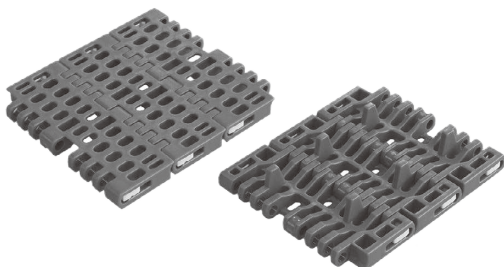
Straight Running (Mold-to-Width Type)



## Features

1. Can be possible to drive coaxially with the WT1500 series due to a 30 mm pitch.
2. Suitable for a single filer, which consists of multilane conveyors with a speed difference, due to use of tab guide attachment.
3. Lightweight and easy-handling due to all plastic-made chain.

### Tab Guide Attachment



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
30	27	30	140

## Chain Material Table

Material	Standard Chain								High-Function Chain								
	Standard				Low friction/Wear resistant		Advanced low friction/Wear resistant		Low friction		Low friction Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	MF	UVR	
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN {kgf}	0.9{90.4}											0.63 {63.3}	0.9{90.4}		0.67 {67.3}	0.9 {90.4}	
Chain mass kg/m	0.6																
Max. allowable speed m/min	120														—	120	
	50																
Operating temperature range °C	0 to 80				0 to (65)80		0 to 80		0 to (65)80	0 to 80	0 to (65)80	0 to 80	0 to (65)80	0 to 80			
Pin material	Polypropylene																
Plug material	Polyacetal																
Plug color	Yellow																
Available	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	

Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
2. Operating temperature of (the value in parentheses) is for wet condition.

## Tsubaki Model Table

Chain width	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF
	Chain type	Chain type	Chain type
84.5	WT3086G-M85-ALF	WT3086G-M85-LFG	WT3086G-M85-NLF

Note: Made-to-order products.

## Model Numbering

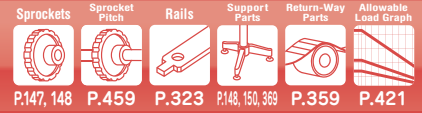
Chain type	Chain pitch	Link shape	Tab guide attachment	Mold-to-width	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>30</b>	<b>86</b>	<b>G</b>	<b>- M</b>	<b>85</b>	<b>- LFB</b> <small>Note: 2</small>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
	30: 30 mm	6: Open type	G: Tab guide attachment		85: 84.5 mm			L: Link

Note: 1. Do not leave space between letters and symbols.  
2. Please check the chain material and material marks in the chain material table above.  
3. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT1505GTO-M

WT1500 Series

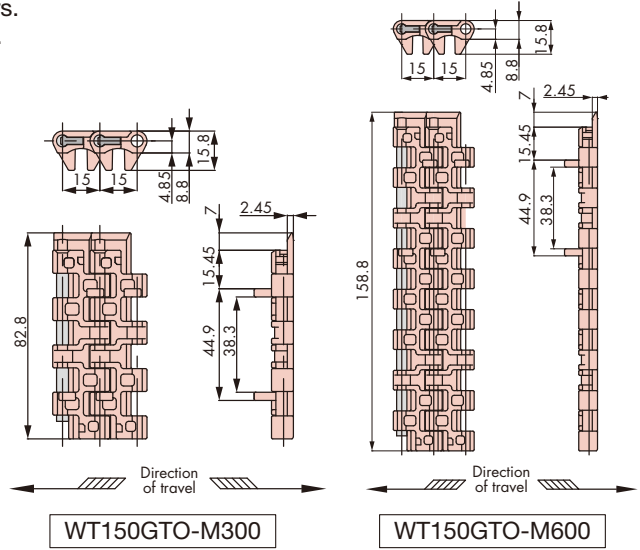
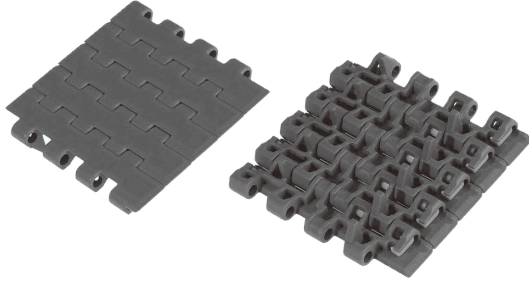
For Traverse (Mold-to-Width Type)



## Features

- 15 mm pitch. Suitable for conveying small and lightweight containers.
- Extended plate edges facilitate smoother right-angle transfers.
- Lightweight and easy-handling due to all plastic-made chain.

### Tab Guide Attachment



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
15	2	15	240

## Chain Material Table

Material	Standard Chain										High-Function Chain						
	Standard				Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction/Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	MF	UVR	
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow	Light gray	
Max. allowable load kN {kgf}	M300	0.8{81}										0.56 {56.7}	0.8{81}	0.59 {60}	0.8 {81}		
	M600	1.6{162.2}										1.1 {114}	1.6{162.2}	1.2 {120}	1.6 {162.2}		
Chain mass kg/m	M300	0.6															
	M600	1.2															
Max. allowable speed m/min	With lube	120(50)															
	No lube	50(30)															
Operating temperature range °C	-20 to (60)80														-20 to 80	-20 to (60)80	
Pin material	Special engineering plastic																
Plug material	Polyacetal																
Plug color	Yellow																
Available	△	△	△	△	△	○	△	○	○	△	△	△	△	△	△	△	

- Note: 1. "O": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The allowable speed (the value in parentheses) of each chain are for products that use nose bars made of ultrahigh molecular weight polyethylene. For products with nose bars made of SJ-CNO (special polyamide), use them without lubrication.  
 3. Operating temperature of (the value in parentheses) is for wet condition.  
 4. When using WT-N1500-12T30 solid sprocket, set the key length of the sprocket engaging module with tab guide attachment to 30 mm.

## Tsubaki Model Table

Chain width	Advanced low friction/Wear resistant ALF	Low friction/Wear resistant LFG	Low friction NLF
	Chain type	Chain type	Chain type
82.8	WT1505GTO-M300-ALF	WT1505GTO-M300-LFG	WT1505GTO-M300-NLF
158.8	WT1505GTO-M600-ALF	WT1505GTO-M600-LFG	WT1505GTO-M600-NLF

Note: Made-to-order products.

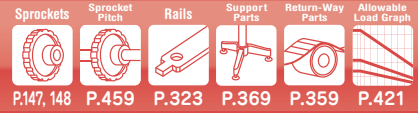
## Model Numbering

Chain type	Chain pitch	Link shape	Tab guide attachment	Link shape	Mold-to-width	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>15</b>	<b>05</b>	<b>G</b>	<b>TO</b>	<b>M</b>	<b>300</b>	<b>-LFG</b>	<b>+ 80</b>	<b>L</b>
						300: 82.8 mm 600: 158.8 mm	Note: 2	Note: 3	L: Link
						15: 15mm	5: Closed type	G: Tab guide attachment	

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT1505TOD-M

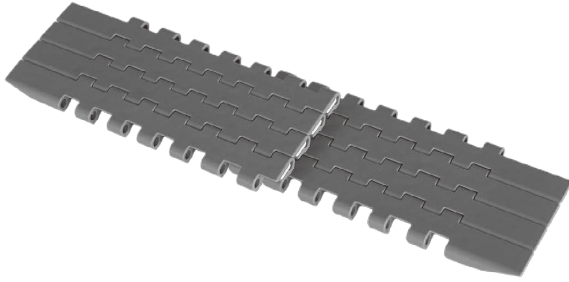
**WT1500 Series**  
For Traverse (Mold-to-Width Type)



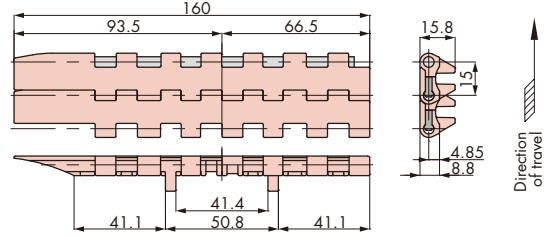
## Features

1. Possible to transfer orthogonally due to tapered side of the plate.
2. 15 mm pitch. Suitable for conveying small and lightweight containers.
3. Lightweight and easy-handling due to all plastic-made chain.

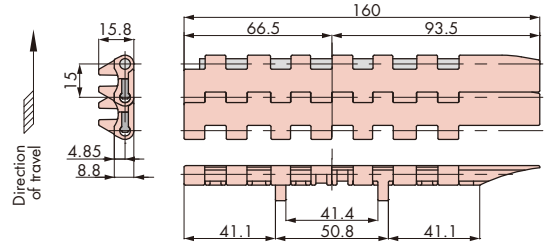
### Tab Guide Attachment



WT1505TOD-M450L



WT1505TOD-M450R



Chain pitch mm	Open area %	Backflex radius mm	Number of links per unit
15	2	15	204

## Chain Material Table

Material	Standard Chain										High-Function Chain							
	Standard				Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant		
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	MF	UVR		
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow	Light gray		
Max. allowable load kN {kgf}	1.4{142}										1.2		0.98 {99}	1.4{142}		1.04 {105}	1.4 {142}	
Chain mass kg/m											1.2							
Max. allowable speed m/min											120							
Operating temperature range °C											50							
Pin material											-20 to (60)80							
Plug material											Special engineering plastic							
Plug color											Polyacetal							
Available											Yellow							
	△	△	△	△	△	●	△	●	△	△	△	△	△	△	△	△		

Note: 1. "●": Standard products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet condition.  
 3. Nose bars (sliding types, integrated-bearing types) cannot be used.

## Tsubaki Model Table

Chain width	Advanced low friction/Wear resistant ALF				Low friction/Wear resistant LFG			
	Chain type		Chain type		Chain type		Chain type	
160	<b>WT1505TOD-M450L-ALF</b>	<b>WT1505TOD-M450R-ALF</b>	<b>WT1505TOD-M450L-LFG</b>	<b>WT1505TOD-M450R-LFG</b>				

Note: 1. Standard products.  
 2. The chain width includes the length of the taper.

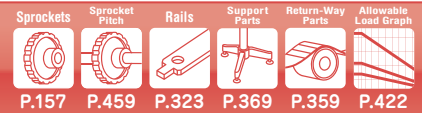
## Model Numbering

Chain type	Chain pitch	Link shape	Chain type	Mold-to-width	Chain width	Tapered side	Material mark	Number of links	Unit
<b>WT</b>	<b>15</b>	<b>05</b>	<b>TOD - M</b>	<b>450</b>	<b>L</b>	<b>- LFG</b>	<b>+ 80</b>	<b>L</b>	
	15: 15 mm	5: Closed type		450: 160 mm				L: Link	

Note: 1. Do not leave space between letters and symbols.  
 2. TOD includes the length of its taper part.  
 3. Indicates which side the taper will be on with respect to the chain direction of travel (right side: R; left side: L)  
 4. Please check the chain material and material marks in the chain material table above.  
 5. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Modular Chain WT2505TOD-M

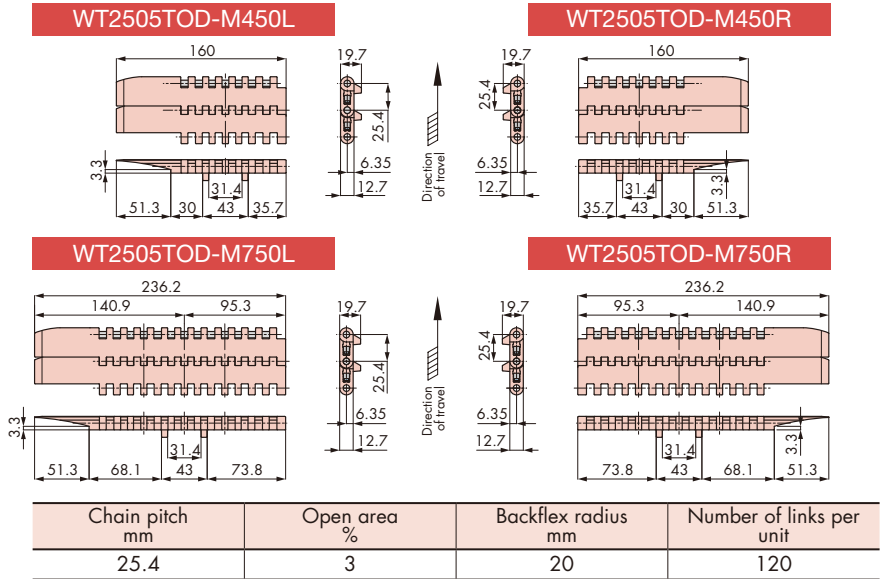
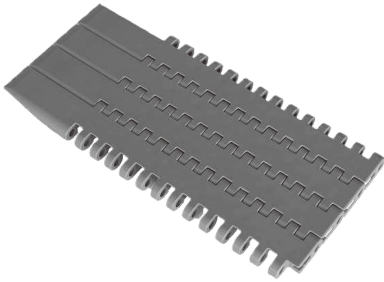
**WT2500 Series**  
For Traverse (Mold-to-Width Type)



## Features

1. Possible to transfer orthogonally due to the tapered side of the plate.
2. 25.4 mm pitch. Suitable for conveying medium-sized containers.
3. Lightweight and easy-handling due to all plastic-made chain.

### Tab Guide Attachment



## Chain Material Table

	Standard Chain											High-Function Chain					
	Standard				Low friction/Wear resistant			Advanced low friction/Wear resistant		Low friction		Low friction Wear resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Ultraviolet resistant	
Material	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	UVR		
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	MWS	SE	UVR		
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Light gray		
Max. allowable load kN {kgf}	M450	3.4{347}											2.4{243}	3.4{347}			
	M750	5.3{541}											3.7{379}	5.3{541}			
Chain mass kg/m	M450	1.7															
	M750	2.6															
Max. allowable speed m/min	With lube	120															
	No lube	50															
Operating temperature range °C	0 to 80				0 to (65)80			0 to 80	0 to (65)80	0 to 80	0 to (65)80	0 to 80	0 to (65)80	0 to 80	0 to 80		
Pin material	Polypropylene																
Slide plug material	Polypropylene																
Slide plug color	Blue																
Available	△	△	△	△	△	△	△	△	△	△	●	△	△	△	△	△	

- Note: 1. ●: Standard product, △: Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet condition.  
 3. The color of the slide plug was changed from yellow to blue as of December 2013.

## Tsubaki Model Table

Chain width	Low friction WR	
	Chain type	
160.0	<b>WT2505TOD-M450L-WR</b>	<b>WT2505TOD-M450R-WR</b>
236.2	<b>WT2505TOD-M750L-WR</b>	<b>WT2505TOD-M750R-WR</b>

- Note: 1. Standard products.  
 2. The chain width includes the length of the taper.

## Model Numbering

Chain type	Chain pitch	Link shape	Chain type	Mold-to-width	Chain width	Tapered side	Material mark	Number of links	Unit
<b>WT</b>	<b>25</b>	<b>05</b>	<b>TOD - M</b>	<b>450</b>	<b>L</b>	<b>- LFG</b>	<b>+ 80</b>	<b>L</b>	
	25:25.4 mm	5: Closed type		450: 160 mm 750: 236.2 mm	Note: 2	Note: 3	Note: 4	Note: 5	L: Link

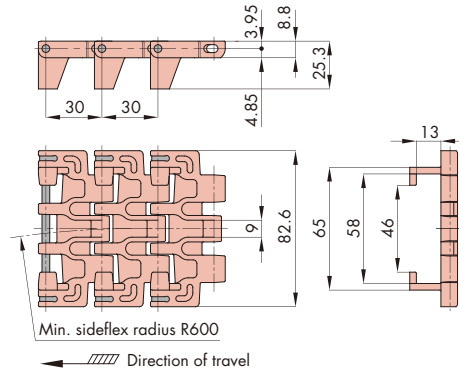
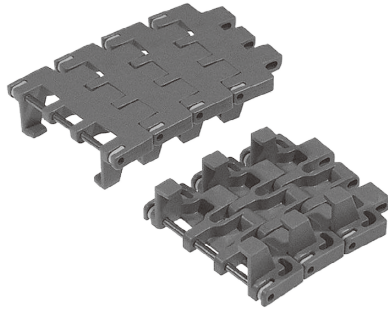
- Note: 1. Do not leave spaces between letters and symbols. 2. TOD includes the length of its taper part.  
 3. Indicates which side the taper will be on with respect to the chain direction of travel (right side: R; left side: L)  
 4. Please check the chain material and material marks in the chain material table above. 5. Minimum quantity: 2, maximum quantity: 99999.

Plastic Modular Chain

# Digest

Sideflexing Running (Mold-to-Width Type)

■ WT3085-C325



## Chain Material Table

Material	Low friction	High speed	Chain width	Max. allowable load kN(kgf)		Chain mass kg/m		Pin material
	Material mark	WR		HS	WR	HS	WR	
Chain type	WT3085-C325-WR	WT3085-C325-HS	82.6	0.55{56}	0.50{51}	0.9	0.8	Stainless steel

Note: 1. Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Contact a Tsubaki representative for the dedicated sprockets.

## Model Numbering

Chain type	Chain pitch	Link shape	Sideflexing	Chain width	Material mark	Number of links	Unit
<b>WT</b>	<b>30</b>	<b>85</b>	<b>- C</b>	<b>325</b>	<b>- WR</b>	<b>+ 80</b>	<b>L</b>
	30: 30 mm	5: Closed type		325: 82.6 mm	Note: 2	Note: 3	L: Link

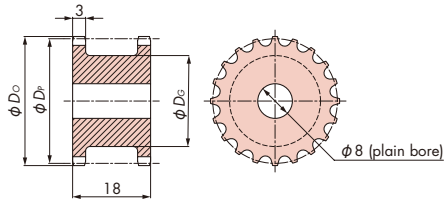
Note: 1. Do not leave spaces between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.



# Sprockets for WT0400 Series

Applicable Chain WT0405-W

## ◆ Solid Sprockets (Machined Type)



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Groove diameter $D_g$	Bore shape	Material
WT-S0400-16T	16	23.07	24.0	15	Bore shape and size are made-to-order.	Polyacetal (color: white)
WT-S0400-20T	20	28.77	29.8	21		
WT-S0400-24T	24	34.48	35.5	27		
WT-S0400-32T	32	45.91	47.0	38		
WT-S0400-40T	40	57.35	58.5	50		

- Note: 1. Made-to-order products.  
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ .  
 3. Available for the sprockets with number of teeth, shapes and materials other than above. (Machined type)  
 4. Use a cold rolled steel shaft.

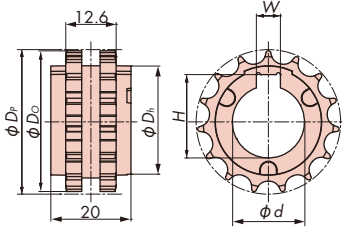


# Sprockets & Accessories for WT0700 Series

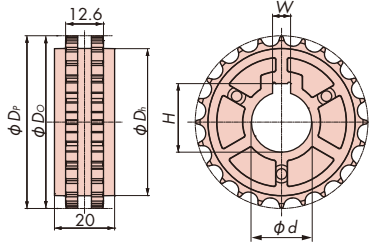
Applicable Chain WT0705-W

## ◆ Solid Sprockets

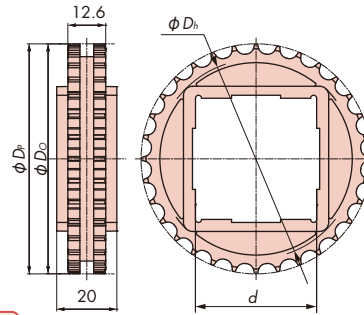
WT-N0700-15T18



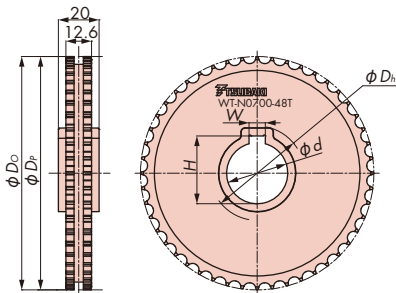
WT-N0700-24T



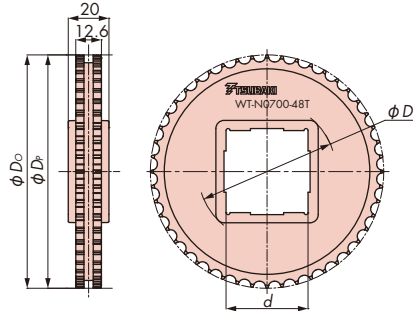
WT-N0700-32T40S



WT-N0700-48T30



WT-N0700-48T40S



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Keyway		Hub diameter $D_h$	Approx. mass kg	Material
						W	H			
<b>WT-N0700-15T18</b>	15	36.07	35.5	Round	φ 18	6	20.8	28	0.010	Reinforced polyamide (color: black)
<b>WT-N0700-24T20</b>	24	57.46	57.2		φ 20		22.8			
<b>WT-N0700-24T25</b>					8	28.3	49	0.030		
<b>WT-N0700-24T30</b>	φ 30	33.3	0.029							
<b>WT-N0700-32T40S</b>	32	76.52		76.4	Square	40	-	-	66	
<b>WT-N0700-48T30</b>	48	114.67	114.7	Round	φ 30	8	33.3	47	0.072	
<b>WT-N0700-48T40S</b>				Square	40	-	-	68	0.074	

Note 1. Standard products.

 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .

3. Sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

4. Available for the sprockets with number of teeth, shapes and materials other than above. (Machined type)

5. Use a cold rolled steel shaft.

## ◆ Applications of nose bars

Dead space between conveyors can be minimized by installing nose bars at their ends.

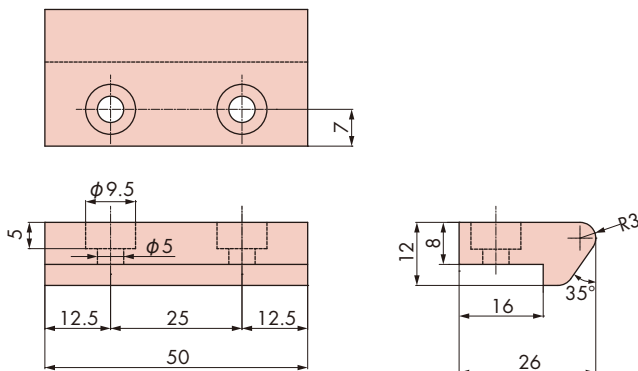
Suitable for conveying small product where there is a risk of product remaining between conveyors.

## ◆ Material grade/applications

10-301: Suitable for lubricated operation with water or slider liquid.

SJ-CNO (Special Polyamide): Suitable for dry chain operation at high speeds (faster than 30 m/min).

## ◆ Nose Bars (Sliding Series)



Tsubaki model no.	Material	Material grade	Color
<b>WT-NB07-W50-10-301</b>	UHMW-PE	10-301	Green
<b>WT-NB07-W50-CNO</b>	Special polyamide	SJ-CNO	Purple

Note 1. Standard products.

 2. Operating temperature range 10-301:  $-20$  to  $60^{\circ}\text{C}$ 

 SJ-CNO (Special Polyamide):  $-20$  to  $80^{\circ}\text{C}$ 

3. Refer to pages 445 and 446 for mating dimensions.

4. The color of SJ-CNO (Special Polyamide) was changed from gray to purple as of June 2015.

5. SJ-CNO (Special Polyamide) is for use under dry conditions only.

Closed

Open

GTO &amp; TOD

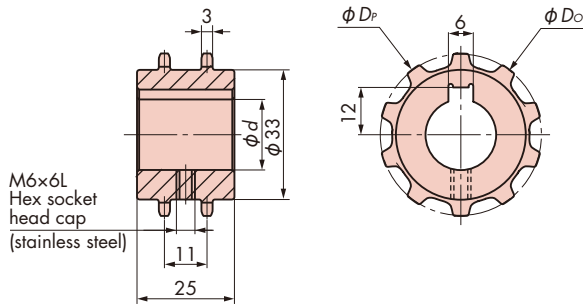
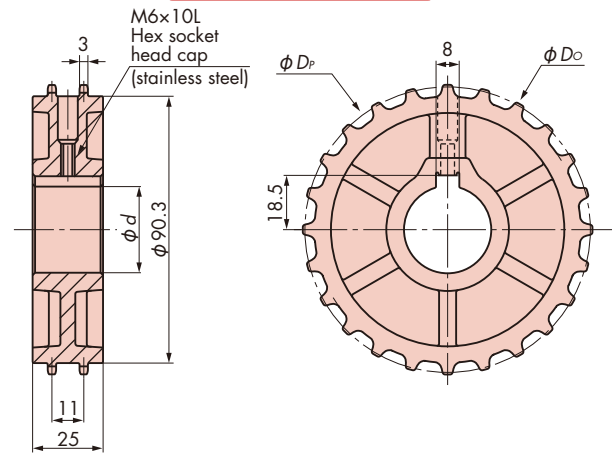
Digest

 Sprockets & Accessories  
Wide Type / Mod-to-Width Type

# Sprockets for BT4 Series

 Applicable Chain **BTC4-M**

## ◆ Solid Sprockets

**BTC4-10T18**

**BTC4-24T30**


Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Approx. mass kg	Material
<b>BTC4-10T18</b>	10	41.10	41.6	Round	$\phi 18$	0.025	Reinforced polyamide (color: black)
<b>BTC4-24T30</b>	24	97.30	99.0		$\phi 30$	0.110	

Note: 1. Standard products.

 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .

3. Available for the sprockets with number of teeth, shapes and materials other than above. (Machined type)

4. Use a cold rolled steel shaft.

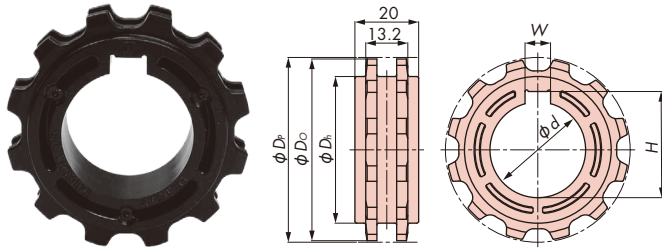
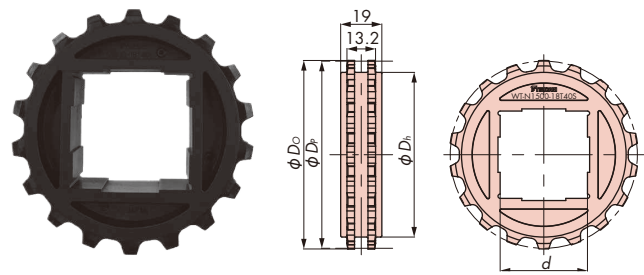


# Sprockets for WT1500/1510/3000, BT5 Series

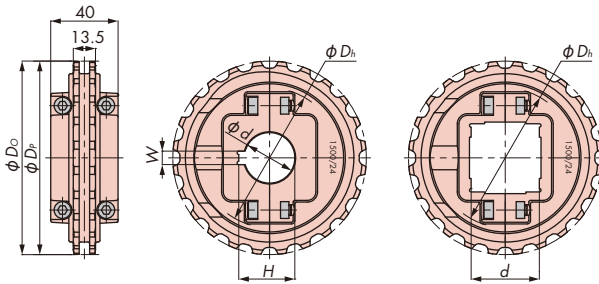
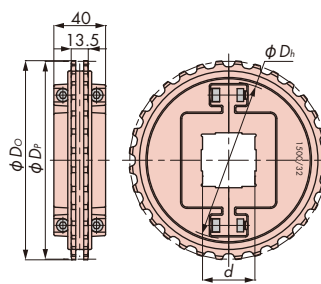
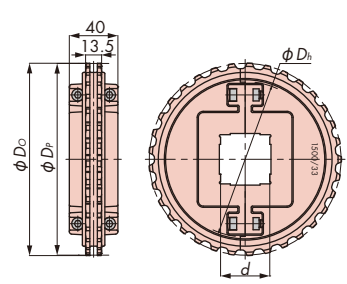
**Applicable Chain**

WT1505 (including G/GTO)-K, WT1506-K, WT1515(G)-W, WT1516-W, WT3005(G)-K, WT3086(G)-K, BTN5 (-A), WT1505G-M, WT1515G-M, WT3005G-M, WT3086G-M, WT1505GTO-M, WT1505TOD-M

## ◆ Solid Sprockets

**WT-N1500-12T30**

**WT-N1500-18T40S**


## ◆ Split Sprockets

**WT-SW1500-24T**

**WT-SW1500-32T**

**WT-SW1500-33T**


Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Keyway		Hub diameter $D_h$	Approx. mass kg	Material		Bolt tightening torque N·m{kgf·m}						
						W	H			Body	Bolt/Nut							
<b>WT-N1500-12T30</b>	12	57.96	57	Round	φ30	8	33.3	46	0.027	-	-							
<b>WT-N1500-18T40S</b>	18	86.38	87	Square	40	-	-	76	0.060									
<b>WT-SW1500-24T25</b>	24	114.9	115.0	Round	φ25	8	28.3	83	0.3	Reinforced polyamide (color: black)	Stainless steel	5.7 (0.58)						
<b>WT-SW1500-24T30</b>													φ30	33.3				
<b>WT-SW1500-24T35</b>															φ35	38.3		
<b>WT-SW1500-24T40</b>																	φ40	43.3
<b>WT-SW1500-24T40S</b>	32	153.0	154.0	Square	40	-	-	122	0.4									
WT-SW1500-32T50S													50	-	-			
<b>WT-SW1500-32T60S</b>																60	-	-
<b>WT-SW1500-33T40S</b>																		
<b>WT-SW1500-33T65S</b>	65	-	-	128														

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face is a made-to-order product.

2. Operating temperature range: -20°C to 80°C.

3. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

4. WT-N1500-12T30 and WT-N1500-18T40S cannot be used with the WT3000 series.

5. In case WT-N1500-12T30 is used for modules with tab guide attachments, be careful to choose the proper length of the key. (WT1505G-K, WT1505GTO-K, BTN5-A: key length: 30 mm; WT1515G-M50, WT1515G-W: key length: 20 mm)

6. Square-hole sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

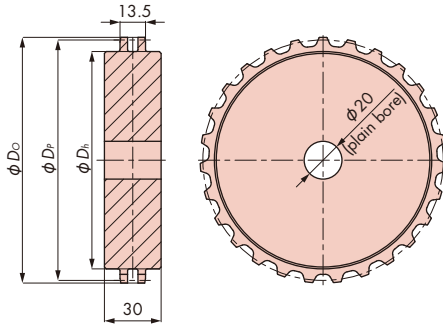
7. Use a cold rolled steel shaft.

# Sprockets & Idler Sprockets for WT1500/1510/3000, BT5 Series

Applicable Chain

WT1505 (including G/GTO)-K, WT1506-K, WT1515(G)-W, WT1516-W, WT3005(G)-K, WT3086(G)-K, BTN5(-A), WT1505G-M, WT1515G-M, WT3005G-M, WT3086G-M, WT1505GTO-M, WT1505TOD-M

## ◆ Solid Sprockets (Machined Type)



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore shape	Material
WT-S1500-24T	24	114.9	115	100	Bore shape and size are made-to-order.	UHMW-PE (color: green)
WT-S1500-25T	25	119.7	120	105		
WT-S1500-27T	27	129.2	130	115		
WT-S1500-31T	31	148.3	149	134		
WT-S1500-32T	32	153.0	154	139		
WT-S1500-33T	33	157.8	158.6	144		

Note: 1. Made-to-order products.

2. Operating temperature range: -20°C to 60°C.

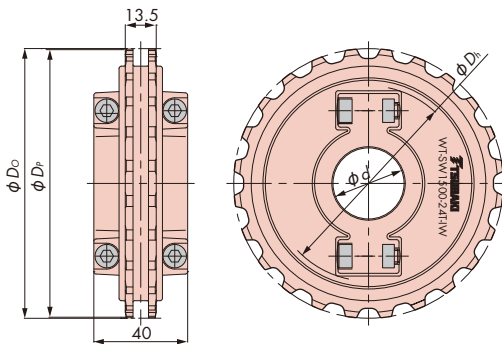
3. In case of using with WT1515G-W, WT1515G-M50 the hub needs to be machined to the proper diameter. Contact a Tsubaki representative for details.

4. Available for the sprockets with number of teeth, shapes and materials other than above. (Machined type)

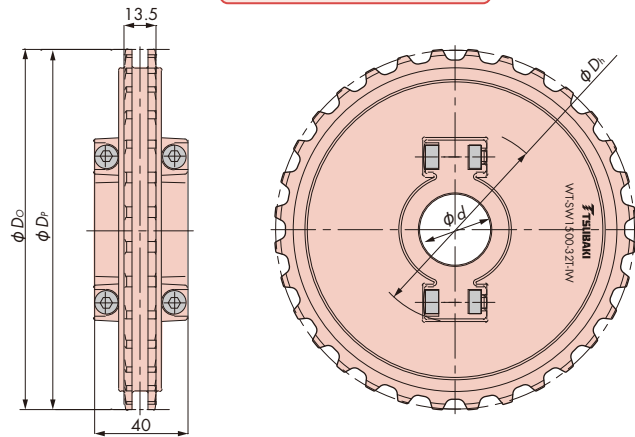
5. Use a cold rolled steel shaft.

## ◆ Split Idler Sprockets with Teeth

WT-SW1500-24T-IW



WT-SW1500-32T-IW



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Hub diameter $D_h$	Approx. mass kg	Material		Bolt tightening torque N·m{kgf·m}
								Body	Bolt/Nut	
<b>WT-SW1500-24T30-IW</b>	24	114.9	115.0	Round	30.3	84	0.3	Polyamide (color: black)	Stainless steel	5.7 {0.58}
WT-SW1500-24T35-IW					35.3					
<b>WT-SW1500-24T40-IW</b>					40.3					
<b>WT-SW1500-32T30-IW</b>	32	153.0	154.0	Round	30.3	84	0.3	Polyamide (color: black)	Stainless steel	5.7 {0.58}
WT-SW1500-32T35-IW					35.3					
<b>WT-SW1500-32T40-IW</b>					40.3					

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.

2. Operating temperature range: -20°C to 80°C.

3. When assembling the halves of the idler sprocket, do not mix the halves with halves from other idler sprockets.

4. Use a cold rolled steel shaft.

5. Use only as an idler sprocket.

# Accessories for WT1500 Series

## ◆ Applications of nose bars

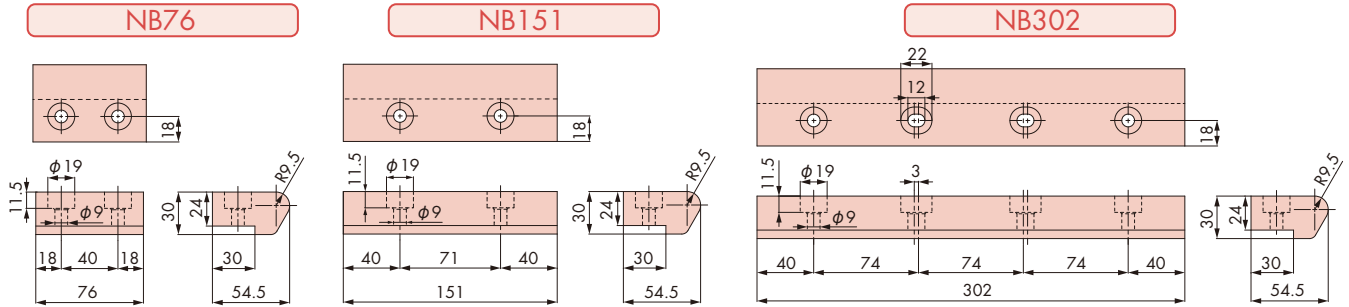
Dead space between conveyors can be minimized by installing nose bars at their ends. Suitable for conveying small product where there is a risk of product remaining between conveyors.

## ◆ Material grades/applications

- 10-301: Suitable for lubricated operation with water or slider liquid.
- 10-100M9: Suitable for non-lubricated (dry) operation at low speeds (slower than 30 m/min).
- SJ-CNO (Special Polyamide): Suitable for dry chain operation at high speeds (faster than 30 m/min).

Applicable Chain WT1505-K, WT1506-K, WT1505GTO-K Note: 4, WT1505GTO-M Note: 4

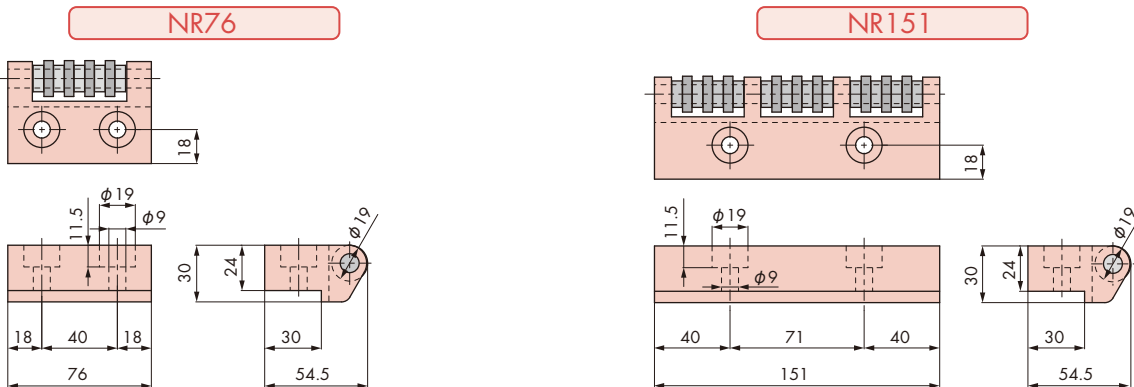
## ◆ Nose Bars (Sliding Series)



Tsubaki model no.	Material	Material grade	Color
<b>WT-NB76-10-301</b>	UHMW-PE	10-301	Green
<b>WT-NB76-10-100M9</b>	UHMW-PE (oiled)	10-100M9	White
<b>WT-NB76-CNO</b>	Special polyamide	SJ-CNO	Purple
<b>WT-NB151-10-301</b>	UHMW-PE	10-301	Green
<b>WT-NB151-10-100M9</b>	UHMW-PE (oiled)	10-100M9	White
<b>WT-NB151-CNO</b>	Special polyamide	SJ-CNO	Purple
<b>WT-NB302-10-301</b>	UHMW-PE	10-301	Green
<b>WT-NB302-10-100M9</b>	UHMW-PE (oiled)	10-100M9	White
<b>WT-NB302-CNO</b>	Special polyamide	SJ-CNO	Purple

- Note: 1. Standard products.  
 2. Operating temperature range: 10-301/10-100M9: -20 to 60°C, SJ-CNO (Special Polyamide): -20 to 80°C.  
 3. Refer to pages 445 and 446 for mating dimensions.  
 4. Use the sliding series nose bar WT-NB151TOL and WT-NB151TOR in combination with WT1505GTO-K and WT1505GTO-M600.  
 5. The color of SJ-CNO (Special Polyamide) was changed from gray to purple as of June 2015.  
 6. SJ-CNO (Special Polyamide) is for use under dry conditions only.

## ◆ Nose Bars (Bearing Series)



Tsubaki model no.	Material	Material grade	Color	Bearing	Bearing material	Shaft material
<b>WT-NR76</b>	UHMW-PE	10-301	Green	Ball	Steel	Stainless steel
<b>WT-NR151</b>						

- Note: 1. Standard products.  
 2. Operating temperature range: -20°C to 60°C.  
 3. Refer to pages 445 and 446 for mating dimensions.  
 4. Use the bearing series nose bar WT-NR76-TO in combination with WT1505GTO-M600 and WT1505GTO-K.  
 5. Suitable for dry chain operation at high speeds (faster than 30 m/min).

# Accessories for WT1500 Series

## ◆ Applications of nose bars

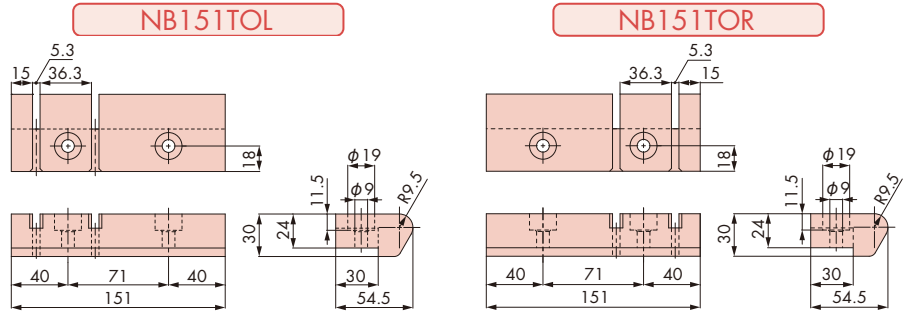
Dead space between conveyors can be minimized by installing nose bars at their ends. Suitable for conveying small products where there is a risk of product remaining between conveyors.

## ◆ Material grades/applications

- 10-301: Suitable for lubricated operation with water or slider liquid.
- 10-100M9: Suitable for non-lubricated (dry) operation at low speeds (slower than 30 m/min).
- SJ-CNO (Special Polyamide): Suitable for dry chain operation at high speeds (faster than 30 m/min).

Applicable Chain WT1505GTO-K, WT1505GTO-M Note: 4

## ◆ Nose Bars (Sliding Series)

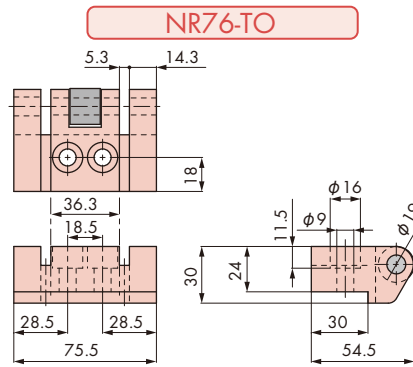


Tsubaki model no.	Material	Material grade	Color
WT-NB151TOL-10-301	UHMW-PE	10-301	Green
WT-NB151TOL-10-100M9	UHMW-PE (oiled)	10-100M9	White
WT-NB151TOL-CNO	Special polyamide	SJ-CNO	Purple
WT-NB151TOR-10-301	UHMW-PE	10-301	Green
WT-NB151TOR-10-100M9	UHMW-PE (oiled)	10-100M9	White
WT-NB151TOR-CNO	Special polyamide	SJ-CNO	Purple

Note: 1. Made-to-order products. 2. Operating temperature range: 10-301/10-100M9: -20 to 60°C, SJ-CNO (Special Polyamide): -20 to 80°C.  
 3. Refer to pages 445 and 446 for mating dimensions. 4. Cannot be used for WT1515GTO-M300.  
 5. The color of SJ-CNO (Special Polyamide) was changed from gray to purple as of June 2015. 6. SJ-CNO (Special Polyamide) is for use under dry conditions only.

Applicable Chain WT1505GTO-M Note: 4, WT1505GTO-K Note: 5

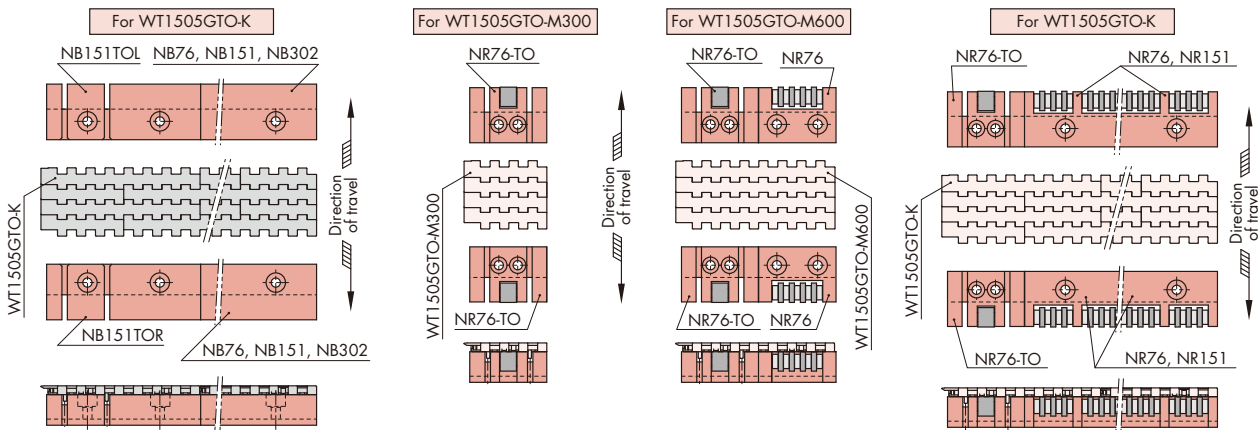
## ◆ Nose Bars (Bearing Series)



Tsubaki model no.	Material	Material grade	Color	Bearing	Bearing material	Shaft material
WT-NR76-TO	UHMW-PE	10-301	Green	Needle	Steel	Stainless steel

Note: 1. Made-to-order product. 2. Operating temperature range: -20°C to 60°C.  
 3. Refer to pages 445 and 446 for mating dimensions. 4. Use bearing series nose bar WT-NR76 in combination with WT1505GTO-M600.  
 5. Use bearing series nose bar WT-NR76 or WT-NR151 in combination with WT1505G-K. 6. Suitable for dry chain operation at high speeds (faster than 30 m/min).

## • Configuration examples of nose bars with WT1505GTO-K chains



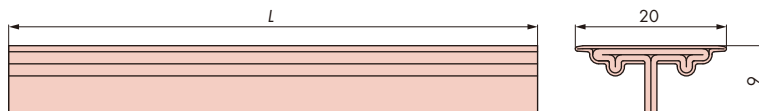
# Accessories for WT1500/1510, BT5 Series

## For WT1500/1510, BT5 Series

- ◆ Applications of dead plates  
Used as a transfer plate between nose bars

**Applicable Chain** WT1505-K, WT1506-K, WT1515-W, WT1516-W, BTN5

### ◆ Dead Plates



Tsubaki model no.	L	Material
WT-DP12	400	Stainless steel
WT-DP18	550	
WT-DP24	700	
WT-DP30	850	

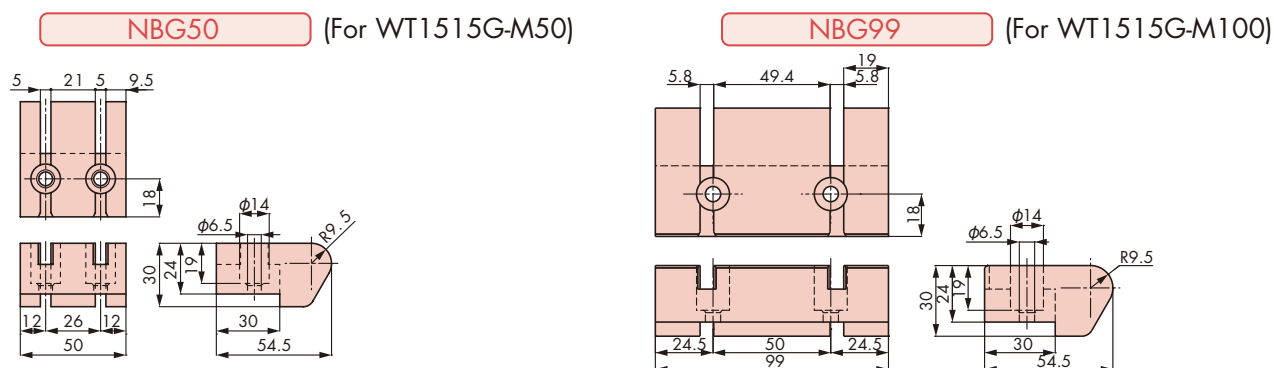
Note: 1. Made-to-order products.  
2. Refer to page 445 for mating dimensions.  
3. Contact a Tsubaki representative for information about dead plates with a width of 762 mm (K30) or longer and hard chrome plated dead plates.

## For WT1510 Series

- ◆ Applications of nose bars  
Dead space between conveyors can be minimized by installing nose bars at their ends.  
Suitable for conveying small products where there is a risk of product remaining between conveyors.
- ◆ Material grades/applications  
10-301: Suitable for lubricated operation with water or slider liquid.  
10-100M9: Suitable for non-lubricated (dry) operation at low speeds (slower than 30 m/min).  
SJ-CNO (Special Polyamide): Suitable for dry chain operation at high speeds (faster than 30 m/min).

**Applicable Chain** WT1515G-M

### ◆ Nose Bars (Sliding Series)



Tsubaki model no.	Material	Material grade	Color
WT-NBG50-10-301	UHMW-PE	10-301	Green
WT-NBG50-10-100M9	UHMW-PE (oiled)	10-100M9	White
WT-NBG50-CNO	Special polyamide	SJ-CNO	Purple
WT-NBG99-10-301	UHMW-PE	10-301	Green
WT-NBG99-10-100M9	UHMW-PE (oiled)	10-100M9	White
WT-NBG99-CNO	Special polyamide	SJ-CNO	Purple

Note: 1. Made-to-order products.  
2. Operating temperature range: 10-301/10-100M9: -20 to 60°C, SJ-CNO (Special Polyamide): -20 to 80°C.  
3. Refer to pages 445 and 446 for mating dimensions.  
4. The color of SJ-CNO (Special Polyamide) was changed from gray to purple as of June 2015.  
5. SJ-CNO (Special Polyamide) is for use under dry conditions only.



# Accessories for BT5 Series

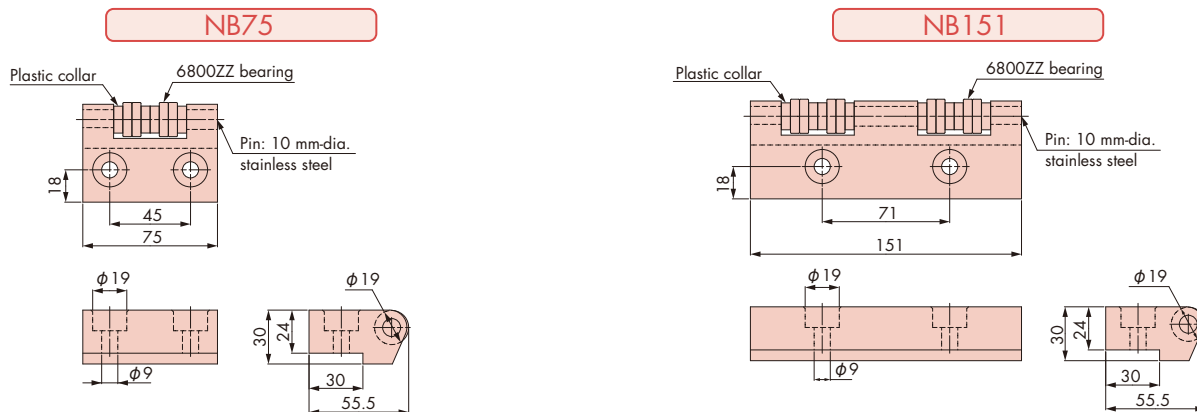
## ◆ Applications of nose bars

Dead space between conveyors can be minimized by installing nose bars at their ends.

Suitable for conveying small products where there is a risk of product remaining between conveyors.

Applicable Chain **BTN5**

## ◆ Nose Bars (Bearing Series)



Tsubaki model no.	Material	Material grade	Color	Bearing	Bearing material	Shaft material
BT5-NB75-D19	UHMW-PE	10-100	White	6800ZZ	Steel	Stainless steel
BT5-NB151-D19						

Note: 1. Made-to-order products.

2. Operating temperature range: -20°C to 60°C.

3. Refer to pages 445 and 446 for mating dimensions.

4. The shape was changed as of December 2010.

5. For use under dry conditions only (nose bar with SUS type of bearing is available).

Closed

Open

Mold-to-Width Type

GTO &amp; TOD

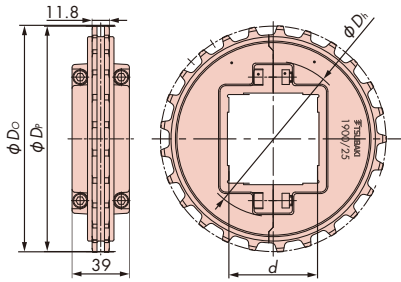
Digest

 Sprockets & Accessories  
Wide Type / Mold-to-Width Type

# Sprockets & Accessories for WT1900 Series

Applicable Chain WT1907-K

## ◆ Split Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore shape	Bore diameter $d$	Approx. mass kg	Material		Bolt tightening torque N·m{kgf·m}
								Body	Bolt/Nut	
WT-SW1900-25T40S	25	153.35	154	106	Square	40	0.35	Reinforced polyamide (color: black)	Stainless steel	5.7{0.58}
WT-SW1900-25T60S						60				

Note: 1. Made-to-order products.

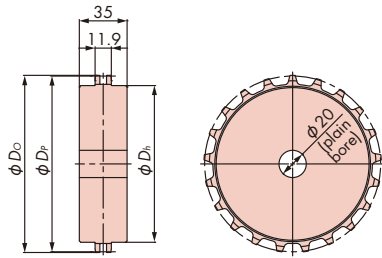
2. Operating temperature range: -20°C to 80°C.

3. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

4. Sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

5. Use a cold rolled steel shaft.

## ◆ Solid Sprockets (Machined Type)



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore shape	Material
WT-S1900-17T	17	104.60	105	90	Bore shape and size are made-to-order.	UHMW-PE (color: green)
WT-S1900-21T	21	128.95	130	114		
WT-S1900-24T	24	147.25	148	133		
WT-S1900-25T	25	153.35	154	139		

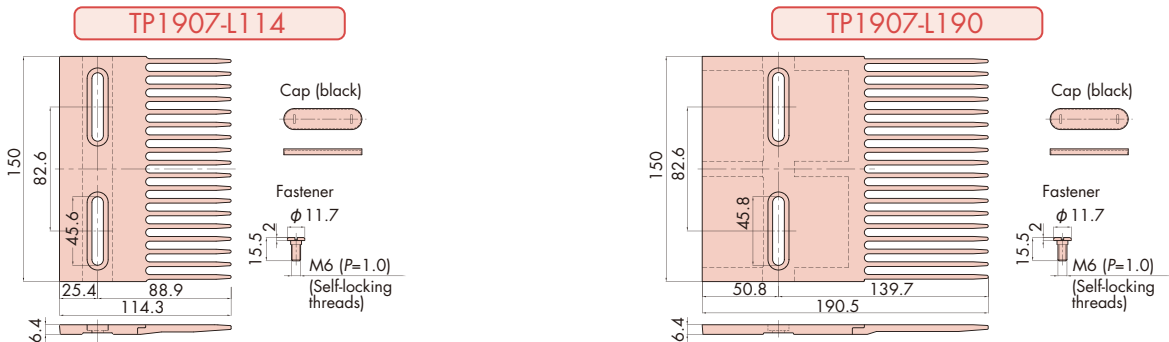
Note: 1. Made-to-order products.

2. Operating temperature range: -20°C to 60°C.

3. Available for the sprockets with number of teeth, shapes and materials other than above. (Machined type)

4. Use a cold rolled steel shaft.

## ◆ Transfer Plates



Tsubaki model no.	Material	Color	Approx. mass kg
WT-TP1907-L114	Reinforced polyamide	Black	0.100
WT-TP1907-L190			0.170

Note: 1. Made-to-order products.

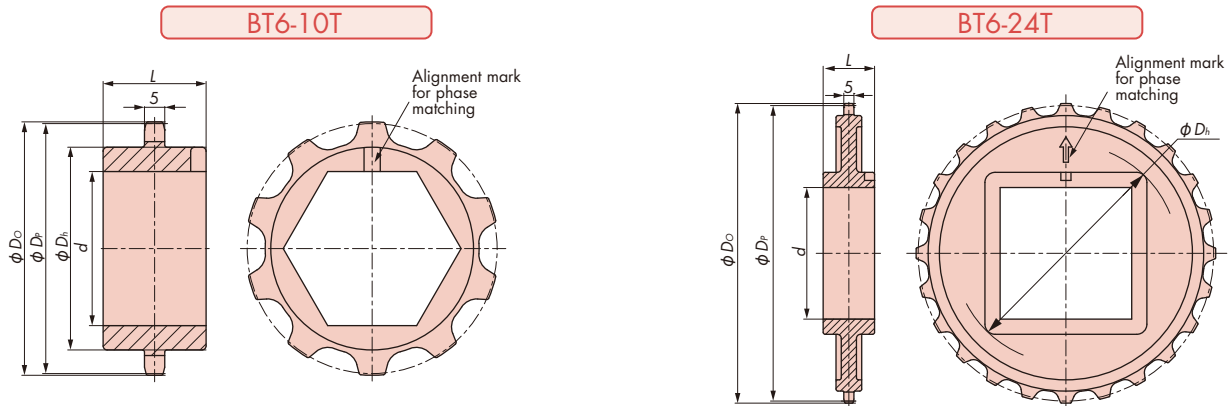
2. Two caps and two fasteners are included with one transfer plate.

3. Refer to page 447 for transfer plate installation procedures.

# Sprockets for BT6 Series

Applicable Chain BTC6, BTCP6, BTO6, BTN6

## ◆ Solid Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Hub diameter		Approx. mass kg	Shaft	Material
						$D_h$	Length $L$			
<b>BT6-10T-38H</b>	10	61.65	62.5	Hexagonal	38	50	25.4	0.030	Hexagonal 38 cold rolled steel shaft	Reinforced polyamide (color: black)
<b>BT6-24T-40S</b>	24	145.95	148.0	Square	40	110		0.260	Square 40 cold rolled steel shaft	
BT6-24T-50S					50			0.230	Square 50 cold rolled steel shaft	
<b>BT6-24T-65S</b>					65			0.170	Square 65 cold rolled steel shaft	

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face is a made-to-order product.

2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .

3. BT6-10T sprockets can reduce dead space between conveyors and also make conveyors compact.

4. BT6-24T sprockets minimize undulation of speed resulting from chordal action (polygonal movement) of the chain, allowing smooth conveyance.

5. Sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

## ◆ Solid Sprockets

Chain material: For heat resistant/high speed (KV150, KV250)

Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Hub diameter		Approx. mass kg	Shaft	Material
						$D_h$	Length $L$			
BT6-KV-10T-38H	10	61.25	62.5	Hexagonal	38	50	25.4	0.040	Hexagonal 38 cold rolled steel shaft	Special engineering plastic (color: beige)
BT6-KV-24T-50S	24	145.95	148.0	Square	50	110		0.290	Square 50 cold rolled steel shaft	

Note: 1. Made-to-order products.

2. Operating temperature range:  $80^{\circ}\text{C}$  to  $200^{\circ}\text{C}$ .

3. The materials and sizes of sprockets dedicated to heat resistant/high-speed (KV) series differ depending on their operating temperatures. Be ensure to contact a Tsubaki representative when using them.

4. Available for the sprockets with number of teeth other than above.

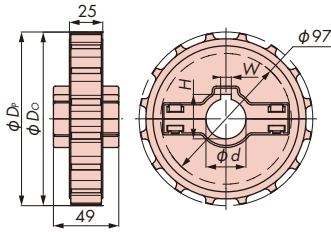
# Sprockets & Idler Sprockets for WT2250/2510 Series

Applicable Chain

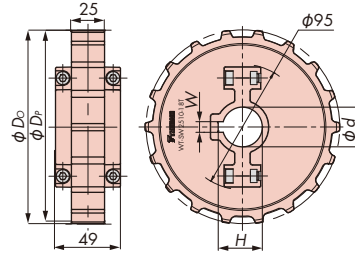
WT2250FT, WT2250FG, WT2250VG, WT2515G-M, WT2515-W, WT2515G-W, WT2515F-W

## ◆ Split Sprockets

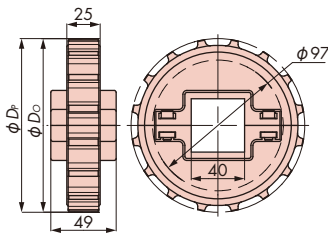
WT-SW2250-16T



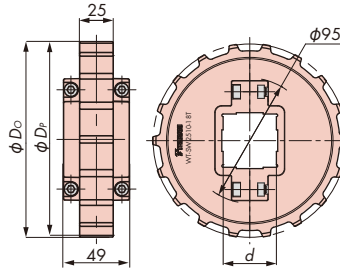
WT-SW2510-18T



WT-SW2250-16T40S



WT-SW2510-18T40S



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Keyway		Approx. mass kg	Shaft	Material		Bolt tightening torque N·m{kgf·m}
						W	H			Body	Bolt/Nut	
<b>WT-SW2250-16T30</b>	16	130.20	130	Round	$\phi 30$	8	33.3	0.300	Round 30 cold rolled steel shaft	Reinforced polyamide (color: black)	Stainless steel	5.7{0.58}
<b>WT-SW2250-16T40</b>					$\phi 40$	12	43.3		Round 40 cold rolled steel shaft			
WT-SW2250-16T40S				Square	40	-	-		Square 40 cold rolled steel shaft			
<b>WT-SW2510-18T30</b>	18	146.27	147	Round	$\phi 30$	8	33.3	0.320	Round 30 cold rolled steel shaft			
<b>WT-SW2510-18T40</b>					$\phi 40$	12	43.3		Round 40 cold rolled steel shaft			
<b>WT-SW2510-18T40S</b>				Square	40	-	-		Square 40 cold rolled steel shaft			

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face is a made-to-order product.

2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .

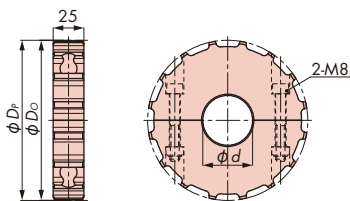
3. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

4. Square-hole sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

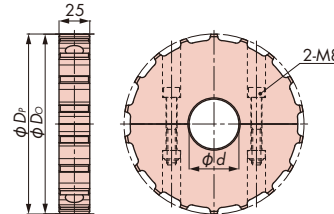
5. Use round-bore sprockets only for chains with a width of up to 680 mm and under conditions where temperature excursion within  $30^{\circ}\text{C}$ .

## ◆ Split Idler Sprocket with Teeth

WT-SW2250-16T



WT-SW2510-18T



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Approx. mass kg	Shaft	Material
<b>WT-SW2250-16T30IW-M</b>	16	130.20	130	Round	$\phi 30$	0.350	Round 30 cold rolled steel shaft	Polyamide (color: white)
<b>WT-SW2250-16T40IW-M</b>					$\phi 40$		Round 40 cold rolled steel shaft	
<b>WT-SW2250-18T30IW-M</b>	18	146.27	146		$\phi 30$	0.450	Round 30 cold rolled steel shaft	
<b>WT-SW2250-18T40IW-M</b>					$\phi 40$		Round 40 cold rolled steel shaft	

Note: 1. Standard products.

2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .

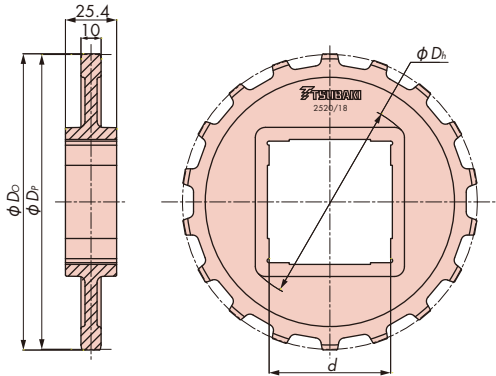
3. When assembling the halves of the split idler sprocket with teeth, do not mix the halves with halves from other idler sprockets with teeth.

4. Use only as an idler sprocket.

# Sprockets for WT2520/BT8S Series

Applicable Chain WT2525-K, BTC8S

## ◆ Solid Sprockets



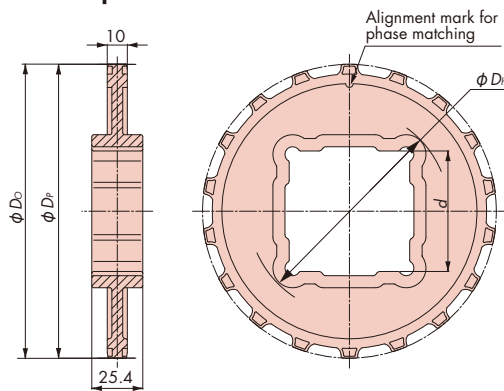
Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore shape	Bore diameter $d$	Approx. mass kg	Shaft	Material
WT-N2520-18T38S	18	146.27	147	73	Square	38.1	0.17	Square 38.1 cold rolled steel shaft	Reinforced polyamide (color: black)
WT-N2520-18T40S						40		Square 40 cold rolled steel shaft	
WT-N2520-18T60S				60		Square 60 cold rolled steel shaft			

Note: 1. Made-to-order products.

2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .

3. Sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

## ◆ Solid Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Hub diameter $D_h$	Approx. mass kg	Shaft	Material
BT8S-18T-40S	18	146.27	146.5	Square	40	71	0.230	Square 40 cold rolled steel shaft	Polyamide (color: gray)
BT8S-18T-60S					60	100	0.120	Square 60 cold rolled steel shaft	

Note: 1. Made-to-order products.

2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .

3. Sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

Closed

Open

Mold-to-Width Type

GTO &amp; TOD

Digest

 Sprockets & Accessories  
Wide Type / Mold-to-Width Type

# Sprockets for WT2500/BT8 Series

Applicable Chain

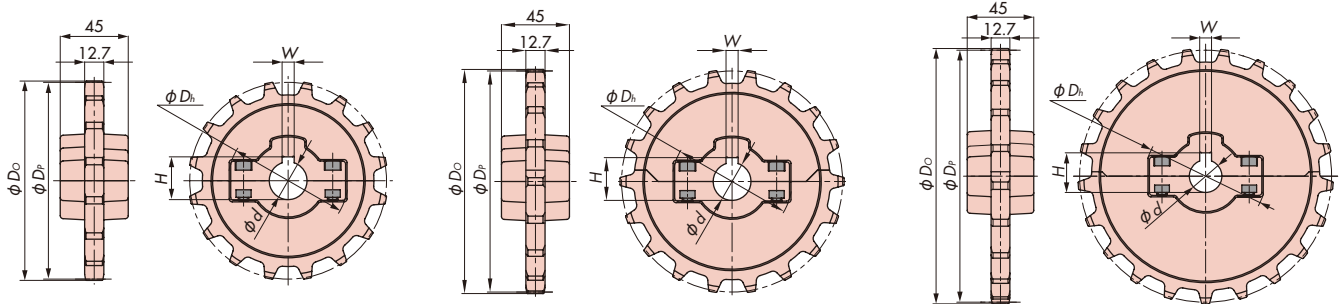
WT2505-K, WT2505-M, WT2506-K, BTM8H, BTC8H-M, BTM8H-M, TTUPS-H, TTUPM838H, WT2505G-M, WT2505TOD-M

## ◆ Split Sprockets

WT-SW2500-16T

WT-SW2500-18T

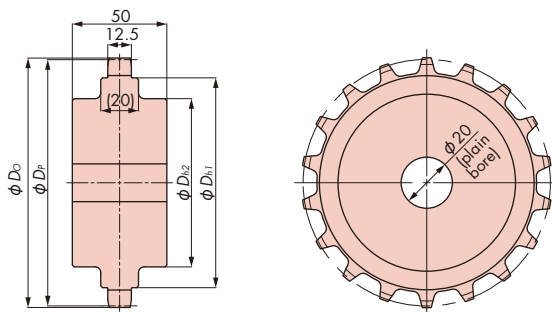
WT-SW2500-21T



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Keyway		Hub diameter $D_h$	Approx. mass kg	Material		Bolt tightening torque N·m{kgf·m}
						W	H			Body	Bolt/Nut	
<b>WT-SW2500-16T25</b>	16	130.20	131.9	Round	$\phi 25$	8	28.3	82	0.26	Reinforced polyamide (color: black)	Stainless steel	5.7 {0.58}
<b>WT-SW2500-16T30</b>					$\phi 30$		33.3		0.25			
<b>WT-SW2500-16T35</b>					$\phi 35$	10	38.3		0.24			
<b>WT-SW2500-16T40</b>					$\phi 40$	12	43.3		0.30			
<b>WT-SW2500-18T25</b>	18	146.27	148.3		$\phi 25$	8	28.3		0.30			
<b>WT-SW2500-18T30</b>					$\phi 30$		33.3		0.29			
<b>WT-SW2500-18T35</b>					$\phi 35$	10	38.3		0.28			
<b>WT-SW2500-18T40</b>					$\phi 40$	12	43.3		0.36			
WT-SW2500-21T25	21	170.42	172.7		$\phi 25$	8	28.3		0.36			
WT-SW2500-21T30					$\phi 30$		33.3		0.35			
WT-SW2500-21T35					$\phi 35$	10	38.3		0.34			
WT-SW2500-21T40					$\phi 40$	12	43.3		0.33			

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.  
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .  
 3. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.  
 4. Use a cold rolled steel shaft.

## ◆ Solid Sprockets (Machined Type)



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter		Bore shape	Material
				$D_{h1}$	$D_{h2}$		
WT-S2500-16T	16	130.20	131.9	111	89	Bore shape and size are made-to-order.	UHMW-PE (color: green)
WT-S2500-18T	18	146.27	148.3	127	105		
WT-S2500-21T	21	170.42	172.7	152	130		

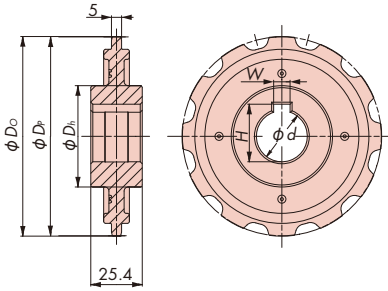
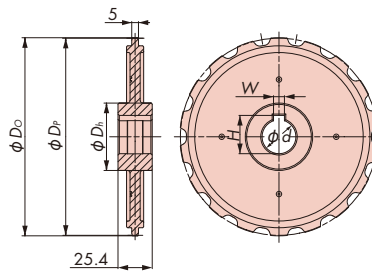
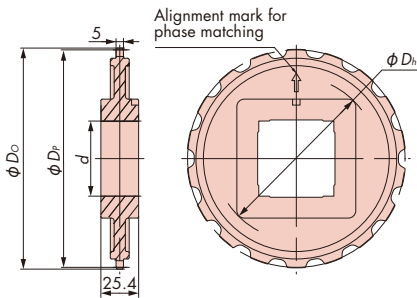
Note: 1. Made-to-order products.  
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ .  
 3. We also manufacture products with the number of teeth, sprocket shapes and materials other than those specified above.  
 4. Use a cold rolled steel shaft.

# Sprockets for BT8 Series

**Applicable Chain**

BTC8, BTC8-A Note: BTC8S, BTM8H, BTC8H-M, BTM8H-M, BTO8-M cannot be used.

## ◆ Solid Sprockets

**BT8-12T-25**

**BT8-18T-25**

**BT8-18T-40S, 50S, 65S**


Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Hub diameter $D_h$	Keyway		Approx. mass kg	Shaft	Material
							W	H			
BT8-12T-25	12	98.14	98.5	Round	φ25.1	50	8.1	28.4	0.090	Round 25 cold rolled steel shaft	Reinforced polyamide (color: black)
BT8-18T-25	18	146.27	147.0						Square		
BT8-18T-40S				0.250	Square 40 cold rolled steel shaft						
BT8-18T-50S				0.225	Square 50 cold rolled steel shaft						
BT8-18T-65S				0.165	Square 65 cold rolled steel shaft						

Note: 1. Made-to-order products.

2. Operating temperature range: -20°C to 80°C.

3. Sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

4. Sprockets (square hole) for BT8 series have an alignment mark for phase matching.

5. Contact a Tsubaki representative in case of considering the use of BT8-12T-25 or BT8-18T-25.

Closed

Open

Mold-to-Width Type

GTO &amp; TOD

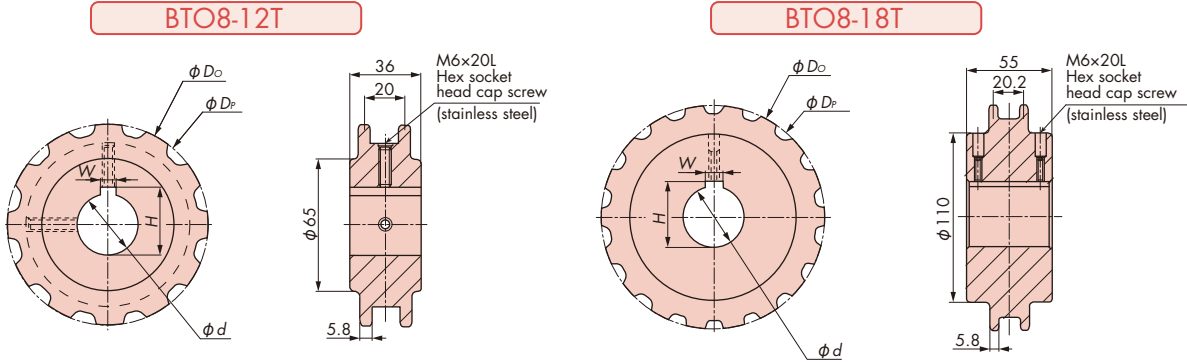
Digest

 Sprockets & Accessories  
Wide Type / Mold-to-Width Type

# Sprockets & Idler Wheels for BT8 Series

Applicable Chain **BTO8-M** Note: Cannot be used for BTC8, BTC8S, BTM8H, BTC8H-M, BTM8H-M.

## ◆ Solid Sprockets



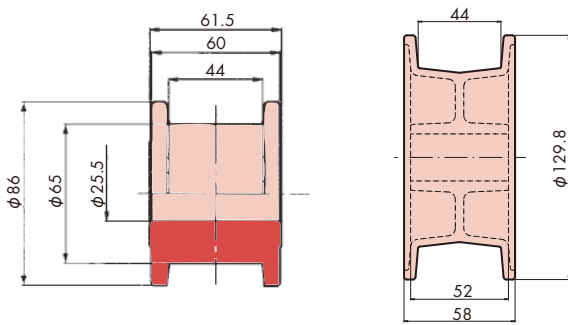
Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter			Approx. mass kg	Material
					$d$	$H$	$W$		
BTO8-12T25	12	98.14	98	Round	$\phi 25$	28.3	8	0.200	UHMW-PE (color: white)
BTO8-12T30					$\phi 30$	33.3			
BTO8-18T30	18	146.27	147		$\phi 40$	43.3	12	0.520	
BTO8-18T40									

Note: 1. Made-to-order products.  
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ .  
 3. Use a cold rolled steel shaft.

## ◆ Solid Idler Wheels

Equivalent for 12 teeth

Equivalent for 18 teeth

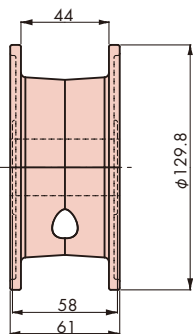


Tsubaki model no.	Effective teeth	Bore diameter	Approx. mass kg	Material
BT08-12T25-IW Note: 1	12	25	0.200	UHMW-PE (color: white)
TP-C12200BT-IW Note: 2	18		30	0.210
TP-C12201BT-IW Note: 2		40		0.190
TP-C12203BT-IW Note: 2				

Note: 1. Made-to-order product. (Operating temperature range:  $-20$  to  $60^{\circ}\text{C}$ )  
 2. Standard products. (Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ )  
 3. Refer to page 254 for details of products marked 'note 2'.  
 4. Use a cold rolled steel shaft.

## ◆ Split Idler Wheels

Equivalent for 18 teeth



Tsubaki model no.	Effective teeth	Bore diameter	Approx. mass kg	Material
TP-C12077BT-IW	18	25	0.260	Polyamide (color: black)
TP-C12078BT-IW		30	0.250	
TP-C12079BT-IW		35	0.280	
TP-C12080BT-IW		40	0.250	

Note: 1. Made-to-order products.  
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .  
 3. Please refer to page 254 for details of the products.  
 4. Use a cold rolled steel shaft.

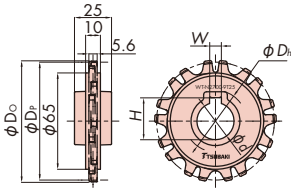


# Sprockets for WT2700 Series

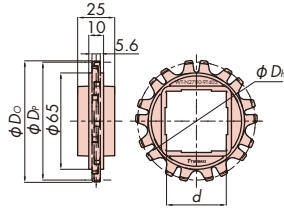
Applicable Chain WT2705-K, WT2706-K

## ◆ Solid Sprockets, Split Sprockets

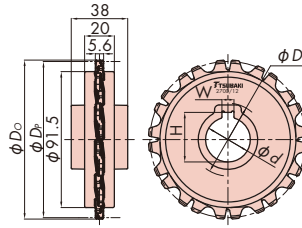
WT-N2700-9T25 (Solid)



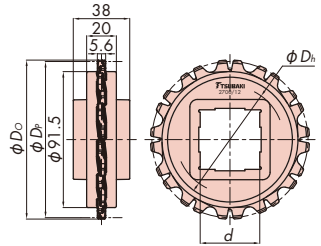
WT-N2700-9T40S (Solid)



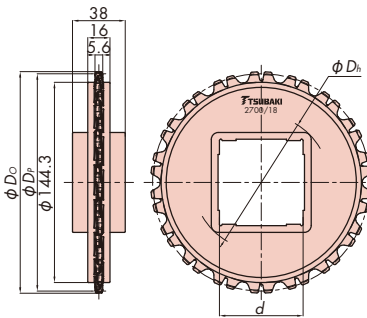
WT-N2700-12T (Solid)



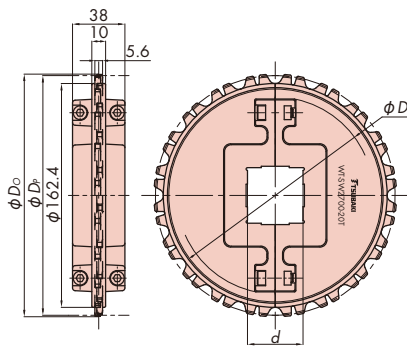
WT-N2700-12T40S (Solid)



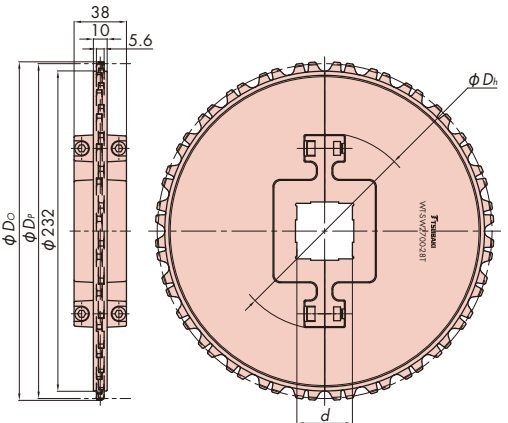
WT-N2700-18T (Solid)



WT-SW2700-20T (Split)



WT-SW2700-28T (Split)



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore shape	Bore diameter $d$	Keyway		Approx. mass kg	Material	Bolt tightening torque N·m(kgf·m)	
							W	H				
<b>WT-N2700-9T25</b>	9	79.53	82.0	41.6	Round	φ25	8	28.3	0.040	Reinforced polyamide (color: black)	-	
<b>WT-N2700-9T40S</b>				62.0	Square	40	-	-				0.033
<b>WT-N2700-12T30</b>	12	105.09	107.0	49.0	Round	φ30	8	33.3	0.120			
<b>WT-N2700-12T40</b>				60.0		φ40						12
<b>WT-N2700-12T40S</b>				73.0	Square	40						-
<b>WT-N2700-18T40S</b>	18	156.64	159.7	70.0		60	-	-				
<b>WT-N2700-18T60S</b>				98.0	65							
<b>WT-N2700-18T65S</b>				105.0	60	0.350						
<b>WT-SW2700-20T40S</b>	20	173.90	176.0	142.7	Square		40	-	-			0.315
<b>WT-SW2700-20T60S</b>						60	0.550					
<b>WT-SW2700-28T40S</b>	28	242.93	245.6		40	-	-	0.500				
<b>WT-SW2700-28T60S</b>					60			0.500				

Note: 1. Standard products.

2. Operating temperature range: -20°C to 80°C.

3. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

4. Sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

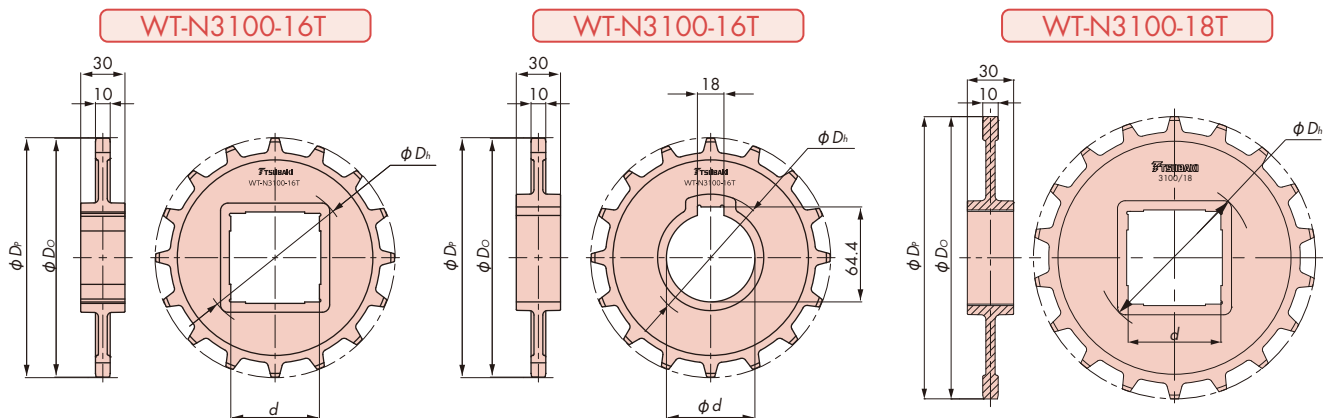
5. Use a cold rolled steel shaft.

# Sprockets for WT3100/3810 Series

## For WT3100 Series

Applicable Chain WT3109-W

### ◆ Solid Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore shape	Bore diameter $d$	Approx. mass kg	Material
WT-N3100-16T40S	16	162.75	162	73	Square	40	0.180	Reinforced polyamide (color: black)
WT-N3100-16T60S				101		60		
WT-N3100-16T60				86	$\phi 60$			
WT-N3100-18T40S	18	182.84	183	73	Square	40	0.240	
WT-N3100-18T60S				101		60		

Note: 1. Made-to-order products.

 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .

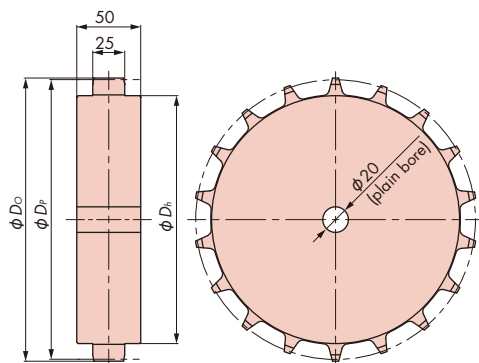
3. Sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

4. Use a cold rolled steel shaft.

## For WT3810 Series

Applicable Chain WT3816-K

### ◆ Solid Sprockets (Machined Type)



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Approx. mass kg	Bore shape	Material
WT-S3816-18T	18	218.83	221.6	194	1.50	Bore shape and size are made-to-order.	UHMW-PE (color: green)
WT-S3816-20T	20	242.91	245.9	219	1.80		
WT-S3816-24T	24	291.13	294.3	267	2.80		

Note: 1. Made-to-order products.

 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ .

3. Available for the sprockets with number of teeth, shapes and materials other than above. (Machined type)

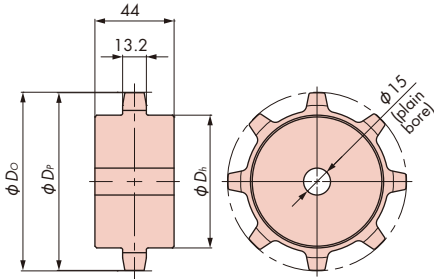
4. Use a cold rolled steel shaft.

# Sprockets & Accessories for WT3820 Series

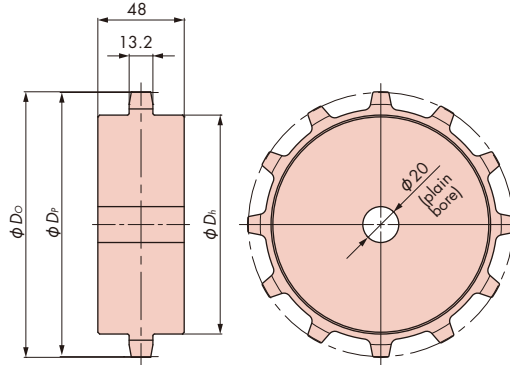
Applicable Chain WT3827-K

## ◆ Solid Sprockets (Machined Type)

WT-S3820-8T



WT-S3820-12T



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore shape	Material
WT-S3820-8T	8	99.56	99	74	Bore shape and size are made-to-order.	UHMW-PE (color: green)
WT-S3820-12T	12	147.20	148	122		

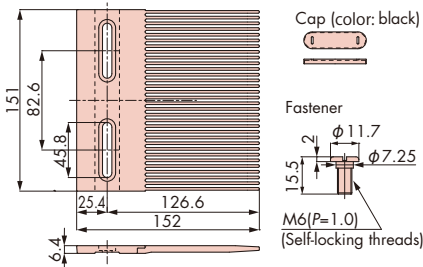
Note: 1. Made-to-order products.

 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ .

3. Available for the sprockets with number of teeth, shapes and materials other than above. (Machined type)

4. Use a cold rolled steel shaft.

## ◆ Transfer Plates



Tsubaki model no.	Material	Color	Approx. mass kg
WT-TP3827-L152	Reinforced polyamide	Black	0.150

Note: 1. Made-to-order product.

2. Two caps and two fasteners are included with one transfer plate.

3. Refer to page 447 for transfer plate installation procedures.

Closed

Open

 GTO & TOD  
 Mold-to-Width Type

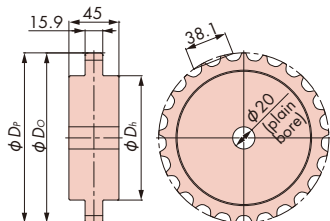
Digest

 Sprockets & Accessories  
 Wide Type / Mold-to-Width Type

# Sprockets for WT3830 Series

Applicable Chain WT3835-K, WT3835-T, WT3835G-M

## ◆ Solid Sprockets (Machined Type)

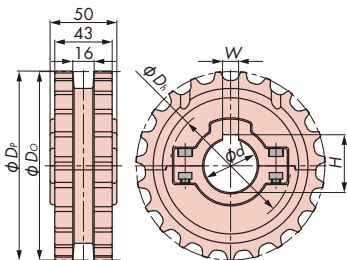


Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_P$	Outside diameter $D_O$	Hub diameter $D_h$	Bore shape	Material
WT-S3830-1200T	24	12	147.21	147	106	Bore shape and size are made-to-order.	UHMW-PE (color: green)
WT-S3830-1212T	25	12 1/2	153.20	153	112		

Note: 1. Made-to-order products.  
 2. Operating temperature range: -20°C to 60°C.  
 3. Available for the sprockets with number of teeth, shapes and materials other than above. (Machined type)  
 4. Use a cold rolled steel shaft.

Applicable Chain WT3835-K, WT3835-T

## ◆ Split Sprockets



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_P$	Outside diameter $D_O$	Bore shape	Bore diameter $d$	Keyway		Hub diameter $D_h$	Approx. mass kg	Material		Bolt tightening torque N·m{kgf·m}
							W	H			Body	Bolt/Nut	
<b>TTP-21T25</b>	21	10 1/2	129.26	130.0	Round	φ25	8	28.3	90	0.4	Reinforced polyamide (color: black)	Stainless steel	5.7{0.58}
<b>TTP-21T30</b>						φ30	8	33.3					
<b>TTP-21T35</b>						φ35	10	38.3					
<b>TTP-21T40</b>						φ40	12	43.3					
<b>TTP-21T45</b>						φ45	14	48.8					
<b>TTP-23T25</b>	23	11 1/2	141.22	142.0		φ25	8	28.3	90	0.5			
<b>TTP-23T30</b>						φ30	8	33.3					
<b>TTP-23T35</b>						φ35	10	38.3					
<b>TTP-23T40</b>						φ40	12	43.3					
<b>TTP-23T45</b>						φ45	14	48.8					
<b>TTP-25T25</b>	25	12 1/2	153.20	154.5		φ25	8	28.3	94	0.5			
<b>TTP-25T30</b>						φ30	8	33.3					
<b>TTP-25T35</b>						φ35	10	38.3					
<b>TTP-25T40</b>						φ40	12	43.3					
<b>TTP-25T45</b>						φ45	14	48.8					
<b>TTP-25T50</b>					φ50	14	53.8						

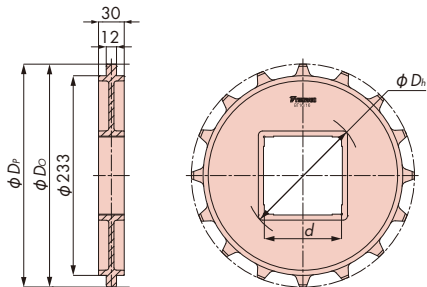
Note: 1. Standard products.  
 2. Operating temperature range: -20°C to 80°C.  
 3. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.  
 4. This sprocket can be used in an environment with no temperature change.  
 5. Cannot be used for WT3835G-M325.  
 6. Use a cold rolled steel shaft.

# Sprockets & Accessories for WT5700/BT16 Series

## For BT16 Series

Applicable Chain BTH16

### ◆ Solid Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore shape	Bore diameter $d$	Approx. mass kg	Material
BT16-16T-60S	16	260.39	260	104	Square	60.1	0.6	Reinforced polyamide (color: black)
BT16-16T-90S				147		90.1		

Note: 1. Made-to-order products.

2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ .

3. Available for the sprockets with number of teeth, shapes and materials other than above. (Machined type)

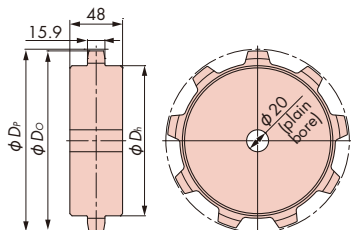
4. Sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.

5. Use a cold rolled steel shaft.

## For WT5700 Series

Applicable Chain WT5707-K

### ◆ Solid Sprockets (Machined Type)



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore shape	Material
WT-S5707-9T	9	167.09	164	137	Bore shape and size are made-to-order.	UHMW-PE (color: green)
WT-S5707-12T	12	220.81	220	193		
WT-S5707-14T	14	256.83	256	229		

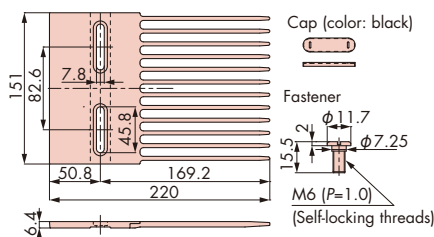
Note: 1. Made-to-order products.

2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ .

3. Available for the sprockets with number of teeth, shapes and materials other than above. (Machined type)

4. Use a cold rolled steel shaft.

### ◆ Transfer Plates



Tsubaki model no.	Material	Color	Approx. mass kg
WT-TP5707-L220	Reinforced polyamide	Black	0.180

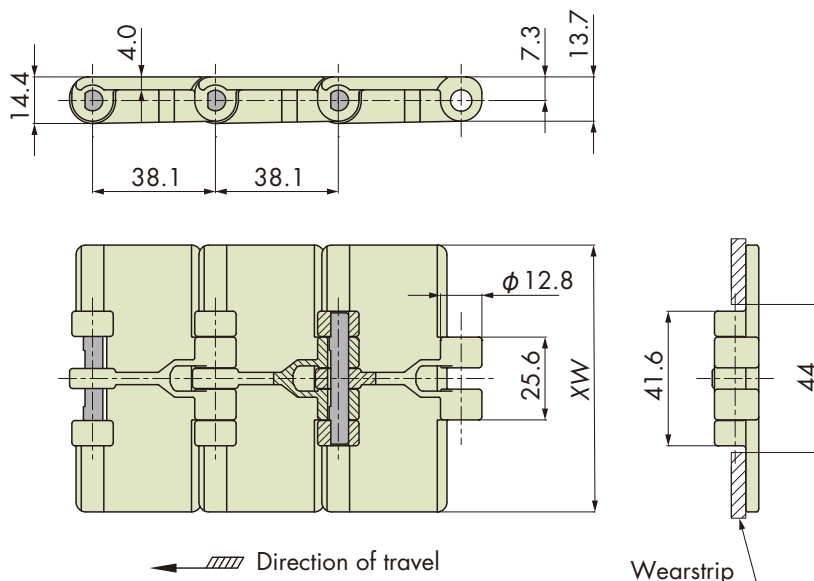
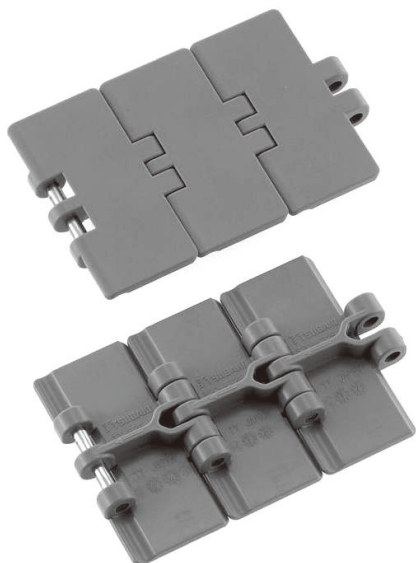
Note: 1. Made-to-order product.

2. Two caps and two fasteners are included with one transfer plate.

3. Refer to page 447 for transfer plate installation procedures.

**Features**

1. Worldwide standard shape. Can be used in a diverse range of applications.
2. Possible to convey various product sizes due to the diverse range of plate widths.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	40	80

**Chain Material Table**

Material	Standard Chain									High-Function Chain			
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Heat resistant/high speed	Low friction/Wear resistant		
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	KV150	KV180	HG	
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Black		Navy blue	
Max. allowable load kN {kgf}	0.83{85}												
Max. allowable speed m/min	With lube	100									—	200	100
	No lube	50									200		50
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	-20 to 150	-20 to 180	-20 to (65)80	
Pin material	SUS304												
Pin type	D-pin <sup>Note: 3</sup>												
TTP550	△	△	△	△	△	△	△	△	△	△	△	△	
TTP635	○	△	△	○	●	○	○	△	○	△	△	○	
TTP762	△	△	△	△	△	△	△	△	△	△	△	△	
TTP826	●	△	△	●	●	●	●	△	●	○	●	●	
TTP1016	○	△	△	○	○	○	○	△	○	×	×	○	
TTP1143	●	△	△	○	●	●	●	△	●	×	×	●	
TTP1270	○	△	△	○	○	○	○	△	○	×	×	○	
TTP1524	○	△	△	○	○	○	○	△	○	×	×	○	
TTP1651	△	△	△	△	△	△	△	△	△	×	×	△	
TTP1905	●	△	△	○	●	●	○	△	○	×	×	○	

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ), "x": Unable to produce. Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.

3. As of October 2007, knurled pins have been changed to D pins.

These chains, knurled pin type and D pin type, can be connected together.

4. As of April 2012, chains with top plate widths of 63.5 mm, 101.6 mm, 127 mm, and 152.4 mm changed to molded products. Depending on the specifications, the widths of their top plates are cut by machining.

5. The chain mark on the bottom of the plate of which the width was cut by machining indicates information not for the chain of modified width but for the original chains.

Tsubaki Model Table

Material Material mark	Standard	Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	Top plate width XW	Chain mass kg/m <small>Note: 2</small>
		LFW	LFG	LFB	ALF	WR		
Chain type	TTP550	TTP550-LFW	TTP550-LFG	TTP550-LFB	TTP550-ALF	TTP550-WR	55.0	0.8
	TTP635	TTP635-LFW	<b>TTP635-LFG</b>	TTP635-LFB	TTP635-ALF	TTP635-WR	63.5	
	TTP762	TTP762-LFW	TTP762-LFG	TTP762-LFB	TTP762-ALF	TTP762-WR	76.2	0.9
	<b>TTP826</b>	<b>TTP826-LFW</b>	<b>TTP826-LFG</b>	<b>TTP826-LFB</b>	<b>TTP826-ALF</b>	<b>TTP826-WR</b>	82.6	
	TTP1016	TTP1016-LFW	TTP1016-LFG	TTP1016-LFB	TTP1016-ALF	TTP1016-WR	101.6	1.0
	<b>TTP1143</b>	TTP1143-LFW	<b>TTP1143-LFG</b>	<b>TTP1143-LFB</b>	<b>TTP1143-ALF</b>	<b>TTP1143-WR</b>	114.3	
	TTP1270	TTP1270-LFW	TTP1270-LFG	TTP1270-LFB	TTP1270-ALF	TTP1270-WR	127.0	1.1
	TTP1524	TTP1524-LFW	TTP1524-LFG	TTP1524-LFB	TTP1524-ALF	TTP1524-WR	152.4	1.2
	TTP1651	TTP1651-LFW	TTP1651-LFG	TTP1651-LFB	TTP1651-ALF	TTP1651-WR	165.1	1.3
	<b>TTP1905</b>	TTP1905-LFW	<b>TTP1905-LFG</b>	<b>TTP1905-LFB</b>	TTP1905-ALF	TTP1905-WR	190.5	1.4

- Note: 1. Chain type in boldface are standard products. Chain type in normal face are made-to-order products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 Contact a Tsubaki representative for chain mass of chains corresponding to some top plate widths which is not described in below.  
 [TTP826] Y, SY, DIY: 1.10, DIA: 0.75, MPD: 0.8  
 [TTP1143] Y, DIY: 1.20, DIA: 0.8, MPD: 0.9  
 [TTP1905] Y, SY, DIY: 1.8, DIA, MPD: 1.0  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

Model Numbering

Chain type: **TTP**  
 Top plate width: **826** Note: 2  
 Material mark: **- ALF** Note: 3  
 Number of links: **+ 80** Note: 4  
 Unit: **L**  
 L: Link

Connecting Pin

1. SUS304 D-pin  
 Tsubaki model no. **TTP-SUS-JPD**  
 Note: Connecting the pins for the heat resistant and high-speed (KV150, KV180) series are different from this model. Contact a Tsubaki representative for more details.

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table below.  
 4. Minimum quantity: 2, maximum quantity: 99999.

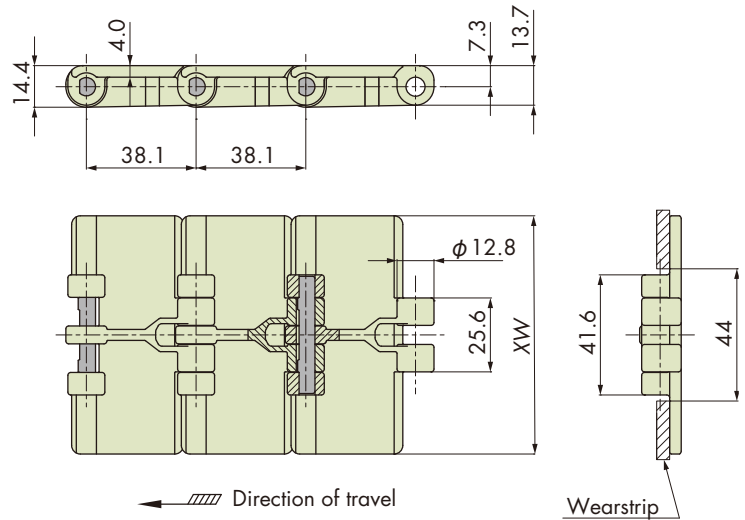
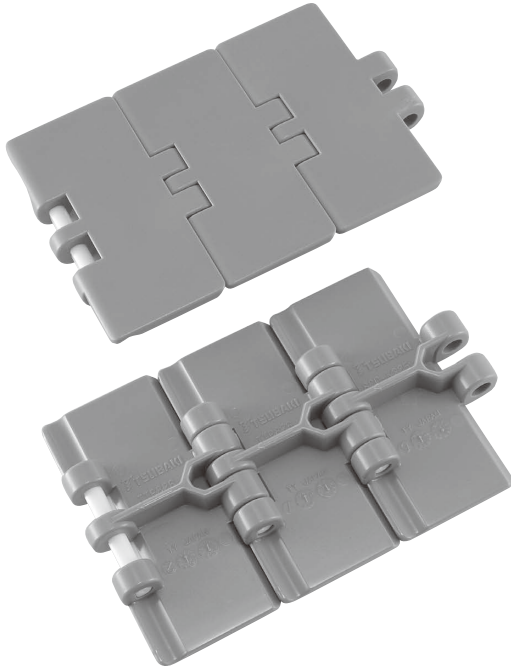
Chain Material Table

High-Function Chain													
Material	High speed	Chemical resistant	Super chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Metal detectable	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying
Material mark	HS	Y	SY	E	DIA	DIY	MWS	MPD	SE	MF	AR	UVR	PFS
Link color	Beige	Matte white	Matte white	Black	Cream	Green	Cream	Black	Gray	Yellow	White	Light gray	Nile blue
Max. allowable load kN (kgf)	0.74 {75}	0.41 {42}		0.58 {59}	0.69 {70}		0.83 {85}	0.69 {70}	0.83 {85}	0.61 {63}	0.75 {77}	0.83 {85}	0.83 {85}
Max. allowable speed m/min	With lube	100		100		100		100		100		100	
	No lube	230		50		50		50		50		50	
Operating temperature range °C	-20 to 50	-20 to 80		-20 to 80		-20 to (65)80		-20 to 80		-20 to (60)80		-20 to 80	
Pin material	SUS304		Titanium	SUS304									
Pin type	D-pin <small>Note: 3</small>		Diamond knurled	D-pin <small>Note: 3</small>									
TTP550	△	△	△	△	△	△	△	△	△	△	△	△	△
TTP635	△	△	△	△	△	△	△	△	△	△	△	△	△
TTP762	△	△	△	△	△	△	△	△	△	△	△	△	△
TTP826	○	○	△	△	△	△	○	△	△	○	△	△	△
TTP1016	△	△	△	△	△	△	△	△	△	△	△	△	△
TTP1143	△	○	△	△	△	△	○	△	△	△	△	△	△
TTP1270	△	△	△	△	△	△	△	△	△	△	△	△	△
TTP1524	△	△	△	△	△	△	△	△	△	△	△	△	△
TTP1651	△	△	△	△	△	△	△	△	△	△	△	△	△
TTP1905	△	△	△	△	△	△	○	△	△	△	△	△	△

- Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. As of October 2007, knurled pins have been changed to D pins. These chains, knurled pin type and D pin type, can be connected together.  
 4. As of April 2012, chains with top plate widths of 63.5 mm, 101.6 mm, 127 mm, and 152.4 mm changed to molded products. Depending on the specifications, the widths of their top plates are cut by machining.  
 5. The chain mark on the bottom of the plate of which the width was cut by machining indicates information not for the chain of modified width but for the original chains.

**Features**

1. Worldwide standard shape. Can be used in a diverse range of applications.
2. Possible to convey various product sizes due to the diverse range of plate widths.
3. Easy maintenance due to all-engineering-plastic-made. A longer service life is expected under water lubrication than stainless steel pin type of the chain.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	40	80

**Chain Material Table**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	0.83{85}								
Max. allowable speed m/min	With lube	100							
	No lube	50							
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Pin type	D-pin <small>Note: 4</small>								
TTP550P	△	△	△	△	△	△	△	△	△
TTP635P	○	△	△	○	●	○	○	△	○
TTP762P	△	△	△	△	△	△	△	△	△
TTP826P	●	△	△	●	●	●	●	△	●
TTP1016P	○	△	△	○	○	○	○	△	○
TTP1143P	●	△	△	○	●	●	●	△	●
TTP1270P	○	△	△	○	○	○	○	△	○
TTP1524P	○	△	△	○	○	○	○	△	○
TTP1651P	△	△	△	△	△	△	△	△	△
TTP1905P	○	△	△	○	●	●	○	△	○

- Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pins are orange. Base chain pins are white.  
 4. As of October 2007, knurled pins have been changed to D pins. These chains, knurled pin type and D pin type, can be connected together.  
 5. As of April 2012, the chains with top plate widths of 63.5 mm, 101.6 mm, 127 mm, and 152.4 mm had changed to molded products. Depending on the specifications, the widths of their top plates are cut by machining.  
 6. The chain mark on the bottom of the plate of which the width was cut by machining indicates information not for the chain of modified width but for the original chains.



Tsubaki Model Table

Material	Standard	Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	Top plate width XW	Chain mass kg/m <sup>Note: 2</sup>
		LFW	LFG	LFB	ALF	WR		
Chain type	TTP550P	TTP550P-LFW	TTP550P-LFG	TTP550P-LFB	TTP550P-ALF	TTP550P-WR	55.0	0.5
	TTP635P	TTP635P-LFW	<b>TTP635P-LFG</b>	TTP635P-LFB	TTP635P-ALF	TTP635P-WR	63.5	0.55
	TTP762P	TTP762P-LFW	TTP762P-LFG	TTP762P-LFB	TTP762P-ALF	TTP762P-WR	76.2	0.62
	<b>TTP826P</b>	<b>TTP826P-LFW</b>	<b>TTP826P-LFG</b>	<b>TTP826P-LFB</b>	<b>TTP826P-ALF</b>	<b>TTP826P-WR</b>	82.6	0.65
	TTP1016P	TTP1016P-LFW	TTP1016P-LFG	TTP1016P-LFB	TTP1016P-ALF	TTP1016P-WR	101.6	0.75
	<b>TTP1143P</b>	<b>TTP1143P-LFW</b>	<b>TTP1143P-LFG</b>	<b>TTP1143P-LFB</b>	<b>TTP1143P-ALF</b>	<b>TTP1143P-WR</b>	114.3	0.8
	TTP1270P	TTP1270P-LFW	TTP1270P-LFG	TTP1270P-LFB	TTP1270P-ALF	TTP1270P-WR	127.0	0.85
	TTP1524P	TTP1524P-LFW	TTP1524P-LFG	TTP1524P-LFB	TTP1524P-ALF	TTP1524P-WR	152.4	0.95
	TTP1651P	TTP1651P-LFW	TTP1651P-LFG	TTP1651P-LFB	TTP1651P-ALF	TTP1651P-WR	165.1	1.05
TTP1905P	TTP1905P-LFW	<b>TTP1905P-LFG</b>	<b>TTP1905P-LFB</b>	TTP1905P-ALF	TTP1905P-WR	190.5	1.2	

- Note: 1. Chain type in boldface are standard products. Chain type in normal face are made-to-order products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m). Contact a Tsubaki representative for chain mass of chains corresponding to some top plate widths which is not described in below.  
 [TTP826P] DIA: 0.5, DIY: 0.8, MPW: 0.6  
 [TTP1143P] [DIA: 0.7, DIY: 1.0, MPW: 0.6  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

Model Numbering

Chain type: **TTP**    Top plate width: **826** <sup>Note: 2</sup>    Plastic pins: **P** <sup>Note: 3</sup>    Material mark: **- ALF** <sup>Note: 4</sup>    Number of links: **+ 80** <sup>Note: 5</sup>    Unit: **L**

L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Enter "P" only when a plastic pin type is selected.  
 4. Please check the chain material and material marks in the chain material table below.  
 5. Minimum quantity: 2, maximum quantity: 99999.

Connecting Pin

1. Special engineering plastic D-pin/orange Tsubaki model no. **TTP-PLA-JPD**

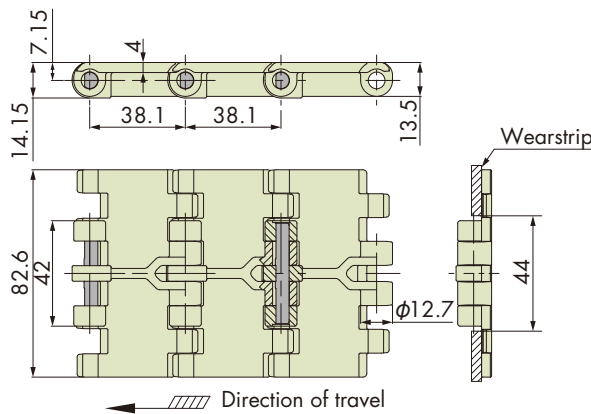
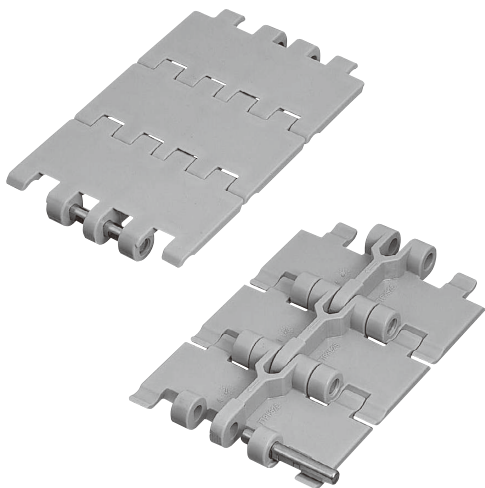
Chain Material Table

High-Function Chain										
Material	Low friction/Wear resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Metal detectable	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	HG	E	DIA	DIY	MWS	MPW	SE	MF	UVR	
Link color	Navy blue	Black	Cream	Green	Cream	Black	Gray	Yellow	Light gray	
Max. allowable load kN {kgf}	0.83{85}	0.58{59}	0.66{68}		0.83{85}	0.34{35}	0.83{85}	0.61{63}	0.83{85}	
Max. allowable speed m/min	With lube 100		-		100		50	100	-	100
	No lube				50					
Operating temperature range °C	-20 to (60)80		-20 to 80		-20 to (60)80		-20 to 60	-20 to (60)80	-20 to 80	-20 to (60)80
Pin material	Special engineering plastic									
Pin type	D-pin <sup>Note: 4</sup>									
TTP550P	△	△	△	△	△	△	△	△	△	
TTP635P	○	△	△	△	△	△	△	△	△	
TTP762P	△	△	△	△	△	△	△	△	△	
TTP826P	●	△	△	△	○	△	△	○	△	
TTP1016P	○	△	△	△	△	△	△	△	△	
TTP1143P	●	△	△	△	○	△	△	○	△	
TTP1270P	○	△	△	△	△	×	△	△	△	
TTP1524P	○	△	△	△	△	×	△	△	△	
TTP1651P	△	△	△	△	△	×	△	△	△	
TTP1905P	○	△	△	△	○	×	△	△	△	

- Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ), "x": Unable to produce. Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of connecting pins are orange. Base chain pins are white.  
 4. As of October 2007, knurled pins have been changed to D pins. These chains, knurled pin type and D pin type, can be connected together.  
 5. As of April 2012, chains with top plate widths of 63.5 mm, 101.6 mm, 127 mm, and 152.4 mm changed to molded products. Depending on the specifications, the widths of their top plates are cut by machining.  
 6. The chain mark on the bottom of the plate of which the width was cut by machining indicates information not for the chain of modified width but for the original chains.

**Features**

1. Comb-toothed plates minimize gaps between links and are suitable for conveying unstable containers such as PET bottles and dessert cups.
2. Designed to narrow the gap between links to improve the flatness of the surface of the chain. Effective in preventing container wobbling during conveyance.
3. Ensure smooth side transfer due to chamfered edges of both sides of the plate.
4. Can be replaced to TTP826 due to having the same dimensions. Suitable for stable conveyance of containers.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	35	80

**Chain Material Table**

Standard Chain										
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	
Max. allowable load kN {kgf}	0.83{85}									
Max. allowable speed m/min	With lube	100								
	No lube	50								
Operating temperature range °C	Stainless steel pin	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
	Plastic pin	-20 to (60)80								
Pin material	Stainless steel pin/SUS304 Plastic pin/Special engineering plastic									
Pin type	D-pin									
TTPH826	○	△	△	○	●	●	●	△	△	
TTPH826P	○	△	△	○	●	●	●	△	△	

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of connecting pin is orange. Base chain pins are white.

## Tsubaki Model Table

Material		Standard	Low friction/Wear resistant			Advanced low friction/Wear resistant	Top plate width	Chain mass kg/m <small>Note: 2</small>
Material mark		—	LFW	LFG	LFB	ALF		
Chain type	Stainless steel pin	TTPH826	TTPH826-LFW	<b>TTPH826-LFG</b>	<b>TTPH826-LFB</b>	<b>TTPH826-ALF</b>	82.6	0.90
	Plastic pin	TTPH826P	TTPH826P-LFW	<b>TTPH826P-LFG</b>	<b>TTPH826P-LFB</b>	<b>TTPH826P-ALF</b>		0.65

- Note: 1. Chain type in boldface are standard products. Chain type in normal face are made-to-order products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m). Contact a Tsubaki representative for chain mass of chains corresponding to some top plate widths which is not described in below.  
 [TTPH826] Y, DIY: 1.10, DIA: 0.75  
 [TTPH826P] DIY: 0.80  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Top plate width	Plastic pins	Material mark	Number of links	Unit
<b>TTPH</b>	<b>826</b> <small>Note: 2</small>	<b>P</b> <small>Note: 3</small>	<b>- LFB</b> <small>Note: 4</small>	<b>+ 80</b> <small>Note: 5</small>	<b>L</b>
					L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width top plate in the Tsubaki model table above.  
 3. Enter "P" only when a plastic pin type is selected.  
 4. Please check the chain material and material marks in the chain material table below.  
 5. Minimum quantity: 2, maximum quantity: 99999.

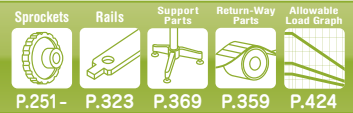
## Chain Material Table

High-Function Chain												
Material	Low friction/Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying	
Material mark	HG	Y	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS	
Link color	Navy blue	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue	
Max. allowable load kN {kgf}	0.83 {85}	0.41 {42}	0.58 {59}	0.69{70}		0.83 {85}		0.61 {63}	0.75 {77}	0.83 {85}		
Max. allowable speed m/min	With lube	100			-	100		-	100			
	No lube	50										
Operating temperature range °C	Stainless steel pin	-20 to (65)80	-20 to 80			-20 to (65)80	-20 to 80		-20 to (60)80	-20 to 80		
	Plastic pin	-20 to (60)80	-	-	-	-20 to (60)80		-20 to 80	-	-20 to (60)80	-	
Pin material	Stainless steel pin/SUS304 Plastic pin/Special engineering plastic											
Pin type	D-pin											
TTPH826	△	△	△	△	△	△	△	△	△	△	△	
TTPH826P	△	×	×	×	△	△	△	△	×	△	×	

- Note: 1. "△": Made-to-order products (RFQ), "×": Unable to produce.  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of connecting pin is orange. Base chain pin is white.

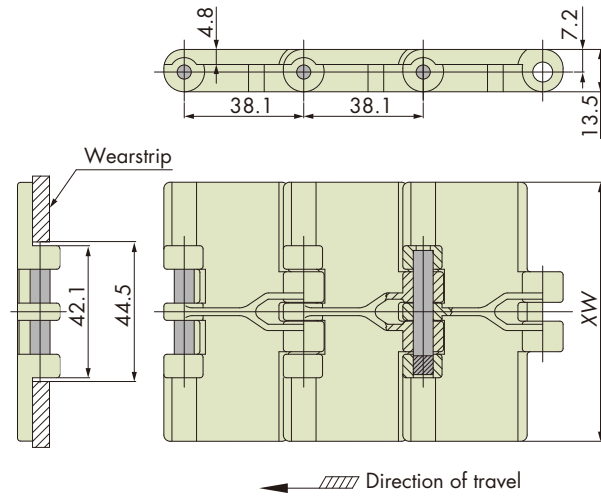
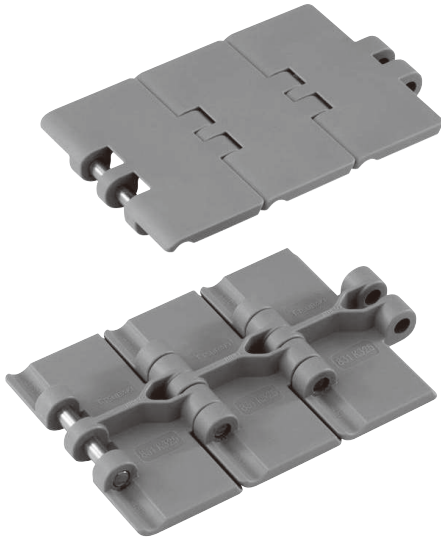
# Plastic Top Chain TTPT

Straight Running



## Features

Suitable for applications where top plates are susceptible to wear due to its thicker plate compared to TTP.  
(Plate width: TTPT=4.8 mm, TTP=4.0 mm)



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	50	80

## Chain Material Table

Standard Chain		
Material	Low friction/Wear resistant	
Material mark	LFB	
Link color	Brown	
Max. allowable load kN {kgf}	0.83{85}	
Max. allowable speed m/min	With lube	100
	No lube	50
Operating temperature range °C	-20 to (65)80	
Pin material	Equivalent to SUS304	
Pin type	Knurled pin	

- Note: 1. Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.  
 4. Connecting pins are not for sale separately.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width	Chain mass
Material mark	LFB	XW	kg/m
Chain type	<b>TTPT826-LFB</b>	82.6	1.04
	TTPT1143-LFB	114.3	1.29
	TTPT1905-LFB	190.5	1.82

Note: Chain type in boldface is a standard product. Chain type in normal face are made-to-order products.

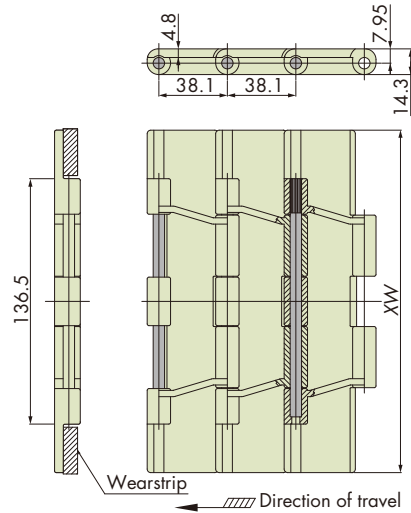
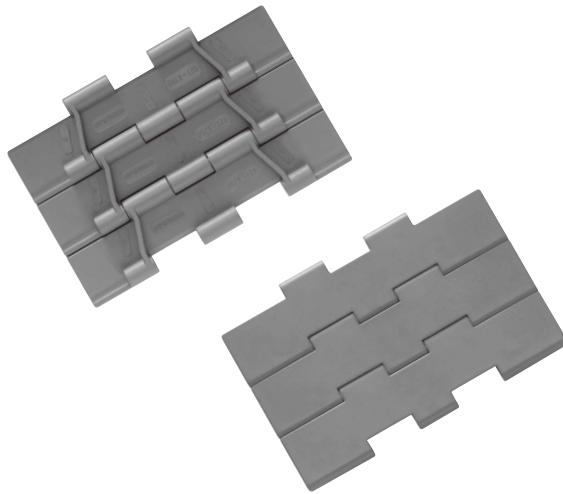
## Model Numbering

Chain type	Top plate width	Material mark	Number of links	Unit
<b>TTPT</b>	<b>826</b> <small>Note: 2</small>	<b>LFB</b>	<b>80</b> <small>Note: 3</small>	<b>L</b>
				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

### Features

1. Suitable for higher applied load conditions due to an approx. 2 times higher allowable load than TTP.
2. Suitable for conveying large products due to its wide plate width.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	50	80

### Chain Material Table

Standard Chain		
Material	Low friction/Wear resistant	
Material mark	LFB	
Link color	Brown	
Max. allowable load kN {kgf}	1.67{170}	
Max. allowable speed m/min	With lube	100
	No lube	50
Operating temperature range °C	-20 to (65)80	
Pin material	Equivalent to SUS304	
Pin type	Knurled pin	
Availability	●	

- Note: 1. ●: Standard product.  
 Not available for other chain materials that are not listed in the chain material table above.
2. Operating temperature of (the value in parentheses) is for wet conditions.
  3. Plastic pin type is not available.
  4. Connecting pins are not for sale separately.

### Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width XW	Chain mass kg/m
Material mark	LFB		
Chain type	<b>TTPDH1905-LFB</b>	190.5	2.59
	<b>TTPDH2540-LFB</b>	254.0	3.08
	<b>TTPDH3048-LFB</b>	304.8	3.35

- Note: 1. Chain type in boldface are standard products.  
 2. TTPH (standard series) had discontinued sales as of the end of September 2019. The alternative product is TTPDH-Y (standard series).  
 3. TTPDH (standard series) and TTPDH-Y (standard series) cannot be connected with each other.

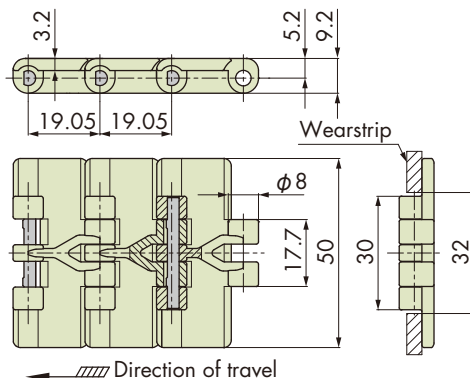
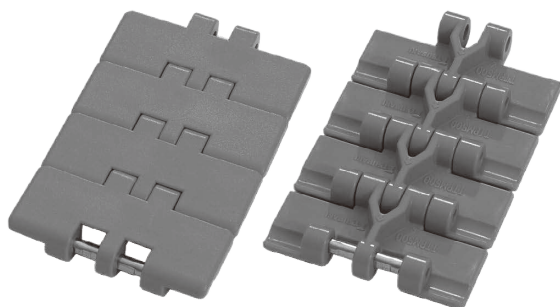
### Model Numbering

Chain type	Top plate width	Material mark	Number of links	Unit
<b>TTPDH</b>	<b>1905</b> <small>Note: 2</small>	<b>LFB</b>	<b>80</b> <small>Note: 3</small>	<b>L</b>
				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

## Features

1. Adopts chain pitch of approx. half of conventional chains. Effective to reduce noise and to save space of transfer section.
2. Suitable for conveying small products such as batteries and vials for medical use due to its top plate width of 50.0 mm.
3. The high temperature (HTW) series are superior to standard chain listed in chain material table below in terms of chemical resistance, and provide a longer life even under use where chemical adherence is common.



Chain pitch mm	Backflex radius mm	Number of links per unit
19.05	25	160 <small>Note</small>

Note: As of 2013, the number of links per unit has changed.

## Chain Material Table

Material	Standard Chain							High-Function Chain			
	Standard			Low friction/Wear resistant			Advanced low friction/ Wear resistant	Low friction		Low friction/ Wear resistant	High temperature
Material mark	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	HTW
Link color	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	White
Max. allowable load kN {kgf}	0.29{30}										0.15 {15}
Max. allowable speed m/min	With lube										100
	No lube										50
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	-20 to (65)80	5 to 105
Pin material	SUS304										
Pin type	D-pin										
TTPM500	●	△	●	○	○	○	○	△	○	○	○

- Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Can be connected with TTDS-20, which was obsolete round pin type.  
 4. Plastic pin type is not available.

## Tsubaki Model Table

Material Material mark	Standard		Top plate width	Chain mass kg/m <sup>Note: 2</sup>
	W	BL		
Chain type	<b>TTPM500-W</b>	<b>TTPM500-BL</b>	50	0.4

- Note: 1. Chain type in boldface are standard products.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 HTW:0.3  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Top plate width	Material mark	Number of links	Unit
<b>TTPM</b>	<b>500</b> <sup>Note: 2</sup>	<b>BL</b> <sup>Note: 3</sup>	<b>80</b> <sup>Note: 4</sup>	<b>L</b>
-   +				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table below.  
 4. Minimum quantity: 2, maximum quantity: 99999.

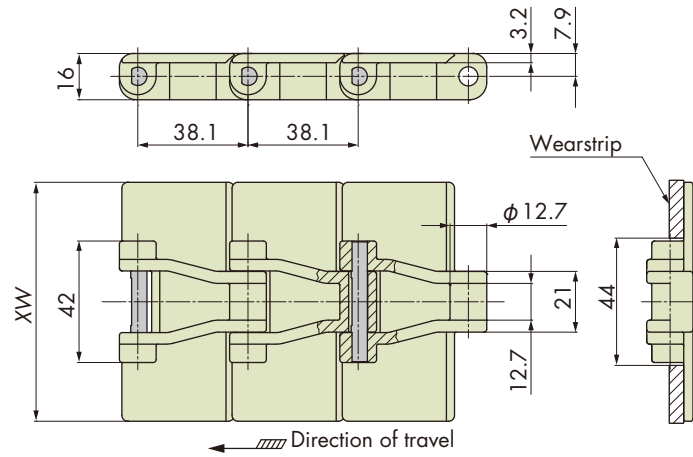
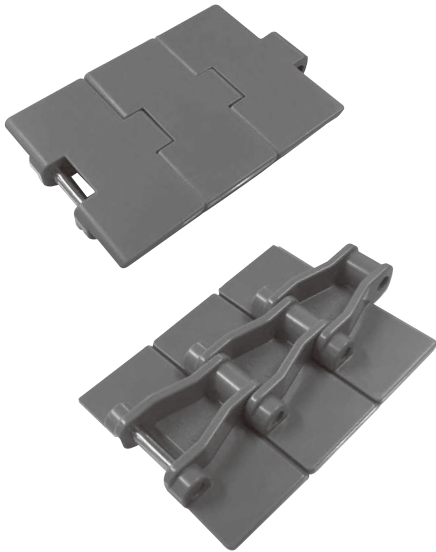
## Chain Material Table

High-Function Chain						
Material	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying
Material mark	E	MWS	SE	MF	UVR	PFS
Link color	Black	Cream	Gray	Yellow	Light gray	Nile blue
Max. allowable load kN {kgf}	0.24{24}	0.29{30}		0.2{22}	0.29{30}	
Max. allowable speed m/min	With lube	100		—	100	
	No lube	50				
Operating temperature range °C	-20 to 80	-20 to (65)80	-20 to 80			
Pin material	SUS304					
Pin type	D-pin					
TTPM500	△	△	△	△	△	△

- Note: 1. "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Can be connected with TTDS-20, which was obsolete round pin type.  
 4. Plastic pin type is not available.

**Features**

1. Suitable for higher applied load conditions due to an approx. 1.4 times higher allowable load than TTP.
2. 3.2 mm plate thickness, the same plate thickness as TT stainless steel top chain.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	40	80

**Chain Material Table**

Standard Chain										
Material	Standard				Low friction/Wear resistant			Advanced low friction/ Wear resistant	Low friction	
Material mark	—	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	1.18{120}									
Max. allowable speed m/min	With lube	100								
	No lube	50								
Operating temperature range °C	-20 to 80				-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
Pin material	SUS304									
Pin type	D-pin <sup>Note: 3</sup>									
TPF762	●	●	△	△	○	○	○	○	△	△
TPF826	●	●	△	△	○	●	●	○	△	△

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ).

Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.

3. As of January 2009, knurled pin had been changed to D pin. These cannot be connected with each other.

4. Plastic pin type is not available.



## Tsubaki Model Table

Material Material mark	Standard		Low friction/Wear resistant		Top plate width XW	Chain mass kg/m <small>Note: 2</small>
	—	W	LFG	LFB		
Chain type	<b>TPF762</b>	<b>TPF762-W</b>	TPF762-LFG	TPF762-LFB	76.2	0.85
	<b>TPF826</b>	<b>TPF826-W</b>	<b>TPF826-LFG</b>	<b>TPF826-LFB</b>	82.6	0.85

- Note: 1. Chain type in boldface are standard products. Chain type in normal face are made-to-order products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 [TPF762] Y, DIY: 1.10, DIA: 0.75  
 [TPF826] Y, DIY: 1.10, DIA: 0.75  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Top plate width	Material mark	Number of links	Unit
<b>TPF</b>	<b>826</b> <small>Note: 2</small>	<b>LFB</b> <small>Note: 3</small>	<b>80</b> <small>Note: 4</small>	<b>L</b>
- +				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table below.  
 4. Minimum quantity: 2, maximum quantity: 99999.

## Connecting Pin

1. SUS304 D-pin  
 Tsubaki model no. **TPF-SUS-JPD**

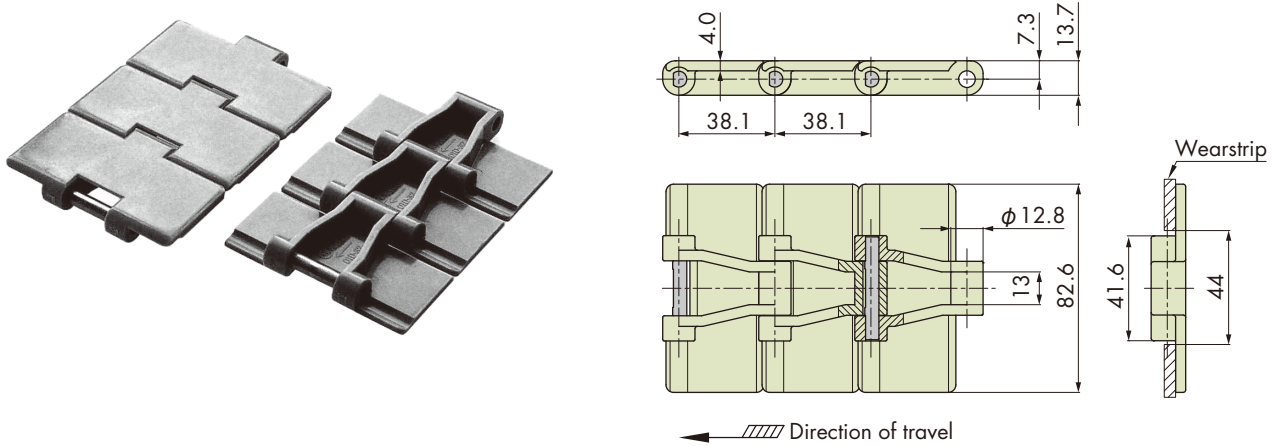
## Chain Material Table

High-Function Chain											
Material	Low friction/Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying
Material mark	HG	Y	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS
Link color	Navy blue	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue
Max. allowable load kN {kgf}	1.18 {120}	0.59 {60}	0.82 {84}	0.93{95}		1.18{120}		0.87 {89}	1.06 {108}	1.18{120}	
Max. allowable speed m/min	With lube	100		-	100		-	100			
	No lube	50									
Operating temperature range °C	-20 to (65)80	-20 to 80				-20 to (65)80	-20 to 80	-20 to (60)80	-20 to 80		
Pin material	SUS304										
Pin type	D-pin <small>Note: 3</small>										
TPF762	△	△	△	△	△	△	△	△	△	△	△
TPF826	△	△	△	△	△	△	△	△	△	△	△

- Note: 1. "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. As of January 2009, knurled pin had been changed to D pin. These cannot be connected with each other.  
 4. Plastic pin type is not available.

## Features

1. Suitable for higher applied load conditions due to an a pprox. 1.3 times higher allowable load than TTP.
2. With the same 4.0 mm plate thickness as the TTP and TTUP. It is easy to adjust the level of conveyors running in parallel.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	50	80

## Chain Material Table

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/ Wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	1.08{110}								
Max. allowable speed m/min	With lube	100							
	No lube	50							
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
Pin material	SUS304								
Pin type	D-pin								
TP-OTD32	●	△	△	△	○	△	○	△	△

Note: 1. "●": Standard product, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Standard	Top plate width	Chain mass kg/m <small>Note: 2</small>
Material mark	—		
Chain type	<b>TP-OTD32</b>	82.6	0.9

- Note: 1. Chain type in boldface is a standard product.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 Y, DIY: 1.1, DIA: 0.7  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Top plate width	Material mark	Number of links	Unit
<b>TP-OTD</b>	<b>32</b> <small>Note: 2</small>	<b>LFG</b> <small>Note: 3</small>	<b>80</b> <small>Note: 4</small>	<b>L</b>
				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table below.  
 4. Minimum quantity: 2, maximum quantity: 99999.

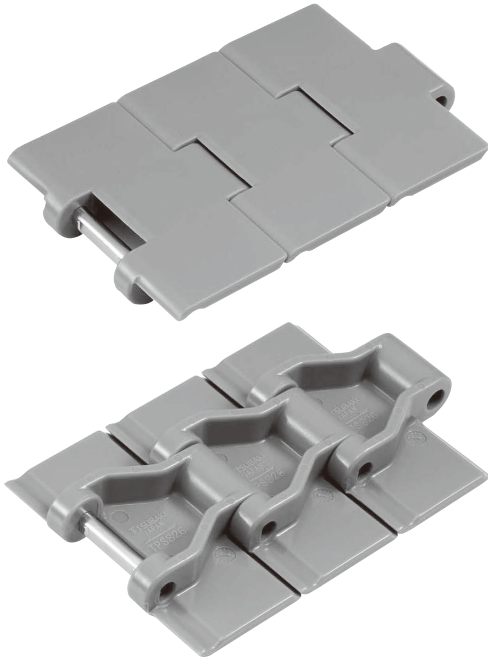
## Chain Material Table

High-Function Chain											
Material	Low friction/ Wear resistant	High speed	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying
Material mark	HG	HS	Y	E	DIA	DIY	MWS	SE	MF	UVR	PFS
Link color	Navy blue	Beige	Matte white	Black	Cream	Green	Cream	Gray	Yellow	Light gray	Nile blue
Max. allowable load kN {kgf}	1.08 {110}	0.97 {100}	0.60 {61}	0.76 {77}	0.92{94}		1.08{110}		0.80 {81}	1.08{110}	
Max. allowable speed m/min	With lube	100	—	100		—	100		—	100	
	No lube	50	230	—		50		—		—	
Operating temperature range °C	-20 to (65)80	-20 to 50	-20 to 80				-20 to (65)80	-20 to 80			
Pin material	SUS304										
Pin type	D-pin										
TP-OTD32	△	○	△	△	△	△	△	△	△	△	△

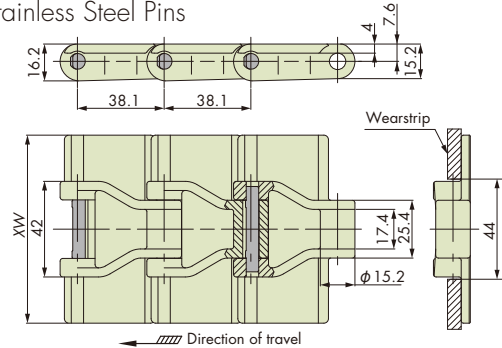
- Note: 1. "○": Made-to-order product, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Features

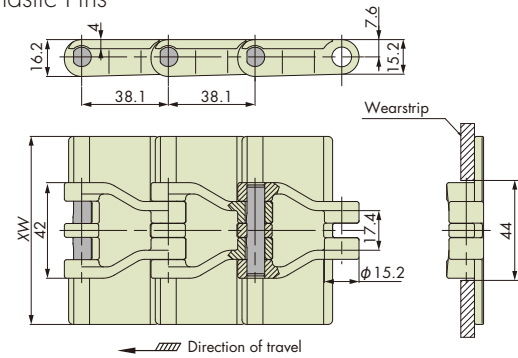
1. Suitable for higher applied load conditions due to an a pprox. 1.4 times higher allowable load than TTP.
2. Sprockets for sideflexing plastic top chains (TTUP and TPU) can be used and standardize parts.
3. The plastic pin type is lightweight, easy to install and replace, and is expected to have a longer life cycle than stainless steel pins that use water lubrication.



Stainless Steel Pins



Plastic Pins



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	40	80

## Chain Material Table

	Standard Chain										High-Function Chain				
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Heat resistant/High speed			Low friction/Wear resistant		
Material	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	KV150	KV180	KV250	HG		
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	KV150	KV180	KV250	HG		
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Black			Navy blue		
Max. allowable load kN {kgf}	Stainless steel pin	1.18{120}										0.98{100}			1.18{120}
	Plastic pin	0.98{100}										—			0.98{100}
Max. allowable speed m/min	With lube	100										—	200		100
	No lube	50										200			50
Operating temperature range °C	Stainless steel pin	-20 to 80		-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	-20 to 150	-20 to 180	-20 to 250	-20 to (65)80		
	Plastic pin	-20 to (60)80										—	—	—	-20 to (60)80
Pin material	Stainless steel pin/SUS304 Plastic pin/Special engineering plastic														
Pin type	D-pin <sup>Note: 4</sup>														
Stainless steel pin	TPS762	△	△	△	△	△	△	△	△	△	△	△	△		
	TPS826	●	△	△	○	●	●	○	△	○	○	○	○		
	TPS1016	●	△	△	○	○	○	△	△	△	×	×	×		
	TPS1143	●	△	△	○	○	○	○	△	○	×	×	×		
	TPS1270	●	△	△	○	○	○	△	△	△	×	×	×		
Plastic pin	TPS762P	△	△	△	△	△	△	△	△	×	×	×	△		
	TPS826P	○	△	△	○	●	●	●	△	○	×	×	○		
	TPS1143P	○	△	△	○	○	○	○	△	○	×	×	○		

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ), "x": Unable to produce.

Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.

3. The color of the connecting pins are orange. Base chain pins are white.

4. As of January 2009, knurled pin had been changed to D pin. These cannot be connected with each other.

Tsubaki Model Table

Material	Standard	Low friction/Wear resistant		Advanced low friction/Wear resistant	Top plate width XW	Chain mass kg/m <small>Note: 2</small>	
Material mark	—	LFG	LFB	ALF			
Chain type	Stainless steel pin	TPS762	TPS762-LFG	TPS762-LFB	TPS762-ALF	76.2	0.85
		<b>TPS826</b>	<b>TPS826-LFG</b>	<b>TPS826-LFB</b>	TPS826-ALF	82.6	0.85
		<b>TPS1016</b>	TPS1016-LFG	TPS1016-LFB	TPS1016-ALF	101.6	1.05
		<b>TPS1143</b>	TPS1143-LFG	TPS1143-LFB	TPS1143-ALF	114.3	1.10
		<b>TPS1270</b>	TPS1270-LFG	TPS1270-LFB	TPS1270-ALF	127.0	1.20
	Plastic pin	TPS762P	TPS762P-LFG	TPS762P-LFB	TPS762P-ALF	76.2	0.75
		TPS826P	<b>TPS826P-LFG</b>	<b>TPS826P-LFB</b>	<b>TPS826P-ALF</b>	82.6	0.75
		TPS1143P	TPS1143P-LFG	TPS1143P-LFB	TPS1143P-ALF	114.3	1.00

- Note: 1. Chain type in boldface are standard products. Chain type in normal face are made-to-order products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 Contact a Tsubaki representative for chain mass of chains corresponding to some top plate widths which is not described in below.  
 [TPS826] Y, DI: 1.10, DIA: 0.75  
 [TPS1143] Y, DI: 1.35, DIA: 0.95  
 [TPS826P] DI: 0.90, DIA: 0.6  
 [TPS1143P] DI: 1.20, DIA: 0.8  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

Model Numbering

Chain type	Top plate width	Plastic pins	Material mark	Number of links	Unit
<b>TPS</b>	<b>826</b> <small>Note: 2</small>	<b>P</b> <small>Note: 3</small>	<b>- LFB</b> <small>Note: 4</small>	<b>+ 80</b> <small>Note: 5</small>	<b>L</b>

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Enter "P" only when a plastic pin type is selected.  
 4. Please check the chain material and material marks in the chain material table below.  
 5. Minimum quantity: 2, maximum quantity: 99999.

Connecting Pin

1. SUS304 D-pin 2. Special engineering plastic D-pin/orange  
 Tsubaki model no. **TTUP-SUS-JPD** Tsubaki model no. **TPS-PLA-JPD**

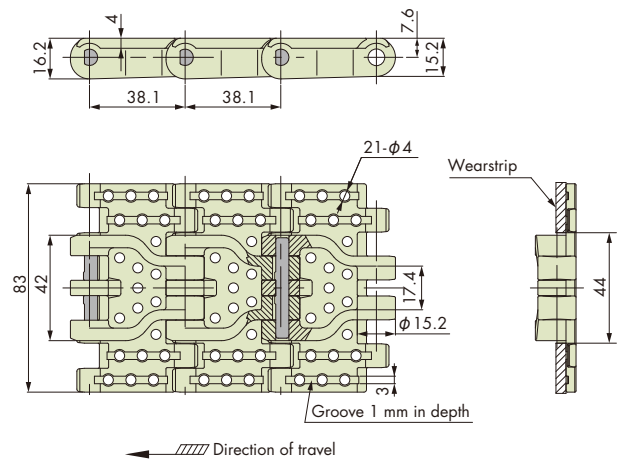
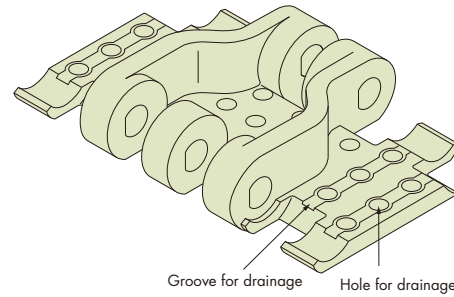
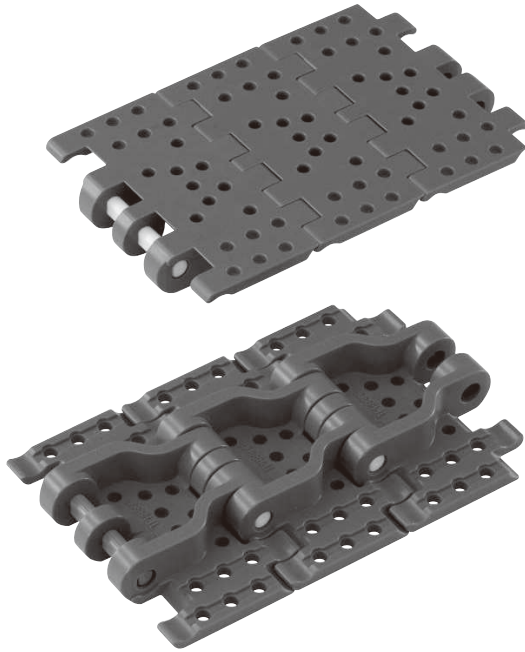
Chain Material Table

High-Function Chain										
Material	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying
Material mark	Y	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS
Link color	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue
Max. allowable load kN {kgf}	Stainless steel pin	0.59{60}	0.82{84}		0.93{95}		1.18{120}	0.87{89}	1.06{108}	1.18{120}
	Plastic pin	-	0.69{70}		-	0.78{80}	0.98{100}	0.73{74}	-	0.98{100}
Max. allowable speed m/min	With lube	100		-	100		-	100		
	No lube	50								
Operating temperature range °C	Stainless steel pin	-20 to 80			-20 to (65)80	-20 to 80		-20 to (60)80	-20 to 80	
	Plastic pin	-	-20 to (60)80		-	-20 to (60)80		-20 to 80	-	-20 TO (60)80
Pin material	Stainless steel pin/SUS304 Plastic pin/Special engineering plastic									
Pin type	D-pin <small>Note: 4</small>									
Stainless steel pin	TPS762	△	△	△	△	△	△	△	△	△
	TPS826	△	△	△	△	△	△	△	△	△
	TPS1016	△	△	△	△	△	△	△	△	△
	TPS1143	△	△	△	△	△	△	△	△	△
Plastic pin	TPS1270	△	△	△	△	△	△	△	△	△
	TPS762P	X	△	X	△	△	△	X	△	X
	TPS826P	X	△	X	△	△	△	X	△	X
	TPS1143P	X	△	X	△	△	△	X	△	X

- Note: 1. "△": Made-to-order products (RFQ), "x": Unable to produce.  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pins are orange. Base chain pins are white.  
 4. As of January 2009, knurled pin had been changed to D pin. These cannot be connected with each other.

## Features

1. Suitable for conveying unstable containers such as PET bottles and dessert cups due to its comb-toothed plates which minimize gaps between links.
2. Effective in preventing wobbling and toppling of containers due to improved flatness of the surface.
3. The perforated surface is effective to drain excess water and lubricant.
4. Can be replaced TPS chain with TPH chain due to same dimensions. Suitable for more stable transport.
5. The plastic pin type is lightweight, easy to install and replace, and is expected to have a longer life cycle than stainless steel pins that use water lubrication.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	35	80

## Chain Material Table

Standard Chain										
Material	Standard			Low friction/Wear resistant			Advanced low friction/ Wear resistant	Low friction		
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	
Max. allowable load N {kgf}	Stainless steel pin	1.18{120}								
	Plastic pin	0.78{80}								
Max. allowable speed m/min	With lube	100								
	No lube	50								
Operating temperature range °C	Stainless steel pin	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
	Plastic pin	-20to (60)80								
Pin material	Stainless steel pin/SUS304 Plastic pin/Special engineering plastic									
Pin type	D-pin									
TPH830	○	△	△	○	○	○	●	△	△	
TPH830P	○	△	△	○	○	○	●	△	△	

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pins is orange. Base chain pins are white.

## Tsubaki Model Table

Material	Standard	Low friction/Wear resistant			Advanced low friction/Wear resistant	Top plate width	Chain mass kg/m <small>Note: 2</small>
		LFW	LFG	LFB	ALF		
Chain type	Stainless steel pin	TPH830	TPH830-LFW	TPH830-LFG	TPH830-LFB	83	1.0
	Plastic pin	TPH830P	TPH830P-LFW	TPH830P-LFG	TPH830P-LFB		<b>TPH830P-ALF</b>

- Note: 1. Chain type in boldface are standard products. Chain type in normal face are made-to-order products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 [TPH830] Y, DIY: 1.20, DIA: 0.85  
 [TPH830P] DIY: 0.90, DIA: 0.5  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Top plate width	Plastic pins	Material mark	Number of links	Unit
<b>TPH</b>	<b>830</b> <small>Note: 2</small>	<b>P</b> <small>Note: 3</small>	<b>- ALF</b> <small>Note: 4</small>	<b>+ 80</b> <small>Note: 5</small>	<b>L</b>
					L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Enter "P" only when a plastic pin type is selected.  
 4. Please check the chain material and material marks in the chain material table below.  
 5. Minimum quantity: 2, maximum quantity: 99999.

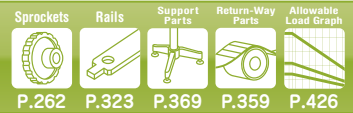
## Chain Material Table

High-Function Chain												
Material	Low friction/Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying	
Material mark	HG	Y	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS	
Link color	Navy blue	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue	
Max. allowable load kN {kgf}	Stainless steel pin	1.18{120}	0.59{60}	0.82{84}	0.93{95}		1.18{120}	0.87{89}	1.06{108}	1.18{120}		
	Plastic pin	0.78{80}	-	0.54{55}	-	0.64{65}	0.78{80}	0.58{59}	-	0.78{80}		
Max. allowable speed m/min	With lube	100			-	100		-	100			
	No lube	50										
Operating temperature range °C	Stainless steel pin	-20 to (65)80	-20 to 80			-20 to (65)80	-20 to 80		-20 to (60)80	-20 to 80		
	Plastic pin	-20 to (60)80	-	-20 to (60)80	-	-20 to (60)80		-20 to 80	-	-20 to (60)80	-	
Pin material	Stainless steel pin/SUS304 Plastic pin/Special engineering plastic											
Pin type	D-pin											
TPH830	△	△	△	△	△	△	△	△	△	△	△	△
TPH830P	△	×	△	×	△	△	△	△	×	△	×	×

- Note: 1. "△": Made-to-order products (RFQ), "×": Unable to produce.  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of connecting pin is orange. Base chain pin is white.

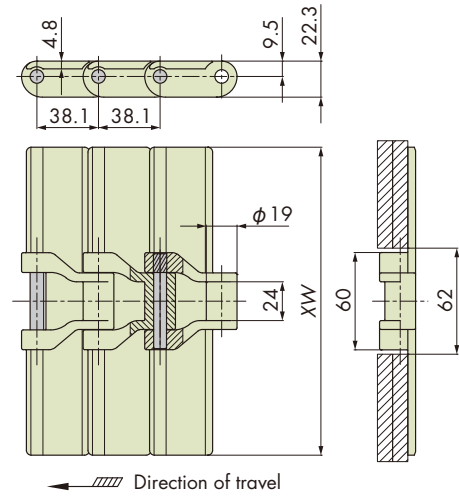
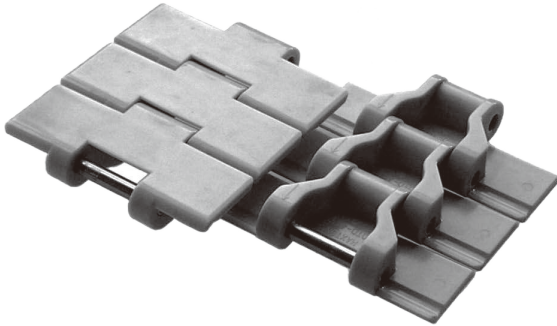
# Plastic Top Chain TPSS

Straight Running



## Features

1. Suitable for higher applied load conditions due to an approx. 2.3 times higher allowable load than TTP.
2. Suitable for conveying large products due to its wide top plates.
3. Suitable for applications where top plates are susceptible to wear due to a thicker plate compared to TTP and TPS.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	50	80

## Chain Material Table

Material	Standard Chain								High-Function Chain					
	Standard			Low friction/Wear resistant			Low friction		Low friction/Wear resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying	
Material mark	—	B	BL	LFW	LFG	LFB	NLF	WR	HG	SE	MF	UVR	PFS	
Link color	Gray	Blue	Sky blue	White	Green	Brown	Dark gray	Dark green	Navy blue	Gray	Yellow	Light gray	Nile blue	
Max. allowable load kN {kgf}	1.96{200}										1.45 {148}	1.96{200}		
Max. allowable speed m/min	With lube	100										—	100	
	No lube	50										—	—	
Operating temperature range °C	-20 to 80			-20 to (65)80				-20 to 80	-20 to (65)80	-20 to 80				
Pin material	SUS304													
Pin type	Knurled pin													
TPSS1143	△	△	△	△	○	○	△	△	△	△	△	△	△	
TPSS1270	△	△	△	△	△	△	△	△	△	△	△	△	△	
TPSS1524	△	△	△	△	△	△	△	△	△	△	△	△	△	
TPSS1905	△	△	△	△	○	○	△	△	△	△	△	△	△	

- Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.  
 4. The chain widths of 127.0 mm and 152.4 mm are cut by machining.  
 5. The chain mark on the bottom of the plate of which the width was cut by machining indicates information not for the chain of modified width but for the original chains.

## Tsubaki Model Table

Material	Low friction/Wear resistant		Top plate width XW	Chain mass kg/m
	LFG	LFB		
Chain type	TPSS1143-LFG	TPSS1143-LFB	114.3	1.9
	TPSS1270-LFG	TPSS1270-LFB	127.0	2.0
	TPSS1524-LFG	TPSS1524-LFB	152.4	2.1
	TPSS1905-LFG	TPSS1905-LFB	190.5	2.4

- Note: 1. Chain type in normal face are made-to-order products. Refer to the chain material table above for availability.  
 2. The chain mass of the chain materials available whose information are not described in above are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Top plate width	Material mark	Number of links
<b>TPSS</b>	<b>1143</b> <small>Note: 2</small>	<b>- LFG</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>

Unit

**L**

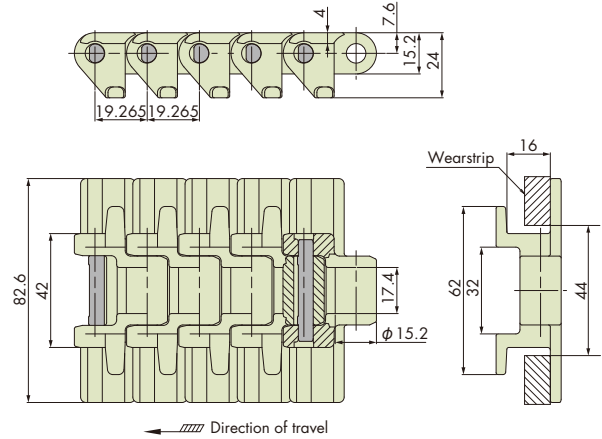
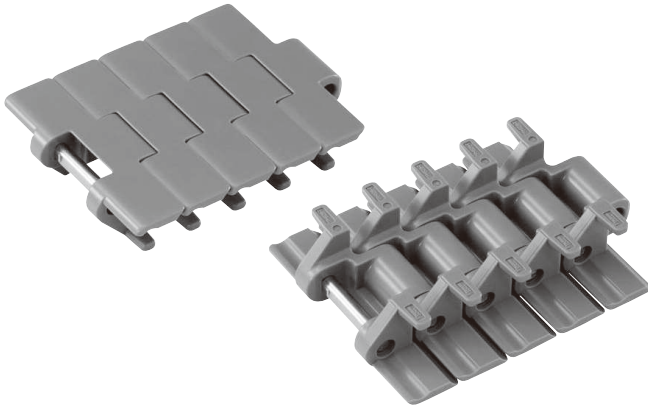
L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.



### Features

1. Adopts chain pitch of approx. half of conventional chains. Effective to reduce noise and to save space of the transfer section.
2. Only odd number of teeth of TPS sprockets can be used with standardized parts.
3. A chain that has tabs prevents the chain from floating in a corner and ascending/descending section, and prevents scratches on the top surface of the plate on the return-way.



Chain pitch mm	Backflex radius mm	Number of links per unit
19.265	15	160

Note: The pitch of 19.265 mm is designed to engage all teeth of TTUP1012T which is the sprocket for TPS chain with the equivalent teeth of 21T.

### Chain Material Table

Material	Standard Chain											High-Function Chain												
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction			Low friction/Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying			
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	Y	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS				
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue				
Max. allowable load kN {kgf}	1.18{120}										0.59{60}	0.82{84}	0.93{95}		1.18{120}		0.87{89}	1.06{108}	1.18{120}					
Max. allowable speed m/min	100										50					—		100		—			100	
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	-20 to (65)80	-20 to 80					-20 to (65)80	-20 to 80	-20 to (60)80	-20 to 80	-20 to 80				
Pin material	SUS304																							
Pin type	D-pin																							
TPM826-T	○	△	△	○	○	○	○	△	△	△	△	△	△	△	△	△	△	△	△	△				

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

### Tsubaki Model Table

Material	Low friction/Wear resistant		Top plate width	Chain mass kg/m <small>Note: 2</small>
Material mark	LFG	LFB		
Chain type	TPM826-T-LFG	TPM826-T-LFB	82.6	1.40

Note: 1. Chain type in normal face are made-to-order products. Refer to the chain material table above for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 Y, DIY: 1.7, DIA: 1.2  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

### Connecting Pin

1. SUS304 D-pin  
Tsubaki model no. **TTUP-SUS-JPD**

### Model Numbering

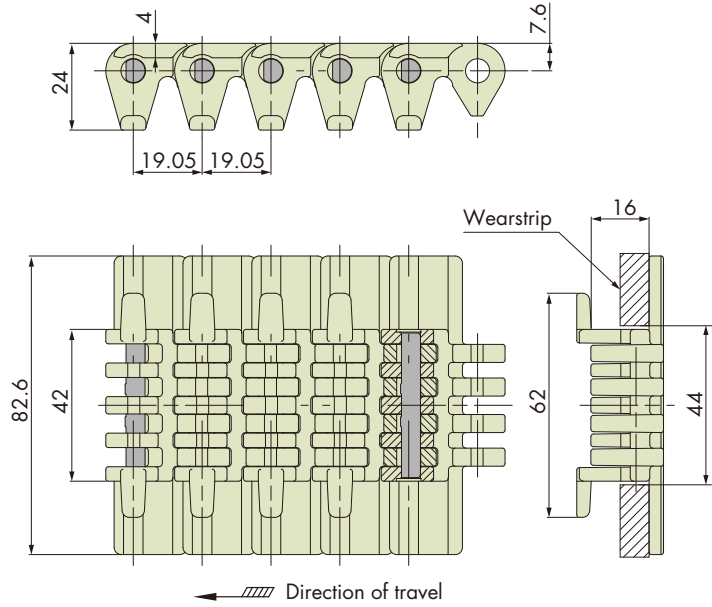
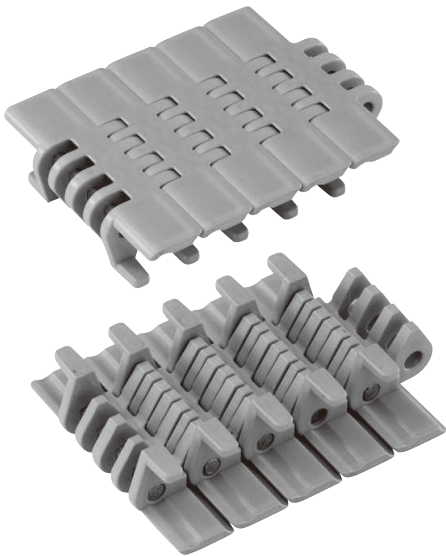
Chain type	Top plate width	Tab	Material mark	Number of links	Unit
<b>TPM</b>	<b>826</b> <small>Note: 2</small>	<b>- T</b>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>

L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

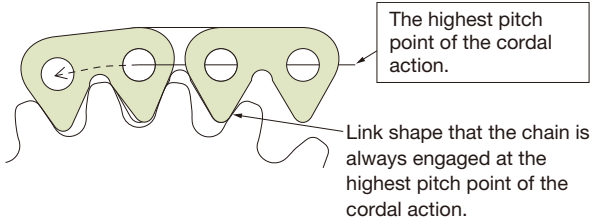
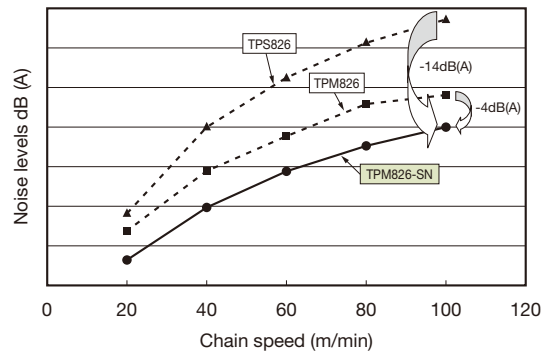
## Features

1. Applies the concept of silent chain engagement. Extremely effective in reducing conveyor noise.
2. Special sprockets, which suppress chordal action of the chain when engaging with the sprocket, enable stable transportation.
3. A chain that has tabs prevents the chain from floating in a corner and ascending/descending section, and prevents scratches on the top surface of the plate on the return-way.



Chain pitch mm	Backflex radius mm	Number of links per unit
19.05	15	160

Comparison of conveyor noises in-house



### Chain Material Table

Material		Standard Chain									High-Function Chain								
		Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction/Wear resistant	Electroconductive	Impact resistant	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying	
Material mark		—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	E	DIA	MWS	SE	MF	UVR	PFS	
Link color		Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Black	Cream	Cream	Gray	Yellow	Light gray	Nile blue	
Max. allowable load kN {kgf}	Stainless steel pin	1.18{120}									0.83{84}	0.92{94}	1.18{120}			0.87{89}	1.18{120}		
	Plastic pin	0.78{80}									0.55{56}	—	0.78{80}			0.58{59}	0.78{80}	—	
Max. allowable speed m/min	With lube	100									—			100			—		
	No lube	50																	
Operating temperature range °C	Stainless steel pin	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	-20 to (65)80	-20 to 80		-20 to (65)80	-20 to 80				
	Plastic pin	-20 to (60)80									—			-20 to (60)80		-20 to 80	-20 to (60)80	—	
Pin material		Stainless steel pin/SUS304 Plastic pin/Special engineering plastic																	
Pin type		D-pin																	
TPM826-SN-T		△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
TPM826P-SN-T		△	△	△	△	△	△	△	△	△	△	△	△	×	△	△	△	△	×

Note: 1. "△": Made-to-order products (RFQ), "×": Unable to produce.  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pins are orange. Base chain pins are white.  
 4. Use the dedicated sprocket with 21 teeth.  
 Contact a Tsubaki representative in detail.

### Tsubaki Model Table

Material	Standard	Low friction/Wear resistant			Advanced low friction/Wear resistant	Top plate width	Chain mass kg/m <sup>Note: 2</sup>	
Material mark	—	LFW	LFG	LFB	ALF			
Chain type	Stainless steel pin	TPM826-SN-T	TPM826-SN-T-LFW	TPM826-SN-T-LFG	TPM826-SN-T-LFB	TPM826-SN-T-ALF	82.6	1.40
	Plastic pin	TPM826P-SN-T	TPM826P-SN-T-LFW	TPM826P-SN-T-LFG	TPM826P-SN-T-LFB	TPM826P-SN-T-ALF		

Note: 1. Chain type in normal face are made-to-order products. Refer to the chain material table above for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m). [TPM826-SN-T] DIA: 1.0  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

### Model Numbering

Chain type	Top plate width	Plastic pins	Chain type	Tab	Material mark	Number of links	Unit
<b>TPM</b>	<b>826</b> <sup>Note: 2</sup>	<b>P</b> <sup>Note: 3</sup>	<b>- SN</b>	<b>- T</b>	<b>- LFB</b> <sup>Note: 4</sup>	<b>+ 80</b> <sup>Note: 5</sup>	<b>L</b>
							L: Link

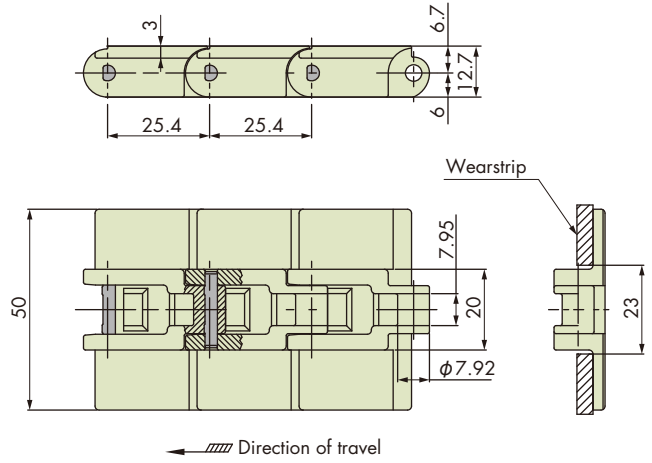
Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Enter "P" only when a plastic pin type is selected.  
 4. Please check the chain material and material marks in the chain material table above.  
 5. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Top Chain TPRF (TPRF2040)

Straight Running

## Features

1. Conveyor chain with a plastic top plate and the same pitch as RF2040.
2. RF2040S sprockets (with 19T or greater) can be used.



Chain pitch mm	Backflex radius mm	Number of links per unit
25.4	350	120

## Chain Material Table

Standard Chain										
Material	Standard			Low friction/Wear resistant			Advanced low friction/ Wear resistant	Low friction		
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	
Link color	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	
Max. allowable load kN {kgf}	0.44{45}									
Max. allowable speed m/min	60									
	With lube									
No lube										
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	
Pin material	SUS304									
Pin type	D-pin <sup>Note: 3</sup>									
TPRF2040	●	△	△	○	○	○	○	△	△	

- Note: 1. "●": Standard product, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. As of July 2008, knurled pins have been changed to D pins. These pins can be connected together.  
 4. Plastic pin type is not available.

## Tsubaki Model Table

Material	Standard	Low friction/Wear resistant			Advanced low friction/Wear resistant	Top plate width	Chain mass kg/m <small>Note: 2</small>
Material mark	—	LFW	LFG	LFB	ALF		
Chain type	<b>TPRF2040</b>	TPRF2040-LFW	TPRF2040-LFG	TPRF2040-LFB	TPRF2040-ALF	50	0.42

Note: 1. Chain type in boldface is a standard product. Chain type in normal face are made-to-order products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 Y, SY, DIY: 0.52, DIA: 0.36  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Chain pitch	Material mark	Number of links	Unit
<b>TPRF</b>	<b>2040</b>	<b>LFB</b>	<b>80</b> <small>Note: 3</small>	<b>L</b>
				L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the chain material table below.  
 3. Minimum quantity: 2, maximum quantity: 99999.

## Connecting Pin

- SUS304 D-pin  
Tsubaki model no. **RSP40-SUS-JPD**

## Chain Material Table

High-Function Chain													
Material	Low friction/Wear resistant	Chemical resistant	Super chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying	
Material mark	HG	Y	SY	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS	
Link color	Navy blue	Matte white	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue	
Max. allowable load kN {kgf}	0.44 {45}	0.22{22}		0.31 {31}	0.34{35}		0.44{45}		0.33 {33}	0.40 {41}	0.44{45}		
Max. allowable speed m/min	With lube	60				—	60			—	60		
	No lube	60				60	60			60	60		
Operating temperature range °C	-20 to (65)80	-20 to 80				-20 to (65)80		-20 to 80		-20 to (60)80	-20 to 80		
Pin material	SUS304		Titanium	SUS304									
Pin type	D-pin <small>Note: 3</small>		Diamond knurled	D-pin <small>Note: 3</small>									
TPRF2040	△	○	△	○	△	△	○	△	△	△	△	△	

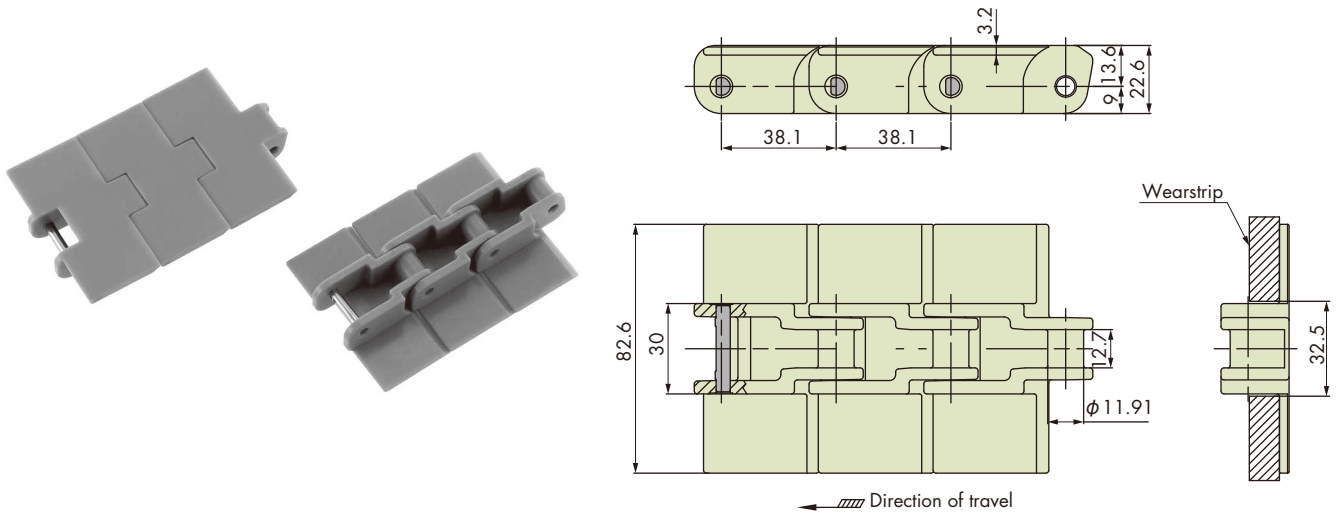
Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. As of July 2008, knurled pins have been changed to D pins. These pins can be connected together.  
 4. Plastic pin type is not available.

# Plastic Top Chain TPRF (TPRF2060)

Straight Running

## Features

1. Conveyor chain with a plastic top plate and the same pitch as RF2060.
2. RF2060S sprockets (with 19T or greater) can be used.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	50	80

## Chain Material Table

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/ Wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	0.88{90}								
Max. allowable speed m/min	With lube	60							
	No lube	60							
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
Pin material	SUS304								
Pin type	D-pin								
TPRF2060	○	△	△	○	○	○	○	△	△

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Standard	Low friction/Wear resistant			Advanced low friction/Wear resistant	Top plate width	Chain mass kg/m <small>Note: 2</small>
Material mark	—	LFW	LFG	LFB	ALF		
Chain type	TPRF2060	TPRF2060-LFW	TPRF2060-LFG	TPRF2060-LFB	TPRF2060-ALF	82.6	0.9

- Note: 1. Chain type in normal face are made-to-order products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 Y, DIY: 1.1, DIA: 0.7  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Chain pitch	Material mark	Number of links	Unit
<b>TPRF</b>	<b>2060</b>	<b>LFB</b> <small>Note: 2</small>	<b>80</b> <small>Note: 3</small>	<b>L</b>
				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the chain material table below.  
 3. Minimum quantity: 2, maximum quantity: 99999

## Connecting Pin

1. SUS304 D-pin  
 Tsubaki model no. **RSP60-SUS-JPD**

## Chain Material Table

High-Function Chain											
Material	Low friction/Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying
Material mark	HG	Y	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS
Link color	Navy blue	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue
Max. allowable load kN {kgf}	0.88{90}	0.44{45}	0.62{63}	0.69{70}		0.88{90}		0.65{67}	0.79{81}	0.88{90}	
Max. allowable speed m/min	60			—	60			—	60		
	60			60	60			60	60		
Operating temperature range °C	-20 to (65)80	-20 to 80			-20 to (65)80		-20 to 80		-20 to (60)80	-20 to 80	
Pin material	SUS304										
Pin type	D-pin										
TPRF2060	△	△	△	△	△	△	△	△	△	△	△

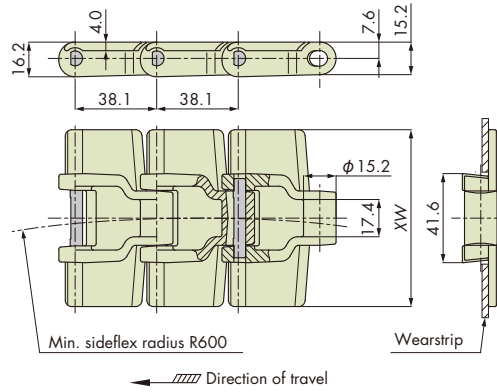
- Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

Features

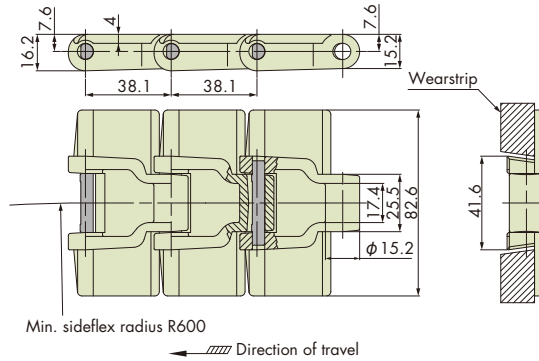
1. Standard type of sideflexing plastic top chain. Easy washing due to its simple design.
2. Sprockets for TPS and TPU can be used with standardized parts.



TTUP826 (materials other than those below), TTUP1143, TTUP1905



TTUP826-DIA, DIY, MPD, MPW, KV150, KV180



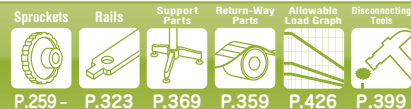
Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	40	80

Chain Material Table

Material	Standard Chain								
	Standard			Low friction/Wear resistant			Advanced low friction/ Wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	1.08{110}								
Max. allowable speed m/min	100								
	50								
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
Pin material	SUS304								
Pin type	D-pin								
TTUP826	●	△	△	○	●	●	●	△	●
TTUP1143	●	△	△	○	●	●	●	△	●
TTUP1905	●	△	△	○	●	●	○	△	○

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. As of October 2008, the shape of TTUP826's link had changed. The new chain cannot be connected to the previous model.





## Tsubaki Model Table

Material	Standard	Low friction/Wear resistant		Advanced low friction/Wear resistant	Low friction	Top plate width XW	Chain mass kg/m Note: 2
Material mark	—	LFG	LFB	ALF	WR		
Chain type	<b>TTUP826</b>	<b>TTUP826-LFG</b>	<b>TTUP826-LFB</b>	<b>TTUP826-ALF</b>	<b>TTUP826-WR</b>	82.6	1.0
	<b>TTUP1143</b>	<b>TTUP1143-LFG</b>	<b>TTUP1143-LFB</b>	<b>TTUP1143-ALF</b>	<b>TTUP1143-WR</b>	114.3	1.1
	<b>TTUP1905</b>	<b>TTUP1905-LFG</b>	<b>TTUP1905-LFB</b>	TTUP1905-ALF	TTUP1905-WR	190.5	1.6

- Note: 1. Chain type in boldface are standard products. Chain type in normal face are made-to-order products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 [TTUP826] Y, DIY: 1.2, DIA: 0.85, MPD: 0.9, MPW: 0.7  
 [TTUP1143] Y, DIY: 1.35, DIA: 0.95, MPD: 1.0, MPW: 0.8  
 [TTUP1905] Y, DIY: 1.95, DIA: 1.35  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Top plate width	Material mark	Number of links	Unit
<b>TTUP</b>	<b>826</b> <small>Note: 2</small>	- <b>ALF</b> <small>Note: 3</small>	+ <b>80</b> <small>Note: 4</small>	<b>L</b>
				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table below.  
 4. Minimum quantity: 2, maximum quantity: 99999.

## Connecting Pin

1. SUS304 D-pin  
 Tsubaki model no. **TTUP-SUS-JPD**

## Chain Material Table

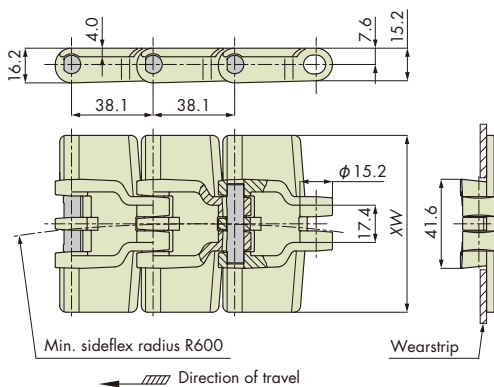
High-Function Chain															
Material	Heat resistant/ high speed		Low friction/ Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/ Mold resistant	Metal detectable		Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying	
Material mark	KV150	KV180	HG	Y	E	DIA	DIY	MWS	MPD	MPW	SE	MF	UVR	PFS	
Link color	Black		Navy blue	Matte white	Black	Cream	Green	Cream	Black		Gray	Yellow	Light gray	Nile blue	
Max. allowable load kN {kgf}	0.98{100}		1.08 {110}	0.54 {55}	0.76 {77}	0.83{85}		1.08 {110}	0.83 {85}	0.34 {35}	1.08 {110}	0.80 {81}	1.08{110}		
Max. allowable speed m/min	With lube	—	200	100			—	100	—	50	100	—	100		
	No lube	200		50											
Operating temperature range °C	-20 to 150	-20 to 180	-20 to {65}80	-20 to 80				-20 to {65}80	-20 to 80	-20 to 60	-20 to 80				
Pin material	SUS304														
Pin type	D-pin														
TTUP826	○	○	●	○	△	△	△	△	△	△	△	△	△	△	
TTUP1143	×	×	○	○	△	△	△	△	△	△	△	△	△	△	
TTUP1905	×	×	△	△	△	△	△	△	×	×	△	△	△	△	

- Note: 1. ●: Standard product, ○: Made-to-order products, △: Made-to-order products (RFQ), ×: Unable to produce.  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. As of October 2008, the shape of TTUP826's link had changed excluding following specifications, DIA, DIY, MPD, MPW and KV150, KV180 series. The new chain cannot be connected to the previous model.

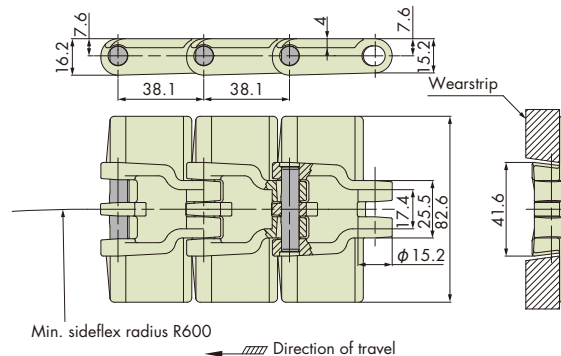
**Features**

1. Standard type of sideflexing plastic top chain. Easy washing due to its simple design.
2. Sprockets for TPS and TPU can be used and standardize parts.
3. Easy maintenance due to all-engineering-plastic-made. A longer service life is expected under water lubrication than stainless steel pin type of the chain.

TTUP826P (materials other than those below), TTUP1143P



TTUP826P-DIY, MPW



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	40	80

**Chain Material Table**

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	0.88{90}								
Max. allowable speed m/min	With lube	100							
	No lube	50							
Operating temperature range °C	-20 to (60)80								
Pin material	Special engineering plastic								
Pin type	D-pin								
TTUP826P	●	△	△	○	●	●	●	△	●
TTUP1143P	●	△	△	○	●	●	●	△	●

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 2. Not available for other chain materials that are not listed in the chain material table above.  
 3. Operating temperature of (the value in parentheses) is for wet conditions.  
 4. The color of the connecting pins are orange. Base chain pins are white.  
 5. As of October 2008, the shape of TTUP826's link had changed. The new chain cannot be connected to the previous model.

## Tsubaki Model Table

Material	Standard	Low friction/Wear resistant		Advanced low friction/Wear resistant	Low friction	Top plate width XW	Chain mass kg/m Note: 2
Material mark	—	LFG	LFB	ALF	WR		
Chain type	<b>TTUP826P</b>	<b>TTUP826P-LFG</b>	<b>TTUP826P-LFB</b>	<b>TTUP826P-ALF</b>	<b>TTUP826P-WR</b>	82.6	0.7
	<b>TTUP1143P</b>	<b>TTUP1143P-LFG</b>	<b>TTUP1143P-LFB</b>	<b>TTUP1143P-ALF</b>	<b>TTUP1143P-WR</b>	114.3	0.8

- Note: 1. Chain type in boldface are standard products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 [TTUP826P] DIY: 0.95, MPW: 0.65  
 [TTUP1143P] DIY: 1.0, MPW: 0.75  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain Type	Top plate width	Plastic pin	Material mark	Number of links	Unit
<b>TTUP</b>	<b>826</b> <small>Note: 2</small>	<b>P</b> <small>Note: 3</small>	<b>- ALF</b> <small>Note: 4</small>	<b>+ 80</b> <small>Note: 5</small>	<b>L</b>
					L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Enter "P" only when a plastic pin type is selected.  
 4. Please check the chain material and material marks in the chain material table below.  
 5. Minimum quantity: 2, maximum quantity: 99999.

## Connecting Pin

- Special engineering plastic D-pin/orange  
 Tsubaki model no. **TTUP-PLA-JPD**

## Chain Material Table

High-Function Chain								
Material	Low friction/Wear resistant	Electroconductive	Impact resistant	Antibacterial/Mold resistant	Metal detectable	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	HG	E	DIY	MWS	MPW	SE	MF	UVR
Link color	Navy blue	Black	Green	Cream	Black	Gray	Yellow	Light gray
Max. allowable load kN {kgf}	0.88 {90}	0.62 {63}	0.69 {70}	0.88 {90}	0.34 {35}	0.88 {90}	0.65 {67}	0.88{90}
Max. allowable speed m/min	With lube	100			50	100	—	100
	No lube				50			
Operating temperature range °C	-20 to {60}80				-20 to 60	-20 to {60}80	-20 to 80	-20 to {60}80
Pin material	Special engineering plastic							
Pin type	D-pin							
TTUP826P	●	△	△	△	△	△	○	△
TTUP1143P	○	△	△	△	△	△	△	△

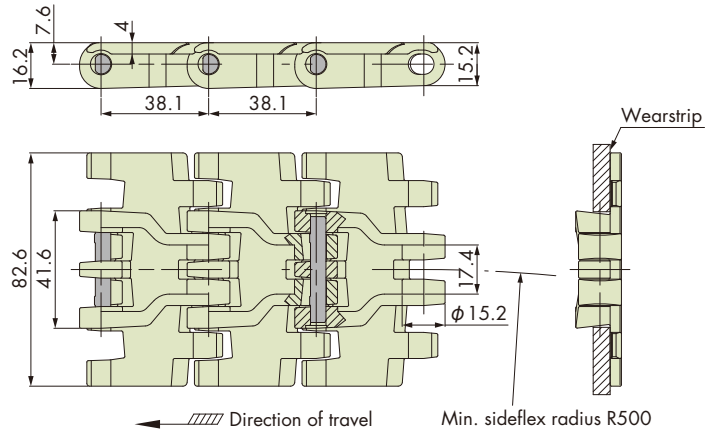
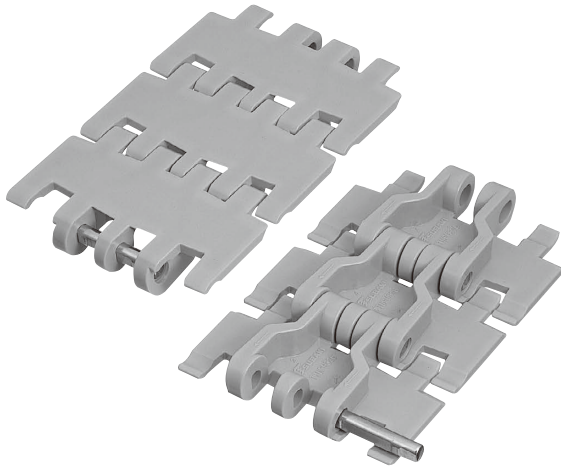
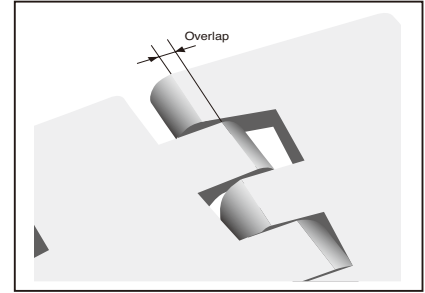
- Note: 1. "●": Standard product, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pins is orange. Base chain pins are white.  
 4. As of October 2008, the link shape of TTUP826, exclude DIY and MPD, has changed. The new chain cannot be connected to the previous.

# Plastic Top Chain TTUPH

Sideflexing Running

## Features

1. Suitable for conveying unstable containers such as PET bottles and dessert cups due to its comb-toothed plates which minimize gaps between links.
2. Effective in preventing wobbling and toppling of containers due to improved flatness of the surface.
3. Can be replaced with TTUP due to having the same dimensions. Suitable for stable conveyance of containers.
4. Ensure smooth side transfer due to chamfered edges of both sides of the plate.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	35	80

## Chain Material Table

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	1.08{110}								
Max. allowable speed m/min	With lube	100							
	No lube	50							
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
Pin material	SUS304								
Pin type	D-pin								
TTUPH826	○	△	△	○	●	●	●	△	△

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Low friction/Wear resistant		Advanced low friction/Wear resistant	Top plate width	Chain mass kg/m <small>Note: 2</small>
	LFG	LFB	ALF		
Chain type	<b>TTUPH826-LFG</b>	<b>TTUPH826-LFB</b>	<b>TTUPH826-ALF</b>	82.6	1.0

- Note: 1. Chain type in boldface are standard products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 [TTUPH826] Y, DIY: 1.2, DIA: 0.7  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain Type	Top plate width	Material mark	Number of links	Unit
<b>TTUPH</b>	<b>826</b> <small>Note: 2</small>	<b>- ALF</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table below.  
 4. Minimum quantity: 2, maximum quantity: 99999.

## Connecting Pin

1. SUS304 D-pin  
 Tsubaki model no. **TTUP-SUS-JPD**

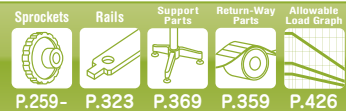
## Chain Material Table

High-Function Chain												
Material	Low friction/Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying	
Material mark	HG	Y	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS	
Link color	Navy blue	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue	
Max. allowable load kN {kgf}	1.08 {110}	0.54 {55}	0.76 {77}	0.84{86}		1.08{110}		0.80{81}	0.97{99}	1.08{110}		
Max. allowable speed m/min	With lube	100		-	100		-	100				
	No lube	50										
Operating temperature range °C	-20 to (65)80	-20 to 80				-20 to (65)80	-20 to 80		-20 to (60)80	-20 to 80		
Pin material	SUS304											
Pin type	D-pin											
TTUPH826	△	△	△	△	△	△	△	△	△	△	△	

- Note: 1. "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

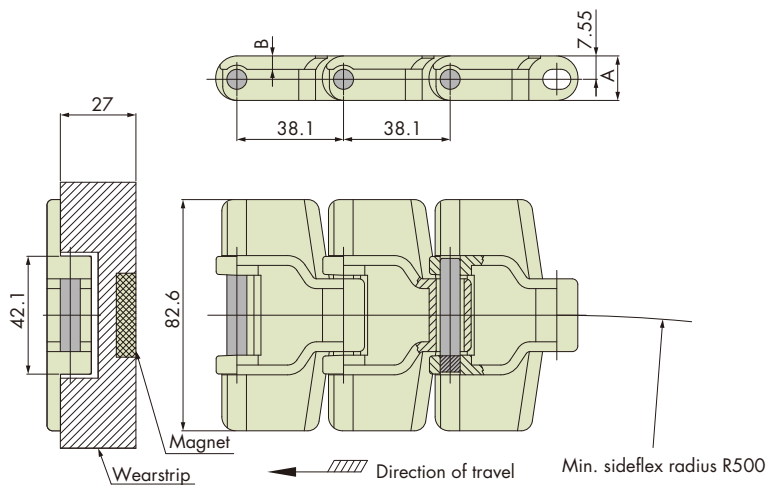
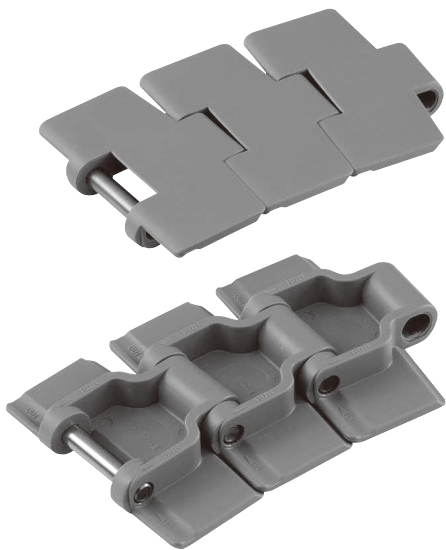
# Plastic Top Chain TTUP(T)-M

Sideflexing Running



## Features

Magnetic stainless steel pins are adopted, making this type of chain ideal for preventing chain from floating in curved section when used in combination with plastic rails that have embedded magnets.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	50	80

## Chain Material Table

Standard Chain	
Material	Low friction/Wear resistant
Material mark	LFB
Link color	Brown
Max. allowable load kN {kgf}	0.98{100}
Max. allowable speed m/min	With lube: 100 No lube: 50
Operating temperature range °C	-20 to (65)80
Pin material	Stainless steel pin (magnetic)
Pin type	Knurled pin
Availability	△

- Note: 1. "△": Made-to-order product (RFQ).  
 Not available for other chain materials that are not listed in the chain material table on the left.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Connecting pins are not for sale separately.  
 4. Plastic pin type is not available.  
 5. Contact a Tsubaki representative for information about magnet-embedded curved plastic rails.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Link height A	Top plate thickness B	Top plate width	Chain mass kg/m
Material mark	LFB				
Chain type	TTUP826M-LFB	15.1	4.0	82.6	1.05
	TTUPT826M-LFB	15.9	4.8		1.15

Note: Chain type in normal face are made-to-order products.

## Model Numbering

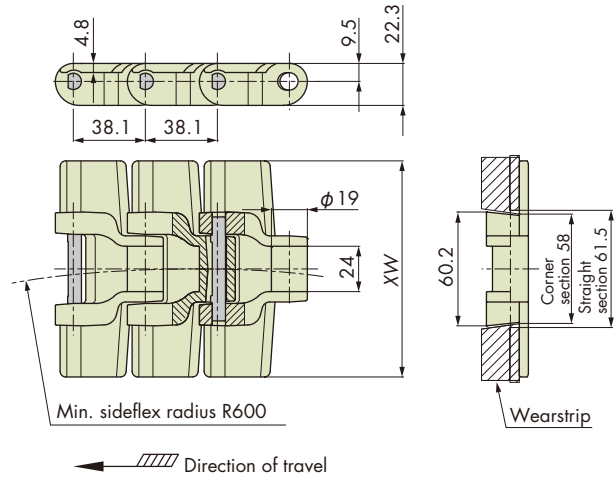
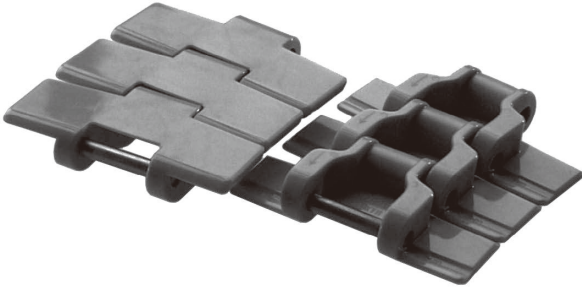
Chain type	Top plate width	Chain type	Material mark	Number of links	Unit
<b>TTUP</b>	<b>826</b> <sup>Note: 2</sup>	<b>M</b>	<b>LFB</b>	<b>80</b> <sup>Note: 3</sup>	<b>L</b>
					L: Link

M: Magnetic type

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

### Features

1. Suitable for higher applied load conditions due to an approx. 1.8 times higher allowable load than TTUP.
2. Suitable for conveying large products due to its wide top plates.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	40	80

### Chain Material Table

Material	Standard Chain							High-Function Chain						
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction/Wear resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	SE	MF	UVR	PFS
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Gray	Yellow	Light gray	Nile blue
Max. allowable load kN {kgf}	1.96{200}											1.45 {148}	1.96{200}	
Max. allowable speed m/min	90											—	90	
	40													
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	-20 to (65)80	-20 to 80			
Pin material	SUS304													
Pin type	D-pin <sup>Note: 3</sup>													
TTUPS1143	△	△	△	△	○	△	△	△	△	△	△	△	△	△
TTUPS1270	△	△	△	△	△	△	△	△	△	△	△	△	△	△
TTUPS1524	△	△	△	△	△	△	△	△	△	△	△	△	△	△
TTUPS1905	△	△	△	△	○	△	△	△	△	△	△	△	△	△

- Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. TTUPS chains cannot connect with UTD-S knurled-pin type chains, which were sold until June 2005.  
 4. Plastic pin type is not available.  
 5. The chain widths of 127.0 mm and 152.4 mm are cut by machining.  
 6. The chain mark on the bottom of the plate of which the width was cut by machining indicates information not for the chain of modified width but for the original chains.

### Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width XW	Chain mass kg/m
Material mark	LFG		
Chain type	TTUPS1143-LFG	114.3	1.90
	TTUPS1270-LFG	127.0	2.00
	TTUPS1524-LFG	152.4	2.10
	TTUPS1905-LFG	190.5	2.30

- Note: 1. Chain type in normal face are made-to-order products. Refer to the chain material table in the above for availability.  
 2. The chain mass of the chain materials available whose information are not described in on the left are the same with that in the Tsubaki model table on the left.

### Model Numbering

Chain type	Top plate width	Material mark	Number of links
<b>TTUPS</b>	<b>1143</b> <sup>Note: 2</sup>	<b>- LFG</b> <sup>Note: 3</sup>	<b>+ 80</b> <sup>Note: 4</sup>

Unit

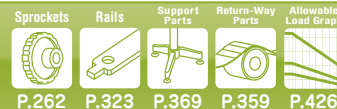
**L**

L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

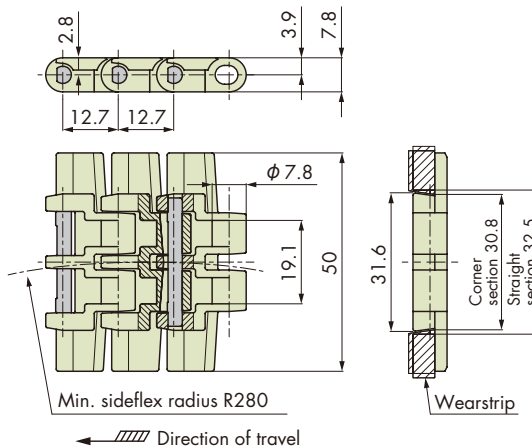
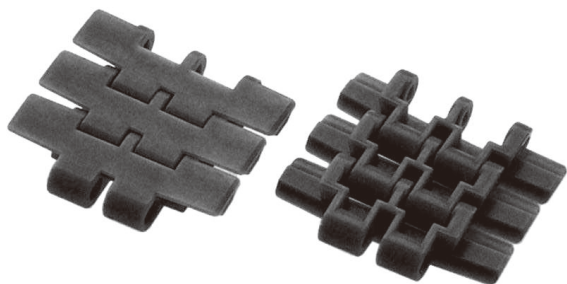
# Plastic Top Chain TTUPM-P

Sideflexing Running



## Features

1. A small chain pitch of 12.7 mm. Effective to reduce noise and to save space in the transfer section.
2. Suitable for conveying small products due to its top plate width of 50 mm.



Chain pitch mm	Backflex radius mm	Number of links per unit
12.7	20	240 <sup>Note</sup>

Note: As of 2013, the number of links per unit has changed.

## Chain Material Table

Material	Standard Chain								High-Function Chain					
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction/Wear resistant	High temperature	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	HTW	SE	MF	UVR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	White	Gray	Yellow	Light gray
Max. allowable load kN {kgf}	0.25{25}										0.15 {15}	0.25 {25}	0.19 {19}	0.25 {25}
Max. allowable speed m/min	With lube										60			
	No lube										40			
Operating temperature range °C	-20 to (60)80										5 to (60)80	-20 to (60)80	-20 to 80	-20 to (60)80
Pin material	Special engineering plastic													
Pin type	D-pin													
TTUPM500P	△	△	△	○	○	●	○	△	○	△	△	△	△	△

- Note: 1. "●": Standard product, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pins is orange. Base chain pins are white.  
 4. Stainless pin type is not available.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width	Chain mass kg/m <sup>Note: 2</sup>
Material mark	LFB	50	0.3
Chain type	<b>TTUPM500P-LFB</b>		

- Note: 1. Chain type in boldface is a standard product.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 HTW: 0.2  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

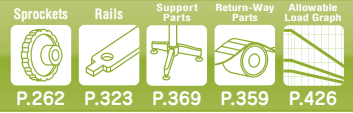
Chain type	Top plate width	Plastic pin	Material mark	Number of links	Unit
<b>TTUPM</b>	<b>500</b> <sup>Note: 2</sup>	<b>P</b>	<b>- LFB</b> <sup>Note: 3</sup>	<b>+ 240</b> <sup>Note: 4</sup>	<b>L</b>
					L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.



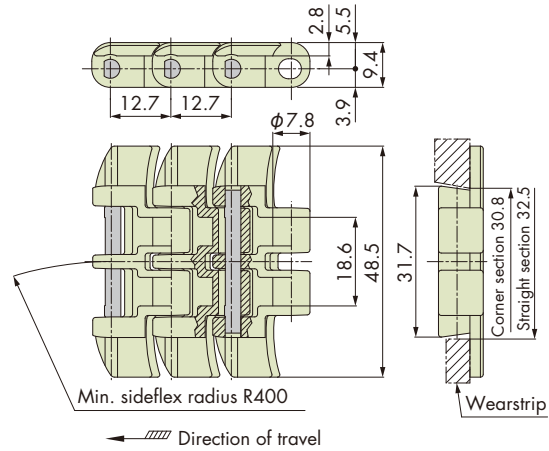
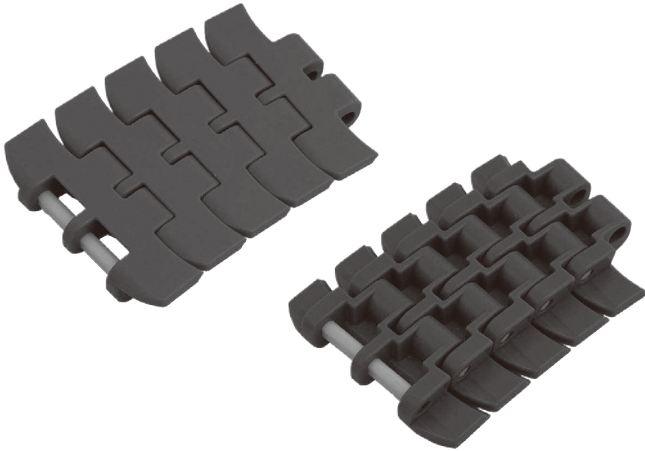
# Plastic Top Chain TTUPM-PC

Sideflexing Running



## Features

1. A small chain pitch of 12.7 mm. Effective to reduce noise and to save space in the transfer section.
2. Suitable for conveying small products due to its top plate width of 48.5 mm.



Chain pitch mm	Backflex radius mm	Number of links per unit
12.7	30	240

## Chain Material Table

Material	Standard Chain							High-Function Chain					
	Standard			Low friction/Wear resistant		Advanced low friction/Wear resistant	Low friction		Low friction/Wear resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	SE	MF	UVR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Gray	Yellow	Light gray
Max. allowable load kN {kgf}	0.25{25}											0.19 {19}	0.25 {25}
Max. allowable speed m/min	With lube											60	—
	No lube											40	60
Operating temperature range °C	-20 to (60)80											-20 to 80	-20 to (60)80
Pin material	Special engineering plastic												
Pin type	D-pin												
TTUPM485PC	△	△	△	△	△	△	△	△	△	△	△	△	△

- Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pins are orange. Base chain pins are white.  
 4. Stainless pin type is not available.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width	Chain mass kg/m
Material mark	LFB		
Chain type	TTUPM485PC-LFB	48.5	0.30

- Note: 1. Chain type in normal face is a made-to-order product. Refer to the chain material table above for availability.  
 2. The chain mass of the chain materials available whose information are not described in on the left are the same with that in the Tsubaki model table on the left.

## Model Numbering

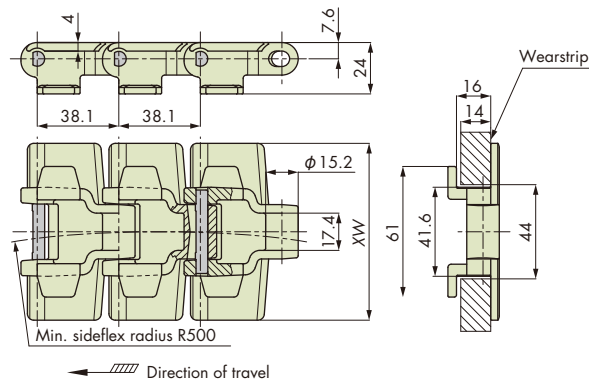
Chain type	Top plate width	Plastic pin	Chain type	Material mark	Number of links	Unit
<b>TTUPM</b>	<b>485</b> <small>Note: 2</small>	<b>P</b>	<b>C</b>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 240</b> <small>Note: 4</small>	<b>L</b>
						L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

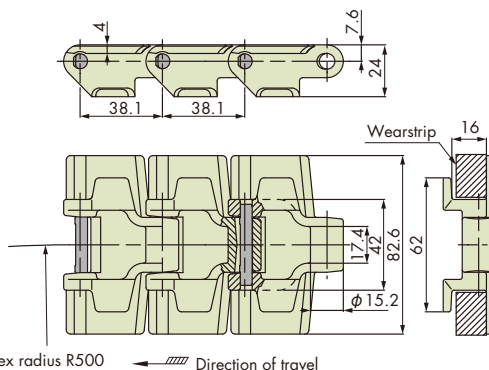
**Features**

1. A chain that has tabs prevents the chain from floating in a corner and ascending/descending section, and prevents scratches on the top surface of the plate on the return-way.
2. Sprockets for TPS and TTUP can be used with standardized parts.

TPU826 (materials other than those below), TPU1143



TPU826-DIA, DIY, KV150, KV180, KV250



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	40	80

**Chain Material Table**

Material	Standard Chain									High-Function Chain						
	Standard			Low friction/ Wear resistant			Advanced low friction/ Wear resistant			Low friction			Heat resistance/ High speed		Low friction/ Wear resistant	
Material mark	-	B	BL	LFW	LFG	LFB	ALF	NLF	WR	KV150	KV180	KV250	HG			
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Black			Navy blue			
Max. allowable load kN {kgf}	0.98{100}															
Max. allowable speed m/min	With lube			100						-			200		100	
	No lube			50						-			200		50	
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80			-20 to (65)80	-20 to 80	-20 to 150	-20 to 180	-20 to 250	-20 to (65)80	
Pin material	SUS304															
Pin type	D-pin															
TPU826-T	●	△	△	○	●	●	○	△	○	○	○	○	○	△		
TPU1143-T	●	△	△	△	●	○	○	△	△	×	×	×	△			

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ), "x": Unable to produce.

Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.

3. As of October 2008, the shape of the tab for the stainless steel pin type of TPU826-T chain had changed.

4. The current type of chain can be connected with the previous model.

## Tsubaki Model Table

Material	Standard	Low friction/Wear resistant			Advanced low friction/Wear resistant	Top plate width XW	Chain mass kg/m <small>Note: 2</small>
Material mark	—	LFW	LFG	LFB	ALF		
Chain type	<b>TPU826-T</b>	TPU826-T-LFW	<b>TPU826-T-LFG</b>	<b>TPU826-T-LFB</b>	TPU826-T-ALF	82.6	1.0
	<b>TPU1143-T</b>	TPU1143-T-LFW	<b>TPU1143-T-LFG</b>	TPU1143-T-LFB	TPU1143-T-ALF	114.3	1.2

Note: 1. Chain type in boldface are standard products. Chain type in normal face are made-to-order products.

Refer to the chain material table below for availability.

2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).

[TPU826-T] Y, DIY: 1.20, DIA: 0.85

[TPU1143-T] Y: 1.5,

3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Top plate width	Tab	Material mark	Number of links	Unit
<b>TPU</b>	<b>826</b> <small>Note: 2</small>	<b>T</b>	<b>LFB</b> <small>Note: 3</small>	<b>80</b> <small>Note: 4</small>	<b>L</b>

L: Link

Note: 1. Do not leave space between letters and symbols.

2. Please check the width of the top plate in the Tsubaki model table above.

3. Please check the chain material and material marks in the chain material table below.

4. Minimum quantity: 2, maximum quantity: 99999.

## Connecting Pin

### 1. SUS304 D-pin

Tsubaki model no. **TPU-SUS-JPD**

## Chain Material Table

High-Function Chain										
Material	High speed	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying
Material mark	HS	Y	E	DIA	DIY	MWS	SE	MF	UVR	PFS
Link color	Beige	Matte white	Black	Cream	Green	Cream	Gray	Yellow	Light gray	Nile blue
Max. allowable load kN {kgf}	0.9 {92}	0.49 {50}	0.69 {70}	0.78{80}		0.98{100}		0.73 {74}	0.98{100}	
Max. allowable speed m/min	With lube	100		-		100		-	100	
	No lube	230		-		50		-	-	
Operating temperature range °C	-20 to 50		-20 to 80			-20 to {65}80		-20 to 80		
Pin material	SUS304									
Pin type	D-pin									
TPU826-T	○	△	△	△	△	○	△	△	△	△
TPU1143-T	×	△	△	×	×	×	△	△	△	△

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ), "×": Unable to produce.

Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.

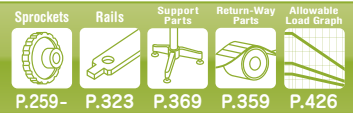
3. As of October 2008, the shape of the tab for the stainless-pin type of TPU826-T chain had changed.

4. The current type of chain can be connected with the previous model.

# Plastic Top Chain

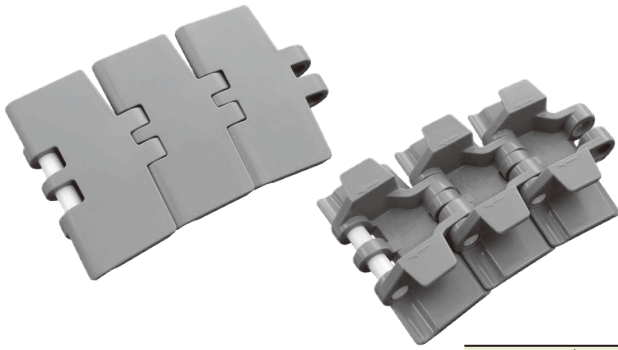
## TPU (Plastic Pins)

Sideflexing Running

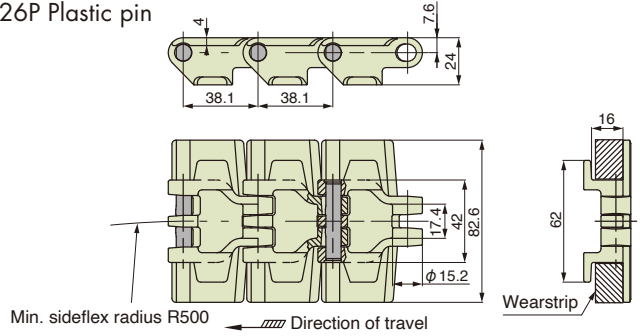


### Features

1. A chain that has tabs prevents the chain from floating in a corner and ascending/descending section, and prevents scratches on the top surface of the plate on the return-way.
2. Sprockets for TPS and TTUP can be used with standardized parts.
3. Easy maintenance due to all-engineering-plastic-made. A longer service life is expected under water lubrication than stainless steel pin type of the chain.



TPU826P Plastic pin



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	40	80

### Chain Material Table

Material	Standard Chain									High-Function Chain						
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction/Wear resistant	Impact resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant		
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	DIY	SE	MF	UVR		
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Green	Gray	Yellow	Light gray		
Max. allowable load kN {kgf}	0.88{90}									0.78 {80}	0.88 {90}	0.65 {67}	0.88 {90}			
Max. allowable speed m/min	With lube		100									No lube		50		
Operating temperature range °C	-20 to (60)80											-20 to 80	-20 to (60)80			
Pin material	Special engineering plastic															
Pin type	D-pin															
TPU826P-T	○	△	△	○	○	○	○	△	△	△	△	△	△	△		

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pins are orange. Base chain pins are white.

### Tsubaki Model Table

Material	Low friction/Wear resistant			Advanced low friction/Wear resistant		Top plate width	Chain mass kg/m <small>Note: 2</small>
Material mark	LFW	LFG	LFB	ALF			
Chain type	TPU826P-T-LFW	TPU826P-T-LFG	TPU826P-T-LFB	TPU826P-T-ALF		82.6	0.80

Note: 1. Chain type in normal face are made-to-order products. Refer to the chain material table above for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information. DIY: 1.0 kg/m.  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

### Model Numbering

Chain type	Top plate width	Plastic pin	Tab	Material mark	Number of links	Unit
<b>TPU</b>	<b>826</b> <small>Note: 2</small>	<b>P</b> <small>Note: 3</small>	<b>- T -</b>	<b>LFB</b> <small>Note: 4</small>	<b>+ 240</b> <small>Note: 5</small>	<b>L</b>
						L: Link

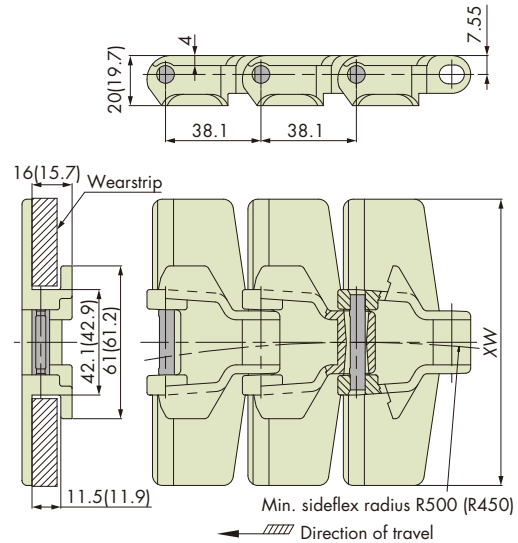
Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Enter "P" only when a plastic pin type is selected.  
 4. Please check the chain material and material marks in the chain material table above.  
 5. Minimum quantity: 2, maximum quantity: 99999.

### Connecting Pin

1. Special engineering plastic D-pin/orange  
 Tsubaki model no. **TPS-PLA-JPD**

### Features

1. Possible for compact layout due to its thinner plate thickness than TPU.
2. A chain that has tabs prevents the chain from floating in a corner and ascending/descending section, and prevents scratches on the top surface of the plate on the return-way.



Note: Dimensions of (the value in parentheses) are for TP-880TAB-K325.

Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	50	80

### Chain Material Table

Chain type	Top plate			Max. allowable load kN {kgf}	Chain mass kg/m	Operating temperature range °C	Max. allowable speed m/min	
	Width XW	Material	Material mark (Link color)				With lube	No lube
<b>TPU1143-LH-T-LFB</b>	114.3	Low friction/ Wear resistant	LFB (Brown)	0.98{100}	1.08	-20 to (65)80	100	50
TP-880TAB-K325-LFB	82.6		LFG (Green)	1.08{110}	1.0			
TP-880TAB-K325-LFG			ALF (Light blue)			-20 to 80		
TP-880TAB-K325-ALF		Advanced low friction/ Wear resistant						

- Note: 1. Chain type in boldface is a standard product. Chain type in normal face are made-to-order products.  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Only chain material of LFB series is available for the chain with a top plate width of 114.3 mm.  
 4. Plastic pin type is not available.

### Model Numbering

◆ Top plate width: 82.6 mm

Chain type	Tab	Top plate width	Material mark	Number of links	Unit
<b>TP-880</b>	<b>TAB</b>	<b>K325</b> <small>Note: 2</small>	<b>LFB</b> <small>Note: 3</small>	<b>80</b> <small>Note: 4</small>	<b>L</b>

L: Link

◆ Top plate width: 114.3 mm

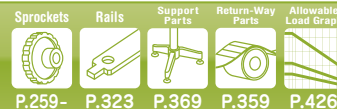
Chain type	Top plate width	Chain type	Tab	Material mark	Number of links	Unit
<b>TPU</b>	<b>1143</b> <small>Note: 2</small>	<b>LH</b>	<b>T</b>	<b>LFB</b> <small>Note: 3</small>	<b>80</b> <small>Note: 4</small>	<b>L</b>

L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width top plate in the chain material table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

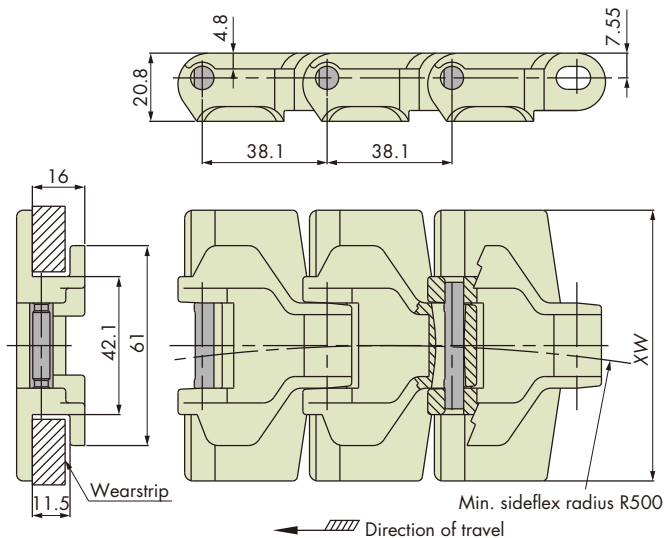
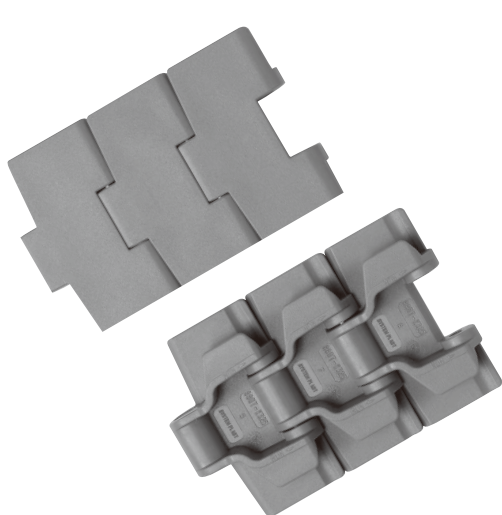
# Plastic Top Chain TPUT-LH

Sideflexing Running



## Features

1. Possible for compact layout due to its thinner plate thickness than TPU type.
2. Suitable for applications where top plates are susceptible to wear due to a plate thickness of 4.8 mm which is thicker than that of TPU.
3. A chain that has tabs prevents the chain from floating in a corner and ascending/descending section, and prevents scratches on the top surface of the plate on the return-way.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	50	80

## Chain Material Table

Standard Chain	
Material	Low friction/Wear resistant
Material mark	LFB
Link color	Brown
Max. allowable load kN {kgf}	0.98{100}
Max. allowable speed m/min	With lube: 100 No lube: 50
Operating temperature range °C	-20 to (65)80
Pin material	Equivalent to SUS304
Pin type	D-pin

- Note: 1. Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.  
 4. Connecting pins are not for sale separately.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width XW	Chain mass kg/m
Material mark	LFB		
Chain type	<b>TPUT826-LH-T-LFB</b>	82.6	0.98
	TPUT1143-LH-T-LFB	114.3	1.14

Note: Chain type in boldface is a standard product. Chain type in normal face is a made-to-order product.

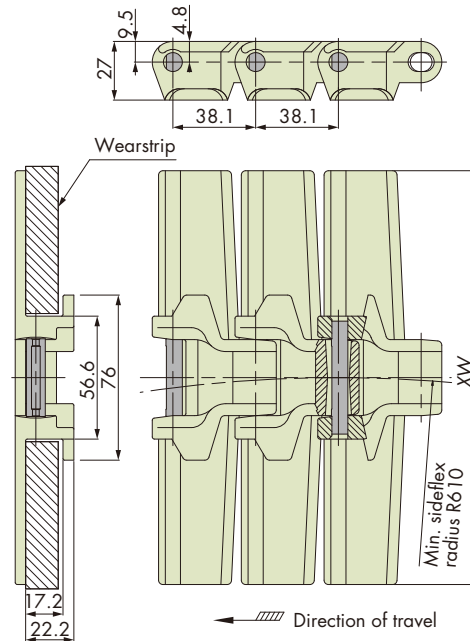
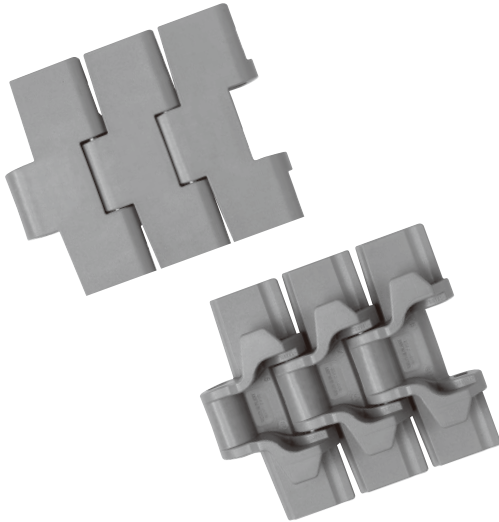
## Model Numbering

Chain type	Top plate width	Chain type	Tab	Material mark	Number of links	Unit
<b>TPUT</b>	<b>826</b> <small>Note: 2</small>	<b>LH</b>	<b>T</b>	<b>LFB</b>	<b>80</b> <small>Note: 3</small>	<b>L</b>
						L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width top plate in the Tsubaki model table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

### Features

1. Suitable for higher applied load conditions due to approx. 2.2 times higher allowable load than TPU.
2. Suitable for conveying large products due to its wide top plates.
3. A chain that has tabs prevents the chain from floating in a corner and ascending/descending section, and prevents scratches on the top surface of the plate on the return-way.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	50	80

### Chain Material Table

Standard Chain		
Material	Low friction/Wear resistant	
Material mark	LFB	
Link color	Brown	
Max. allowable load kN {kgf}	2.16{220}	
Max. allowable speed m/min	With lube	80
	No lube	50
Operating temperature range °C	-20 to {65}80	
Pin material	Equivalent to SUS304	
Pin type	D-pin	
Availability	●	

- Note: 1. "●": Standard product. Not available for other chain materials that are not listed in the chain material table above.
2. Operating temperature of (the value in parentheses) is for wet conditions.
  3. Plastic pin type is not available.
  4. Connecting pins are not for sale separately.

### Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width XW	Chain mass kg/m
Material mark	LFB		
Chain type	<b>TPUS1143-T-LFB</b>	114.3	2.03
	<b>TPUS1905-T-LFB</b>	190.5	2.46
	<b>TPUS2540-T-LFB</b>	254.0	2.87
	<b>TPUS3048-T-LFB</b>	304.8	3.41

Note: Standard products

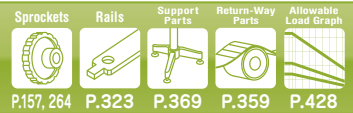
### Model Numbering

Chain type	Top plate width	Tab	Material mark	Number of links	Unit
<b>TPUS</b>	<b>1905</b> <small>Note: 2</small>	<b>T</b>	<b>LFB</b>	<b>80</b> <small>Note: 3</small>	<b>L</b>
					L: Link

- Note: 1. Do not leave space between letters and symbols.
2. Please check the width of the top plate in the Tsubaki model table above.
  3. Minimum quantity: 2, maximum quantity: 99999.

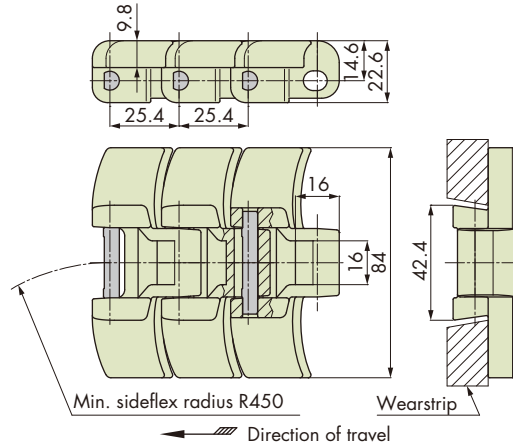
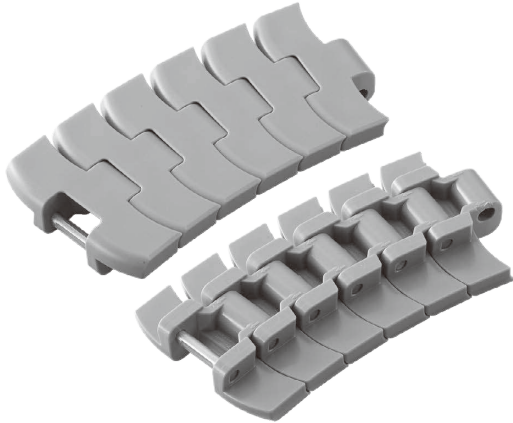
# Plastic Top Chain TTUPS-H

Sideflexing Running



## Features

1. The adoption of a 9.8 mm top plate thickness provides higher resistance to chipping compared to conventional plastic top chains.
2. D-pin type connecting pins are adopted to prevent pin holes from cracking when pins are fitted. The pins can also be connected or disconnected from either side of the chain.



Chain pitch mm	Backflex radius mm	Number of links per unit
25.4	170	120

## Chain Material Table

Material	Standard Chain							High-Function Chain						
	Standard			Low friction/ Wear resistant		Advanced low friction/ Wear resistant	Low friction		Low friction/ Wear resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying	
Material mark	B	BL	G	LFW	LFG	LFB	ALF	NLF	WR	HG	SE	MF	UVR	PFS
Link color	Blue	Sky blue	Gray	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Gray	Yellow	Light blue	Nile blue
Max. allowable load kN {kgf}	1.08{110}											0.80 {81}	1.08{110}	
Max. allowable speed m/min	100											—	100	
	50													
Operating temperature range °C	-20 to 80		-20 to (65)80		-20 to 80	-20 to (65)80	-20 to 80	-20 to 80	-20 to (65)80	-20 to 80				
Pin material	SUS304													
Pin type	D-pin													
TTUPS840H	●	△	●	△	△	△	△	△	△	△	△	△	△	△

Note: 1. "●": Standard products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Standard		Top plate width	Chain mass kg/m
Material mark	B	G		
Chain type	<b>TTUPS840H-B</b>	<b>TTUPS840H-G</b>	84.0	1.80

Note: 1. Chain type in boldface are standard products.  
 2. The chain mass of the chain materials available whose information are not described in above are the same with that in the Tsubaki model table above.

## Connecting Pin

1. SUS304 D-pin  
Tsubaki model no. **TTUP-SUS-JPD**

## Model Numbering

Chain type	Top plate width	Chain type	Material mark	Number of links	Unit
<b>TTUPS</b>	<b>840</b> <small>Note: 2</small>	<b>H</b>	<b>G</b> <small>Note: 3</small>	<b>+ 120</b> <small>Note: 4</small>	<b>L</b>
					L: Link

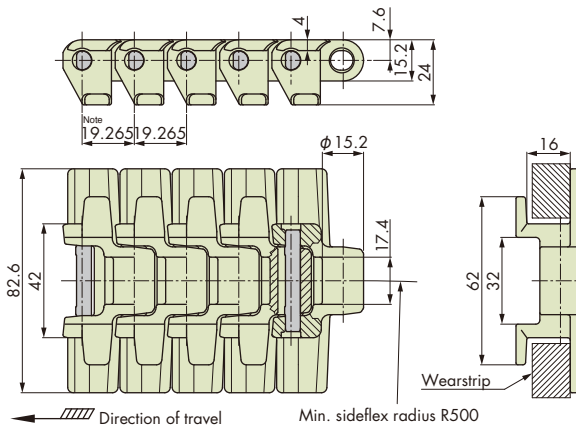
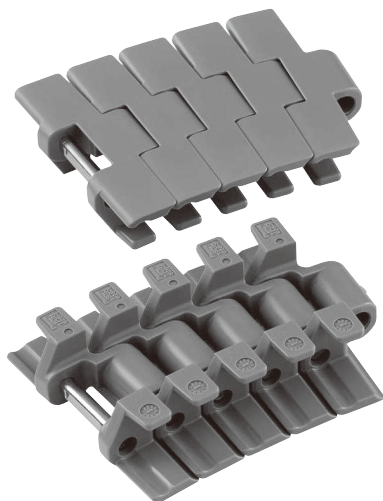
Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.





**Features**

1. Sideflexing chain of TPM. Adopts chain pitch of approx. half of conventional chains. Effective to reduce noise and to save space in the transfer sections.
2. Only odd number of teeth of TPS sprockets can be used with standardized parts.
3. A chain that has tabs prevents the chain from floating in a corner and ascending/descending section, and prevents scratches on the top surface of the plate on the return-way.



Note: The pitch of 19.265 mm is designed to engage all teeth of TTUP1012T which is the sprocket for TPS and the equivalent of 21T.

Chain pitch mm	Backflex radius mm	Number of links per unit
19.265	15	160

**Chain Material Table**

Standard Chain									
Material	Standard			Low friction/ Wear resistant			Advanced low friction/ Wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	0.98{100}								
Max. allowable speed m/min	With lube								
	No lube								
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
Pin material	SUS304								
Pin type	D-pin								
TPUM826-T	○	△	△	○	○	○	○	△	△

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 2. Not available for other chain materials that are not listed in the chain material table above.  
 3. Operating temperature of (the value in parentheses) is for wet conditions.  
 4. Plastic pin type is not available.

## Tsubaki Model Table

Material	Standard	Low friction/Wear resistant			Antibacterial/ Mold resistant	Advanced low friction/ Wear resistant	Top plate width	Chain mass kg/m Note: 2
		LFW	LFG	LFB				
Material mark	—							
Chain type	TPUM826-T	TPUM826-T-LFW	TPUM826-T-LFG	TPUM826-T-LFB	TPUM826-T-MWS	TPUM826-T-ALF	82.6	1.40

Note: 1. Chain type in normal face are made-to-order products.

Refer to the chain material table below for availability.

2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m). Y, DIY: 1.7, DIA: 1.2

3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Top plate width	Tab	Material mark	Number of links	Unit
<b>TPUM</b>	<b>826</b> <small>Note: 2</small>	<b>T</b>	<b>LFB</b> <small>Note: 3</small>	<b>160</b> <small>Note: 4</small>	<b>L</b>
					L: Link

Note: 1. Do not leave space between letters and symbols.

2. Please check the width of the top plate in the Tsubaki model table above.

3. Please check the chain material and material marks in the chain material table below.

4. Minimum quantity: 2, maximum quantity: 99999.

## Connecting Pin

### 1. SUS304 D-pin

Tsubaki model no. **TTUP-SUS-JPD**

## Chain Material Table

High-Function Chain											
Material	Low friction/ Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying
Material mark	HG	Y	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS
Link color	Navy blue	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue
Max. allowable load kN {kgf}	0.98{100}	0.49{50}	0.69{70}	0.78{80}		0.98{100}		0.73{74}	0.88{90}	0.98{100}	
Max. allowable speed m/min	With lube	100		-		100		-		100	
	No lube					50					
Operating temperature range °C	-20 to (65)80	-20 to 80			-20 to (65)80		-20 to 80		-20 to (60)80	-20 to 80	
Pin material	SUS304										
Pin type	D-pin										
TPUM826-T	△	△	△	△	△	△	△	△	△	△	△

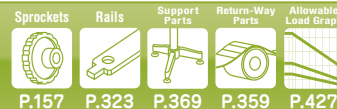
Note: 1. "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.

3. Plastic pin type is not available.

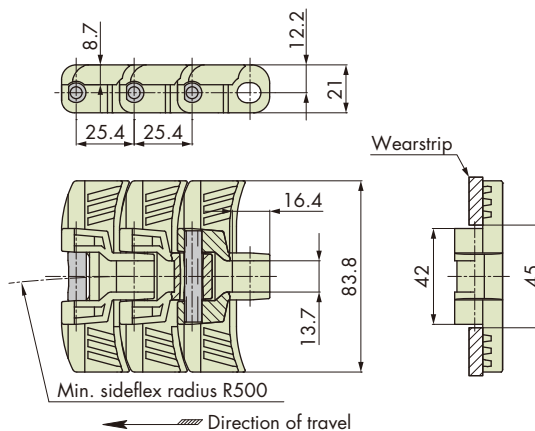
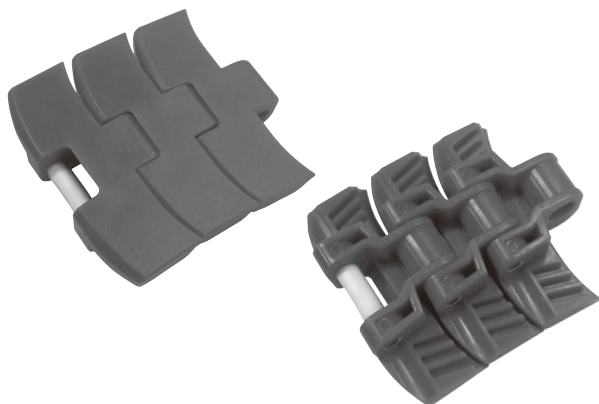
# Plastic Top Chain TTUPM838H

Sideflexing Running



## Features

1. Adopts special double layer D-type plastic pins made from a combination of special engineering plastic and metal.
2. This type of pin combines two features, one is the long service life of plastic pin under wet condition and the other is that of metal pin which prevents the chain from floating from exposure to external magnet force.



Chain pitch mm	Backflex radius mm	Number of links per unit
25.4	100	120

## Chain Material Table

Material	Standard Chain										High-Function Chain				
	Standard			Low friction/Wear resistant				Advanced low friction/Wear resistant	Low friction		Low friction/Wear resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	—	B	BL	LFW	LFG	LFB	CB	ALF	NLF	WR	HG	SE	MF	UVR	
Link color	Gray	Blue	Sky blue	White	Green	Brown	Blue	Light blue	Dark gray	Dark green	Navy blue	Gray	Yellow	Light gray	
Max. allowable load kN {kgf}	1.9{190}											1.41{141}	1.9{190}		
Max. allowable speed m/min	100											—	100		
	50											—	—		
Operating temperature range °C	-20 to (60)80											-20 to 80	-20 to (60)80		
Pin material: Outer	Special engineering plastic														
Pin material: Core	Steel + nickel-plated							Martensitic stainless steel	Steel + nickel-plated	Martensitic stainless steel	Steel + nickel-plated				
Pin type	Special double layer D-type plastic pin <sup>Note: 3</sup>														
TTUPM838H	△	△	△	△	△	△	○	△	△	△	△	△	△	△	

Note: 1. "○": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pins are orange. Base chain pins are white.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Advanced low friction/Wear resistant	Low friction/Wear resistant	Top plate width	Chain mass kg/m
Material mark	CB	ALF	HG		
Chain type	TTUPM838H-CB	TTUPM838H-ALF	TTUPM838H-HG	83.8	1.50

Note: 1. Chain type in normal face are made-to-order products. Refer to the chain material table above for availability.  
 2. The chain mass of the chain materials available whose information are not described in above are the same with that in the Tsubaki model table above.

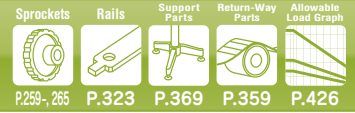
## Model Numbering

Chain type	Top plate width	Chain type	Material mark	Number of links	Unit
<b>TTUPM</b>	<b>838</b> <sup>Note: 2</sup>	<b>H</b>	<b>CB</b> <sup>Note: 3</sup>	<b>+ 120</b> <sup>Note: 4</sup>	<b>L</b>
					L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

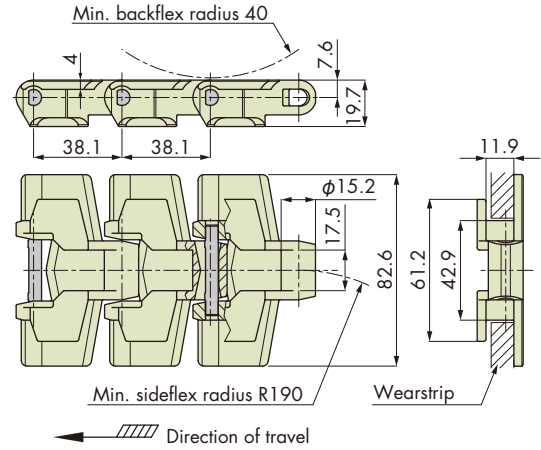
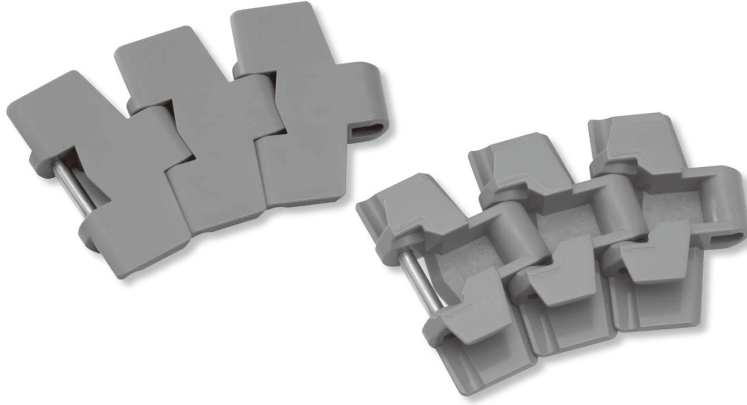
# Plastic Top Chain TPU-USR

Sideflexing Running



## Features

1. Enables compact conveyor layouts due to its small minimum radius of 190 mm compared to TTUP and TPU.
2. Sprockets for TPS and TTUP can be used with standardized parts.
3. A chain that has tabs prevents the chain from floating in a corner and ascending/descending section, and prevents scratches on the top surface of the plate on the return-way.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	40	80

## Chain Material Table

Material	Standard Chain									High-Function Chain							
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant			Low friction		Low friction/Wear resistant		Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	SE	MF	UVR	PFS			
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Gray	Yellow	Light gray	Nile blue			
Max. allowable load kN {kgf}	0.98{100}											0.73 {74}	0.98{100}				
Max. allowable speed m/min	100											50					
	With lube											No lube					
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80			-20 to (65)80		-20 to 80		-20 to 80			
Pin material	SUS304																
Pin type	D-pin																
TPU826-USR-T	△	△	△	△	△	●	●	△	○	△	△	△	△	△	△	△	△

Note: 1. "●": Standard products, "○": Made-to-order product, "△": Made-to-order product (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Advanced low friction/Wear resistant	Top plate width	Chain mass kg/m
Material mark	LFB	ALF		
Chain type	<b>TPU826-USR-T-LFB</b>	<b>TPU826-USR-T-ALF</b>	82.6	1.00

Note: 1. Chain type in boldface are standard products.  
 2. The chain mass of the chain materials available whose information are not described in above are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Top plate width	Chain type	Tab	Material mark	Number of links	Unit
<b>TPU</b>	<b>826</b> <small>Note: 2</small>	<b>-USR</b>	<b>-T</b>	<b>-ALF</b> <small>Note: 3</small>	<b>+80</b> <small>Note: 4</small>	<b>L</b>

L: Link

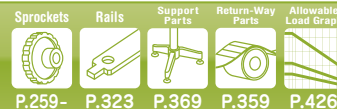
## Connecting Pin

1. SUS304 D-pin Tsubaki model no. **TPU-SUS-JPD**

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

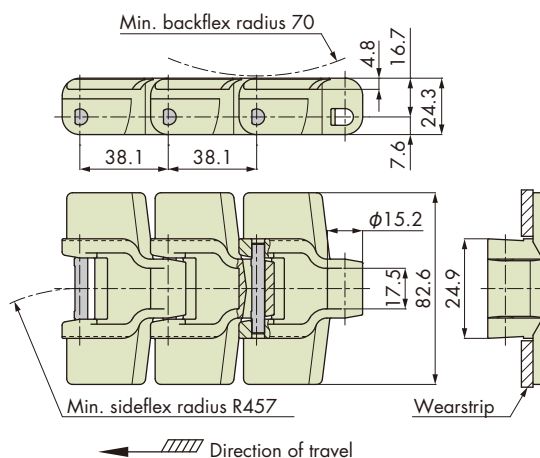
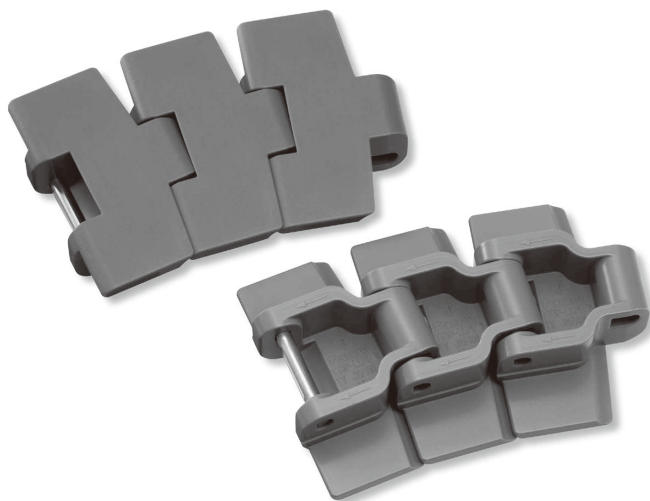
# Plastic Top Chain TTUP-LLPC

Sideflexing Running



## Features

1. The lowered center of gravity of its pins prevents the chain from floating even with a relatively small sideflex radius.
2. Sprockets for TPS and TTUP can be used with standardized parts.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	70	80

## Chain Material Table

Material	Standard Chain							High-Function Chain						
	Standard			Low friction/ Wear resistant		Advanced low friction/ Wear resistant	Low friction		Low friction/ Wear resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	SE	MF	UVR	PFS
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Gray	Yellow	Light gray	Nile blue
Max. allowable load kN {kgf}	1.08{110}											0.80 {81}	1.08{110}	
Max. allowable speed m/min	100											—	100	
	50													
Operating temperature range °C	-20 to 80		-20 to (65)80		-20 to 80	-20 to (65)80	-20 to 80	-20 to (65)80	-20 to 80					
Pin material	SUS304													
Pin type	D-pin													
TTUP826-LLPC	△	△	△	△	△	△	△	●	△	△	△	△	△	△

Note: 1. "●": Standard product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Low friction	Top plate width	Chain mass kg/m
Material mark	NLF		
Chain type	<b>TTUP826-LLPC-NLF</b>	82.6	1.20

Note: 1. Chain type in boldface is a standard product.  
 2. The chain mass of the chain materials available whose information are not described in above are the same with that in the Tsubaki model table above.

## Connecting Pin

1. SUS304 D-pin  
Tsubaki model no. **TPU-SUS-JPD**

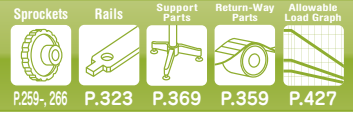
## Model Numbering

Chain type	Top plate width	Chain type	Material mark	Number of links	Unit
<b>TTUP</b>	<b>826</b> <small>Note: 2</small>	- <b>LLPC</b>	- <b>NLF</b> <small>Note: 3</small>	+ <b>80</b> <small>Note: 4</small>	<b>L</b>
					L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

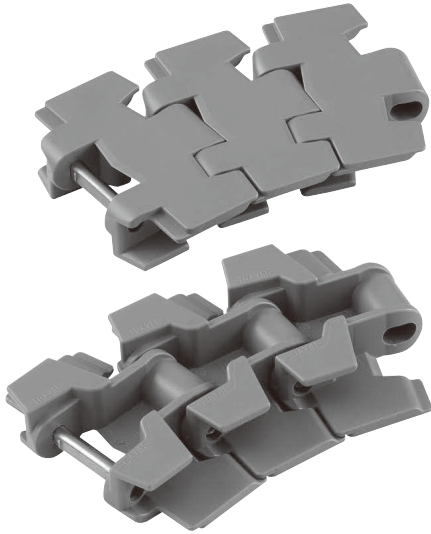
# Plastic Top Chain TPUH-BO

Sideflexing Running

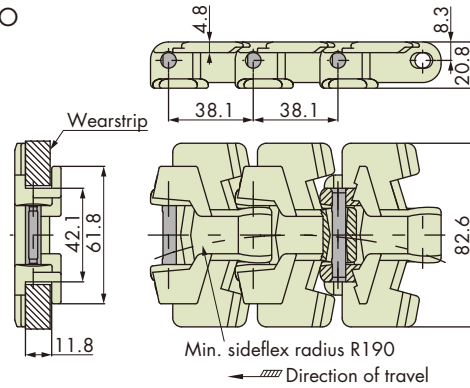


## Features

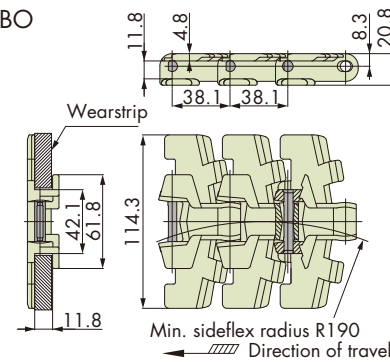
1. Enables compact conveyor layouts due to its small minimum radius of 190 mm compared to TTUP and TPU.
2. Suitable for conveying unstable containers such as dessert cups due to its comb-toothed plates which minimize gaps between links.



TPUH826-BO



TPUH1143-BO



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	50	80

## Chain Material Table

Standard Chain		
Material	Low friction/ Wear resistant	
Material mark	LFB	
Link color	Brown	
Max. allowable load kN {kgf}	0.98{100}	
Max. allowable speed m/min	With lube	100
	No lube	50
Operating temperature range °C	-20 to (65)80	
Pin material	Equivalent to SUS304	
Pin type	D-pin	
Availability	●	

- Note: 1. "●": Standard product. Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.  
 4. Connecting pins are not for sale separately.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width	Chain mass kg/m
Material mark	LFB		
Chain type	<b>TPUH826-BO-T-LFB</b>	82.6	1.08
	<b>TPUH1143-BO-T-LFB</b>	114.3	1.20

Note: Chain type in boldface are standard products.

## Model Numbering

Chain type	Top plate width	Chain type	Tab	Material mark	Number of links	Unit
<b>TPUH</b>	<b>826</b> <small>Note: 2</small>	<b>- BO</b>	<b>- T</b>	<b>- LFB</b>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>

L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

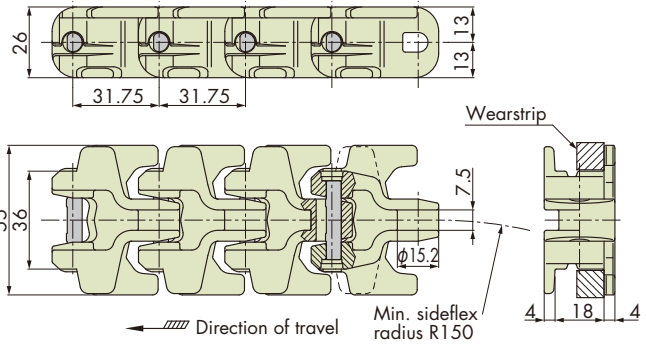
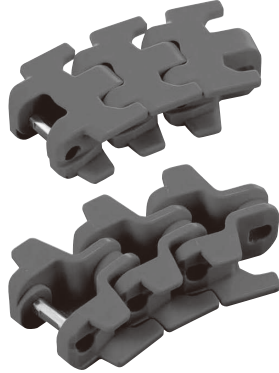
# TPUSR550, TPUSR826

Sideflexing Running

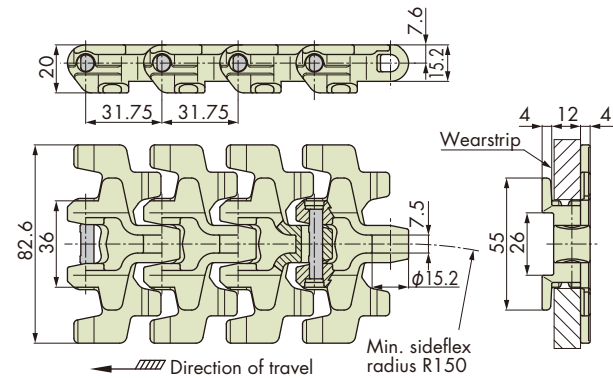
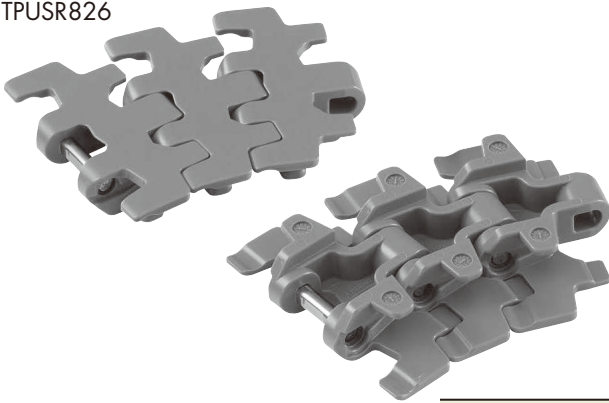
## Features

1. Small sideflex radius (150 mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
2. Suitable for conveying unstable containers such as PET bottles, paper containers and dessert cups due to its comb-toothed plates.
3. Possible to prevent producing wear debris and creaking/squealing noises in case of using the corner disc in curved sections.
4. A chain that has tabs prevents the chain from floating in a corner and ascending/descending section, and prevents scratches on the top surface of the plate on the return-way.

TPUSR550



TPUSR826



Chain type	Chain pitch mm	Backflex radius mm	Number of links per unit
TPUSR550	31.75	50	96
TPUSR826		25	

## Chain Material Table

Standard Chain										
Material	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	
Max. allowable load kN {kgf}	Stainless steel pin	0.98 {100}								
	Plastic pin	0.3 {30.6}								
Max. allowable speed m/min	With lube	100								
	No lube	50								
Operating temperature range °C	Stainless steel pin	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
	Plastic pin	-20 to (60)80								
Pin material	Stainless steel pin/SUS304 Plastic pin/Special engineering plastic									
Pin type	D-pin									
Stainless steel pin	TPUSR550-T	○	△	△	○	○	○	○	△	△
	TPUSR826-T	○	△	△	○	●	●	●	△	△
Plastic pin	TPUSR550P-T	△	△	△	△	△	△	△	△	△
	TPUSR826P-T	△	△	△	△	△	△	△	△	△

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pins are orange. Base chain pins are white.



### Tsubaki Model Table

Material		Low friction/Wear resistant		Advanced low friction/Wear resistant	Top plate width	Chain mass kg/m <small>Note: 2</small>
Material mark		LFG	LFB	ALF		
Chain type	Stainless steel pin	TPUSR550-T-LFG	TPUSR550-T-LFB	TPUSR550-T-ALF	55.0	1.00
		<b>TPUSR826-T-LFG</b>	<b>TPUSR826-T-LFB</b>	<b>TPUSR826-T-ALF</b>	82.6	0.90
	Plastic pin	TPUSR550P-T-LFG	TPUSR550P-T-LFB	TPUSR550P-T-ALF	55.0	0.80
		TPUSR826P-T-LFG	TPUSR826P-T-LFB	TPUSR826P-T-ALF	82.6	0.70

Note: 1. Chain type in boldface are standard products. Chain type in normal face are made-to-order products.

Refer to the chain material table below for availability.

2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).

[TPUSR550] Y, DIY: 1.20, DIA: 0.85

[TPUSR826] Y, DIY: 1.10, DIA: 0.75

[TPUSR550P] DIY: 1.0, DIA: 0.6

[TPUSR826P] DIY: 0.9, DIA: 0.5

3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

### Model Numbering

Chain type	Top plate width	Plastic pin	Tab	Material mark	Number of links	Unit
<b>TPUSR</b>	<b>826</b> <small>Note: 2</small>	<b>P</b> <small>Note: 3</small>	<b>T</b>	<b>LFB</b> <small>Note: 4</small>	<b>+ 96</b> <small>Note: 5</small>	<b>L</b>
						L: Link

Note: 1. Do not leave space between letters and symbols.

2. Please check the width of the top plate in the Tsubaki model table above.

3. Enter "P" only when a plastic pin type is selected.

4. Please check the chain material and material marks in the chain material table below.

5. Minimum quantity: 2, maximum quantity: 99999.

### Connecting Pin

1. SUS304 D-pin

Tsubaki model no. **TPUSR-SUS-JPD**

2. Special engineering plastic D-pin/orange

Tsubaki model no. **TPUSR-PLA-JPD**

### Chain Material Table

High-Function Chain												
Material	Low friction/Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying	
Material mark	HG	Y	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS	
Link color	Navy blue	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue	
Max. allowable load kN {kgf}	Stainless steel pin	0.98{100}	0.49{50}	0.69{70}	0.64{65}		0.98{100}		0.73{74}	0.88{90}	0.98{100}	
	Plastic pin	0.3 {30.6}	-	0.21{21}	-	0.24{24}	0.3 {30.6}		0.22{23}	-	0.3{30.6}	-
Max. allowable speed m/min	With lube	100			-	100			-	100		
	No lube	50										
Operating temperature range °C	Stainless steel pin	-20 to {65}80		-20 to 80			-20 to {65}80	-20 to 80		-20 to {60}80	-20 to 80	
	Plastic pin	-20 to {60}80		-	-20 to {60}80	-	-20 to {60}80			-20 to 80	-	-20 to {60}80
Pin material		Stainless steel pin/SUS304 Plastic pin/Special engineering plastic										
Pin type		D-pin										
Stainless steel pin	TPUSR550-T	△	△	△	△	△	△	△	△	△	△	△
	TPUSR826-T	△	△	△	△	△	△	△	△	△	△	△
Plastic pin	TPUSR550P-T	△	×	△	×	△	△	△	△	×	△	×
	TPUSR826P-T	△	×	△	×	△	△	△	△	×	△	×

Note: 1. "△": Made-to-order products (RFG), "×": Unable to produce.

Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.

3. The color of the connecting pins are orange. Base chain pins are white.

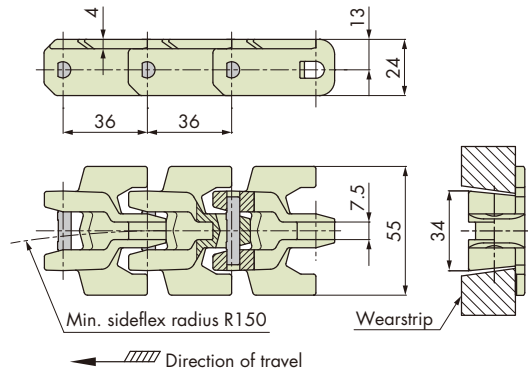
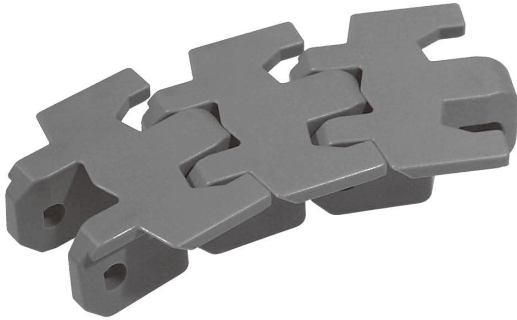
# Plastic Top Chain TP-UB36

Sideflexing Running

P.269	P.323	P.369	P.359	P.428

## Features

1. Small sideflex radius (150 mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
2. Adopts comb-toothed plates which minimize gaps between links.
3. Possible to prevent producing wear debris and creaking/squealing noises in case of using the corner disc in curved sections.



Chain pitch mm	Backflex radius mm	Number of links per unit
36	30	85 <sup>Note</sup>

Note: As of 2013, the number of links per unit has changed.

## Chain Material Table

Material		Standard Chain							High-Function Chain							
		Standard			Low friction/ Wear resistant		Advanced low friction/ Wear resistant	Low friction		Low friction/ Wear resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying		
Material mark		—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	SE	MF	UVR	PFS	
Link color		Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Gray	Yellow	Light gray	Nile blue	
Max. allowable load kN {kgf}	Stainless steel pin	0.9{91}											0.67 {67}	0.9{91}		
	Plastic pin	0.3{30.6}											0.22 {22.6}	0.3 {30.6}	—	
Max. allowable speed m/min	With lube	100											—	100		
	No lube	50														
Operating temperature range °C	Stainless steel pin	-20 to 80		-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	-20 to (65)80	-20 to (65)80		-20 to 80			
	Plastic pin	-20 to (60)80											-20 to 80	-20 to (60)80	—	
Pin material		Stainless steel pin/SUS304 Plastic pin/Special engineering plastic														
Pin type		D-pin														
Stainless steel pin	TP-UB36	△	△	△	△	△	△	●	△	△	△	△	△	△	△	
Plastic pin	TP-UB36P	△	△	△	△	△	△	○	△	△	△	△	△	△	×	

Note: 1. "●": Standard product, "○": Made-to-order product, "△": Made-to-order products (RFQ), "x": Unable to produce.

Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.

3. The color of the connecting pins are orange. Base chain pins are white.

## Tsubaki Model Table

Material		Advanced low friction/Wear resistant	Top plate width	Chain mass kg/m
Material mark		ALF		
Chain type	Stainless steel pin	<b>TP-UB36-ALF</b>	55	1.00
	Plastic pin	TP-UB36P-ALF		0.80

Note: 1. Chain type in boldface is a standard product. Chain type in normal face is a made-to-order product. Refer to the chain material table above for availability.

2. The chain mass of the chain materials available whose information are not described in above are the same with that in the Tsubaki model table above.

## Model Numbering

Chain type	Plastic pins	Material mark	Number of links	Unit
<b>TP-UB36</b>	<b>P</b> <sup>Note: 2</sup>	<b>- ALF</b> <sup>Note: 3</sup>	<b>+ 85</b> <sup>Note: 4</sup>	<b>L</b>
				L: Link

Note: 1. Do not leave space between letters and symbols.

2. Enter "P" only when a plastic pin type is selected.

3. Please check the chain material and material marks in the chain material table above.

4. Minimum quantity: 2, maximum quantity: 99999.

# MEMO

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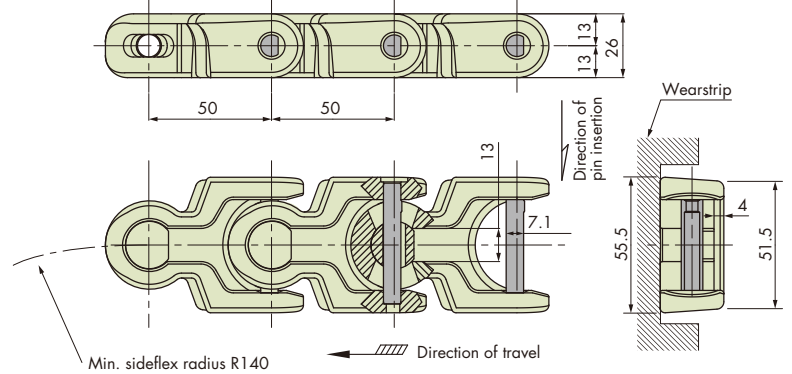
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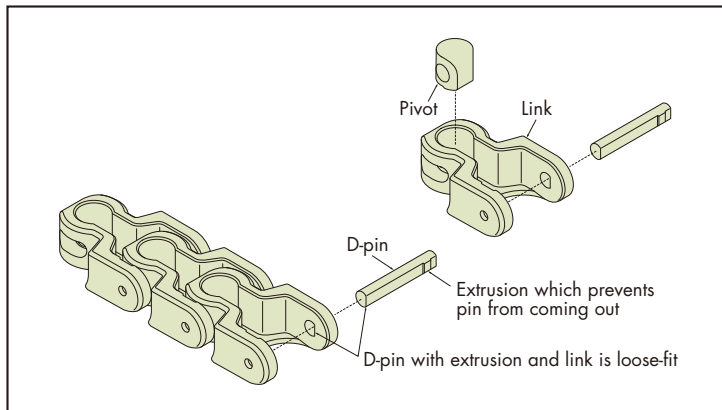
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## Features

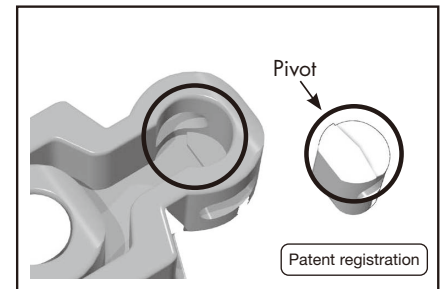
1. Small sideflex radius (140 mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
2. Suitable for higher applied load conditions due to an approx. 1.8 times higher allowable load than TTUP.
3. D-pins with a projection on one side are used to prevent insufficient curving of the chain.
4. Prevents chains from engaging poorly with sprockets caused by incorrect insertion of pivots, due to its unique structure which prevents inserting pivots in the opposite direction.
5. Designed to narrow the gap between links. Suitable for the suitable conveyance of the products.



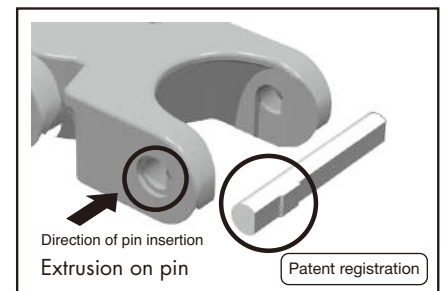
Three-dimensional drawing



Design for preventing false insertion of pivot



Pin type

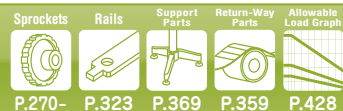


Chain pitch mm	Backflex radius mm	Number of links per unit
50	25	60

## Chain Material Table

Standard Chain										
Material	Standard				Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction	
	Material mark	W	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Green	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	1.96{200}									
Max. allowable speed m/min	With lube	35								
	No lube									
Operating temperature range °C	-20 to (65)80									
Pin material	SUS304									
Pin type	D-pin									
TPUN555 (body)	●	●	△	△	△	●	○	○	△	△

Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.



Tsubaki Model Table

Material	Standard		Low friction/Wear resistant	Chain mass kg/m
Material mark	—	W	LFG	
Chain type	<b>TPUN555</b>	<b>TPUN555-W</b>	<b>TPUN555-LFG</b>	

Note: 1. Chain type in boldface are standard products.  
 2. The chain mass of the chain materials available whose information are not described in above are the same with that in the Tsubaki model table above.

Model Numbering

Chain type	Link width	Material mark	Number of links	Unit
<b>TPUN</b>	<b>555</b> 555: 55.5 mm	<b>LFB</b> <sup>Note: 2</sup>	<b>+</b> <b>60</b> <sup>Note: 3</sup>	<b>L</b> L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table below.  
 3. Minimum quantity: 2, maximum quantity: 99999

Connecting Pin

- SUS304 D-pin (special pin for TPUN)  
 Tsubaki model no. **TPUN555-SUS-JPD**

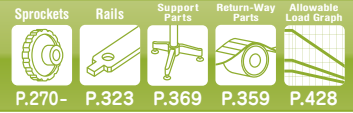
Chain Material Table

High-Function Chain					
Material	Low friction/ Wear resistant	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction
Material mark	HG	E	MWS	SE	MF
Link color	Navy blue	Black	Cream	Gray	Yellow
Max. allowable load kN {kgf}	1.96{200}	1.37{140}	1.96{200}		1.45{148}
Max. allowable speed m/min	With lube	35			—
	No lube				35
Operating temperature range °C	-20 to (65)80				-20 to 80
Pin material	SUS304				
Pin type	D-pin				
TPUN555 (body)	△	△	△	△	△

Note: 1. "△": Made-to-order products (RFG). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

# Plastic Universal Chain TPUN-LH

Sideflexing Running



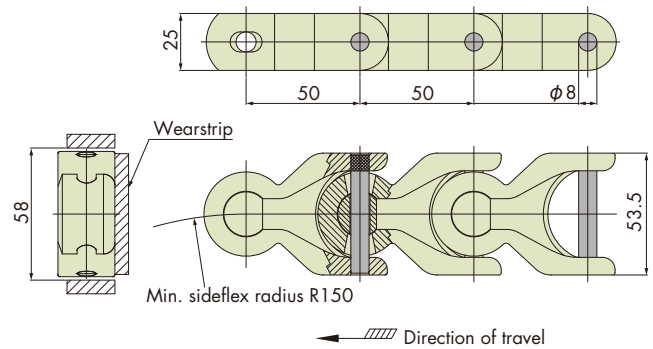
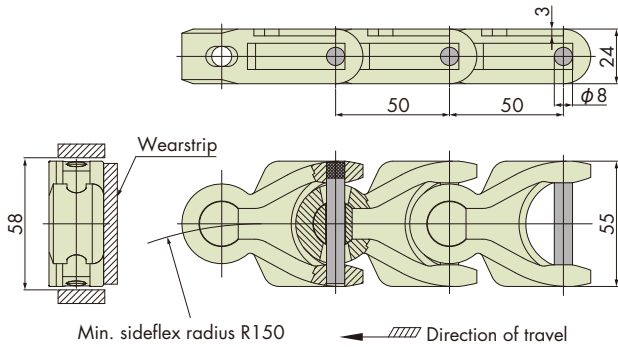
## Features

1. Small sideflex radius (150 mm) enables more compact conveyor layouts.
2. The link height, which is slightly shorter than TPUN, is commonly found in the global market.

### ● TPUN550-LH



### ● TPUN550-LH



Chain pitch mm	Backflex radius mm	Number of links per unit
50	25	61

## Chain Material Table

Standard Chain		
Material	Standard	
Material mark	—	
Link color	Gray	
Max. allowable load kN (kgf)	1.96 {200}	
Max. allowable speed m/min	With lube	35
	No lube	
Operating temperature range °C	-20 to (65)80	
Pin material	Equivalent to SUS304	
Pin type	Knurled pin	
Availability	●	

- Note: 1. "●": Standard product.  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Standard only available.  
 3. Operating temperature of (the value in parentheses) is for wet conditions.  
 4. Plastic pin type is not available.  
 5. Connecting pins are not for sale separately.

## Tsubaki Model Table

Material	Standard	Chain mass kg/m
Material mark	—	
Chain type	<b>TPUN550-LH</b>	1.25
	<b>TPUN535-LH</b>	1.40

Note: Chain type in boldface are standard products.

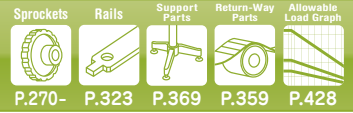
## Model Numbering

Chain type	Link width	Chain type	Number of links	Unit
<b>TPUN</b>	<b>550</b>	<b>- LH</b>	<b>+ 61</b>	<b>L</b>
	535: 53.5 mm		Note: 2	L: Link
	550: 55 mm			

- Note: 1. Do not leave space between letters and symbols.  
 2. Minimum quantity: 2, maximum quantity: 99999.

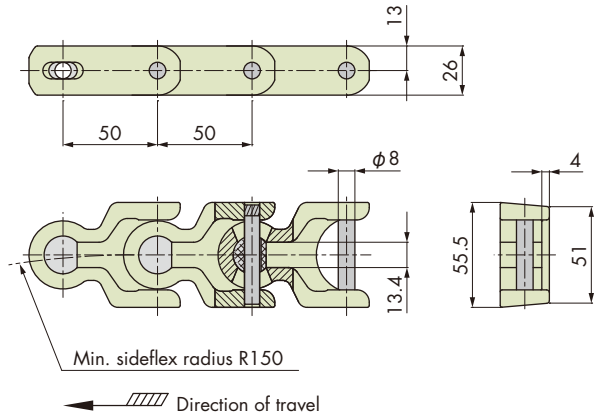
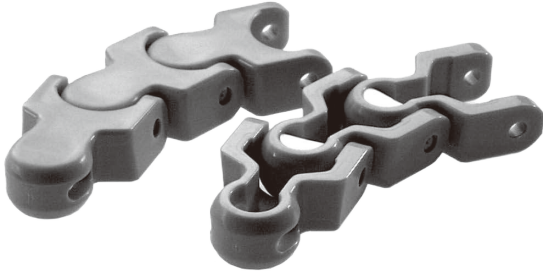
# Plastic Universal Chain TP-50UNS

Sideflexing Running



## Features

1. Small sideflex radius (150 mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
2. Suitable for higher load applications due to its high allowable load.



Chain pitch mm	Backflex radius mm	Number of links per unit
50	25	60 Note

Note: As of 2013, the number of links per unit has changed.

## Chain Material Table

Material	Standard Chain							High-Function Chain					
	Standard			Low friction/Wear resistant			Low friction		Low friction/ Wear resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	
Material mark	—	B	BL	LFW	LFG	LFB	NLF	WR	HG	SE	MF	UVR	
Link color	Green	Blue	Sky blue	White	Green	Brown	Dark gray	Dark green	Navy blue	Gray	Yellow	Light gray	
Max. allowable load kN {kgf}	1.96{200}										1.45 {148}	1.96 {200}	
Max. allowable speed m/min	With lube	35										—	35
	No lube											35	
Operating temperature range °C	-20 to (65)80										-20 to 80	-20 to (65)80	
Pin material	SUS304												
Pin type	Knurled pin												
TP-50UNS (body)	●	△	△	△	△	△	△	△	△	△	△	△	

- Note: 1. "●": Standard product, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.  
 4. Sprockets for TPUN chains can be used.

## Tsubaki Model Table

Material	Standard	Chain mass kg/m
Material mark	—	
Chain type	<b>TP-50UNS</b>	1.5

- Note: 1. Chain type in boldface is a standard product.  
 2. The chain mass of the chain materials available whose information are not described in above are the same with that in the Tsubaki model table above.

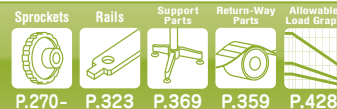
## Model Numbering

Chain type	Material mark	Number of links	Unit
<b>TP-50UNS</b>	<b>WR</b> <small>Note: 2</small>	<b>60</b> <small>Note: 3</small>	<b>L</b>
			L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

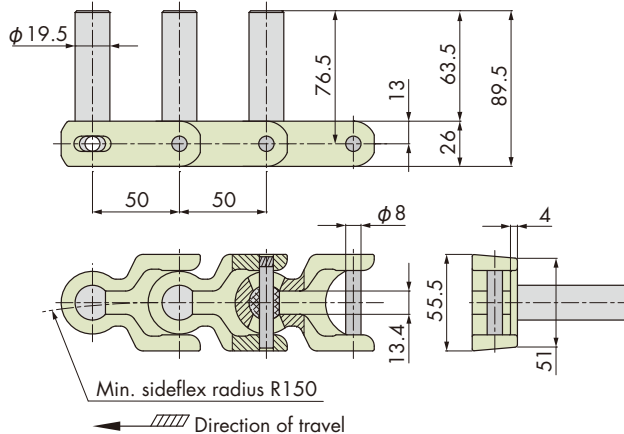
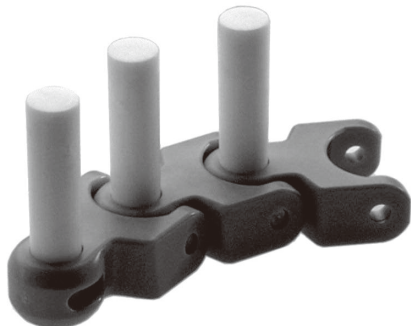
# Plastic Universal Chain TP-50UNS-D76

Sideflexing Running



## Features

1. Small sideflex radius (150 mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
2. Suitable for higher load applications due to its high allowable load.
3. Suitable for vertical conveyance due to pusher-configured chains.
4. Pushers can be configured at any interval in combination with TP-50UNS chains.



Chain pitch mm	Backflex radius mm	Number of links per unit
50	— Note: 1	— Note: 2

Note: 1. The backflex radius is different depending on the spacing of pushers. Contact a Tsubaki representative for more information.  
2. Not specified because it depends on the spacing of the pushers.

## Chain Material Table

Material	Standard Chain								High-Function Chain			
	Standard			Low friction/Wear resistant			Low friction		Low friction/Wear resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark	—	B	BL	LFW	LFG	LFB	NLF	WR	HG	SE	MF	UVR
Link color	Green	Blue	Sky blue	White	Green	Brown	Dark gray	Dark green	Navy blue	Gray	Yellow	Light gray
Max. allowable load kN {kgf}	1.96{200}											
Max. allowable speed m/min	35											
	With lube											1.45 {148}
Operating temperature range °C	-20 to (65)80											
	No lube											35
Pin material	SUS304											
Pin type	Knurled pin											
TP-50UNS-D76 (body)	○	△	△	△	△	△	△	△	△	△	△	△

Note: 1. "○": Made-to-order product, "△": Made-to-order products (RFQ).  
Not available for other chain materials that are not listed in the chain material table above.  
2. Operating temperature of (the value in parentheses) is for wet conditions.  
3. Pushers can be configured at any interval. Specify the required interval when ordering.  
4. The pusher is made of special engineering plastic (color: white).  
5. Sprockets for TPUN chains can be used.  
6. Plastic pin type is not available.

## Tsubaki Model Table

Chain type	Chain mass kg/m
TP-50UNS-D76	2.00

Note: 1. Chain type in normal face is a made-to-order product. Refer to the chain material table above for availability.  
2. The chain mass of the chain materials available whose information are not described in on the left are the same with that in the Tsubaki model table on the left.

## Model Numbering

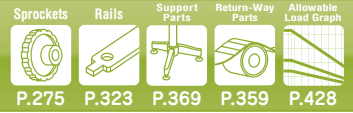
Chain type	Material mark	Number of links	Unit
<b>TP-50UNS-D76</b>	<b>WR</b> <small>Note: 2</small>	<b>40</b> <small>Note: 3</small>	<b>L</b>
			L: Link

Note: 1. Do not leave space between letters and symbols.  
2. Please check the chain material and material marks in the chain material table above.  
3. Minimum quantity: 2, maximum quantity: 99999.



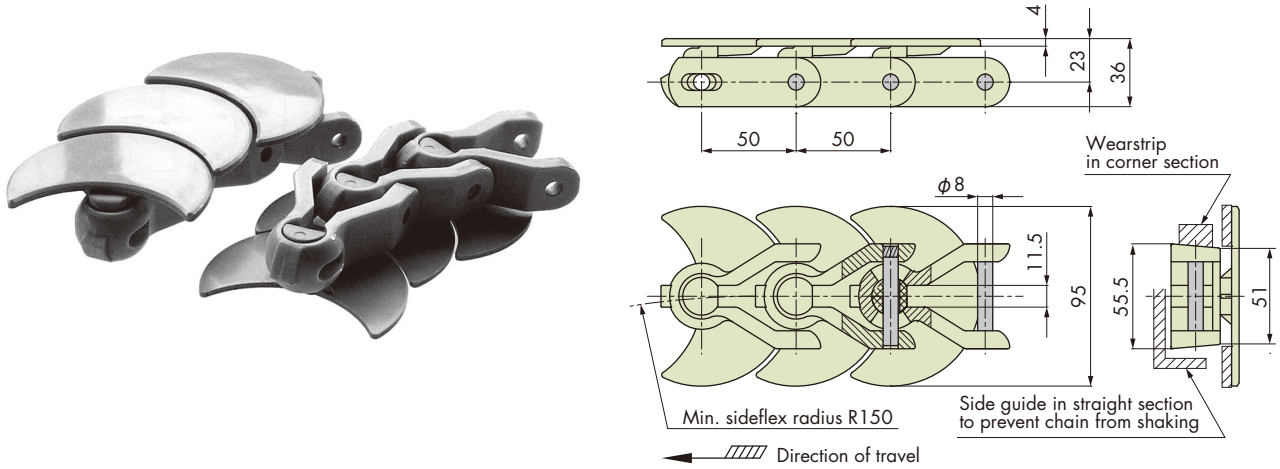
# Plastic Universal Chain TP-50UN-T95

Sideflexing Running



## Features

1. Small sideflex radius (150 mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
2. Crescent-shaped top plates which keep space between links constant in curved sections.



Chain pitch mm	Backflex radius mm	Number of links per unit
50	500	60 <small>Note</small>

Note: As of 2013, the number of links per unit has changed.

## Chain Material Table

Standard Chain		
Material	Standard	
Material mark	—	
Link color	Green	
Max. allowable load kN {kgf}	1.96{200}	
Max. allowable speed m/min	35	With lube / No lube
Operating temperature range °C	-20 to (60)80	
Pin material	SUS304	
Pin type	Knurled pin	
TP-50UN-T95 (body)	○	

- Note: 1. "○": Made-to-order product. Contact a Tsubaki representative for more information.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Top plates are made of special engineering plastic (link color: green).  
 4. Plastic pin type is not available.  
 5. Sprockets for TPUN chains cannot be used.

## Tsubaki Model Table

Chain type	Top plate width	Chain mass kg/m
TP-50UNS-T95	95.0	1.90

Note: Chain type in normal face is a made-to-order product.

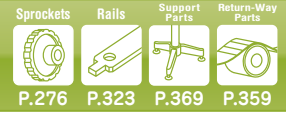
## Model Numbering

Chain type	Number of links	Unit
<b>TP-50UN-T95</b> +	<b>60</b> <small>Note 2</small>	<b>L</b>
		L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Minimum quantity: 2, maximum quantity: 99999.

# Curved-Movement Plastic Chain TPCC

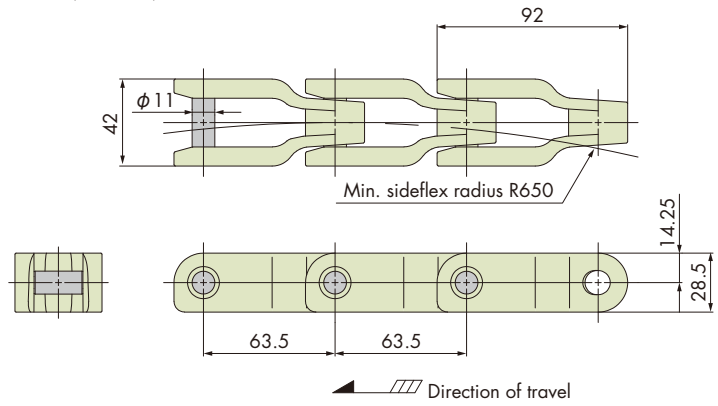
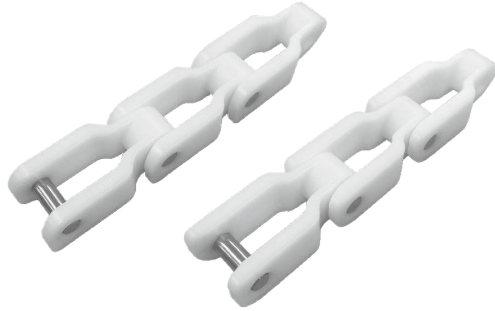
Sideflexing Running



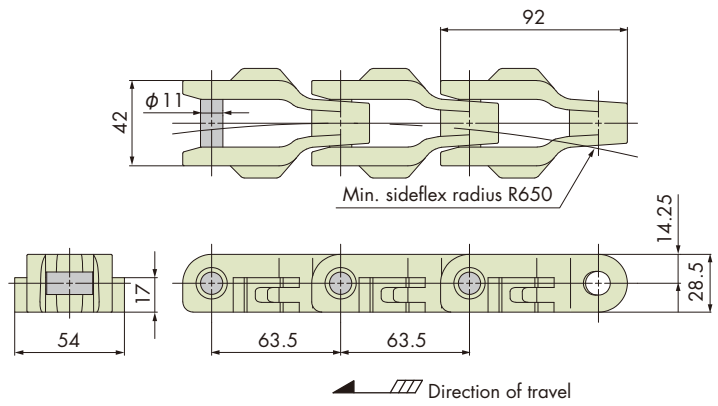
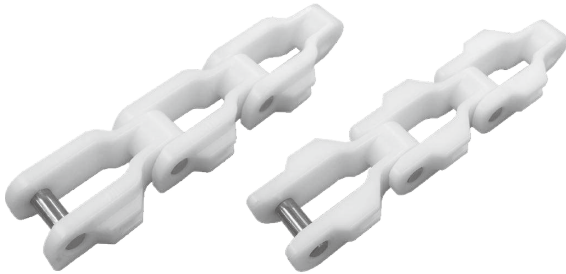
## Features

Simple plastic chain with offset link design. For conveying crates, boxes, and the like.

### ● TPCC420



### ● TPCC420-T



Chain pitch mm	Backflex radius mm	Number of links per unit
63.5	35	48

## Chain Material Table

Standard Chain				
Material	Standard			
Material mark	—			
Link color	White			
Max. allowable load kN {kgf}	1.96 {200}			
Max. allowable speed m/min	<table border="1"> <tr> <td>With lube</td> <td rowspan="2">35</td> </tr> <tr> <td>No lube</td> </tr> </table>	With lube	35	No lube
With lube	35			
No lube				
Operating temperature range °C	-20 to (65)80			
Pin material	Equivalent to SUS304			
Pin type	Stepped round pin			

- Note: 1. Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.  
 4. Connecting pins are not for sale separately.

## Tsubaki Model Table

Material	Standard	Top plate width	Chain mass kg/m
Material mark	W		
Chain type	<b>TPCC420</b> TPCC420-T	42.0	1.33 1.49

Note: Chain type in boldface is a standard product. Chain type in normal face is a made-to-order product.

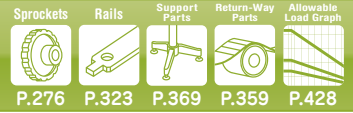
## Model Numbering

Chain type	Link width	Tab	Number of links	Unit
<b>TPCC</b>	<b>420</b> 420:42 mm	<b>T</b> <sup>Note: 2</sup>	<b>+</b> <b>48</b> <sup>Note: 3</sup>	<b>L</b> L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Enter "T" only when tab is required.  
 3. Minimum quantity: 2, maximum quantity: 99999.

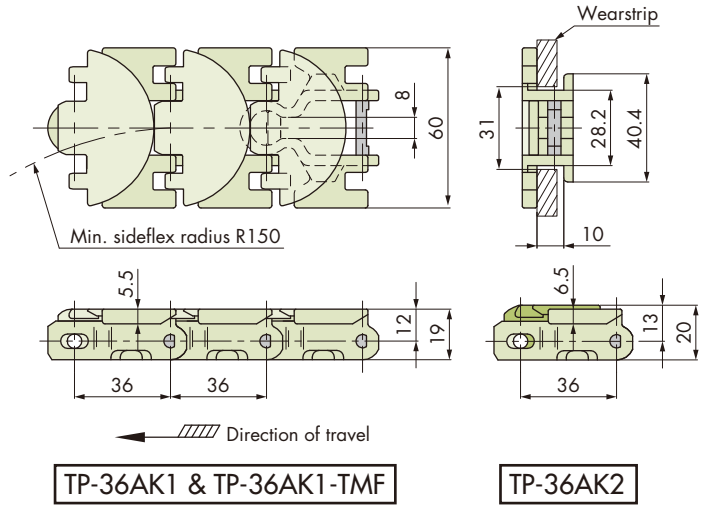
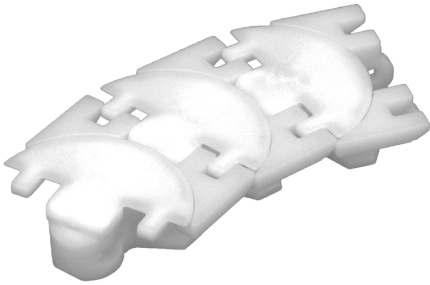
# Plastic Top Chain TP-36AK

Sideflexing Running



## Features

1. The chain is uniquely designed to keep the gap between chains at a minimum in straight and curved sections.
2. Different materials can be chosen only for semicircular part of the plates. Suitable for vertical conveyance.



Chain pitch mm	Backflex radius mm	Number of links per unit
36	75	85 <small>Note</small>

Note: As of 2013, the number of links per unit has changed.

## Chain Material Table/Tsubaki Model Table

Chain type	Material		Link color		Top plate width	Max. allowable load kN {kgf}	Operating temperature range °C	Max. allowable speed m/min		Chain mass kg/m	Pin material
	Body	Top plate	Body	Top plate				With lube	No lube		
TP-36AK1	Standard	Standard	White	White	60	0.5 {51}	-20 to 80	100	50	0.75	SUS304
TP-36AK1-TMF	Standard	Middle friction	White	Yellow		0.5 {51}	-20 to 80 (Without lubrication)	—			
TP-36AK2	Standard	Polyurethane	White	Amber		0.07 {7.1}	-20 to 80 (Without lubrication)	—			

Note: 1. Made-to-order products (RFQ for TP-36AK2).  
2. Plastic pin type is not available.

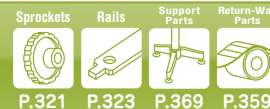
## Model Numbering

Chain type	Number of links	Unit
<b>TP-36AK2</b>	<b>+</b> <b>85</b> <sup>Note</sup>	<b>L</b>
L: Link		

Note: Minimum quantity: 2, maximum quantity: 99999.

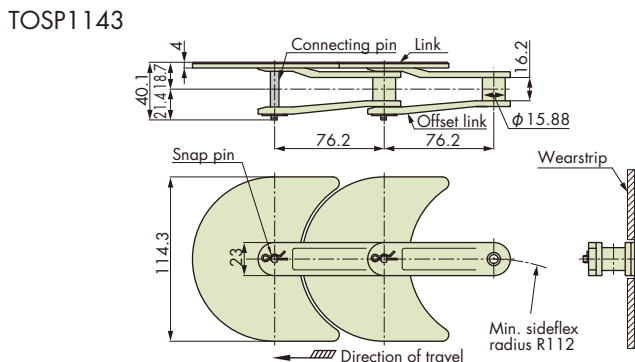
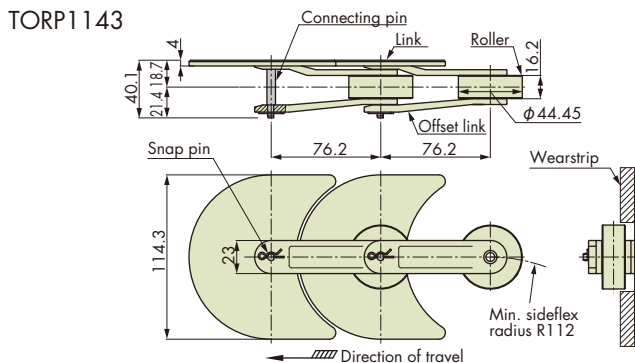
# Plastic Crescent Chain TORP, TOSP

Sideflexing Running



## Features

1. The chain for horizontal conveyors which allows for the entire carry-way for conveyance.
2. The height of the conveyor can be lower due to the structure without the return-way.
3. Crescent-shaped top plates are adopted to keep space between links constant in curved sections, minimizing conveyed products becoming pinched or caught.



Chain pitch mm	Backflex radius mm	Number of links per unit
76.2	—	40

## Chain Material Table/Tsubaki Model Table

Chain type	Max. allowable load N {kgf}	Operating temperature range °C	Max. allowable speed m/min	Chain mass kg/m	Top plate main link	Offset link	Roller	Connecting pin/snap pin	Link color
TORP1143	0.69{70}	0 to 60	20	1.40	Reinforced polycarbonate	Reinforced polycarbonate	Polyacetal	Stainless steel	White
TOSP1143				1.36			—		

- Note: 1. Made-to-order products.  
 2. Areas between pins and bushings are pre-lubricated.  
 3. Connecting pins are not for sale separately.  
 4. For TOSP chain, the sprockets should be installed in the curved sections.

## Model Numbering

Chain type	Top plate width	Number of links	Unit
<b>TORP</b>	<b>1143</b>	<b>+</b> <b>40</b> <sup>Note: 2</sup>	<b>L</b>
	1143:114.3 mm		L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Minimum quantity: 2, maximum quantity: 99999.



## Features

1. Suitable for high-capacity conveyors due to its large maximum allowable load. (excluding SS and PC series).
2. It is possible to replace top plates only.
3. Chain materials available for operating environments which require a higher resistance to corrosion.

## Base Chain Material

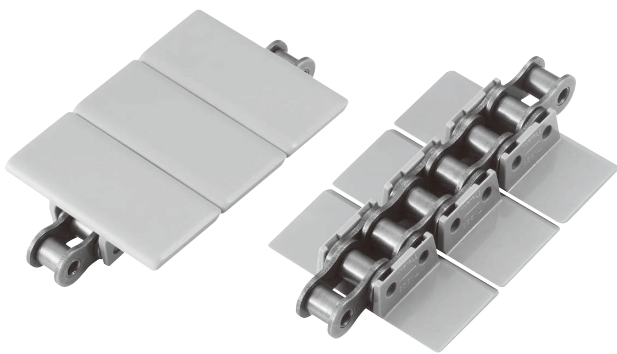
The following types are available for snap top chains.

- ◆ **Standard series:** Base chain is steel, and main dimensions are the same as standard roller chain. Note, however, that the shape of the pin ends is different and that strength is lower than RS roller chain.
- ◆ **NP series (nickel-plated):** Base chains are a standard type processed with nickel-plating, providing corrosion resistance and better appearance.
- ◆ **LMC-NP series (Lambda type):** By using a special oil-impregnated bush that uses NSF H1 compatible oil for the NP series chain, it can be used without lubrication (Lambda) and with a long life.
- ◆ **SS series:** Made of type SUS304 and is suitable for an environment where corrosion resistance is to be prioritized.
- ◆ **PC series:** Base chain is constructed from TN-C-PC poly-steel chain. Joint links are those intended for TN chain. Made from stainless steel and engineering plastic, this chain delivers corrosion resistance and low noise with no lubrication required.

Note: Standard, NP and SS series require lubrication.

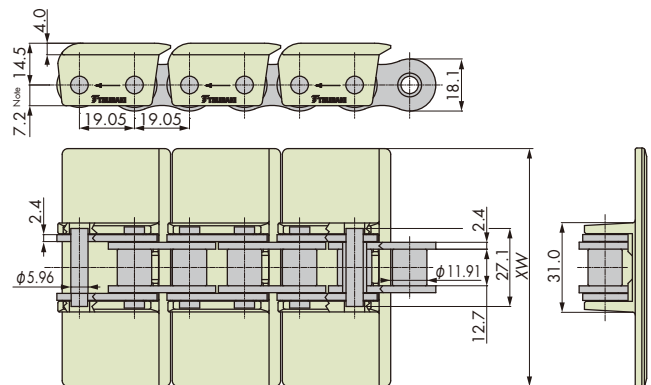
## Chain Construction

Snap top chains TN consist of ANSI #60 base chain and top plates (snap plate). The top plate snaps to the outer links of the main chain.



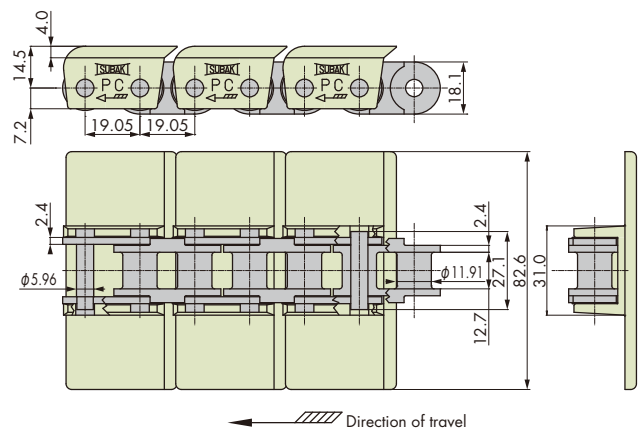
## Drawing

TN, TN-NP, TN-LMCNP, TN-SS



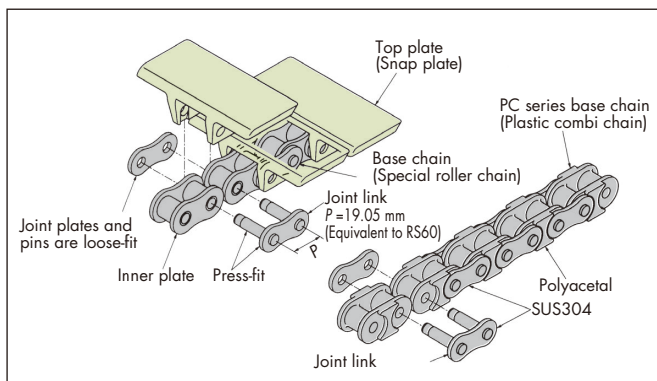
Note: 7.5 mm only for TN826.

TN826-PC (with dedicated top plate)  
Available for plate width of 82.6 mm or smaller



Chain pitch mm	Backflex radius mm	Number of links per unit
19.05	100	160

## Three-dimensional drawing



## Sprockets

Sprockets for RS60 can be used. Twelve teeth (12T) or greater of the RS60 B type sprockets can be used without modification.

## Model Numbering

When ordering complete chain including base chain, joint link and top plates.

Chain type	Top plate width	Base chain material mark	Top plate material mark	Number of links	Options
<b>TN</b>	<b>826</b>	<b>LMCNP</b>	<b>LFG</b> <sup>Note:3</sup>	<b>50L</b> <sup>Note:4</sup>	<b>P</b> <sup>Note:5</sup>
	826: 82.6 mm	None: Standard			

### ◆Base chain

Chain type	Base chain material mark	Number of links	Options
<b>TNC</b>	<b>LMCNP</b>	<b>50L</b> <sup>Note: 4</sup>	<b>P</b> <sup>Note: 5</sup>
	None: Standard		

### ◆Joint link

Chain type	Top plate width	Base chain material mark	Top plate material mark	Joint link
<b>TN</b>	<b>826</b>	<b>LMCNP</b>	<b>LFG</b> <sup>Note:3</sup>	<b>JL</b>
	826: 82.6 mm	None: Standard		

### ◆Top plate

Chain type	Top plate width	Top plate	Chain type	Top plate material mark
<b>TN</b>	<b>826</b>	<b>P</b>	<b>PC</b>	<b>LFG</b> <sup>Note:3</sup>
	826: 82.6 mm		Enter only for PC type None: Other types	

### ●Ordering examples

When ordering 100 links of TN chain with NP base chains and standard top plates.

	Quantity	Unit
<b>TN826-NP+100L</b>	1	H

Note: 1. Do not leave space between letters and symbols.

2. TN chain is equipped with top plates for each outer link of the base chain (one top plate every two links). Specify the length of the product using the number of links of the base chain. The number of links for the base chain is twice the number of top plates. Note that one unit consists of 160 links (basic chain) and the length is 3,048 mm, chain pitch of 19.05 mm x 160 links (base chain).

3. Please check the chain material and material marks in the top plate material table below.

4. Minimum quantity: 3, maximum quantity: 99999.

5. Please refer on page 6.

## Base Chain/Joint Link

### ◆Base chain

Equivalent for RS60 and the joint link is dedicated to TN.

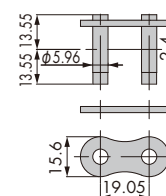
(The edge of the pin of the base chain is different from that of the standard transmission chain)

PC series is as same as transmission chain except joint link, though.

### ◆Joint link

Neither cotter pin nor clips are attached to both roller chains and plastic combi chains.

The legs of the top plates serve to hold the joint link plate in place and keep it from coming loose.



## Base Chain Material Table

Material	Standard	NP	LMCNP	SS	PC
Max. allowable load kN {kgf}		6.28 {640}		1.03 {105}	0.88 {90}
Max. allowable speed m/min	With lube	120	-	70	100
	No lube		60	45	50
Operating temperature range °C		-10 to 80		-20 to 80	

## Top Plate

### Top Plate

Description	TN826P	TN826P-PC	TN1016P	TN1143P	TN1270P	TN1905P
Top plate material	Polyacetal (Standard, link color: gray)					
Top plate width XW	82.6		101.6	114.3	127.0	190.5
Completed chain mass kg/m	2.1	1.5	2.2	2.3	2.4	2.8

Note: 1. Standard products.

2. The top plate model number is different when base chain is PC series. (TN826P-PC).

3. Embedded products (**TN826-PC**) are in stock only when the base chain is PC series.

## Top Plate Material Table

	Standard Chain				High-Function Chain		
	Standard	Low friction/Wear resistant	Low friction	Low friction	Chemical resistant	Antibacterial/Mold resistant	
Material	Standard	Low friction/Wear resistant	Low friction	Low friction	Chemical resistant	Antibacterial/Mold resistant	
Material mark	-	LFW	LFG	LFB	WR	Y	MWS
Link color	Gray	White	Green	Brown	Dark green	Matte white	Cream
Availability	●	○	○	○	○	※	▲

Note: 1. "●": Standard product, "○": Made-to-order products,

"▲": Special configurations may be available.

Contact a Tsubaki representative for more information.

"※": Contact a Tsubaki representative whether it is available or not only when the base chain is SS or PC series.

2. Not available for other specifications that are not listed in the base chain material table above.

3. The main chain formation is the number of units + fraction.

## Features

1. Sideflexing chain with high allowable load. (Sideflexing type of TN)
2. It is possible to replace top plates only.
3. Chain materials available for operating environments which require a higher resistance to corrosion.

## Base Chain Material

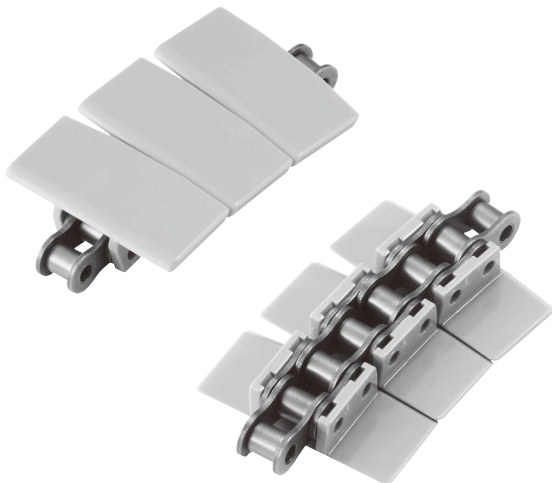
The following types are available for snap top chains.

- ◆Standard series: Base chain is steel, and main dimensions are the same as the standard roller chain, however, the shape of the pin ends is different. Please note that the strength is weaker than the RS roller chain.
- ◆NP series (nickel-plated): Base chains are a standard type processed with nickel-plating, providing corrosion resistance and better appearance.
- ◆AS series: Pins, bushes, and rollers are made of precipitation-hardened stainless steel. Plates are made of SUS304. Suitable for corrosive environments.

Note: Standard, NP and AS series require lubrication.

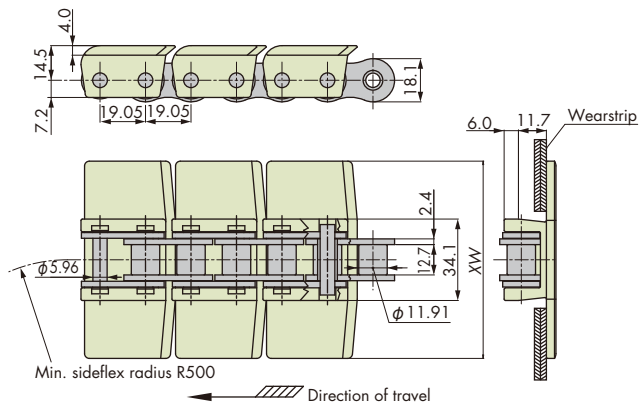
## Chain Construction

Snap top chain TNU consists of the base chain (equivalent to RS60-CU) and top plates (snap plate). The top plate snaps to the outer links of the main chain.

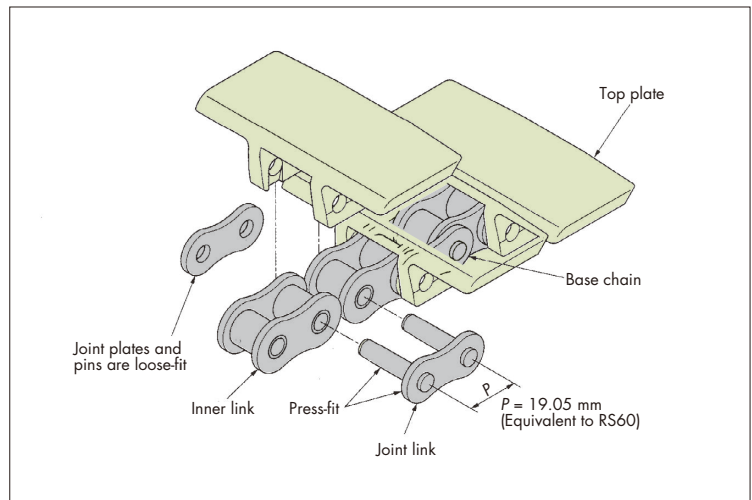


### Drawing

(Chain, top plate)



### Three-dimensional drawing



Chain pitch mm	Backflex radius mm	Number of links per unit
19.05	100	160

## Sprockets

Sprockets for RS60 can be used. Twelve teeth (12T) or greater of the RS60 B type sprockets can be used without modification.



## Model Numbering

When ordering complete chain including base chain, joint link and top plates.

Chain type	Top plate width	Base chain material mark	Top plate material	Number of links	Options
<b>TNU</b>	<b>826</b> 826: 82.6 mm	<b>NP</b> None: Standard	<b>LFG</b> <sup>Note: 3</sup>	<b>+ 50L</b> <sup>Note: 4</sup>	<b>- 2</b> <sup>Note: 5</sup>

### ◆Base chain

Chain type	Base chain material mark	Number of links	Options
<b>TNUC</b>	<b>NP</b> None: Standard	<b>+ 50L</b> <sup>Note: 4</sup>	<b>- 2</b> <sup>Note: 5</sup>

### ◆Joint link

Chain type	Top plate width	Base chain material mark	Top plate material mark	Joint link
<b>TNU</b>	<b>826</b> 826: 82.6 mm	<b>NP</b> None: Standard	<b>LFG</b> <sup>Note: 3</sup>	<b>- JL</b>

### ◆Top plate

Chain type	Top plate width	Top plate	Top plate material mark
<b>TNU</b>	<b>826</b> 826: 82.6 mm	<b>P</b>	<b>LFG</b> <sup>Note: 3</sup>

### ●Ordering examples

When ordering 100 links of TNU chain with NP base chains and standard top plates.

<b>TNU826-NP+100L</b>	Quantity	Unit
	1	H

Note: 1. Do not leave space between letters and symbols.

2. TNU chain is equipped with top plates for each outer link of the base chain (one top plate every two links). Specify the length of the product using the number of links of the base chain. Note that one unit consists of 160 links (basic chain) and the length is 3,048 mm, chain pitch of 19.05 mm x 160 links (base chain).

3. Please check the chain material and material marks in the top plate material table below.

4. Minimum quantity: 3, maximum quantity: 99999.

5. Please refer on page 6.

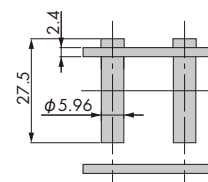
## Base Chain/Joint Link

### ◆Base chain

Equivalent for RS60-CU and the joint link is dedicated to TNU.  
(The edge of the pin of the base chain is different from that of the standard transmission chain)

### ◆Joint link

Neither cotter pin nor clips are attached to both roller chains and plastic combi chains. The legs of the top plates serve to hold the joint link plate in place and keep it from coming loose.



## Base Chain Material Table

Material	Standard	NP	AS
Max. allowable load kN {kgf}	4.02 {410}		0.78 { 80}
Max. allowable speed m/min	With lube	100	-
	No lube	60	45
Operating temperature range °C	-10 to 80		-20 to 80

## Top Plate

### Top Plate

Description	TNU826P	TNU1143P	TNU1270P
Top plate material	Polyacetal (Standard, link color: gray)		
Top plate width XW	82.6	114.3	127.0
Completed chain mass kg/m	2.2	2.3	2.5

Note: Made-to-order products.

## Top Plate Material Table

	Standard Chain					High-Function Chain	
	Standard	Low friction/Wear resistant	Low friction	Chemical resistant	Antibacterial/Mold resistant		
Material	Standard	Low friction/Wear resistant	Low friction	Chemical resistant	Antibacterial/Mold resistant		
Material mark	-	LFW	LFG	LFB	WR	Y	MWS
Link color	Gray	White	Green	Brown	Dark green	Matte white	Cream
Availability	○	○	○	○	○	※	▲

Note: 1. "○": Made-to-order products, "▲": Special configurations may be available. Contact a Tsubaki representative for more information.

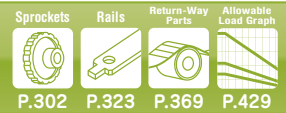
"※": Contact a Tsubaki representative whether it is available or not only when the base chain is AS series.

2. Not available for other specifications that are not listed in the base chain material table above.

3. The main chain formation is the number of units + fraction.

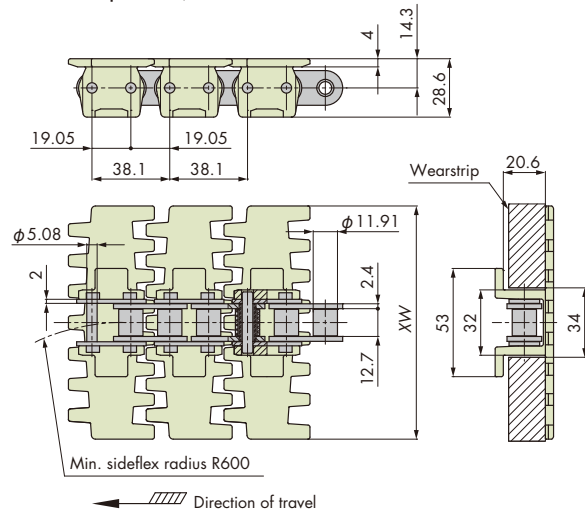
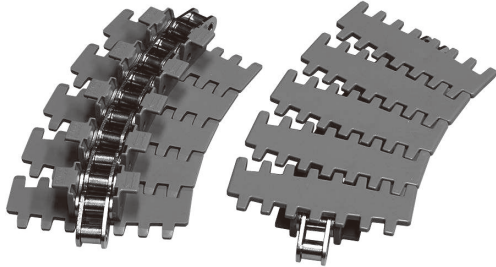
# Snap Top Chain TP-PT

Sideflexing Running



## Features

1. Sideflexing chain with high allowable load. (high allowable chain load).
2. Adopts comb-toothed plates which minimize gaps between links.
3. Top plates snap on to a sideflexing roller chain. The top plates can be replaced, if desired.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	150	80 <sup>Note</sup>

Note: When top plate is attached.

## Chain Material Table

Material	Standard Chain								High-Function Chain		
	Standard			Low friction/Wear resistant			Low friction		Low friction/Wear resistant	Electrostatic preventive	Ultraviolet resistant
Material mark	—	B	BL	LFW	LFG	LFB	NLF	WR	HG	SE	UVR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Dark gray	Dark green	Navy blue	Gray	Light gray
Max. allowable load kN {kgf}	Steel	2.16{220}									
	Stainless	0.88{90}									
Max. allowable speed m/min	With lube	100{60}									
	No lube	40{30}									
Operating temperature range °C	-20 to 80			-20 to (65)80				-20 to 80	-20 to (65)80	-20 to 80	
TP-PT32 (top plate)	△	△	△	△	△	△	△	△	△	△	△
TP-PT44 (top plate)	△	△	△	△	○	△	△	△	△	△	△

Note: 1. "O": Made-to-order product, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. The allowable speed (the value in parentheses) is the value of the chain with SUS304 base chain.  
 3. Operating temperature of (the value in parentheses) is for wet conditions.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width XW	Chain mass kg/m	Base chain material
Material mark	LFG			
Chain type	TP-PT32-LFG	82.6	2.2	Steel
	TP-PT32-SS-LFG			SUS304
	TP-PT44-LFG	114.3	2.3	Steel
	TP-PT44-SS-LFG			SUS304

Note: 1. Chain type in normal face are made-to-order products.  
 2. The chain width of 82.6 mm is cut by a machine. The actual width is slightly shorter than the nominal width. The chain mark indicates information not for the modified width but for the original ones.  
 3. The Tsubaki model table shown above is that of the base chain with top plates. The number of links is equal to that of the top plate. (This arrangement is different from that of TN and TNU.)  
 4. Sprockets for RS60 with 20 teeth or greater can be used. The hub may interfere with some sprockets depending on their type and shape. Please machine the hub with a diameter no greater than a "pitch diameter of 38.1 mm."

## Model Numbering

Chain type	Top plate width	Base chain material	Material mark	Number of links
<b>TP-PT</b>	<b>44</b> <sup>Note: 2</sup>	<b>SS</b>	<b>LFG</b> <sup>Note: 3</sup>	<b>+ 80</b> <sup>Note: 4</sup>

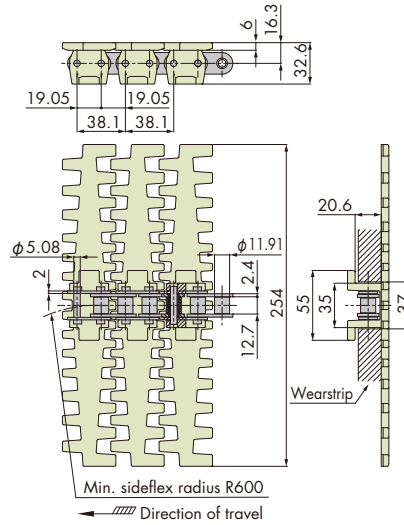
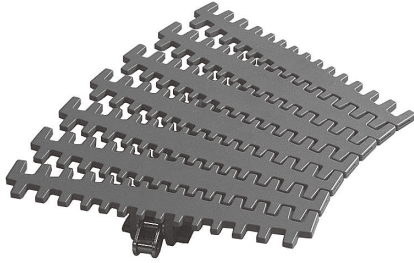
None: Steel  
 (Omit hyphen in front)  
 SS: SUS304

Unit  
**L**  
 L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

### Features

1. Sideflexing chain with high allowable load. Also suitable for conveying large products due to its wide top plates.
2. Adopts comb-toothed plates which minimize gaps between links.
3. Top plates snap on to a sideflexing roller chain. The top plates can be replaced, if desired.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	150	80 <small>Note</small>

Note: When top plate is attached.

### Chain Material Table

Material	Standard Chain						High-Function Chain				
	Standard			Low friction/Wear resistant			Low friction		Low friction/Wear resistant	Electrostatic preventive	Ultraviolet resistant
Material mark	—	B	BL	LFW	LFG	LFB	NLF	WR	HG	SE	UVR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Dark gray	Dark green	Navy blue	Gray	Light gray
Max. allowable load kN {kgf}	Steel	2.16{220}									
	Stainless	0.88{90}									
Max. allowable speed m/min	With lube	100{60}									
	No lube	40{30}									
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80		-20 to (65)80		-20 to 80
TP-PTS100 (top plate)	△	△	△	△	○	△	△	△	△	△	△

- Note: 1. "O": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The allowable speed (the value in parentheses) is the value of the chain with SUS304 stainless steel base chain.  
 3. Operating temperature of (the value in parentheses) is for wet conditions.

### Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width	Chain mass kg/m	Base chain material
Material mark	LFG			
Chain type	TP-PTS100-LFG	254	3.5	Steel
	TP-PTS100-SS-LFG			SUS304

- Note: 1. Chain type in normal face are made-to-order products.  
 2. The Tsubaki model table shown above is that of the base chain with top plates. The number of links is equal to that of the top plate. (This arrangement is different from that of TN and TNU.)  
 3. Sprockets for RS60 with 20 teeth or greater can be used. The hub may interfere with some sprockets depending on their type and shape. Please machine the hub with a diameter no greater than a "pitch diameter of 38.1 mm."

### Model Numbering

Chain type	Top plate width	Base chain material mark	Material mark	Number of links	Unit
<b>TP-PTS</b>	<b>100</b> <small>Note: 2</small>	<b>SS</b>	<b>LFG</b> <small>Note: 3</small>	<b>80</b> <small>Note: 4</small>	<b>L</b>
None: Steel (Omit hyphen in front) SS: SUS304					L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

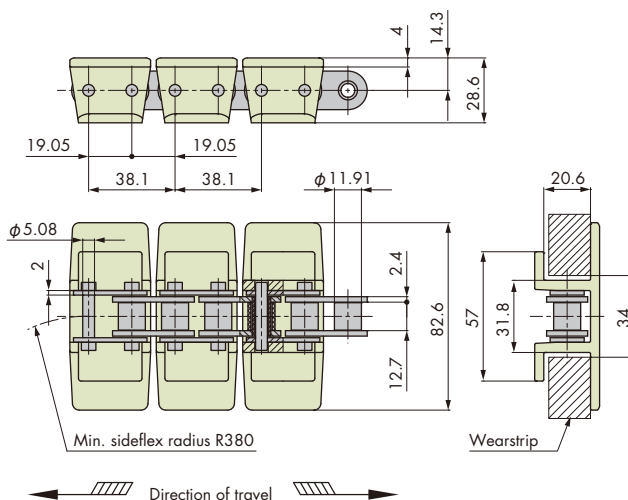
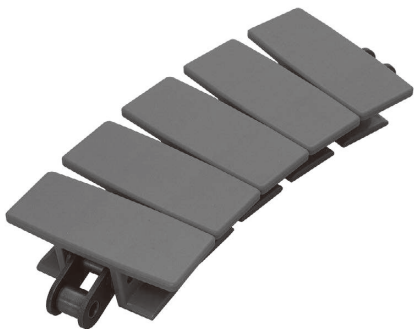
# Snap Top Chain TP-1873-T

Sideflexing Running

Sprockets P.302	Rails P.323	Return-Way Parts P.359	Allowable Load Graph P.429
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## Features

1. Sideflexing chain with high allowable load.
2. Top plates snap on to a sideflexing roller chain. The top plates can be replaced, if desired.



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	305	80 <small>Note</small>

Note: When top plate is attached.

## Chain Material Table

Material	Standard Chain						High-Function Chain					
	Standard			Low friction/Wear resistant			Low friction		Low friction/Wear resistant		High speed	Electrostatic preventive
Material mark	—	B	BL	LFW	LFG	LFB	NLF	WR	HG	HS	SE	UVR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Dark gray	Dark green	Navy blue	Beige	Gray	Light gray
Max. allowable load kN {kgf}	Steel	2.16{220}										
	Stainless	0.88{90}										
Max. allowable speed m/min	With lube	100{60}										
	No lube	40{30}										
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 50	-20 to 80		
TP-1873-T (top plate)	△	△	△	△	△	○	△	△	△	△	△	△

- Note: 1. "○": Made-to-order product, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. The allowable speed (the value in parentheses) is the value of the chain with SUS304 base chain.  
 3. Operating temperature of (the value in parentheses) is for wet conditions.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width	Chain mass kg/m	Base chain material
Material mark	LFB	82.6	2.2	Steel
Chain type	TP-1873-TK325-LFB			SUS304
	TP-1873-SS-TK325-LFB			

- Note: 1. Chain type in normal face are made-to-order products.  
 2. The Tsubaki model table shown above is that of the base chain with top plates. The number of links is equal to that of the top plate. (This arrangement is different from that of TN and TNU.)  
 3. Sprockets for RS60 with 16 teeth or greater can be used. The hub may interfere with some sprockets depending on their type and shape. Please machine the hub with a diameter no greater than a "pitch diameter of 38.1 mm."  
 4. Contact a Tsubaki representative for the selection of the product.

## Top Plate Only

Model no.	Link color
TP-1873-TK325-TP-LFB	Brown
TP-1873-TK325-TP-WR	Dark green

- Note: 1. Made-to-order products.  
 2. Base chain for TP-1873-G can on page 238 can be used.

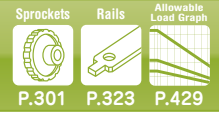
## Model Numbering

Chain type	Chain material mark	Tab	Top plate width	Material mark	Number of links	Unit
<b>TP-1873</b>	<b>- SS</b>	<b>- T</b>	<b>K325</b> <small>Note: 2</small>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
None: Steel (Omit hyphen in front) SS: SUS304						L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width of the top plate in the Tsubaki model table above.  
 3. Please check the chain material and material marks in the chain material table above.  
 4. Minimum quantity: 2, maximum quantity: 99999.

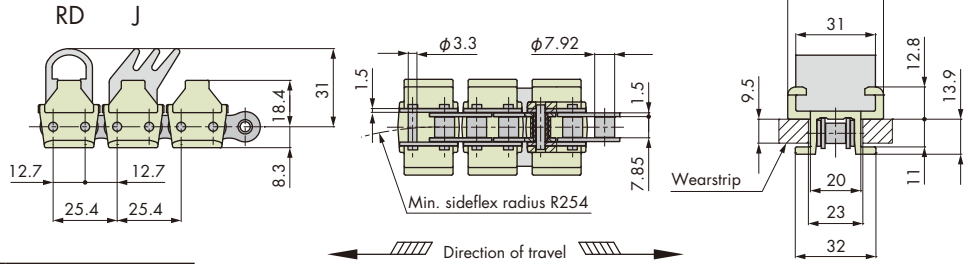
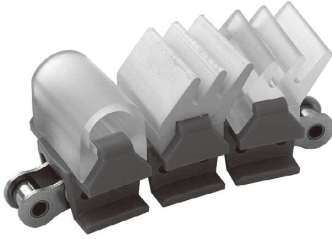
# Snap Top Gripper Chain TP-1843-G

Sideflexing Running



## Features

1. Gripper chains are used to hold products from both sides to convey them vertically.
2. A selection of the grip rubber shape and material is available.
3. Top plates and grip rubbers can be replaced.



Chain pitch mm	Backflex radius mm	Number of links per unit
12.7	-	120 <sup>Note</sup>

Note: When top plate is attached.

## Chain Material Table

Material	Standard Chain						High-Function Chain				
	Standard			Low friction/Wear resistant			Low friction		Low friction/ Wear resistant	Electrostatic preventive	Ultraviolet resistant
Material mark	-	B	BL	LFW	LFG	LFB	NLF	WR	HG	SE	UVR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Dark gray	Dark green	Navy blue	Gray	Light gray
Max. allowable load kN {kgf}	Steel	0.88{90}									
	Stainless	0.36{37}									
Max. allowable speed m/min	With lube	-									
	No lube	100{60}									
Operating temperature range °C	-20 to 80										
TP-1843-G (top plate)	△	△	△	△	△	○ <sup>Note: 3</sup>	△	△	△	△	△

Note: 1. "○": Made-to-order product, "△": Made-to-order products (RFQ).

Not available for other chain materials that are not listed in the chain material table above.

2. The allowable speed (the value in parentheses) is the value of the chain with SUS304 base chain.

3. DU and JU type grip rubbers are made-to-order products (RFQ).

4. Be sure to lubricate contact areas between the top plates and rails periodically.

## Tsubaki Model Table

Base chain material		Top plate material	Grip rubber type			Chain mass kg/m
Steel	SUS304		Grip rubber shape	Grip rubber material	Grip rubber color	
Chain type	Chain type					
TP-1843-G-LFB	TP-1843-SS-G-LFB	Low friction/ Wear resistant LFB	-	-	-	0.90
TP-1843-G-DU-LFB	TP-1843-SS-G-DU-LFB		RD	Urethane	Amber	1.40
TP-1843-G-DN-LFB	TP-1843-SS-G-DN-LFB		RD	Nitrile	White	
TP-1843-G-DS-LFB	TP-1843-SS-G-DS-LFB		RD	Silicone	Translucent white	
TP-1843-G-DH-LFB	TP-1843-SS-G-DH-LFB		RD	CSM	White	
TP-1843-G-JU-LFB	TP-1843-SS-G-JU-LFB		J	Urethane	Amber	1.60
TP-1843-G-JN-LFB	TP-1843-SS-G-JN-LFB		J	Nitrile	White	
TP-1843-G-JS-LFB	TP-1843-SS-G-JS-LFB		J	Silicone	Translucent white	
TP-1843-G-JH-LFB	TP-1843-SS-G-JH-LFB		J	CSM	White	

Note: 1. Chain type in normal face are made-to-order products.

2. The chain type described on the left is that of a completed chain with top plates, base chains and grip rubbers (excluding TP-1873-G-LFB and TP-1873-SS-G-LFB). The number of links is equal to that of the top plate. (This arrangement is different from that of TN and TNU.)

3. Sprockets for RS40 with 17 teeth or greater can be used. The hub may interfere with some sprockets depending on their type and shape. Please machine the hub with a diameter no greater than a "pitch diameter of 19 mm."

4. Contact a Tsubaki representative for the selection of products.

5. Refer to page 238 for information about the base chain, connecting link, top plate and grip rubber.

## Model Numbering

Chain type	Chain material mark	Gripper	Grip rubber shape	Grip rubber material	Top plate material mark	Number of links	Unit
<b>TP-1843</b>	<b>- SS</b>	<b>- G</b>	<b>- J</b>	<b>N</b>	<b>- LFB</b>	<b>+ 120</b>	<b>L</b>
	None: Steel (Omit hyphen in front) SS: SUS304		None: No grip rubbers (only base chain and plastic top plates) D: RD type J: J type	None: No grip rubbers (only base chain and plastic top plates) U: Urethane N: Nitrile S: Silicone H: CSM	<sup>Note: 2</sup>	<sup>Note: 3</sup>	L: Link

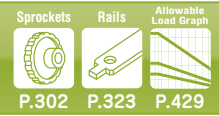
Note: 1. Do not leave space between letters and symbols.

2. Please check the chain material and material marks in the chain material table above.

3. Minimum quantity: 2, maximum quantity: 99999.

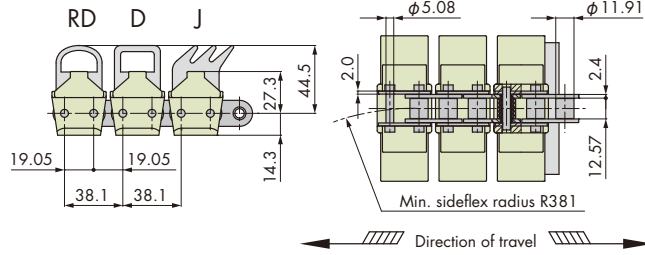
# Snap Top Gripper Chain TP-1873-G

Sideflexing Running



## Features

1. Gripper chains hold products from both sides to convey them vertically.
2. A selection of the grip rubber shape and material is available.
3. Top plates and grip rubbers can be replaced.



Chain pitch mm	Backflex radius mm	Number of links per unit
19.05	—	80 <sup>Note</sup>

Note: When top plate is attached.

## Chain Material Table

Material	Standard Chain						High-Function Chain				
	Standard			Low friction/Wear resistant			Low friction		Low friction/ Wear resistant	Electrostatic preventive	Ultraviolet resistant
Material mark	—	B	BL	LFW	LFG	LFB	NLF	WR	HG	SE	UVR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Dark gray	Dark green	Navy blue	Gray	Light gray
Max. allowable load kN {kgf}	Steel	2.16{220}									
	Stainless	0.88{90}									
Max. allowable speed m/min	With lube	—									
	No lube	100{60}									
Operating temperature range °C	-20 to 80										
TP-1873-G (top plate)	△	△	△	△	△	○ <sup>Note: 3</sup>	△	△	△	△	△

Note: 1. "O": Made-to-order product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. The allowable speed (the value in parentheses) is the value of the chain with SUS304 base chain.  
 3. DU and JU type grip rubbers are made-to-order products (RFQ). 4. Be sure to lubricate contact areas between the top plates and rails periodically.

## Tsubaki Model Table

Base chain material		Top plate material	Grip rubber type			Chain mass kg/m
Steel	SUS304		Grip rubber shape	Grip rubber material	Grip rubber color	
TP-1873-G-LFB	TP-1873-SS-G-LFB	Low friction/ Wear resistant LFB	—			2.40
TP-1873-G-DB-LFB	TP-1873-SS-G-DB-LFB		D	EPDM	Black	3.80
TP-1873-G-DU-LFB	TP-1873-SS-G-DU-LFB		RD	Urethane	Amber	
TP-1873-G-DN-LFB	TP-1873-SS-G-DN-LFB		RD	Nitrile	White	
TP-1873-G-DS-LFB	TP-1873-SS-G-DS-LFB		RD	Silicone	Translucent white	
TP-1873-G-DH-LFB	TP-1873-SS-G-DH-LFB		RD	CSM	White	4.70
TP-1873-G-JU-LFB	TP-1873-SS-G-JU-LFB		J	Urethane	Amber	
TP-1873-G-JN-LFB	TP-1873-SS-G-JN-LFB		J	Nitrile	White	
TP-1873-G-JS-LFB	TP-1873-SS-G-JS-LFB		J	Silicone	Translucent white	
TP-1873-G-JH-LFB	TP-1873-SS-G-JH-LFB		J	CSM	White	

1. Chain type in normal face are made-to-order products.
2. The chain type described on the left is that of a completed chain with top plates, base chains and grip rubbers (excluding TP-1873-G-LFB and TP-1873-SS-G-LFB). The number of links is equal to that of the top plate. (This arrangement is different from that of TN and TNU.)
3. Sprockets for RS60 with 16 teeth or greater can be used. The hub may interfere with some sprockets depending on their type and shape. Please machine the hub with a diameter no greater than a "pitch diameter of 38.1 mm."
4. Contact a Tsubaki representative for the selection of the product.
5. Refer to page 238 for information about the base chain, connecting link, top plate and grip rubber.

## Model Numbering

Chain type	Chain material mark	Gripper	Grip rubber shape	Grip rubber material	Top plate material mark	Number of links	Unit
<b>TP-1873</b>	<b>- SS</b>	<b>- G</b>	<b>- J</b>	<b>N</b>	<b>- LFB</b>	<b>+ 80</b>	<b>L</b>
None: Steel (Omit hyphen in front) SS: SUS304		None: No grip rubbers (only base chain and plastic top plates) D: D, RD types J: J type		None: No grip rubbers (only base chain and plastic top plates) U: Urethane N: Nitrile S: Silicone H: CSM B: EPDM		Note: 2 Note: 3	L: Link

Note: 1. Do not leave space between letters and symbols. 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

# Parts for Gripper Chains

## Base Chain/Connecting Links/Top Plates

### TP-1843-G

Chain type	Remarks
TP-1843-BC	Steel base chain
TP-1843-SS-BC	Stainless steel base chain
Tsubaki model no.	Remarks
TP-1843-JL	Connecting link for steel base chain
TP-1843-SS-JL	Connecting link for stainless steel base chain
TP-1843-G-TP-LFB	Top plate (Link color: brown)
TP-1843-G-TP-LFW	Top plate for connecting links (Link color: white)

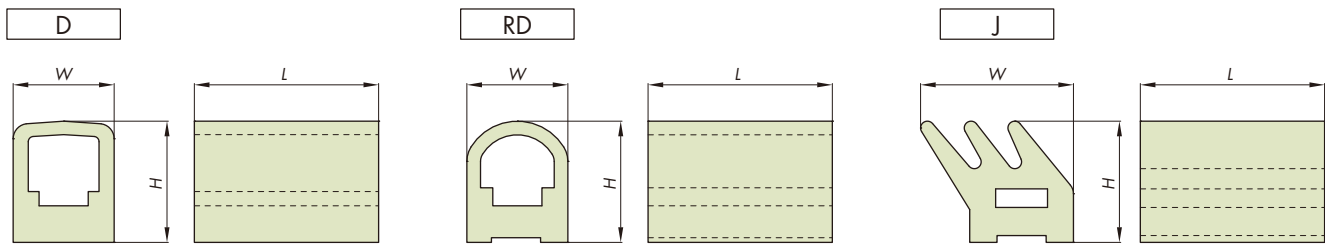
Note: 1. Made-to-order products. Number of links in the base chain unit: 240  
 2. The number of links in the main chain for TP-1843-G is different from that of the top plate built-in products.  
 When ordering the body chain and top plate individually, be sure to specify the length with the number of links of the body chain and connecting links. Twice the number of top plates is the number of links in the main chain. (Required length ÷ chain pitch = required number of links)

### TP-1873-G

Chain type	Remarks
TP-1873-BC	Steel base chain
TP-1873-SS-BC	Stainless steel base chain
Tsubaki model no.	Remarks
TP-1873-JL	Connecting link for steel base chain
TP-1873-SS-JL	Connecting link for stainless steel base chain
TP-1873-G-TP-LFB	Top plate (Link color: brown)
TP-1873-G-TP-LFW	Top plate for connecting links (Link color: white)

Note: 1. Made-to-order products. Number of links in the base chain unit: 160  
 2. The number of links in the main chain for TP-1873-G is different from that of the top plate built-in products.  
 When ordering the body chain and top plate individually, be sure to specify the length with the number of links of the body chain and connecting links. Twice the number of top plates is the number of links in the main chain. (Required length ÷ chain pitch = required number of links)

## Grip Rubber



### TP-1843-G

Tsubaki model no.	Shape	Material	Link color	Approx. dimensions			Approx. mass kg/m (g/unit)
				W	H	L	
TP-DUS	RD	Urethane	Amber	18.5	22	31	10
TP-DNS	RD	Nitrile	White				
TP-DSS	RD	Silicone	Translucent white				
TP-DHS	RD	CSM	White				
TP-JUS	J	Urethane	Amber	28	22	31	13
TP-JNS	J	Nitrile	White				
TP-JSS	J	Silicone	Translucent white				
TP-JHS	J	CSM	White				

Note: Made-to-order products.





### TP-1873-G

Tsubaki model no.	Shape	Material	Link color	Approx. dimensions			Approx. mass kg/m (g/unit)
				W	H	L	
TP-DBB	D	EPDM	Black	30	30	85	55
TP-DUB	RD	Urethane	Amber				
TP-DNB	RD	Nitrile	White				
TP-DSB	RD	Silicone	Translucent white				
TP-DHB	RD	CSM	White	40	28	85	70
TP-JUB	J	Urethane	Amber				
TP-JNB	J	Nitrile	White				
TP-JSB	J	Silicone	Translucent white				
TP-JHB	J	CSM	White				

Note: Made-to-order products.

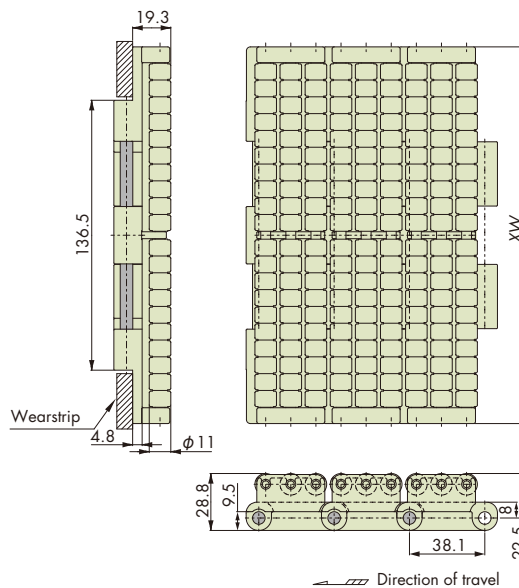
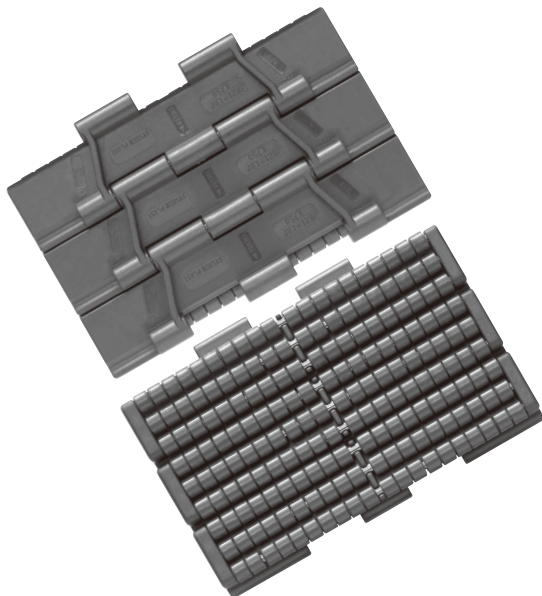
# Plastic Accumulation Chain TTPDH-LBP

Straight Running

 Sprockets P.255	 Rails P.323	 Return-Way Parts P.359	 Allowable Load Graph P.429
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## Features

1. The rolling of rollers prevents scratches on conveyed products. Suitable for applications with an accumulation to reduce damage on the bottom of the products and line pressure.
2. Coefficient of rolling friction between plastic roller and conveyed product: 0.10



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	400	40

## Chain Material Table

Chain type	Plate width XW	Top plate		Max. allowable load kN{kgf}	Chain mass kg/m	Operating temperature range °C	Max. allowable speed m/min	
		Material	Link color				With lube	No lube
<b>TTPDH1905-LBP</b>	190.5	Link: Low friction Polyacetal Roller: Special engineering plastic	Link: Dark gray Roller: Light blue	1.67{170}	5.52	-20 to (65)80	30	30
<b>TTPDH2540-LBP</b>	254.0							
<b>TTPDH3048-LBP</b>	304.8							

- Note: 1. Standard products. Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.  
 4. Connecting pins are not for sale separately.

## Model Numbering

Chain type	Top plate width	Accumulation chain mark	Number of links	Unit
<b>TTPDH</b>	<b>1905</b> <small>Note: 2</small>	<b>- LBP</b>	<b>+ 40</b> <small>Note: 3</small>	<b>L</b>
				L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the width top plate in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.



# Plastic Top/Curved Accumulation Chain TPUS-LBP

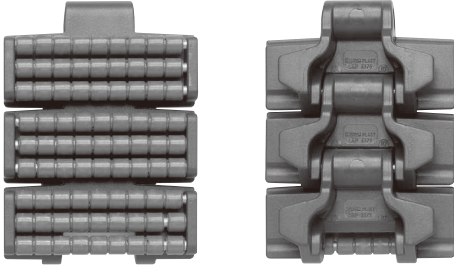
Sideflexing Running



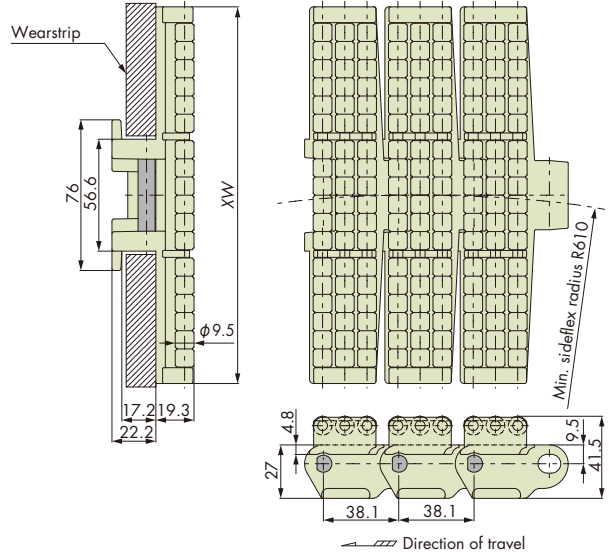
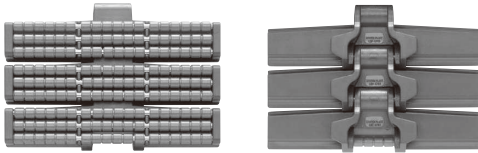
## Features

1. The rolling of rollers prevents scratches on conveyed products. Suitable for applications with an accumulation to reduce damage on the bottom of the products and line pressure.
2. Coefficient of rolling friction between plastic roller and conveyed product: 0.10

### ● TPUS953



### ● TPUS1905



Chain pitch mm	Backflex radius mm	Number of links per unit
38.1	400	40

## Chain Material Table

Chain type	Plate width XW	Top plate		Max. allowable load kN{kgf}	Chain mass kg/m	Operating temperature range °C	Max. allowable speed m/min	
		Material	Link color				With lube	No lube
<b>TPUS953-T-LBP</b>	95.3	Link: Low friction Polyacetal Roller: Special engineering plastic	Link: Dark gray Roller: Light blue	2.16{220}	3.31	-20 to (65)80	30	30
<b>TPUS1905-T-LBP</b>	190.5							
TPUS2540-T-LBP	254.0							
TPUS3048-T-LBP	304.8							

Note: 1. Chain type in boldface are standard products. Chain type in normal face are made-to-order products. Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.
3. Plastic pin type is not available.
4. Connecting pins are not for sale separately.

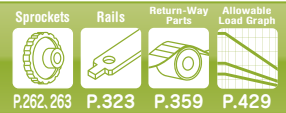
## Model Numbering

Chain type	Top plate width	Tab	Accumulation chain mark	Number of links	Unit
<b>TPUS</b>	<b>1905</b> <small>Note: 2</small>	<b>T</b>	<b>LBP</b>	<b>40</b> <small>Note: 3</small>	<b>L</b>
					L: Link

1. Do not leave space between letters and symbols.
2. Please check the width of the top plate in the chain material table above.
3. Minimum quantity: 2, maximum quantity: 99999.

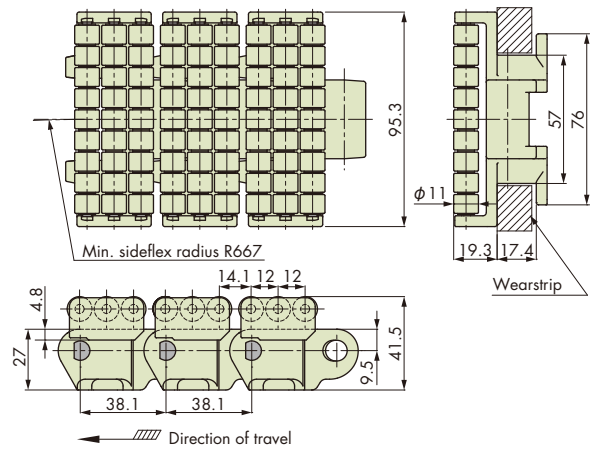
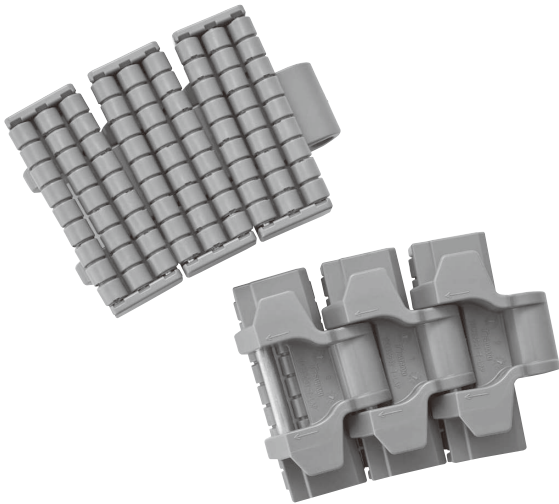
# Plastic Top/Curved Accumulation Chain TPUS-Y-LAP

Sideflexing Running



## Features

1. The rolling of rollers reduces line pressure.
2. Suitable for the accumulation line.
3. By increasing the roller diameter from  $\phi 9.5$  in the previous model to  $\phi 11$ , the gap between the rollers is narrowed to prevent conveyed products from getting caught.
4. Coefficient of rolling friction between plastic roller (LFB series) and conveyed product: 0.07
5. Plastic roller with higher coefficient of rolling friction than LFB series by 30% is available (MFR series). Suitable to improve throughput due to the shorter sliding time of the products when accumulation is released.



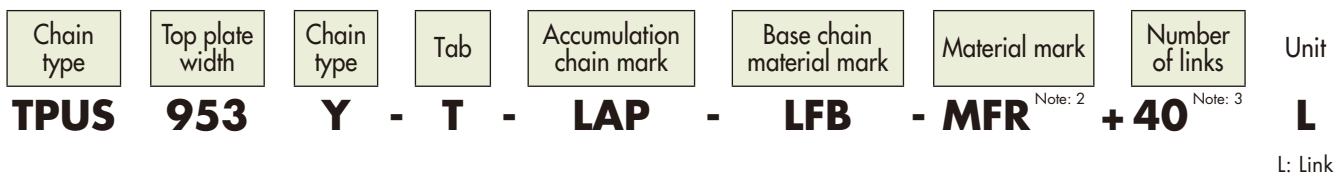
Chain pitch mm	Top plate width mm	Backflex radius mm	Number of links per unit
38.1	95.3	250	40

## Chain Material Table/Tsubaki Model No.

Chain type	Top plate width	Material		Link color		Coefficient of friction <small>Note: 4</small>	Max. allowable load kN {kgf}	Chain mass kg/m	Operating temperature range °C	Max. allowable speed m/min	
		Link	Roller	Link	Roller					With lube	No lube
TPUS953Y-T-LAP-LFB-MFR	95.3	Low friction/Wear resistant LFB	Special engineering plastic	Brown	Cream	0.10	2.16{220}	3.3	-20 to (65)80	50	50
TPUS953Y-T-LAP-LFB		Low friction/Wear resistant LFB		Brown		0.07					

- Note: 1. Made-to-order products.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Pins of both connecting chains and supporting plastic rollers are made of SUS304.  
 4. Coefficient of rolling friction between plastic roller and conveyed product.  
 5. Contact a Tsubaki representative for the availability of other chain materials.  
 6. Plastic pin type is not available.

## Model Numbering



- Note: 1. Do not leave space between letters and symbols.  
 2. The type of roller material will be LFB series, if not the material mark is specified.  
 3. Minimum quantity: 2, maximum quantity: 99999.

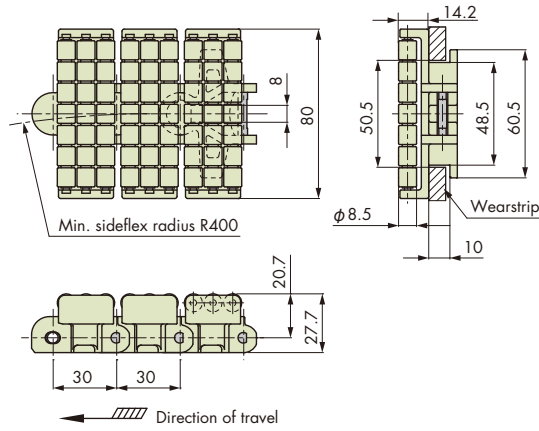
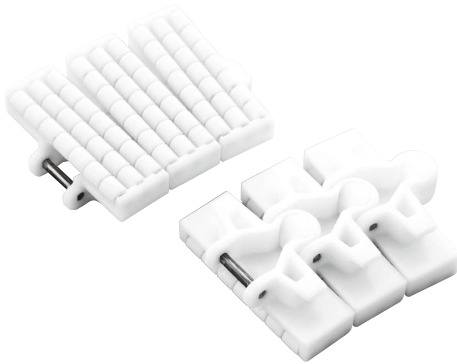
# Plastic Top/Curved Accumulation Chain TP-30UTW-LAP

Sideflexing Running



## Features

1. Roller rotation reduces line pressure.
2. Coefficient of rolling friction between plastic roller and conveyed product: 0.07.
3. Suitable for the accumulation line.



Chain pitch mm	Top plate width mm	Backflex radius mm	Number of links per unit
30	80	180	100

## Chain Material Table

Standard Chain		
Material	Low friction/Wear resistant	
Material mark	LFW	
Link color	White	
Max. allowable load kN {kgf}	0.7 {71}	
Max. allowable speed m/min	With lube	100
	No lube	50
Operating temperature range °C	-20 to (65)80	
Pin type	SUS304	
Availability	●	

- Note: 1. "●": Standard product.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width	Chain mass kg/m
Material mark	LFW		
Chain type	<b>TP-30UTW-LAP</b>	80	1.9

Note: Chain type in boldface is a standard product.

## Model Numbering

Chain type	Accumulation chain mark	Number of links	Unit
<b>TP-30UTW</b>	<b>LAP</b>	<b>100</b> <small>Note: 2</small>	<b>L</b>
			L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Minimum quantity: 2, maximum quantity: 99999.

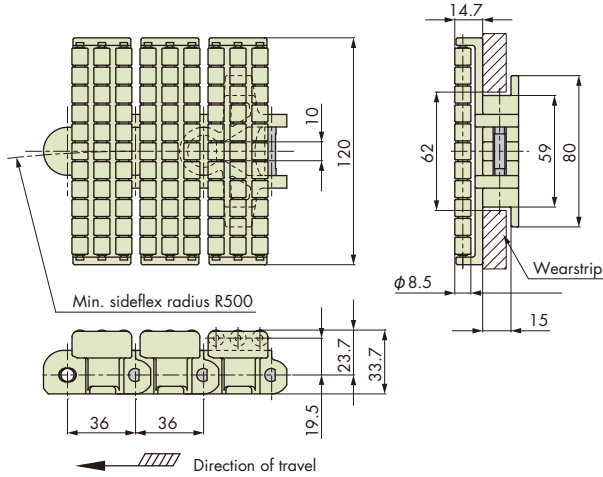
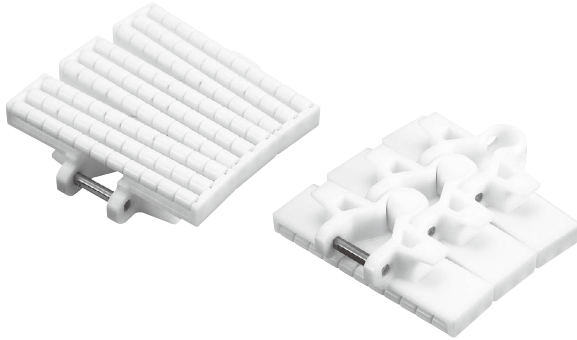
# Plastic Top/Curved Accumulation Chain TP-36UTW-LAP

Sideflexing Running

Sprockets P.278	Rails P.323	Return-Way Parts P.359	Allowable Load Graph P.430
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## Features

1. The rolling of rollers reduces conveyor line pressure.
2. Coefficient of rolling friction between the roller and conveyed product: 0.07.
3. Suitable for the accumulation line.



Chain pitch mm	Top plate width mm	Backflex radius mm	Number of links per unit
36	120	160	85 Note

Note: As of 2013, the number of links per unit has changed.

## Chain Material Table

Standard Chain		
Material	Low friction/Wear resistant	
Material mark	LFW	
Link color	White	
Max. allowable load kN {kgf}	1.1 {112}	
Max. allowable speed m/min	With lube	100
	No lube	50
Operating temperature range °C	-20 to (65)80	
Pin type	SUS304	
Availability	●	

- Note: 1. "●": Standard product.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Low friction/Wear resistant	Top plate width	Chain mass kg/m
Material mark	LFW		
Chain type	<b>TP-36UTW-LAP</b>	120	2.9

Note: Chain type in boldface is a standard product.

## Model Numbering

Chain type	Accumulation chain mark	Number of links	Unit
<b>TP-36UTW</b>	- <b>LAP</b>	+ <b>85</b> <sup>Note: 2</sup>	<b>L</b>
			L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Minimum quantity: 2, maximum quantity: 99999.



## Features

1. Free flow chain which can convey products without using pallets.
2. Smooth parallel transfer is possible due to the same height of the tops of the plastic rollers and special attachments of the ST roller table.
3. Coefficient of rolling friction between plastic roller and conveyed product: 0.06 to 0.10
4. The gap between plastic rollers does not change even when the chain bends because the rollers are aligned with the pitch line of the base chain.

## Plastic Roller Table Chain Material

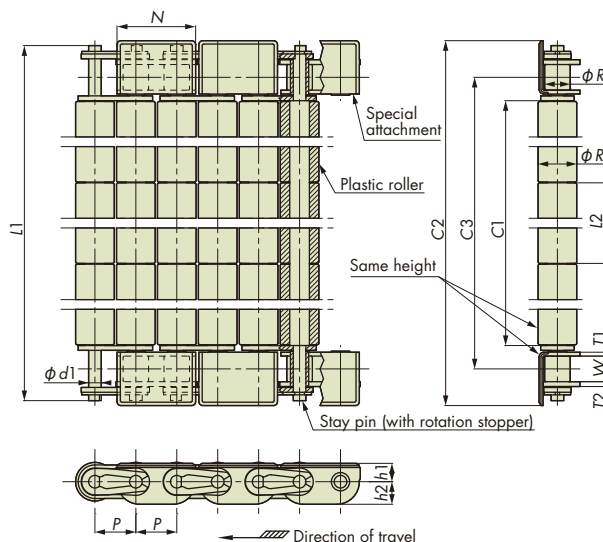
Plastic roller table includes the following series.

- ◆SS series: Made of type SUS304 and is suitable for an environment where corrosion resistance is to be prioritized.
- ◆NP series (nickel-plated): Base chain is made of steel with nickel-plating, providing corrosion resistance and better appearance.

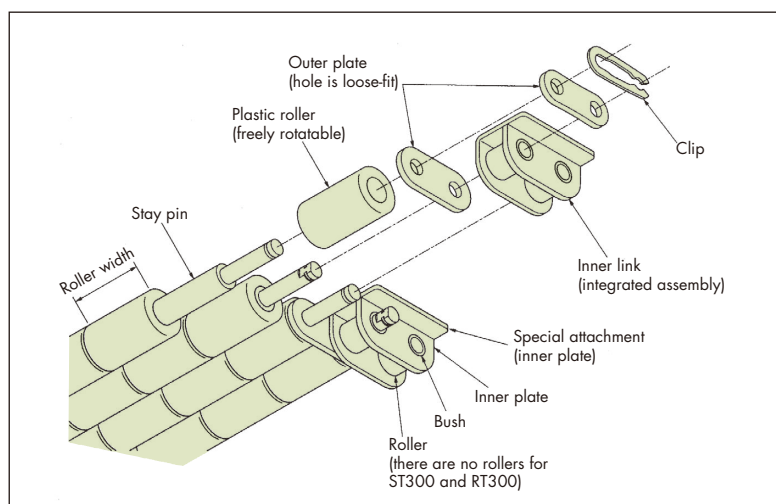
Material	Series				
	Plastic roller	Stay pin	Special attachment	Clip	Base chain
SS	Polyacetal (Link color: light gray)	SUS304		SUS301	Stainless
NP					Steel + nickel-plated

## Chain Construction

### Drawing



### Three-dimensional drawing



### Model Numbering

Chain type	Material mark	Number of links	End link	Options
<b>ST305</b>	<b>- SS</b>	<b>+ 100L</b> <small>Note: 2</small>	<b>- JKR</b> <small>Note: 3</small>	<b>- P</b> <small>Note: 3</small>

SS: SS series  
NP: NP series

- Note: 1. Do not leave space between letters and symbols.  
2. Minimum quantity: 3, maximum quantity: 99999.  
3. Please refer on page 6.

### Dimensions

Chain type	Pitch P	Inner width W	Roller (bush) outer diameter R1	Attachment height h1	Plate height h2	Attachment width N	Attachment thickness T1	Plate thickness T2	Pin outer diameter d1	Plastic roller outer diameter R2	Plastic roller length L2	Max. allowable conveying load <small>Note: 2</small> kg/m <sup>2</sup>	Number of links
ST300 <small>Note: 1</small>	9.525	4.78	(5.08)	4.4	5.2	18.3	0.75	1.25	3.54	9.2	10.0	50	100
ST400	12.70	7.95	7.92	5.7	7.0	24.4	1.2	1.5	3.92	12.0	25.0	250	80
ST500	15.875	9.53	10.16	7.1	8.5	30.5	1.5	2.0	5.00	15.0	25.0	350	64

- Note: 1. The base chain for RT300 (#35) is rollerless and bushed type.  
2. Maximum allowable load depends on the length and the width of the roller table. Refer to the selection page.

### Chain Material Table

#### ■ ST300

Model no.	Effective width C1	Total width C2	Center distance C3	Pin length L1	Chain mass kg/m
ST305-SS	50.0	75.0	60.4	74.2	1.75
ST310-SS	100.0	125.0	110.4	124.2	2.68
ST315-SS	150.0	175.0	160.4	174.2	3.61
ST320-SS	200.0	225.0	210.4	224.2	4.54

#### ■ ST400

Model no.	Effective width C1	Total width C2	Center distance C3	Pin length L1	Chain mass kg/m
ST404-SS	101.2	138.0	115.6	135.6	4.42
ST404-NP					
ST406-SS	151.2	188.0	165.6	185.6	5.78
ST406-NP					
ST408-SS	201.2	238.0	215.6	235.6	7.13
ST408-NP					
ST410-SS	251.2	288.0	265.6	285.6	8.48
ST410-NP					
ST412-SS	301.2	338.0	315.6	335.6	9.82
ST412-NP					
ST414-SS	351.2	388.0	365.6	385.6	11.17
ST414-NP					
ST416-SS	401.2	438.0	415.6	435.6	12.52
ST416-NP					

Note: Made-to-order products.

#### ■ ST500

Model no.	Effective width C1	Total width C2	Center distance C3	Pin length L1	Chain mass kg/m
ST504-SS	101.2	145.2	119.0	142.8	6.16
ST504-NP					
ST506-SS	151.2	195.2	169.0	192.8	8.08
ST506-NP					
ST508-SS	201.2	245.2	219.0	242.8	9.88
ST508-NP					
ST510-SS	251.2	295.2	269.0	292.8	11.74
ST510-NP					
ST512-SS	301.2	345.2	319.0	342.8	13.60
ST512-NP					
ST514-SS	351.2	395.2	369.0	392.8	15.46
ST514-NP					
ST516-SS	401.2	445.2	419.0	442.8	17.31
ST516-NP					
ST518-SS	451.2	495.2	469.0	492.8	19.18
ST518-NP					
ST520-SS	501.2	545.2	519.0	542.8	21.04
ST520-NP					
ST522-SS	551.2	595.2	569.0	592.8	22.90
ST522-NP					
ST524-SS	601.2	645.2	619.0	642.8	24.76
ST524-NP					

Note: Made-to-order products.

### Sprockets

B type of RS sprockets with (23T) teeth or greater can be used. Sprockets for plastic roller plates should be used when the number of teeth is (22T) or smaller due to the interference of the hub with the plate of the chain.

### Features

1. Free flowing chain which can convey products without the use of pallets.
2. The width of the plastic roller of RT is twice as wide as that of ST, excluding RT300 series, and suitable to convey pallets and cases.
3. Coefficient of rolling friction between plastic roller and conveyed product: 0.06 to 0.10
4. The gap between plastic rollers does not change even when the chain bends because the rollers are aligned with the pitch line of the base chain.

### Plastic Roller Table Chain Material

Plastic roller table includes the following series.

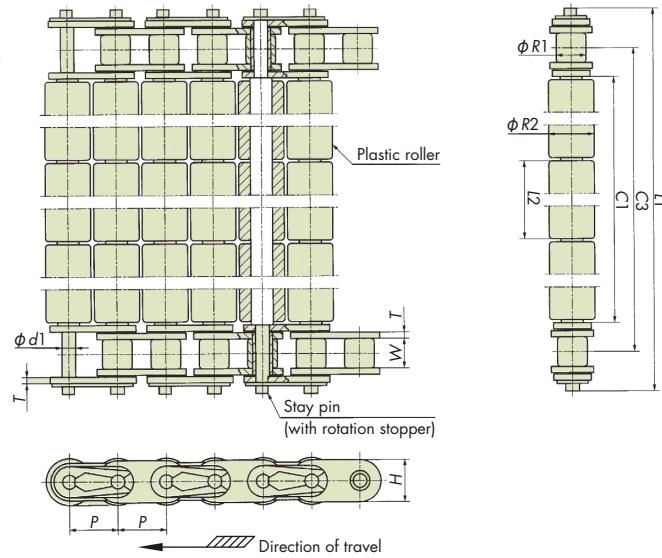
◆SS series: Made of type SUS304 and is suitable for an environment where corrosion resistance is to be prioritized.

Material	Series			
	Plastic roller	Stay pin	Clip	Base chain
SS	Polyacetal (Link color: light gray)	SUS304	SUS301	Stainless

### Chain Construction

This is a shape in which the special attachment is removed from the plastic roller table ST.

#### Drawing





**Model Numbering**

Chain type	Material mark	Number of links	End link	Options
<b>RT305</b>	<b>SS</b>	<b>100L</b> <small>Note: 2</small>	<b>JKR</b> <small>Note: 3</small>	<b>P</b> <small>Note: 3</small>
SS series				

Note: 1. Do not leave space between letters and symbols.  
 2. Minimum quantity: 3, maximum quantity: 99999.  
 3. Please refer on page 6.

**Dimensions**

Chain type	Pitch P	Inner width W	Roller (bush) outer diameter R1	Plate width H	Plate thickness T	Pin outer diameter d1	Plastic roller outer diameter R2	Plastic roller length L2	Max. allowable conveying load <small>Note: 2</small> kg/m <sup>2</sup>	Number of links
RT300 <small>Note: 1</small>	9.525	4.78	(5.08)	8.2	1.25	3.54	9.2	10.0	50	100
RT400	12.70	7.95	7.92	11.1	1.5	3.92	12.2	50.0	200	80
RT500	15.875	9.53	10.16	13.9	2.0	5.00	15.2	50.0	300	64
RT600	19.05	12.70	11.91	16.8	2.4	5.96	18.3	50.0	300	54

Note: 1. The base chain for RT300 (#35) is rollerless and bushed type.  
 2. Maximum allowable load depends on the length and the width of the roller table. Refer to the selection page.

**Chain Material Table**

**RT300**

Model no.	Effective width C1	Center distance C3	Pin length L1	Chain mass kg/m
RT305-SS	50.0	60.4	74.2	1.68
RT310-SS	100.0	110.4	124.2	2.61
RT315-SS	150.0	160.4	174.2	3.54
RT320-SS	200.0	210.4	224.2	4.47

**RT400**

Model no.	Effective width C1	Center distance C3	Pin length L1	Chain mass kg/m
RT404-SS	101.2	115.6	135.6	4.03
RT408-SS	201.2	215.6	235.6	6.76
RT412-SS	301.2	315.6	335.6	9.48
RT416-SS	401.2	415.6	435.6	12.21

**RT500**

Model no.	Effective width C1	Center distance C3	Pin length L1	Chain mass kg/m
RT504-SS	101.2	119.0	142.8	5.80
RT508-SS	201.2	219.0	242.8	9.48
RT512-SS	301.2	319.0	342.8	13.17
RT516-SS	401.2	419.0	442.8	16.89
RT520-SS	501.2	519.0	542.8	20.54
RT524-SS	601.2	619.0	642.8	24.23

Note: Made-to-order products.

**RT600**

Model no.	Effective width C1	Center distance C3	Pin length L1	Chain mass kg/m
RT604-SS	101.2	124.0	153.6	6.73
RT608-SS	201.2	224.0	253.6	10.38
RT612-SS	301.2	324.0	353.6	14.03
RT616-SS	401.2	424.0	453.6	17.68
RT620-SS	501.2	524.0	553.6	21.32
RT624-SS	601.2	624.0	653.6	24.97

Note: Made-to-order products.

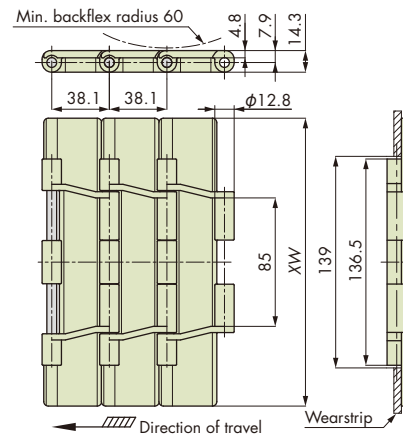
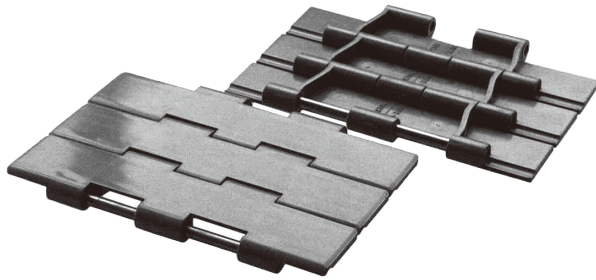
**Sprockets**

B type of RS sprockets with (23T) teeth or greater can be used. Sprockets for plastic roller plates should be used when the number of teeth is (22T) or smaller due to the interference of the hub with the plate of the chain. The height of outer and inner link is same for RT600 type.

# Plastic Top Chain

## Digest

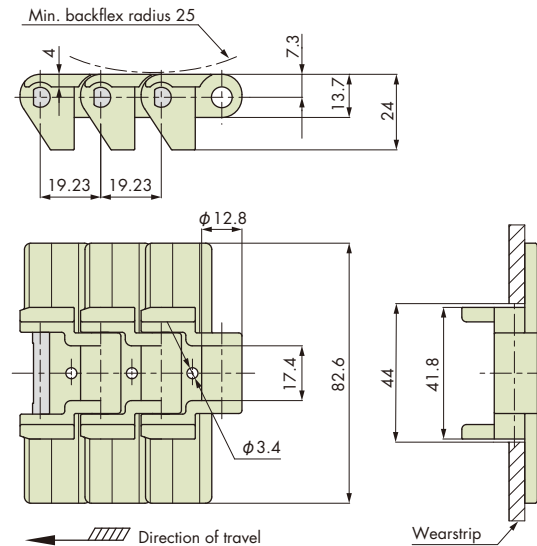
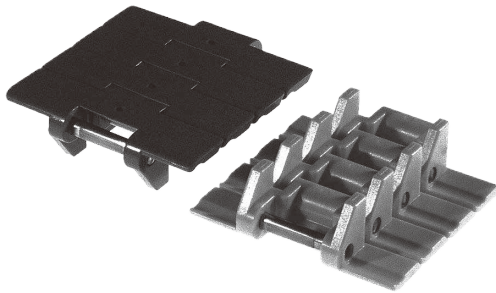
### ■ TTPDH-Y (Straight Running)



Material	Standard	Low friction/Wear resistant	Low friction	Top plate width XW	Max. allowable load kN{kgf}	Chain mass kg/m	Connecting pin
Material mark	—	LFG	WR				
Link color	Gray	Green	Dark green				
Chain type	TTPDH1905Y	TTPDH1905Y-LFG	TTPDH1905Y-WR	190.5	1.67 {170}	2.5	Knurled pins
	TTPDH2540Y	TTPDH2540Y-LFG	TTPDH2540Y-WR	254.0		3.0	
	TTPDH3048Y	TTPDH3048Y-LFG	TTPDH3048Y-WR	304.8		3.3	

Note: 1. Made-to-order products.  
 2. Number of links per unit: 80  
 3. The chain width of 254.0 mm is cut by machining. The chain mark indicates information of the original.  
 4. Plastic pin type is not available.

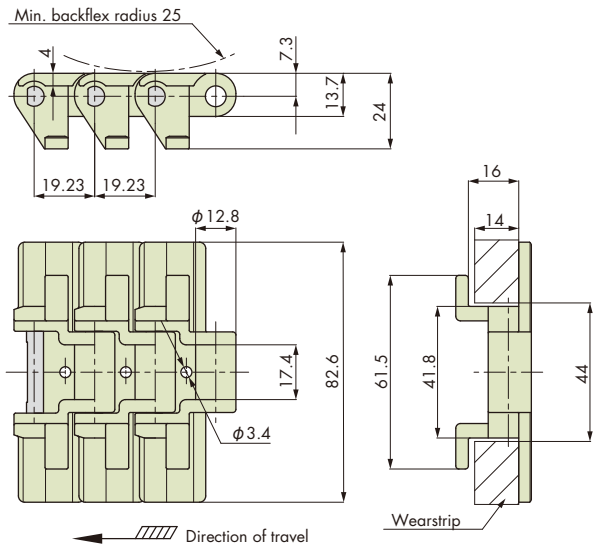
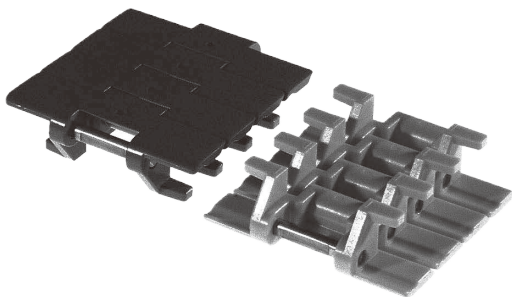
### ■ TP-YS (Straight Running)



Material	Low friction	High speed	Plate width	Max. allowable load kN{kgf}	Chain mass kg/m	Connecting pin
Material mark	WR	HS				
Link color	Dark green	Beige				
Chain type	TP-YS32-WR	TP-YS32-HS	82.6	0.83{85}	1.3	D-pin

Note: 1. Made-to-order products.  
 2. Number of links per unit: 160  
 3. Plastic pin type is not available.

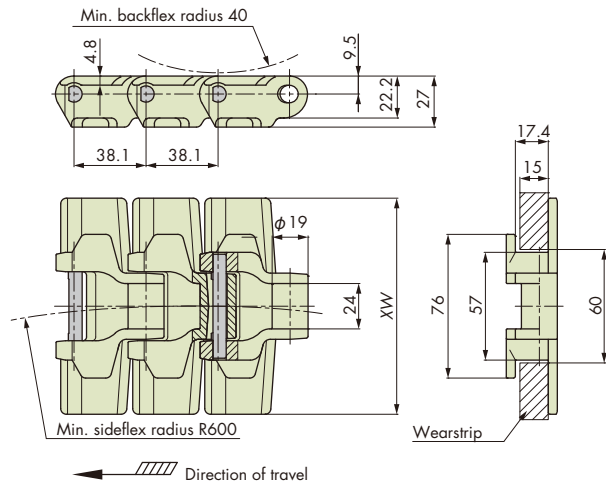
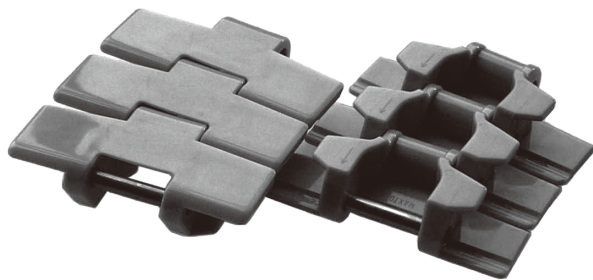
■ TP-YST (Straight Running)



Material	Low friction	High speed	Top plate width	Max. allowable load kN{kgf}	Chain mass kg/m	Connecting pin
Material mark	WR	HS				
Link color	Dark green	Beige				
Chain type	TP-YST32-WR	TP-YST32-HS	82.6	0.83{85}	1.4	D-pin

- Note: 1. Made-to-order products.  
 2. Number of links per unit: 160  
 3. Plastic pin type is not available.

■ TPUS-Y-T (Sideflexing Running)



Material	Low friction/Wear resistant	Top plate width XW	Max. allowable load kN{kgf}	Chain mass kg/m	Connecting pin
Material mark	LFG				
Link color	Green				
Chain type	TPUS1143Y-T-LFG	114.3	1.96{200}	2.1	D-pin
	TPUS1905Y-T-LFG	190.5		2.4	

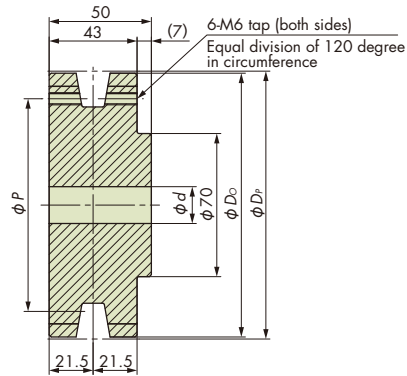
- Note: 1. Made-to-order products.  
 2. Number of links per unit: 80  
 3. TPUS-Y-T chain cannot connect with UTDT-S knurled-pin type chain, which had been sold until December 2004.  
 4. Plastic pin type is not available.

# Sprockets for TTP Chain

Steel

Applicable Chain TTP, TTPH, TTPT

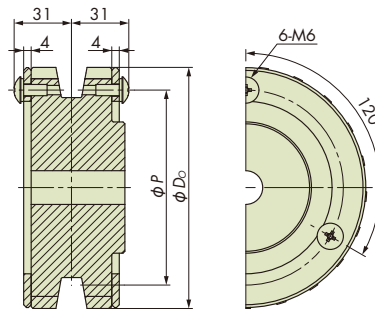
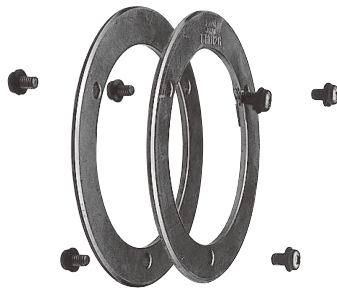
## ◆ Sprockets (With Plain Bore)



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_P$	Outside diameter $D_O$	$P$	Bore shape	Bore diameter $d$		Approx. mass kg	Material
							Plain bore	Max.		
TTP912T	19	9 1/2	117.34	117	92	Round	18	40	2.5	Carbon steel for machine structural use
<b>TTP1012T</b>	21	10 1/2	129.26	129	104				3.2	
<b>TTP1112T</b>	23	11 1/2	141.22	141	116				3.7	
<b>TTP1212T</b>	25	12 1/2	153.20	153	128				4.4	

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face is a made-to-order product.  
 2. The teeth of all sprockets table above have not been hardened.

## ◆ Guide Rings



Tsubaki model no.	Applicable sprocket Tsubaki model no.	Outside diameter $D_O$	Pitch diameter $P$	Approx. mass kg
TT912G	TTP912T TT912T	116	92	0.17
<b>TT1012G</b>	TTP1012T TT1012T	128	104	0.19
<b>TT1112G</b>	TTP1112T TT1112T	140	116	0.21
<b>TT1212G</b>	TTP1212T TT1212T	152	128	0.23

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face is a made-to-order product.  
 2. A set consists of two guide rings and six bolts.  
 3. Common with TT guide rings.  
 4. Guide rings are shipped separately with sprockets.

## Model Numbering

### ◆ Guide Rings

Chain type

**TT**

Applicable sprocket teeth

**1012**

Guide ring

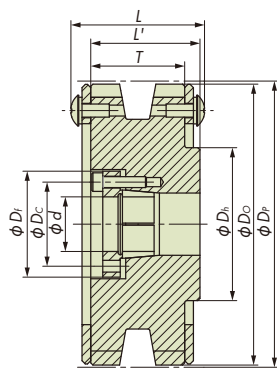
**G**

G: guide ring

Note: Do not leave space between letters and symbols.

## Sprockets for TTP Chain

## ◆ Sprockets (Lock Series)



Tsubaki model no.	Actual teeth	Effective teeth	Dimensions						Applicable bore diameter <i>d</i>										
			Pitch diameter $D_p$	Outside diameter $D_o$	Tooth width $T$	Hub diameter $D_h$	$L$	$L'$	15	20	25	30	35	40	45				
TTP912T-S24□□	19	9½	117.34	117	43	70	62	50	●	●									
TTP912T-S34□□										●									
TTP912T-S44□□											●	●							
TTP912T-S55□□													●	●					
TTP1012T-S24□□	21	10½	129.26	129									●	●					
TTP1012T-S34□□											●								
TTP1012T-S44□□													●	●					
TTP1012T-S55□□															●	●			
TTP1112T-S24□□	23	11½	141.22	141									●	●					
TTP1112T-S34□□											●								
TTP1112T-S44□□													●	●					
TTP1112T-S55□□															●	●			
TTP1212T-S24□□	25	12½	153.20	153					●	●									
TTP1212T-S34□□							●												
TTP1212T-S44□□									●	●									
TTP1212T-S55□□											●	●							

Note: Guide rings are shipped separately with sprockets.

## ■ Lock Sleeve Dimensions

Sleeve no.	$D_f$	$D_c$	Bolt size M x L	Bolt tightening torque N·m
S2	42.0	32.0	M5×18	8.3
S3	48.5	38.5	M5×20	8.3
S4	56.0	46.0	M5×20	8.3
S5	66.0	56.0	M5×22	8.3

## ■ Sleeve Combinations and Transfer Torque Values

Sleeve no.	S2								S3				S4			S5			
Bore diameter <i>d</i>	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45		
Sprocket type	Max. allowable transfer torque N·m																		
TTP912T	139	149	158	167	177	186	205	167	174	195	279	298	325	442	465	488	523		
TTP1012T																			
TTP1112T																			
TTP1212T																			

## Model Numbering

## ◆ Sprockets

Chain type	Effective teeth	Sleeve no.	Number of tightening bolts	Bore diameter
<b>TTP</b>	<b>1012T</b>	<b>S2</b> <small>Note: 2, 3</small>	<b>4</b> <small>Note: 3</small>	<b>18</b> <small>Note: 3</small>

 TTP: TTP, TTPH, TTPT  
 (All chain types are to be specified "TTP")

- Note: 1. Do not leave space between letters and symbols.  
 2. Refer to the lock sleeve dimensions above for details.  
 3. Enter only for Lock series.

Straight Running

Sideliflexing Running

Snap Top

Gripper

Accumulation

Digest

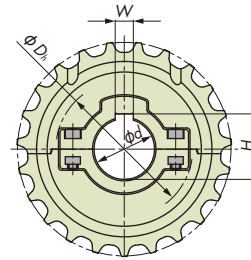
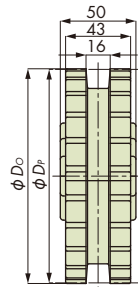
Sprockets &amp; Accessories

# Sprockets for TTP Chains

Engineering Plastic

Applicable Chain TTP, TTPH, TTPT, WT3835-K, WT3835-T

## ◆ Split Sprockets (Domestic Products)



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Keyway		Hub diameter $D_h$	Approx. mass kg	Material		Bolt tightening torque N·m{kgf·m}
							W	H			Body	Bolt/Nut	
<b>TTP-21T25</b>	21	10½	129.2	130.0	Round	φ25	8	28.3	90	0.4	Reinforced polyamide (color: black)	Stainless steel	5.7{0.58}
<b>TTP-21T30</b>						φ30	8	33.3					
<b>TTP-21T35</b>						φ35	10	38.3					
<b>TTP-21T40</b>						φ40	12	43.3					
<b>TTP-21T45</b>						φ45	14	48.8					
<b>TTP-23T25</b>	23	11½	141.2	142.0		φ25	8	28.3	90	0.5			
<b>TTP-23T30</b>						φ30	8	33.3					
<b>TTP-23T35</b>						φ35	10	38.3					
<b>TTP-23T40</b>						φ40	12	43.3					
<b>TTP-23T45</b>						φ45	14	48.8					
<b>TTP-25T25</b>	25	12½	153.2	154.5		φ25	8	28.3	94	0.5			
<b>TTP-25T30</b>						φ30	8	33.3					
<b>TTP-25T35</b>						φ35	10	38.3					
<b>TTP-25T40</b>						φ40	12	43.3					
<b>TTP-25T45</b>						φ45	14	48.8					
<b>TTP-25T50</b>					φ50	14	53.8						

Note: 1. Tsubaki model no. in boldface are standard products.

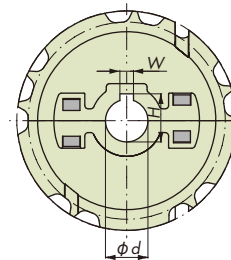
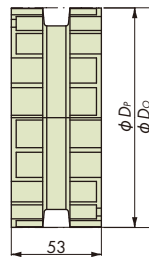
2. Operating temperature range: -20°C to 80°C

3. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

4. Cannot be used for WT3835G-M.

5. Use a cold rolled steel shaft.

## ◆ Split Sprockets (OEM Supplied Products)



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Keyway		Approx. mass kg	Material		Bolt tightening torque N·m{kgf·m}
							W	H		Body	Bolt/Nut	
<b>TP-C12057NT-SPR</b>	21	10½	129.26	129	Round	φ25	8	28.3	0.45	Reinforced polyamide (color: black)	Bolt: Stainless steel Nut: Brass + nickel-plated	6{0.61}
<b>TP-C12058NT-SPR</b>						φ30	8	33.3	0.44			
<b>TP-C12059NT-SPR</b>						φ35	10	38.3	0.42			
<b>TP-C12060NT-SPR</b>						φ40	12	43.3	0.42			
<b>TP-C12104NT-SPR</b>						φ25	8	28.3	0.48			
<b>TP-C12105NT-SPR</b>	23	11½	141.22	142		φ30	8	33.3	0.45			
<b>TP-C12106NT-SPR</b>						φ35	10	38.3	0.45			
<b>TP-C12107NT-SPR</b>						φ40	12	43.3	0.42			
<b>TP-C12069NT-SPR</b>	25	12½	153.20	154		φ25	8	28.3	0.6			
<b>TP-C12070NT-SPR</b>						φ30	8	33.3	0.59			
<b>TP-C12071NT-SPR</b>						φ35	10	38.3	0.57			
<b>TP-C12072NT-SPR</b>						φ40	12	43.3	0.55			

Note: 1. Tsubaki model no. in boldface are standard products.

2. Operating temperature range: -20°C to 80°C

3. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

4. Cannot be used for WT3835-K, WT3835-T, and WT3835G-M.

5. Use a cold rolled steel shaft.

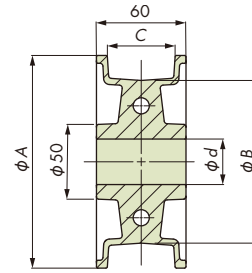
# Idler Wheels for TTP Chains

Engineering Plastic

Applicable Chain

TTP, TTPH, TTPT, TPF, TT, TP-OTD, TPS, TTUP, TTUPH, TTU, TPH, TTUPS-H, BTC8H-M, BTM8H-M, TTUPM838H, BTO8-M, WT3835G-M

## ◆ Split Idler Wheels (Domestic Products)



Tsubaki model no.	Sprocket equivalent no. of teeth (actual)	Dimensions				Approx. mass kg	Material		Bolt tightening torque N·m{kgf·m}
		A	B	C	d		Body	Bolt/Nut	
<b>TP-IW1221-25</b>	21	129.3	100	45	$\phi 25.3$	0.4	Polyacetal (color: green)	Stainless steel	9.8{1}
<b>TP-IW1221-30</b>					$\phi 30.3$				
<b>TP-IW1221-40</b>					$\phi 40.3$				
<b>TP-IW1223-30</b>	23	141.8	109	43.5	$\phi 30.3$				
<b>TP-IW1223-40</b>					$\phi 40.3$				
<b>TP-IW1225-30</b>	25	154.1	125	45	$\phi 30.3$	0.5			
<b>TP-IW1225-40</b>					$\phi 40.3$				

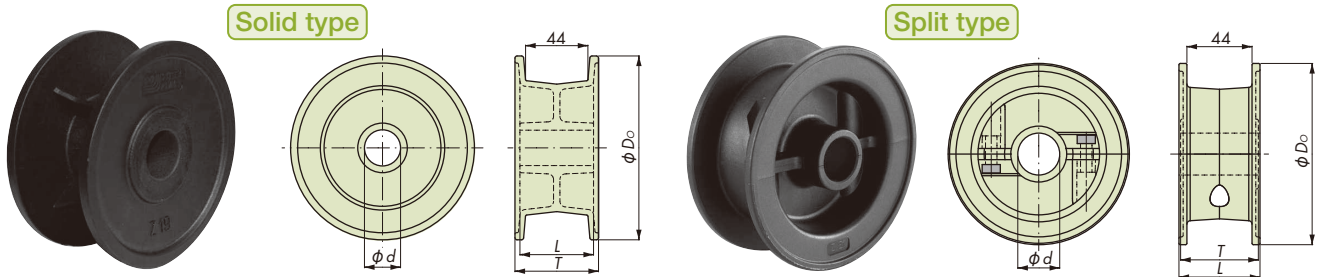
Note: 1. Tsubaki model no. in boldface are standard products.

2. Operating temperature range: -20°C to 80°C

3. When assembling the halves of the idler wheels, do not mix the halves with halves from other idler wheels.

4. Use a cold rolled steel shaft.

## ◆ Idler Wheels (OEM Supplied Products)



Tsubaki model no.	Sprocket equivalent no. of teeth (actual)	Outside diameter $D_o$	Bore diameter $d$	Hub length $L$	Width $T$	Approx. mass kg	Material	Bolt tightening torque N·m{kgf·m}	Type			
<b>TP-C12200BT-IW</b>	21	129.8	$\phi 25$	52	58	0.21	Polyamide (color: black)	6{0.61}	Solid			
<b>TP-C12201BT-IW</b>			$\phi 30$			0.21						
<b>TP-C12203BT-IW</b>			$\phi 40$			0.19						
<b>TP-C12212BT-IW</b>	23	142.2	$\phi 25$	52	58	0.20				Polyamide (color: black)	6{0.61}	Solid
<b>TP-C12213BT-IW</b>			$\phi 30$			0.20						
<b>TP-C12215BT-IW</b>			$\phi 40$			0.21						
<b>TP-C12204BT-IW</b>	25	154.7	$\phi 25$	52	58	0.23	Polyamide (color: black)	6{0.61}	Solid			
<b>TP-C12205BT-IW</b>			$\phi 30$			0.23						
<b>TP-C12207BT-IW</b>			$\phi 40$			0.25						
<b>TP-C12077BT-IW</b>	21	129.8	$\phi 25$	61	58	0.26				Bolt/Nut: Stainless steel Body: Polyamide (color: black)	6{0.61}	Split
<b>TP-C12078BT-IW</b>			$\phi 30$			0.25						
<b>TP-C12079BT-IW</b>			$\phi 35$			0.28						
<b>TP-C12080BT-IW</b>			$\phi 40$			0.25						
<b>TP-C121928BT-IW</b>	23	142.2	$\phi 25$	61	58	0.29	Bolt/Nut: Stainless steel Body: Polyamide (color: black)	6{0.61}	Split			
<b>TP-C121929BT-IW</b>			$\phi 30$			0.27						
<b>TP-C121930BT-IW</b>			$\phi 35$			0.30						
<b>TP-C121931BT-IW</b>			$\phi 40$			0.27						
<b>TP-C12081BT-IW</b>	25	154.7	$\phi 25$	61	58	0.32				Bolt/Nut: Stainless steel Body: Polyamide (color: black)	6{0.61}	Split
<b>TP-C12082BT-IW</b>			$\phi 30$			0.30						
<b>TP-C12083BT-IW</b>			$\phi 35$			0.32						
<b>TP-C12084BT-IW</b>			$\phi 40$			0.30						

Note: 1. Tsubaki model no. in boldface are standard products.

2. Operating temperature range: -20°C to 80°C

3. When assembling the halves of the idler wheels, do not mix the halves with halves from other idler wheels.

4. The shape of the solid idler wheels with 23 teeth is different from those with other numbers of teeth.

5. Cannot be used for TTUPM838H.

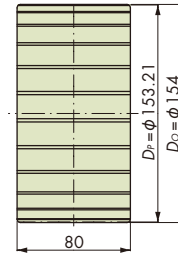
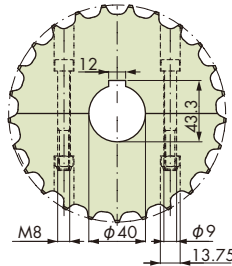
6. Use a cold rolled steel shaft.

# Sprockets & Idler Wheels for TTPDH Chains

Engineering Plastic

Applicable Chain TTPDH, TTPDH-LBP, TTPDH-Y

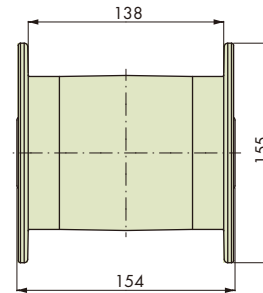
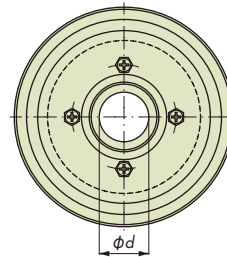
## ◆ Split Sprockets



Tsubaki model no.	Actual teeth	Effective teeth	Approx. mass kg	Material			Bolt tightening torque N·m{kgf·m}
				Body	Bolt	Nut	
<b>TP-C12295T-SPR</b>	25	12½	0.97	Polyamide (color: white)	Stainless steel	Brass + nickel-plated	6{0.61}

Note: 1. Tsubaki model no. in boldface is a standard product.  
 2. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.  
 3. Use a cold rolled steel shaft.

## ◆ Solid Idler Wheels



Tsubaki model no.	Sprocket equivalent no. of teeth (actual)	Bore diameter d	Approx. mass kg	Material	
				Body	Bolt
<b>TP-C121646T-IW</b>	25	φ35	0.76	Polyamide (color: black)	Stainless steel

Note: 1. Tsubaki model no. in boldface is a standard product.  
 2. Use a cold rolled steel shaft.

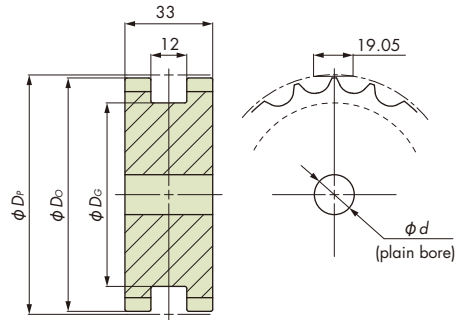


# Sprockets for TTPM Chains

Steel

Applicable Chain TTPM

## ◆ Solid Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Groove diameter $D_c$	Bore shape	Bore diameter $d$		Approx. mass kg	Material
						Plain bore	Max.		
TTPM1200T	12	73.6	73	59	Round	15	35	0.9	Carbon steel for machine structural use
TTPM1400T	14	85.6	85	70			40	1.2	
TTPM1500T	15	91.6	92	75			1.4		
TTPM1900T	19	115.7	116	100			2.4		
TTPM2100T	21	127.8	128	110			2.9		
TTPM2300T	23	139.9	141	125			3.5		

Note: 1. Tsubaki model no. in normal face are made-to-order products.

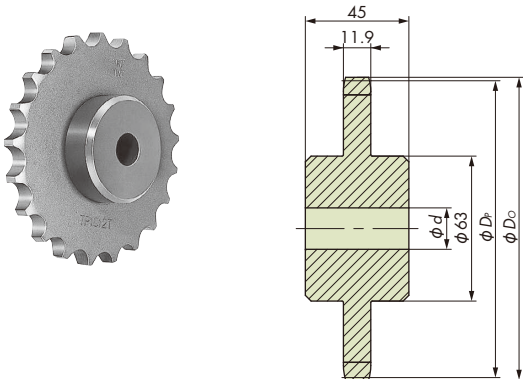
2. We also manufacture products with a number of teeth other than those specified above.

# Sprockets for TPF Chains

Steel

Applicable Chain TPF

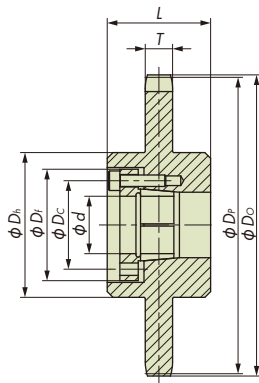
## ◆ Sprockets (With Plain Bore)



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore diameter $d$		Approx. mass kg	Material
					Plain bore	Max.		
TPF912T	19	9½	117.34	120.0	18	42	1.7	Carbon steel for machine structural use
<b>TPF1012T</b>	21	10½	129.26	131.5				
<b>TPF1112T</b>	23	11½	141.22	143.5				
<b>TPF1212T</b>	25	12½	153.20	155.5				

Note: Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face is a made-to-order product.

## ◆ Sprockets (Lock Series)



Tsubaki model no.	Actual teeth	Effective teeth	Dimensions				Applicable bore diameter $d$						
			Pitch diameter $D_p$	Outside diameter $D_o$	Tooth width $T$	Hub diameter $D_h$	L	15	20	25	30	35	
TPF912T-S24□□	19	9½	117.34	120.0	11.9	63	45	●	●				
TPF912T-S34□□										●			
TPF912T-S44□□											●	●	
TPF1012T-S24□□	21	10½	129.26	131.5				●	●				
TPF1012T-S34□□										●			
TPF1012T-S44□□											●	●	
TPF1112T-S24□□	23	11½	141.22	143.5				●	●				
TPF1112T-S34□□										●			
TPF1112T-S44□□											●	●	
TPF1212T-S24□□	25	12½	153.20	155.5				●	●				
TPF1212T-S34□□										●			
TPF1212T-S44□□											●	●	

## ■ Lock Sleeve Dimensions

Sleeve no.	$D_f$	$D_c$	Bolt size M x L	Bolt tightening torque N·m
S2	42.0	32.0	M5×18	8.3
S3	48.5	38.5	M5×20	8.3
S4	56.0	46.0	M5×20	8.3

## ■ Sleeve Combinations and Transfer Torque Values

Sleeve no.	S2						S3				S4		
	Bore diameter $d$												
Bore diameter $d$	15	16	17	18	19	20	22	24	25	28	30	32	35
Sprocket type	Max. allowable transfer torque N·m												
TPF912T													
TPF1012T	105	112	119	126	133	139	153	167	174	195	279	298	325
TPF1112T													
TPF1212T													

## Model Numbering

### ◆ Sprockets

Chain type	Effective teeth	Sleeve no.	Number of tightening bolts	Bore diameter
<b>TPF</b>	<b>1012T</b>	<b>S2</b> <small>Note: 2, 3</small>	<b>4</b> <small>Note: 3</small>	<b>18</b> <small>Note: 3</small>

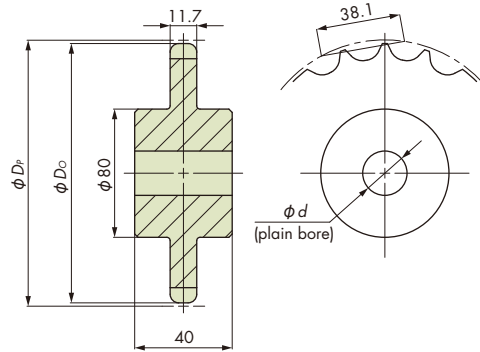
Note: 1. Do not leave space between letters and symbols.  
 2. Refer to the lock sleeve dimensions above for details.  
 3. Enter only for Lock series.

# Sprockets for TP-OTD Chains

Steel

Applicable Chain TP-OTD

## ◆ Solid Sprockets



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore diameter $d$		Approx. mass kg	Material
					Plain bore	Max.		
TP-OTD1012T	21	10½	129.2	129	20	40	2.1	Carbon steel for machine structural use
TP-OTD1112T	23	11½	141.2	141				

Note: 1. Tsubaki model no. in normal face are made-to-order products.

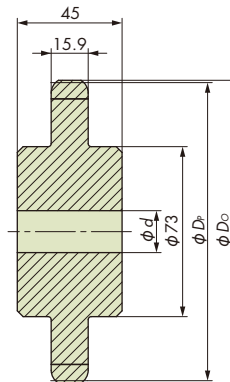
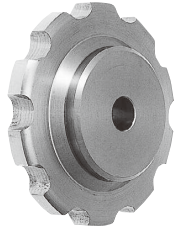
2. We also manufacture products with a number of teeth other than those specified above.

# Sprockets for TPS Chains

Steel

**Applicable Chain**

TPS, TPH, TTUP, TTUPH, TPU, TPU-LH, TPUT-LH, TPUH-BO, TTUP-M, TTUPT-M (some models can also be used with TPM or TPUM), TPU-USR, TP-880TAB, TTUP-LLPC

**◆ Sprockets (With Plain Bore)**


Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore diameter $d$		Approx. mass kg	Material
					Plain bore	Max.		
TTUP900T	-	9	111.40	111	18	47	2.0	Carbon steel for machine structural use
TTUP912T	19	9½	117.34	117			2.1	
<b>TTUP1000T</b>	-	10	123.29	123			2.2	
<b>TTUP1012T</b>	21	10½	129.26	130			2.4	
<b>TTUP1100T</b>	-	11	135.23	135			2.6	
<b>TTUP1112T</b>	23	11½	141.22	142			2.8	
<b>TTUP1200T</b>	-	12	147.21	147			3.0	
<b>TTUP1212T</b>	25	12½	153.20	154			3.2	
<b>TTUP1300T</b>	-	13	159.20	159			3.4	

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.

Note: 2. Only TTUP1012T, TTUP1112T and TTUP1212T can be used with TPM and TPUM chains. Contact a Tsubaki representative for the other number of teeth and sprockets made of engineering plastic.

## Model Numbering

**◆ Sprockets**

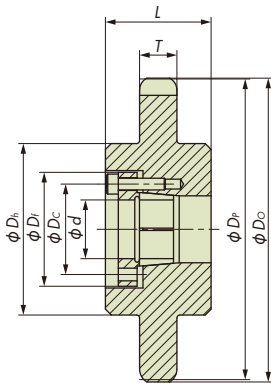
Chain type	Effective teeth	Sleeve no.	Number of tightening bolts	Bore diameter
<b>TTUP</b>	<b>1012T</b>	<b>S2</b> <small>Note: 2, 3</small>	<b>4</b> <small>Note: 3</small>	<b>18</b> <small>Note: 3</small>

Note: 1. Do not leave space between letters and symbols.

Note: 2. Refer to the lock sleeve dimensions for details.

Note: 3. Enter only for Lock series.

◆ Sprockets (Lock Series)



■ Lock Sleeve Dimensions

Sleeve no.	$D_f$	$D_c$	Bolt size M x L	Bolt tightening torque N·m
S2	42.0	32.0	M5×18	8.3
S3	48.5	38.5	M5×20	8.3
S4	56.0	46.0	M5×20	8.3
S5	66.0	56.0	M5×22	8.3

Tsubaki model no.	Actual teeth	Effective teeth	Dimensions					Applicable bore diameter $d$											
			Pitch diameter $D_p$	Outside diameter $D_o$	Tooth width $T$	Hub diameter $D_h$	$L$	15	20	25	30	35	40	45					
TTUP900T-S24□□	-	9	111.40	111	15.9	73	45	●	●										
TTUP900T-S34□□										●									
TTUP900T-S44□□											●	●							
TTUP900T-S55□□													●	●					
TTUP912T-S24□□	19	9½	117.34	117	15.9	73	45	●	●										
TTUP912T-S34□□										●									
TTUP912T-S44□□											●	●							
TTUP912T-S55□□													●	●					
TTUP1000T-S24□□	-	10	123.29	123	15.9	73	45	●	●										
TTUP1000T-S34□□										●									
TTUP1000T-S44□□											●	●							
TTUP1000T-S55□□													●	●					
TTUP1012T-S24□□	21	10½	129.26	130	15.9	73	45	●	●										
TTUP1012T-S34□□										●									
TTUP1012T-S44□□											●	●							
TTUP1012T-S55□□													●	●					
TTUP1100T-S24□□	-	11	135.23	135	15.9	73	45	●	●										
TTUP1100T-S34□□										●									
TTUP1100T-S44□□											●	●							
TTUP1100T-S55□□													●	●					
TTUP1112T-S24□□	23	11½	141.22	142	15.9	73	45	●	●										
TTUP1112T-S34□□										●									
TTUP1112T-S44□□											●	●							
TTUP1112T-S55□□													●	●					
TTUP1200T-S24□□	-	12	147.21	147	15.9	73	45	●	●										
TTUP1200T-S34□□										●									
TTUP1200T-S44□□											●	●							
TTUP1200T-S55□□													●	●					
TTUP1212T-S24□□	25	12½	153.20	154	15.9	73	45	●	●										
TTUP1212T-S34□□										●									
TTUP1212T-S44□□											●	●							
TTUP1212T-S55□□													●	●					
TTUP1300T-S24□□	-	13	159.20	159	15.9	73	45	●	●										
TTUP1300T-S34□□										●									
TTUP1300T-S44□□											●	●							
TTUP1300T-S55□□													●	●					

■ Sleeve Combinations and Transfer Torque Values

Sleeve no.	S2					S3			S4			S5					
Bore diameter $d$	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45
Sprocket type	Max. allowable transfer torque N·m																
TTUP900T	139	149	158	167	177	186	205	167	174	195	279	298	325	442	465	488	523
TTUP1300T																	

Straight Running

Sideliflexing Running

Snap Top

Gripper

Accumulation

Digest

Sprockets & Accessories

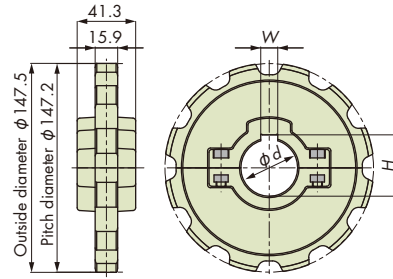
# Sprockets & Idler Sprockets for TPS Chains

Engineering Plastic

Applicable Chain

TPS, TPH, TTUP, TTUP-LLPC, TTUPH, TPU, TPU-LH, TPUT-LH, TPU-USR, TPUH-BO, TTUP-M, TTUPT-M, TP-880TAB

## ◆ Split Sprockets (Domestic Products)



Tsubaki model no.	Teeth	Bore shape	Bore diameter $d$	Keyway		Approx. mass kg	Material			Bolt tightening torque N·m{kgf·m}
				W	H		Body	Bolt/Nut		
<b>TTUP-12T25</b>	12	Round	$\phi 25$	8	28.3	0.4	Reinforced polyamide (color: black)	Stainless steel	5.7{0.58}	
<b>TTUP-12T30</b>			$\phi 30$	8	33.3					
<b>TTUP-12T35</b>			$\phi 35$	10	38.3					
<b>TTUP-12T40</b>			$\phi 40$	12	43.3					
<b>TTUP-12T45</b>			$\phi 45$	14	48.8					

Note: 1. Tsubaki model no. in boldface are standard products.

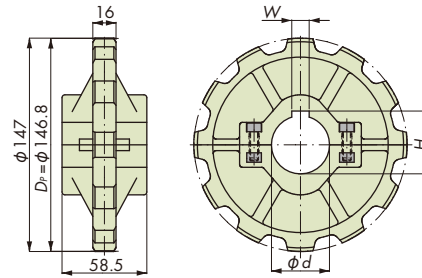
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ 

3. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

4. Cannot be used for TPM and TPUM.

5. Use a cold rolled steel shaft.

## ◆ Split Sprockets (OEM Supplied Products)



Tsubaki model no.	Teeth	Bore shape	Bore diameter $d$	Keyway		Approx. mass kg	Material			Bolt tightening torque N·m{kgf·m}
				W	H		Body	Bolt	Nut	
<b>TP-C12400T-SPR</b>	12	Round	$\phi 25$	8	28.3	0.38	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	6{0.61}
<b>TP-C12711T-SPR</b>			$\phi 30$	8	33.3	0.37				
<b>TP-C12401T-SPR</b>			$\phi 35$	10	38.3	0.35				
<b>TP-C12402T-SPR</b>			$\phi 40$	12	43.3	0.35				

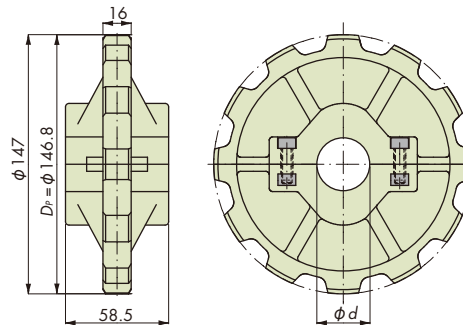
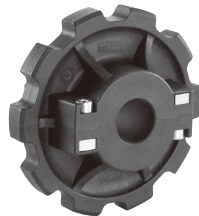
Note: 1. Tsubaki model no. in boldface are standard products.

 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ 

3. Cannot be used for TPM and TPUM.

4. Use a cold rolled steel shaft.

## ◆ Split Idler Sprockets



Tsubaki model no.	Teeth	Bore shape	Bore diameter $d$	Approx. mass kg	Material			Bolt tightening torque N·m{kgf·m}
					Body	Bolt	Nut	
<b>TP-C12404T-IW</b>	12	Round	$\phi 30$	0.31	Polyamide (color: black)	Stainless steel	Brass + nickel-plated	6{0.61}

Note: 1. Tsubaki model no. in boldface is a standard product.

 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$ 

3. Cannot be used for TPM and TPUM.

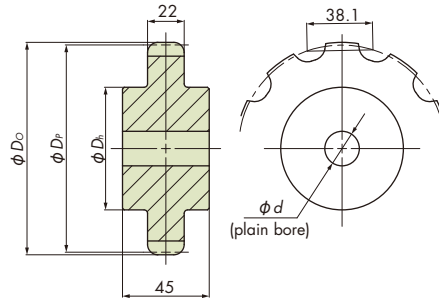
4. Use a cold rolled steel shaft.

# Sprockets for TPSS Chains

Steel

Applicable Chain TPSS, TTUPS, TPUS, TPUS-Y-T, TPUS-Y-LAP, TPUS-LBP

## ◆ Solid Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore shape	Bore diameter $d$		Approx. mass kg	Material
						Plain bore	Max.		
TPSS900T	9	111.40	111	71	Round	$\phi 20$	$\phi 35$	1.9	Carbon steel for machine structural use
TPSS1000T	10	123.29	124					2.3	
TPSS1100T	11	135.23	136					2.7	
TPSS1200T	12	147.21	149					3.1	
TPSS1300T	13	159.20	161					3.6	
TPSS1400T	14	171.22	173					4.1	
TPSS1500T	15	183.25	186					4.6	

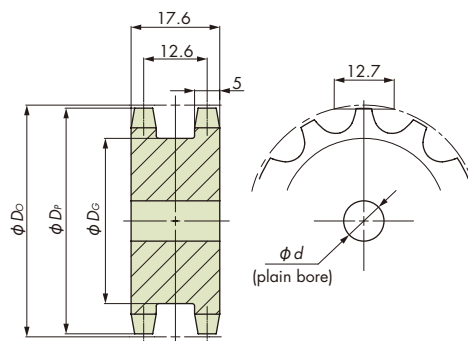
Note: 1. Tsubaki model no. in normal face are made-to-order products.  
 2. We also manufacture products with a number of teeth other than those specified above.

# Sprockets for TTUPM-P Chains

Engineering Plastic

Applicable Chain TTUPM-P, TTUPM-PC

## ◆ Solid Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Groove diameter $D_g$	Bore shape	Bore diameter $d$		Approx. mass kg	Material
						Plain bore	Max.		
TTUPM1100T	11	45.1	45.0	32	Round	$\phi 8$	$\phi 20$	0.03	UHMW-PE (color: green)
TTUPM1300T	13	53.1	53.3	40			$\phi 25$	0.04	
TTUPM1500T	15	61.1	61.4	48			$\phi 30$	0.05	

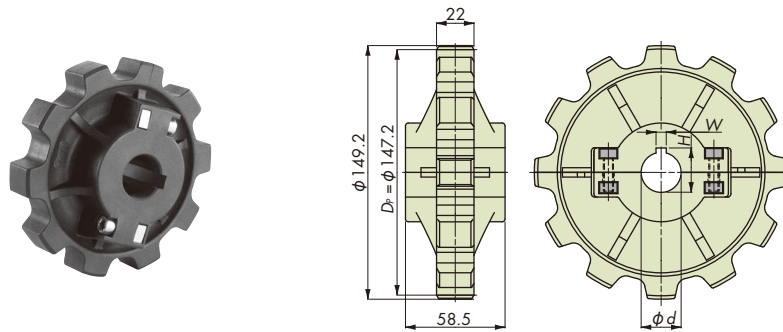
Note: 1. Tsubaki model no. in normal face are made-to-order products.  
 2. Operating temperature range is  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ . Use stainless steel sprockets (made-to-order product) when operating temperatures exceed  $60^{\circ}\text{C}$ .

# Sprockets & Idler Sprockets for TPUS Chains

Engineering Plastic

Applicable Chain TPUS, TPUS-Y-T, TPUS-LBP, TPUS-Y-LAP, TPSS, TTUPS

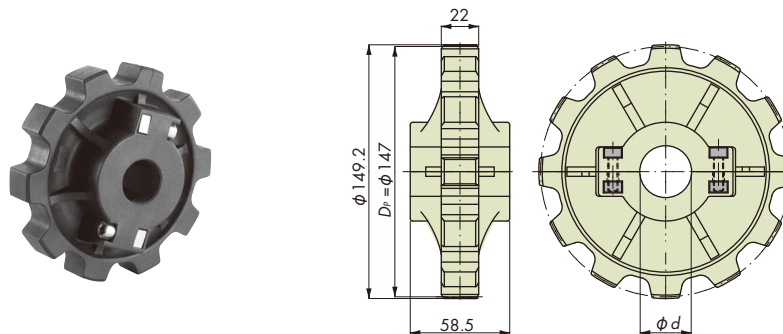
## ◆ Split Sprockets



Tsubaki model no.	Teeth	Bore shape	Bore diameter $d$	Keyway		Approx. mass kg	Material			Bolt tightening torque N·m{kgf·m}
				W	H		Body	Bolt	Nut	
<b>TP-C12115T-SPR</b>	12	Round	$\phi 30$	8	33.3	0.37	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	6{0.61}
<b>TP-C12117T-SPR</b>			$\phi 40$	12	43.3					

Note: 1. Tsubaki model no. in boldface are standard products.  
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$   
 3. Use a cold rolled steel shaft.

## ◆ Split Idler Sprockets



Tsubaki model no.	Teeth	Bore shape	Bore diameter $d$	Approx. mass kg	Material			Bolt tightening torque N·m{kgf·m}
					Body	Bolt	Nut	
<b>TP-C12120T-IW</b>	12	Round	$\phi 30$	0.33	Polyamide (color: black)	Stainless steel	Brass + nickel-plated	6{0.61}
<b>TP-C12122T-IW</b>			$\phi 40$	0.30				

Note: 1. Tsubaki model no. in boldface are standard products.  
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$   
 3. Use a cold rolled steel shaft.



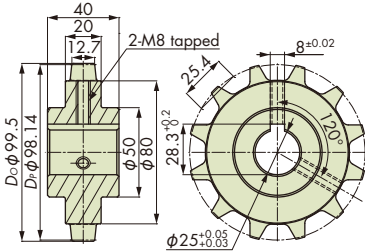
# Sprockets for TTUPS-H Chains

Steel

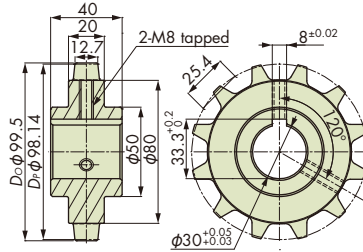
Applicable Chain **TTUPS-H, BTC8H-M, BTM8H-M**

## ◆ Solid Sprockets

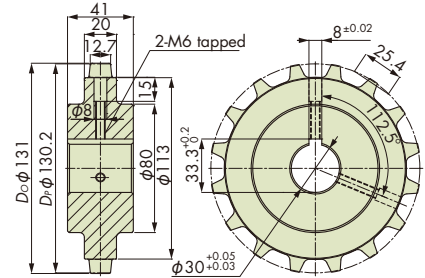
**BT8H-12T25-CS**



**BT8H-12T30-CS**



**BT8H-16T30-CS**

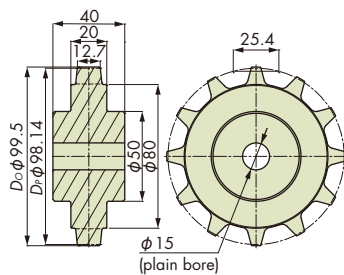


Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$	Applicable shaft	Approx. mass kg	Material
<b>BT8H-12T25-CS</b>	12	98.14	99.5	Round	$\phi 25$	Round 25 cold rolled steel shaft	1.1	Carbon steel for machine structural use
<b>BT8H-12T30-CS</b>					$\phi 30$	Round 30 cold rolled steel shaft	1.0	
<b>BT8H-16T30-CS</b>	16	130.2	131		$\phi 30$	Round 30 cold rolled steel shaft	2.3	

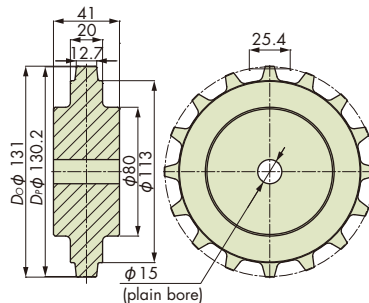
- Note: 1. Tsubaki model no. in boldface are standard products.  
 2. The teeth of all sprockets table above have not been hardened.  
 3. Contact a Tsubaki representative for the number of teeth and materials other than those described above.  
 4. Set screws are not included.  
 5. Cannot be used for WT2505 (including M and G-M), WT2506, and BTM8H (wide type).

## ◆ Solid Sprockets (With Plain Bore)

**BT8H-12T-CS**



**BT8H-16T-CS**



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore shape	Bore diameter $d$		Approx. mass kg	Material
					Plain bore	Max.		
<b>BT8H-12T-CS</b>	12	98.14	99.5	Round	$\phi 15$	$\phi 30$	1.2	Carbon steel for machine structural use
<b>BT8H-16T-CS</b>	16	130.2	131		$\phi 15$	$\phi 50$	2.5	

- Note: 1. Tsubaki model no. in boldface are standard products.  
 2. The teeth of all sprockets table above have not been hardened.  
 3. Contact a Tsubaki representative for the number of teeth and materials other than those described above.  
 4. Set screws are not included.  
 5. Cannot be used for WT2505 (including M and G-M), WT2506, and BTM8H (wide type).

## Model Numbering

Chain type

**BT8H**

Teeth

**- 12T**

Type

**30**

Material mark

**- CS**

No code: Plain bore  
 25:  $\phi 25$   
 30:  $\phi 30$

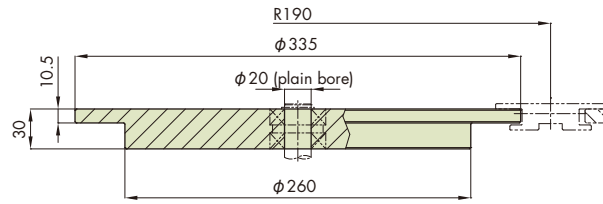
CS: Carbon steel

Note: Do not leave space between letters and symbols.

# Corner Disc for TPU-USR Chains

Engineering Plastic

Applicable Chain TPU-USR



Tsubaki model no.	Material	Material grade	Color	Remark
TPU826USR-CD-R190	UHMW-PE	10-100	White	Carry-way Return-way

Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Operating temperature range: -20°C to 60°C  
 3. Plain bore product. Available for bearing-assembled product upon request.

Straight Running

Sideflexing Running

Snap Top

Gripper

Accumulation

Digest

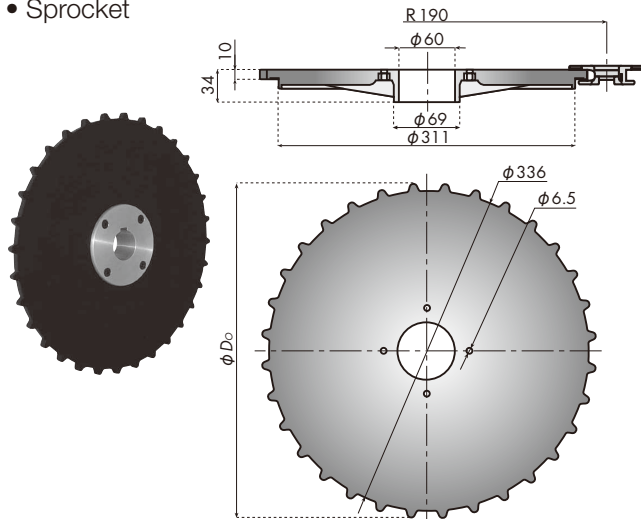
Sprockets &amp; Accessories

Applicable Chain TPUH-BO

## ◆ Sprockets for Horizontal Drive

\* Please use the main body and hub together.

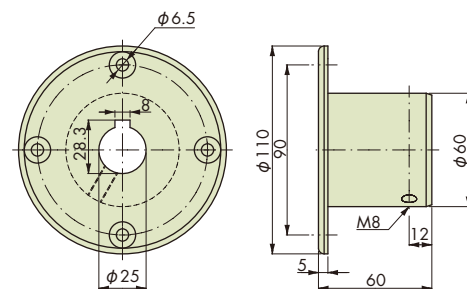
### • Sprocket



Tsubaki model no.	Teeth	Outside diameter $D_O$	Material
<b>TP-C12781LT-SPR</b>	32	352	Polyamide (color: black)

- Note: 1. Tsubaki model no. in boldface is a standard product.  
 2. For applications other than horizontal bend drive, use sprockets for TPS. Refer to page 259, 260 and 261 for the list of products.  
 3. Do not use to convey unstable containers. They may wobble or tip over during conveyance.  
 4. Use in combination with hub, TP-C12773T-HB.

### • Hub

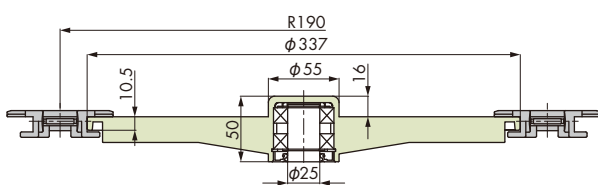


Tsubaki model no.	Material
<b>TP-C12773T-HB</b>	Aluminum

- Note: 1. Tsubaki model no. in boldface is a standard product.  
 2. Use in combination TP-C12781LT-SPR.  
 3. Four sets of M6 bolts and nuts (stainless steel) are included.  
 4. Contact a Tsubaki representative if a bore with a different diameter is required.

## ◆ Corner Discs

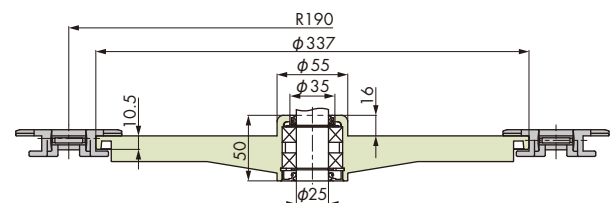
### • For carry-way



Tsubaki model no.  
**TP-C12779T-CD**

- Note: 1. Tsubaki model no. in boldface is a standard product.  
 2. Disc: Polyamide (color: black)  
 3. Bearing: Type 6005-2RS (25 x 47 x 12)  
 4. Seal ring: NBR  
 5. Retaining ring: φ25 mm (DIN 471)  
 6. Approx. mass: 0.98 kg/disc  
 7. Chain sideflex radius R: 190 mm  
 8. Operating temperature range: -20°C to 60°C  
 9. Not recommended for conveying unstable containers.  
 10. The only difference between the corner disc for return-way and carry-way is whether the shaft can extend through it or not.  
 11. Bearings and seal-ring seals are packaged separately and shipped in the same container as the disc unit.

### • For return-way



Tsubaki model no.  
**TP-C12777T-CD**

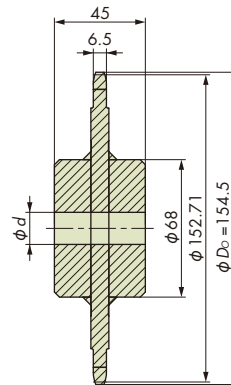
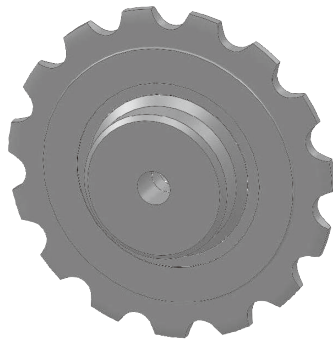
- Note: 1. Tsubaki model no. in boldface is a standard product.  
 2. Disc: Polyamide (color: black)  
 3. Bearing: Type 6005-2RS (25 x 47 x 12)  
 4. Seal ring: NBR  
 5. Retaining ring: φ25 mm (DIN 471)  
 6. Approx. mass: 0.98 kg/disc  
 7. Chain sideflex radius R: 190 mm  
 8. Operating temperature range: -20°C to 60°C  
 9. Not recommended for conveying unstable containers.  
 10. The only difference between the corner disc for return-way and carry-way is whether the shaft can extend through it or not.  
 11. Bearings and seal-ring seals are packaged separately and shipped in the same container as the disc unit.

# Sprockets for TPUSR Chains

Steel

Applicable Chain TPUSR550-T, TPUSR826-T

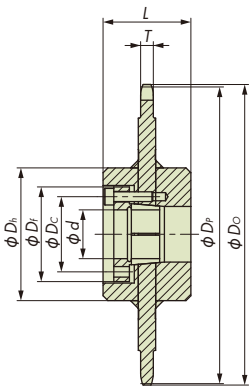
## ◆ Sprockets (With Plain Bore)



Tsubaki model no.	Teeth	Pitch diameter $D_P$	Bore diameter		Approx mass kg	Material
			Plain bore	Max.		
<b>TPUSR1500T</b>	15	152.71	15.9	45	2.0	Carbon steel for machine structural use (teeth) Rolled steel for general structure (hub)
<b>TPUSR1500T-SS</b>						Stainless steel

Note: 1. Tsubaki model no. in boldface are standard products. (only for plain bore types)  
2. Contact a Tsubaki representative for the number of teeth and materials other than those described above.

## ◆ Sprockets (Lock Series)



### ■ Lock Sleeve Dimensions

Sleeve no.	$D_f$	$D_c$	Bolt size M x L	Bolt tightening torque N·m
S2	42.0	32.0	M5×18	8.3
S3	48.5	38.5	M5×20	8.3
S4	56.0	46.0	M5×20	8.3

Tsubaki model no.	Actual teeth	Dimensions					Applicable bore diameter $d$				
		Pitch diameter $D_P$	Outside diameter $D_o$	Tooth width $T$	Hub diameter $D_h$	$L$	15	20	25	30	35
TPUSR1500T-S24 <input type="checkbox"/>	15	152.71	154.5	6.5	68	45	●	●			
TPUSR1500T-S34 <input type="checkbox"/>									●		
TPUSR1500T-S44 <input type="checkbox"/>										●	●

Note: Contact a Tsubaki representative for the applicable bore diameters other than those described above.

### ■ Sleeve Combinations and Transfer Torque Values

Sleeve no.	S2								S3			S4		
	15	16	17	18	19	20	22	24	25	28	30	32	35	
Bore diameter $d$	Max. allowable transfer torque N·m													
Sprocket type	Max. allowable transfer torque N·m													
TPUSR1500T	139	149	158	167	177	186	205	167	174	195	279	298	325	

Note: Only carbon-steel-made lock sleeves are available.

## Model Numbering

### ◆ Sprockets

Chain type	Effective teeth	Sleeve no.	Number of tightening bolts	Bore diameter
<b>TPUSR</b>	<b>1500T</b>	<b>S2</b> <small>Note: 2, 3</small>	<b>4</b> <small>Note: 3</small>	<b>18</b> <small>Note: 3</small>

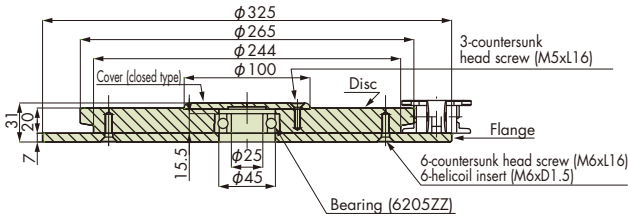
Note: 1. Do not leave space between letters and symbols.  
2. Refer the lock sleeve dimensions above for details.  
3. Enter only for Lock series.

# Corner Discs for TPUSR Chains

Engineering Plastic

Applicable Chain TPUSR550

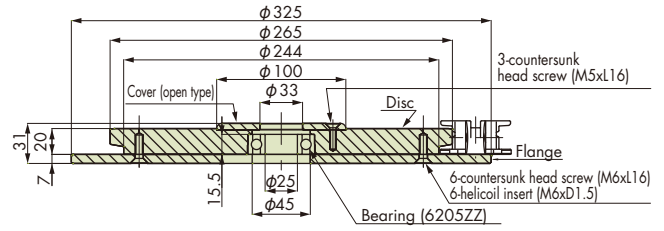
## • For carry-way



Tsubaki model no.  
TPUSR550-CD-R150C

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.
- Disc: UHMW-PE (color: white)
  - Flange: UHMW-PE (color: white)
  - Cover: UHMW-PE (color: white)
  - Countersunk head screw: Stainless steel
  - Approx. mass: 1.0 kg/disc
  - Chain sideflex radius R = 150mm
  - Contact a Tsubaki representative for dimensions, bearings and materials other than those described above.
  - Operating temperature range: -20°C to 60°C
  - Recommended to use under dry conditions. Also available for the product with bearings made of stainless steel suitable for wet conditions.

## • For return-way

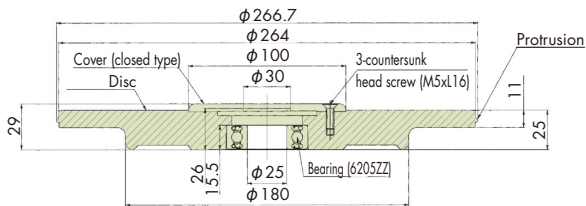


Tsubaki model no.  
TPUSR550-CD-R150R

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.
- Disc: UHMW-PE (color: white)
  - Flange: UHMW-PE (color: white)
  - Cover: UHMW-PE (color: white)
  - Countersunk head screw: Stainless steel
  - Approx. mass: 1.0kg/disc
  - Chain sideflex radius R = 150mm
  - Contact a Tsubaki representative for dimensions, bearings and materials other than those described above.
  - Operating temperature range: -20°C to 60°C
  - Recommended to use under dry conditions. Also available for products with bearings made of stainless steel suitable for wet conditions.

Applicable Chain TPUSR826

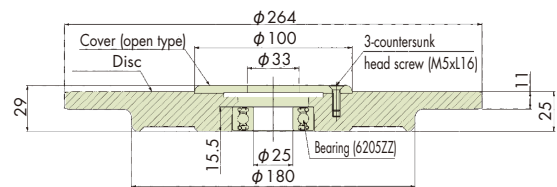
## • For carry-way



Tsubaki model no.  
TPUSR826-CD-R150C

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.
- Disc: UHMW-PE (color: green)
  - Cover: UHMW-PE (color: green)
  - Countersunk head screw: Stainless steel
  - Approx. mass: 1.0 kg/disc
  - Chain sideflex radius R = 150mm
  - Contact a Tsubaki representative for dimensions, bearings and materials other than those described above.
  - Operating temperature range: -20°C to 60°C
  - Recommended to use under dry conditions. Also available for products with bearings made of stainless steel suitable for wet conditions.

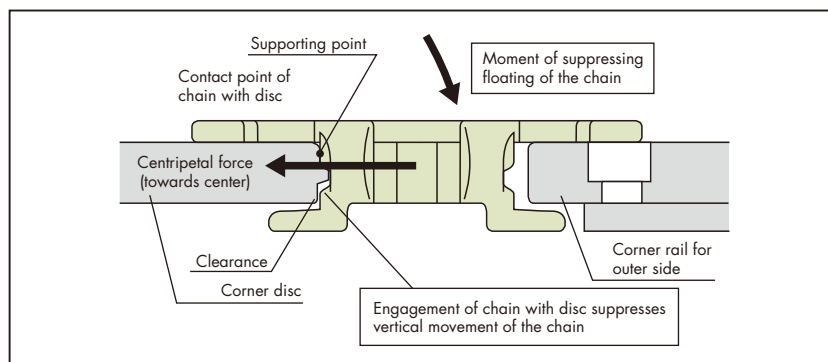
## • For return-way



Tsubaki model no.  
TPUSR826-CD-R150R

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.
- Disc: UHMW-PE (color: green)
  - Cover: UHMW-PE (color: green)
  - Countersunk head screw: Stainless steel
  - Approx. mass: 1.0 kg/disc
  - Chain sideflex radius R = 150mm
  - Contact a Tsubaki representative for dimensions, bearings and materials other than those described above.
  - Operating temperature range: -20°C to 60°C
  - Recommended to use under dry conditions. Also available for products with bearings made of stainless steel suitable for wet conditions.

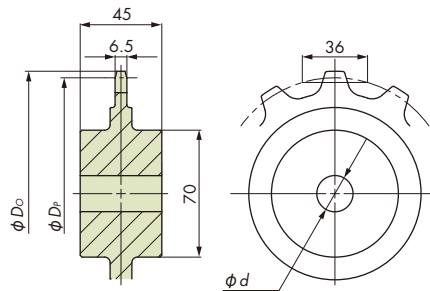
## ◆ Float-preventive Mechanism



# Sprockets, Idler Wheels, Turn Discs for TP-UB36 Chains

Applicable Chain TP-UB36

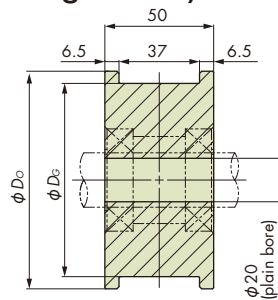
## ◆ Solid Sprockets (Steel)



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore diameter $d$		Approx. mass kg	Material
				Plain bore	Max.		
TP-UB1100T	11	127.8	135	$\phi 20$	$\phi 40$	1.8	Carbon steel for machine structural use
TP-UB1200T	12	139.1	147				
TP-UB1300T	13	150.4	159				

Note: Tsubaki model no. in normal face are made-to-order products.

## ◆ Solid Idler Wheels (Special Engineering Plastic)

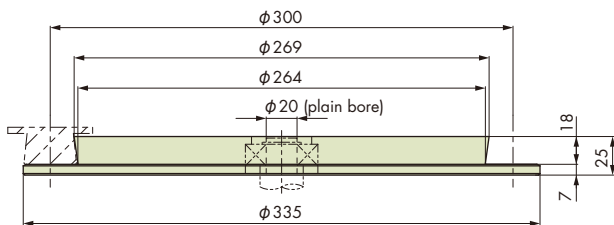


Tsubaki model no.	Equivalent no. of teeth	Outside diameter $D_o$	Groove diameter $D_g$	Approx. mass kg	Material
TP-IW36UB1100T	11	112	100	0.4	UHMW-PE (color: white)
TP-IW36UB1200T	12	124	112	0.5	
TP-IW36UB1300T	13	136	124	0.6	

 Note: 1. Tsubaki model no. in normal face are made-to-order products.  
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ 

## ◆ Turn Discs (Machined Type)

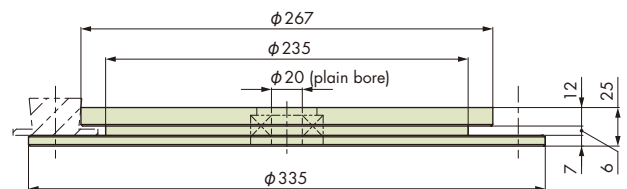
• For carry-way



Tsubaki model no.	Material	Material grade	Color
PR-TP-UB36TW-D	UHMW-PE	10-100	White

 Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Available for bearing-assembled product upon request.  
 3. Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ 

• For return-way



Tsubaki model no.	Material	Material grade	Color
PR-TP-UB36TW-R	UHMW-PE	10-100	White

 Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Available for bearing-assembled product upon request.  
 3. Operating temperature range:  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$

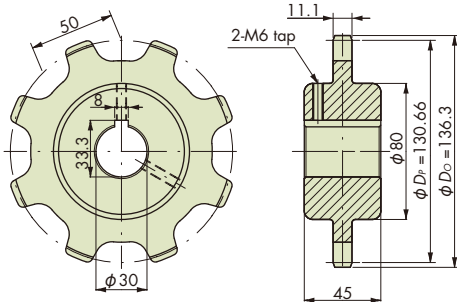
# Sprockets & Idler Sprockets for TPUN Chains

Engineering Plastic

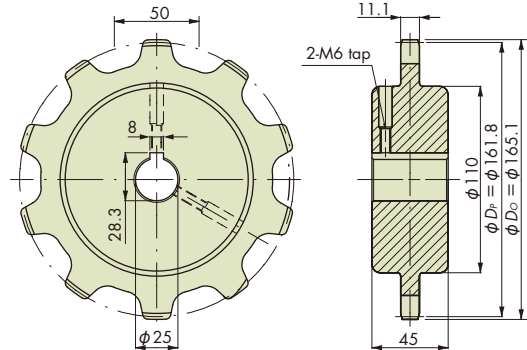
Applicable Chain TPUN555, TPUN550-LH, TPUN535-LH, TP-50UNS, TP-50UNS-D76

## ◆ Solid Sprockets

TP-C213959T-SPR

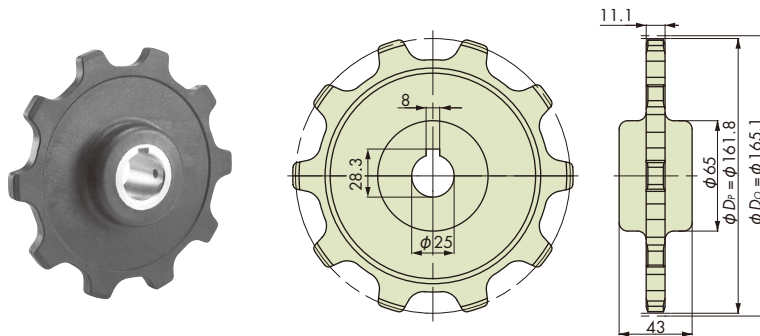


TP-C213961T-SPR



Tsubaki model no.	Teeth	Approx. mass kg	Material
<b>TP-C213959T-SPR</b>	8	0.29	Polyamide (color: white)
<b>TP-C213961T-SPR</b>	10	0.44	

- Note: 1. Tsubaki model no. in boldface are standard products.  
 2. Operating temperature range: -20°C to 80°C  
 3. The split type sprockets (10 teeth: TP-C12746T-SPR, 8 teeth: TP-C12732T-SPR) were discontinued as of October 2012.  
 4. Use a cold rolled steel shaft.

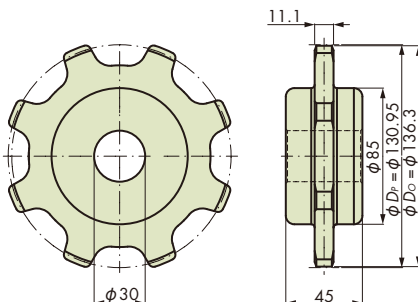


Tsubaki model no.	Teeth	Approx. mass kg	Material	
			Body	Shaft
<b>TP-C12721T-SPR</b>	10	0.5	Reinforced polyamide (color: black)	Brass

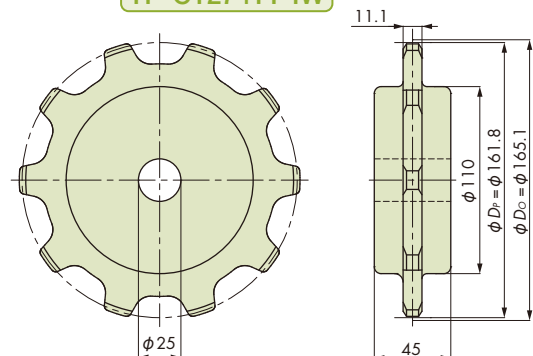
- Note: 1. Tsubaki model no. in boldface is a standard product.  
 2. Operating temperature range: -20°C to 80°C  
 3. Use a cold rolled steel shaft.

## ◆ Solid Idler Sprockets

TP-C12737T-IW



TP-C12741T-IW



Tsubaki model no.	Teeth	Approx. mass kg	Material
<b>TP-C12737T-IW</b>	8	0.29	Polyamide (color: white)
<b>TP-C12741T-IW</b>	10	0.57	

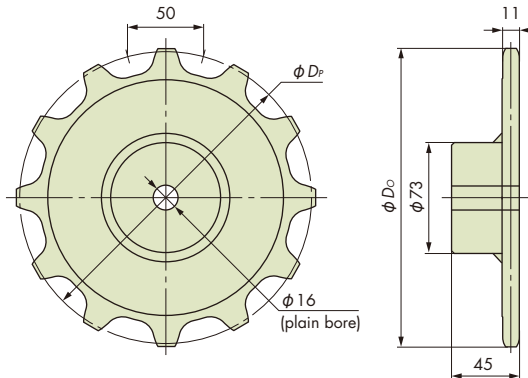
- Note: 1. Tsubaki model no. in boldface are standard products.  
 2. Operating temperature range: -20°C to 80°C  
 3. Use a cold rolled steel shaft.

# Sprockets for TPUN Chains

Steel

Applicable Chain TPUN555, TPUN550-LH, TPUN535-LH, TP-50UNS, TP-50UNS-D76

## ◆ Sprockets (With Plain Bore)



Tsubaki model no.	Effective teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Approx. mass kg	Material	Construction
<b>TPUN555-800TQ</b>	8	130.6	134	1.9	Carbon steel for machine structural use (teeth/hub)	Machined
<b>TPUN555-1000TQ</b>	10	161.8	163	2.7		
<b>TPUN555-1200TQ</b>	12	193.2	198	3.1	Carbon steel for machine structural use (teeth) Rolled steel for general structure (hub)	Welded

Note: 1. Only products with a plain bore are standard.  
 2. Contact a Tsubaki representative for the number of teeth and materials other than those described above.  
 3. Teeth of all sprockets above have been hardened.

## Model Numbering

### ◆ Sprockets (With Plain Bore)

Chain type

Effective teeth

Teeth hardening

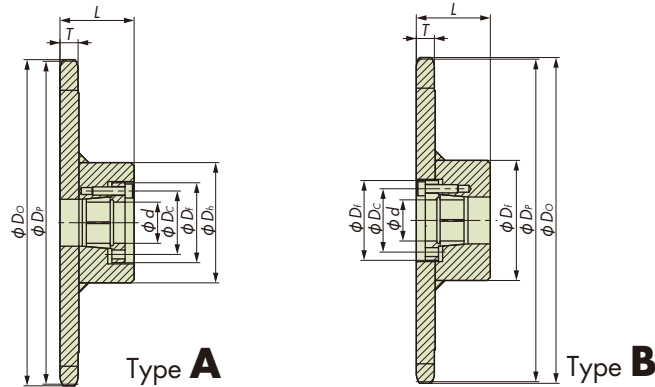
**TPUN555 - 1000T**
**Q**

1000T=10 teeth

Note: Do not leave space between letters and symbols.



◆ Sprockets (Lock Series)



■ Lock Sleeve Dimensions

Sleeve no.	$D_f$	$D_c$	Bolt size M x L	Bolt tightening torque N·m
S2	42.0	32.0	M5x18	8.3
S3	48.5	38.5	M5x20	8.3
S4	56.0	46.0	M5x20	8.3
S5	66.0	56.0	M5x22	8.3

Tsubaki model no.	Actual teeth	Dimensions					Applicable bore diameter $d$										
		Pitch diameter $D_p$	Outside diameter $D_o$	Tooth width $T$	Hub diameter $D_h$	$L$	15	20	25	30	35	40	45				
TPUN555-800TQ-S2□□	8	130.6	134	8.8	73	45	●	●									
TPUN555-800TQ-S34□□									●								
TPUN555-800TQ-S44□□										●	●						
TPUN555-800TQ-S55□□												●				●	●
TPUN555-1000TQ-S25□□	10	161.8	163	8.8	73	45	●	●									
TPUN555-1000TQ-S34□□									●								
TPUN555-1000TQ-S44□□										●	●						
TPUN555-1000TQ-S55□□												●				●	●
TPUN555-1200TQ-S25□□	12	193.2	198	8.8	73	45	●	●									
TPUN555-1200TQ-S34□□									●								
TPUN555-1200TQ-S44□□										●	●						
TPUN555-1200TQ-S55□□												●				●	●

■ Sleeve Combinations and Transfer Torque Values

Sleeve no.	S2							S3			S4			S5			
	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45
Bore diameter $d$	Max. allowable transfer torque N·m																
Sprocket type																	
TPUN555-800TQ	139	149	158	167	177	186	205	167	174	195	279	298	325	442	465	586	628
TPUN555-1000TQ	174	186	198	209	221	232	256										
TPUN555-1200TQ																	

Model Numbering

◆ Sprockets (Lock Sprockets)

Chain type	Effective teeth	Teeth hardening	Sleeve no.	Number of tightening bolts	Bore diameter	Mounting position of lock sleeve
<b>TPUN555</b>	<b>1000T</b> 1000T=10 teeth	<b>Q</b>	<b>S2</b> <small>Note: 2</small>	<b>4</b>	<b>18</b>	<b>A</b>
						A: Mount to hub B: Mount to sprocket

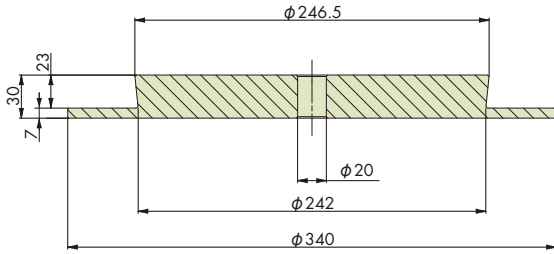
Note: 1. Do not leave space between letters and symbols.  
2. Refer to the lock sleeve dimensions above for details.

# Corner Discs for TPUN Chains

Engineering Plastic

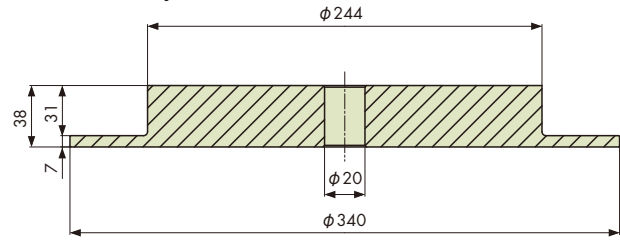
Applicable Chain TPUN555, TPUN550-LH, TPUN535-LH, TP-50UNS, TP-50UNS-D76 Note: It cannot be used for the return-way.

• Carry-way



Tsubaki model no.  
TPUN555-CD-R150C

• Return-way



Tsubaki model no.  
TPUN555-CD-R150R

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Disc: UHMW-PE (color: white)  
 3. Approx. mass: 2.1 kg/disc  
 4. Chain sideflex radius R = 150mm  
 5. Contact a Tsubaki representative if dimensions other than shown in the drawing above or bearing-including type are required.  
 6. Operating temperature range: -20°C to 60°C  
 7. As of September 2010, the thickness of the carry-way corner disc was changed to 30 mm (previously 38 mm).

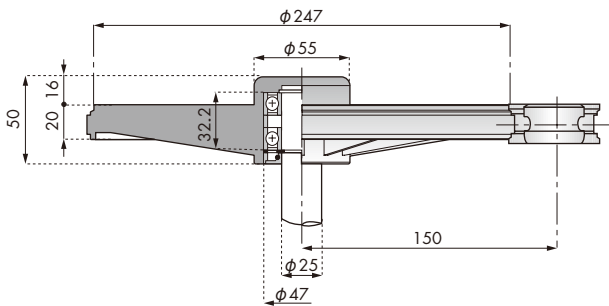
- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Disc: UHMW-PE (color: white)  
 3. Approx. mass: 2.1 kg/disc  
 4. Chain sideflex radius R = 150mm  
 5. Contact a Tsubaki representative if dimensions other than shown in the drawing above or bearing-including type are required.  
 6. Operating temperature range: -20°C to 60°C

# Corner Discs for TPUN-LH Chains

Engineering Plastic

Applicable Chain TPUN-LH

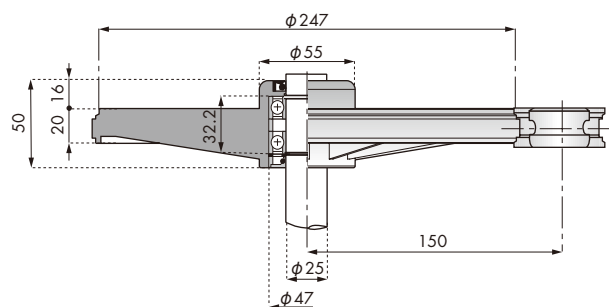
• Carry-way



Tsubaki model no.	Material		Chain minimum sideflex radius
	Body	Shaft bearing	
TP-C12723T-CD	Reinforced polyamide (color: black)	Steel	R150

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Bearings and seal-ring seals are packaged separately and shipped in the same container as the disc unit.  
 3. Operating temperature range: -20°C to 60°C

• Return-way

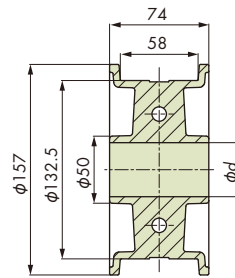
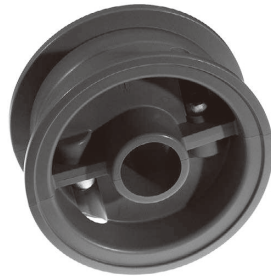


Tsubaki model no.	Material		Chain minimum sideflex radius
	Body	Shaft bearing	
TP-C12725T-CD	Reinforced polyamide (color: black)	Steel	R150

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. The only difference between the corner disc for return-way and carry-way is whether the shaft can extend through it or not.  
 3. Bearings and seal-ring seals are packaged separately and shipped in the same container as the disc unit.  
 4. Operating temperature range: -20°C to 60°C

Applicable Chain TP-50UNS, TPUN555

## ◆ Split Idler Wheels

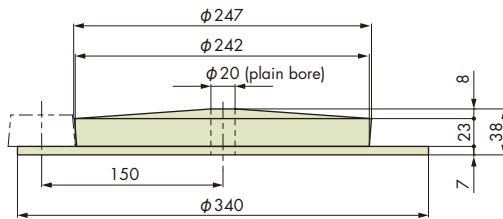


Tsubaki model no.	Sprocket equivalent no. of teeth (actual)	Bore diameter $d$	Approx. mass kg	Material		Bolt tightening torque N·m{kgf·m}
				Body	Bolt/Nut	
<b>TP-IW50UNS10-30</b>	10	$\phi$ 30.3	0.6	Polyacetal (color: green)	Stainless steel	9.8{1}
<b>TP-IW50UNS10-40</b>		$\phi$ 40.3				

- Note: 1. Tsubaki model no. in boldface are standard products.  
 2. Operating temperature range: -20°C to 80°C  
 3. When assembling the halves of the idler wheels, do not mix the halves with halves from other idler wheels.  
 4. Use a cold rolled steel shaft.

## ◆ Turn Discs for 50UNS Chains (Machined Type)

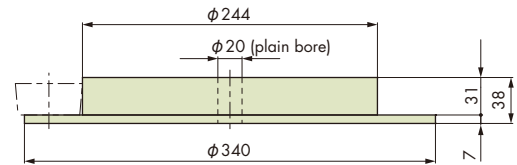
### • Carry-way



Tsubaki model no.	Material	Material grade	Color
TP-50UNST1	High-density polyethylene	84-100	White

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Available for bearing-assembled product upon request.  
 3. Operating temperature range: -20°C to 60°C

### • Return-way



Tsubaki model no.	Material	Material grade	Color
TP-50UNST2	High-density polyethylene	84-100	White

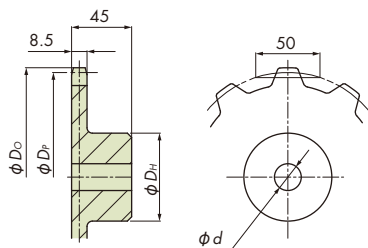
- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Available for bearing-assembled product upon request.  
 3. Operating temperature range: -20°C to 60°C

# Sprockets for TP-50UN-T95 Chains

Steel

Applicable Chain TP-50UN-T95

## ◆ Solid Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Hub diameter $D_h$	Bore diameter $d$		Approx. mass kg	Material
					Plain bore	Max.		
TP-50UNT-8T	8	130.6	129	65	$\phi 15$	$\phi 40$	1.6	Carbon steel for machine structural use
TP-50UNT-10T	10	161.8	163	65	$\phi 20$	$\phi 40$	2.3	
TP-50UNT-12T	12	193.2	198	65	$\phi 20$	$\phi 40$	2.8	

Note: 1. Tsubaki model no. in normal face are made-to-order products.

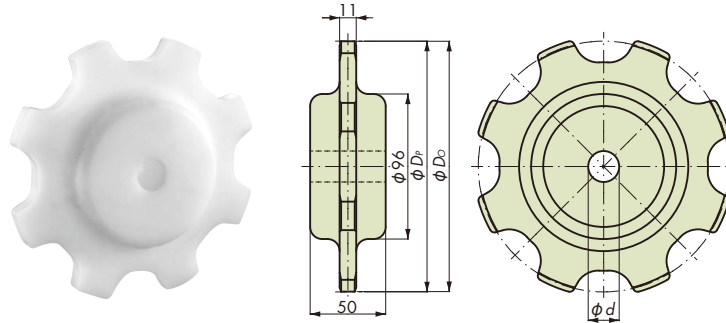
2. We also manufacture products with a number of teeth other than those specified above.

# Sprockets for TPCC Chains

Engineering Plastic

Applicable Chain TPCC

## ◆ Solid Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore diameter $d$	Material
TP-C12326T-SPR	8	165.9	172	φ20 (Plain bore)	Polyamide (color: white)
TP-C12327T-SPR	10	205.5	215		
TP-C12328T-SPR	12	245.3	256		

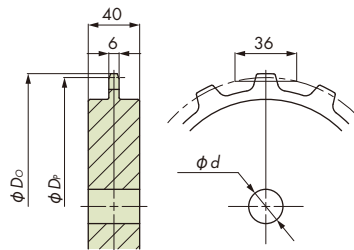
- Note: 1. Tsubaki model no. in normal face are made-to-order products.  
 2. These sprockets have a plain bore.  
 3. Operating temperature range: -20°C to 60°C

# Sprockets for TP-36AK Chains

Engineering Plastic

Applicable Chain TP-36AK

## ◆ Solid Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore diameter $d$		Approx. mass kg	Material
				Plain bore	Max.		
TP-36AK1100T	11	127.7	131	φ20	φ60	0.3	UHMW-PE (color: white)
TP-36AK1300T	13	150.4	155				
TP-36AK1500T	15	173.1	178				

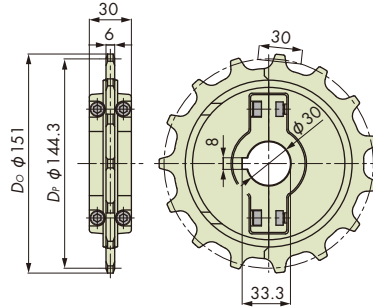
- Note: 1. Tsubaki model no. in normal face are made-to-order products.  
 2. Operating temperature range is -20°C to 60°C. Use stainless steel sprockets (made-to-order product) when operating temperatures exceed 60°C.

# Sprockets & Idler Wheels for TP-30UTW-LAP Chains

Engineering Plastic

Applicable Chain TP-30UTW-LAP

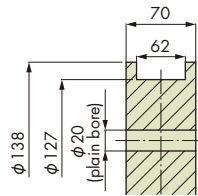
## ◆ Split Sprockets



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Approx. mass kg	Material		Bolt tightening torque N·m{kgf·m}
					Body	Bolt/Nut	
TP-SW30UT-15T30	15	144.3	151	0.2	Reinforced polyamide (color: black)	Stainless steel	5.7{0.58}

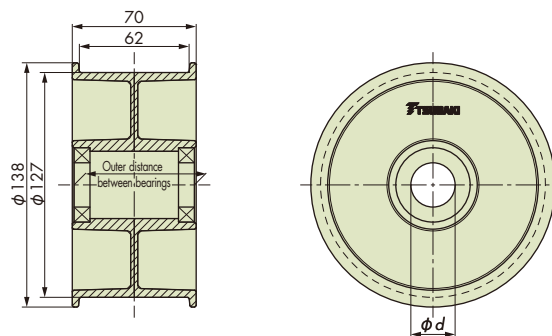
- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$   
 3. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.  
 4. Use a cold rolled steel shaft.

## ◆ Solid Idler Wheels



Tsubaki model no.	Equivalent no. of teeth	Approx. mass kg	Material
TP-IW30UTW-15T20	15	0.9	UHMW-PE (color: white)

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Operating temperature range is  $-20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ . Use stainless steel sprockets (made-to-order product) when operating temperatures exceed  $60^{\circ}\text{C}$ .

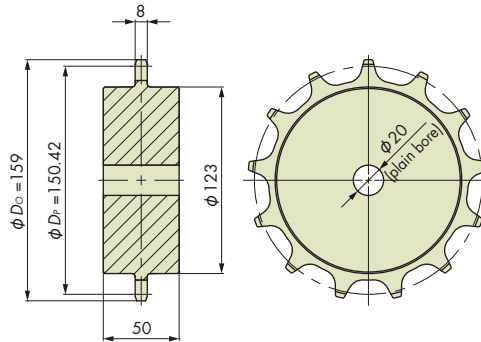


Tsubaki model no.	Equivalent no. of teeth	Bore diameter $d$	Approx. mass kg	Material	
				Body	Bearing
TP-IWB30UTW-15T25	15	$\phi 25$	0.36	Polyamide (color: black)	Stainless (6905 seal type)

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$   
 3. Use a cold rolled steel shaft. (Recommended shaft tolerance: g6).  
 4. Place mechanical devices to prevent misalignment of the idler wheel in shaft direction.

Applicable Chain TP-36UTW-LAP

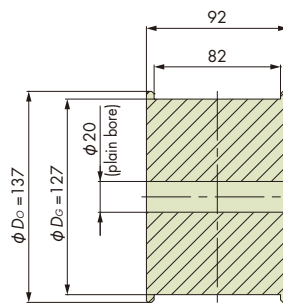
## ◆ Solid Sprockets (Machined Type)



Tsubaki model no.	Teeth	Pitch diameter $D_P$	Outside diameter $D_O$	Bore diameter $d$	Approx. mass kg	Material
TP-36UT-13T	13	150.42	159	Bore shape and size are made-to-order.	0.6	UHMW-PE (color: white)

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Operating temperature range: -20°C to 60°C  
 3. We also manufacture products with the number of teeth, sprocket shapes and materials other than those specified above. (Only machined types are available.)  
 4. Use a cold rolled steel shaft.

## ◆ Solid Idler Wheels (Machined Type)



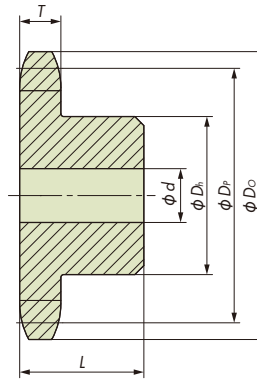
Tsubaki model no.	Equivalent no. of teeth	Outside diameter $D_O$	Bore diameter $d$	Approx. mass kg	Material
TP-IW36UTW-13T	13	137	Bore shape and size are made-to-order.	0.6	UHMW-PE (color: white)

- Note: 1. Tsubaki model no. in normal face is a made-to-order product.  
 2. Operating temperature range: -20°C to 60°C  
 3. We also manufacture products with the number of teeth, sprocket shapes and materials other than those specified above. (Only machined types are available.)  
 4. Use a cold rolled steel shaft.

# Sprockets for Plastic Roller Tables

Steel

Applicable Chain ST, RT



Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Tooth width $T$	Bore diameter $d$		Hub diameter $D_h$	Width $L$	Approx. mass kg	Material
					Plain bore	Max.				
RS35-1B13TQ-R	13	39.80	44	4.4	9.5	12	26	20	0.09	Carbon steel for machine structural use
RS35-1B14TQ-R	14	42.81	47			15	29			
RS35-1B15TQ-R	15	45.80	51			16	32			
RS35-1B16TQ-R	16	48.82	54			19	35			
RS35-1B17TQ-R	17	51.84	57		20	38				
RS35-1B18TQ-R	18	54.85	60		23	41				
RS35-1B19TQ-R	19	57.87	63		12.7	26	44			
RS35-1B20TQ-R	20	60.89	66			28	47			
RS35-1B21TQ-R	21	63.91	69	7.3	12.7	30	50	22	0.33	
RS40-1B10TQ-R	10	41.10	47			12	24			
RS40-1B11TQ-R	11	45.08	51			15	28			
RS40-1B12TQ-R	12	49.07	55			17	32			
RS40-1B13TQ-R	13	53.07	59		20	36				
RS40-1B14TQ-R	14	57.07	63		23	40				
RS40-1B15TQ-R	15	61.08	67		26	44				
RS40-1B16TQ-R	16	65.10	71		28	48				
RS40-1B17TQ-R	17	69.12	76	12.7	32	52	25	0.44		
RS40-1B18TQ-R	18	73.14	80		35	56				
RS40-1B19TQ-R	19	77.16	84		38	60				
RS40-1B20TQ-R	20	81.18	88		41	64				
RS40-1B21TQ-R	21	85.21	92	12.7	45	68	25	0.72		
RS40-1B22TQ-R	22	89.24	96		47	72				
RS50-1B10TQ-R	10	51.37	58	8.9	9.5	16	31	25	0.20	
RS50-1B11TQ-R	11	56.35	64			20	36			
RS50-1B12TQ-R	12	61.34	69		23	41				
RS50-1B13TQ-R	13	66.34	74		27	46				
RS50-1B14TQ-R	14	71.34	79		31	51				
RS50-1B15TQ-R	15	76.35	84		35	56				
RS50-1B16TQ-R	16	81.37	89		38	61				
RS50-1B17TQ-R	17	86.39	94		43	66				
RS50-1B18TQ-R	18	91.42	100	46	71	28	0.97			

Note: 1. Tsubaki model no. in normal face are made-to-order products.

2. The teeth of all sprockets above have been hardened.

3. Type B sprocket of RS roller chains can be used with a number of teeth greater than those listed in the table above.

4. The sprockets shown in the table above is applicable for RT types, excluding the following.

RS351B: 14 teeth or greater

RS40-1B: 13 teeth or greater

RS50-1B: 14 teeth or greater

RS60-1B: Type B sprocket with 12 teeth or greater can be used.

The same applies to stainless steel sprockets. (Refer to the separate catalog "Tsubaki Drive Chains & Sprockets".)

## Model Numbering

Applicable chain size

Hub

Teeth

Teeth hardening

For plastic roller table

**RS40**
**-**
**1B**
**11T**
**Q**
**-**
**R**

Note: Do not leave space between letters and symbols.

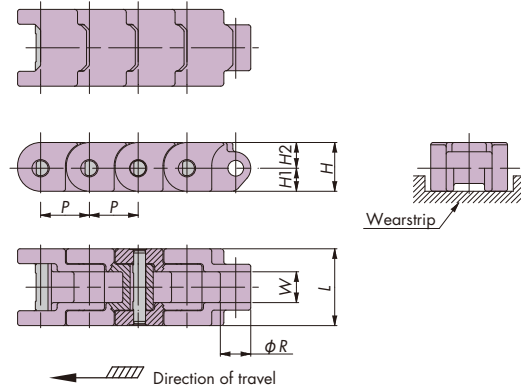




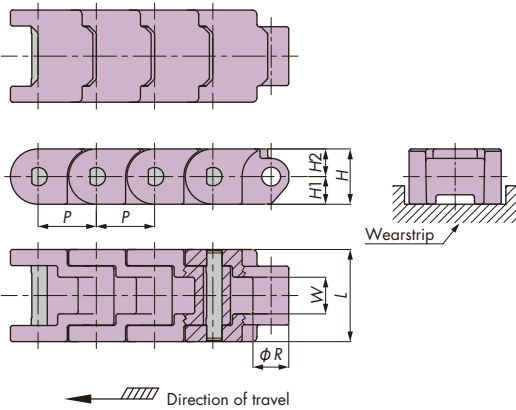
**Features**

1. A smaller chain pitch than a plastic top chain allows use of sprockets with a smaller outer diameter, effectively saving transferring space between conveyors.
2. Block shape and small link width; suitable for conveying small products.
3. Multiple strands can be used in parallel; suitable for conveying pallets.
4. Suitable for a diverse range of applications with a variety of chain pitches and widths available.
5. RS sprockets can be used.

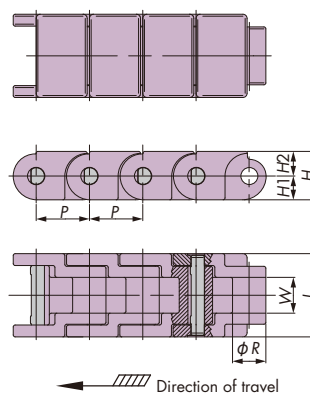
RSP (Except KV series and RSP80 shown below)



RSP80 only



RSP40-KV and RSP60-KV



**Chain Material Table**

Material	Standard Chain									High-Function Chain				
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Heat resistant/High speed		Low friction/Wear resistant		
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	KV150	KV180	KV250	HG	
Link color	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Black			Navy blue	
Max. allowable load kN {kgf}	RSP35	0.18{18}						0.44{45}			—	0.18{18}	—	0.18{18}
	RSP40							0.44{45}						
	RSP50	0.69{70}									—	—	—	0.69{70}
	RSP60							0.88{90}						
	RSP80	1.77{180}									—	—	—	1.77{180}
Max. allowable speed m/min	With lube	60									—	100		60
	No lube										100			
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	-20 to 150	-20 to 180	-20 to 250	-20 to (65)80	
Pin material	SUS304													
Pin type	D-pin													
RSP35	●	△	△	●	●	●	●	△	△	×	●	×	△	
RSP40	●	△	△	●	●	●	●	△	△	○	●	○	△	
RSP50	●	△	△	○	○	○	○	△	△	×	×	×	△	
RSP60	●	△	△	●	●	●	●	△	△	○	●	○	△	
RSP80	○	△	△	○	○	○	○	△	△	×	×	×	△	

- Note: 1. "●": Standard products, "○": Made-to-order products, "△": Made-to-order products (RFQ), "×": Unable to produce. Not available for other chain materials that are not listed in the chain material table above.
2. Operating temperature of (the value in parentheses) is for wet conditions.
3. As of July 2008, the RSP40 and RSP60 were remodeled. Please check the following for details of the changes.
- The shape of the upper side of the link has changed: Same shape with RSP35 and RSP50 which is hard to chip by eliminating the thin section that may crack or become deformed.
  - Knurled pins changed to D-pins: Damage to connecting sections (pin holes) are reduced and prevent pins from falling off.
4. The shape of the upper side of the link of KV [RSP40 (60)-KV150, RSP40 (60)-KV180] is different from other spec's chains and cannot be connected to each other.
5. The remodeled chain cannot be connected to the previous model.

Dimension Table

Chain type	P	R	W	L	H1	H2	H	Backflex radius mm
RSP35	9.525	5.08	4.78	13	4	5	9	110 Note
RSP40	12.7	7.92	7.95	20	6	6.7	12.7	125
RSP50	15.875	10.16	9.53	22.5	7	8	15	200
RSP60	19.05	11.91	12.7	30	8.5	8.8	17.3	180
RSP80	25.4	15.88	15.9	40	12	12	24	

Note: The backflex radius of RSP35-KV180 is R150.

Tsubaki Model Table

Material	Standard	Electroconductive	Chain mass kg/m Note: 2	Number of links per unit
Material mark	—	E		
Chain type	<b>RSP35</b>	RSP35-E	0.15	320
	<b>RSP40</b>	<b>RSP40-E</b>	0.36	240
	<b>RSP50</b>	RSP50-E	0.46	192
	<b>RSP60</b>	RSP60-E	0.72	160
	RSP80	RSP80-E	1.4	120

Note:

- Chain type in boldface are standard products. Chain type in normal face is a made-to-order product. Refer to the chain material table below for availability.
- The chain mass of some chain materials are different from that shown in the Tsubaki model table left. Refer to the following information (unit: kg/m).  
 [RSP35] Y, DIY: 0.18, DIA: 0.13, MPD: 0.14  
 [RSP40] Y, SY, DIY: 0.45, DIA: 0.30  
 [RSP50] Y, DIY: 0.55, DIA: 0.40  
 [RSP60] Y, SY, DIY: 0.90, DIA: 0.68, MPD: 0.70  
 [RSP80] Y, DIY: 1.60, DIA: 1.20, UPE: 1.05
- The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table on the left.

Sprockets

RS sprocket (with 14 or more teeth) can be used.

Note: A special sprocket is necessary when using in an ambient temperature of -20°C or below. Contact a Tsubaki representative for more information.

Connecting Pin

- SUS304 D-pin for RSP35 Tsubaki model no. **RSP35-SUS-JPD**
- SUS304 D-pin for RSP40 Tsubaki model no. **RSP40-SUS-JPD**
- SUS304 D-pin for RSP50 Tsubaki model no. **RSP50-SUS-JPD**
- SUS304 D-pin for RSP60 Tsubaki model no. **RSP60-SUS-JPD**
- SUS304 D-pin for RSP80 Tsubaki model no. **RSP80-SUS-JPD**

Model Numbering

Chain type	Chain size	Material mark	Number of links	Unit
<b>RSP</b>	<b>35</b> Note: 2	<b>LFB</b> Note: 3	<b>80</b> Note: 4	<b>L</b>
				L: Link

- Do not leave space between letters and symbols.
- Please check the chain sizes from the dimension table above.
- Please check the chain material and material marks in the chain material table below.
- Minimum quantity: 2, maximum quantity: 99999.

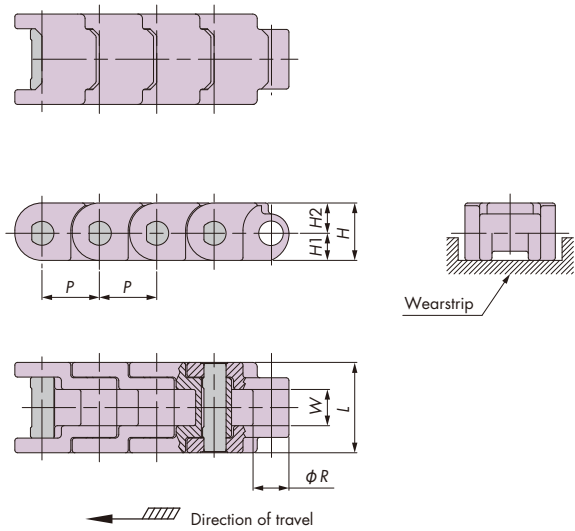
Chain Material Table

Material	High-Function Chain												Special-Function Chain
	Chemical resistant	Super chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Metal detectable	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying	Low temperature Chemical resistant
Material mark	Y	SY	E	DIA	DIY	MWS	MPD	SE	MF	AR	UVR	PFS	UPE
Link color	Matte white	Matte white	Black	Cream	Green	Cream	Black	Gray	Yellow	White	Light gray	Nile blue	Matte white
Max. allowable load kN {kgf}	RSP35	0.10{10}	—	0.13{13}	0.14{14}	0.18{18}	0.14{14}	0.18{18}	0.13{13}	0.16{16}	0.18{18}	—	—
	RSP40	0.25{25}	—	0.34{35}	—	0.44{45}	—	0.44{45}	0.33{33}	0.40{41}	0.44{45}	—	—
	RSP50	0.39{40}	—	0.49{50}	0.54{55}	0.69{70}	—	0.69{70}	0.51{52}	0.62{63}	0.69{70}	—	—
	RSP60	0.49{50}	—	0.64{65}	0.69{70}	0.88{90}	0.69{70}	0.88{90}	0.65{67}	0.79{81}	0.88{90}	—	—
	RSP80	0.98{100}	—	1.26{128}	1.36{139}	1.77{180}	—	1.77{180}	1.31{133}	—	1.77{180}	0.56{57}	—
Max. allowable speed m/min	With lube	60		—	60	—	60	—	60	—	60	—	—
	No lube	60											
Operating temperature range °C	-20 to 80					-20 to {65}80	-20 to 80			-20 to {60}80	-20 to 80	-70 to 60	
Pin material	SUS304	Titanium	SUS304										
Pin type	D-pin	Diamond knurled	D-pin										
RSP35	○	×	○	△	△	○	△	△	△	△	△	△	×
RSP40	○	○	●	△	△	○	×	△	△	△	△	△	×
RSP50	○	×	○	△	△	○	×	△	△	△	△	△	×
RSP60	○	○	○	△	△	○	△	△	△	△	△	△	×
RSP80	△	×	△	△	△	△	×	△	△	×	△	△	△

- Note: 1. "●": Standard product, "○": Made-to-order products, "△": Made-to-order products (RFQ), "x": Unable to produce. Not available for other chain materials that are not listed in the chain material table above.
- Operating temperature of (the value in parentheses) is for wet conditions.
  - As of July 2008, the RSP40 and RSP60 were remodeled. Please check the following for details of the changes.
    - The shape of the upper side of the link has changed: Same shape with RSP35 and RSP50 which is hard to chip by eliminating the thin section that may crack or become deformed.
    - Knurled pins changed to D-pins: Damage to connecting sections (pin holes) are reduced and prevent pins from falling off. Note that only SY series use diamond knurled pins.
  - The remodeled chain cannot be connected to the previous model.

**Features**

1. A smaller chain pitch than a plastic top chain allows use of sprockets with a smaller outer diameter, effectively saving transferring space between conveyors.
2. Block shape and small link width; suitable for conveying small products.
3. Multiple strands can be used in parallel; suitable for conveying pallets.
4. Suitable for a diverse range of applications with a variety of chain pitches and widths available.
5. The plastic pin type is lightweight and easy to install and replace, and is expected to have a longer life than the stainless steel pin with water lubrication.
6. RS sprockets can be used.



**Chain Material Table**

Material		Standard Chain							High-Function Chain						
		Standard			Low friction/ Wear resistant			Low friction		Low friction/ Wear resistant	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant
Material mark		—	B	BL	LFW	LFB	LFG	NLF	WR	HG	E	MWS	SE	MF	UVR
Link color		White	Blue	Sky blue	White	Brown	Green	Dark gray	Dark green	Navy blue	Black	Cream	Gray	Yellow	Light gray
Max. allowable load kN {kgf}	RSP40P	0.25{25}									0.18{18}	0.25{25}		0.19{19}	0.25{25}
	RSP60P	0.59{60}									0.41{42}	0.59{60}		0.44{44}	0.59{60}
Max. allowable speed m/min	With lube	60											—	60	
	No lube												60		
Operating temperature range °C		-20 to (60)80											-20 to 80	-20 to (60)80	
Pin material		Special engineering plastic													
Pin type		D-pin													
RSP40P		○	△	△	○	○	○	△	△	△	△	△	△	△	△
RSP60P		○	△	△	○	○	○	△	△	△	△	△	△	△	△

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pin is orange. Base chain pins are white.

## Dimension Table

Chain type	P	R	W	L	H1	H2	H	Backflex radius mm
RSP40P	12.7	7.92	7.95	20	6	6.7	12.7	125
RSP60P	19.05	11.91	12.7	30	8.5	8.8	17.3	180

## Tsubaki Model Table

Material	Standard	Chain mass kg/m Note: 2	Number of links per unit
Material mark	—		
Chain type	RSP40P	0.26	240
	RSP60P	0.53	160

Note: 1. Chain type in normal face are made-to-order products. Refer to the chain material table left for availability.

2. The chain masses of other materials available are the same with those described in the Tsubaki model table above.

## Sprockets

RS sprocket (with 14 or more teeth) can be used.

## Connecting Pin

1. Special engineering plastic D-pin for RSP40P, orange color Tsubaki model no. **RSP40P-PLA-JPD**.
2. Special engineering plastic D-pin for RSP60P, orange color Tsubaki model no. **RSP60P-PLA-JPD**.

## Model Numbering

Chain type	Chain size	Plastic pins	Material mark	Number of links	Unit
<b>RSP</b>	<b>40</b> <small>Note: 2</small>	<b>P</b> <small>Note: 3</small>	<b>- LFB</b> <small>Note: 4</small>	<b>+ 80</b> <small>Note: 5</small>	<b>L</b>
					L: Link

Note: 1. Do not leave space between letters and symbols.

2. Please check the chain sizes from the dimension table above.

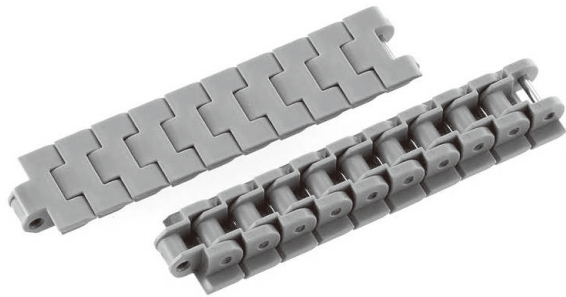
3. Enter "P" only when a plastic pin type is selected.

4. Please check the chain material and material marks in the chain material table at left.

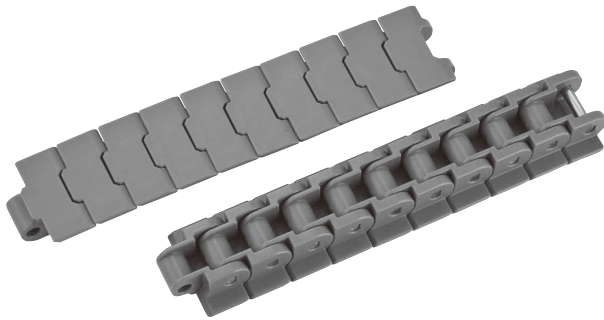
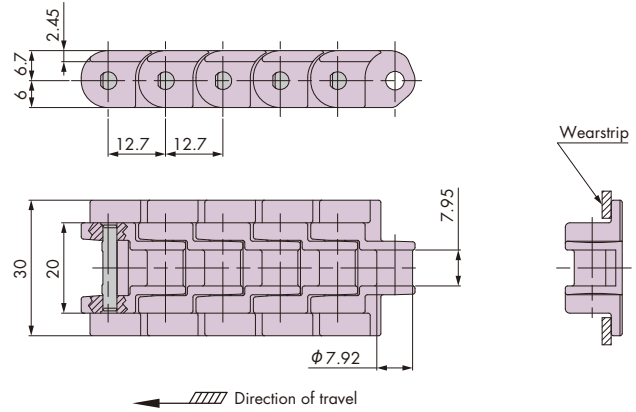
5. Minimum quantity: 2, maximum quantity: 99999.

## Features

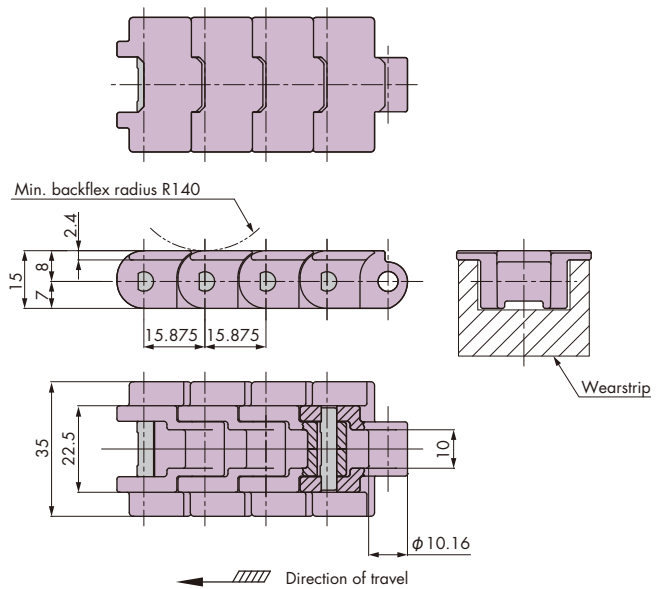
1. A smaller chain pitch than a plastic top chain allows use of sprockets with a smaller outer diameter, effectively saving transferring space between conveyors.
2. Plastic block chain with top plate; suitable for conveying small products.
3. Suitable for suspended conveyance of products between paralleled strands of chains.



RSP40-SL300



RSP50-SL350



## Chain Material Table

Standard Chain										
Material	Standard			Low friction/Wear resistant			Advanced low friction/ Wear resistant	Low friction		
Material mark	—	B	BL	LFW	LFB	LFG	ALF	NLF	WR	
Link color	White	Blue	Sky blue	White	Brown	Green	Light blue	Dark gray	Dark green	
Max. allowable load kN {kgf}	RSP40-SL300				0.44{45}					
	RSP50-SL350				0.69{70}					
Max. allowable speed m/min	With lube				60					
	No lube									
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	
Pin material				SUS304						
Pin type				D-pin						
RSP40-SL300	○	△	△	○	○	○	○	△	△	
RSP50-SL350	△	△	△	△	△	○	○	△	△	

Note: 1. "○": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.

3. Plastic pin type is not available.

### Tsubaki Model Table

Material	Standard	Chain mass kg/m <small>Note: 2</small>	Backflex radius mm	Number of links per unit
Material mark	—			
Chain type	RSP40-SL300	0.36	50	240
	RSP50-SL350	0.51	140	192

- Note: 1. Chain type in normal face are made-to-order products. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 [RSP40-SL300] Y, DIY: 0.45, DIA: 0.30  
 [RSP50-SL350] Y, DIY: 0.61, DIA: 0.45  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

### Sprockets

RS sprocket (with 14 or more teeth) can be used.

### Connecting Pin

- SUS304 D-pin for RSP40-SL300 Tsubaki model no. **RSP40-SUS-JPD**
- SUS304 D-pin for RSP50-SL350 Tsubaki model no. **RSP50-SUS-JPD**

### Model Numbering

Chain type	Chain size	Chain type	Top plate width	Material mark	Number of links	Unit
<b>RSP</b>	<b>40</b>	<b>- SL</b>	<b>300</b>	<b>- LFB</b> <small>Note: 2</small>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
						L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table below.  
 3. Minimum quantity: 2, maximum quantity: 99999.

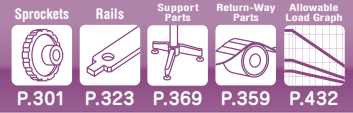
### Chain Material Table

High-Function Chain											
Material	Low friction/ Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying
Material mark	HG	Y	E	DIA	DIY	MWS	SE	MF	AR	UVR	PFS
Link color	Navy blue	Matte white	Black	Cream	Green	Cream	Gray	Yellow	White	Light gray	Nile blue
Max. allowable load kN {kgf}	RSP40-SL300	0.44{45}	0.25{25}	0.31{32}	0.34{35}		0.44{45}		0.33{33}	0.40{41}	0.44{45}
	RSP50-SL350	0.69{70}	0.38{39}	0.48{49}	0.54{55}		0.69{70}		0.51{52}	—	0.69{70}
Max. allowable speed m/min	With lube	60			—	60		—	60		
	No lube				60			60			
Operating temperature range °C	-20 to {65}80		-20 to 80			-20 to {65}80		-20 to 80		-20 to {60}80	
Pin material	SUS304										
Pin type	D-pin										
RSP40-SL300	△	△	△	△	△	△	△	△	△	△	△
RSP50-SL350	△	△	△	△	△	△	△	△	×	△	△

- Note: 1. "△": Made-to-order products (RFQ), "×": Unable to produce. Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

# Plastic Block Chain RSP-PO8PF

Straight Running

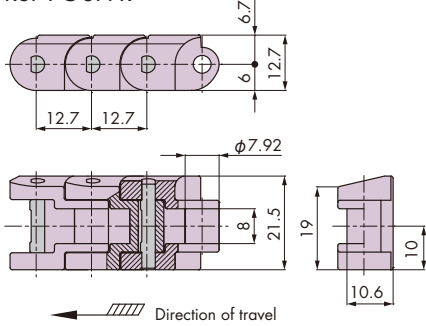


## Features

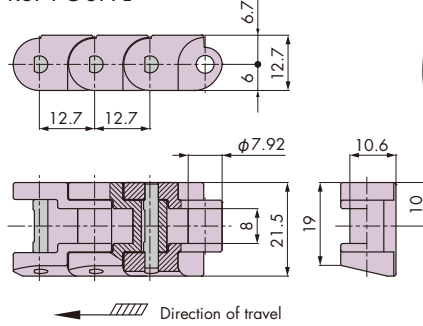
1. Small pitch and small link width; suitable for conveying small products.
2. Chain is designed to convey flanged products supported between two strands of chains.
3. RS sprockets can be used.



RSP-PO8PFR



RSP-PO8PFL



## Chain Material Table

Material	Standard Chain										High-Function Chain							
	Standard			Low friction/ Wear resistant			Advanced low friction/ Wear resistant	Low friction			Low friction/ Wear resistant	Chemical resistant	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying
Material mark	—	B	BL	LFW	LFB	LFG	ALF	NLF	WR	HG	Y	E	MWS	SE	MF	UVR	PFS	
Link color	Gray	Blue	Sky blue	White	Brown	Green	Light blue	Dark gray	Dark green	Navy blue	Matte white	Black	Cream	Gray	Yellow	Light gray	Nile blue	
Max. allowable load kN {kgf}	0.49{50}										0.27 {28}	0.34 {35}	0.49{50}			0.36 {37}	0.49{50}	
Max. allowable speed m/min	60															60	60	
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	-20 to (65)80	-20 to 80	-20 to (65)80	-20 to 80	-20 to 80				
Pin material	SUS304																	
Pin type	D-pin																	
RSP-PO8PFL	△	△	△	△	△	△	△	△	○	△	△	△	△	△	△	△	△	
RSP-PO8PFR	△	△	△	△	△	△	△	△	○	△	△	△	△	△	△	△	△	

Note: 1. "O": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Standard	Chain mass kg/m Note: 2	Backflex radius mm	Number of links per unit
Material mark	—			
Chain type	RSP-PO8PFL RSP-PO8PFR	0.40	125	240

Note: 1. Chain type in normal font are made-to-order products. Refer to the chain material table above for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above.  
 Refer to the following information (unit: kg/m).  
 [RSP-PO8PFL] Y: 0.49 [RSP-PO8PFR] Y: 0.49  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Sprockets

RS40 sprocket (with 13 or more teeth) can be used. The hub diameter (Dh) should be machined to size.

## Model Numbering

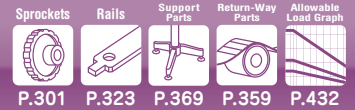
Chain type	Chain size	Chain type	Taper	Material mark	Number of links	Unit
<b>RSP-PO</b>	<b>8</b>	<b>PF</b>	<b>R</b>	<b>- WR</b> <small>Note: 2</small>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
Refer to the drawing						L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.



# Plastic Block Chain RSP-PO8PFT

Straight Running

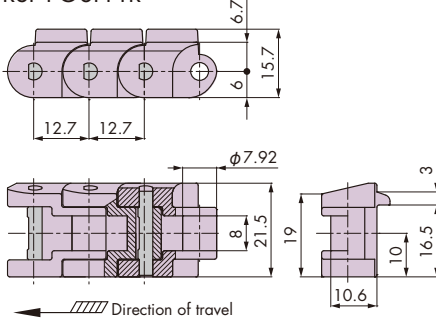


## Features

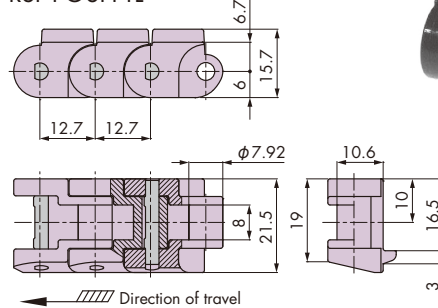
1. Small pitch and small link width; suitable for conveying small products.
2. Chain is designed to convey flanged products supported between two strands of chains.
3. Protrusions on the surface enable centering of flanged products.
4. RS sprockets can be used.



RSP-PO8PFTR



RSP-PO8PFTL



## Chain Material Table

Material	Standard Chain									High-Function Chain							
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction		Low friction/Wear resistant	Chemical resistant	Electroconductive	Antibacterial/Mold resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying
Material mark	—	B	BL	LFW	LFB	LFG	ALF	NLF	WR	HG	Y	E	MWS	SE	MF	UVR	PFS
Link color	Gray	Blue	Sky blue	White	Brown	Green	Light blue	Dark gray	Dark green	Navy blue	Matte white	Black	Cream	Gray	Yellow	Light gray	Nile blue
Max. allowable load kN {kgf}	0.49{50}									0.27 {28}	0.34 {35}	0.49{50}			0.36 {37}	0.49{50}	
Max. allowable speed m/min	60									—			60		60		
Operating temperature range °C	-20 to 80			-20 to {65}80			-20 to 80	-20 to {65}80	-20 to 80	-20 to {65}80	-20 to 80	-20 to {65}80	-20 to 80				
Pin material	SUS304																
Pin type	D-pin																
RSP-PO8PFTL	△	△	△	△	△	△	△	△	○	△	△	△	△	△	△	△	△
RSP-PO8PFTR	△	△	△	△	△	△	△	△	○	△	△	△	△	△	△	△	△

Note: 1. "O": Made-to-order products, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Standard	Chain mass kg/m <sup>Note: 2</sup>	Backflex radius mm	Number of links per unit
Material mark	—			
Chain type	RSP-PO8PFTL	0.40	125	240
	RSP-PO8PFTR			

Note: 1. Chain type in normal face are made-to-order products. Refer to the chain material table above for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 [RSP-PO8PFTL] Y: 0.49  
 [RSP-PO8PFTR] Y: 0.49  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Sprockets

RS40 sprocket (with 13 or more teeth) can be used. The hub diameter (D<sub>h</sub>) should be machined to size.

## Model Numbering

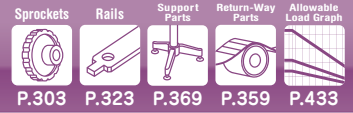
Chain type	Chain size	Chain type	Taper	Material mark	Number of links	Unit
<b>RSP-PO</b>	<b>8</b>	<b>PFT</b>	<b>L</b>	<b>- WR</b> <sup>Note: 2</sup>	<b>+ 80</b> <sup>Note: 3</sup>	<b>L</b>
						L: Link

Refer to the drawing

1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

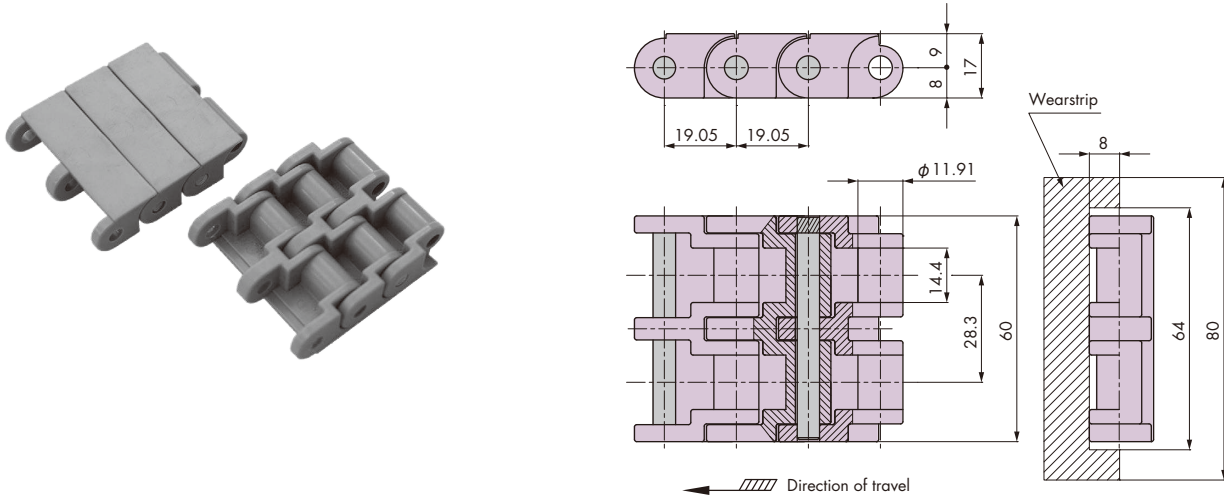
# Plastic Block Chain RSP-PO12-2S

Straight Running



## Features

1. Link width is double that of RSP-60; suitable for conveying wider products.
2. Suitable for higher applied load conditions due to approx. 1.5 times higher allowable load than RSP-60.



## Chain Material Table

Material	Standard Chain								High-Function Chain					
	Standard			Low friction/Wear resistant			Low friction		Low friction/Wear resistant	Electrostatic preventive	Middle friction	Ultraviolet resistant	Food conveying	
Material mark	—	B	BL	LFW	LFB	LFG	NLF	WR	HG	SE	MF	UVR	PFS	
Link color	Gray	Blue	Sky blue	White	Brown	Green	Dark gray	Dark green	Navy blue	Gray	Yellow	Light gray	Nile blue	
Max. allowable load kN {kgf}	1.27{130}										0.94 {96}	1.27{130}		
Max. allowable speed m/min	With lube	60										—	60	
	No lube	60										60	60	
Operating temperature range °C	-20 to 80			-20 to (65)80				-20 to 80	-20 to (65)80	-20 to 80				
Pin material	SUS304													
Pin type	Round pin													
RSP-PO12-2S	●	△	△	△	△	△	△	△	△	△	△	△	△	

Note: 1. "●": Standard product, "△": Made-to-order products (RFQ). Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Standard	Chain mass kg/m	Backflex radius mm	Number of links per unit
Material mark	—			
Chain type	<b>RSP-PO12-2S</b>	1.50	400	160

Note: Chain type in boldface is a standard product. Refer to the chain material table above for availability.

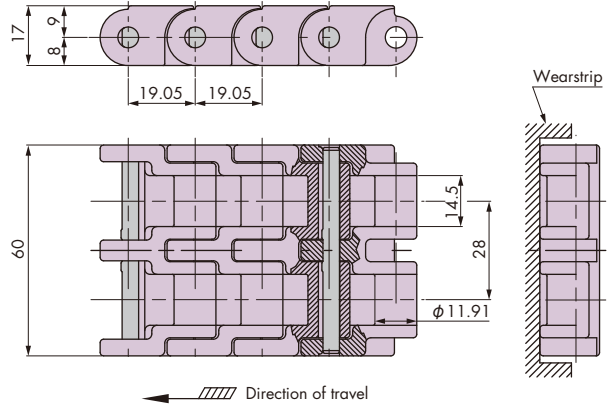
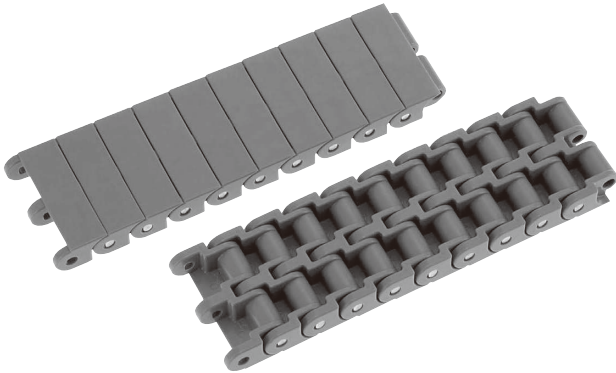
## Model Numbering

Chain type	Chain size	Chain type	Material mark	Number of links	Unit
<b>RSP-PO</b>	<b>12</b>	<b>- 2S</b>	<b>- LFG</b> <small>Note: 2</small>	<b>+ 80</b> <small>Note: 3</small>	<b>L</b>
					L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

### Features

1. Link width is double that of the RSP60 chain; suitable for conveying wider products.
2. Suitable for higher applied load conditions due to approx. 1.4 times higher allowable load than the RSP60.



### Chain Material Table

Material	Standard Chain										High-Function Chain											
	Standard		Low friction/Wear resistant			Advanced low friction/Wear resistant	Low friction			Low friction/Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/Mold resistant	Metal detectable	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	Y	E	DIA	DIY	MWS	MPD	SE	MF	AR	UVR	PFS	
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Matte white	Black	Cream	Green	Cream	Black	Gray	Yellow	White	Light gray	Nile blue	
Max. allowable load kN {kgf}	1.27{130}										0.64 {65}	0.89 {91}	0.98{100}		1.27 {130}	0.98 {100}	1.27 {130}	0.94 {96}	1.14 {117}	1.27{130}		
Max. allowable speed m/min	60										-		60		-		60		-		60	
	With lube											60		60		60		60		60		
Operating temperature range °C	-20 to 80		-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80	-20 to (65)80	-20 to 80	-20 to 80		-20 to (65)80	-20 to 80		-20 to (60)80	-20 to 80					
Pin material	SUS304																					
Pin type	D-pin																					
RSP60-2	●	△	△	●	●	●	●	△	△	△	△	△	△	△	△	△	△	△	△	△	△	

- Note: 1. "●": Standard products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

### Tsubaki Model Table

Material	Standard	Chain mass kg/m <sup>Note: 2</sup>	Backflex radius mm	Number of links per unit
Material mark	—			
Chain type	<b>RSP60-2</b>	1.50	450	160

- Note: 1. Chain type in boldface is a standard product. Refer to the chain material table above for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 Y, DIY: 1.65, DIA: 1.20  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

### Connecting Pin

1. SUS304 D-pin for RSP60-2  
Tsubaki model no. **RSP60-2-SUS-JPD**

### Model Numbering

Chain type	Chain size	Material mark	Chain type	Number of links	Unit
<b>RSP</b>	<b>60</b>	<b>LFB</b> <sup>Note: 2</sup>	<b>2</b> + <b>80</b> <sup>Note: 3</sup>	<b>L</b>	L: Link

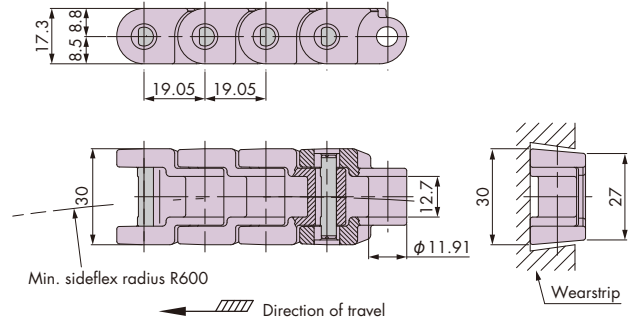
- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.

# Plastic Block Chain RSP-CU

Sideflexing Running

## Features

RSP60 sideflexing chain. Can be used for curved conveyors.



## Chain Material Table

Standard Chain										
Material	Standard			Low friction/Wear resistant			Advanced low friction/ Wear resistant	Low friction		
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	
Link color	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	
Max. allowable load kN {kgf}	Stainless steel pin	0.83{85}								
	Plastic pin	0.44{45}								
Max. allowable speed m/min	With lube	60								
	No lube	60								
Operating temperature range °C	Stainless steel pin	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
	Plastic pin	-20 to (60)80								
Pin material	Stainless steel pin/SUS304 Plastic pin/Special engineering plastic									
Pin type	D-pin Note: 3									
Stainless steel pin	RSP60-CU	●	△	△	○	○	○	△	△	
Plastic pin	RSP60P-CU	△	△	△	△	△	△	△	△	

Note: 1. "●": Standard product, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. The color of the connecting pin is orange. Base chain pins are white.

## Tsubaki Model Table

Material		Standard	Chain mass kg/m <small>Note: 2</small>	Backflex radius mm	Number of links per unit
Material mark		—			
Chain type	Stainless steel pin	<b>RSP60-CU</b>	0.70	250	160
	Plastic pin	RSP60P-CU	0.50		

Note: 1. Chain type in boldface is a standard product. Chain type in normal face is a made-to-order product.

Refer to the chain material table below for availability.

2. The chain masses of other materials available are the same with those described in the Tsubaki model table above.

## Connecting Pin

1. SUS304 for RSP60-CU

Tsubaki model no. **RSP60-CU-SUS-JPD**

## Sprockets

RS60 sprocket (with 14 or more teeth) can be used.

## Model Numbering

Chain type	Chain size	Plastic pins	Chain type	Material mark	Number of links	Unit
<b>RSP</b>	<b>60</b>	<b>P</b> <small>Note: 2</small>	<b>- CU</b>	<b>- LFB</b> <small>Note: 3</small>	<b>+ 80</b> <small>Note: 4</small>	<b>L</b>
						L: Link

Note: 1. Do not leave space between letters and symbols.

2. Enter "P" only when a plastic pin type is selected.

3. Please check the chain material and material marks in the chain material table below.

4. Minimum quantity: 2, maximum quantity: 99999.

## Chain Material Table

High-Function Chain									
Material	Low friction/ Wear resistant	Electroconductive	Antibacterial/ Mold resistant	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying	
Material mark	HG	E	MWS	SE	MF	AR	UVR	PFS	
Link color	Navy blue	Black	Cream	Gray	Yellow	White	Light gray	Nile blue	
Max. allowable load kN {kgf}	Stainless steel pin	0.83{85}	0.58{59}	0.83{85}		0.61{63}	0.75{77}	0.83{85}	
	Plastic pin	0.44{45}	0.31{31}	0.44{45}		0.33{33}	—	0.44{45}	—
Max. allowable speed m/min	With lube	60				—	60		
	No lube					60			
Operating temperature range °C	Stainless steel pin	-20 to (65)80	-20 to 80	-20 to (65)80	-20 to 80		-20 to (60)80	-20 to 80	
	Plastic pin	-20 to (60)80			-20 to 80		—	-20 to (60)80	—
Pin material	Stainless steel pin/SUS304				Plastic pin/Special engineering plastic				
Pin type	D-pin <small>Note: 3</small>								
Stainless steel pin	RSP60-CU	△	△	○	△	△	△	△	
Plastic pin	RSP60P-CU	△	△	△	△	△	×	×	

Note: 1. "O": Made-to-order product, "△": Made-to-order products (RFQ), "x": Unable to produce.

Not available for other chain materials that are not listed in the chain material table above.

2. Operating temperature of (the value in parentheses) is for wet conditions.

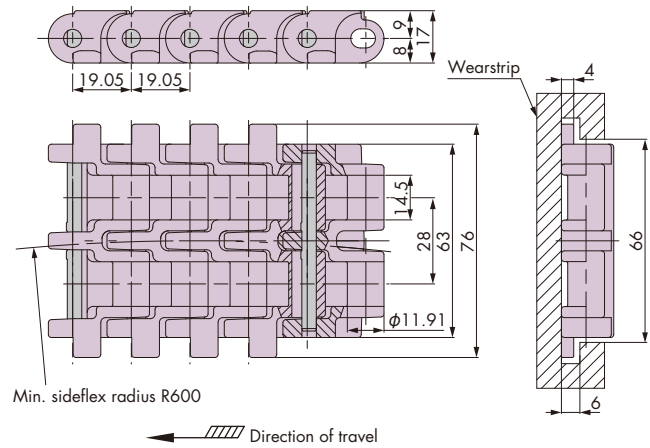
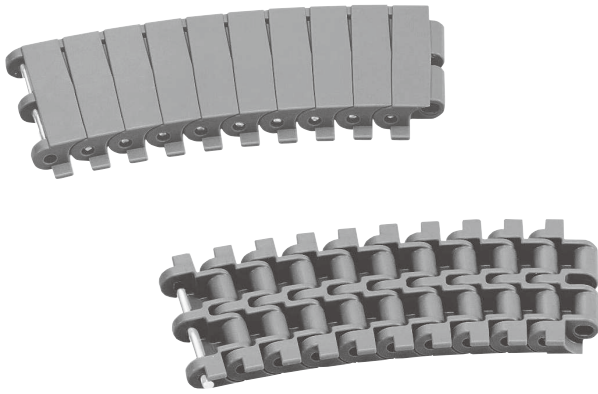
3. The color of the connecting pin is orange. Base chain pins are white.

# Plastic Block Chain RSP-CU-2

Sideflexing Running

## Features

1. Sideflexing version of RSP60-2; suitable for conveying wider products.
2. Suitable for higher applied load conditions due to approx. 1.3 times higher allowable load than RSP60-CU.
3. Tabs prevent chains from floating at curved sections.



## Chain Material Table

Standard Chain									
Material	Standard			Low friction/Wear resistant			Advanced low friction/ Wear resistant	Low friction	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR
Link color	Gray	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green
Max. allowable load kN {kgf}	1.08{110}								
Max. allowable speed m/min	With lube	60							
	No lube								
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80	-20 to (65)80	-20 to 80
Pin material	SUS304								
Pin type	D-pin								
RSP60-CU-2	●	△	△	○	○	○	○	△	△

Note: 1. "●": Standard product, "○": Made-to-order products, "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

### Tsubaki Model Table

Material	Standard	Chain mass kg/m <small>Note: 2</small>	Backflex radius mm	Number of links per unit
Material mark	—			
Chain type	<b>RSP60-CU-2</b>	1.50	150	160

- Note: 1. Chain type in boldface is a standard product. Refer to the chain material table below for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 Y, DIY: 1.88, DIA: 1.28, MPD: 1.4  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

### Connecting Pin

1. SUS304 D-pin for RSP60-CU-2  
 Tsubaki model no. **RSP60-2-SUS-JPD**

### Model Numbering

Chain type	Chain size	Chain type	Material mark	Chain type	Number of links	Unit
<b>RSP</b>	<b>60</b>	<b>CU</b>	<b>LFB</b> <small>Note: 2</small>	<b>2</b>	<b>80</b> <small>Note: 3</small>	<b>L</b>
						L: Link

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table below.  
 3. Minimum quantity: 2, maximum quantity: 99999.

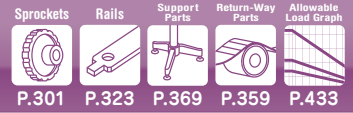
### Chain Material Table

High-Function Chain												
Material	Low friction/ Wear resistant	Chemical resistant	Electroconductive	Impact resistant		Antibacterial/ Mold resistant	Metal detectable	Electrostatic preventive	Middle friction	Acid resistant	Ultraviolet resistant	Food conveying
Material mark	HG	Y	E	DIA	DIY	MWS	MPD	SE	MF	AR	UVR	PFS
Link color	Navy blue	Matte white	Black	Cream	Green	Cream	Black	Gray	Yellow	White	Light gray	Nile blue
Max. allowable load kN {kgf}	1.08 {110}	0.54 {55}	0.76 {77}	0.83{85}		1.08 {110}	0.83 {85}	1.08 {110}	0.80 {81}	0.97 {99}	1.08 {110}	
Max. allowable speed m/min	60			—	60		—	60	—	60		
				60			60					
Operating temperature range °C	-20 to {65}80		-20 to 80			-20 to {65}80	-20 to 80			-20 to {60}80	-20 to 80	
Pin material	SUS304											
Pin type	D-pin											
RSP60-CU-2	△	△	△	△	△	△	△	△	△	△	△	△

- Note: 1. "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

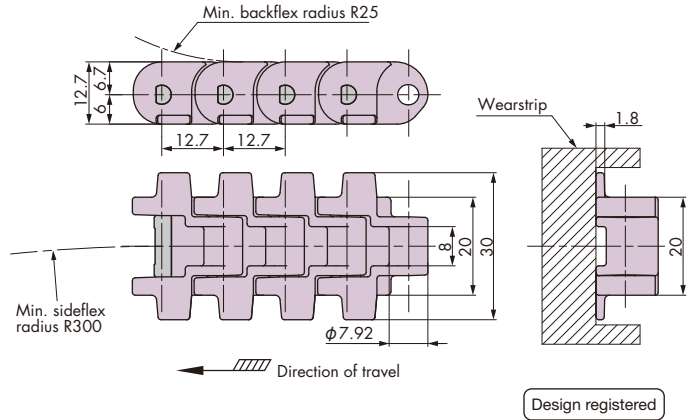
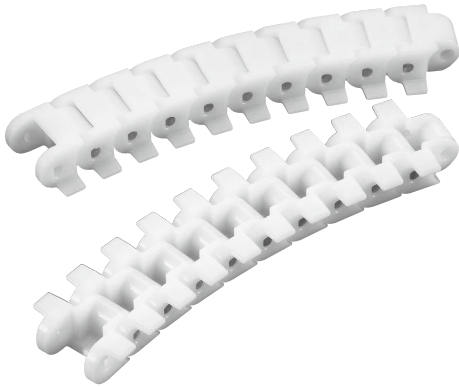
# Plastic Block Chain RSP40-T-CU

Sideflexing Running



## Features

1. Straight and curved conveyance is allowed to achieve easy conveyor layouts.
2. The chain pitch of 12.7 mm and the minimum sideflexing radius of 300 mm enable space-saving layouts.
3. Tabs prevent chains from floating at curved sections.



## Chain Material Table

Material	Standard Chain									High-Function Chain																									
	Standard			Low friction/Wear resistant			Advanced low friction/Wear resistant			Low friction			Low friction/Wear resistant			Chemical resistant			Electroconductive			Antibacterial/Mold resistant			Electrostatic preventive			Middle friction			Ultraviolet resistant			Food conveying	
Material mark	—	B	BL	LFW	LFG	LFB	ALF	NLF	WR	HG	Y	E	MWS	SE	MF	UVR	PFS																		
Link color	White	Blue	Sky blue	White	Green	Brown	Light blue	Dark gray	Dark green	Navy blue	Matte white	Black	Cream	Gray	Yellow	Light gray	Nile blue																		
Max. allowable load kN {kgf}	0.36{36.7}									0.20 {20.4}			0.25 {25.7}			0.36{36.7}			0.27 {27}			0.36{36.7}													
Max. allowable speed m/min	60									60			60			60			60			60													
Operating temperature range °C	-20 to 80			-20 to (65)80			-20 to 80			-20 to (65)80			-20 to 80			-20 to (65)80			-20 to 80			-20 to 80													
Pin material	SUS304																																		
Pin type	D-pin																																		
RSP40-T-CU	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△																		

Note: 1. "△": Made-to-order products (RFQ).  
 Not available for other chain materials that are not listed in the chain material table above.  
 2. Operating temperature of (the value in parentheses) is for wet conditions.  
 3. Plastic pin type is not available.

## Tsubaki Model Table

Material	Standard	Chain mass kg/m <sup>Note: 2</sup>	Backflex radius mm	Number of links per unit
Material mark	—			
Chain type	RSP40-T-CU	0.36	25	240

Note: 1. Chain type in normal face is a made-to-order product. Refer to the chain material table above for availability.  
 2. The chain mass of some chain materials are different from that shown in the Tsubaki model table above. Refer to the following information (unit: kg/m).  
 Y: 0.45  
 3. The chain mass of the chain materials available whose information are not described in note 2 are the same with that in the Tsubaki model table above.

## Sprockets

RS40 sprocket (with 14 or more teeth) can be used.

## Model Numbering

Chain type	Chain size	Tab	Chain type	Material mark	Number of links	Unit
<b>RSP</b>	<b>40</b>	<b>- T -</b>	<b>CU</b>	<b>- LFB</b> <sup>Note: 2</sup>	<b>+ 80</b> <sup>Note: 3</sup>	<b>L</b>
						L: Link

Note: 1. Do not leave space between letters and symbols.  
 2. Please check the chain material and material marks in the chain material table above.  
 3. Minimum quantity: 2, maximum quantity: 99999.





# Snap Cover Chain RF-SC/RS-SC

Straight Running

## Features

1. A higher maximum allowable load than a plastic block chain (type RS60-SC approx. 7 times higher than RSP60 chain).  
Ideal for long conveyors.
2. Plastic cover protects conveyed products from damage.
3. Suitable for a diverse range of applications with six different chain pitches available.

## Chain Material/Plastic Cover Material

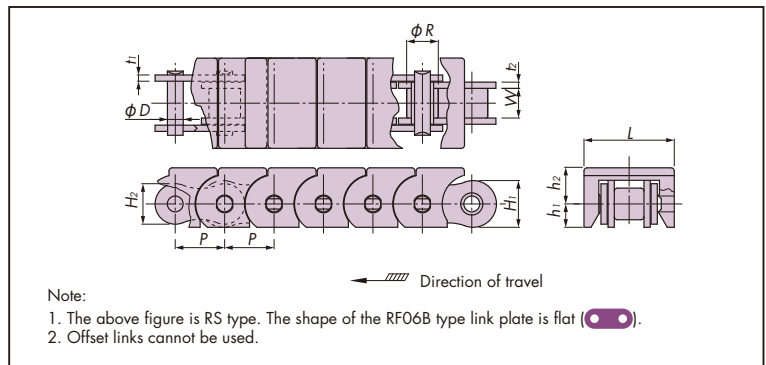
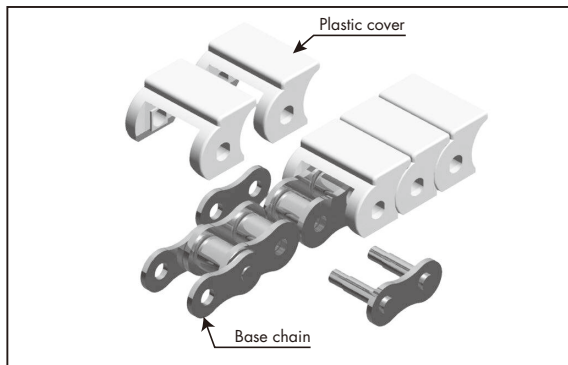
The following types are available for the base chain of the snap cover chain.

Various surface treatments can be applied to the base chain. Please contact a Tsubaki representative.

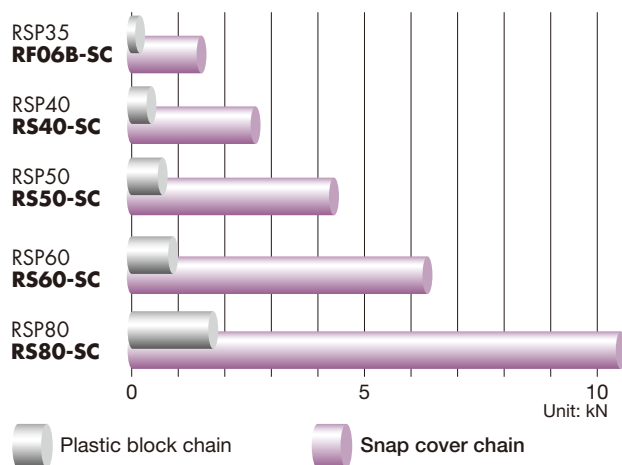
- ◆ Standard series: Base chain is steel, and main dimensions are the same as standard roller chain. Note, however, that the shape of the pin ends is different and that strength is lower than RS roller chain.
- ◆ NP series (Nickel-plated): Base chain is nickel-plated standard chain. The nickel plating makes for a better appearance, as well as providing corrosion resistance.
- ◆ LMCNP series (Lambda): By using a special oil-impregnated bush that uses NSF H1 compatible oil, it can be used without lubrication and with a long service life.
- ◆ SS series: All base chain components are made of 304 stainless steel, and designed for use in environments where high corrosion resistance is required.

The following type of plastic covers are available for snap cover chains.

- ◆ Standard series (color: white): The material (base body) is made of polyacetal and is used for general applications.
- ◆ Standard series (color: light blue): The material (connecting part) is made of polyacetal, so the connecting part can be easily identified, but it cannot be used together with the electroconductive series because it maintains conductivity.
- ◆ Electroconductive series (color: black): The material of the base body/connecting section are made of electroconductive polyacetal, and is used in applications where dust build-up from static, electrical noise and sparks must be avoided. (volume specific resistance  $1 \times 10^6 \Omega \cdot \text{cm}$ )



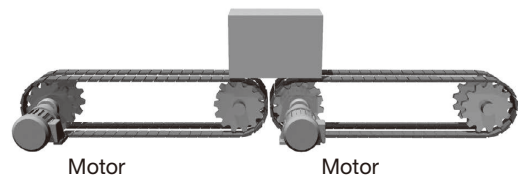
## Allowable load comparison with plastic block chain



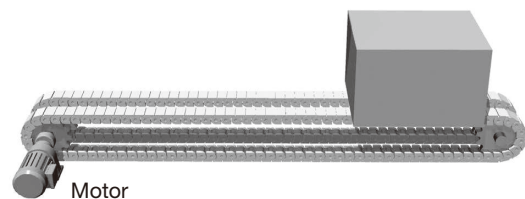
Note: No comparison with the RS100-SC as there are no corresponding plastic block chains.

## Location of motors

Plastic block chain: two motors



Snap cover chain: one motor



## Joint Link

A special joint link is necessary. A joint plate will be hold in place by attaching plastic snap cover. Standard joint links with cotters and spring clips for standard roller chains cannot be used.

Note: Refer to the above image for details.

Model Numbering

◆ Base Chain

Material mark

Chain size	Base chain material mark	Snap cover chain	Material of plastic cover	Number of links	End link
<b>RS40</b>	<b>SS</b>	<b>SC</b>	<b>A</b>	<b>+ 100L</b> <small>Note: 2</small>	<b>- JR</b> <small>Note: 3</small>

None: Standard    LMC: Lambda  
 NP: NP            LM: Lambda  
 SS: SS            (only RF06B)

Chain with plastic covers  
 A: Standard (color: white)  
 E: Electroconductive (color: black)

◆ Joint Link

Material mark

Chain size	Base chain material mark	Snap cover chain	Material of plastic cover	Joint link
<b>RS40</b>	<b>SS</b>	<b>SC</b>	<b>A</b>	<b>- JL</b>

Note: 1. Do not leave space between letters and symbols.  
 2. Minimum quantity: 3, maximum quantity: 99999.  
 3. Please refer on page 6.

Dimension Table

Chain size	Pitch P	Roller diameter φR	Inner width of inner link W	Pin diameter φD	Link plate				Plastic cover			Max. allowable load kN {kgf}		Chain mass kg/m	Max. allowable speed m/min	Operating temperature range °C	Number of links per unit
					Thickness t1	Thickness t2	Width H1	Width H2	h1	h2	L	Standard, NP, Lambda	SS				
RF06B	9.525	6.35	5.72	3.28	1.0	1.3	8.2	8.2	4.2	7.6	17.7	1.47{150}	0.26 {26.5}	0.55	60	-10 to 80	320
RS40	12.70	7.92	7.95	3.97	1.5	1.5	12.0	10.4	6.1	9.3	23.5	2.65{270}	0.44 {45}	0.8			240
RS50	15.875	10.16	9.53	5.09	2.0	2.0	15.0	13.0	7.5	12.1	29.0	4.31{440}	0.69 {70}	1.3			192
RS60	19.05	11.91	12.70	5.96	2.4	2.4	18.1	15.6	8.5	13.7	34.7	6.28{640}	1.03{105}	1.9			160
RS80	25.40	15.88	15.88	7.94	3.2	3.2	24.1	20.8	11.3	18.2	42.4	10.7{1090}	1.77{180}	2.9			120
RS100	31.75	19.05	19.05	9.54	4.0	4.0	30.1	26.0	14.5	21.6	49.4	17.1{1740}	2.55{260}	4.4			96

Base Chain Material Table

Base chain material Base chain material mark	Standard		NP		Lambda				SS	
	—		NP		LM		LMC		SS	
	Standard	Electroconductive	Standard	Electroconductive	Standard	Electroconductive	Standard	Electroconductive	Standard	Electroconductive
RF06B-■SCA	○		○		○				○	
RS40-■SCA	●		●				○		●	
RS50-■SCA	●		●				○		●	
RS60-■SCA	●		●				○		●	
RS80-■SCA	○		○				○		○	
RS100-■SCA	○		○				○		○	
RF06B-○SCE		○		○		○				○
RS40-○SCE		○		○				○		○
RS50-○SCE		○		○				○		○
RS60-○SCE		○		○				○		○
RS80-○SCE		○		○				○		○
RS100-○SCE		○		○				○		○
RF06B-○SCA-JL	○		○		○				○	
RS40-○SCA-JL	●		●				○		●	
RS50-○SCA-JL	●		●				○		●	
RS60-○SCA-JL	●		●				○		●	
RS80-○SCA-JL	○		○				○		○	
RS100-○SCA-JL	○		○				○		○	
RF06B-○SCE-JL		○		○		○				○
RS40-○SCE-JL		○		○				○		○
RS50-○SCE-JL		○		○				○		○
RS60-○SCE-JL		○		○				○		○
RS80-○SCE-JL		○		○				○		○
RS100-○SCE-JL		○		○				○		○

Note: 1. "●": Standard products, "○": Made-to-order products. 2. Only **RS40-SC-PA**, **RS50-SC-PA**, **RS60-SC-PA** are in stock plastic covers. 3. ■ indicates the base chain material marks.

Sprockets

- RS sprocket (with 13 or more teeth) can be used.
- RF06B is up to British Standard, which is equivalent for ISO B, requires a special sprocket.
- Refer to the separate catalog Tsubaki Drive Chains & Sprockets for information about sprockets for RF06B and RS100.
- When using Tsubaki RS40, RS50 or RS60 snap cover chains, there may be interference between the bottom of the plastic cover and the hub of the sprocket depending on the number of teeth of the sprocket used.

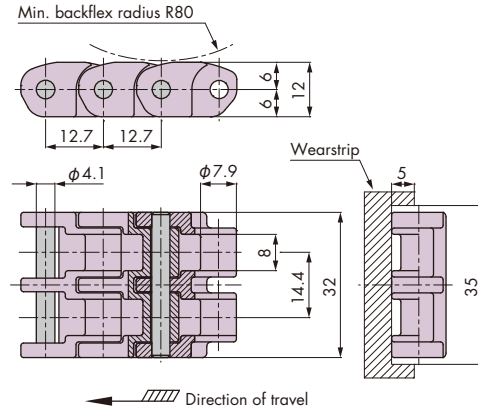
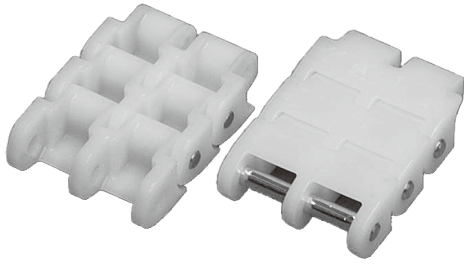
In case of using sprockets of the following number of teeth, the hub should be machined to size indicated. Sprockets labeled "—" do not need to be machined.

Teeth	13	14	15	16	17	18	19	20	21	22
RS40-SC	—	41	45	49	53	—	61	65	69	73
RS50-SC	46					—				
RS60-SC	54					—				

Note: 1. Sprockets for RF06B are made-to-order products.  
 2. Sprockets for the RS80 and RS100 series do not require hub machining.

# Plastic Block Chain Digest

## ■ RSP-PC082

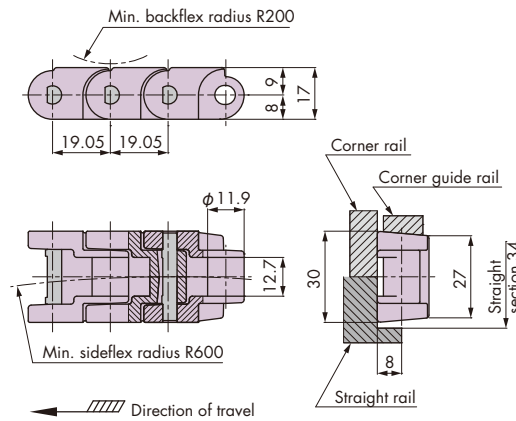
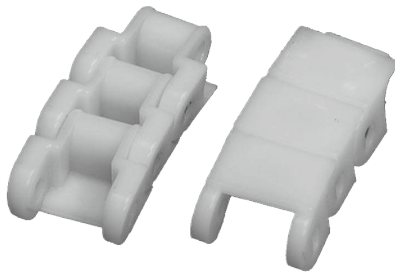


### Chain Material Table

Material	Standard	Max. allowable load kN {kgf}	Chain mass kg/m
Material mark	—		
Link color	White		
Chain type	<b>RSP-PC082</b>	0.49{50}	0.6

- Note: 1. Standard product.  
 2. The pin material is steel (unichrome plating).  
 3. Plastic pin type is not available.  
 4. RS40-2 sprocket (with 13 or more teeth) can be used.  
 5. Number of links per unit: 240

## ■ RSP-PO12SB



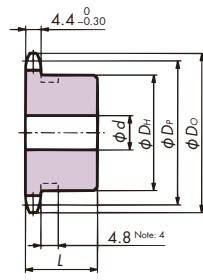
### Chain Material Table

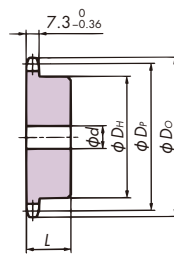
Material	Standard	Max. allowable load kN {kgf}	Chain mass kg/m
Material mark	—		
Link color	White		
Chain type	RSP-PO12SB	0.83{85}	0.8

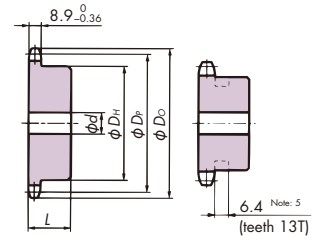
- Note: 1. Made-to-order product.  
 2. Plastic pin type is not available.  
 3. RS60 sprocket (with 12 or more teeth) can be used. The hub diameter (Dh) should be machined to size.  
 4. Number of links per unit: 160



# RS Sprockets

**RS35**

 (mached type)  
1B type

**RS40**

 (mached type)  
1B type

**RS50**

 (mached type)  
1B type

## Sprocket Specification Table

Sprocket type	Teeth	Pitch diameter $D_P$	Outside diameter $D_O$	1B type				Approx mass kg	Material		
				Bore diameter $d$		Hub					
				Plain bore	Max.	Diameter $D_H$	Length $L$				
RS35	13 <small>Note: 4</small>	39.80	44	9.5	18	32 <small>Note: 4</small>	20	0.12	Machined type/Carbon steel for machine structural use		
	14	42.80	47		16.5	30					
	15	45.81	51		19	35					
	16	48.82	54		20	37					
	17	51.84	57		24	41					
	18	54.85	60		24.5	44					
	19	57.87	63		28.5	47					
	20	60.89	66		30	50					
	21	63.91	69								
	22	66.93	72								
	23	69.95	75								
	24	72.97	78								
	25	76.00	81								
	26	79.02	84								
RS40	13	53.07	58	12.7	20	37	22	0.23	Machined type/Carbon steel for machine structural use		
	14	57.07	63		9.5	24				42	
	15	61.08	67		28.5	46					
	16	65.10	71		30	50					
	17	69.12	76		32	54					
	18	73.14	80		35	57					
	19	77.16	84		39.5	62					
	20	81.18	88		45.5	67					
	21	85.21	92		71						
	22	89.24	96		75						
	23	93.27	100		77						
	24	97.30	104								
	25	101.33	108								
	26	105.36	112								
27	109.40	116									
RS50	13 <small>Note: 5</small>	63.33	74	12.7	32	51 <small>Note: 5</small>	25	0.46	Machined type/Carbon steel for machine structural use		
	14	71.34	79		35	57					
	15	76.35	84		40	62					
	16	81.37	89		45.5	67					
	17	86.39	94		47.5	72					
	18	91.42	100								
	19	96.45	105								
	20	101.48	110								
	21	106.51	115								
	22	111.55	120								
	23	116.59	125								
	24	121.62	130								
	25	126.66	135								
	26	131.70	140								
27	136.74	145									
RS50	13	141.79	150	18	48	73	28	1.6	Machined type/Carbon steel for machine structural use		
	14	146.82	155								
	15	151.85	160								
	16	156.88	165								
	17	161.91	170								
	18	166.94	175								
	19	171.97	180								
	20	177.00	185								
	21	182.03	190								
	22	187.06	195								
	23	192.09	200								
	24	197.12	205								
	25	202.15	210								
	26	207.18	215								
27	212.21	220									

Note: 1. Standard products.

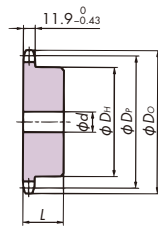
2. Teeth for all sprockets are hardened as standard products.

3. Maximum bore diameter represents the general case. Bore diameters and key/keyway contact stress should be determined based on general mechanical design.

4. The sprocket with 13 teeth has a groove of 28 mm diameter in the outer circumference. See the above RS35 drawing for details.

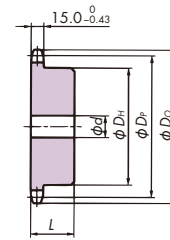
5. The sprocket with 13 teeth has a groove of 47 mm diameter in the outer circumference. See the above RS50 drawing for details.

RS60



(machined type)  
1B type

RS80



(machined type)  
1B type

Sprocket Specification Table

Sprocket type	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	1B type				Approx mass kg	Material		
				Bore diameter $d$		Hub					
				Plain bore	Max.	Diameter $D_H$	Length $L$				
RS60	12	73.60	83	12.7	32	51	32	0.69	Machined type/Carbon steel for machine structural use		
	13	79.60	89	15.9	35	57		0.81			
	14	85.61	95		39.5	62		0.96			
	15	91.63	101		45.5	68		1.1			
	16	97.65	107		47.5	73		1.3			
	17	103.67	113		18	55		83		40	1.4
	18	109.70	119	2.0							
	19	115.74	126	2.1							
	20	121.78	132	2.2							
	21	127.82	138	2.3							
	22	133.86	144	2.5							
	23	139.90	150	2.6							
	24	145.95	156	2.7							
	25	151.99	162	2.9							
26	158.04	168	3.0								
27	164.09	174	3.1								
28	170.14	181	19	63	93	40	1.7				
RS80	13	106.14					118	23	50	77	1.9
	14	114.15					127				2.5
	15	122.17					135				2.7
	16	130.20					143				2.8
	17	138.23					151				3.0
	18	146.27					159				3.2
	19	154.32	167	3.4							
20	162.37	176	3.7								
21	170.42	184									

- Note: 1. Standard products.  
 2. Teeth for all sprockets are hardened as standard products.  
 3. Maximum bore diameter represents the general case. Bore diameters and key/keyway contact stress should be determined based on general mechanical design.

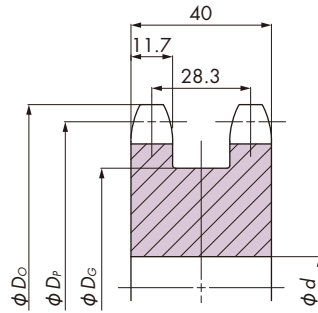
Model Numbering

Chain size	Number of strands	Hub	Teeth	Teeth hardening
<b>RS80</b>	<b>- 1</b>	<b>B</b>	<b>16T</b>	<b>Q</b>
	1: Single strand	B:B type (1B type)		None: Non-hardened teeth Q: Hardened teeth

Note: Do not leave space between letters and symbols.

# Sprockets for Plastic Block Chain

## Steel Sprockets for RSP-PO12-2S

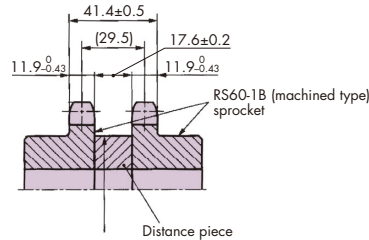


Tsubaki model no.	Teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Groove diameter $D_g$	Bore diameter $d$		Approx mass kg	Material
					Plain bore	Max.		
RSP-UPO19T	19	115.7	125	90	20	50	2.7	Carbon steel for machine structural use
RSP-UPO21T	21	127.8	137	105		60	3.4	
RSP-UPO23T	23	139.9	149	115		70	4.0	
RSP-UPO25T	25	152.0	161	130			4.9	

Note: Made-to-order products.

## Sprockets for RSP60-2 and RSP60-CU-2

1. For the sprocket, please use two RS60B (machined type) sprockets together.
2. Adjust the width between the two sprockets by inserting a distance piece.



Note: 1. RS60-2B or 2C sprockets cannot be used.

2. Match the phases of two sprockets.

3. Use sprockets with twelve teeth or greater.

4. A special distance piece will be available when ordering two sprockets and a distance piece as a set. An integrated type of two sprockets with a distance piece is also available.





## Features

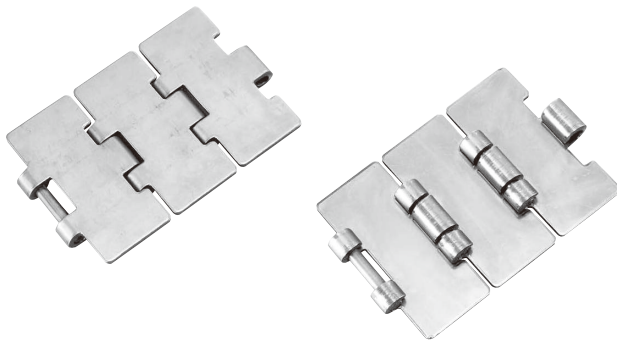
1. International standard shape.
2. All parts are made of stainless steel.
3. All edges of the top plates are smoothly chamfered, ensuring smooth transfer.

## Chain Material

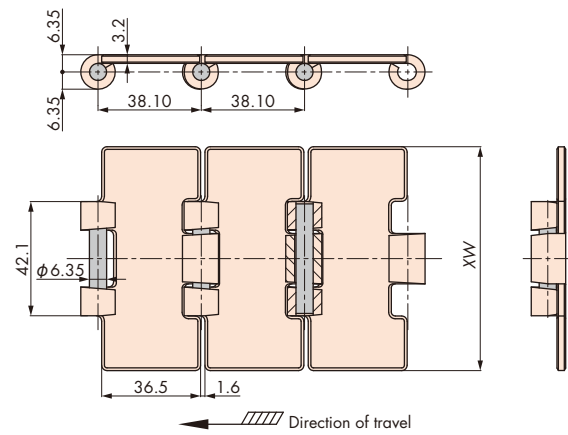
The following types are available for stainless steel top chains.

- ◆N series: Top plate is made of martensitic stainless steel.
- ◆SS series: Made of type 304 stainless steel or equivalent. Highly resistant to corrosion and is clean and sanitary.

Note: Contact a Tsubaki representative if the chain will be used in extreme environments.



## Drawing



Chain pitch mm	Backflex radius mm	Number of links per unit
38.10	180	80

## Tsubaki Model Table

Material	N	SS	Chain width XW	Chain mass kg/m
Max. allowable load kN {kgf}	2.16{220}			
Chain type	<b>TT635-N</b>	<b>TT635-SS</b>	63.5	2.3
	<b>TT762-N</b>	<b>TT762-SS</b>	76.2	2.5
	<b>TT826-N</b>	<b>TT826-SS</b>	82.6	2.6
	<b>TT1016-N</b>	<b>TT1016-SS</b>	101.6	3.0
	<b>TT1143-N</b>	<b>TT1143-SS</b>	114.3	3.3
	<b>TT1270-N</b>	<b>TT1270-SS</b>	127.0	3.8
	<b>TT1524-N</b>	<b>TT1524-SS</b>	152.4	4.2
	<b>TT1905-N</b>	<b>TT1905-SS</b>	190.5	5.1

Note: 1. Standard products.

2. As of October 2010, the standard product lineup was expanded.

3. The top surface of the plates are polished.

4. No additional machining or processing should be performed on N series top plate. Cracking or fracturing may occur during bending process.

## Model Numbering

### ◆Chain

Chain type	Chain width	Base chain material mark	Number of links
<b>TT</b>	<b>826</b> <small>Note: 2</small>	<b>N</b> <small>Note: 3</small>	<b>20L</b> <small>Note: 4</small>

### ◆Connecting pin

Chain type	Base chain material mark	Connecting pin
<b>TT</b>	<b>N</b> <small>Note: 3</small>	<b>RP</b>

Note: 1. Do not leave space between letters and symbols.

2. Please check the widths of chains in the above Tsubaki model table.

3. Please check the materials of base chains in the above Tsubaki model table.

4. Minimum quantity: 2, maximum quantity: 99999.



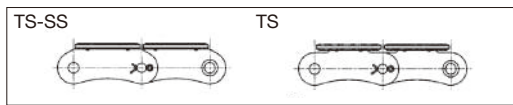
## Features

1. The conveyor chain with plate attached to ANSI double pitch chain. Sprockets for double pitch chains should be used.
2. Base chains made of NP (nickel-plated), LMCNP (Lambda) or SS (stainless steel) are available.
3. Available in a wide variety of special finishes to suit various applications and work environments, including hard chromium plated, buffed top plates, and heat-treated top plates for improved wear resistant.

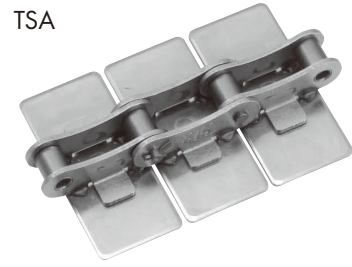
## Chain Material

The following types are available for stainless steel top chains.

- ◆ Standard series: Base chain is steel-made, SUS430 is used in top plates.
- ◆ NP series (nickel-plated): Base chains are a standard type processed with nickel-plating, providing corrosion resistance and better appearance.
- ◆ LMCNP series (Lambda type): Lube-free chain in combination with NP type base chain and oil impregnated sintered bushes.
- ◆ SS series: Made of type 304 stainless steel and is suitable for an environment where corrosion resistance is to be prioritized.

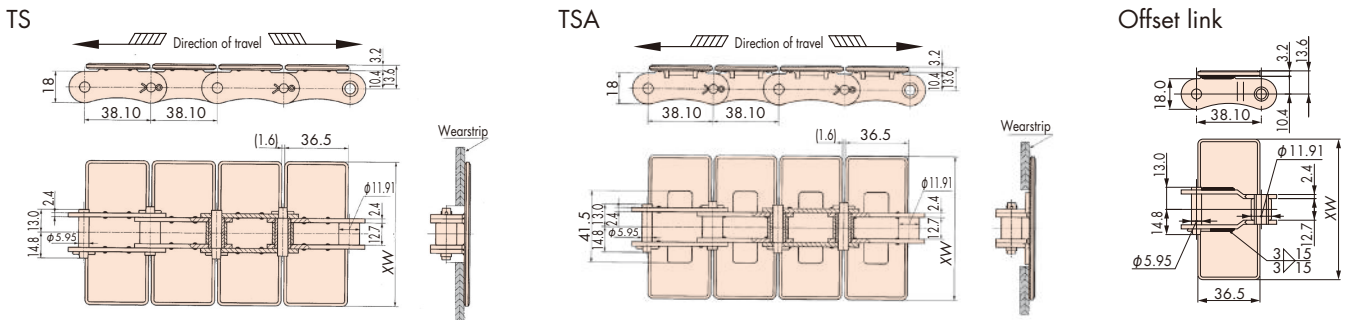


SS base chain plates differ slightly in shape.

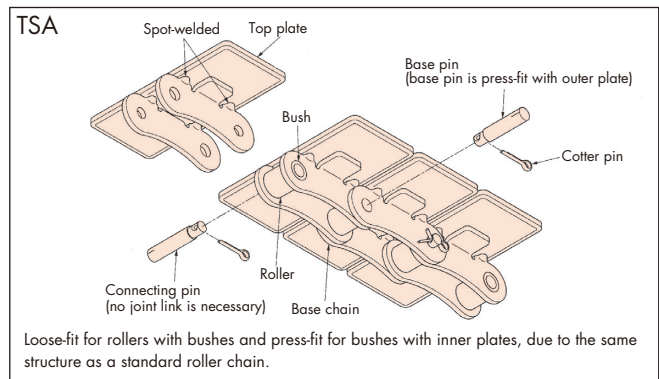
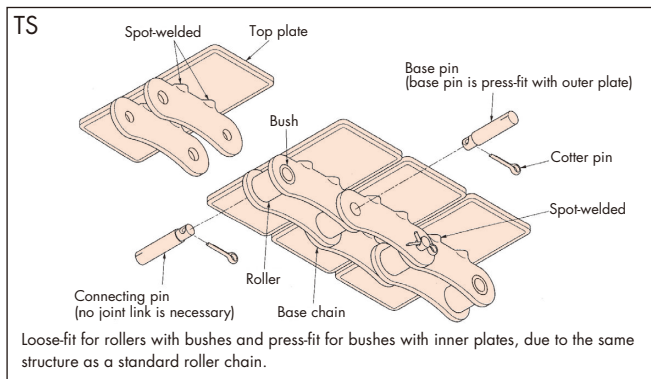


Chain pitch mm	Backflex radius mm	Number of links per unit
38.10	330	80

## Drawing



## Three-dimensional drawing



## Sprockets

RF2060S sprocket (with 19 or more actual teeth) can be used.

## Tsubaki Model Table

Material	Standard	NP	LMCNP (Lambda type)	SS	Top plate width XW	Chain mass kg/m	
Max. allowable load kN {kgf}	2.94{300}			1.03{105}			
TS	Chain type	<b>TS550</b>	TS550-NP	TS550-LMCNP	TS550-SS	55.0	2.5
		<b>TS635</b>	TS635-NP	TS635-LMCNP	TS635-SS	63.5	2.7
		<b>TS762</b>	TS762-NP	TS762-LMCNP	TS762-SS	76.2	3.0
		<b>TS826</b>	TS826-NP	TS826-LMCNP	TS826-SS	82.6	3.2
		<b>TS950</b>	TS950-NP	TS950-LMCNP	TS950-SS	95.0	3.5
		<b>TS1016</b>	TS1016-NP	TS1016-LMCNP	TS1016-SS	101.6	3.7
		<b>TS1100</b>	TS1100-NP	TS1100-LMCNP	TS1100-SS	110.0	3.9
		<b>TS1143</b>	TS1143-NP	TS1143-LMCNP	TS1143-SS	114.3	4.0
		<b>TS1270</b>	TS1270-NP	TS1270-LMCNP	TS1270-SS	127.0	4.3
		<b>TS1524</b>	TS1524-NP	TS1524-LMCNP	TS1524-SS	152.4	4.9
	<b>TS1905</b>	TS1905-NP	TS1905-LMCNP	TS1905-SS	190.5	5.8	
TSA	Chain type	<b>TSA550</b>	TSA550-NP	TSA550-LMCNP	TSA550-SS	55.0	2.8
		<b>TSA635</b>	<b>TSA635-NP</b>	TSA635-LMCNP	TSA635-SS	63.5	3.0
		TSA762	TSA762-NP	TSA762-LMCNP	TSA762-SS	76.2	3.3
		<b>TSA826</b>	<b>TSA826-NP</b>	TSA826-LMCNP	TSA826-SS	82.6	3.5
		<b>TSA950</b>	<b>TSA950-NP</b>	TSA950-LMCNP	TSA950-SS	95.0	3.8
		TSA1016	TSA1016-NP	TSA1016-LMCNP	TSA1016-SS	101.6	4.0
		<b>TSA1100</b>	TSA1100-NP	TSA1100-LMCNP	TSA1100-SS	110.0	4.2
		<b>TSA1143</b>	TSA1143-NP	TSA1143-LMCNP	TSA1143-SS	114.3	4.3
		TSA1270	TSA1270-NP	TSA1270-LMCNP	TSA1270-SS	127.0	4.6
		<b>TSA1524</b>	<b>TSA1524-NP</b>	TSA1524-LMCNP	TSA1524-SS	152.4	5.2
		<b>TSA1905</b>	<b>TSA1905-NP</b>	TSA1905-LMCNP	TSA1905-SS	190.5	6.1

Note: Chain type in boldface are standard products. Chain type in normal face are made-to-order products.

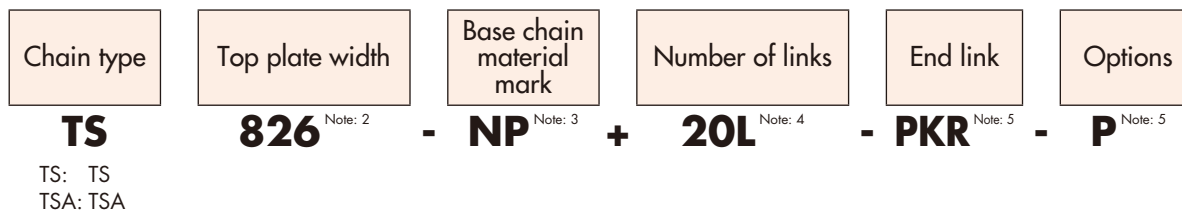
## Type of Offset Link (Common for TS and TSA)

Material	Type of offset link (common for TS and TSA)				Top plate width XW
	Standard	NP	LMCNP (Lambda type)	SS	
Chain type	<b>TS550-OL</b>	TS550-NP-OL	TS550-LMCNP-OL	TS550-SS-OL	55.0
	<b>TS635-OL</b>	TS635-NP-OL	TS635-LMCNP-OL	TS635-SS-OL	63.5
	<b>TS826-OL</b>	TS826-NP-OL	TS826-LMCNP-OL	TS826-SS-OL	82.6
	<b>TS950-OL</b>	TS950-NP-OL	TS950-LMCNP-OL	TS950-SS-OL	95.0
	<b>TS1016-OL</b>	TS1016-NP-OL	TS1016-LMCNP-OL	TS1016-SS-OL	101.6
	<b>TS1100-OL</b>	TS1100-NP-OL	TS1100-LMCNP-OL	TS1100-SS-OL	110.0
	<b>TS1143-OL</b>	TS1143-NP-OL	TS1143-LMCNP-OL	TS1143-SS-OL	114.3
	<b>TS1270-OL</b>	TS1270-NP-OL	TS1270-LMCNP-OL	TS1270-SS-OL	127.0
	<b>TS1524-OL</b>	TS1524-NP-OL	TS1524-LMCNP-OL	TS1524-SS-OL	152.4
	<b>TS1905-OL</b>	TS1905-NP-OL	TS1905-LMCNP-OL	TS1905-SS-OL	190.5

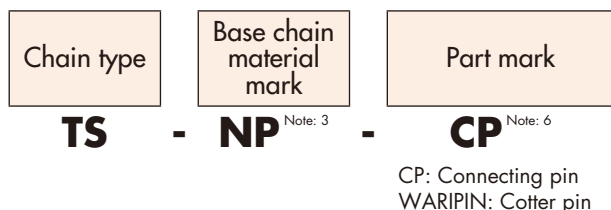
Note: Chain type in boldface are standard products. Chain type in normal face are made-to-order products.

## Model Numbering

### ◆Chain



### ◆Connecting Pin, Cotter Pin

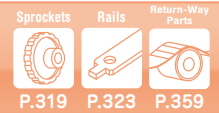


- Do not leave space between letters and symbols.
- Please check the widths of top plates in the above Tsubaki model table.
- Please check the materials of base chains in the above Tsubaki model table.
- Minimum quantity: 3, maximum quantity: 99999.
- Please refer on page 6.
- A connecting pin and cotter pin are different products. Please enter the model number of the product you want to purchase.

# Stainless Steel Top Chain TS-CTP, TSA-HTP

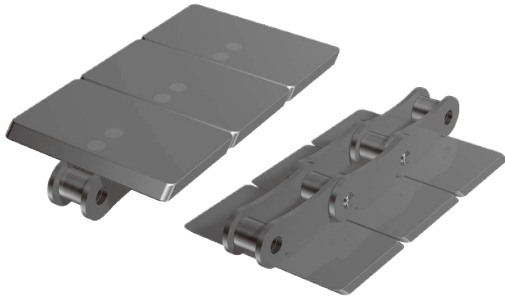
Design Stock

Straight Running

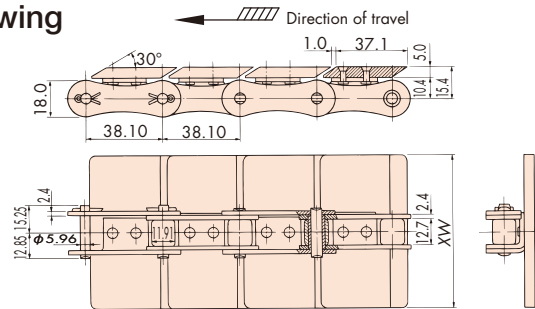


## TS-CTP Features/Chain Material

The narrow gap between plates prevent catching of conveyed product.



### Drawing



Chain pitch mm	Backflex radius mm	Number of links per unit
38.10	1300	80

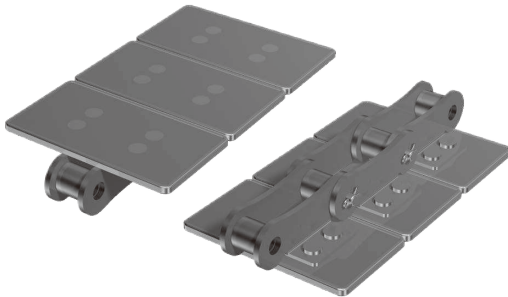
### Tsubaki Model Table

Chain type	Top plate width XW
TS635-CTP	63.5
TS762-CTP	76.2

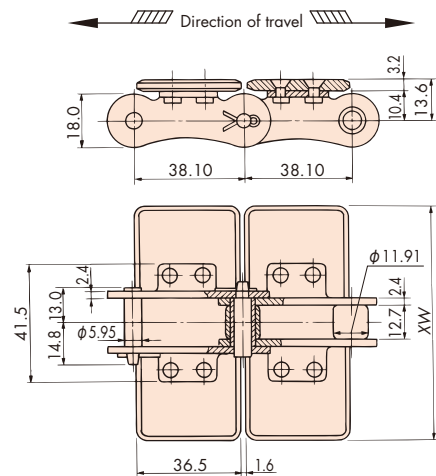
Note: 1. Made-to-order products.  
2. Sprockets for double pitch chains can be used.

## TSA-HTP Features/Chain Material

Hard to be scratched by quench hardening of the top plate (carbon steel).



### Drawing



Chain pitch mm	Backflex radius mm	Number of links per unit
38.10	330	80

### Tsubaki Model Table

Chain type	Top plate width XW	Chain type	Top plate width XW
TSA550-HTP	55.0	TSA826-HTP	82.6
TSA635-HTP	63.5	TSA950-HTP	95.0
TSA762-HTP	76.2	TSA1016-HTP	101.6

Note: 1. Made-to-order products.  
2. Top plate hardened to HRC40 (base chain standard carbon steel).  
3. Top plate is riveted to the base chain.  
4. Sprockets for double pitch chains can be used.

## Model Numbering

### ◆ Chain

Chain type	Top plate width	Top plate material mark	Number of links	End link	Options
<b>TSA</b>	<b>762</b> <small>Note: 2</small>	<b>- HTP</b> <small>Note: 3</small>	<b>+ 20L</b> <small>Note: 4</small>	<b>- PKR</b> <small>Note: 5</small>	<b>- P</b> <small>Note: 5</small>

Note: 1. Do not leave space between letters and symbols.  
2. Please check the widths of top plates in the above Tsubaki model table.  
3. Please check the materials of base chains in the above Tsubaki model table.  
4. Minimum quantity: 3, maximum quantity: 99999.  
5. Please refer on page 6.

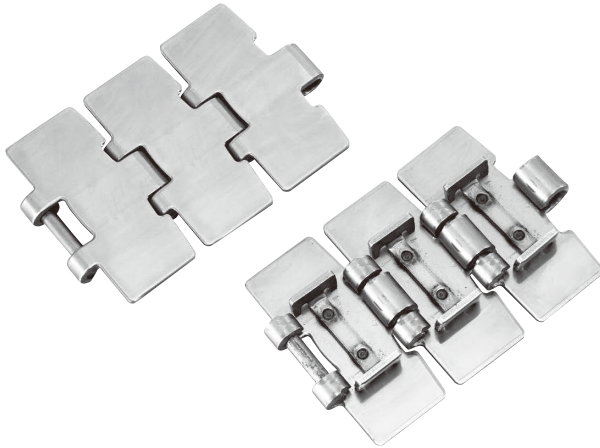
## Features

1. Standard stainless steel top chains designed for use in sideflexing conveyors.
2. All parts are made of stainless steel.
3. Suitable for stable transportation of conveyed products due to the wrapped hinge and top plate.
4. Top plates are smoothly polished with a grinder.

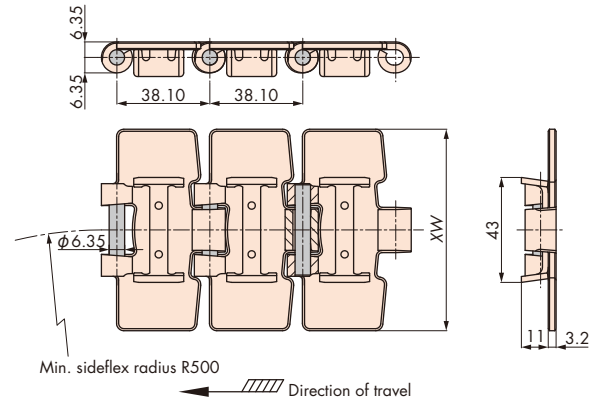
## Chain Material

The following types are available for stainless steel top chains.

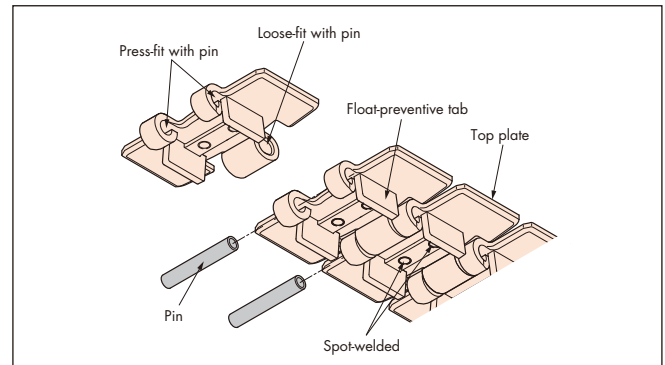
◆N series: Base chain is made of martensitic stainless steel.



## Drawing



## Three-dimensional drawing



Chain pitch mm	Backflex radius mm	Number of links per unit
38.10	100	80

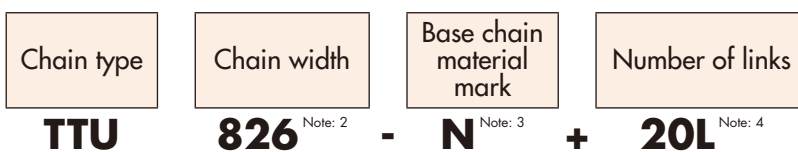
## Tsubaki Model Table

Material	N	Chain width XW	Chain mass kg/m
Max. allowable load kN {kgf}	2.16{220}		
Chain type	<b>TTU762-N</b>	76.2	2.8
	<b>TTU826-N</b>	82.6	3.0
	<b>TTU1143-N</b>	114.3	3.7
	<b>TTU1905-N</b>	190.5	5.5

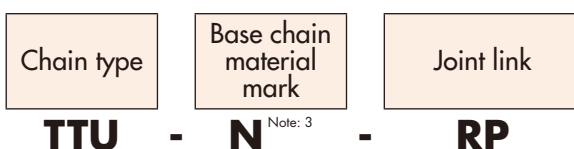
- Note: 1. Standard products.  
 2. As of October 2010, the standard product lineup was expanded. (TTU762-N from 2011).  
 3. The top surfaces of the plates are polished.  
 4. TTU underwent design improvements in October 2003 and July 2009, as a result new chains cannot be connected to older existing ones. When replacing chains, whole chains must be replaced.  
 5. The minimum sideflexing radius of TTU was changed in October 2003. Be sure to check the minimum sideflex radius when replacing.

## Model Numbering

### ◆Chain



### ◆Joint Link

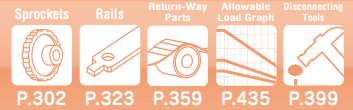


- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the widths of chains in the above Tsubaki model table.  
 3. Please check the materials of base chains in the above Tsubaki model table.  
 4. Minimum quantity: 2, maximum quantity: 99999.

# Stainless Steel Top Chain

## TTKU

Sideflexing Running



### Features

1. Sideflexing chain with protrusions on joint plates to guide sideflexing movement.
2. Higher allowable load than TTU.
3. Easy maintenance due to allowing chain to be lifted at corners.
4. Suitable for light loads or slow speed conveyance.

Note: The chain may lift up at corners in case of heavy loads or high-speed transportation.

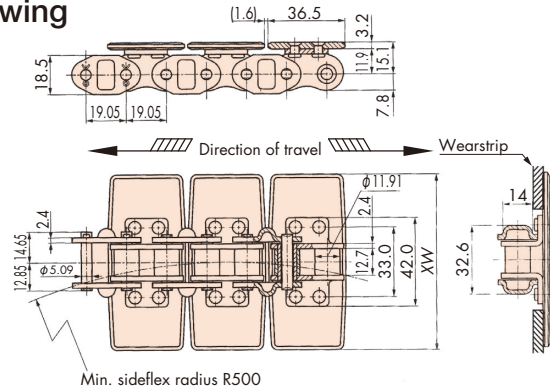
### Chain Material

The following types are available for stainless steel top chains.

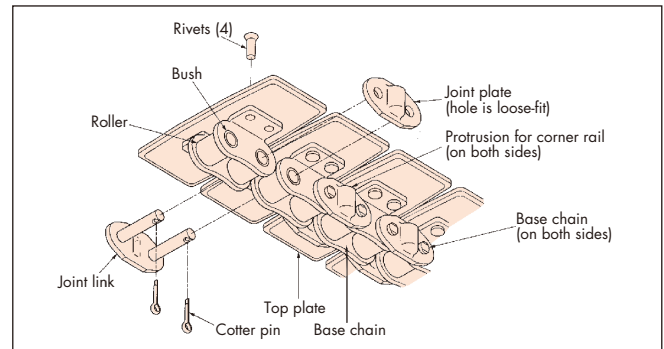
- ◆Standard series: Base chain is steel-made, SUS430 is used in top plates.



### Drawing



### Three-dimensional drawing



Chain pitch mm	Backflex radius mm	Number of links per unit
19.05	300	160 <small>Note:</small>

Note: The number of links on the base chain.

### Tsubaki Model Table

Material	Standard	Top plate width XW	Chain mass kg/m
Max. allowable load kN (kgf)	2.84(280) <small>Note: 2</small>		
Material	SUS430(18Cr)		
	Rivets	(13Cr)	
	Base chain	Steel	
Chain type	<b>TTKU826</b>	82.6	3.8
	TTKU1100	110.0	4.5

Note: 1. Chain type in boldface is a standard product. Chain type in normal face is a made-to-order product.

2. SS series: Chains with a max. allowable load of 0.69 kN (70 kgf) can also be manufactured.

3. For low speed (45m/min or less) sideflex radius conveyance.

### Sprockets

RS60 sprocket (with 12 or more teeth) can be used.

### Model Numbering

#### ◆Chain

Chain type	Top plate width	Number of links
<b>TTKU</b>	<b>826</b> <small>Note: 2</small>	<b>20L</b> <small>Note: 3</small>

#### ◆Joint Link

Chain type	Joint link
<b>TTKU</b>	<b>JL</b>

Note: 1. Do not leave space between letters and symbols.

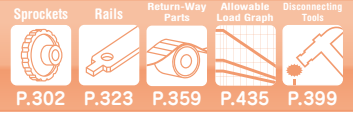
2. Please check the widths of top plates in the above Tsubaki model table.

3. Since the TTKU has a top plate for every two links of the main chain, be sure to specify the chain length when ordering with the number of links of the base chain.



# Stainless Steel Top Chain TRU

Sideflexing Running



## Features

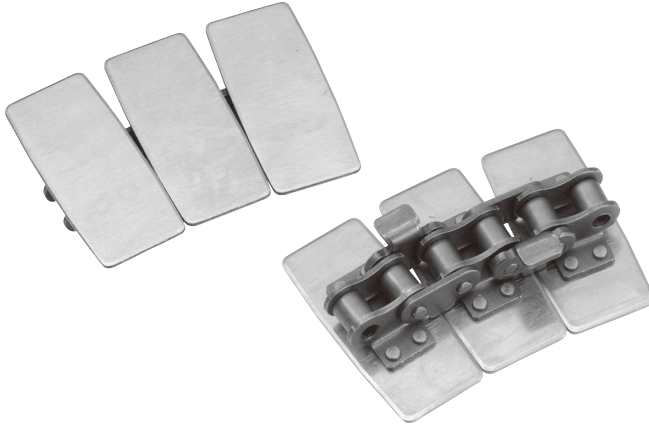
1. Higher allowable load than TTU.
2. Sideflexing chain equipped with tabs.

## Chain Material

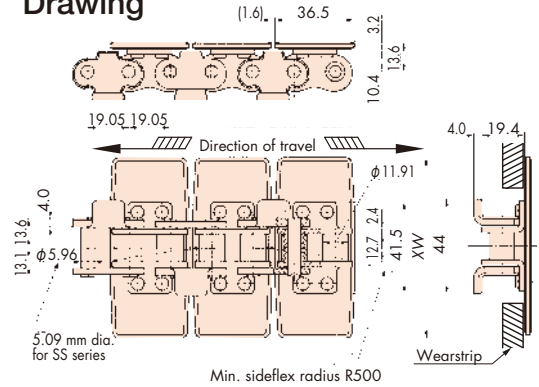
The following types are available for stainless steel top chains.

- ◆ Standard series: Base chain is steel-made, SUS430 is used in top plates.
- ◆ NP series (nickel-plated): Base chains are a standard type processed with nickel-plating, providing corrosion resistance and better appearance.
- ◆ SS series: Made of type 304 stainless steel and is suitable for an environment where corrosion resistance is to be prioritized.

Note: Contact a Tsubaki representative if the chain will be used in extreme environments.



## Drawing



Chain pitch mm	Backflex radius mm	Number of links per unit
19.05	300	160 <sup>Note</sup>

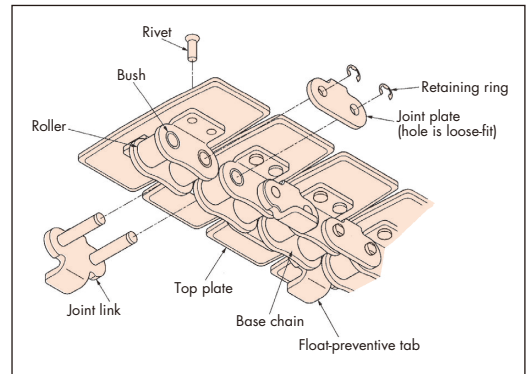
Note: The number of links on the base chain.

## Tsubaki Model Table

Material	Top plate	SUS430(18Cr)	SUS304	SUS430(18Cr)	Top plate width XW	Chain mass kg/m
	Rivets	(13Cr)		18-BUS		
Material	Base chain	Steel	Steel + nickel-plated			
Chain type	TRU762-T	TRU762-T-SS	TRU762-T-NP	76.2	3.9	
	<b>TRU826-T</b>	TRU826-T-SS	TRU826-T-NP	82.6	4.1	
	TRU1016-T	TRU1016-T-SS	TRU1016-T-NP	101.6	4.6	
	TRU1100-T	TRU1100-T-SS	TRU1100-T-NP	110.0	4.8	
	TRU1143-T	TRU1143-T-SS	TRU1143-T-NP	114.3	4.9	
	TRU1270-T	TRU1270-T-SS	TRU1270-T-NP	127.0	5.2	

Note: Chain type in boldface is a standard product. Chain type in normal face are made-to-order products.

## Three-dimensional drawing

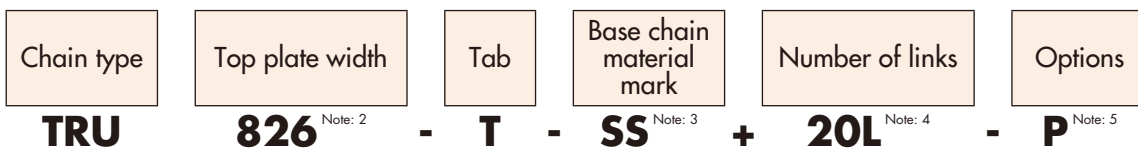


## Sprockets

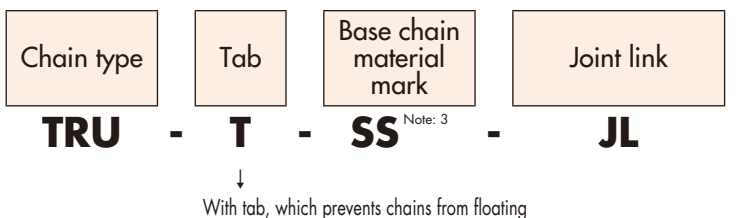
RS60 sprocket (with 19 or more teeth) can be used.

## Model Numbering

### ◆Chain



### ◆Joint Link



1. Do not leave space between letters and symbols.
2. Please check the widths of top plates in the above Tsubaki model table.
3. Please check the materials of base chains in the above Tsubaki model table.
4. Since the TRU has a top plate for every two links of the main chain, be sure to specify the chain length when ordering with the number of links of the base chain.
5. Please refer on page 6.

## Features

1. Stainless steel top chain designed for use in horizontal conveyors.
2. Suitable for horizontal conveyance in tight spaces.

## Chain Material

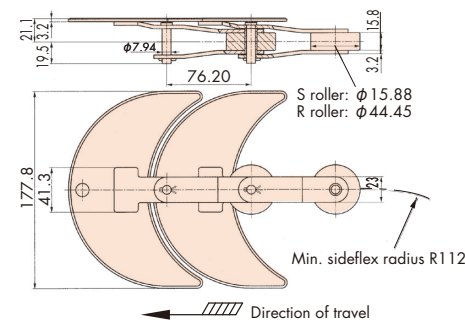
The following types are available for stainless steel top chains.

- ◆Standard series: Base chain is steel-made, SUS430 is used in top plates.
- ◆SS series: Made of type 304 stainless steel and is suitable for an environment where corrosion resistance is to be prioritized.

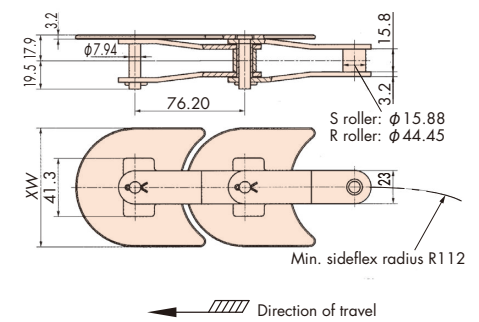
Note: Contact a Tsubaki representative if the chain will be used in extreme environments.

## Drawing

TOS(R) 1778



TOS(R) 826, 1143



Chain pitch mm	Backflex radius mm	Number of links per unit
76.20	-	40

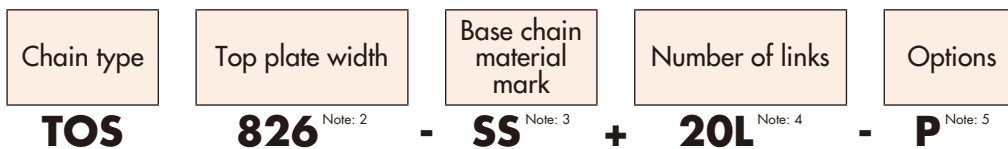
## Tsubaki Model Table

Material		Standard	SS	Top plate width XW	Chain mass kg/m
Max. allowable load kN {kgf}		2.94{300}	1.77{180}		
Material	Top plate	SUS430(18Cr)	SUS304		
	Base chain	Steel			
Chain type	S roller	TOS826	TOS826-SS	82.6	4.1
		TOS1143	TOS1143-SS	114.3	4.8
		TOS1778	TOS1778-SS	177.8	6.3
	R roller	TOR826	TOR826-SS	82.6	5.9
		TOR1143	TOR1143-SS	114.3	6.9
		TOR1778	TOR1778-SS	177.8	8.1

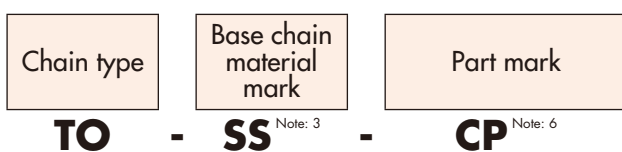
Note: Made-to-order products.

## Model Numbering

### ◆Chain



### ◆Connecting Pin, Cotter Pin



CP: Connecting pin  
WARIPIN: Cotter pin

- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the widths of top plates in the above Tsubaki model table.  
 3. Please check the materials of base chains in the above Tsubaki model table.  
 4. Minimum quantity: 2, maximum quantity: 99999.  
 5. Please refer on page 6.  
 6. A connecting pin and cotter pin are different products. Please enter the model number of the product you want to purchase.

### Features

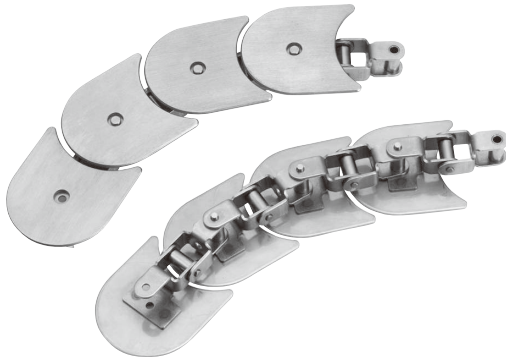
1. Vertical bendable stainless steel chain designed for use in horizontal conveyors.
2. Provides flexible layout including three-dimensional.

### Chain Material

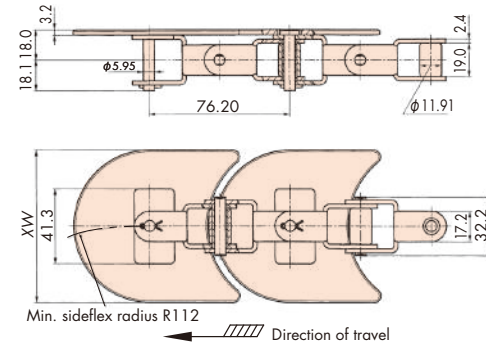
The following types are available for stainless steel top chains.

- ◆Standard series: Base chain is steel-made, SUS430 is used in top plates.
- ◆SS series: Made of type 304 stainless steel and available to use in an environment where corrosion resistance is to be prioritized.

Note: Contact a Tsubaki representative if the chain will be used in extreme environments.



### Drawing



Chain pitch mm	Backflex radius mm	Number of links per unit
76.20	-	40

### Tsubaki Model Table

Material	Standard	SS	Top plate width XW	Chain mass kg/m
Max. allowable load kN {kgf}	0.98{100}			
Material	Top plate	SUS430(18Cr)	82.6	3.8
	Base chain	Steel		
Chain type	TU826	TU826-SS	114.3	4.5
	TU1143	TU1143-SS		

Note: Made-to-order products.

### Model Numbering

#### ◆Chain

Chain type	Top plate width	Base chain material mark	Number of links	Options
<b>TU</b>	<b>826</b> <small>Note: 2</small>	<b>SS</b> <small>Note: 3</small>	<b>20L</b> <small>Note: 4</small>	<b>P</b> <small>Note: 5</small>

#### ◆Connecting Pin, Cotter Pin

Chain type	Base chain material mark	Part mark
<b>TU</b>	<b>SS</b> <small>Note: 3</small>	<b>CP</b> <small>Note: 6</small>

CP: Connecting pin  
WARIPIN: Cotter pin

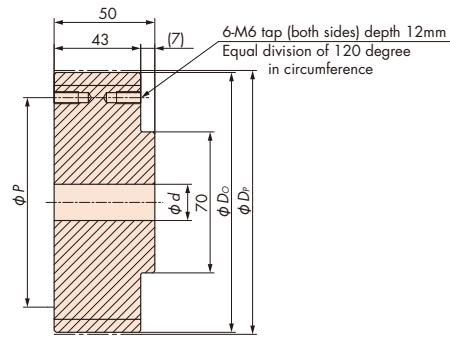
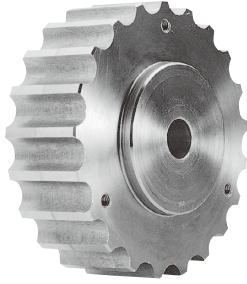
- Note: 1. Do not leave space between letters and symbols.  
 2. Please check the widths of top plates in the above Tsubaki model table.  
 3. Please check the materials of base chains in the above Tsubaki model table.  
 4. Minimum quantity: 2, maximum quantity: 99999.  
 5. Please refer on page 6.  
 6. A connecting pin and cotter pin are different products. Please enter the model number of the product you want to purchase.

# Sprockets for TT Chains

Steel

Applicable Chain TT

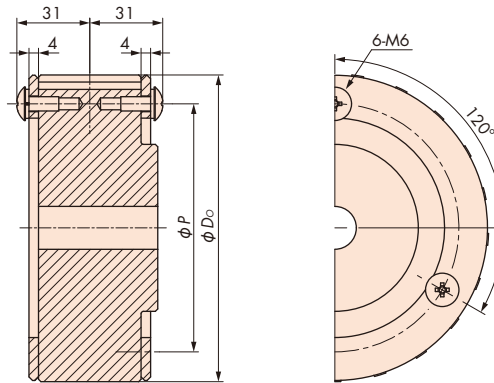
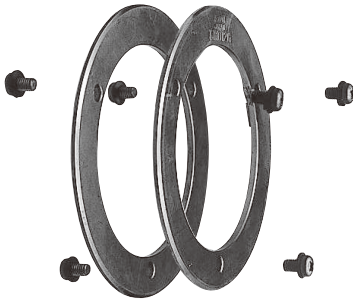
## ◆With Plain Bore



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_P$	Outside diameter $D_o$	$P$	Bore diameter $d$		Approx mass kg	Material
						Plain bore	Max.		
TT912T	19	9 ½	117.34	117	92	18	40	2.8	Carbon steel for machine structural use
<b>TT1012T</b>	21	10 ½	129.26	129	104			3.7	
<b>TT1112T</b>	23	11 ½	141.22	141	116			4.3	
<b>TT1212T</b>	25	12 ½	153.20	153	128			5.0	

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face is a made-to-order product.  
2. The teeth of all sprockets table above have not been hardened.

## ◆Guide Rings for TT Steel Sprockets



Tsubaki model no.	Applicable sprocket Tsubaki model no.	Outside diameter $D_o$	Installed pitch diameter $P$	Approx. mass kg
TT912G	TTP912T TT912T	116	92	0.17
<b>TT1012G</b>	TTP1012T TT1012T	128	104	0.19
<b>TT1112G</b>	TTP1112T TT1112T	140	116	0.21
<b>TT1212G</b>	TTP1212T TT1212T	152	128	0.23

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face is a made-to-order product.  
2. A set consists of two guide rings and six bolts.  
3. Common with TTP guide rings.  
4. Guide rings are shipped separately with sprockets.

## Model Numbering

### ◆Sprockets

Chain type	Effective teeth	Sprocket	Sleeve no.	Number of tightening bolts	Bore diameter
<b>TT</b>	<b>1012</b>	<b>T</b>	<b>S4</b> <small>Note: 2, 3</small>	<b>4</b> <small>Note: 3</small>	<b>30</b> <small>Note: 3</small>
TTU: TTU		T: Sprocket	S4: Sleeve no. S4	4: Four bolts	30: $\phi$ 30 mm

Note: 1. Do not leave space between letters and symbols.  
2. Refer to the lock sleeve dimensions on the right page.  
3. Enter only for Lock series.

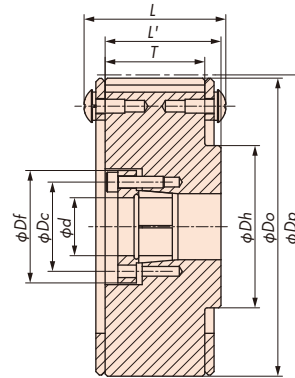
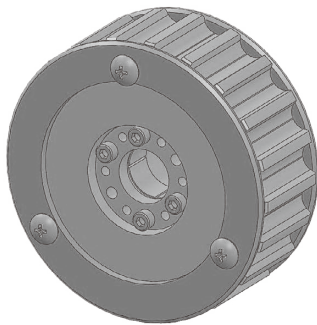
### ◆Guide Rings

Chain type	Effective teeth	Guide rings
<b>TT</b>	<b>1012</b>	<b>G</b>
TTU: TTU		G: Guide rings

Note: Do not leave space between letters and symbols.

Applicable Chain TT

◆ Sprockets (Lock Series)



Tsubaki model no.	Actual teeth	Effective teeth	Dimensions						Applicable bore diameter <i>d</i>										
			Pitch diameter <i>D<sub>p</sub></i>	Outside diameter <i>D<sub>o</sub></i>	Tooth width <i>T</i>	Hub diameter <i>D<sub>h</sub></i>	<i>L</i>	<i>L'</i>	15	20	25	30	35	40	45				
TT912T-S24□□	19	9 ½	117.34	117	43	70	62	50	●	●									
TT912T-S34□□										●									
TT912T-S44□□											●	●							
TT912T-S55□□													●	●					
TT1012T-S24□□	21	10 ½	129.26	129									●	●					
TT1012T-S34□□											●								
TT1012T-S44□□												●	●						
TT1012T-S55□□														●	●				
TT1112T-S25□□	23	11 ½	141.22	141									●	●					
TT1112T-S34□□											●								
TT1112T-S44□□												●	●						
TT1112T-S55□□														●	●				
TT1212T-S25□□	25	12 ½	153.20	153									●	●					
TT1212T-S34□□											●								
TT1212T-S44□□												●	●						
TT1212T-S55□□														●	●				

Note: 1. Contact a Tsubaki representative for the applicable bore diameters other than what is described above.  
 2. Guide rings are shipped separately with sprockets.

■ S Type Lock Sleeve Dimensions

Sleeve no.	<i>D<sub>f</sub></i>	<i>D<sub>c</sub></i>	Bolt size M×L	Bolt tightening torque N·m
S2	42.0	32.0	M5×18	8.3
S3	48.5	38.5	M5×20	
S4	56.0	46.0		
S5	66.0	56.0	M5×22	

■ Sleeve Combinations and Transfer Torque Values

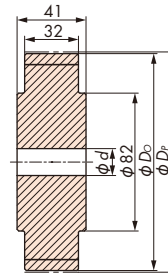
Sleeve no.	S2							S3			S4			S5			
Bore diameter <i>d</i>	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45
Sprocket type	Max. allowable transfer torque N·m																
TT912T	139	149	158	167	177	186	205	167	174	195	279	298	325	442	465	488	523
TT1012T																	
TT1112T																	
TT1212T	174	186	198	209	221	232	256										

# Sprockets for TTU Chains

Steel

Applicable Chain **TTU**

## ◆ With Plain Bore



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore diameter $d$		Approx mass kg	Material
					Plain bore	Max.		
<b>TTU1012T</b>	21	10 ½	129.26	129	16	55	3.3	Carbon steel for machine structural use
<b>TTU1112T</b>	23	11 ½	141.22	141			3.9	
<b>TTU1212T</b>	25	12 ½	153.20	153			4.6	

Note: Standard products.

## Model Numbering

Chain type

**TTU**

TTU: TTU

Effective teeth

**1012**

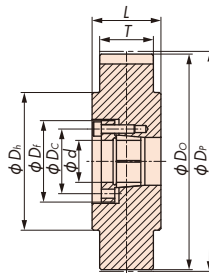
Sprocket

**T**

T: Sprocket

Note: Do not leave space between letters and symbols.

## ◆ Steel Lock Sprockets



Tsubaki model no.	Actual teeth	Effective teeth	Dimensions				Applicable bore diameter $d$											
			Pitch diameter $D_p$	Outside diameter $D_o$	Tooth width $T$	Hub diameter $D_b$	$L$	15	20	25	30	35	40	45				
TTU1012T-S24□□	21	10 ½	129.26	129	32	82	41	●	●									
TTU1012T-S34□□										●								
TTU1012T-S44□□											●	●						
TTU1012T-S55□□	23	11 ½	141.22	141	32	82	41						●	●				
TTU1112T-S25□□								●	●									
TTU1112T-S34□□										●								
TTU1112T-S44□□									●	●								
TTU1112T-S55□□	25	12 ½	153.20	153	32	82	41											
TTU1212T-S25□□								●	●									
TTU1212T-S34□□											●	●						
TTU1212T-S44□□										●	●							
TTU1212T-S55□□													●	●				

Note: Contact a Tsubaki representative for the applicable bore diameters other than what is described above.

## ■ S Type Lock Sleeve Dimensions

Sleeve no.	$D_r$	$D_c$	Bolt size MxL	Bolt tightening torque N·m
S2	42.0	32.0	M5×18	8.3
S3	48.5	38.5	M5×20	
S4	56.0	46.0	M5×22	
S5	66.0	56.0	M5×22	

## ■ Sleeve Combinations and Transfer Torque Values

Sleeve no.	S2						S3			S4			S5				
Bore diameter $d$	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45
Sprocket type	Max. allowable transfer torque N·m																
TTU1012T	139	149	158	167	177	186	205	167	174	195	279	298	325	442	465	488	523
TTU1112T																	
TTU1212T	174	186	198	209	221	232	256										

## Model Numbering

### ◆ Sprockets

Chain type

**TTU**

TTU: TTU

Effective teeth

**1012**

Sprocket

**T**

T: Sprocket

Sleeve no.

**- S4**

Note: 2, 3

S4: Sleeve no. S4

Number of tightening bolts

**4**

Note: 3

4: 4 bolts

Bore diameter

**30**

Note: 3

30:  $\phi$  30 mm

Note: 1. Do not leave space between letters and symbols.

2. Refer to the lock sleeve dimensions.

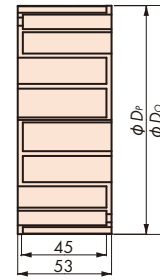
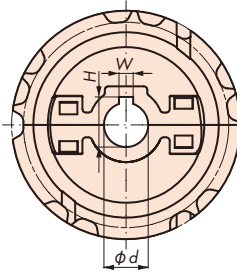
3. Enter only for Lock series.

# Sprockets for TT Chains

Engineering Plastic

Applicable Chain TT

## ◆ Split Sprockets



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore diameter $d$	Keyway		Approx mass kg	Material			Bolt tightening torque N·m {kgf·m}
						W	H		Body	Bolt	Nut	
<b>TP-C12053NT-SPR</b>	21	10 ½	129.26	129	φ25	8	28.3	0.50	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	6 {0.61}
<b>TP-C12054NT-SPR</b>					φ30	8	33.3	0.49				
<b>TP-C12055NT-SPR</b>					φ35	10	38.3	0.48				
<b>TP-C12056NT-SPR</b>					φ40	12	43.3	0.46				
<b>TP-C12099NT-SPR</b>	23	11 ½	141.22	142	φ25	8	28.3	0.53				
<b>TP-C12100NT-SPR</b>					φ30	8	33.3	0.50				
<b>TP-C12101NT-SPR</b>					φ35	10	38.3	0.50				
<b>TP-C12102NT-SPR</b>					φ40	12	43.3	0.53				
<b>TP-C12065NT-SPR</b>	25	12 ½	153.20	154	φ25	8	28.3	0.66				
<b>TP-C12066NT-SPR</b>					φ30	8	33.3	0.64				
<b>TP-C12067NT-SPR</b>					φ35	10	38.3	0.63				
<b>TP-C12068NT-SPR</b>					φ40	12	43.3	0.62				

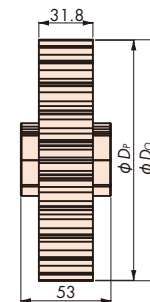
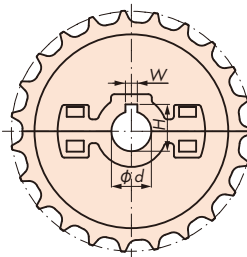
Note: 1. Standard products.  
 2. Operating temperature range: -20°C to 80°C.  
 3. Use a cold rolled steel shaft.

# Sprockets for TTU Chains

Engineering Plastic

Applicable Chain TTU

## ◆ Split Sprockets



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore diameter $d$	Keyway		Approx mass kg	Material			Bolt tightening torque N·m {kgf·m}
						W	H		Body	Bolt	Nut	
<b>TP-C12061NT-SPR</b>	21	10 ½	129.26	129	φ25	8	28.3	0.42	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	6 {0.61}
<b>TP-C12062NT-SPR</b>					φ30	8	33.3	0.41				
<b>TP-C12063NT-SPR</b>					φ35	10	38.3	0.39				
<b>TP-C12064NT-SPR</b>					φ40	12	43.3	0.39				
<b>TP-C12109NT-SPR</b>	23	11 ½	141.22	142	φ25	8	28.3	0.43				
<b>TP-C12110NT-SPR</b>					φ30	8	33.3	0.41				
<b>TP-C12111NT-SPR</b>					φ35	10	38.3	0.44				
<b>TP-C12112NT-SPR</b>					φ40	12	43.3	0.39				
<b>TP-C12073NT-SPR</b>	25	12 ½	153.20	154	φ25	8	28.3	0.45				
<b>TP-C12074NT-SPR</b>					φ30	8	33.3	0.43				
<b>TP-C12075NT-SPR</b>					φ35	10	38.3	0.42				
<b>TP-C12076NT-SPR</b>					φ40	12	43.3	0.42				

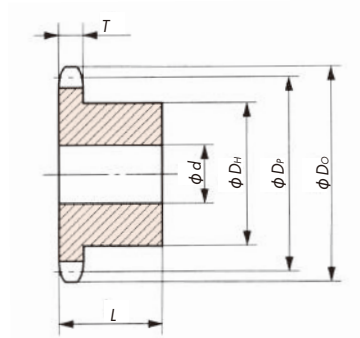
Note: 1. Standard products.  
 2. Operating temperature range: -20°C to 80°C.  
 3. Use a cold rolled steel shaft.

# Sprockets for Double Pitch Chain

Steel, Stainless Steel, Engineering Plastic

Applicable Chain TPRF2040, TPRF2060, TS, TSA

## ◆ For S Roller



Standard sprockets		Environmental resistance sprocket					Effective teeth	Actual teeth	Pitch diameter $D_P$	Outside diameter $D_O$	Tooth width $T$	Bore diameter $d$		Hub			Approx. mass kg		
Steel	Stainless steel	Engineering plastic <sup>Note 3, 4, 5</sup>	Plain bore	Max.	Steel stainless steel	Engineering plastic						Length $L$	Steel stainless steel	Engineering plastic					
Tsubaki model no.	Tsubaki model no.	Tsubaki model no.																	
<b>RF2040S-1B912T</b>	<b>RF2040S-1B912T-SS</b>	RF2040S-1B912T-P	9 1/2	19	78.23	84	7.3	12.7	38	60	60	25	0.6	0.1					
<b>RF2040S-1B1012T</b>	<b>RF2040S-1B1012T-SS</b>	RF2040S-1B1012T-P	10 1/2	21	86.17	92									46	69	69	0.9	0.13
<b>RF2040S-1B1112T</b>	<b>RF2040S-1B1112T-SS</b>	RF2040S-1B1112T-P	11 1/2	23	94.14	100													
<b>RF2040S-1B1200T</b>	<b>RF2040S-1B1200T-SS</b>	-	12	24	98.14	104									42	63	-	0.8	-
<b>RF2040S-1B1212T</b>	<b>RF2040S-1B1212T-SS</b>	RF2040S-1B1212T-P	12 1/2	25	102.14	108													
<b>RF2060S-1B912T</b>	<b>RF2060S-1B912T-SS</b>	RF2060S-1B912T-P	9 1/2	19	117.34	126	15.9	55	83	85	40	2.1	0.35						
<b>RF2060S-1B1012T</b>	<b>RF2060S-1B1012T-SS</b>	RF2060S-1B1012T-P	10 1/2	21	129.26	138								95	100	100	2.3	0.43	
<b>RF2060S-1B1112T</b>	<b>RF2060S-1B1112T-SS</b>	RF2060S-1B1112T-P	11 1/2	23	141.22	150													-
<b>RF2060S-1B1200T</b>	<b>RF2060S-1B1200T-SS</b>	-	12	24	147.21	156								120	-	-	2.9	-	
<b>RF2060S-1B1212T</b>	<b>RF2060S-1B1212T-SS</b>	RF2060S-1B1212T-P	12 1/2	25	153.20	162													18

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.

2. Teeth on all sprockets have not been hardened.

Materials of each sprocket are shown below.

Standard sprocket (steel): Carbon steel for machine structural use

Environmental resistant sprocket (stainless steel): Stainless steel

Environmental resistant sprocket (engineering plastic): Special MC901

3. Operating temperature range of environmental resistant sprocket (engineering plastic): -10 to 60°C

4. Maximum allowable speed of environmental resistant sprocket (engineering plastic): 70 m/min under operation without lubrication

The maximum speed is up to 150 m/min if the chain is lubricated during or before operation.

5. Food and chemical for which environmental resistant sprocket (engineering plastic) can be used: Refer to the table on the right showing the corrosion resistance of environmental resistant sprocket.

## Model Numbering

Chain/roller type

**RF2040S**

Hub

**- 1B**

Effective teeth

**912T**

912T: 9 1/2T

Material

**- SS**

Blank: Steel

SS: Stainless steel

P: Engineering plastic

Note: Do not leave space between letters and symbols.



## Corrosion resistance of environment resistant sprockets

Corrosion resistance varies considerably depending on the conditions of use, so this table does not represent the extent of warranty. Please refer to this table and check the corrosion resistance of the chain in advance under actual usage conditions to determine the product type.

Drug/food name	Engineering plastic	Stainless steel
Acetone	○	○
Oils (vegetable, mineral)	○	○
Flaxseed oil	○	○
Sulfurous acid gas (wet)	—	○
Alcohol (methyl, ethyl, propyl, butyl)	○	○
Aqueous ammonia	○	○
Whiskey	○	○
Ether (ethyl ether)	○	○
Zinc chloride	×	△
Ammonium chloride	—	△
Potassium chloride	○	○
Calcium chloride	○	△
Ferric chloride	×	△
Sodium chloride	○	○
Hydrochloric acid	×	×
Chlorine gas (dry)	×	△
Chlorine gas (wet)	×	×
Chlorine water	×	×
Oleic acid	○	○
Seawater	○	△
Sodium perchlorate	—	○
Hydrogen peroxide	×	○
Gasoline	○	○
Potassium permanganate	×	○
Formic acid	×	○
Milk	○	○
Citric acid	○	○
Glycerin	○	○
Creosote	—	○
Chromic acid	×	○
Ketchup	○	○
Developer (photo)	○	○
Synthetic detergent	○	○
Boiling coffee	○	○
Cola syrup	○	○
Acetic acid	△	○
Sugar solution	○	○
Calcium hypochlorite (bleached powder) Effective chlorine 11 to 14%	△	○
Sodium hypochlorite	△	×
Sodium cyanide	—	○
Carbon tetrachloride (dry)	○	○
Potassium dichromate	○	○
Oxalic acid	○	○
Tartaric acid	○	○
Nitric acid	×	○
Ammonium nitrate	○	○

○: Totally resistant

△: Partially resistant (depending on operating conditions)

×: Not resistant

—: No data

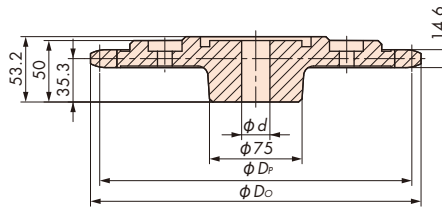
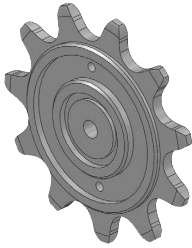
Drug/food name	Engineering plastic	Stainless steel
Potassium nitrate	○	○
Potassium nitrate	—	○
Vinegar	△	△
Potassium hydroxide (caustic potash)	○	○
Calcium hydroxide (slaked lime)	—	○
Sodium hydroxide (caustic soda)	○	○
Stearic acid	○	×
Soft drink	○	○
Carboxylic acid	×	○
Oil	○	○
Soap water	○	○
Carbonated water	—	○
Sodium hydrogen carbonate	○	○
Sodium carbonate	△	○
Sodium thiosulfate	—	○
Turpentine oil	—	○
Kerosene	—	○
Varnish	—	○
Concentrated nitric acid	×	○
Concentrated nitric acid	×	△
Lactic acid	○	○
Honey, molasses	○	○
Paraffin	○	○
Beer	○	○
Picric acid	—	○
Fruit juice	○	○
Benzene	○	○
Boric acid	—	○
Formalin (formaldehyde)	△	○
Mayonnaise	○	○
Water	○	○
Vegetable juice	○	○
Lard	—	○
Butyric acid	○	○
Hydrogen sulfide (dry)	○	○
Hydrogen sulfide (wet)	—	×
Sulfuric acid	×	×
Zinc sulfate	—	○
Aluminum sulfate	—	○
Ammonium sulfate	—	○
Sodium sulfate	—	○
Malic acid	○	○
Phosphoric acid	×	○
Phosphoric acid	×	△
Wine	○	○

# Sprockets for TO Chains

Steel

Applicable Chain TORP, TOSP, TOR, TOS

## ◆With Plain Bore



Tsubaki model no.	Applicable chain	Actual teeth	Effective teeth	Pitch diameter $D_p$	Outside diameter $D_o$	Bore diameter $d$		Approx. mass kg	Material
						Plain bore	Max.		
<b>TOS1013T</b>	TOSP1143	31	10 1/3	254.54	269	23	45	7.2	Gray cast iron
<b>TOR1100T</b>	TORP1143	11	11	270.47	305			7.6	

Note: Standard products.

## Model Numbering

Chain type

**TOS**

Effective teeth

**1013T**

(1013T=10 1/3T)

Chain type

**TOR**

Effective teeth

**1100T**

1100T = teeth 11T

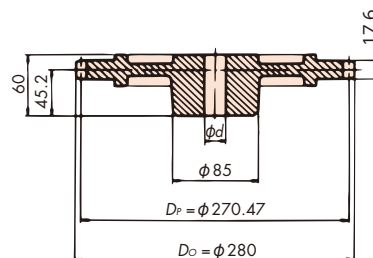
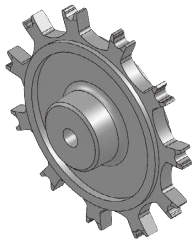
Note: Do not leave space between letters and symbols.

# Sprockets for TU Chains

Steel

Applicable Chain TU

## ◆With Plain Bore



Tsubaki model no.	Actual teeth	Effective teeth	Bore diameter $d$		Approx. mass kg	Material
			Plain bore	Max.		
<b>TU1100T</b>	11	11	23	50	7.4	Gray cast iron

Note: Standard product.

## Model Numbering

Chain type

**TU**

Effective teeth

**1100T**

1100T = teeth 11T

Note: Do not leave space between letters and symbols.



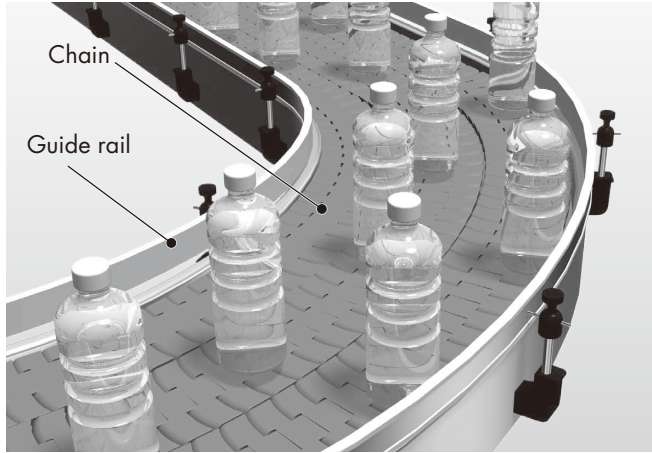
# Plastic Rails

## Applications

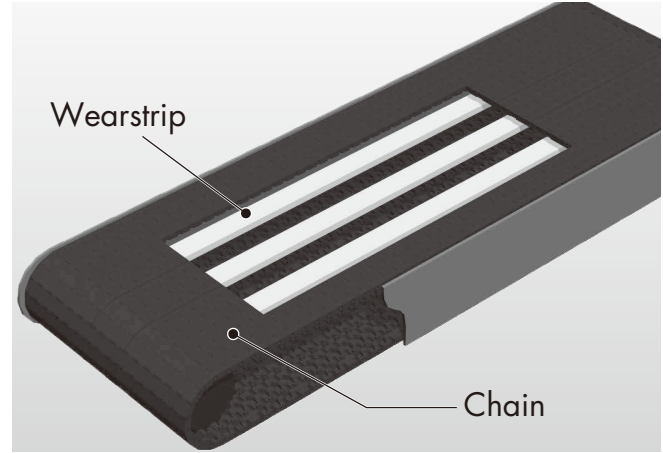
Using ultra-high molecular weight polyethylene (UHMW-PE) as the material, it exhibits excellent sliding characteristics and wear resistance. We have a wide variety of products that are widely used for rails.

## Installation Example

### ■ Use as Guide Rail for Supporting Products



### ■ Use as Wearstrips for Plastic Modular Chains



## List of Material Grades

Feature	Standard				Anti-thermal degradation	High-density polyethylene	Wear resistant	
Material grade	P	10-100	10-301	10-801	16-100E	84-100	10-605SS	10-365CP
Color	White	White	Green	Black	White	White	Yellow	Greenish brown

Feature	Electrostatic preventive	Standard extrusions		Electrostatic preventive extrusions	Only for dry condition	Oil impregnated	Special polyamide	Low friction/Wear resistant	
Material grade	10-806	10-100EX	10-301EX	10-806EX	M	10-309	SJ-CNO	PLF	PMW
Color	Black	White	Green	Black	Blue	Green	Purple	White	

Note: 1. The rail length expands and contracts due to temperature changes.  
 As a guide, it expands and contracts 0.2 mm every 1°C change per 1 m.  
 [Except only for dry condition (M) and special polyamide (SJ-CNO)]  
 Coefficient of thermal expansion  
 Material grade [excluding only for dry condition (M) and special polyamide (SJ-CNO)]:  $1.7 \times 10^{-4}/^{\circ}\text{C}$   
 Only for dry condition (M)/Special polyamide (SJ-CNO):  $9 \times 10^{-5}/^{\circ}\text{C}$

2. We use materials that comply with the Food Sanitation Act (Japan's Ministry of Health Notification No. 370).  
 [Not compatible with electrostatic preventive extrusions (10-806EX), only for dry condition (M) and special polyamide (SJ-CNO)]

## Features of Material Grade

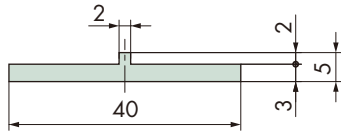
Feature	Material grade	Features
Standard	P	The most common material grade uses ultra-high molecular weight polyethylene (UHMW-PE) with low water absorption, superior sliding properties, wear resistant, and chemical resistance.
	10-100	
	10-301	
	10-801	
Standard extrusions	10-100EX	
	10-301EX	
Low friction/Wear resistant	PLF	It has lower friction than the standard, wear resistance, and is recommended for wear particles and scratches on conveyed products, that is, when you have trouble with countermeasures.
	PMW	
Anti-thermal degradation	16-100E	Suppresses deterioration due to heat compared to the standard.
High-density polyethylene	84-100	Good dimensional stability and less strain.
Wear resistant	10-605SS	Greater wear resistance than standard.
	10-365CP	Further improved wear resistance than wear resistant (10-605SS).
Electrostatic preventive	10-806	Add electrostatic preventive performance based on standard, standard extrusion.
Electrostatic preventive extrusions	10-806EX	
Only for dry condition	M	Dedicated to dry conditions, it has excellent wear resistance and is recommended when you are having trouble generating abrasion powder.

**⚠ Caution** The material for low friction and wear resistance (PLF and PMW) contains silicone-based lubricant. Therefore, do not use these rails for printing processes, or in cases where silicone will have an effect.

Extruded Rail

T Rails

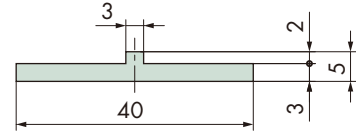
■ T Rails



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-T-W-26M</b>	10-100EX	White	26	-20 to 60
<b>PR-T-G-26M</b>	10-301EX	Green		

Note: 1. Standard products.  
2. Dimensions are nominal due to extruded products.

■ T-403 Rails

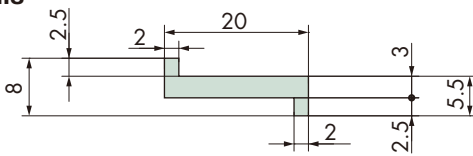


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-T403-W-26M</b>	10-100EX	White	26	-20 to 60
<b>PR-T403-G-26M</b>	10-301EX	Green		

Note: 1. Standard products.  
2. Dimensions are nominal due to extruded products.  
3. Equivalent to PRT340-P-G (color: green).

Z Rails

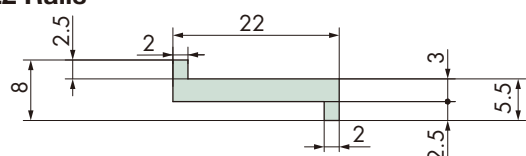
■ Z Rails



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-Z-W-26M</b>	10-100EX	White	26	-20 to 60
<b>PR-Z-G-26M</b>	10-301EX	Green		

Note: 1. Standard products.  
2. Dimensions are nominal due to extruded products.  
3. Equivalent to PRZ320-P-G (color: green).

■ Z22 Rails

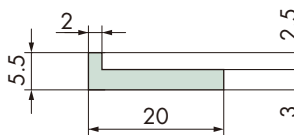


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-Z22-W-26M</b>	10-100EX	White	26	-20 to 60
<b>PR-Z22-G-26M</b>	10-301EX	Green		

Note: 1. Made-to-order products.  
2. Dimensions are nominal due to extruded products.

L Rails

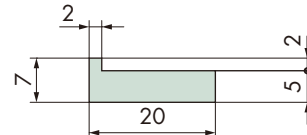
■ L Rails



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-L-W-26M</b>	10-100EX	White	26	-20 to 60
<b>PR-L-G-26M</b>	10-301EX	Green		

Note: 1. Standard products.  
2. Dimensions are nominal due to extruded products.  
3. Equivalent to PRL320-P-G (color: green).

■ L-5 Rails

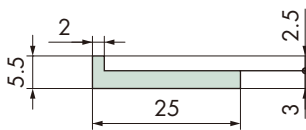


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-L5-W-20M</b>	10-100EX	White	20	-20 to 60
<b>PR-L5-G-20M</b>	10-301EX	Green		

Note: 1. Standard products.  
2. Dimensions are nominal due to extruded products.

L Rails

■ L-25 Rails

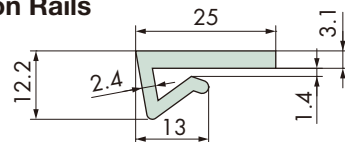


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-L25-W-20M</b>	10-100EX	White	20	-20 to 60
<b>PR-L25-G-20M</b>	10-301EX	Green		

Note: 1. Standard products.  
2. Dimensions are nominal due to extruded products.

Snap-on Rails

■ Snap-on Rails

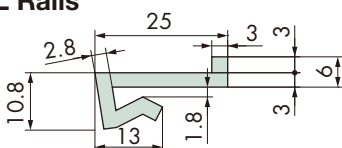


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-SPR-W-30M</b>	10-100EX	White	30	-20 to 60

Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

Snap-on Rails

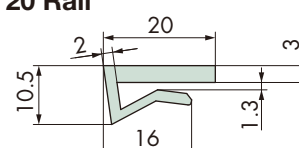
■ Snap-on L Rails



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-SPRL-W-3M</b>	10-100EX	White	3	-20 to 60

Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

■ Snap-on 20 Rail



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-SNA20-W-3M</b>	10-100EX	White	3	-20 to 60

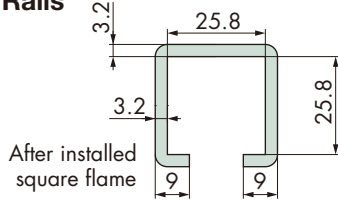
Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

# Plastic Rails

## Extruded Rail

### SJQ-5 Rails

#### ■ SJQ-5 Rails

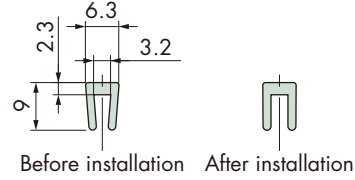


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-SJQ5-W-3M</b>	10-100EX	White	3	-20 to 60

Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

### V Rails

#### ■ V-3 Rails

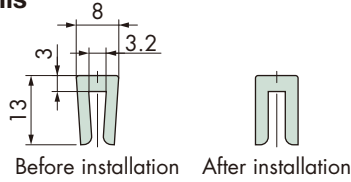


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-V3-W-100M</b>	10-100EX	White	100	-20 to 60

Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

### V Rails

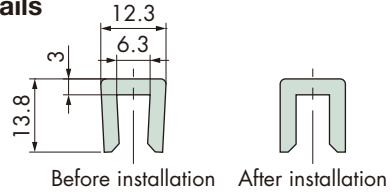
#### ■ V-3L Rails



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-V3L-W-100M</b>	10-100EX	White	100	-20 to 60

Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

#### ■ V-6S Rails

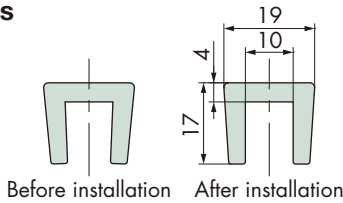


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-V6S-W-30M</b>	10-100EX	White	30	-20 to 60

Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

### V Rails

#### ■ V-10 Rails

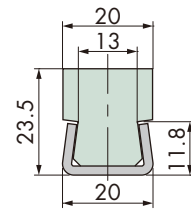


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-V10-W-50M</b>	10-100EX	White	50	-20 to 60

Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

### U Rails

#### ■ U-20 Rails

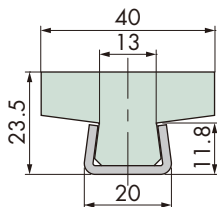


Tsubaki model no.	Material grade	Color	Material of Channel	Length m	Operating temperature range °C
PR-U20-W-15M	10-100EX	White	Stainless steel	1.5	-20 to 60
PR-U20-W-20M				2.0	
PR-U20-W-24M				2.4	

Note: 1. Made-to-order products.  
2. Dimensions are nominal due to extruded products.  
3. Electrostatic preventive (10-806) (color: black) and oil-impregnated (10-309) (color: green) types are also available.

### U Rails

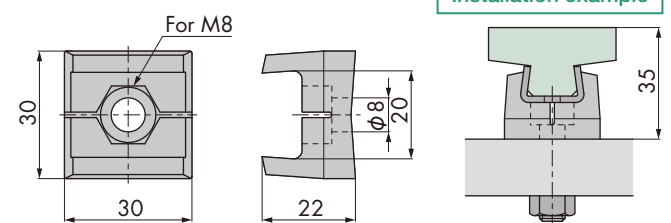
#### ■ U-40 Rails



Tsubaki model no.	Material grade	Color	Material of Channel	Length m	Operating temperature range °C
PR-U40-W-15M	10-100EX	White	Stainless steel	1.5	-20 to 60
PR-U40-W-20M				2.0	
PR-U40-W-24M				2.4	

Note: 1. Made-to-order products.  
2. Dimensions are nominal due to extruded products.  
3. Electrostatic preventive (10-806) (color: black) and oil-impregnated (10-309) (color: green) types are also available.

#### ■ Clamp for U Rail



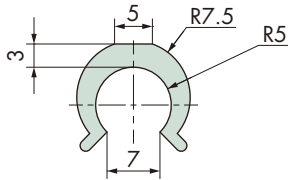
Tsubaki model no.	Material	Color
PR-UK	Polyacetal	Black

Note: 1. Made-to-order product.  
2. To install, tighten the M8 nut (bolt) to a torque of 9.8 to 14.7 N·m (1.0 to 1.5 kgf·m).  
3. Plastic guide rails and stainless steel channel may slip and change position due to creepage. At the upstream position of the conveyed product flow, fix the wear strip and channel together using knock-pins, etc.

Extruded Rail

R Rails

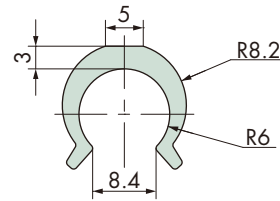
R-10 Rails



Tsubaki model no.	Material grade	Color	Length m	Applicable round bar	Operating temperature range °C
<b>PR-R10-W-3M</b>	10-100EX	White	3	φ10	-20 to 60
PR-R10-B-3M	10-806EX	Black			

Note: 1. Tsubaki model no. in boldface is a standard product. Tsubaki model no. in normal face is a made-to-order product.  
2. Dimensions are nominal due to extruded products.

R-12 Rails

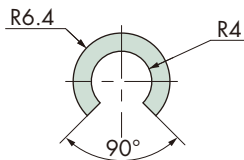


Tsubaki model no.	Material grade	Color	Length m	Applicable round bar	Operating temperature range °C
<b>PR-R12-W-3M</b>	10-100EX	White	3	φ12	-20 to 60

Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

C Rails

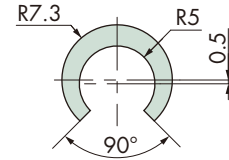
C-8 Rails



Tsubaki model no.	Material grade	Color	Length m	Applicable round bar	Operating temperature range °C
<b>PR-C8-W-3M</b>	10-100EX	White	3	φ8	-20 to 60
PR-C8-B-3M	10-806EX	Black			

Note: 1. Tsubaki model no. in boldface is a standard product. Tsubaki model no. in normal face is a made-to-order product.  
2. Dimensions are nominal due to extruded products.

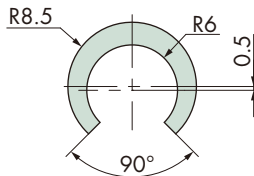
C-10 Rails



Tsubaki model no.	Material grade	Color	Length m	Applicable round bar	Operating temperature range °C
<b>PR-C10-W-3M</b>	10-100EX	White	3	φ10	-20 to 60
PR-C10-B-3M	10-806EX	Black			

Note: 1. Tsubaki model no. in boldface is a standard product. Tsubaki model no. in normal face is a made-to-order product.  
2. Dimensions are nominal due to extruded products.

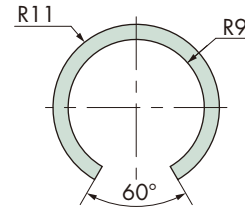
C-12 Rails



Tsubaki model no.	Material grade	Color	Length m	Applicable round bar	Operating temperature range °C
<b>PR-C12-W-3M</b>	10-100EX	White	3	φ12	-20 to 60
PR-C12-B-3M	10-806EX	Black			

Note: 1. Tsubaki model no. in boldface is a standard product. Tsubaki model no. in normal face is a made-to-order product.  
2. Dimensions are nominal due to extruded products.

C-18 Rails

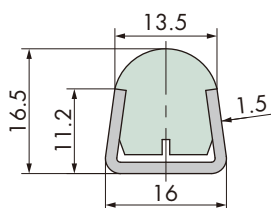


Tsubaki model no.	Material grade	Color	Length m	Applicable round bar	Operating temperature range °C
<b>PR-C18-W-3M</b>	10-100EX	White	3	φ18	-20 to 60

Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

D Rails

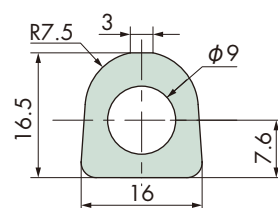
D Rails



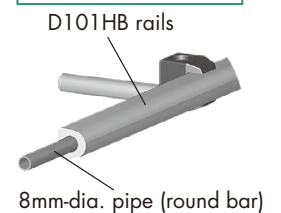
Tsubaki model no.	Material grade	Color	Material of channel	Length m	Operating temperature range °C
<b>PR-D-W-2M</b>	10-100EX	White	Stainless steel	2	-20 to 60
<b>PR-D-B-2M</b>	10-806EX	Black			

Note: 1. Standard products.  
2. Dimensions are nominal due to extruded products.

D101HB Rails



Installation examples



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
PR-D101HB-W-2M	10-100EX	White	2	-20 to 60

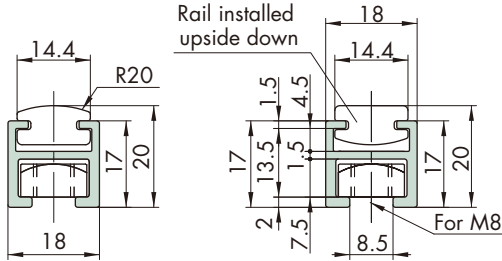
Note: 1. Made-to-order product.  
2. Dimensions is a nominal due to extruded product.  
3. Pipes (round bars) with an 8 mm diameter are not included.

# Plastic Rails

## Extruded Rail

### DR Rails

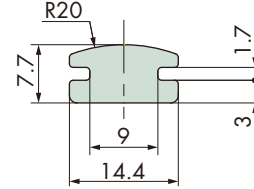
#### ■ Set of Rail and Channel



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
PR-DRP-W-3M	10-100EX	White	3	-20 to 60
PR-DRP-B-3M	10-806EX	Black	3	-20 to 60

Note: 1. Made-to-order products.  
2. Dimensions are nominal due to extruded products.

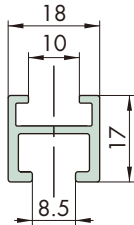
#### ■ Plastic Rails for DR



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
PR-DR-W-3M	10-100EX	White	3	-20 to 60
PR-DR-B-3M	10-806EX	Black	3	-20 to 60

Note: 1. Made-to-order products.  
2. Dimensions are nominal due to extruded products.

#### ■ Aluminum Channel for DR Rails

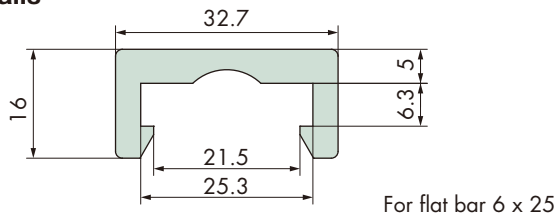


Tsubaki model no.	Material	Length m
PR-P-3M	Aluminum	3

Note: Made-to-order products.

### FA Rails

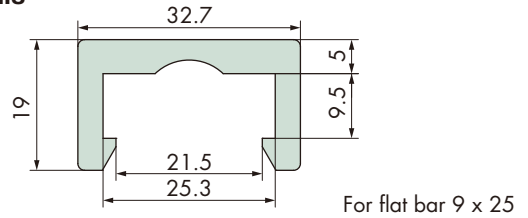
#### ■ FA Rails



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-FA-W-3M</b>	10-100EX	White	3	-20 to 60
PR-FA-B-3M	10-806EX	Black		
<b>PR-FA-PLF-3M</b>	PLF Note: 3	White		

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face is a made-to-order product.  
2. Dimensions are nominal due to extruded products.  
3. Available with standard length per unit only.

#### ■ FA-2 Rails

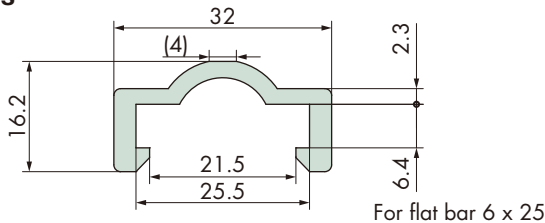


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-FA2-W-3M</b>	10-100EX	White	3	-20 to 60

Note: 1. Standard product.  
2. Dimensions is a nominal due to extruded product.

### A Rails

#### ■ A Rails

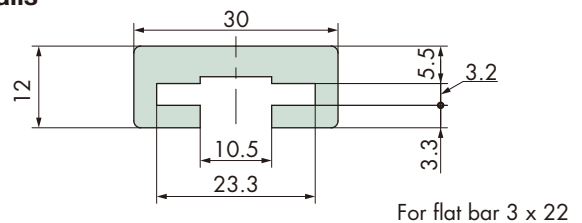


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-A-W-3M</b>	10-100EX	White	3	-20 to 60
PR-A-B-3M	10-806EX	Black		

Note: 1. Tsubaki model no. in boldface is a standard product. Tsubaki model no. in normal face is a made-to-order product.  
2. Dimensions are nominal due to extruded products.

### K Rails

#### ■ K Rails



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-K-W-3M</b>	10-100EX	White	3	-20 to 60
<b>PR-K-B-3M</b>	10-806EX	Black		
<b>PR-K-PLF-3M</b>	PLF Note: 3	White		

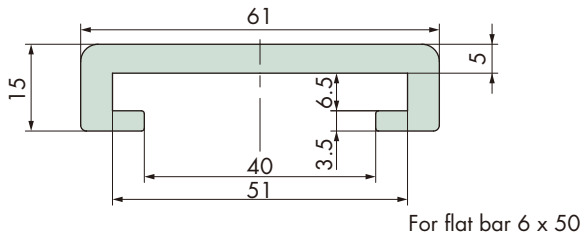
Note: 1. Standard products.  
2. Dimensions are nominal due to extruded products.  
3. Available with standard length per unit only.



Extruded Rail

C650 Rails

■ C650 Rails

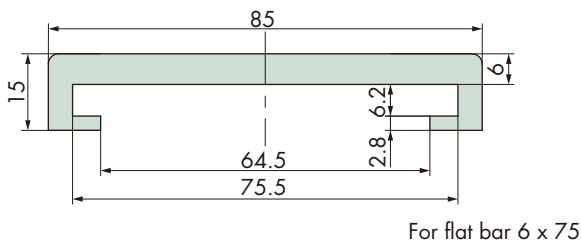


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-C650-W-2M</b>	10-100EX	White	2	-20 to 60
PR-C650-W-3M			3	
PR-C650-W-4M			4	
PR-C650-B-2M	10-806EX	Black	2	
<b>PR-C650-PLF-2M</b>	PLF Note: 3	White	2	
PR-C650-PLF-3M			3	
<b>PR-C650-PLF-4M</b>			4	

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.  
 2. Dimensions are nominal due to extruded products.  
 3. Available with standard length per unit only.

C675 Rails

■ C675 Rails

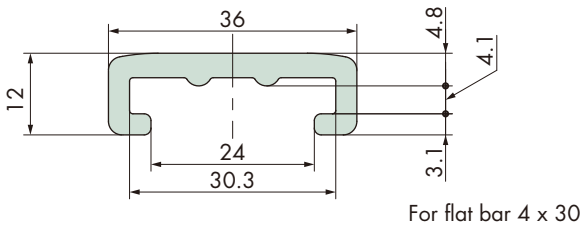


Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-C675-W-2M</b>	10-100EX	White	2	-20 to 60
PR-C675-W-4M			4	
<b>PR-C675-PLF-2M</b>	PLF Note: 3		2	
PR-C675-PLF-3M			3	
PR-C675-PLF-4M			4	

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.  
 2. Dimensions are nominal due to extruded products.  
 3. Available with standard length per unit only.

GR4301 Rails

■ GR4301 Rails



Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
PR-GR4301-W-3M	10-100EX	White	3	-20 to 60

Note: 1. Made-to-order product.  
 2. Dimensions is a nominal due to extruded product.

# Plastic Rails

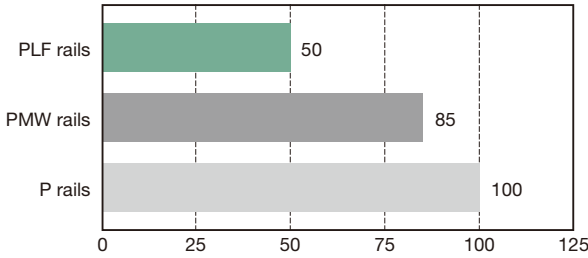
## Standard Rail

### PH Rails: Low Friction/Wear Resistant (PLF)

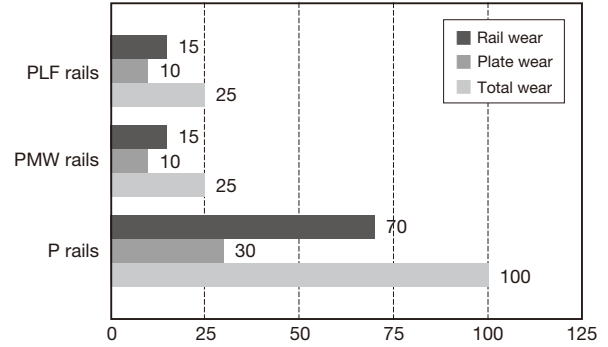
- Can reduce the coefficient of dynamic friction compared to traditional plastic rails.  
(in-house tests) 10 – 40% lower than PMW rails,  
30 – 50% lower than P rails.

- Suppresses the generation of wear debris in dry conditions.

Comparison of dynamic coefficient of friction after 500 hours operation



Comparison of wear after 500 hours operation

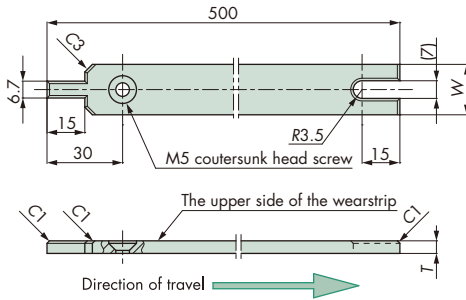


- We use materials that comply with the Food Sanitation Act (Japan's Ministry of Health Notification No. 370).

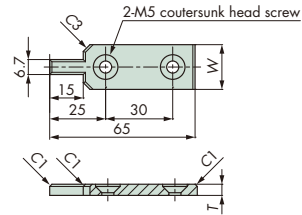
[Coefficient of dynamic friction and wear under in-house test conditions]

Chain: TTP826-LFB, Chain speed: 60m/min, Condition: Dry, ambient temperature (with P rails as 100) \*Live load: 10 kg (wear comparison graph)

### Rails



### End plate



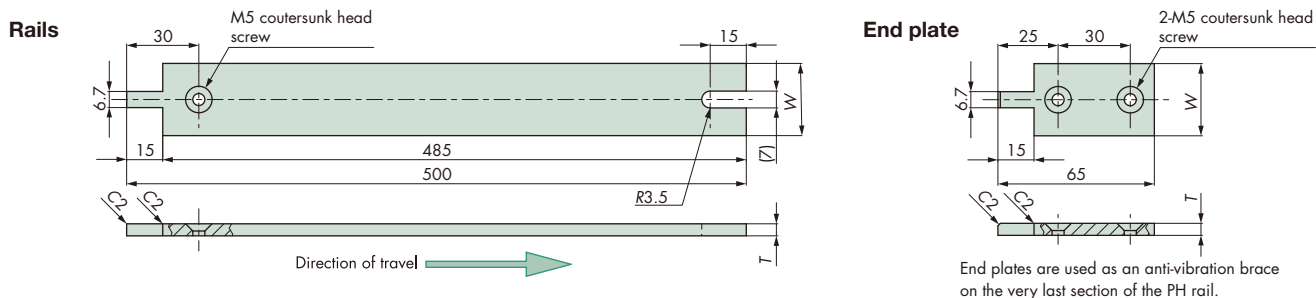
End plates are used as an anti-vibration brace on the very last section of the PH rail.

Rail width W	Material grade	Color	Rail thickness T				Operating temperature range °C
			3		5		
			Rail	End plate	Rail	End plate	
20	PLF	White	Tsubaki model no.	Tsubaki model no.	Tsubaki model no.	Tsubaki model no.	-20 to 60
30			PR-PH320-PLF	PR-PH320E-PLF	<b>PR-PH520-PLF</b>	<b>PR-PH520E-PLF</b>	
40			PR-PH340-PLF	PR-PH340E-PLF	PR-PH540-PLF	PR-PH540E-PLF	

- Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.  
2. When replacing from PR rail, which is made of low friction and wear resistant PMW, a countersunk size will be M4 for a 3 mm thick rail.  
3. Sizes other than those shown above are also available upon request. Contact a Tsubaki representative for more information.

Standard Rail

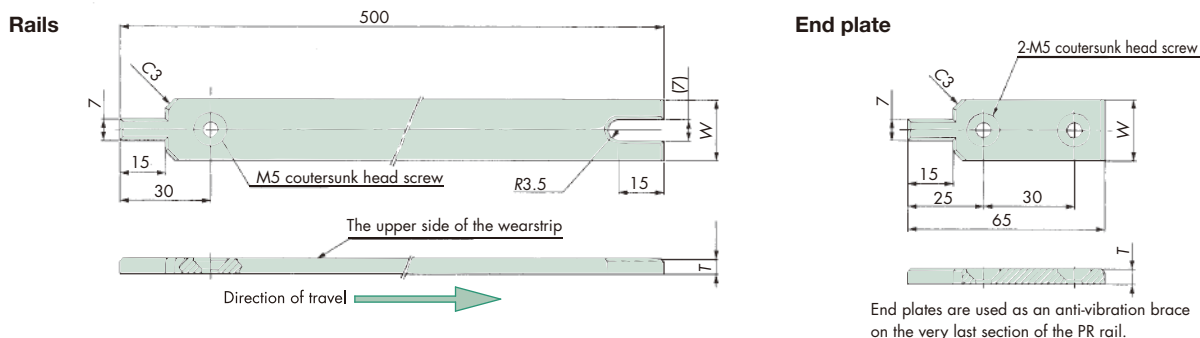
PH Rails: Standard



Rail width W	Material grade	Color	Rail thickness T						Operating temperature range °C		
			3		5		6				
			Rail	End plate	Rail	End plate	Rail	End plate			
			Tsubaki model no.	Tsubaki model no.	Tsubaki model no.	Tsubaki model no.	Tsubaki model no.	Tsubaki model no.			
10	10-100	White			PR-PH510-W	PR-PH510E-W					-20 to 60
	10-301	Green			PR-PH510-G	PR-PH510E-G					
11	10-100	White					<b>PR-PH611-W</b>	<b>PR-PH611E-W</b>			
	10-301	Green					<b>PR-PH611-G</b>	<b>PR-PH611E-G</b>			
12	10-100	White			<b>PR-PH512-W</b>	<b>PR-PH512E-W</b>					
	10-301	Green			<b>PR-PH512-G</b>	<b>PR-PH512E-G</b>					
14	10-100	White					PR-PH614-W	PR-PH614E-W			
	10-301	Green					PR-PH614-G	PR-PH614E-G			
15	10-100	White			PR-PH515-W	PR-PH515E-W	<b>PR-PH615-W</b>	<b>PR-PH615E-W</b>			
	10-301	Green			PR-PH515-G	PR-PH515E-G	<b>PR-PH615-G</b>	<b>PR-PH615E-G</b>			
16	10-100	White					<b>PR-PH616-W</b>	<b>PR-PH616E-W</b>			
	10-301	Green					<b>PR-PH616-G</b>	<b>PR-PH616E-G</b>			
19	10-100	White					PR-PH619-W	PR-PH619E-W			
	10-301	Green					PR-PH619-G	PR-PH619E-G			
20	10-100	White	<b>PR-PH320-W</b>	<b>PR-PH320E-W</b>	<b>PR-PH520-W</b>	<b>PR-PH520E-W</b>	<b>PR-PH620-W</b>	<b>PR-PH620E-W</b>			
	10-301	Green	<b>PR-PH320-G</b>	<b>PR-PH320E-G</b>	<b>PR-PH520-G</b>	<b>PR-PH520E-G</b>	<b>PR-PH620-G</b>	<b>PR-PH620E-G</b>			
25	10-100	White			<b>PR-PH525-W</b>	<b>PR-PH525E-W</b>	<b>PR-PH625-W</b>	<b>PR-PH625E-W</b>			
	10-301	Green			<b>PR-PH525-G</b>	<b>PR-PH525E-G</b>	<b>PR-PH625-G</b>	<b>PR-PH625E-G</b>			
30	10-100	White			<b>PR-PH530-W</b>	<b>PR-PH530E-W</b>	<b>PR-PH630-W</b>	<b>PR-PH630E-W</b>			
	10-301	Green			<b>PR-PH530-G</b>	<b>PR-PH530E-G</b>	<b>PR-PH630-G</b>	<b>PR-PH630E-G</b>			
35	10-100	White	PR-PH335-W	PR-PH335E-W	<b>PR-PH535-W</b>	<b>PR-PH535E-W</b>	<b>PR-PH635-W</b>	<b>PR-PH635E-W</b>			
	10-301	Green	PR-PH335-G	PR-PH335E-G	<b>PR-PH535-G</b>	<b>PR-PH535E-G</b>	<b>PR-PH635-G</b>	<b>PR-PH635E-G</b>			
40	10-100	White	PR-PH340-W	PR-PH340E-W	<b>PR-PH540-W</b>	<b>PR-PH540E-W</b>	<b>PR-PH640-W</b>	<b>PR-PH640E-W</b>			
	10-301	Green	PR-PH340-G	PR-PH340E-G	<b>PR-PH540-G</b>	<b>PR-PH540E-G</b>	<b>PR-PH640-G</b>	<b>PR-PH640E-G</b>			
50	10-100	White			<b>PR-PH550-W</b>	<b>PR-PH550E-W</b>	PR-PH650-W	PR-PH650E-W			
	10-301	Green			<b>PR-PH550-G</b>	<b>PR-PH550E-G</b>	PR-PH650-G	PR-PH650E-G			
55	10-100	White			<b>PR-PH555-W</b>	<b>PR-PH555E-W</b>					
	10-301	Green			<b>PR-PH555-G</b>	<b>PR-PH555E-G</b>					
75	10-100	White			PR-PH575-W	PR-PH575E-W					
	10-301	Green			PR-PH575-G	PR-PH575E-G					

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.  
 2. Sizes other than those shown above are also available upon request. Contact a Tsubaki representative for more information.

PR and PRE Rails (PMW and M)



Rail width W	Material grade	Color	Rail thickness T		Operating temperature range °C	Screw for countersunk section
			5	End plate		
			Rail	End plate		
			Tsubaki model no.	Tsubaki model no.		
20	PMW	White	PR520-PMW	PRE520-PMW	-20 to 60	M5 flathead screw
	M Note: 3	Blue	PR520-M	PRE520-M	-20 to 80	

Note: 1. Made-to-order products.  
 2. Material grade: M is designed to be used only for dry condition.  
 3. PH rail which is made of PMW grade has a notch on the convex portion to differentiate it from PH rail made of other material grade.  
 4. A countersunk size of M4 is required for a 3 mm thick rail.

# Plastic Rails

## Standard Rail

### Flat Rails



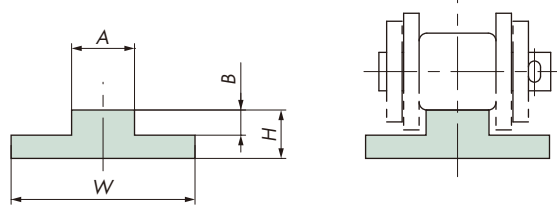
Rail width W	Material grade	Color	Rail thickness T				Operating temperature range °C
			3	4	5	6	
15	10-100	White	PR-FR3-15-W-50M	PR-FR4-15-W-40M	PR-FR5-15-W-30M	PR-FR6-15-W-25M	-20 to 60
	10-301	Green	PR-FR3-15-G-50M	PR-FR4-15-G-40M	PR-FR5-15-G-30M	PR-FR6-15-G-25M	
20	10-100	White	<b>PR-FR3-20-W-50M</b>		<b>PR-FR5-20-W-30M</b>	<b>PR-FR6-20-W-25M</b>	
	10-301	Green	<b>PR-FR3-20-G-50M</b>		<b>PR-FR5-20-G-30M</b>	<b>PR-FR6-20-G-25M</b>	
25	10-100	White	<b>PR-FR3-25-W-50M</b>	PR-FR4-25-W-40M	<b>PR-FR5-25-W-30M</b>	<b>PR-FR6-25-W-25M</b>	
	10-301	Green	<b>PR-FR3-25-G-50M</b>	PR-FR4-25-G-40M	<b>PR-FR5-25-G-30M</b>	<b>PR-FR6-25-G-25M</b>	
30	10-100	White	<b>PR-FR3-30-W-50M</b>	PR-FR4-30-W-40M	<b>PR-FR5-30-W-30M</b>	<b>PR-FR6-30-W-25M</b>	
	10-301	Green	<b>PR-FR3-30-G-50M</b>	PR-FR4-30-G-40M	<b>PR-FR5-30-G-30M</b>	<b>PR-FR6-30-G-25M</b>	
35	10-100	White	PR-FR3-35-W-50M	PR-FR4-35-W-40M	PR-FR5-35-W-30M	PR-FR6-35-W-25M	
	10-301	Green	PR-FR3-35-G-50M	PR-FR4-35-G-40M	PR-FR5-35-G-30M	PR-FR6-35-G-25M	
40	10-100	White	PR-FR3-40-W-50M	PR-FR4-40-W-40M	PR-FR5-40-W-30M	PR-FR6-40-W-25M	
	10-301	Green	PR-FR3-40-G-50M	PR-FR4-40-G-40M	PR-FR5-40-G-30M	PR-FR6-40-G-25M	
45	10-100	White	PR-FR3-45-W-50M		PR-FR5-45-W-30M	PR-FR6-45-W-25M	
	10-301	Green	PR-FR3-45-G-50M		PR-FR5-45-G-30M	PR-FR6-45-G-25M	
50	10-100	White	PR-FR3-50-W-50M	PR-FR4-50-W-40M	PR-FR5-50-W-30M	PR-FR6-50-W-25M	
	10-301	Green	PR-FR3-50-G-50M	PR-FR4-50-G-40M	PR-FR5-50-G-30M	PR-FR6-50-G-25M	
55	10-100	White	PR-FR3-55-W-50M		PR-FR5-55-W-30M		
	10-301	Green	PR-FR3-55-G-50M		PR-FR5-55-G-30M		
60	10-100	White	PR-FR3-60-W-50M		PR-FR5-60-W-30M	PR-FR6-60-W-25M	
	10-301	Green	PR-FR3-60-G-50M		PR-FR5-60-G-30M	PR-FR6-60-G-25M	
Coil length m			50	40	30	25	

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.  
 2. Sizes other than those shown above are also available upon request. Contact a Tsubaki representative for more information.

Wearstrip

Wearstrip for RS Roller Chains

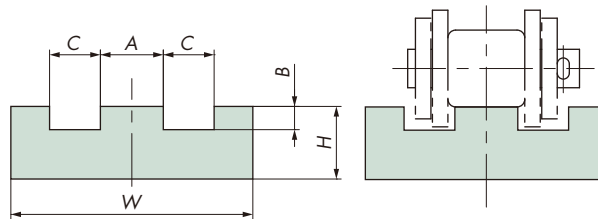
SR Rails



Plastic rail type	Tsubaki model no.	Applicable chain type	Dimensions				Material grade	Color	Length m	Operating temperature range °C
			W	H	A	B				
SR-1	PR-SR1-B-2M	RS40 / RF2040S	25	8	6.6	2.5	10-801	Black	2	-20 to 60
SR-140	PR-SR140-B-2M	RS40 / RF2040S	40		8.0	3.5				
SR-2	PR-SR2-B-2M	RS50 / RF2050S	32		11.0	3.8				
SR-3	PR-SR3-B-2M	RS60 / RF2060S	38		13.0	5.2				
SR-4	PR-SR4-B-2M	RS80 / RF2080S	38	10						

Note: 1. Made-to-order products.  
2. PLF can also be manufactured. Contact a Tsubaki representative for more information.

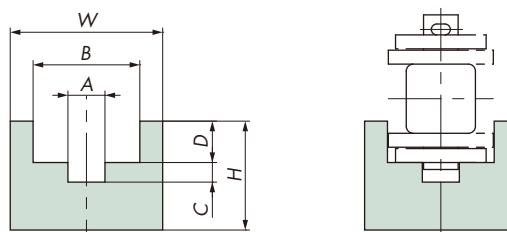
SSR Rails



Plastic rail type	Tsubaki model no.	Applicable chain type	Dimensions					Material grade	Color	Length m	Operating temperature range °C
			W	H	A	B	C				
SSR-1	PR-SSR1-B-2M	RS40 / RF2040S	25	8	6.6	2.0	4.7	10-801	Black	2	-20 to 60
SSR-2	PR-SSR2-B-2M	RS50 / RF2050S	32	10	8.0	3.0	6.0				
SSR-3	PR-SSR3-B-2M	RS60 / RF2060S	38	15	11.0	3.5	8.4				
SSR-4	PR-SSR4-B-2M	RS80 / RF2080S	50	15	13.0	4.8	10.5				

Note: 1. Made-to-order products.  
2. PLF can also be manufactured. Contact a Tsubaki representative for more information.

Straight Rails – Type A (Solid)



Tsubaki model no.	Applicable chain type	Dimensions						Material grade	Color	Length m	Operating temperature range °C
		H	W	A	B	C	D				
PR-A2040-W-2M	RS40 / RF2040S	15	25	4.5	12.8	4.0	4.5	10-100	White	2	-20 to 60
PR-A2040-G-2M								10-301	Green		
PR-AJIS50-W-2M	RS50 / RF2050S	15	25	5.6	15.7	4.0	5.5	10-100	White		
PR-AJIS50-G-2M								10-301	Green		
PR-AJIS60-W-2M	RS60	20	30	6.5	18.5	4.0	6.3	10-100	White		
PR-AJIS60-G-2M								10-301	Green		
PR-A2060-W-2M	RF2060S	20	30	6.5	18.5	4.0	7.9	10-100	White		
PR-A2060-G-2M								10-301	Green		
PR-AJIS80-W-2M	RS80	25	35	8.5	24.5	4.5	7.9	10-100	White		
PR-AJIS80-G-2M								10-301	Green		
PR-A2080-W-2M	RF2080S	25	35	8.5	24.5	4.5	9.5	10-100	White		
PR-A2080-G-2M								10-301	Green		

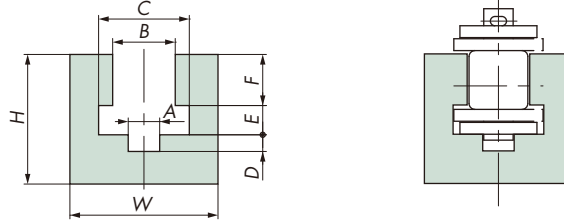
Note: Made-to-order products.

# Plastic Rails

## Wearstrip

### Wearstrip for RS Roller Chains

#### ■ Straight Rails—Type B (Split)

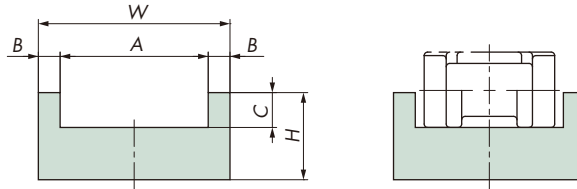


Tsubaki model no.	Applicable chain type	Dimensions								Material grade	Color	Length m	Operating temperature range °C
		H	W	A	B	C	D	E	F				
PR-B2040-W-2M	RS40 / RF2040S	25	30	4.5	9.0	12.8	4.0	4.5	5.8	10-100	White	2	-20 to 60
PR-B2040-G-2M										10-301	Green		
PR-B2050-W-2M	RS50 / RF2050S	25	30	5.6	11.1	15.7	4.0	5.5	7.2	10-100	White		
PR-B2050-G-2M										10-301	Green		
PR-BJIS60-W-2M	RS60	30	35	6.5	13.0	18.5	4.0	6.3	10.4	10-100	White		
PR-BJIS60-G-2M										10-301	Green		
PR-B2060-W-2M	RF2060S	30	35	6.5	13.0	18.5	4.0	7.9	10.4	10-100	White		
PR-B2060-G-2M										10-301	Green		
PR-BJIS80-W-2M	RS80	35	40	8.5	16.9	24.5	4.5	7.9	13.8	10-100	White		
PR-BJIS80-G-2M										10-301	Green		
PR-B2080-W-2M	RF2080S	35	40	8.5	16.9	24.5	4.5	9.5	13.8	10-100	White		
PR-B2080-G-2M										10-301	Green		

Note: Made-to-order products.

### Wearstrip for Plastic Block Chains

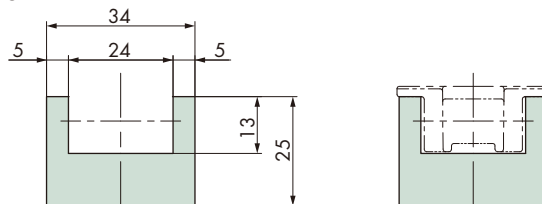
#### ■ Plastic Rails for RSP and RSP80



Tsubaki model no.	Applicable chain type	Dimensions					Material grade <sup>Note 2</sup>	Color	Length m	Operating temperature range °C
		W	H	A	B	C				
<b>PR-PO6-W-2M</b>	RSP35	27	10	17	5	4	10-100	White	2	-20 to 60
<b>PR-PO6-G-2M</b>							10-301	Green		
<b>PR-PO8-W-2M</b>	RSP40	33	15	23	5	5	10-100	White		
<b>PR-PO8-G-2M</b>							10-301	Green		
PR-PO10-W-2M	RSP50	36	20	26	5	7	10-100	White		
PR-PO10-G-2M							10-301	Green		
<b>PR-PO12-W-2M</b>	RSP40-TCU/RSP60	44	20	34	5	8	10-100	White		
<b>PR-PO12-G-2M</b>							10-301	Green		
PR-RSP80-W-2M	RSP80	53	20	43	5	8	10-100	White		
PR-RSP80-G-2M							10-301	Green		

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.  
 2. Sizes other than those shown above are also available upon request. Contact a Tsubaki representative for more information.  
 3. PLF can also be manufactured. Contact a Tsubaki representative for more information.

#### ■ Plastic Rails for RSP50-SL350



Tsubaki model no.	Applicable chain type	Material grade <sup>Note: 4</sup>	Color	Length m	Operating temperature range °C
PR-RSP50-SL350-W-2M	RSP50-SL350	10-100	White	2	-20 to 60
PR-RSP50-SL350-G-2M		10-301	Green		

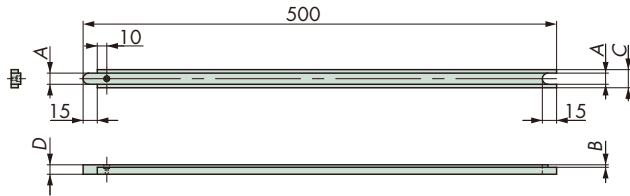
Note: 1. Made-to-order products.  
 2. Sizes other than those shown above are also available upon request. Contact a Tsubaki representative for more information.  
 3. Plastic rail for plastic block chain [PR-PO10-W(G)-2M] can be used for single strand chains.  
 4. PLF can also be manufactured. Contact a Tsubaki representative for more information.

**Wearstrip**

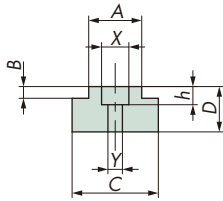
**Wearstrip for Plastic Roller Table (ST and RT)**

■ For 1 Strand of Plastic Roller Table

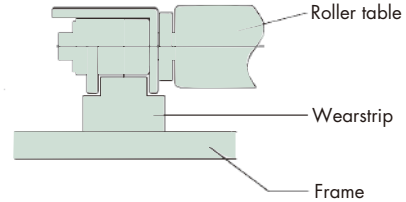
**PR-ST(RT) rails**



Mounting screw hole diagram



**Installation examples**

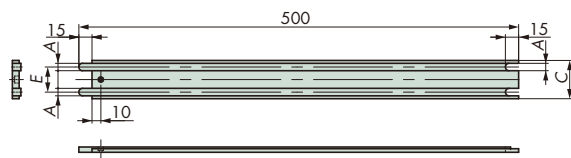


Tsubaki model no.	Applicable chain type	Dimensions				Mounting screws	X:Depth h	Y	Material grade	Color	Operating temperature range °C
		A	B	C	D						
PR-ST300-P	ST300	4.0	2.7	9.5	10.0	M1.6 pan-head screw	φ3.2×3	φ1.8	P	White	-20 to 60
PR-RT300-P	RT300		1.6								
PR-ST400-P	ST400	7.0	3.1	12.0		M2 pan-head screw	φ4.0×4	φ2.2			
PR-RT400-P	RT400		1.7								
PR-ST500-P	ST500	8.5	3.5	15.0		M3 pan-head screw	φ6.0×4	φ3.2			
PR-RT500-P	RT500		2.0								
PR-RT600-P	RT600	11.7	2.6	19.0							

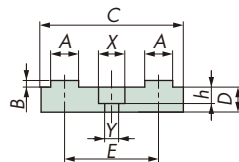
Note: 1. Made-to-order products.  
2. Shape, material or color other than shown above may be available. Contact a Tsubaki representative for more information.

■ For 2 Strands of Plastic Roller Tables

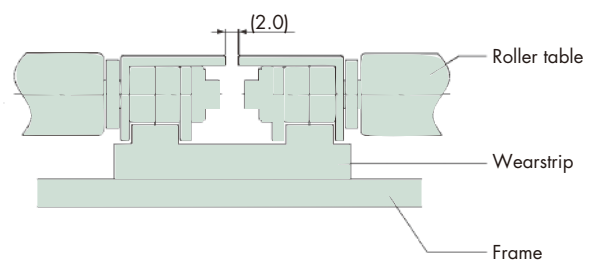
**PR-ST-2 rails**



Mounting screw hole diagram



**Installation examples**



Tsubaki model no.	Applicable chain type	Dimensions					Mounting screws	X:Depth h	Y	Material grade	Color	Operating temperature range °C
		A	B	C	D	E						
PR-ST300-P-2	ST300	4.0	2.7	26.0	10	16.5	M4 pan-head screw	φ8×5	φ4.2	P	White	-20 to 60
PR-ST400-P-2	ST400	7.0	3.1	36.5		24.5						
PR-ST500-P-2	ST500	8.5	3.5	43.5		28.5						

Note: 1. Made-to-order products.  
2. Shape, material or color other than shown above may be available. Contact a Tsubaki representative for more information.

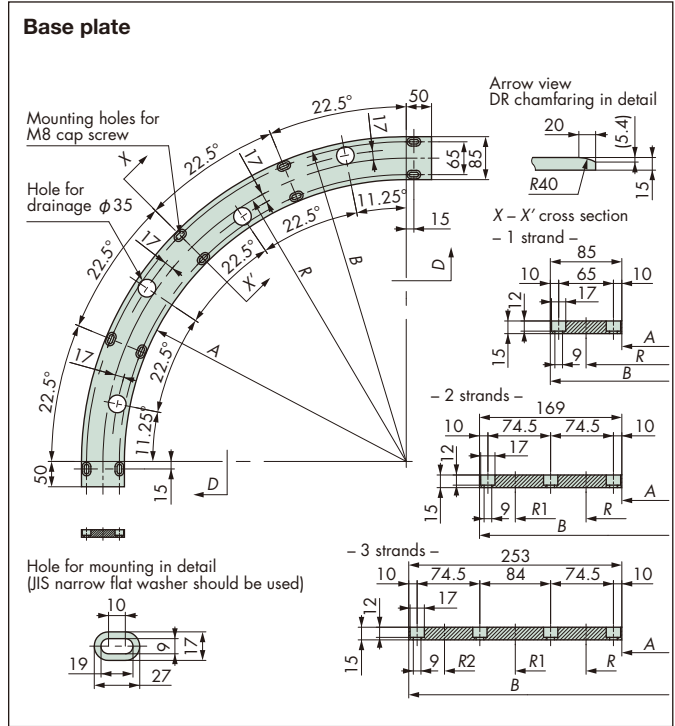
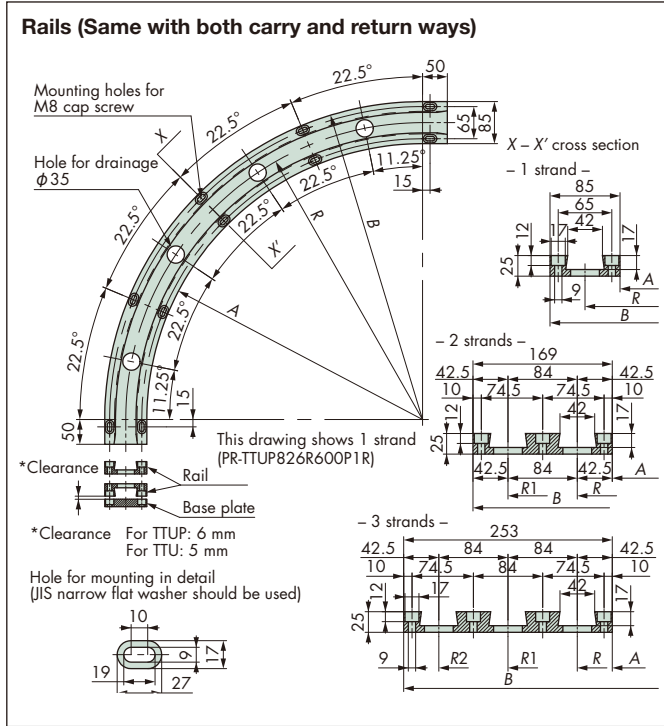
# Plastic Rails

## Finished Rail

### Curved Plastic Rail

#### Curved Plastic Rails for TTUP826

Applicable Chain TTUP826, TTUPH826, TTUP826P, TTU826-N (Cannot be used with TTUP-M and TTUP-LLPC)



Material grade	Color	Operating temperature range °C
P Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	Tsubaki model no. return-way/base plate	R Note: 2	R1 Note: 2	R2 Note: 2	A	B
1	PR-TTUP826R600P1S	PR-TTUP826R600P1R	PR-TTUP826R600P1B	R600	-	-	R557.5	R642.5
	PR-TTUP826R700P1S	PR-TTUP826R700P1R	PR-TTUP826R700P1B	R700	-	-	R657.5	R742.5
	PR-TTUP826R800P1S	PR-TTUP826R800P1R	PR-TTUP826R800P1B	R800	-	-	R757.5	R842.5
	PR-TTUP826R900P1S	PR-TTUP826R900P1R	PR-TTUP826R900P1B	R900	-	-	R857.5	R942.5
	PR-TTUP826R1000P1S	PR-TTUP826R1000P1R	PR-TTUP826R1000P1B	R1000	-	-	R957.5	R1042.5
2	PR-TTUP826R600P2S	PR-TTUP826R600P2R	PR-TTUP826R600P2B	R600	R684	-	R557.5	R726.5
	PR-TTUP826R700P2S	PR-TTUP826R700P2R	PR-TTUP826R700P2B	R700	R784	-	R657.5	R826.5
	PR-TTUP826R800P2S	PR-TTUP826R800P2R	PR-TTUP826R800P2B	R800	R884	-	R757.5	R926.5
	PR-TTUP826R900P2S	PR-TTUP826R900P2R	PR-TTUP826R900P2B	R900	R984	-	R857.5	R1026.5
	PR-TTUP826R1000P2S	PR-TTUP826R1000P2R	PR-TTUP826R1000P2B	R1000	R1084	-	R957.5	R1126.5
3	PR-TTUP826R600P3S	PR-TTUP826R600P3R	PR-TTUP826R600P3B	R600	R684	R768	R557.5	R810.5
	PR-TTUP826R700P3S	PR-TTUP826R700P3R	PR-TTUP826R700P3B	R700	R784	R868	R657.5	R910.5
	PR-TTUP826R800P3S	PR-TTUP826R800P3R	PR-TTUP826R800P3B	R800	R884	R968	R757.5	R1010.5
	PR-TTUP826R900P3S	PR-TTUP826R900P3R	PR-TTUP826R900P3B	R900	R984	R1068	R857.5	R1110.5
	PR-TTUP826R1000P3S	PR-TTUP826R1000P3R	PR-TTUP826R1000P3B	R1000	R1084	R1168	R957.5	R1210.5

Note: 1. Made-to-order products.

2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand, R2: sideflex radius of the third strand.

3. Set: Combination of two curved plastic rails and one base plate.

4. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.

5. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.

6. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

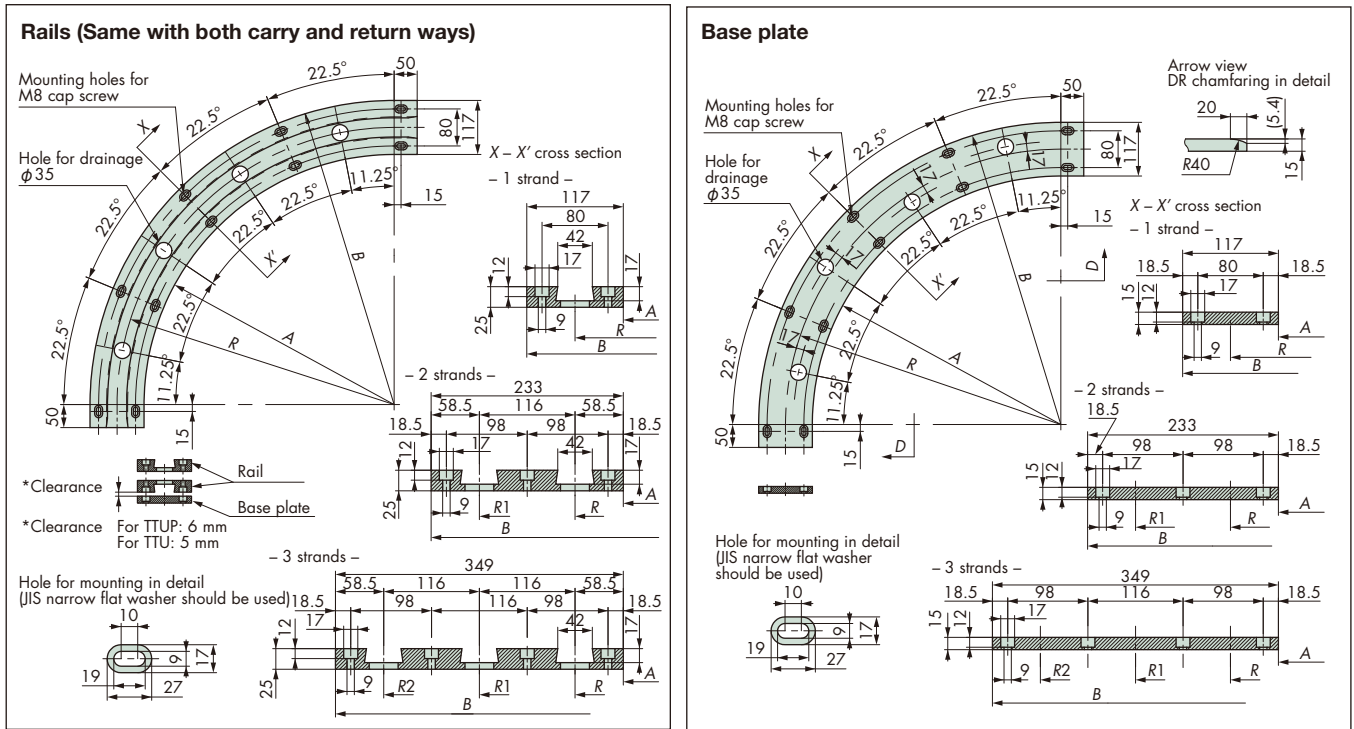


Finished Rail

Curved Plastic Rail

■ Curved Plastic Rails for TTUP1143

Applicable Chain TTUP1143, TTUP1143P, TTU1143-N



Material grade	Color	Operating temperature range °C
P Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	Tsubaki model no. return-way/base plate	R Note: 2	R1 Note: 2	R2 Note: 2	A	B
1	PR-TTUP1143R600P1S	PR-TTUP1143R600P1R	PR-TTUP1143R600P1B	R600	-	-	R541.5	R658.5
	PR-TTUP1143R700P1S	PR-TTUP1143R700P1R	PR-TTUP1143R700P1B	R700	-	-	R641.5	R758.5
	PR-TTUP1143R800P1S	PR-TTUP1143R800P1R	PR-TTUP1143R800P1B	R800	-	-	R741.5	R858.5
	PR-TTUP1143R900P1S	PR-TTUP1143R900P1R	PR-TTUP1143R900P1B	R900	-	-	R841.5	R958.5
	PR-TTUP1143R1000P1S	PR-TTUP1143R1000P1R	PR-TTUP1143R1000P1B	R1000	-	-	R941.5	R1058.5
2	PR-TTUP1143R600P2S	PR-TTUP1143R600P2R	PR-TTUP1143R600P2B	R600	R716	-	R541.5	R774.5
	PR-TTUP1143R700P2S	PR-TTUP1143R700P2R	PR-TTUP1143R700P2B	R700	R816	-	R641.5	R874.5
	PR-TTUP1143R800P2S	PR-TTUP1143R800P2R	PR-TTUP1143R800P2B	R800	R916	-	R741.5	R974.5
	PR-TTUP1143R900P2S	PR-TTUP1143R900P2R	PR-TTUP1143R900P2B	R900	R1016	-	R841.5	R1074.5
	PR-TTUP1143R1000P2S	PR-TTUP1143R1000P2R	PR-TTUP1143R1000P2B	R1000	R1116	-	R941.5	R1174.5
3	PR-TTUP1143R600P3S	PR-TTUP1143R600P3R	PR-TTUP1143R600P3B	R600	R716	R832	R541.5	R890.5
	PR-TTUP1143R700P3S	PR-TTUP1143R700P3R	PR-TTUP1143R700P3B	R700	R816	R932	R641.5	R990.5
	PR-TTUP1143R800P3S	PR-TTUP1143R800P3R	PR-TTUP1143R800P3B	R800	R916	R1032	R741.5	R1090.5
	PR-TTUP1143R900P3S	PR-TTUP1143R900P3R	PR-TTUP1143R900P3B	R900	R1016	R1132	R841.5	R1190.5
	PR-TTUP1143R1000P3S	PR-TTUP1143R1000P3R	PR-TTUP1143R1000P3B	R1000	R1116	R1232	R941.5	R1290.5

- Note: 1. Made-to-order products.  
 2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand, R2: sideflex radius of the third strand.  
 3. Set: Combination of two curved plastic rails and one base plate.  
 4. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.  
 5. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.  
 6. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

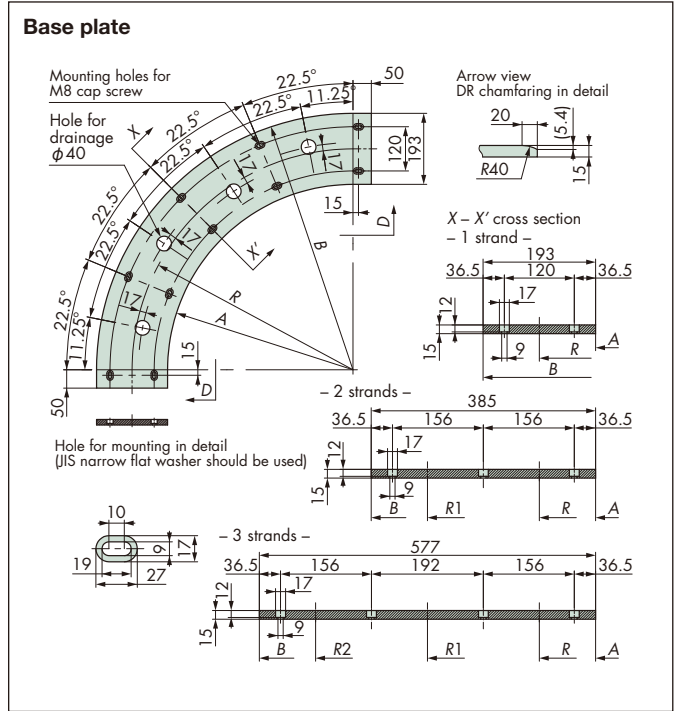
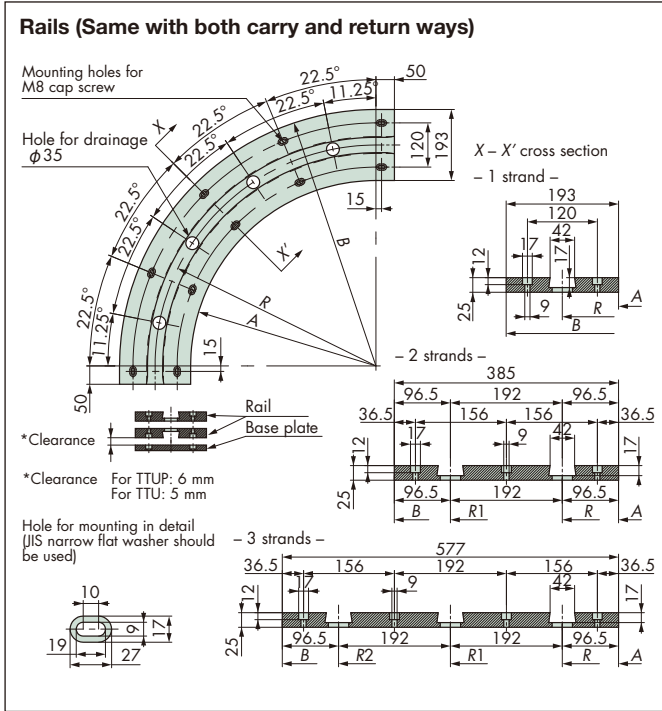
# Plastic Rails

## Finished Rail

### Curved Plastic Rail

#### Curved Plastic Rails for TTUP1905

Applicable Chain TTUP1905, TTU1905-N



Material grade	Color	Operating temperature range °C
p Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	Tsubaki model no. return-way/base plate	R <sup>Note: 2</sup>	R1 <sup>Note: 2</sup>	R2 <sup>Note: 2</sup>	A	B
1	PR-TTUP1905R600P1S	PR-TTUP1905R600P1R	PR-TTUP1905R600P1B	R600	-	-	R503.5	R696.5
	PR-TTUP1905R700P1S	PR-TTUP1905R700P1R	PR-TTUP1905R700P1B	R700	-	-	R603.5	R796.5
	PR-TTUP1905R800P1S	PR-TTUP1905R800P1R	PR-TTUP1905R800P1B	R800	-	-	R703.5	R896.5
	PR-TTUP1905R900P1S	PR-TTUP1905R900P1R	PR-TTUP1905R900P1B	R900	-	-	R803.5	R996.5
	PR-TTUP1905R1000P1S	PR-TTUP1905R1000P1R	PR-TTUP1905R1000P1B	R1000	-	-	R903.5	R1096.5
2	PR-TTUP1905R600P2S	PR-TTUP1905R600P2R	PR-TTUP1905R600P2B	R600	R792	-	R503.5	R888.5
	PR-TTUP1905R700P2S	PR-TTUP1905R700P2R	PR-TTUP1905R700P2B	R700	R892	-	R603.5	R988.5
	PR-TTUP1905R800P2S	PR-TTUP1905R800P2R	PR-TTUP1905R800P2B	R800	R992	-	R703.5	R1088.5
	PR-TTUP1905R900P2S	PR-TTUP1905R900P2R	PR-TTUP1905R900P2B	R900	R1092	-	R803.5	R1188.5
	PR-TTUP1905R1000P2S	PR-TTUP1905R1000P2R	PR-TTUP1905R1000P2B	R1000	R1192	-	R903.5	R1288.5
3	PR-TTUP1905R600P3S	PR-TTUP1905R600P3R	PR-TTUP1905R600P3B	R600	R792	R984	R503.5	R1080.5
	PR-TTUP1905R700P3S	PR-TTUP1905R700P3R	PR-TTUP1905R700P3B	R700	R892	R1084	R603.5	R1180.5
	PR-TTUP1905R800P3S	PR-TTUP1905R800P3R	PR-TTUP1905R800P3B	R800	R992	R1184	R703.5	R1230.5
	PR-TTUP1905R900P3S	PR-TTUP1905R900P3R	PR-TTUP1905R900P3B	R900	R1092	R1284	R803.5	R1380.5
	PR-TTUP1905R1000P3S	PR-TTUP1905R1000P3R	PR-TTUP1905R1000P3B	R1000	R1192	R1384	R903.5	R1480.5

Note: 1. Made-to-order products.

2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand, R2: sideflex radius of the third strand.

3. Set: Combination of two curved plastic rails and one base plate.

4. Curved plastic rail is delivered with divided units by an angle of 30° or 45°, depending on its shape.

5. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.

6. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.

7. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

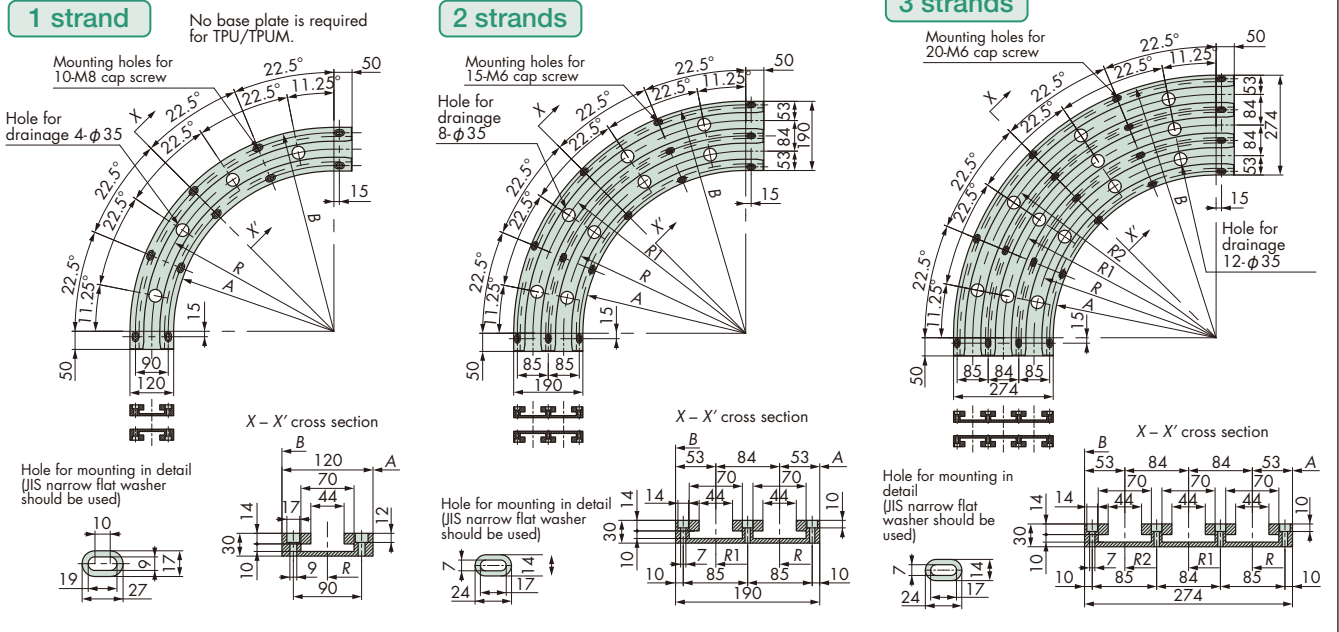
Finished Rail

Curved Plastic Rail

Curved Plastic Rails for TPU826

Applicable Chain TPU826-T, TPU826P-T, TPUM826-T (Cannot be used for TPU-LH, TPUT-LH, TP-880TAB, TPU-USR)

Rails (Same with both carry and return ways)



\* No base plate is required for TPU/TPUM. Use the same rail for both carry-way and return-way.

Material grade	Color	Operating temperature range °C
p Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	R Note: 2	R1 Note: 2	R2 Note: 2	A	B
1	PR-TPU826R500P1S	PR-TPU826R500P1R	R500	-	-	R440	R560
	PR-TPU826R600P1S	PR-TPU826R600P1R	R600	-	-	R540	R660
	PR-TPU826R700P1S	PR-TPU826R700P1R	R700	-	-	R640	R760
	PR-TPU826R800P1S	PR-TPU826R800P1R	R800	-	-	R740	R860
	PR-TPU826R900P1S	PR-TPU826R900P1R	R900	-	-	R840	R960
	PR-TPU826R1000P1S	PR-TPU826R1000P1R	R1000	-	-	R940	R1060
2	PR-TPU826R500P2S	PR-TPU826R500P2R	R500	R584	-	R447	R637
	PR-TPU826R600P2S	PR-TPU826R600P2R	R600	R684	-	R547	R737
	PR-TPU826R700P2S	PR-TPU826R700P2R	R700	R784	-	R647	R837
	PR-TPU826R800P2S	PR-TPU826R800P2R	R800	R884	-	R747	R937
	PR-TPU826R900P2S	PR-TPU826R900P2R	R900	R984	-	R847	R1037
	PR-TPU826R1000P2S	PR-TPU826R1000P2R	R1000	R1084	-	R947	R1137
3	PR-TPU826R500P3S	PR-TPU826R500P3R	R500	R584	R668	R447	R721
	PR-TPU826R600P3S	PR-TPU826R600P3R	R600	R684	R768	R547	R821
	PR-TPU826R700P3S	PR-TPU826R700P3R	R700	R784	R868	R647	R921
	PR-TPU826R800P3S	PR-TPU826R800P3R	R800	R884	R968	R747	R1021
	PR-TPU826R900P3S	PR-TPU826R900P3R	R900	R984	R1068	R847	R1121
	PR-TPU826R1000P3S	PR-TPU826R1000P3R	R1000	R1084	R1168	R947	R1221

Note: 1. Made-to-order products.

2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand, R2: sideflex radius of the third strand.

3. Set: Combination of two rails.

4. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.

5. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.

6. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

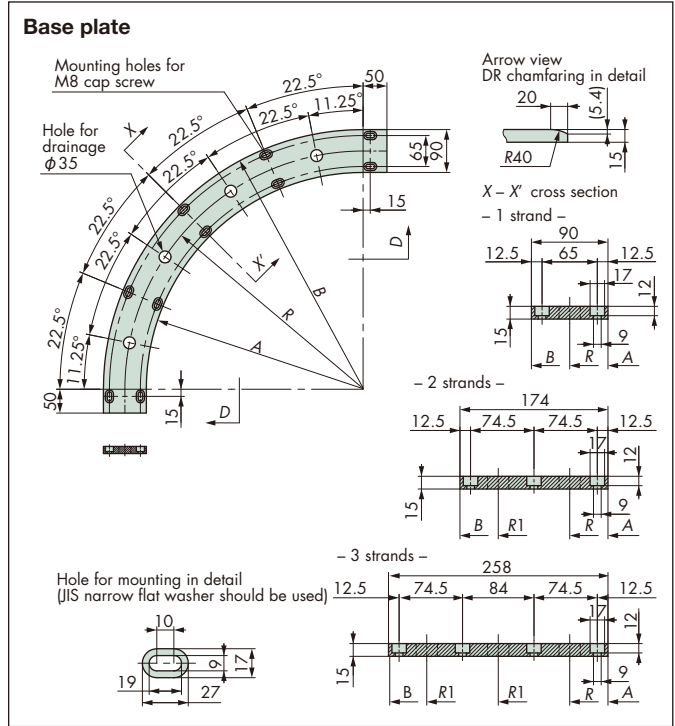
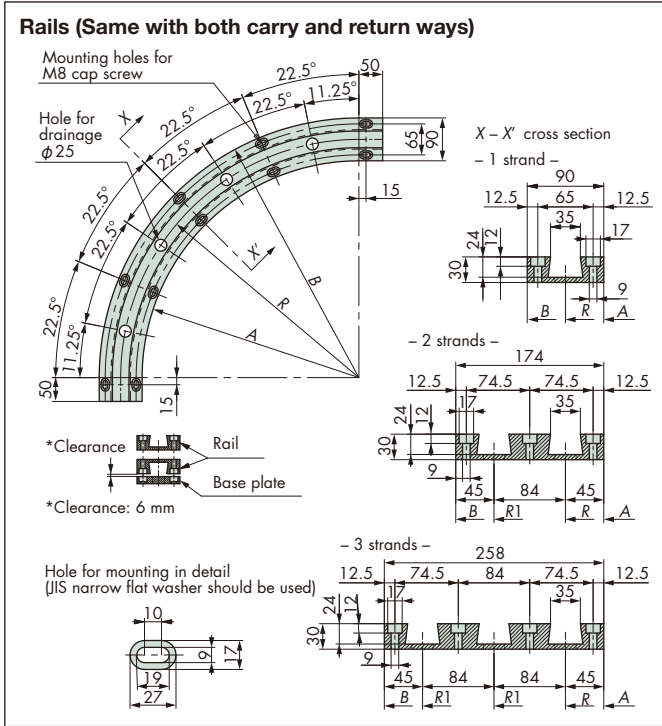
# Plastic Rails

## Finished Rail

### Curved Plastic Rail

#### Curved Plastic Rails for TNU826

Applicable Chain TNU826



Material grade	Color	Operating temperature range °C
P Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	Tsubaki model no. return-way/base plate	R Note: 2	R1 Note: 2	R2 Note: 2	A	B
1	PR-TNU826R500P1S	PR-TNU826R500P1R	PR-TNU826R500P1B	R500	-	-	R455	R545
	PR-TNU826R600P1S	PR-TNU826R600P1R	PR-TNU826R600P1B	R600	-	-	R555	R645
	PR-TNU826R700P1S	PR-TNU826R700P1R	PR-TNU826R700P1B	R700	-	-	R655	R745
	PR-TNU826R800P1S	PR-TNU826R800P1R	PR-TNU826R800P1B	R800	-	-	R755	R845
	PR-TNU826R900P1S	PR-TNU826R900P1R	PR-TNU826R900P1B	R900	-	-	R855	R945
	PR-TNU826R1000P1S	PR-TNU826R1000P1R	PR-TNU826R1000P1B	R1000	-	-	R955	R1045
2	PR-TNU826R500P2S	PR-TNU826R500P2R	PR-TNU826R500P2B	R500	R584	-	R455	R629
	PR-TNU826R600P2S	PR-TNU826R600P2R	PR-TNU826R600P2B	R600	R684	-	R555	R729
	PR-TNU826R700P2S	PR-TNU826R700P2R	PR-TNU826R700P2B	R700	R784	-	R655	R829
	PR-TNU826R800P2S	PR-TNU826R800P2R	PR-TNU826R800P2B	R800	R884	-	R755	R929
	PR-TNU826R900P2S	PR-TNU826R900P2R	PR-TNU826R900P2B	R900	R984	-	R855	R1029
	PR-TNU826R1000P2S	PR-TNU826R1000P2R	PR-TNU826R1000P2B	R1000	R1084	-	R955	R1129
3	PR-TNU826R500P3S	PR-TNU826R500P3R	PR-TNU826R500P3B	R500	R584	R668	R455	R713
	PR-TNU826R600P3S	PR-TNU826R600P3R	PR-TNU826R600P3B	R600	R684	R768	R555	R813
	PR-TNU826R700P3S	PR-TNU826R700P3R	PR-TNU826R700P3B	R700	R784	R868	R655	R913
	PR-TNU826R800P3S	PR-TNU826R800P3R	PR-TNU826R800P3B	R800	R884	R968	R755	R1013
	PR-TNU826R900P3S	PR-TNU826R900P3R	PR-TNU826R900P3B	R900	R984	R1068	R855	R1113
	PR-TNU826R1000P3S	PR-TNU826R1000P3R	PR-TNU826R1000P3B	R1000	R1084	R1168	R955	R1213

Note: 1. Made-to-order products.

2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand, R2: sideflex radius of the third strand.

3. Set: Combination of two curved plastic rails and one base plate.

4. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.

5. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.

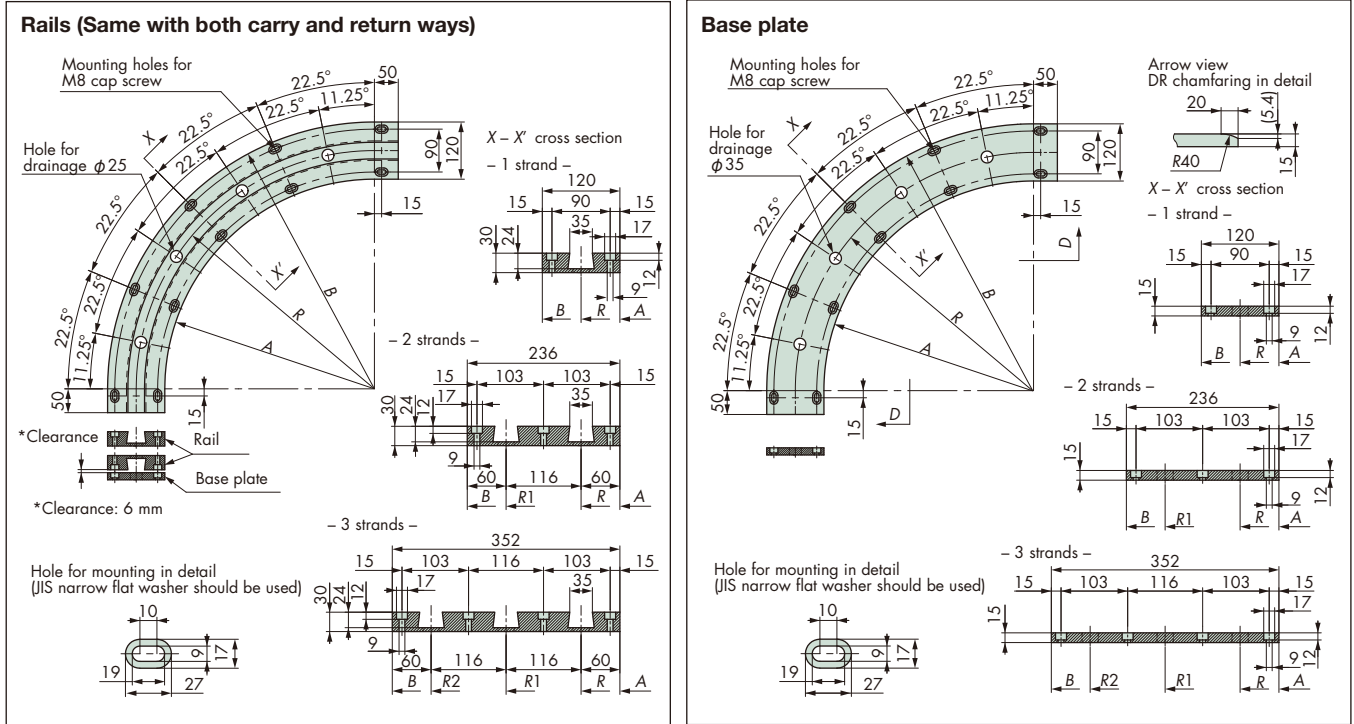
6. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

Finished Rail

Curved Plastic Rail

Curved Plastic Rails for TNU1143

Applicable Chain TNU1143



Material grade	Color	Operating temperature range °C
P Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	Tsubaki model no. return-way/base plate	R Note: 2	R1 Note: 2	R2 Note: 2	A	B
1	PR-TNU1143R500P1S	PR-TNU1143R500P1R	PR-TNU1143R500P1B	R500	-	-	R440	R560
	PR-TNU1143R600P1S	PR-TNU1143R600P1R	PR-TNU1143R600P1B	R600	-	-	R540	R660
	PR-TNU1143R700P1S	PR-TNU1143R700P1R	PR-TNU1143R700P1B	R700	-	-	R640	R760
	PR-TNU1143R800P1S	PR-TNU1143R800P1R	PR-TNU1143R800P1B	R800	-	-	R740	R860
	PR-TNU1143R900P1S	PR-TNU1143R900P1R	PR-TNU1143R900P1B	R900	-	-	R840	R960
	PR-TNU1143R1000P1S	PR-TNU1143R1000P1R	PR-TNU1143R1000P1B	R1000	-	-	R940	R1060
2	PR-TNU1143R500P2S	PR-TNU1143R500P2R	PR-TNU1143R500P2B	R500	R616	-	R440	R676
	PR-TNU1143R600P2S	PR-TNU1143R600P2R	PR-TNU1143R600P2B	R600	R716	-	R540	R776
	PR-TNU1143R700P2S	PR-TNU1143R700P2R	PR-TNU1143R700P2B	R700	R816	-	R640	R876
	PR-TNU1143R800P2S	PR-TNU1143R800P2R	PR-TNU1143R800P2B	R800	R916	-	R740	R976
	PR-TNU1143R900P2S	PR-TNU1143R900P2R	PR-TNU1143R900P2B	R900	R1016	-	R840	R1076
	PR-TNU1143R1000P2S	PR-TNU1143R1000P2R	PR-TNU1143R1000P2B	R1000	R1116	-	R940	R1176
3	PR-TNU1143R500P3S	PR-TNU1143R500P3R	PR-TNU1143R500P3B	R500	R616	R732	R440	R792
	PR-TNU1143R600P3S	PR-TNU1143R600P3R	PR-TNU1143R600P3B	R600	R716	R832	R540	R892
	PR-TNU1143R700P3S	PR-TNU1143R700P3R	PR-TNU1143R700P3B	R700	R816	R932	R640	R992
	PR-TNU1143R800P3S	PR-TNU1143R800P3R	PR-TNU1143R800P3B	R800	R916	R1032	R740	R1092
	PR-TNU1143R900P3S	PR-TNU1143R900P3R	PR-TNU1143R900P3B	R900	R1016	R1132	R840	R1192
	PR-TNU1143R1000P3S	PR-TNU1143R1000P3R	PR-TNU1143R1000P3B	R1000	R1116	R1232	R940	R1292

Note: 1. Made-to-order products.

2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand, R2: sideflex radius of the third strand.

3. Set: Combination of two curved plastic rails and one base plate.

4. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.

5. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.

6. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

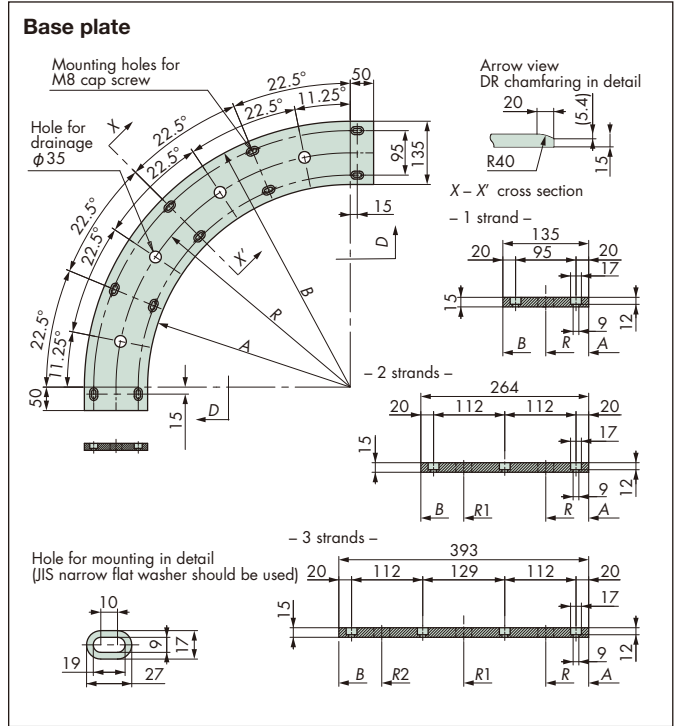
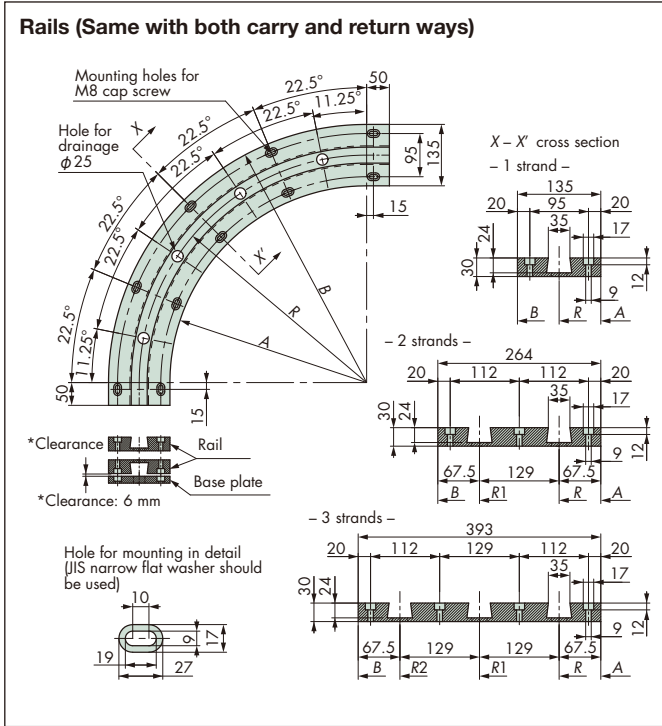
# Plastic Rails

## Finished Rail

### Curved Plastic Rail

#### Curved Plastic Rails for TNU1270

Applicable Chain TNU1270



Material grade	Color	Operating temperature range °C
P Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	Tsubaki model no. return-way/base plate	R Note: 2	R1 Note: 2	R2 Note: 2	A	B
1	PR-TNU1270R500P1S	PR-TNU1270R500P1R	PR-TNU1270R500P1B	R500	-	-	R432.5	R567.5
	PR-TNU1270R600P1S	PR-TNU1270R600P1R	PR-TNU1270R600P1B	R600	-	-	R532.5	R667.5
	PR-TNU1270R700P1S	PR-TNU1270R700P1R	PR-TNU1270R700P1B	R700	-	-	R632.5	R767.5
	PR-TNU1270R800P1S	PR-TNU1270R800P1R	PR-TNU1270R800P1B	R800	-	-	R732.5	R867.5
	PR-TNU1270R900P1S	PR-TNU1270R900P1R	PR-TNU1270R900P1B	R900	-	-	R832.5	R967.5
2	PR-TNU1270R1000P1S	PR-TNU1270R1000P1R	PR-TNU1270R1000P1B	R1000	-	-	R932.5	R1067.5
	PR-TNU1270R500P2S	PR-TNU1270R500P2R	PR-TNU1270R500P2B	R500	R629	-	R432.5	R696.5
	PR-TNU1270R600P2S	PR-TNU1270R600P2R	PR-TNU1270R600P2B	R600	R729	-	R532.5	R796.5
	PR-TNU1270R700P2S	PR-TNU1270R700P2R	PR-TNU1270R700P2B	R700	R829	-	R632.5	R896.5
	PR-TNU1270R800P2S	PR-TNU1270R800P2R	PR-TNU1270R800P2B	R800	R929	-	R732.5	R996.5
3	PR-TNU1270R900P2S	PR-TNU1270R900P2R	PR-TNU1270R900P2B	R900	R1029	-	R832.5	R1096.5
	PR-TNU1270R1000P2S	PR-TNU1270R1000P2R	PR-TNU1270R1000P2B	R1000	R1129	-	R932.5	R1196.5
	PR-TNU1270R500P3S	PR-TNU1270R500P3R	PR-TNU1270R500P3B	R500	R629	R758	R432.5	R825.5
	PR-TNU1270R600P3S	PR-TNU1270R600P3R	PR-TNU1270R600P3B	R600	R729	R858	R532.5	R925.5
	PR-TNU1270R700P3S	PR-TNU1270R700P3R	PR-TNU1270R700P3B	R700	R829	R958	R632.5	R1025.5
3	PR-TNU1270R800P3S	PR-TNU1270R800P3R	PR-TNU1270R800P3B	R800	R929	R1058	R732.5	R1125.5
	PR-TNU1270R900P3S	PR-TNU1270R900P3R	PR-TNU1270R900P3B	R900	R1029	R1158	R832.5	R1225.5
	PR-TNU1270R1000P3S	PR-TNU1270R1000P3R	PR-TNU1270R1000P3B	R1000	R1129	R1258	R932.5	R1325.5

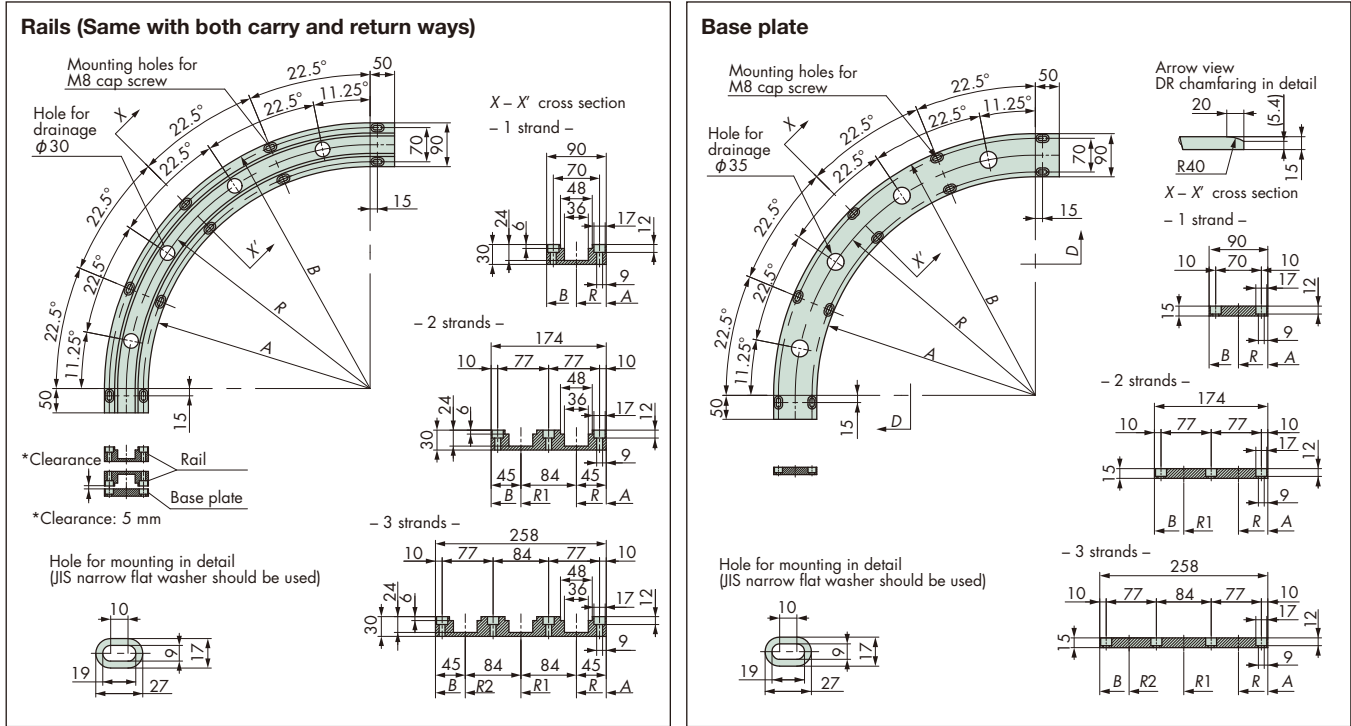
- Note: 1. Made-to-order products.  
 2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand, R2: sideflex radius of the third strand.  
 3. Set: Combination of two curved plastic rails and one base plate.  
 4. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.  
 5. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.  
 6. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

Finished Rail

Curved Plastic Rail

Curved Plastic Rails for TTKU826

Applicable Chain TTKU826



Material grade	Color	Operating temperature range °C
P Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	Tsubaki model no. return-way/base plate	R Note: 2	R1 Note: 2	R2 Note: 2	A	B
1	PR-TTKU826R500P1S	PR-TTKU826R500P1R	PR-TTKU826R500P1B	R500	-	-	R455	R545
	PR-TTKU826R600P1S	PR-TTKU826R600P1R	PR-TTKU826R600P1B	R600	-	-	R555	R645
	PR-TTKU826R700P1S	PR-TTKU826R700P1R	PR-TTKU826R700P1B	R700	-	-	R655	R745
	PR-TTKU826R800P1S	PR-TTKU826R800P1R	PR-TTKU826R800P1B	R800	-	-	R755	R845
	PR-TTKU826R900P1S	PR-TTKU826R900P1R	PR-TTKU826R900P1B	R900	-	-	R855	R945
	PR-TTKU826R1000P1S	PR-TTKU826R1000P1R	PR-TTKU826R1000P1B	R1000	-	-	R955	R1045
2	PR-TTKU826R500P2S	PR-TTKU826R500P2R	PR-TTKU826R500P2B	R500	R584	-	R455	R629
	PR-TTKU826R600P2S	PR-TTKU826R600P2R	PR-TTKU826R600P2B	R600	R684	-	R555	R729
	PR-TTKU826R700P2S	PR-TTKU826R700P2R	PR-TTKU826R700P2B	R700	R784	-	R655	R829
	PR-TTKU826R800P2S	PR-TTKU826R800P2R	PR-TTKU826R800P2B	R800	R884	-	R755	R929
	PR-TTKU826R900P2S	PR-TTKU826R900P2R	PR-TTKU826R900P2B	R900	R984	-	R855	R1029
	PR-TTKU826R1000P2S	PR-TTKU826R1000P2R	PR-TTKU826R1000P2B	R1000	R1084	-	R955	R1129
3	PR-TTKU826R500P3S	PR-TTKU826R500P3R	PR-TTKU826R500P3B	R500	R584	R668	R455	R713
	PR-TTKU826R600P3S	PR-TTKU826R600P3R	PR-TTKU826R600P3B	R600	R684	R768	R555	R813
	PR-TTKU826R700P3S	PR-TTKU826R700P3R	PR-TTKU826R700P3B	R700	R784	R868	R655	R913
	PR-TTKU826R800P3S	PR-TTKU826R800P3R	PR-TTKU826R800P3B	R800	R884	R968	R755	R1013
	PR-TTKU826R900P3S	PR-TTKU826R900P3R	PR-TTKU826R900P3B	R900	R984	R1068	R855	R1113
	PR-TTKU826R1000P3S	PR-TTKU826R1000P3R	PR-TTKU826R1000P3B	R1000	R1084	R1168	R955	R1213

- Note: 1. Made-to-order products.
- 2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand, R2: sideflex radius of the third strand.
- 3. Set: Combination of two curved plastic rails and one base plate.
- 4. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.
- 5. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.
- 6. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

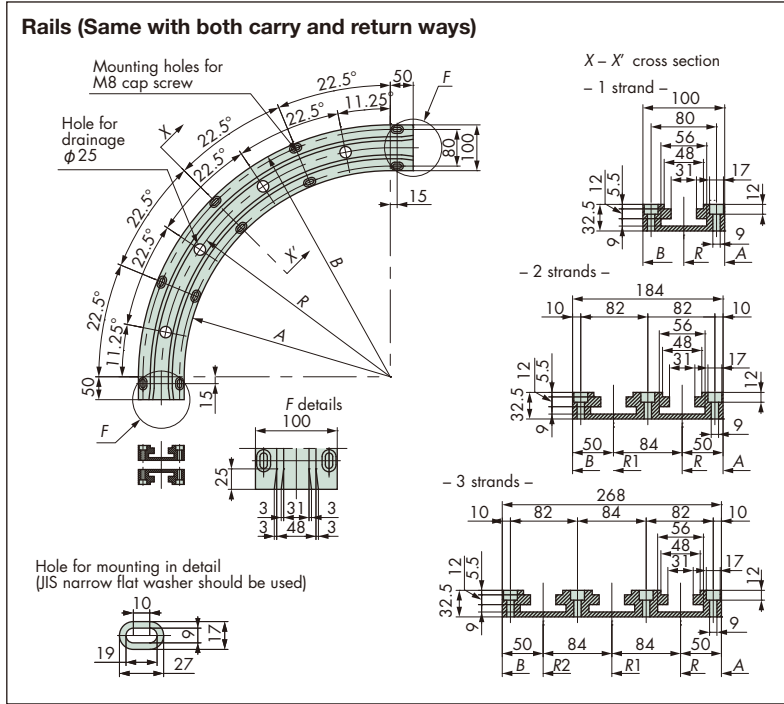
# Plastic Rails

## Finished Rail

### Curved Plastic Rail

#### Curved Plastic Rails for TRU826

Applicable Chain TRU826-T



\* No base plate is required for TRU. Use the same rail for both carry-way and return-way.

Material grade	Color	Operating temperature range °C
p Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	R <sup>Note: 2</sup>	R1 <sup>Note: 2</sup>	R2 <sup>Note: 2</sup>	A	B
1	PR-TRU826R500P1S	PR-TRU826R500P1R	R500	-	-	R450	R550
	PR-TRU826R600P1S	PR-TRU826R600P1R	R600	-	-	R550	R650
	PR-TRU826R700P1S	PR-TRU826R700P1R	R700	-	-	R650	R750
	PR-TRU826R800P1S	PR-TRU826R800P1R	R800	-	-	R750	R850
	PR-TRU826R900P1S	PR-TRU826R900P1R	R900	-	-	R850	R950
	PR-TRU826R1000P1S	PR-TRU826R1000P1R	R1000	-	-	R950	R1050
2	PR-TRU826R500P2S	PR-TRU826R500P2R	R500	R584	-	R450	R634
	PR-TRU826R600P2S	PR-TRU826R600P2R	R600	R684	-	R550	R734
	PR-TRU826R700P2S	PR-TRU826R700P2R	R700	R784	-	R650	R834
	PR-TRU826R800P2S	PR-TRU826R800P2R	R800	R884	-	R750	R934
	PR-TRU826R900P2S	PR-TRU826R900P2R	R900	R984	-	R850	R1034
	PR-TRU826R1000P2S	PR-TRU826R1000P2R	R1000	R1094	-	R950	R1134
3	PR-TRU826R500P3S	PR-TRU826R500P3R	R500	R584	R668	R450	R718
	PR-TRU826R600P3S	PR-TRU826R600P3R	R600	R684	R768	R550	R818
	PR-TRU826R700P3S	PR-TRU826R700P3R	R700	R784	R868	R650	R918
	PR-TRU826R800P3S	PR-TRU826R800P3R	R800	R884	R968	R750	R1018
	PR-TRU826R900P3S	PR-TRU826R900P3R	R900	R984	R1068	R850	R1118
	PR-TRU826R1000P3S	PR-TRU826R1000P3R	R1000	R1084	R1168	R950	R1218

Note: 1. Made-to-order products.

2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand, R2: sideflex radius of the third strand.

3. Set: Combination of two curved plastic rails and one base plate.

4. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.

5. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.

6. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

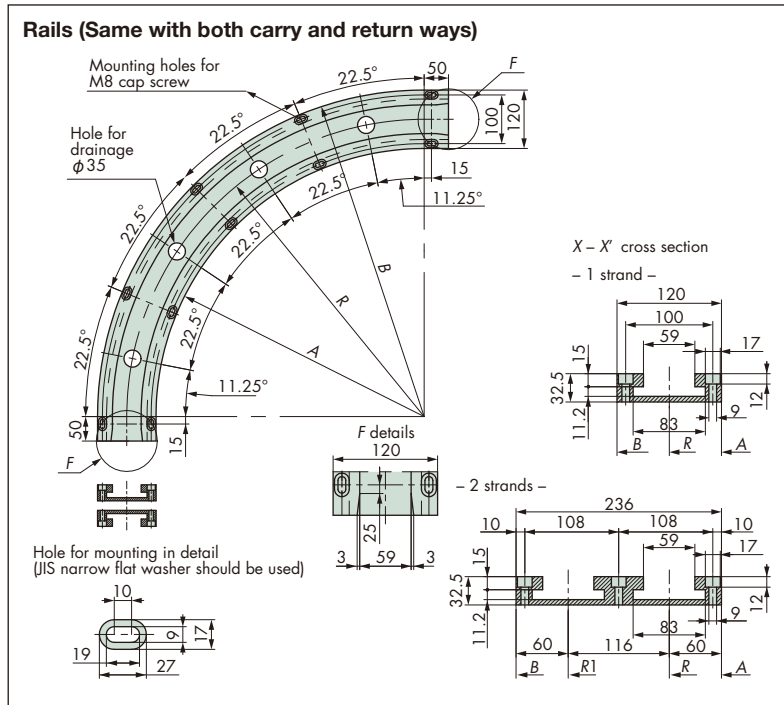


**Finished Rail**

**Curved Plastic Rail**

■ **Curved Plastic Rails for TPUS1143**

Applicable Chain TPUS1143-T-LFB, TPU953-T-LBP, TPUS-Y-LAP



\* No base plate is required for TPUS. Use the same rail for both carry-way and return-way.

Material grade	Color	Operating temperature range °C
p Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	R <sup>Note: 2</sup>	R1 <sup>Note: 2</sup>	A	B
1	PR-TPUS1143R610P1S	PR-TPUS1143R610P1R	R610	-	R550	R670
	PR-TPUS1143R700P1S	PR-TPUS1143R700P1R	R700	-	R640	R760
	PR-TPUS1143R800P1S	PR-TPUS1143R800P1R	R800	-	R740	R860
	PR-TPUS1143R900P1S	PR-TPUS1143R900P1R	R900	-	R840	R960
	PR-TPUS1143R1000P1S	PR-TPUS1143R1000P1R	R1000	-	R940	R1060
2	PR-TPUS1143R610P2S	PR-TPUS1143R610P2R	R610	R726	R550	R786
	PR-TPUS1143R700P2S	PR-TPUS1143R700P2R	R700	R816	R640	R876
	PR-TPUS1143R800P2S	PR-TPUS1143R800P2R	R800	R916	R740	R976
	PR-TPUS1143R900P2S	PR-TPUS1143R900P2R	R900	R1016	R840	R1076
	PR-TPUS1143R1000P2S	PR-TPUS1143R1000P2R	R1000	R1116	R940	R1176

Note: 1. Made-to-order products.

2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand.

3. Set: Combination of two curved plastic rails and one base plate.

4. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.

5. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.

6. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

# Plastic Rails

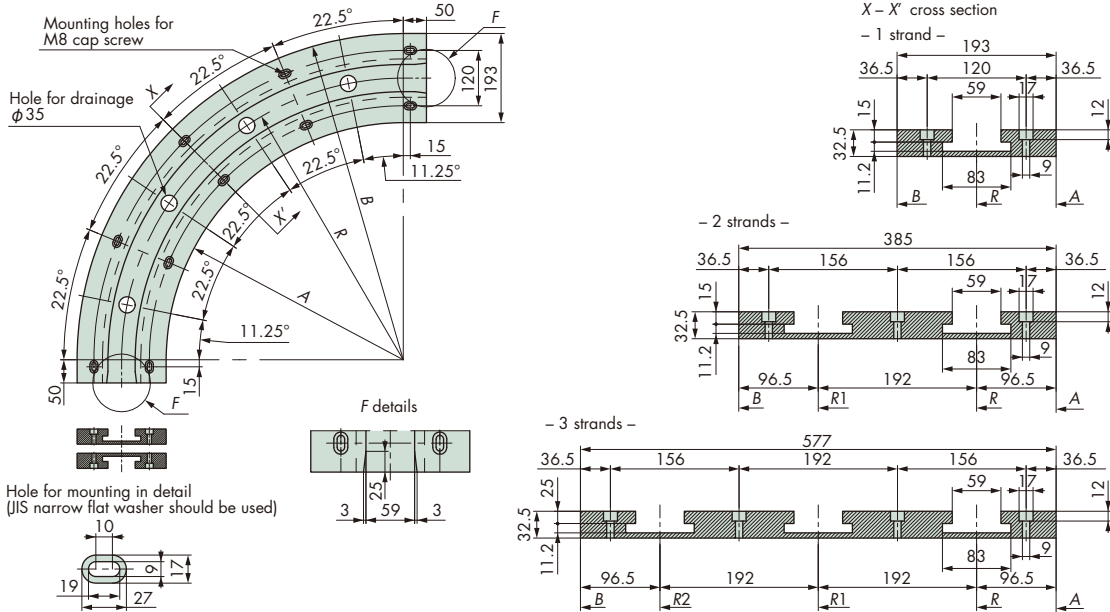
## Finished Rail

### Curved Plastic Rail

#### Curved Plastic Rails for TPUS1905

Applicable Chain TPUS1905-T-LFB, TPUS1905-T-LBP

#### Rails (Same with both carry and return ways)



\* No base plate is required for TPUS. Use the same rail for both carry-way and return-way.

Material grade	Color	Operating temperature range °C
P Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

No. of strands	Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	R Note: 2	R1 Note: 2	R2 Note: 2	A	B
1	PR-TPUS1905R610P1S	PR-TPUS1905R610P1R	R610	-	-	R513.5	R706.5
	PR-TPUS1905R700P1S	PR-TPUS1905R700P1R	R700	-	-	R603.5	R796.5
	PR-TPUS1905R800P1S	PR-TPUS1905R800P1R	R800	-	-	R703.5	R896.5
	PR-TPUS1905R900P1S	PR-TPUS1905R900P1R	R900	-	-	R803.5	R996.5
	PR-TPUS1905R1000P1S	PR-TPUS1905R1000P1R	R1000	-	-	R903.5	R1096.5
2	PR-TPUS1905R610P2S	PR-TPUS1905R610P2R	R610	R802	-	R513.5	R898.5
	PR-TPUS1905R700P2S	PR-TPUS1905R700P2R	R700	R892	-	R603.5	R988.5
	PR-TPUS1905R800P2S	PR-TPUS1905R800P2R	R800	R992	-	R703.5	R1088.5
	PR-TPUS1905R900P2S	PR-TPUS1905R900P2R	R900	R1092	-	R803.5	R1188.5
	PR-TPUS1905R1000P2S	PR-TPUS1905R1000P2R	R1000	R1192	-	R903.5	R1288.5
3	PR-TPUS1905R610P3S	PR-TPUS1905R610P3R	R610	R802	R994	R513.5	R1090.5
	PR-TPUS1905R700P3S	PR-TPUS1905R700P3R	R700	R892	R1084	R603.5	R1180.5
	PR-TPUS1905R800P3S	PR-TPUS1905R800P3R	R800	R992	R1184	R703.5	R1280.5
	* PR-TPUS1905R900P3S	* PR-TPUS1905R900P3R	R900	R1092	R1284	R803.5	R1380.5
	* PR-TPUS1905R1000P3S	* PR-TPUS1905R1000P3R	R1000	R1192	R1384	R903.5	R1480.5

Note: 1. Made-to-order products.

2. R: sideflex radius of the first strand, R1: sideflex radius of the second strand, R2: sideflex radius of the third strand.

3. Set: Combination of two curved plastic rails and one base plate.

4. Curved plastic rails are delivered with divided units by an angle of 30° or 45°, depending on its shape.

5. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.

6. Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.

7. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

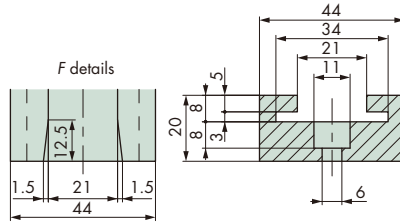
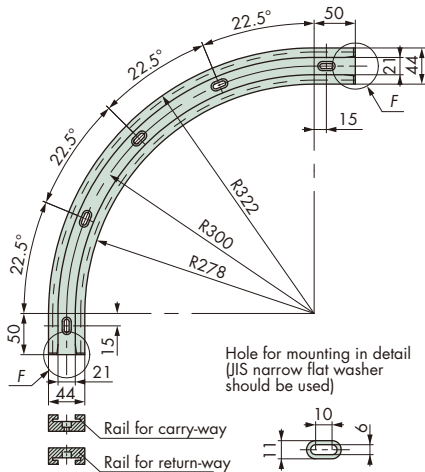
Finished Rail

Curved Plastic Rail

Curved Plastic Rails for RSP40-T-CU

Note: Use PR-PO12-W-2M and PR-PO12-G-2M rails on page 333 for straight section.

Applicable Chain RSP40-T-CU

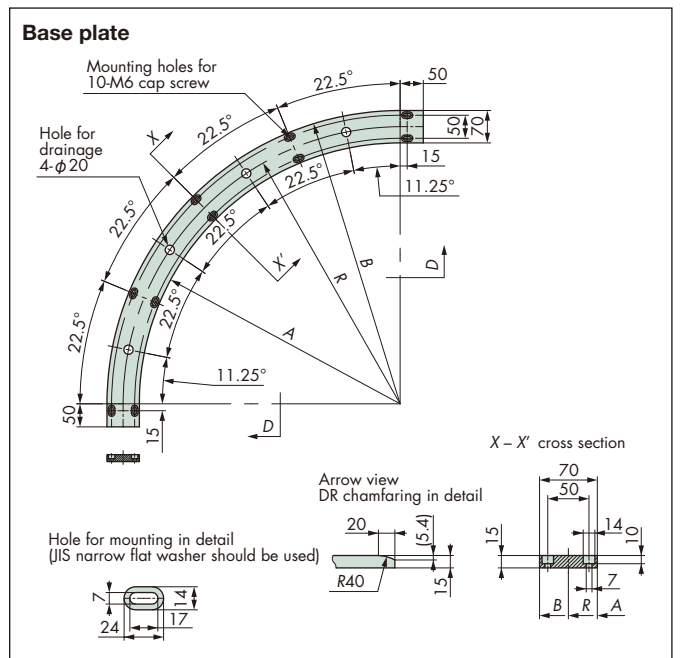
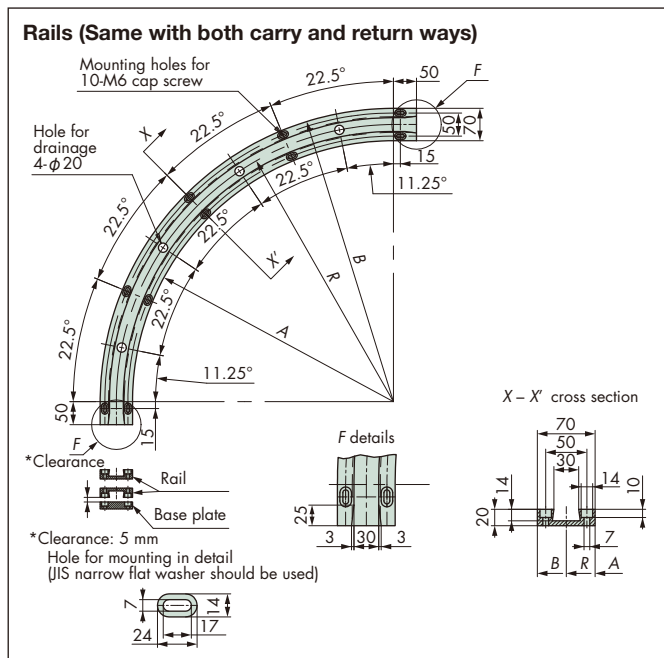


Tsubaki model no. set	Carry-way/Return-way rail	Material grade	Color	Center radius R mm	Inner circumference A	Outer circumference B
PR-RSP40R300P1S	PR-RSP40R300P1R	10-100	White	R300	R278	R322

- Note:
1. Made-to-order product.
  2. Set: Combination of two rails of carry and return ways.
  3. The above model numbers indicate ultra-high molecular weight polyethylene (UHMW-PE).
  4. Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.
  5. Contact a Tsubaki representative if you're considering dimensions other than the above.
  6. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

Curved Plastic Rails for RSP60-CU

Applicable Chain RSP60-CU, RSP60P-CU



Material grade	Color	Operating temperature range °C
P Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	Tsubaki model no. return-way/base plate	R	A	B
PR-RSP60R600P1S	PR-RSP60R600P1R	PR-RSP60R600P1B	R600	R565	R635
PR-RSP60R700P1S	PR-RSP60R700P1R	PR-RSP60R700P1B	R700	R665	R735
PR-RSP60R800P1S	PR-RSP60R800P1R	PR-RSP60R800P1B	R800	R765	R835
PR-RSP60R900P1S	PR-RSP60R900P1R	PR-RSP60R900P1B	R900	R865	R935
PR-RSP60R1000P1S	PR-RSP60R1000P1R	PR-RSP60R1000P1B	R1000	R965	R1035

- Note:
1. Made-to-order products.
  2. Set: Combination of two base rails and one base.
  3. The use of curved plastic rails with an inscribed angle of 180° or higher may cause failure under unlubricated conditions.
  4. Please contact us when you're considering the use of sideflex radius, number of rows, material of chains other than the above.
  5. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

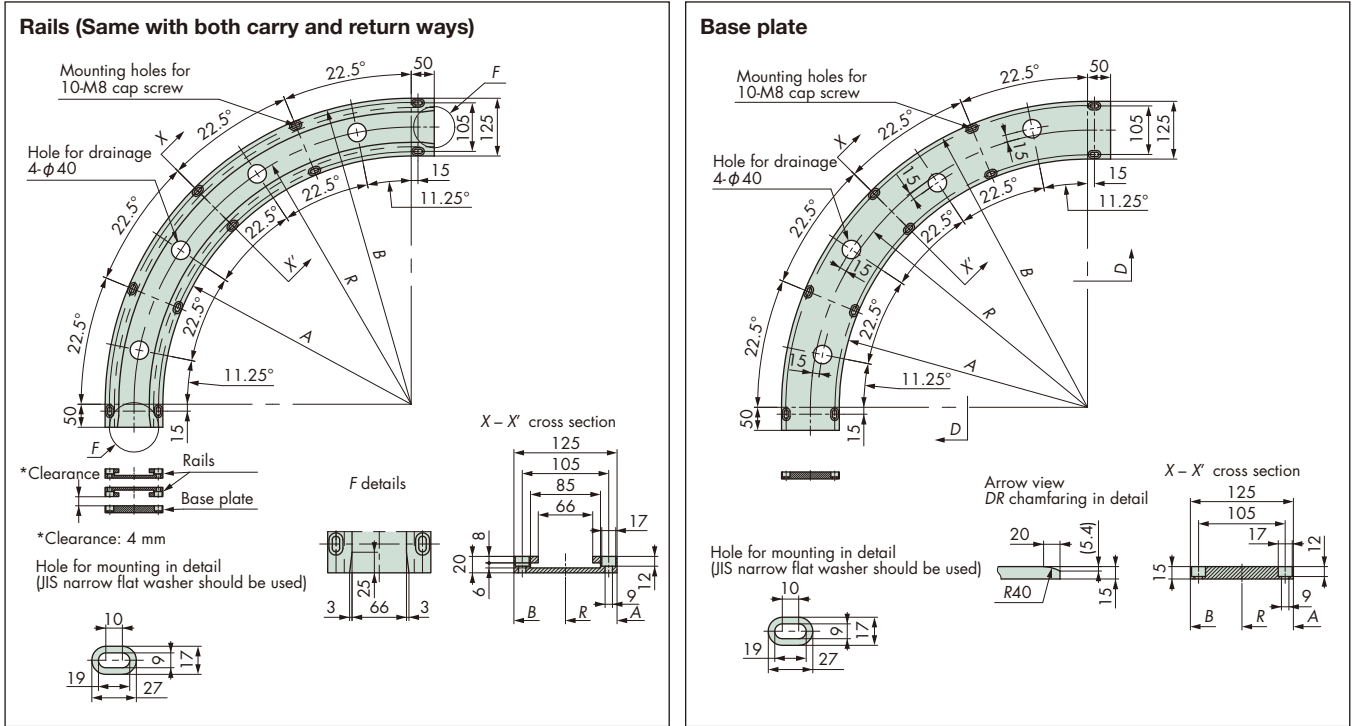
# Plastic Rails

## Finished Rail

### Curved Plastic Rail

#### Curved Plastic Rails for RSP60-CU-2

Applicable Chain RSP60-CU-2



Material grade	Color	Operating temperature range °C
p Note	White	-20 to 60

Note: Models dedicated to for only dry conditions (M) as well as low friction/wear resistant (PMW, PLF) can also be manufactured.

Tsubaki model no. set	Tsubaki model no. carry-way/return-way rail	Tsubaki model no. return-way/base plate	R	A	B
PR-RSP60-2R600P1S	PR-RSP60-2R600P1R	PR-RSP60-2R600P1B	R600	R537.5	R662.5
PR-RSP60-2R700P1S	PR-RSP60-2R700P1R	PR-RSP60-2R700P1B	R700	R637.5	R762.5
PR-RSP60-2R800P1S	PR-RSP60-2R800P1R	PR-RSP60-2R800P1B	R800	R737.5	R862.5
PR-RSP60-2R900P1S	PR-RSP60-2R900P1R	PR-RSP60-2R900P1B	R900	R837.5	R962.5
PR-RSP60-2R1000P1S	PR-RSP60-2R1000P1R	PR-RSP60-2R1000P1B	R1000	R937.5	R1062.5

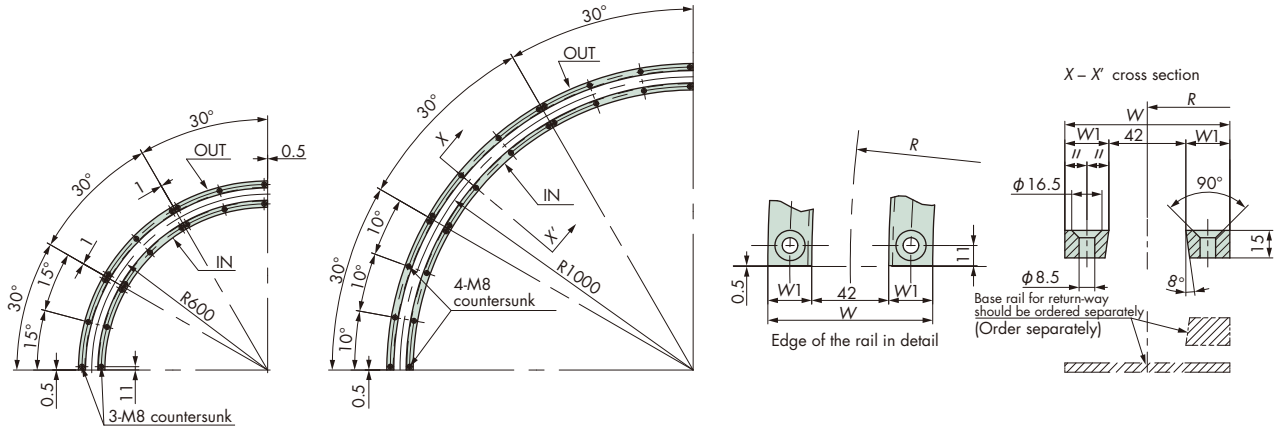
- Note:
- Made-to-order products.
  - Set: Combination of two curved plastic rails and one base plate.
  - Failure may result if curved plastic rails with an angle of 180° or larger are used under unlubricated condition.
  - Contact a Tsubaki representative if you're considering the use of curved plastic rails with other sideflex radius, number of strands and material shown above.
  - The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

Other Rails

Curved Plastic Rails for TTUP

for R600

for R1000



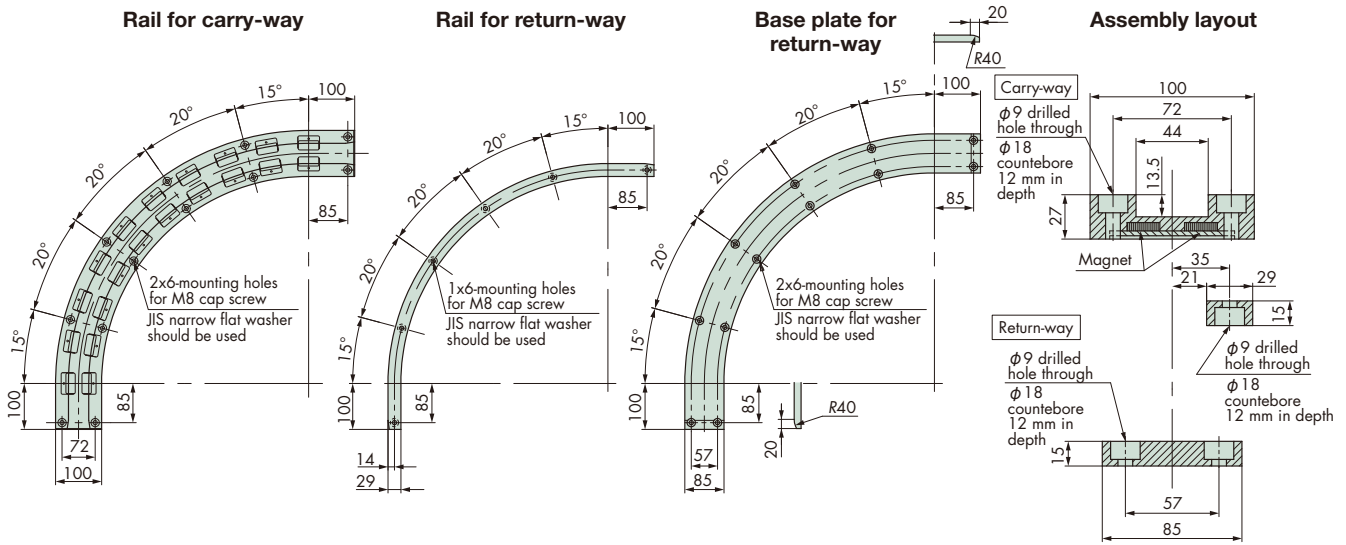
Applicable chain	Tsubaki model no. <small>Note: 4</small>	Center radius R mm	Side	Material grade	Color	Angle	Dimensions			Number of holes	Operating temperature range °C
							Total width W	Rail width W1	Pitch of holes C		
TTUP826 TTUP826P TTUPH826 TTU826	PR-32R60030-W-IN	600	Inside	10-100	White	30°	90	24	66	3	
	PR-32R60030-W-OUT		Outside								
	PR-32R60030-G-IN	600	Inside	10-301	Green						
	PR-32R60030-G-OUT		Outside								
	PR-32R80030-W-IN	800	Inside	10-100	White						
	PR-32R80030-W-OUT		Outside								
	PR-32R80030-G-IN	800	Inside	10-301	Green						
	PR-32R80030-G-OUT		Outside								
	PR-32R100030-W-IN	1000	Inside	10-100	White						
	PR-32R100030-W-OUT		Outside								
PR-32R100030-G-IN	1000	Inside	10-301	Green							
PR-32R100030-G-OUT		Outside									
TTUP1143 TTUP1143P TTU1143	PR-44R60030-W-IN	600	Inside	10-100	White	30°	122	40	82	3	
	PR-44R60030-W-OUT		Outside								
	PR-44R60030-G-IN	600	Inside	10-301	Green						
	PR-44R60030-G-OUT		Outside								
	PR-44R80030-W-IN	800	Inside	10-100	White						
	PR-44R80030-W-OUT		Outside								
	PR-44R80030-G-IN	800	Inside	10-301	Green						
	PR-44R80030-G-OUT		Outside								
	PR-44R100030-W-IN	1000	Inside	10-100	White						
	PR-44R100030-W-OUT		Outside								
PR-44R100030-G-IN	1000	Inside	10-301	Green							
PR-44R100030-G-OUT		Outside									
TTUP1905 TTU1905	PR-74R60030-W-IN	600	Inside	10-100	White	30°	192	75	117	3	
	PR-74R60030-W-OUT		Outside								
	PR-74R60030-G-IN	600	Inside	10-301	Green						
	PR-74R60030-G-OUT		Outside								
	PR-74R80030-W-IN	800	Inside	10-100	White						
	PR-74R80030-W-OUT		Outside								
	PR-74R80030-G-IN	800	Inside	10-301	Green						
	PR-74R80030-G-OUT		Outside								
	PR-74R100030-W-IN	1000	Inside	10-100	White						
	PR-74R100030-W-OUT		Outside								
PR-74R100030-G-IN	1000	Inside	10-301	Green							
PR-74R100030-G-OUT		Outside									

- Note: 1. Made-to-order products.  
 2. Mounting holes are drilled to the indicated dimensions.  
 3. A custom base may be available upon request.  
 4. The product with the above Tsubaki model number is a curved plastic rail with an angle of 30°. Please add the number of rails as necessary.

# Plastic Rails

## Other Rails

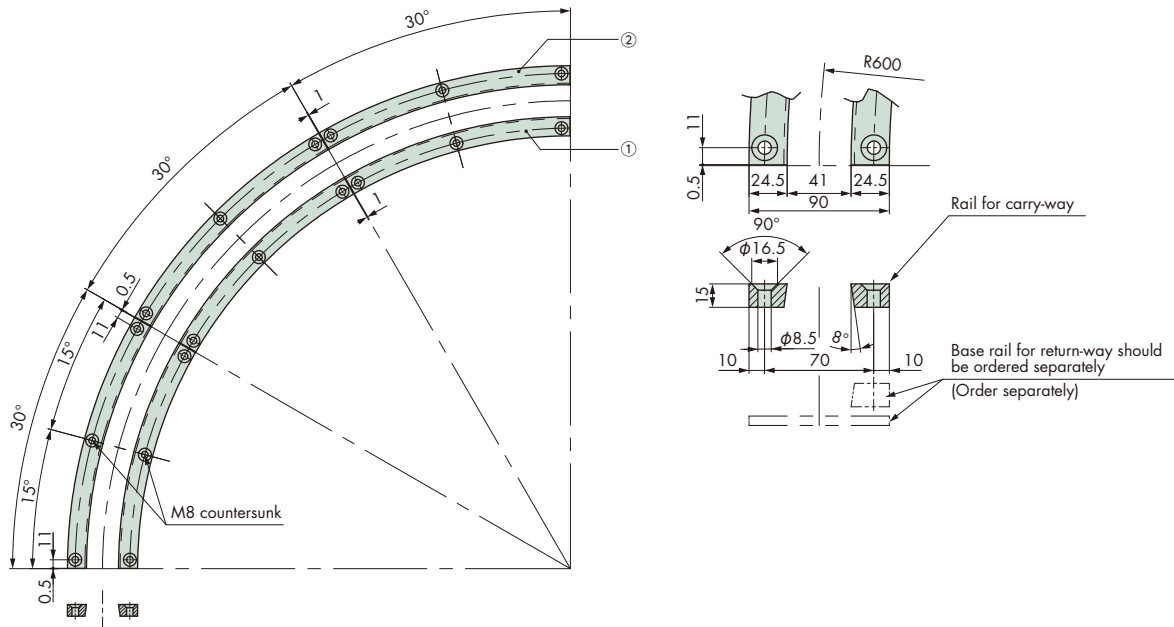
### Curved Plastic Rails with Magnet for TTUPM838H



Tsubaki model no.	Installation position	Center radius R mm	Material grade	Color	Operating temperature range °C
PR-TTUPMHR500P1R1	Rail for carry-way	500	10-100	White	-20 to 60
PR-TTUPMHR500P1R2	Rail for return-way				
PR-TTUPMHR500P1B	Base plate for return-way				

- Note: 1. Made-to-order products. Contact a Tsubaki representative for more information.  
 2. Contact a Tsubaki representative if you're considering the use of plastic rails with other shown above (sideflex radius, number of strands and material).  
 3. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.  
 4. The shapes of both inlet and outlet of the base plate have changed to the shapes of round-chamfering as of April, 2020.

### Curved Plastic Rails for TTUPSH-H

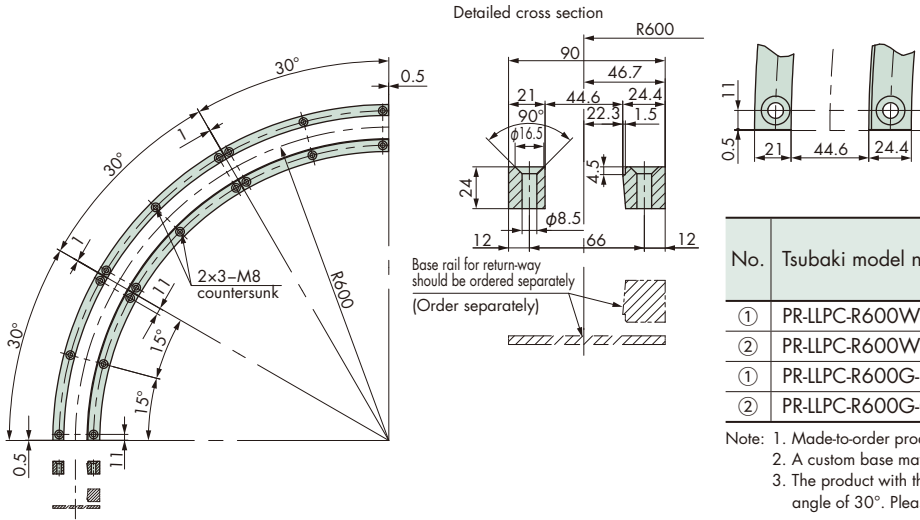


No.	Tsubaki model no. <small>Note: 3</small>	Center radius R mm	Side	Material grade	Color	Angle	Operating temperature range °C
①	PR-TTUPSH-R600WIN30	600	Inside	10-100	White	30°	-20 to 60
②	PR-TTUPSH-R600WOUT30		Outside				
①	PR-TTUPSH-R600GIN30	600	Inside	10-301	Green	30°	
②	PR-TTUPSH-R600GOUT30		Outside				

- Note: 1. Made-to-order products.  
 2. A custom base may be available upon request.  
 3. The product with the above model number is a curved plastic rail with an angle of 30°. Please add the number of rails as necessary.

Other Rails

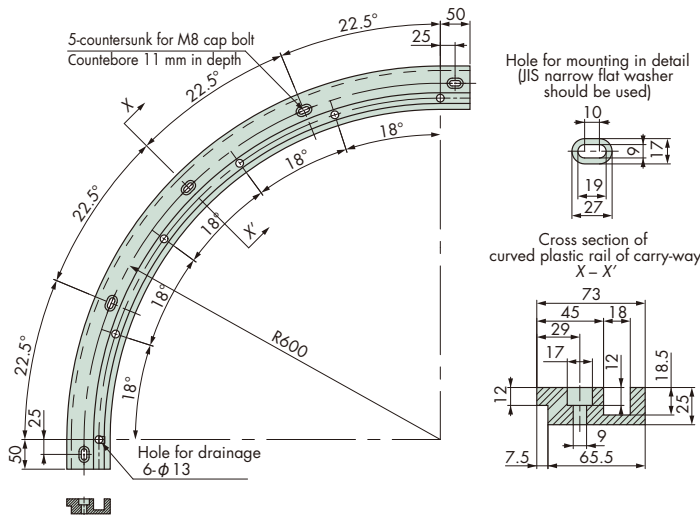
Curved Plastic Rails for TTUP-LLPC



No.	Tsubaki model no. <sup>Note: 3</sup>	Center radius R mm	Side	Material grade	Color	Angle
①	PR-LLPC-R600W-IN30	600	Inside	10-100	White	30°
②	PR-LLPC-R600W-OUT30		Outside			
①	PR-LLPC-R600G-IN30	600	Inside	10-301	Green	30°
②	PR-LLPC-R600G-OUT30		Outside			

Note: 1. Made-to-order products.  
 2. A custom base may be available upon request.  
 3. The product with the above model number is a curved plastic rail with an angle of 30°. Please add the number of rails as necessary.

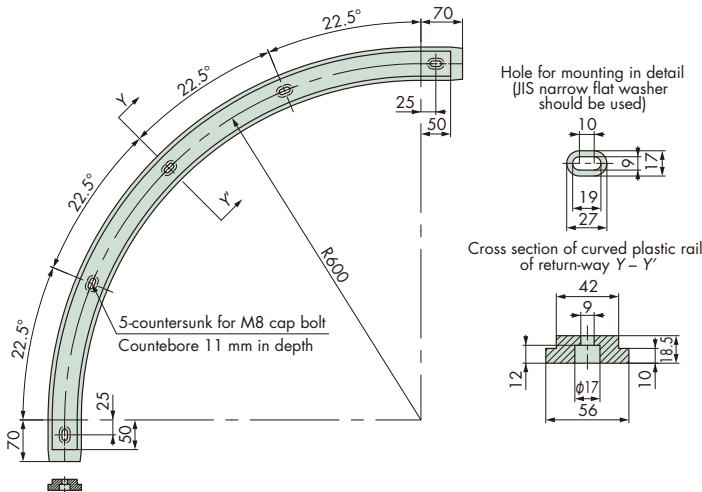
Curved Plastic Rails of Carry-way for WT3085C325



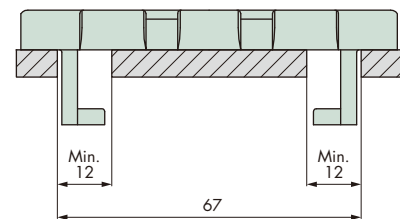
Tsubaki model no.	Material grade	Color	Operating temperature range °C
PR-WT3085R600C-W	10-100M9	White	-20 to 60
PR-WT3085R600C-CNO	SJ-CNO	Purple	-20 to 80

Note: 1. Made-to-order products.  
 2. Material grade: SJ-CNO (special polyamide) must be used under dry conditions.  
 3. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

Curved Plastic Rails of Return-way for WT3085C325



Plastic Rails of Straight Section for WT3085C325



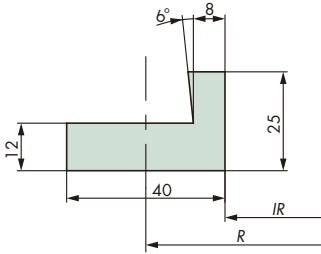
Tsubaki model no.	Material grade	Color	Operating temperature range °C
PR-WT3085R600R-W	10-100M9	White	-20 to 60
PR-WT3085R600R-CNO	SJ-CNO	Purple	-20 to 80

Note: 1. Made-to-order products.  
 2. Material grade: SJ-CNO (special polyamide) must be used under dry conditions without lubrication.  
 3. The dimension for mounting has changed to the dimension for JIS small plain washer, as of April, 2020.

# Plastic Rails

## Other Rails

### Curved Plastic Rails for RSP60-CU/RSP-PO12SB

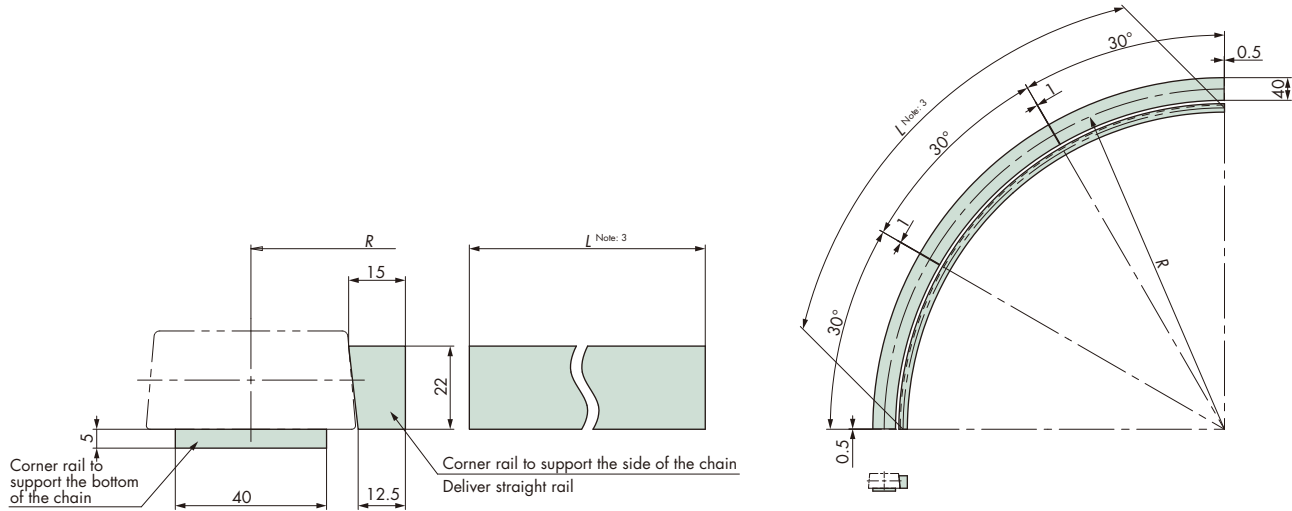


Tsubaki model no.	Material grade	Color	Center radius R mm	IR	Angle	Operating temperature range °C
PR-12SBR60030-W	10-100	White	600	577	30°	-20 to 60
PR-12SBR60030-G	10-301	Green				
PR-12SBR80030-W	10-100	White	800	777		
PR-12SBR80030-G	10-301	Green				
PR-12SBR100030-W	10-100	White	1000	977		
PR-12SBR100030-G	10-301	Green				
PR-12SBR120030-W	10-100	White	1200	1177		
PR-12SBR120030-G	10-301	Green				

Note: Made-to-order products.

### Curved Plastic Rails for TP-50UNS

There are two kinds of rails, one to support the bottom and the other to support the sides of the chain.



#### Plastic rail for bottom

Tsubaki model no.	Center radius R mm	Material grade	Color	Angle	Operating temperature range °C
PR-5UNKR55030-W	550	10-100	White	30°	-20 to 60
PR-5UNKR55030-G		10-301	Green		
PR-5UNKR60030-W	600	10-100	White		
PR-5UNKR60030-G		10-301	Green		
PR-5UNKR80030-W	800	10-100	White		
PR-5UNKR80030-G		10-301	Green		
PR-5UNKR100030-W	1000	10-100	White		
PR-5UNKR100030-G		10-301	Green		
PR-5UNKR120030-W	1200	10-100	White		
PR-5UNKR120030-G		10-301	Green		
PR-5UNKR150030-W	1500	10-100	White		
PR-5UNKR150030-G		10-301	Green		

#### Plastic rail for side

Tsubaki model no.	Material grade	Color	L <sup>Note: 3</sup> mm	Angle	Operating temperature range °C	Remarks
PR-5UNSR55090-W	10-100	White	815	90°	-20 to 60	For R550
PR-5UNSR55090-G	10-301	Green				
PR-5UNSR60090-W	10-100	White	900			For R600
PR-5UNSR60090-G	10-301	Green				
PR-5UNSR80090-W	10-100	White	1210			For R800
PR-5UNSR80090-G	10-301	Green				
PR-5UNSR100090-W	10-100	White	1530	For R1000		
PR-5UNSR100090-G	10-301	Green				
PR-5UNSR120090-W	10-100	White	1840	For R1200		
PR-5UNSR120090-G	10-301	Green				
PR-5UNSR150090-W	10-100	White	2320	For R1500		
PR-5UNSR150090-G	10-301	Green				

Note: 1. Made-to-order products.

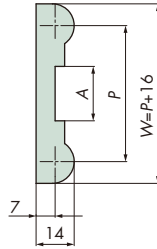
2. Mounting holes are modified upon request.

3. Plastic rails for side guides are manufactured longer than standard nominal length. Cut as necessary for use.



Other Rails

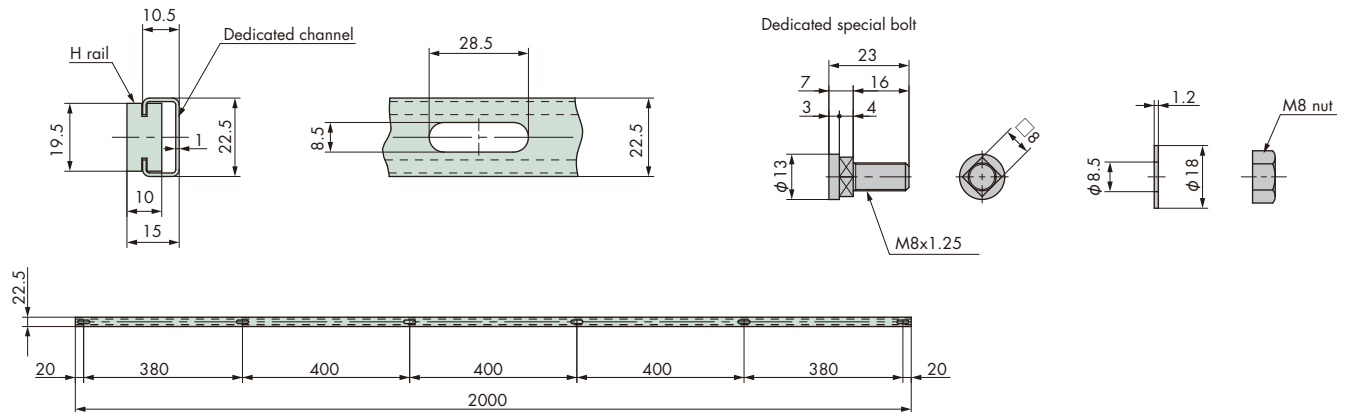
■ B Rails



Tsubaki model no.	P	W	A	Length m	Material grade	Color	Operating temperature range °C
PR-B40-W-2M	40	56	20	2	10-100	White	-20 to 60
PR-B40-G-2M					10-301	Green	
PR-B50-W-2M	50	66	20		10-100	White	
PR-B50-G-2M					10-301	Green	
PR-B65-W-2M	65	81	23		10-100	White	
PR-B65-G-2M					10-301	Green	

Note: Made-to-order products.

■ H Rails



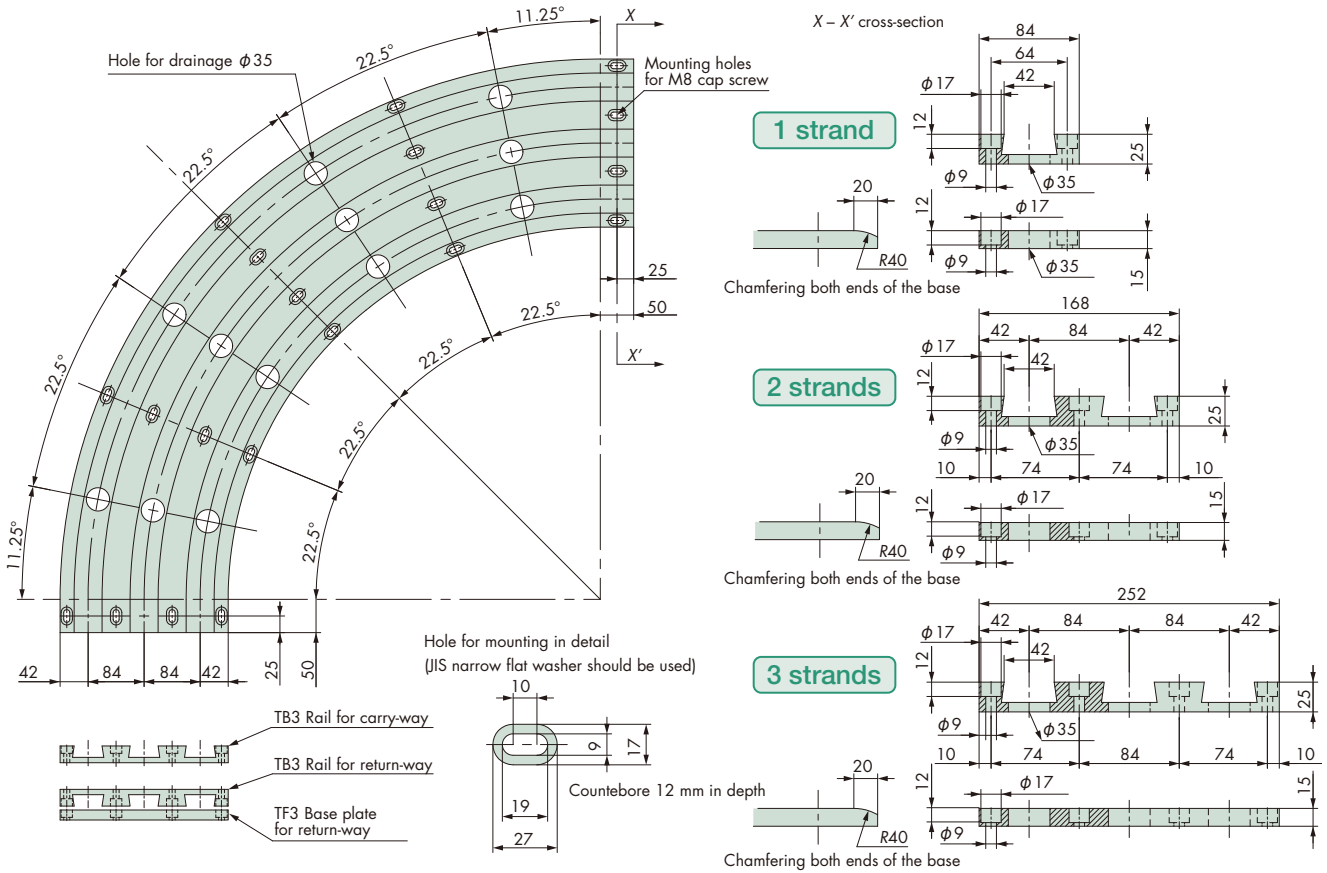
H rails				
Tsubaki model no.	Material grade	Color	Length m	Operating temperature range °C
<b>PR-HR-W-2M</b>	10-100	White	2	-20 to 60
<b>PR-HR-G-2M</b>	10-301	Green		
Dedicated channel				
Tsubaki model no.	Material	Number of slotted holes	Length m	
<b>PR-HCSS0-2M</b>	Stainless steel	0	2	
<b>PR-HCSS6-2M</b>		6		
Dedicated special bolt				
Tsubaki model no.	Material	Remarks		
<b>PR-HBNP1S</b>	Unichrome plated	With washer and nut		
<b>PR-HBSS1S</b>	Stainless steel			

Note: 1. Standard products.  
2. Special bolt for H rail includes six of each bolts, nuts and washers.

# Plastic Rails

## Other Rails

### Curved Plastic Rails for TTUP

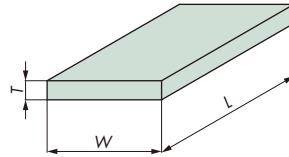


Chain type	No. of strands	Center radius R mm						Material grade	Color	Tsubaki model no.			Operating temperature range °C
		1st strand	2nd strand	3rd strand	4th strand	5th strand	6th strand			Carry-way/ Return-way rail	Return-way/ Base plate	Set	
TTUP826 TTUP826P TTUPH826	1	600	—	—	—	—	—	10-301	Green	PR-TB3-16-3	PR-TF3-16-3	PR-TB3-16-3SET	-20 to 60
	2	600	684	—	—	—	—			PR-TB3-26-3	PR-TF3-26-3	PR-TB3-26-3SET	
	3	600	684	768	—	—	—			PR-TB3-36-3	PR-TF3-36-3	PR-TB3-36-3SET	
	4	600	684	768	852	—	—			PR-TB3-46-3	PR-TF3-46-3	PR-TB3-46-3SET	
	5	600	684	768	852	936	—			PR-TB3-56-3	PR-TF3-56-3	PR-TB3-56-3SET	
	6	600	684	768	852	936	1020			PR-TB3-66-3	PR-TF3-66-3	PR-TB3-66-3SET	
	1	800	—	—	—	—	—			PR-TB3-18-3	PR-TF3-18-3	PR-TB3-18-3SET	
	2	800	884	—	—	—	—			PR-TB3-28-3	PR-TF3-28-3	PR-TB3-28-3SET	
	3	800	884	968	—	—	—			PR-TB3-38-3	PR-TF3-38-3	PR-TB3-38-3SET	
	4	800	884	968	1052	—	—			PR-TB3-48-3	PR-TF3-48-3	PR-TB3-48-3SET	
	5	800	884	968	1052	1136	—			PR-TB3-58-3	PR-TF3-58-3	PR-TB3-58-3SET	
	6	800	884	968	1052	1136	1220			PR-TB3-68-3	PR-TF3-68-3	PR-TB3-68-3SET	
	1	1000	—	—	—	—	—			PR-TB3-10-3	PR-TF3-10-3	PR-TB3-10-3SET	
	2	1000	1084	—	—	—	—			PR-TB3-20-3	PR-TF3-20-3	PR-TB3-20-3SET	
	3	1000	1084	1168	—	—	—			PR-TB3-30-3	PR-TF3-30-3	PR-TB3-30-3SET	
	4	1000	1084	1168	1252	—	—			PR-TB3-40-3	PR-TF3-40-3	PR-TB3-40-3SET	
	5	1000	1084	1168	1252	1336	—			PR-TB3-50-3	PR-TF3-50-3	PR-TB3-50-3SET	
	6	1000	1084	1168	1252	1336	1420			PR-TB3-60-3	PR-TF3-60-3	PR-TB3-60-3SET	

- Note: 1. Made-to-order products.  
 2. The set model number is assigned to the set product comprising three components: the rails for the carry and return ways and the base for the return-way.  
 3. The products including rails for TTUP1143 (top plate width of 114.3 mm) and other specifications such as for multiple number of strands, different size and colors are available upon request.  
 4. Contact a Tsubaki representative for special specifications such as for super-high-speed operation.  
 5. Curved plastic rails are delivered with divided units by an angle of 30° or 45°, depending on its shape.  
 6. The shapes of both inlet and outlet of the base plate have changed to the shapes of round-chamfering as of April 2020.

Standardized Product

■ Sheet—Standard Product



Size mm T: Thickness x W: Width x L: Length	Material grade (Feature: Color)			Manufacturing method	Operating temperature range °C
	10-100 (Standard: White)	10-301 (Standard: Green)	10-806 (Electrostatic preventive: Black)		
Tsubaki model no.					
1 x 1000 x 2000	<b>PR-ST1-1000-W-2000</b>	PR-ST1-1000-G-2000	PR-ST1-1000-B-2000	Skiving <sup>Note: 5</sup>	-20 to 60
2 x 1000 x 2000	<b>PR-ST2-1000-W-2000</b>	PR-ST2-1000-G-2000	PR-ST2-1000-B-2000		
3 x 1000 x 2000	<b>PR-ST3-1000-W-2000</b>	<b>PR-ST3-1000-G-2000</b>	<b>PR-ST3-1000-B-2000</b>		
4 x 1000 x 2000	<b>PR-ST4-1000-W-2000</b>	<b>PR-ST4-1000-G-2000</b>	PR-ST4-1000-B-2000		
5 x 1000 x 2000	<b>PR-ST5-1000-W-2000</b>	<b>PR-ST5-1000-G-2000</b>	<b>PR-ST5-1000-B-2000</b>		
6 x 1000 x 2000	<b>PR-ST6-1000-W-2000</b>	<b>PR-ST6-1000-G-2000</b>	<b>PR-ST6-1000-B-2000</b>		
8 x 1000 x 2000	<b>PR-ST8-1000-W-2000</b>	PR-ST8-1000-G-2000	PR-ST8-1000-B-2000		
10 x 1000 x 2000 <sup>A Note: 3</sup>	<b>PR-ST10-1000-W-2000A</b>	<b>PR-ST10-1000-G-2000</b>	<b>PR-ST10-1000-B-2000</b>		
10 x 1000 x 2000 <sup>B Note: 3</sup>	PR-ST10-1000-W-2000B				
12 x 1000 x 2000 <sup>A Note: 3</sup>	<b>PR-ST12-1000-W-2000A</b>	<b>PR-ST12-1000-G-2000</b>	<b>PR-ST12-1000-B-2000</b>		
12 x 1000 x 2000 <sup>B Note: 3</sup>	PR-ST12-1000-W-2000B				
15 x 1000 x 2000 <sup>A Note: 3</sup>	<b>PR-ST15-1000-W-2000A</b>	<b>PR-ST15-1000-G-2000</b>	<b>PR-ST15-1000-B-2000</b>		
15 x 1000 x 2000 <sup>B Note: 3</sup>	PR-ST15-1000-W-2000B				
20 x 1000 x 2000	<b>PR-ST20-1000-W-2000</b>	<b>PR-ST20-1000-G-2000</b>	<b>PR-ST20-1000-B-2000</b>		
25 x 1000 x 2000	<b>PR-ST25-1000-W-2000</b>	<b>PR-ST25-1000-G-2000</b>	PR-ST25-1000-B-2000		
30 x 1000 x 2000	<b>PR-ST30-1000-W-2000</b>	<b>PR-ST30-1000-G-2000</b>	PR-ST30-1000-B-2000		
35 x 1000 x 2000	PR-ST35-1000-W-2000	PR-ST35-1000-G-2000	PR-ST35-1000-B-2000		
40 x 1000 x 2000	<b>PR-ST40-1000-W-2000</b>	PR-ST40-1000-G-2000	PR-ST40-1000-B-2000		
45 x 1000 x 2000	<b>PR-ST45-1000-W-2000</b>	PR-ST45-1000-G-2000	PR-ST45-1000-B-2000		
50 x 1000 x 2000	<b>PR-ST50-1000-W-2000</b>	PR-ST50-1000-G-2000	PR-ST50-1000-B-2000		
55 x 1000 x 2000	PR-ST55-1000-W-2000				
60 x 1000 x 2000	PR-ST60-1000-W-2000	PR-ST60-1000-G-2000	PR-ST60-1000-B-2000		
70 x 1000 x 2000	PR-ST70-1000-W-2000	PR-ST70-1000-G-2000			
80 x 1000 x 2000	PR-ST80-1000-W-2000	PR-ST80-1000-G-2000			
90 x 1000 x 2000	PR-ST90-1000-W-2000	PR-ST90-1000-G-2000			
100 x 1000 x 2000	PR-ST100-1000-W-2000	PR-ST100-1000-G-2000			
8 x 1220 x 3000	<b>PR-ST8-1220-W-3000</b>	PR-ST8-1220-G-3000	PR-ST8-1220-B-3000	Press <sup>Note: 2</sup>	
10 x 1220 x 3000	<b>PR-ST10-1220-W-3000</b>	<b>PR-ST10-1220-G-3000</b>	PR-ST10-1220-B-3000		
12 x 1220 x 3000	<b>PR-ST12-1220-W-3000</b>	<b>PR-ST12-1220-G-3000</b>	PR-ST12-1220-B-3000		
15 x 1220 x 3000	<b>PR-ST15-1220-W-3000</b>	<b>PR-ST15-1220-G-3000</b>	PR-ST15-1220-B-3000		
20 x 1220 x 3000	<b>PR-ST20-1220-W-3000</b>	<b>PR-ST20-1220-G-3000</b>	PR-ST20-1220-B-3000		
25 x 1220 x 3000	<b>PR-ST25-1220-W-3000</b>	<b>PR-ST25-1220-G-3000</b>	PR-ST25-1220-B-3000		
30 x 1220 x 3000	<b>PR-ST30-1220-W-3000</b>	<b>PR-ST30-1220-G-3000</b>	PR-ST30-1220-B-3000		
35 x 1220 x 3000	PR-ST35-1220-W-3000	PR-ST35-1220-G-3000	PR-ST35-1220-B-3000		
40 x 1220 x 3000	PR-ST40-1220-W-3000	PR-ST40-1220-G-3000	PR-ST40-1220-B-3000		
45 x 1220 x 3000	PR-ST45-1220-W-3000	PR-ST45-1220-G-3000	PR-ST45-1220-B-3000		
50 x 1220 x 3000	PR-ST50-1220-W-3000	PR-ST50-1220-G-3000	PR-ST50-1220-B-3000		
60 x 1220 x 3000	PR-ST60-1220-W-3000	PR-ST60-1220-G-3000	PR-ST60-1220-B-3000		
70 x 1220 x 3000	PR-ST70-1220-W-3000	PR-ST70-1220-G-3000	PR-ST70-1220-B-3000		
80 x 1220 x 3000	PR-ST80-1220-W-3000	PR-ST80-1220-G-3000	PR-ST80-1220-B-3000		
90 x 1220 x 3000	PR-ST90-1220-W-3000	PR-ST90-1220-G-3000			
100 x 1220 x 3000	PR-ST100-1220-W-3000	PR-ST100-1220-G-3000			

- Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.  
 2. The products are made by press working and their sizes as shown are nominal values. (Their thickness varies.)  
 3. The following two types of processing are available for standard products (10-100) (color: white) with thicknesses of 10/12/15 x W1000 x L2000.  
 A: Pressed products  
 B: Finished products (Thickness sides are finished.)  
 4. Depending on the size, wear resistance (10-605SS) (color: yellow) and (10-365CP) (color: olive green) can be manufactured.  
 5. It is sliced from a thick material and is warped and distorted.

# Plastic Rails

## Standardized Product

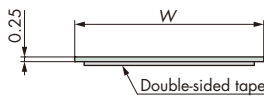
### Round Bar

Diameter mm	Unit mass kg/m	Material grade (Feature: Color)					Operating temperature range °C
		10-100EX (Standard extrusions: White)	10-301EX (Standard extrusions: Green)	10-806 (Electrostatic preventive: Black)	10-605SS (Wear resistant: Yellow)	10-365CP (Wear resistant: Greenish brown)	
Tsubaki model no.							
10	0.08	<b>PR-MR10-W-1M</b>	<b>PR-MR10-G-1M</b>	<b>PR-MR10-B-1M</b>	PR-MR10-Y-1M	PR-MR10-CP-1M	-20 to 60
15	0.18	<b>PR-MR15-W-1M</b>	<b>PR-MR15-G-1M</b>	<b>PR-MR15-B-1M</b>	PR-MR15-Y-1M	PR-MR15-CP-1M	
20	0.31	<b>PR-MR20-W-1M</b>	<b>PR-MR20-G-1M</b>	<b>PR-MR20-B-1M</b>	PR-MR20-Y-1M	PR-MR20-CP-1M	
25	0.49	<b>PR-MR25-W-1M</b>	<b>PR-MR25-G-1M</b>	<b>PR-MR25-B-1M</b>	PR-MR25-Y-1M	PR-MR25-CP-1M	
30	0.71	<b>PR-MR30-W-1M</b>	<b>PR-MR30-G-1M</b>	<b>PR-MR30-B-1M</b>	PR-MR30-Y-1M	PR-MR30-CP-1M	
35	0.96	<b>PR-MR35-W-1M</b>	<b>PR-MR35-G-1M</b>	<b>PR-MR35-B-1M</b>	PR-MR35-Y-1M	PR-MR35-CP-1M	
40	1.26	<b>PR-MR40-W-1M</b>	<b>PR-MR40-G-1M</b>	<b>PR-MR40-B-1M</b>	PR-MR40-Y-1M	PR-MR40-CP-1M	
45	1.59	<b>PR-MR45-W-1M</b>	<b>PR-MR45-G-1M</b>	<b>PR-MR45-B-1M</b>	PR-MR45-Y-1M	PR-MR45-CP-1M	
50	1.96	<b>PR-MR50-W-1M</b>	<b>PR-MR50-G-1M</b>	<b>PR-MR50-B-1M</b>	PR-MR50-Y-1M	PR-MR50-CP-1M	
55	2.38	<b>PR-MR55-W-1M</b>	PR-MR55-G-1M	PR-MR55-B-1M	PR-MR55-Y-1M	PR-MR55-CP-1M	
60	2.83	<b>PR-MR60-W-1M</b>	PR-MR60-G-1M	<b>PR-MR60-B-1M</b>	PR-MR60-Y-1M	PR-MR60-CP-1M	
65	3.32	<b>PR-MR65-W-1M</b>					
70	3.85	<b>PR-MR70-W-1M</b>	PR-MR70-G-1M	PR-MR70-B-1M			
75	4.42	<b>PR-MR75-W-1M</b>					
80	5.02	<b>PR-MR80-W-1M</b>	PR-MR80-G-1M	PR-MR80-B-1M			
85	5.67	<b>PR-MR85-W-1M</b>					
90	6.36	<b>PR-MR90-W-1M</b>	PR-MR90-G-1M	PR-MR90-B-1M			
100	7.85	<b>PR-MR100-W-1M</b>	PR-MR100-G-1M	PR-MR100-B-1M			
110	9.50	<b>PR-MR110-W-1M</b>					
120	11.30	<b>PR-MR120-W-1M</b>					
130	13.27	<b>PR-MR130-W-1M</b>					
140	15.39	<b>PR-MR140-W-1M</b>					
150	17.66	<b>PR-MR150-W-1M</b>					
160	20.01	<b>PR-MR160-W-1M</b>					
180	26.01	<b>PR-MR180-W-1M</b>					
200	31.40	<b>PR-MR200-W-1M</b>					
250	49.06	<b>PR-MR250-W-1M</b>					

- Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.  
 2. Sizes (outside diameter, length, material grade) other than those shown above can be manufactured upon request.  
 3. Circular plates with a thickness up to 150 mm are used to manufacture products with a diameter over  $\phi 250$ .  
 4. Standard length is 1 m.  
 5. Machining product.

### Wear Tape

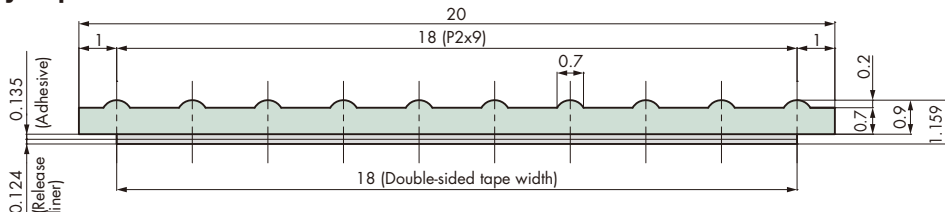
Wear tape is a special tape made of ultra- high molecular weight polyethylene (UHMW-PE) tape with an adhesive.



Tsubaki model no.	Width	Thickness	Coil length m	Material grade	Color	Operating temperature range °C
<b>PR-WT15-20M</b>	15	0.25	20	10-100	White	1 to 30
<b>PR-WT20-20M</b>	20					
<b>PR-WT25-20M</b>	25					
<b>PR-WT30-20M</b>	30					
<b>PR-WT40-20M</b>	40					
<b>PR-WT50-20M</b>	50					
<b>PR-WT75-20M</b>	75					
<b>PR-WT100-20M</b>	100					
<b>PR-WT150-20M</b>	150					
<b>PR-WT300-20M</b>	300					

- Note: 1. Standard products.  
 2. Sizes other than those shown above and electrostatic preventive material, 10-806 (color: black) may be available upon request. Contact a Tsubaki representative for more information.

### White Slippery Tape



Tsubaki model no.	Material	Color	Operating temperature range °C	Length m
PR-WS-20M	High-density polyethylene	White	1 to 30	20
PR-WS-200M				200

Note: Made-to-order products.



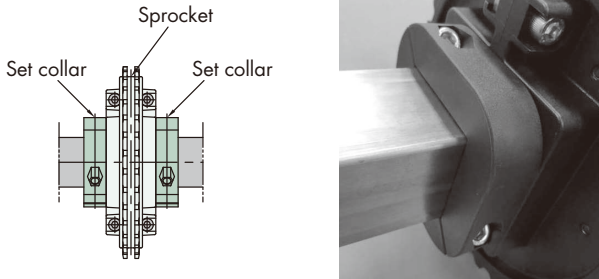
# Set Collar

## Applications

Suitable for preventing misalignment of idlers and sprockets for top chains in the shaft direction caused by operating temperature changes or chain meandering.

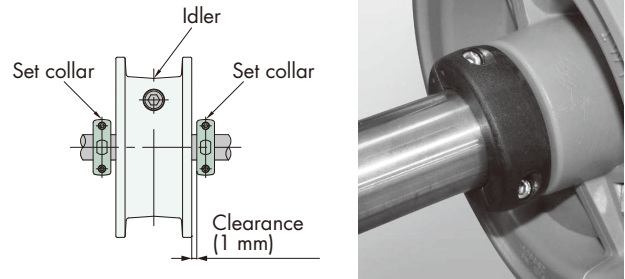
## Fixing Method

### Method of Fixing Sprockets for Plastic Top Chains



Place set collars tightly on both sides of a sprocket without leaving any clearances between them and use bolts to fix each set collar using the specified bolt tightening torque.

### Method of Fixing Idlers



Place set collars on both sides of an idler and fix each set collars using the specified bolt tightening torque. Ensure that there is clearance between the idler and set collar and that the idler rotates.

- Note 1. This product can be used for fixing idlers and sprockets. Be mindful that it cannot be used for positioning machines and fixing bearings, etc.  
 2. Operating temperature range: -20 to 40°C. Fixed set collars may loosen due to thermal expansion particularly when used at over 40°C.  
 3. Tightening bolts with a torque exceeding the recommended value may cause idle rotation of the nut or damage to the set collar itself. Refer to page 358 for bolt tightening torque specifications.

### Method of Fixing Sprockets for Plastic Modular Chains (With a Chain Width of 150 mm or Greater)

Sprockets for plastic modular chains are designed to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the chain and sprockets. In order to prevent the chain from meandering, install set collars on both sides of a sprocket near the center of the chain with clearances of approx. 0.5 mm (1.6 mm for WT) between the collar and the sprocket.

Note: The required widths of clearances differ depending on the Tsubaki model numbers of sprockets for plastic modular chains. Contact Tsubaki representatives for details.

## Corrosion Resistance

Name of liquid	Set collar		
	Bolt/Nut		Body
	SUS304	Brass + nickel-plated	Polyamide
Acetone	○	○	○
Oils (vegetable, mineral)	○	○	○
Alcohol	○	○	○
Aqueous ammonia	○	△	○
Whisky	○	○	○
Sodium chloride	○	○	○
Hydrochloric acid (2%)	×	×	×
Seawater	△	△	△
Hydrogen peroxide (3%)	○	×	○
Sodium hydroxide [caustic soda (25%)]	○	△	△
Gasoline	○	○	○
Formic acid (50%)	○	△	○
Milk/butter	○	-	○
Citric acid	○	○	△
Chromic acid (5%)	○	×	×
Acetic acid (10%)	○	×	×
Carbon tetrachloride	○	△	○
Sodium hypochlorite	×	×	×

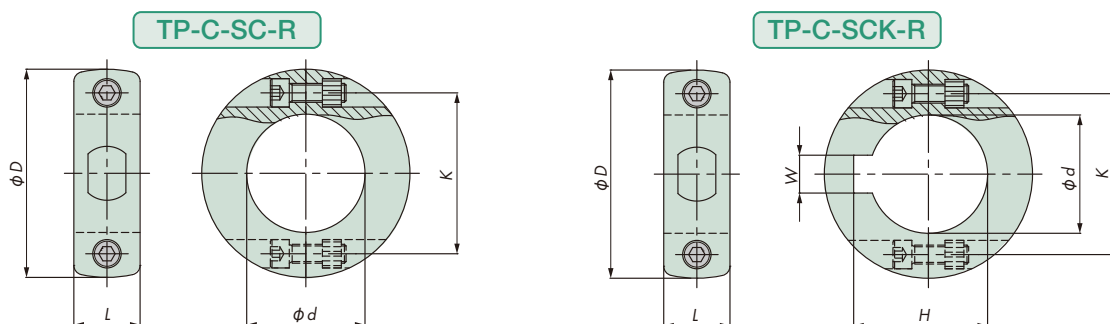
Name of liquid	Set collar		
	Bolt/Nut		Body
	SUS304	Brass + nickel-plated	Polyamide
Nitric acid (5%)	○	×	×
Vinegar	△	×	×
Potassium hydroxide	○	△	×
Drinking water/Coffee	○	○	○
Soapy water	○	○	○
Lactic acid	○	○	△
Paraffin	○	○	○
Beer	○	○	○
Fruit juice	○	×	○
Benzene	○	×	○
Water	○	○	○
Vegetable juice	○	-	×
Iodine	×	-	×
Sulfuric acid (5%)	×	×	×
Phosphoric acid (10%)	△	×	○
Wine	○	-	○
Xylene	○	-	-

- : Totally resistant  
 △: Partially resistant (depending on operating conditions)  
 ×: Not resistant  
 -: No data

- Note: 1. This corrosion resistance table shows the results measured at an ambient temperature of 20°C.  
 2. For the actual use of set collars, comprehensively examine the humidity, use conditions, etc.  
 3. This table lists the individual materials of components of set collars. Check the corrosion resistance of set collars to each liquid type based on combinations of components.  
 4. Reagents without a description of condensation are saturated or 100% solutions.  
 5. Please note that measuring conditions will change when mixed solutions are used.

Specification Table

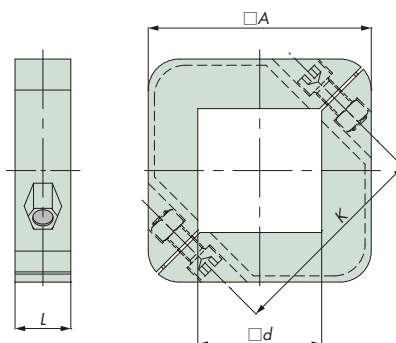
■ For Round Shaft



Tsubaki model no.	Bore shape	Body					Fasteners		Approx. mass g	Bolt tightening torque N·m{kgf·m}	Material	Operating temperature range °C	
		φd	W	H	φD	L	K	Bolt					Nut
TP-C-SC-R20M	Round	20	-	-	39	14	29	M4xL12 (two)	Fastened product M4 (two)	22	1.2{0.122}	Body: Polyamide (color: black) Bolt: SUS304 Nut: SUS304	-20 to 40
TP-C-SC-R25M		25	-	-	45								
TP-C-SC-R30M		30	-	-	50	16	39						
TP-C-SC-R35M		35	-	-	57								
TP-C-SC-R40M	40	-	-	64	18	51.5	M5xL20 (two)	Fastened product M5 (two)	58	2.5{0.255}			
TP-C-SCK-R25M	Round key	25	8	28.3	45	14	34	M4xL12 (two)	Fastened product M4 (two)	24	1.2{0.122}		
TP-C-SCK-R30M		30	8	33.3	50								
TP-C-SCK-R35M		35	10	38.3	57	16	45						
TP-C-SCK-R40M		40	12	43.3	64								
		40	12	43.3	64	18	51.5	M5xL20 (two)	Fastened product M5 (two)	56	2.5{0.255}		

Note: 1. Standard products.  
2. Do not pair half with half of other set collar.

■ For Square Shaft



Tsubaki model no.	Bore shape	Body				Fasteners		Approx. mass g	Bolt tightening torque N·m{kgf·m}	Material	Operating temperature range °C
		□d	□A	L	K	Bolt	Nut				
TP-C-SC-S40M	Square	40	72	18	67	M6xL20 (two)	Fastened product M6 (two)	78	4.5{0.459}	Body: Polyamide (color: black) Bolt: SUS304 Nut: Brass + nickel-plated	-20 to 40
TP-C-SC-S60M		60	95		98.5						

Note: 1. Standard products.  
2. Do not pair half with half of other set collar.

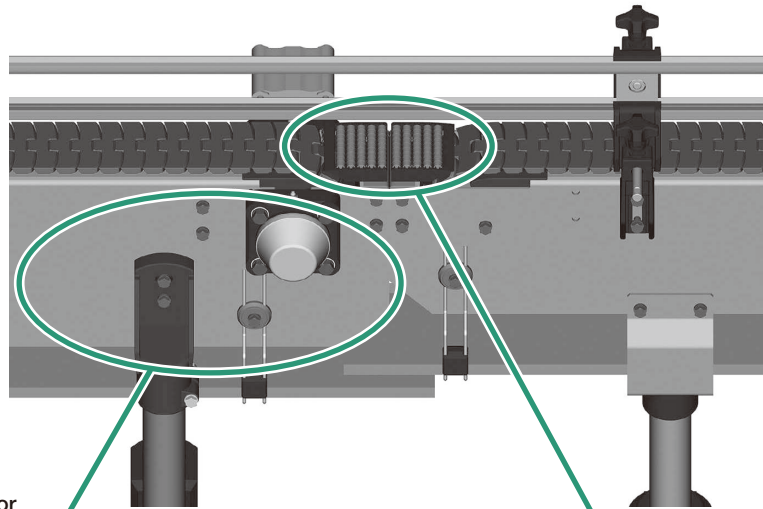
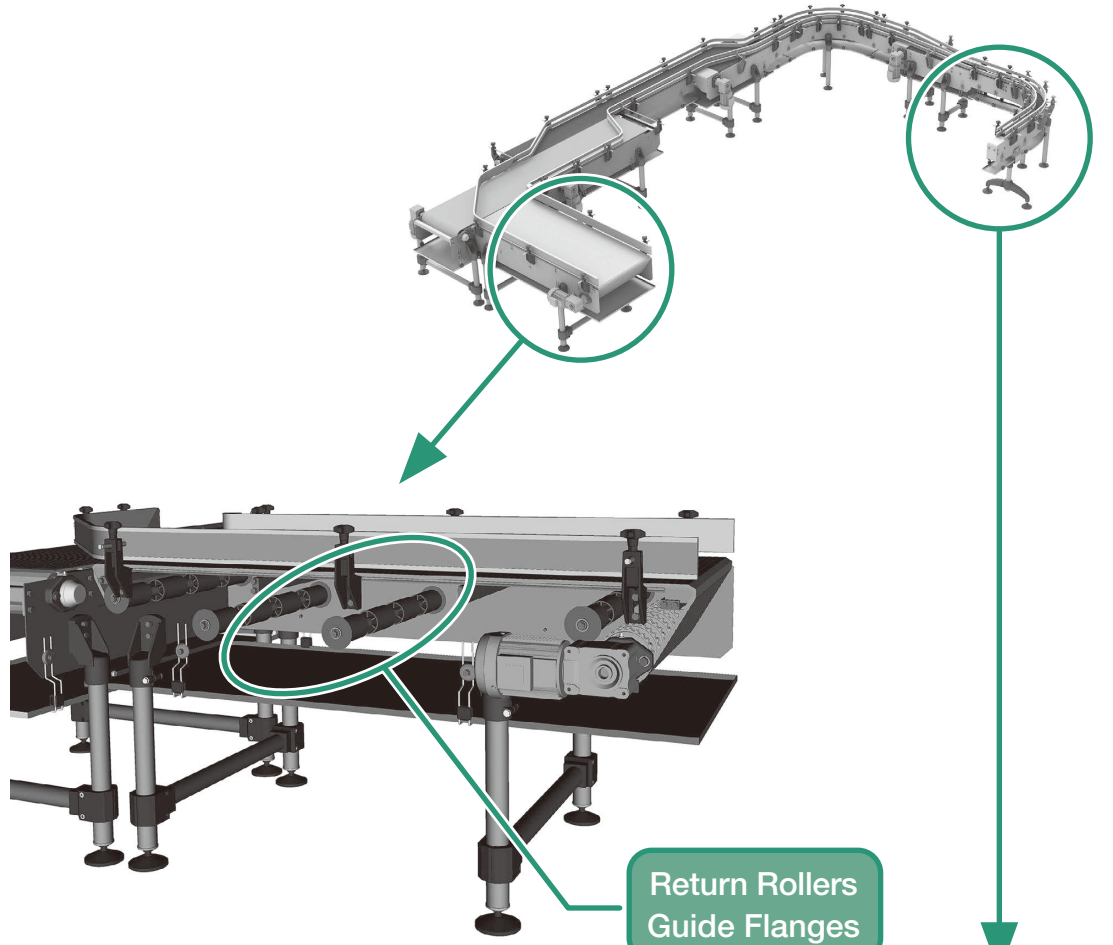
Model Numbering

Top chain components	Set collar type	Keyway	Bore shape	Bore diameter
<b>TP-C</b>	<b>- SC</b>	<b>K</b>	<b>- R</b>	<b>25M</b>
		None: Without keyway K: With keyway	R: Round S: Square	25M: 25 mm

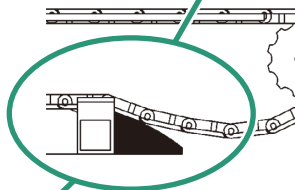
Note: Do not leave space between letters and symbols.

# Chain Guide Parts

Chain guide parts are used at different positions on the conveyor as shown in the following.



Inside a conveyor



Module Transfer Roller Plates

Sliding Shoes  
Spacer  
Washer  
Dedicated Rail

Plastic Rails

Set Collar

Chain Guide Parts

Frame Support Parts

Product Guide Parts

Bearing Units

Disconnecting and Connecting Tools

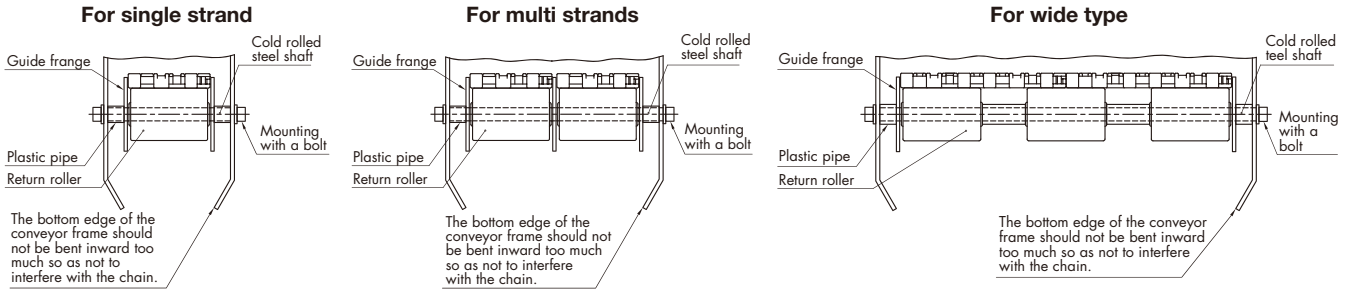


# Return Rollers/Guide Flanges

## Applications

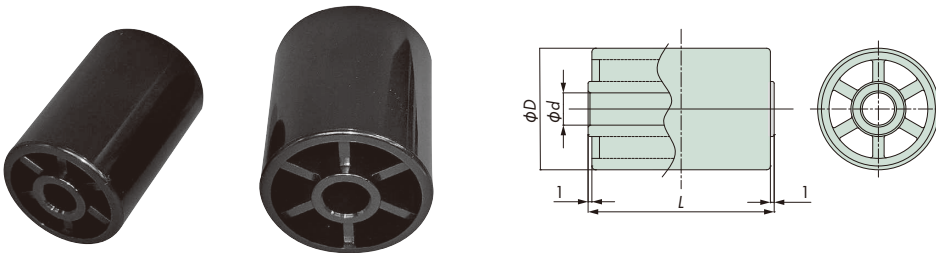
Use return rollers on the return-way of the conveyor to support the top surface of the chain. Rotating rollers reduce the sliding resistance and damage on the top surface of the chain.

## Installation Example



## Specification Table

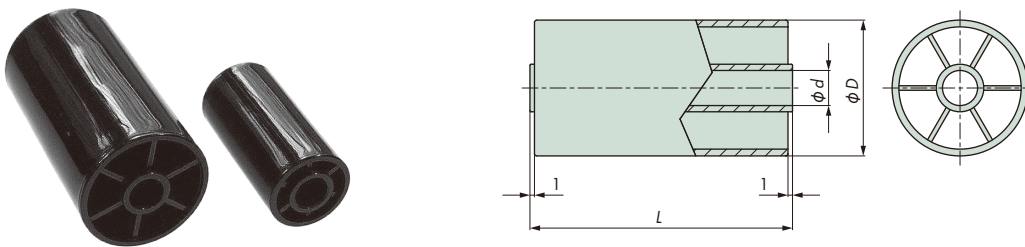
### Small Diameter Return Roller



Tsubaki model no.	Diameter			Material	Operating temperature range °C	Applicable guide flange
	$\phi D$	$\phi d$	$L$			
<b>TP-RR30850</b>	32	8.5	49	Polyamide (color: black)	-20 to 80	TP-DP308
<b>TP-RR41050</b>	40	10.5				TP-DP410

Note: 1. Standard products.  
2. Contact a Tsubaki representative as these products may not be used for some types of chains.

### Return Roller



Tsubaki model no.	Diameter			Material	Operating temperature range °C	Applicable guide flange
	$\phi D$	$\phi d$	$L$			
<b>TP-RR41532</b>	40	15.5	82	Polyamide (color: black)	-20 to 80	TP-DP415
<b>TP-RR41544</b>	40	15.5	114			TP-DP420
<b>TP-RR42032</b>	40	20.5	82			TP-DP615
<b>TP-RR42044</b>	40	20.5	114			TP-DP620
<b>TP-RR61532</b>	60	15.5	82			
<b>TP-RR61544</b>	60	15.5	114			
<b>TP-RR62032</b>	60	20.5	82			
<b>TP-RR62044</b>	60	20.5	114			

Note: 1. Standard products.  
2. Use  $\phi d=15.5$  return rollers for plastic chain.  
3. Use products with an outer diameter  $\phi D = 40$  in combination with stainless steel top chains.  
4. Use products with an outer diameter  $\phi D = 60$  in combination with plastic top chains.

# Return Rollers/Guide Flanges

## Specification Table

### ■ Guide Flange

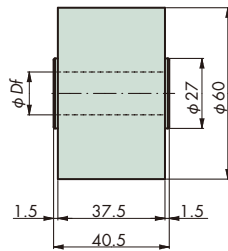


Tsubaki model no.	Diameter		Material	Operating temperature range °C
	$\phi D$	$\phi d$		
<b>TP-DP308</b>	45	8.5	Polyamide (color: black)	-20 to 80
<b>TP-DP410</b>		10.5		
<b>TP-DP415</b>		16		
<b>TP-DP420</b>	55	21		
<b>TP-DP615</b>		16		
<b>TP-DP620</b>		21		

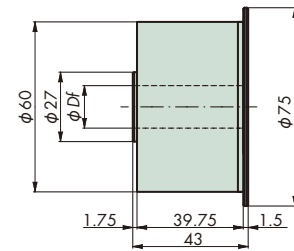
Note: Standard products.

### ■ Split Return Roller

Without guide flange



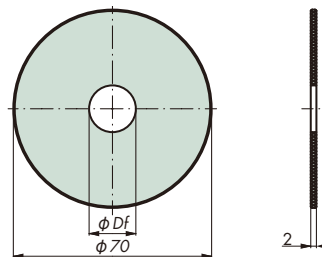
With guide flange



Tsubaki model no.	Specifications	Bore diameter $D_f$	Material	Operating temperature range °C
<b>TP-C1221 13NT-RR</b>	Without guide flange	15.5	High-density polyethylene (color: black)	-20 to 60
<b>TP-C12535NT-RR</b> Note: 2		20.5		
<b>TP-C1221 16NT-RR</b>	With guide flange	15.5		
<b>TP-C12536NT-RR</b> Note: 2		20.5		

Note: 1. Standard products.  
2. Suitable for use with wide chains.

### ■ Guide Flange (For Split Return Roller without Guide Flange)

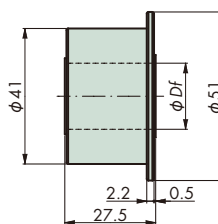


Tsubaki model no.	Bore diameter $D_f$	Material	Operating temperature range °C
<b>TP-C12842T-GF</b>	15.5	Polypropylene (color: green)	0 to 80
<b>TP-C12534T-GF</b>	20.5		

Note: 1. Standard products.  
2. Use with split return rollers (without guide flange).

Specification Table

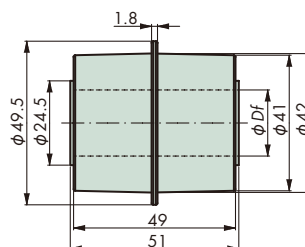
Return Roller (For Stainless Steel Top Chain)



Tsubaki model no.	Bore diameter <i>Df</i>	Material	Operating temperature range °C
<b>TP-C12822NT-RR</b>	20.5	High-density polyethylene (color: black)	-20 to 60 (except in hot water environments)

Note: Standard product.

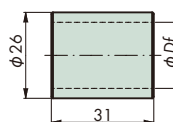
Return Roller (For Stainless Steel Top Chain)



Tsubaki model no.	Bore diameter <i>Df</i>	Material	Operating temperature range °C
<b>TP-C12862NT-DR</b>	20.5	High-density polyethylene (color: black)	-20 to 60 (except in hot water environments)

Note: Standard product.

Spacer (For 82.6 mm Plate Width)

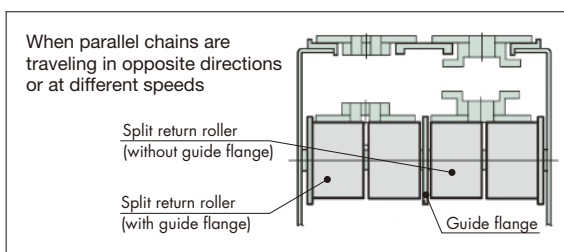
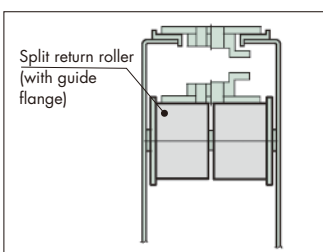
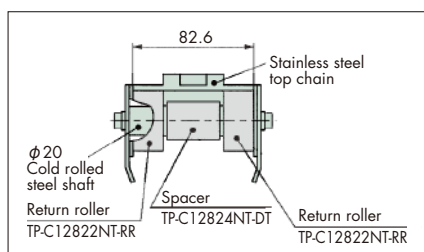


Tsubaki model no.	Bore diameter <i>Df</i>	Material	Operating temperature range °C
<b>TP-C12824NT-DT</b>	20.5	Polyamide (color: black)	-20 to 80 (except in hot water environments)

Note: 1. Standard product.

2. For plate widths other than 82.6 mm, cut a plastic pipe or something similar to the required width and assemble with the return roller shown above.

Installation Example



- When the plate width is greater than 83 mm, use a plastic pipe or something similar instead of the spacer shown above to adjust the distance between return rollers.
- Return rollers for stainless steel top chain will not rotate when combined with plastic chain, and may cause uneven wear of top plate surfaces.

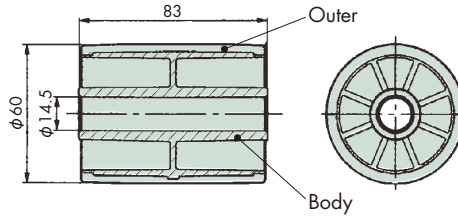
# Highly Rotational Return Roller/Guide Flanges

## Applications

Highly rotational return rollers should be used to support the upper surface of the chain on the return-way. Rotation of rollers reduces coefficient of rolling friction and thus prevents scratching on the surface of the chain. Excellent rotatability is enabled due to the combination of materials of low frictional engineering plastic on the inner surface and highly frictional soft plastic on the outer surface. Suitable to use to prevent the surface from scratching and also effective to reduce noise level of the return-way.

## Specification Table

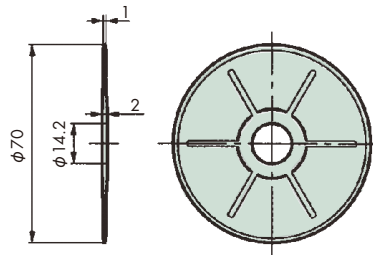
### Highly Rotational Return Roller



Tsubaki model no.	Material		Operating temperature range °C
	Body	Outer	
TP-IR60	Polyamide (color: light gray)	High friction polyamide (color: blue)	-20 to 80

Note: 1. Made-to-order product.  
2. Should not be used under wet conditions.  
3. For use at chain speed of less than 50 m/min.

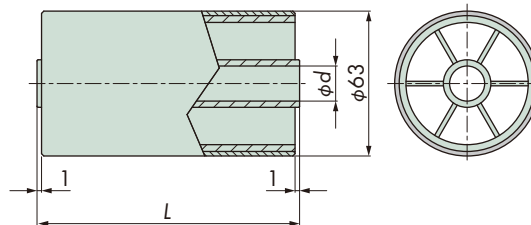
### Guide Flange (For TP-IR60)



Tsubaki model no.	Material	Operating temperature range °C
TP-GF70	Electrostatic preventive polyacetal (color: light gray)	-20 to 80

Note: Made-to-order product.

### Highly Rotational Return Roller



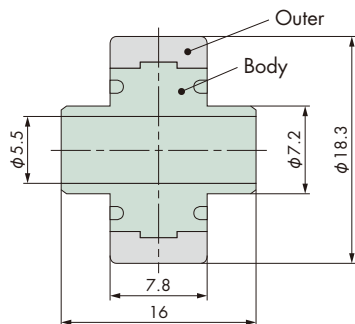
Tsubaki model no.	Diameter		Material		Operating temperature range °C	Applicable guide flange
	φd	L	Body	Outer		
TP-RR61544-RB	20.5	114	Polyamide (color: black)	Olefinic elastomer (color: white)	-20 to 80	TP-DP615
TP-RR62032-RB		82				TP-DP620
TP-RR62044-RB		114				TP-DP620

Note: 1. Made-to-order products.  
2. Chain speed under dry conditions: 50 m/min or lower. Chain speed under wet conditions: 100 m/min or lower.  
3. Contact a Tsubaki representative for sizes other than shown above.

# Highly Rotational Return Roller/Guide Flanges

## Specification Table

### Highly Rotational Return Roller (For BTC4-500-M)

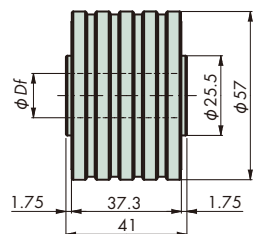
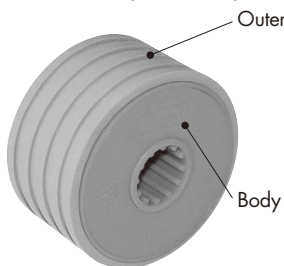


Tsubaki model no.	Material		Operating temperature range °C
	Body	Outer	
TP-IR18	Polyamide (color: light gray)	High friction polyamide (color: matte white)	-20 to 80

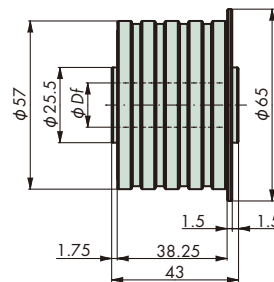
Note: 1. Made-to-order product.  
 2. Should not be used under wet conditions.  
 3. For use with BTC4-500-M.

### Split Return Roller

Without guide flange



With guide flange



Tsubaki model no.	Specifications	Bore diameter Df	Material		Operating temperature range °C
			Body	Outer	
<b>TP-C121963RNT-RR</b>	Without guide flange	15.5	High-density polyethylene (color: green)	Thermoplastic rubber (color: gray)	-20 to 60
<b>TP-C121966RNT-RR</b> <small>Note: 3</small>		20.5			
<b>TP-C121967RNFT-RR</b>	With guide flange	15.5			
<b>TP-C121970RNFT-RR</b> <small>Note: 3</small>		20.5			

Note: 1. Standard products.  
 2. For use at chain speed of less than 50 meters/minute.  
 3. Suitable for use with wide chains.

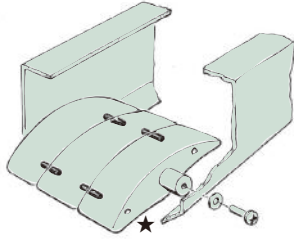
# Sliding Shoes

## Applications

Sliding shoes can be used to support the top surface of the chain on the return-way of the conveyor. Generally suitable to use with accumulation chains and plastic roller tables at low speed (50 m/min or lower). These can also be used with wearstrips.

## Installation Example

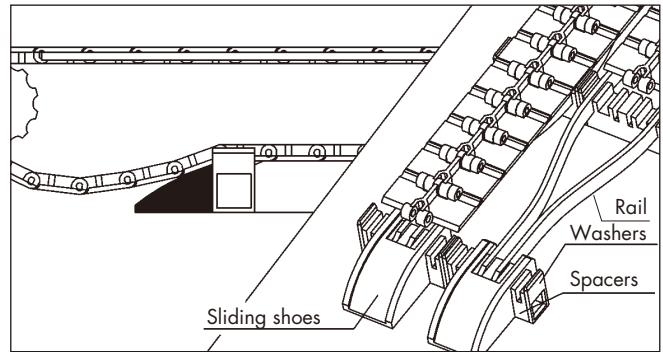
### Support by Sliding Shoe (Rocking Method)



Fix the cold rolled steel shaft ( $\phi 20$ ) to the frame and snap to mount the sliding shoes on the bar. At this point, use set collars, etc. to prevent the sliding shoes from moving left or right. The sliding shoes swing around the bar as a pivot in sync with the movement of the chain.

The ★ mark indicates the hole bored on sliding shoes for connecting the sliding shoes when they are lined up in a single row for multiple strand conveyor.

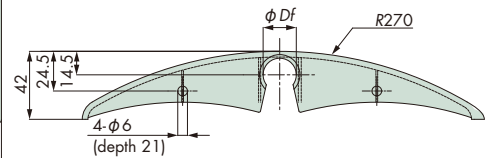
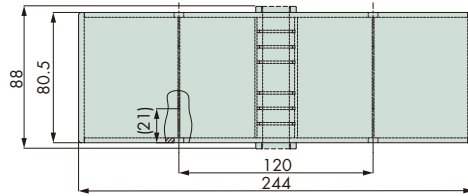
### Support by Sliding Shoe with Wearstrip (Fixing Method)



Place rails so that they are in uniform contact with the chain along its width direction in consideration of the wear reduction of the chain conveying surface. Avoid using many rails for supporting the entire area of the chain and create a support structure to allow foreign materials, etc. to easily come off.

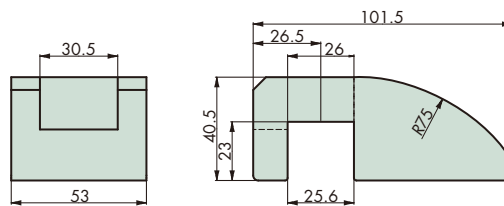
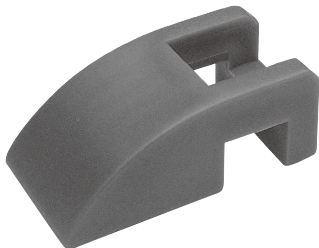
## Specification Table

### Sliding Shoe



Tsubaki model no.	Bore diameter $\phi D_f$	Material	Operating temperature range $^{\circ}\text{C}$
<b>TP-C14833BT-SD</b>	20.5	Polyethylene (color: black)	-20 to 60

- Note: 1. Standard product.  
 2. For use plastic accumulation chain or plastic roller table.  
 3. For top chains with a width of 82.6 mm.  
 4. Mount on  $\phi 20$  mm diameter round bar.  
 5. For use at chain speeds of less than 50 m/min.



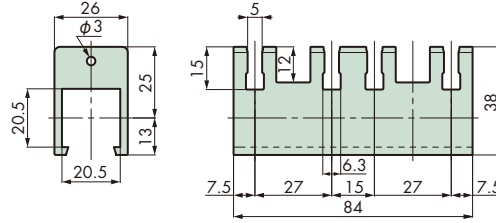
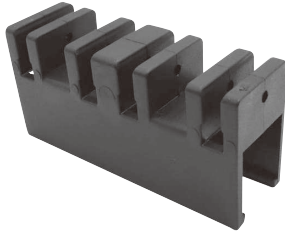
Tsubaki model no.	Max. allowable speed by material m/min <sup>Note: 4</sup>		Material	Operating temperature range $^{\circ}\text{C}$
	Stainless steel	Polyacetal		
<b>TP-C14343T-SD</b>	100 (60)	60 (40)	Polyethylene (color: green)	-20 to 60

- Note: 1. Standard product.  
 2. Please use with TP-C14320T-SP (spacer).  
 3. For top chains with a width of 82.6 mm.  
 4. The allowable speed for each chain material (the value in parentheses) is for use without lubrication.

# Spacers/Washer/Dedicated Rails

## Specification Table

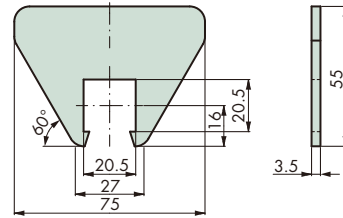
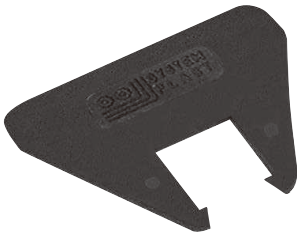
### ■ Spacer



Tsubaki model no.	Material	Operating temperature range °C
<b>TP-C14320T-SP</b>	Polyamide (color: black)	-20 to 80

- Note: 1. Standard product.  
 2. For use with TP-C19067VT-PR guide rail.  
 3. Mount on 20 x 20 mm square shaft.

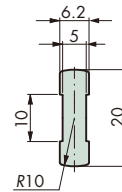
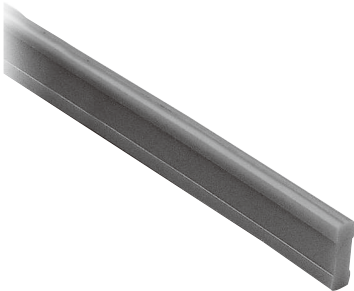
### ■ Washer



Tsubaki model no.	Material	Operating temperature range °C
<b>TP-C14322T-WS</b>	Polyamide (color: black)	-20 to 80

- Note: 1. Standard product.  
 2. Use to prevent top chains from interference with multiple strands conveyor.  
 3. Please use with TP-C14320T-SP (spacer).

### ■ Dedicated Rail



Tsubaki model no.	Standard length per unit m	Material	Operating temperature range °C
<b>TP-C19067VT-PR</b>	60	UHMW-PE (color: green)	-20 to 60

- Note: 1. Standard product.  
 2. Dedicated rail for TP-C14320T-SP. Available to purchase per meter.  
 3. When a rail has become worn, its service life can be extended by flipping it over.

## Model Numbering

### ■ Dedicated Rail

Top chain components	Code	Length	Unit
<b>TP-C</b>	<b>19067VT-PR +</b>	<b>60</b> <small>Note: 2, 3</small>	<b>M</b> M: m

- Note: 1. Do not leave space between letters and symbols.  
 2. The unit of length is 1 m.  
 3. Minimum length: 1, maximum length: 60.

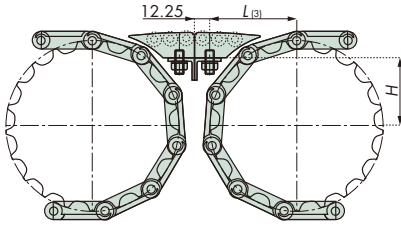
# Module Transfer Roller Plates

## Applications

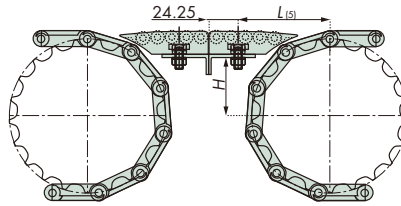
Installing rollers at transferring point prevents jams and ensures smooth transfer. In addition, the rotation of the rollers reduces resistance, making it possible to reduce toppling of conveyed items.

## Installation Example

Combination of roller plates with 2 three rows

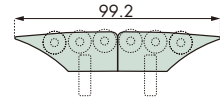


Combination of roller plates with 2 five rows

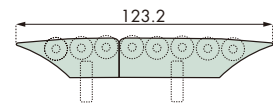


Width of the combination

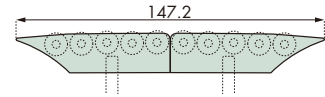
2 three rows



Three rows and five rows



2 five rows



Dimensions will vary depending on the chain and sprockets used. See the table below for details in relation to the dimensions, H, L(3) and L(5).

### Plastic Top Chain (Straight Running)

Chain type	Sprocket teeth								
	21			23			25		
	H	L <sub>(3)</sub>	L <sub>(5)</sub>	H	L <sub>(3)</sub>	L <sub>(5)</sub>	H	L <sub>(3)</sub>	L <sub>(5)</sub>
TT	51.5	71.8	80.6	57.5	72.2	82.0	63.5	74.6	83.4
TTP, TTPH, TTPT	52.1	69.7	81.6	58.1	73.1	82.9	64.1	76.3	84.4
TTPDH	—	—	—	—	—	—	64.9	76.5	83.8
TTPDH-LBP	—	—	—	—	—	—	79.4	—	85.1

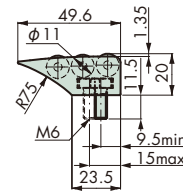
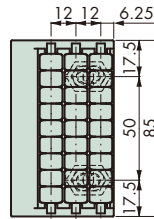
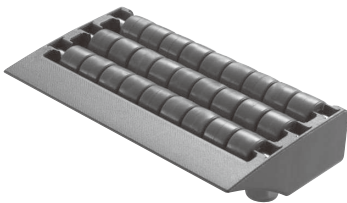
Note: The values are reference values. Adjust according to the transfer status of the transported object.

### Plastic Top Chain (Sideflexing)

Chain type	Sprocket teeth		
	12		
	H	L <sub>(3)</sub>	L <sub>(5)</sub>
TTUP, TPU, TTUPH, TTUP-M, TTUPT-M	61.0	73.9	83.5
TPUH-BO	61.4	74.2	83.8
TPUS	63.5	75.4	83.8
TPUS-LBP	78.0	—	86.8

## Specification Table

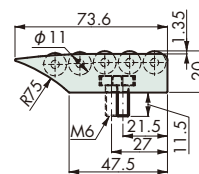
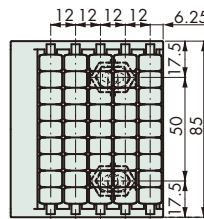
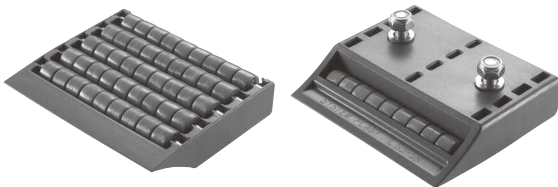
### Module Transfer Roller Plate (Three Rows)



Tsubaki model no.	Material		Color		Operating temperature range °C
	Body/Roller	Pin, hex head cap screw <sup>Note: 3</sup>	Body	Roller	
<b>TP-C16770ST-MTRP</b>	Low-friction polyacetal	Stainless steel	Dark gray	Light blue	-20 to (65)80

Note: 1. Standard product.  
2. Operating temperature of (the value in parentheses) is for wet conditions.  
3. Nuts not included.

### Module Transfer Roller Plate (Five Rows)



Tsubaki model no.	Material		Color		Operating temperature range °C
	Body/Roller	Pin, hex head cap screw <sup>Note: 3</sup>	Body	Roller	
<b>TP-C16772ST-MTRP</b>	Low-friction polyacetal	Stainless steel	Dark gray	Light blue	-20 to (65)80

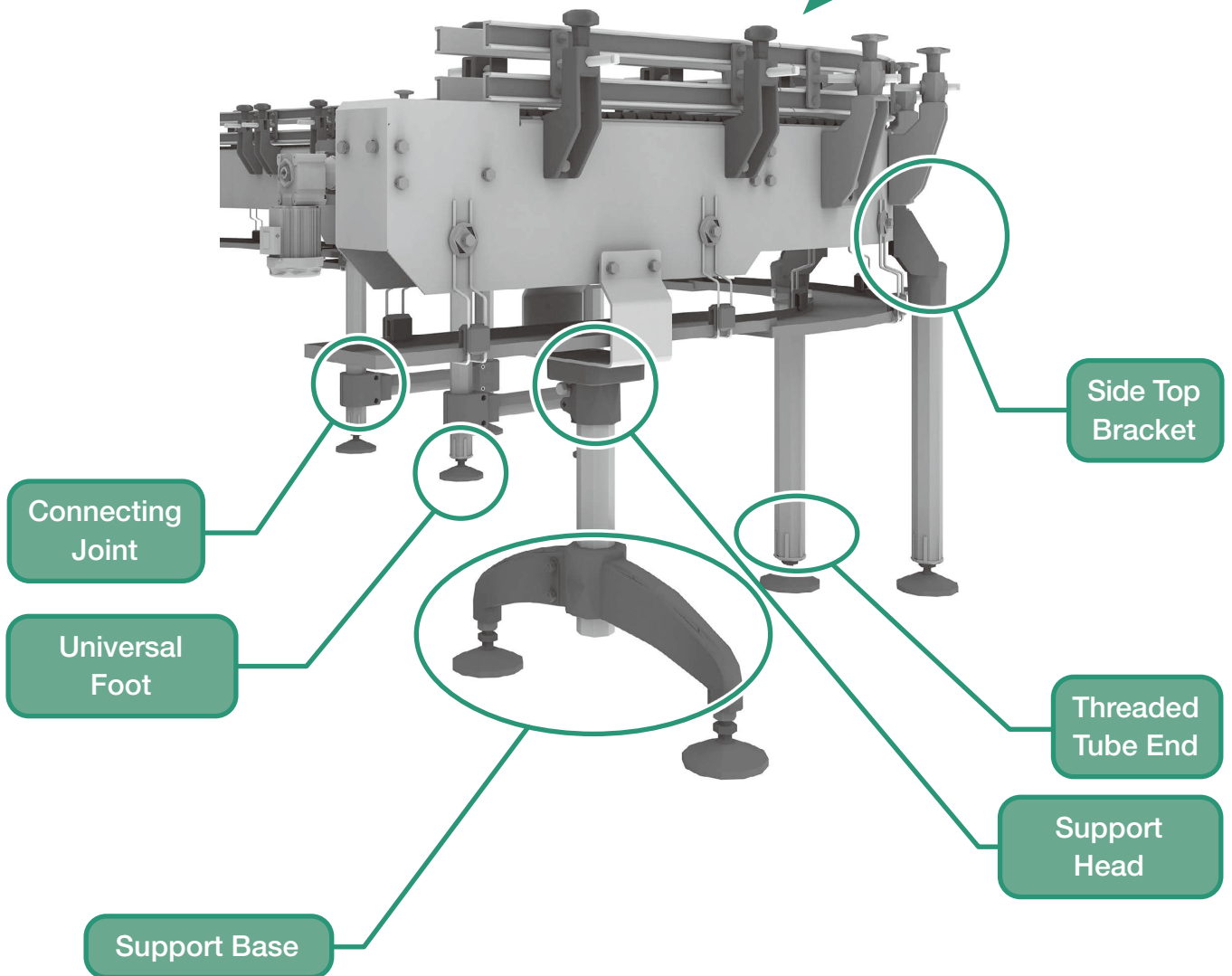
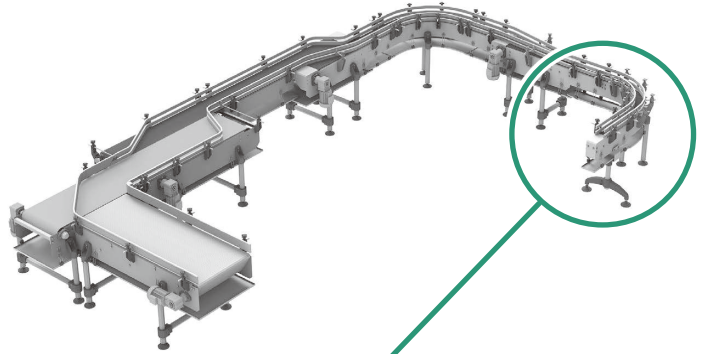
Note: 1. Standard product.  
2. Operating temperature of (the value in parentheses) is for wet condition.  
3. Nuts not included.





# Frame Support Parts

The frame support parts are used in the place as shown below in the conveyor. For features and installation examples other than conveyors, please refer to each product page described in "Applicable parts combination by pipe size" in the figure on the right page.



Plastic Rails

Set Collar

Chain Guide Parts










Frame Support Parts

Product Guide Parts

Bearing Units

Disconnecting and Connecting Tools

■ Applicable Parts Combination by Pipe Size

Applicable parts		Pipe used 	Nominal diameter	2	1 1/2	1 1/4
			Outer diameter	φ 60.5	φ 48.6	φ 42.7
Support head		Tsubaki model no.	TP-C14739T-BH Page 371 TP-CPSH60 Page 371	TP-C14741T-BH Page 371 TP-C14050T-BH Page 371 TP-CPSH48 Page 371		
Side top bracket		Tsubaki model no.	—	TP-C14748NT-STB Page 372	—	
Connecting joint		Tsubaki model no.	TP-C14746T-CJ Page 372 Reinforcing pipe... φ 42.7	TP-C14733T-CJ Page 372 Reinforcing pipe... φ 42.7		
Support base	Two-legged 	Tsubaki model no.	TP-C15064T-SB Page 374 TP-C15064TSS-SB Page 374 TP-2SB60 Page 373	TP-C15060T-SB Page 374 TP-C15060TSS-SB Page 374 TP-2SB48 Page 373		TP-2SB43 Page 373
	Three-legged 	Tsubaki model no.	TP-C15088T-SB Page 374 TP-C15088TSS-SB Page 374	TP-C15084T-SB Page 374 TP-C15084TSS-SB Page 374		TP-3SB43 Page 373
	Two legged + joint 	Tsubaki model no.	TP-C15072T-SB Page 374 TP-C15072TSS-SB Page 374 Reinforcing pipe... φ 42.7	TP-C15068T-SB Page 374 TP-C15068TSS-SB Page 374 Reinforcing pipe... φ 42.7		
Threaded tube end		Tsubaki model no.	TP-C14791T-SRB Page 375 Pipe thickness... 1.65	TP-C14767T-SRB Page 375 Pipe thickness... 1.65		
<ul style="list-style-type: none"> <li>• Universal foot</li> <li>• Support foot</li> </ul>		Tsubaki model no.	TP-C17107T-UF, Page 376 TP-C171060T-UF, Page 376 TP-TA16SUS, Page 378 Types that can be fixed to the floor: TP-C17570CT-UF, Page 377 TP-C17237T-UF, Page 378	TP-C171054T-UF, Page 376 TP-C17715T-UF, Page 377 TP-TB12SUS, Page 378 TP-C176450T-UF, Page 378	TP-C171056T-UF, Page 376 TP-C17532T-UF, Page 377 TP-C176453T-UF, Page 378	

Plastic Rails

Set Collar

Chain Guide Parts

Frame Support Parts

Product Guide Parts

Bearing Units

Disconnecting and Connecting Tools

# Support Head/Side Top Bracket/Connecting Joint

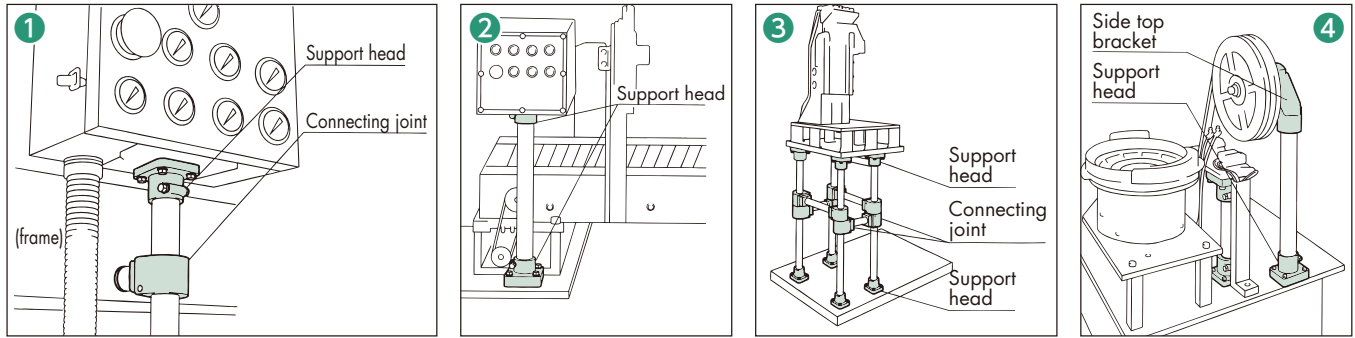
## Applications

**Support head:** Supports the conveyor frame from underneath. Use support head to attach support pipe to conveyor frame. Wiring can be installed through the inside of the support head.

**Side top bracket:** Supports conveyor frame from the side. It is suitable for installing a tray under a conveyor or for using with a conveyor of simple structure.

**Connecting joint:** Makes conveyor stable by connecting two legs.

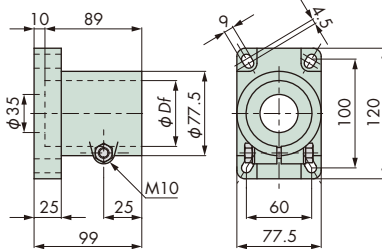
## Installation Example



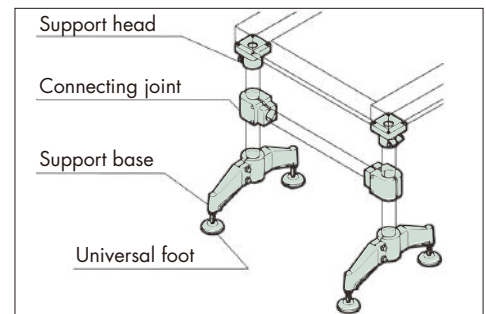
- ①② : Installation on control panels.
- ③ : Use as joint parts instead of using metal parts or installation by welding. (Easy installation and removal)
- ④ : Use as joint parts for machines.

## Specification Table

### Support Head



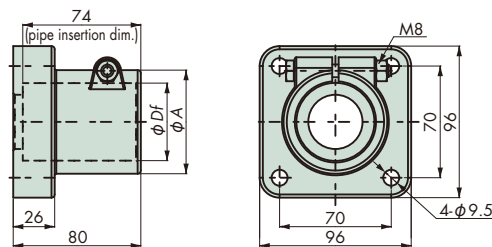
### Support Head Installation Example



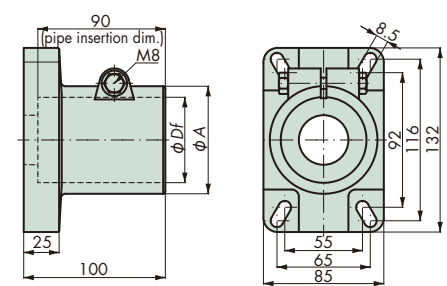
Tsubaki model no.	Applicable pipe outer diameter $\phi Df$ (nominal diameter)	Material	
		Body	Bolt/Nut/Washer
<b>TP-CPSH48</b>	48.6 (1½)	Reinforced polyamide (color: black)	Stainless steel
<b>TP-CPSH60</b>	60.5 (2)		

Note: Standard products.

### Fixed mounting hole type



### Adjustable mounting hole type <sup>Note: 4</sup>



Type	Tsubaki model no.	Applicable pipe outer diameter $\phi Df$ (nominal diameter)	$\phi A$	Material	
				Body	Bolt/Nut/Washer
Fixed mounting hole type	<b>TP-C14050T-BH</b>	48.6 (1½)	65	Reinforced polyamide (color: black)	Stainless steel
Adjustable mounting hole type	<b>TP-C14741T-BH</b>				
	<b>TP-C14739T-BH</b>	60.5 (2)	76		

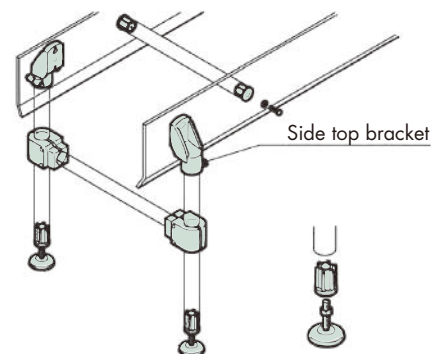
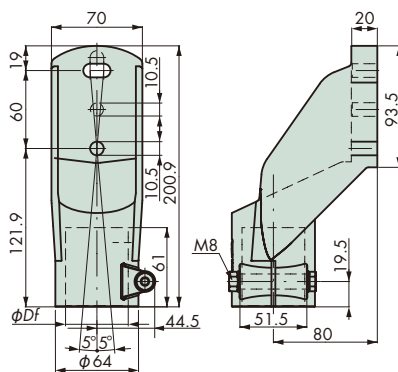
Note: 1. Standard products.

- 2. Withstand load (all sizes): 9.8kN {1000kgf} when the pipe is inserted and the load is applied vertically.
- 3. Pipe retention force (all sizes): Consider the pipe retention force to be 0.78kN {80kgf} (reference value) when tightening the bolt with a tightening torque of 14.7N·m {1.5kgf·m}.
- 4. As of June 2011, dimensions were changed as shown above.

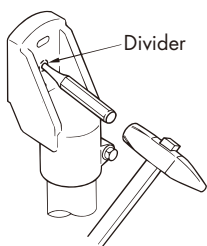
# Support Head/Side Top Bracket/Connecting Joint

## Specification Table

### Side Top Bracket



### Notes for handling side top brackets



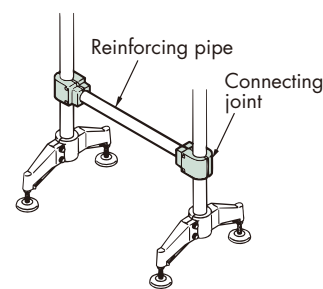
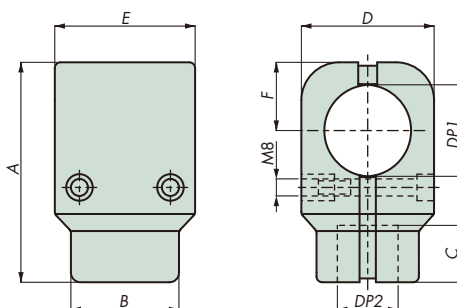
When the side top bracket divider is removed, the hole can be used for mounting a round bar for reinforcement.

[Work procedure]  
As shown in the figure on the left, place the punch on the broken line and tap it with a hammer to remove the divider.

Tsubaki model no.	Applicable pipe outer diameter $\phi Df$ (nominal diameter)	Material	
		Body	Bolt/Nut/Washer
<b>TP-C14748NT-STB</b>	48.6 (1½)	Reinforced polyamide (color: black)	Stainless steel

Note: 1. Standard product.  
2. Side top bracket tilt angle: 5°

### Connecting Joint



Note: Do not step on the reinforcing pipe. The connecting joint could be displaced.

Tsubaki model no.	Diameter									Material		
	Applicable pipe outer diameter (nominal diameter)	DP1	DP2	A	B	C	D	E	F	Body	Bolt	Bush
<b>TP-C14733T-CJ</b>	48.6 & 42.7 (1½ & 1¼)	48.6	42.7	122	62	40	78	39	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	
<b>TP-C14746T-CJ</b>	60.5 & 42.7 (2 & 1¼)	60.5		130	65	41	82	42.5				

Note: Standard products.

Plastic Rails

Set Collar

Chain Guide Parts

Frame Support Parts

Product Guide Parts

Bearing Units

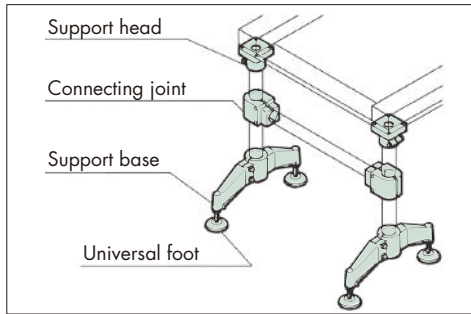
Disconnecting and Connecting Tools

# Support Base

## Applications

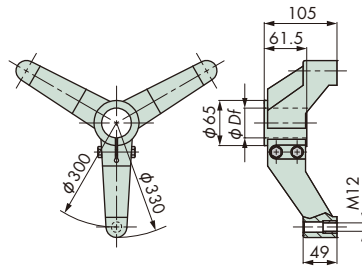
The support base supports a conveyor at the foot. There are three types of support bases—a two-legged type, a three-legged type, and a two-legged + joint type—each capable of matching various usage conditions. The three-legged support base allows stable support while using a small number of parts.

### Support Base Installation Example



## Specification Table

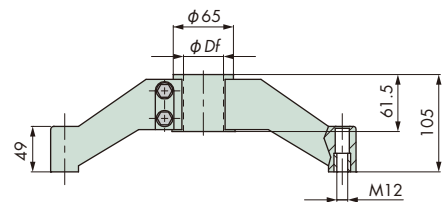
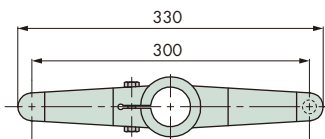
### Three-legged



Tsubaki model no.	Applicable pipe outer diameter $\phi D_f$ (nominal diameter)	Material			Allowable load kN{kgf}	Tightening torque bolt, nut N·m{kgf·m}
		Body	Bolt/Nut/Washer	Bush		
<b>TP-3SB43</b>	42.7 (1 1/4)	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	2.45{250}	9.8{1.0}

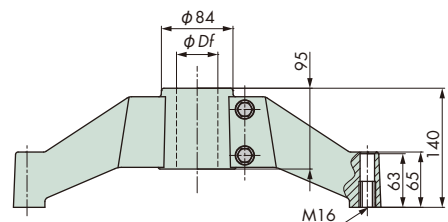
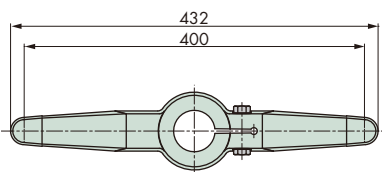
Note: Standard product.

### Two-legged



Tsubaki model no.	Applicable pipe outer diameter $\phi D_f$ (nominal diameter)	Material			Allowable load kN{kgf}	Tightening torque bolt, nut N·m{kgf·m}
		Body	Bolt/Nut/Washer	Bush		
<b>TP-2SB43</b>	42.7 (1 1/4)	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	2.45{250}	9.8{1.0}

Note: Standard product.

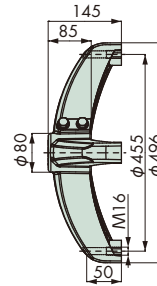
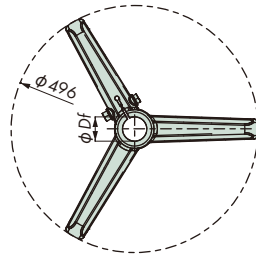


Tsubaki model no.	Applicable pipe outer diameter $\phi D_f$ (nominal diameter)	Material			Allowable load kN{kgf}	Tightening torque bolt, nut N·m{kgf·m}
		Body	Bolt/Nut/Washer	Bush		
<b>TP-2SB48</b>	48.6 (1 1/2)	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	3.43{350}	14.7{1.5}
<b>TP-2SB60</b>	60.5 (2)					

Note: Standard products.

Specification Table

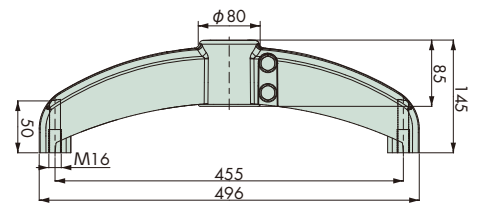
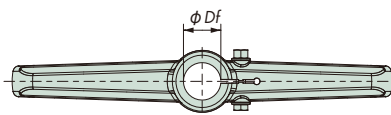
■ Three-legged



Tsubaki model no.	Applicable pipe outer diameter $\phi Df$ (nominal diameter)	Material		
		Body	Bolt/Nut/Washer	Bush
<b>TP-C15084T-SB</b>	48.6 (1½)	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated
<b>TP-C15088T-SB</b>	60.5 (2)			Stainless steel
<b>TP-C15084TSS-SB</b>	48.6 (1½)			
<b>TP-C15088TSS-SB</b>	60.5 (2)			

Note: Standard products.

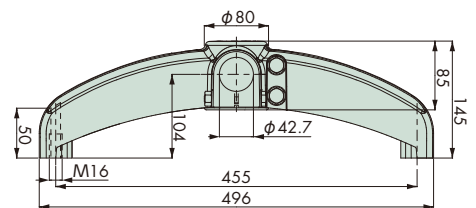
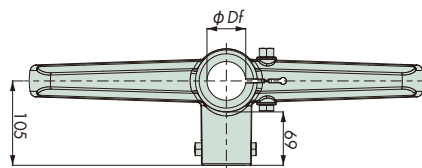
■ Two-legged



Tsubaki model no.	Applicable pipe outer diameter $\phi Df$ (nominal diameter)	Material		
		Body	Bolt/Nut/Washer	Bush
<b>TP-C15060T-SB</b>	48.6 (1½)	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated
<b>TP-C15064T-SB</b>	60.5 (2)			Stainless steel
<b>TP-C15060TSS-SB</b>	48.6 (1½)			
<b>TP-C15064TSS-SB</b>	60.5 (2)			

Note: Standard products.

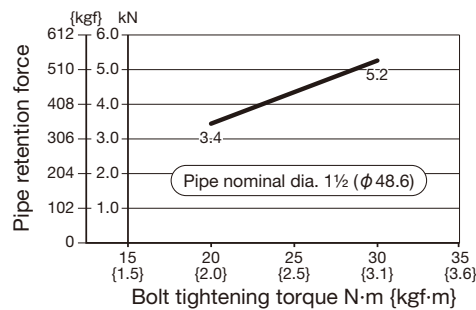
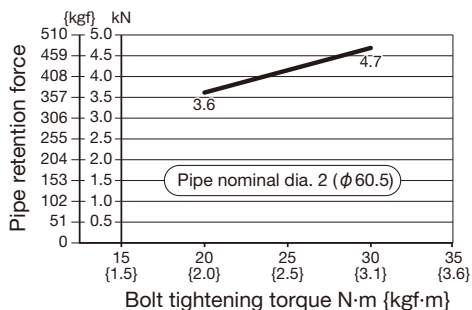
■ Two-legged + Joint



Tsubaki model no.	Applicable pipe outer diameter $\phi Df$ (nominal diameter)	Material		
		Body	Bolt/Nut/Washer	Bush
<b>TP-C15068T-SB</b>	48.6 (1½)	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated
<b>TP-C15072T-SB</b>	60.5 (2)			Stainless steel
<b>TP-C15068TSS-SB</b>	48.6 (1½)			
<b>TP-C15072TSS-SB</b>	60.5 (2)			

Note: Standard products.

Allowable Load of Support Base Pipe



Note: Allowable load of support base pipe is the measured value when a polished pipe is used. This is not a guaranteed value.

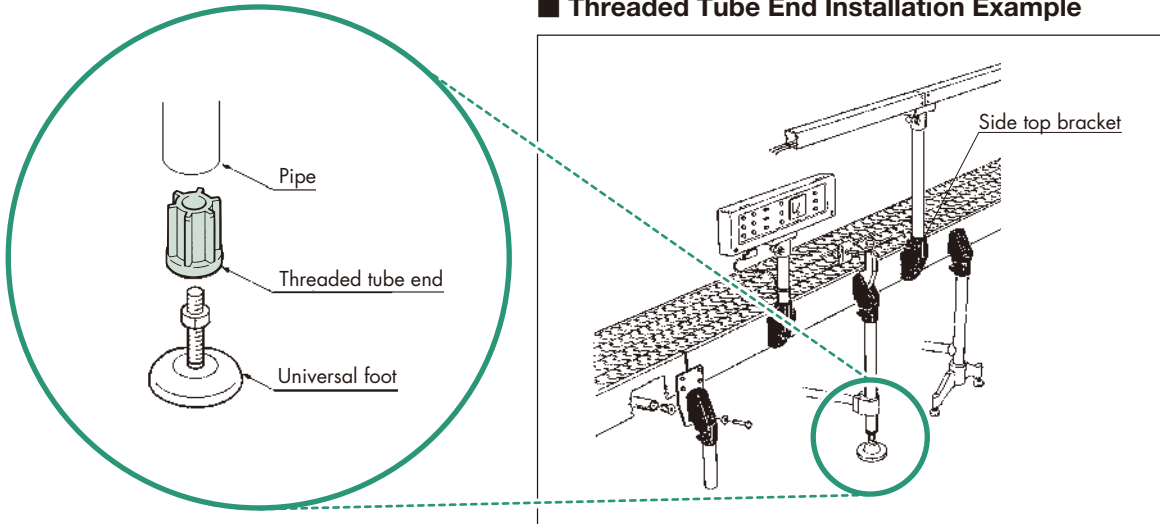
# Threaded Tube End

## Applications

When this part is inserted into a pipe and used in combination with a universal foot, it can be used as a leg for a conveyor frame.

## Installation Example

### Threaded Tube End Installation Example

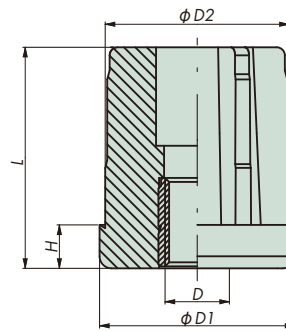


## Specification Table

### Threaded Tube End



(Attached)



Tsubaki model no.	Applicable pipe outer diameter (nominal diameter)	Diameter					Material	
		D	$\phi D1$	$\phi D2$	H	L	Body	Bush
<b>TP-C14767T-SRB</b>	48.6 (1 1/2 )	M16	48	45.8	10	55	Polyamide (color: black)	Brass + nickel-plated
<b>TP-C14791T-SRB</b>	60.5 (2)		60	58	12	50		

Note: 1. Standard products.  
 2. Use a pipe with a thickness of 1.65 mm.  
 3. Not available.



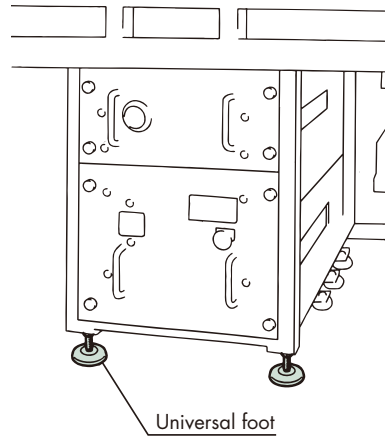
# Universal Foot

## Applications

The universal foot can be used as a foot for a conveyor or other equipment. Use it on an inclined floor or in a place where the level needs adjustment. The hole-drillable type can be fixed to the floor.

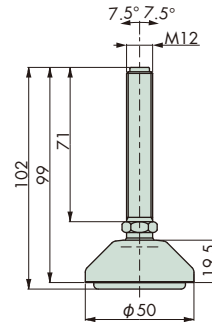
## Installation Example

Use for leg parts of food machines.



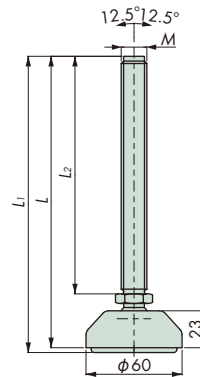
## Specification Table

### ■ Universal Foot



Tsubaki model no.	Material			Allowable load kN {kgf}
	Bolt	Base plate	Antiskid rubber pad	
<b>TP-C17107T-UF</b>	Stainless steel	Reinforced polyamide (color: black)	Oil proof rubber shore hardness 70 (color: black)	12.0 {1220}

Note: 1. Standard product.  
2. The allowable load is the maximum allowable load in a static state.

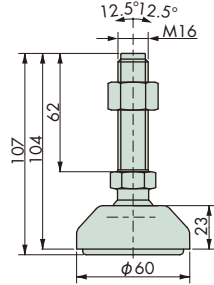


Tsubaki model no.	Diameter			M	Material			Allowable load kN {kgf}
	L	L <sub>1</sub>	L <sub>2</sub>		Bolt	Base plate	Antiskid rubber pad	
<b>TP-C171054T-UF</b>	94	97	60	M16	Stainless steel	Reinforced polyamide (color: black)	Oil proof rubber shore hardness 70 (color: black)	15.0{1530}
<b>TP-C171056T-UF</b>	179	182	145					
TP-C171060T-UF				M20				

Note: 1. Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face is a made-to-order product.  
2. The allowable load is the maximum allowable load in a static state.

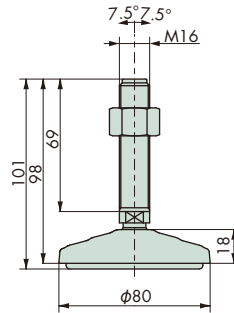
# Universal Foot

## Specification Table



Tsubaki model no.	Material				Allowable load kN {kgf}
	Bolt	Nut	Base plate	Antiskid rubber pad	
<b>TP-C17715T-UF</b>	Polyamide with steel insert (color: black)	Stainless steel	Reinforced polyamide (color: black)	Oil proof rubber shore hardness 70 (color: black)	0.78 {80}

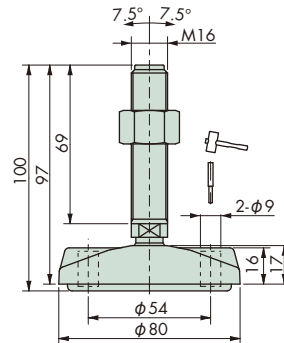
Note: 1. Standard product.  
2. The allowable load is the maximum allowable load in a static state.



Tsubaki model no.	Material			Allowable load kN {kgf}
	Bolt/Nut	Base plate	Antiskid rubber pad	
<b>TP-C17532T-UF</b>	Stainless steel	Reinforced polyamide (color: black)	Oil proof rubber shore hardness 70 (color: black)	15.0 {1530}

Note: 1. Standard product.  
2. The allowable load is the maximum allowable load in a static state.

### ■ Mounting Hole Processable Type

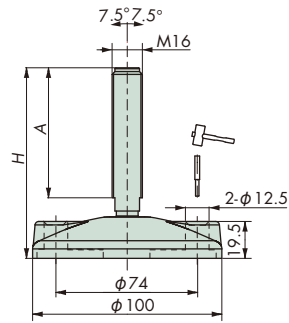


Tsubaki model no.	Material			Allowable load kN {kgf}
	Bolt/Nut	Base plate	Antiskid rubber pad	
<b>TP-C17570CT-UF</b>	Stainless steel	Reinforced polyamide (color: black)	Oil proof rubber shore hardness 70 (color: black)	15.0 {1530}

Note: 1. Standard product.  
2. This is the same specifications as TP-C17532T-UF, except that it can be fixed to the floor.  
3. The allowable load is the maximum allowable load in a static state.  
4. The fixing hole is not completely drilled through so as to prevent the accumulation of foreign matter. If a fixing hole is needed, punch a hole with a punch and hammer as shown.

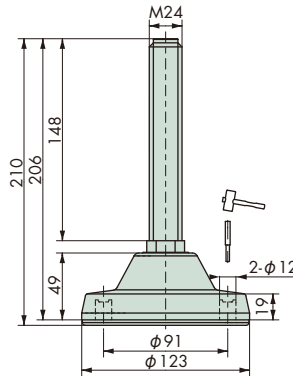
Specification Table

■ Mounting Hole Processable Type



Tsubaki model no.	Diameter		Material			Allowable load kN {kgf}
	H	A	Bolt	Base plate	Antiskid rubber pad	
<b>TP-C176450T-UF</b>	100	70	Stainless steel	Reinforced polyamide (color: black)	Oil proof rubber shore hardness 70 (color: black)	18.0 {1830}
<b>TP-C176453T-UF</b>	210	180				

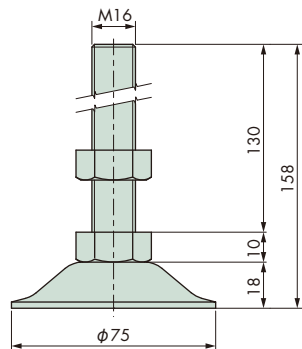
Note: 1. Standard products.  
 2. The allowable load is the maximum allowable load in a static state.  
 3. The fixing hole is not completely drilled through so as to prevent the accumulation of foreign matter. If a fixing hole is needed, punch a hole with a punch and hammer as shown.



Tsubaki model no.	Material			Allowable load kN {kgf}
	Bolt	Base plate	Antiskid rubber pad	
TP-C17237T-UF	Stainless steel	Reinforced polyamide (color: black)	Oil proof rubber shore hardness 70 (color: black)	30.0 {3060}

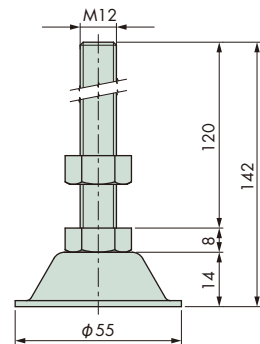
Note: 1. Made-to-order product.  
 2. The allowable load is the maximum allowable load in a static state.  
 3. The fixing hole is not completely drilled through so as to prevent the accumulation of foreign matter. If a fixing hole is needed, punch a hole with a punch and hammer as shown.

■ Support Foot



Tsubaki model no.	Material		Allowable load kN {kgf}
	Foot/Bolt/Nut		
TP-TA16SUS	Stainless steel		11{1122}

Note: Made-to-order product.

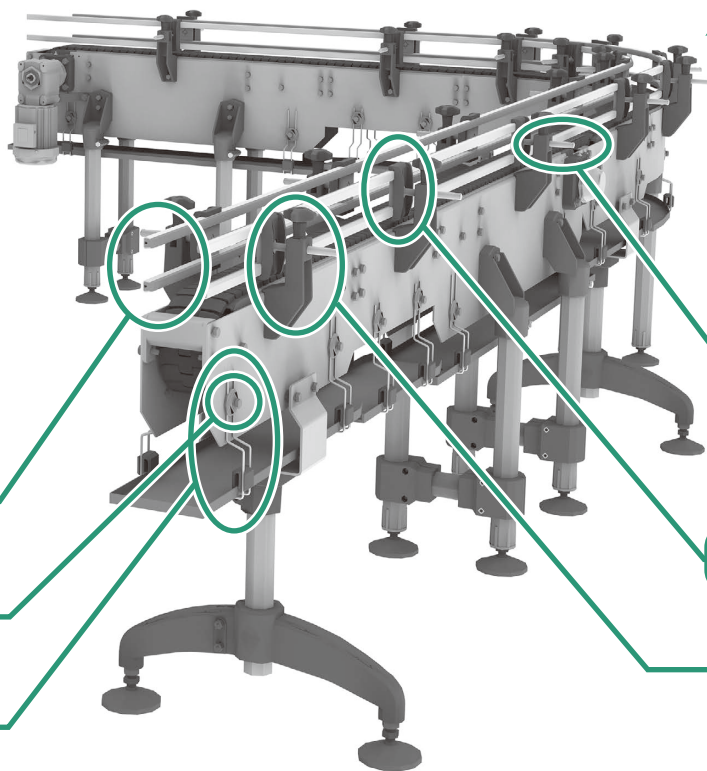
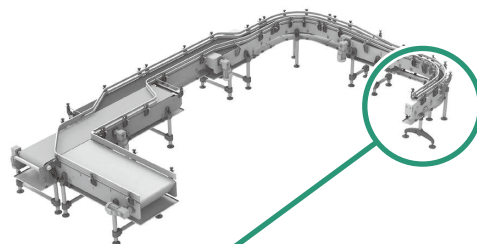


Tsubaki model no.	Material		Allowable load kN {kgf}
	Foot/Bolt/Nut		
TP-TB12SUS	Stainless steel		10{1020}

Note: Made-to-order product.

# Product Guide Parts

The product guide parts are used at the place of the conveyor shown below. For features and installation examples other than conveyors, please check the product pages listed in the "combination table" on the right page.



Pin

Guide Rail

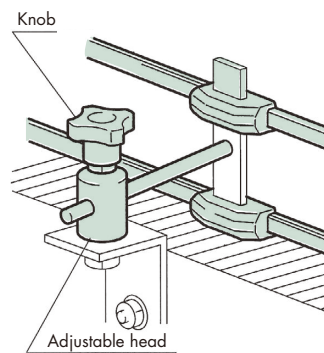
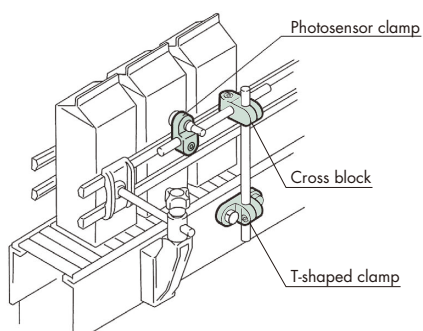
Fixing Washer

Tray Supporter

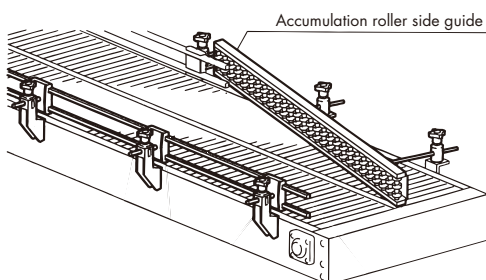
Guide Rail Clamp

Guide Bracket

## Products that are Used in the Same Way as Guide Brackets and Guide Rail Clamps



## Products that are Used in the Same Way as Guide Rails



Plastic Rails

Set Collar

Chain Guide Parts






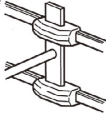





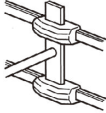







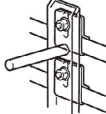
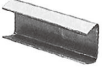


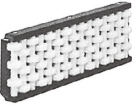
Frame Support Parts

Product Guide Parts

Bearing Units

Disconnecting and Connecting Tools

■ Combination Table

Guide rail	Applicable clamp	Pin Page 393			Guide bracket	Adjustable head
		Clamp pin	Bracket Pin	Guide Pin		
						
		Pin diameter φ12, φ14, φ16	Pin diameter φ12, φ14, φ16	Pin diameter φ14		
Round bar 	 Pages 385, 386 For 8 mm dia. round bar TP-C13743T-GRC For 10 mm dia. round bar TP-C13741T-GRC TP-GHB For 12 mm dia. round bar TP-C13744NVT-GRC	Clamp, bracket can be used all pin sizes. Take care to ensure the screw end of the clamp pin does not protrude from the guide rail. 		—	Fixed type  Page 390	 Page 392
	 Page 386 For 12 mm dia. round bar TP-C13761XPT-GRC	Can be used all pin sizes.	—	—		
TPC19S00130-3MT-GR  Page 381	TPC13007T-GRC  Page 383	Clamp, bracket can be used all pin sizes. 		—	Rotating type  Page 390	 Page 392 Pin dia.   Description φ12   TPC13028T-SH φ14   TPC13029T-SH
	TPC13008NVT-GRC  Page 383	Can be used all pin sizes.	—	—		
	TPC13012T-GRC  Page 384	—	Can be used only a 14 mm dia. pin.	—		
TPC19S00165-3MT-GR  Page 381	TPC13006NVT-GRC  Page 383	—	—	Can be used all pin sizes.	Page 392 Pin dia.   Description φ12   TPC13037T-SH φ14   TPC13038T-SH * Use TPC13355THD as knob.	
	TPC13014T-GRC  Page 384	Clamp, bracket can be used all pin sizes. 		—		
	TPC13120T-GRC (for rail joint)  Page 384	—	—	—		
TPC19050LT-GR  Page 381	TPC13718T-GRC  Page 384	Can be used all pin sizes.	—	—		
Accumulation roller side guide  Page 382		—	Can be used all pin sizes.	—		

Plastic Rails

Set Collar

Chain Guide Parts

Frame Support Parts

Product Guide Parts

Bearing Units

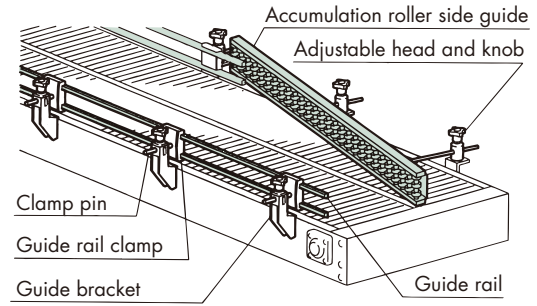
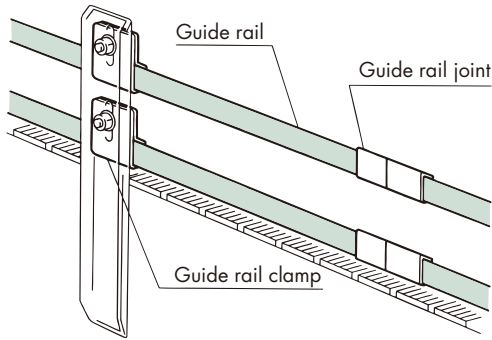
Disconnecting and Connecting Tools

# Guide Rail/Accumulation Roller Side Guide/ Roller Module Side Guide (For Curved Section)

## Applications

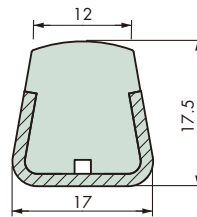
- Guide Rail:** Use to prevent conveyed products from falling down or being scratched.
- Accumulation roller side guide:** Reduces the chances of conveyed products being scratched. Use this part as a guide in the accumulation areas of the conveyor.
- Roller module side guide (For curved section):** Reduces the chances of conveyed products on the curved section from being scratched.

## Installation Example



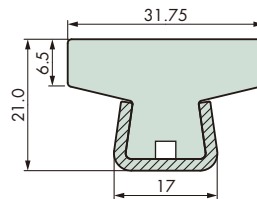
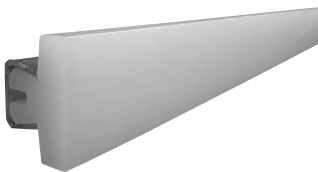
## Specifications

### ■ Guide Rail



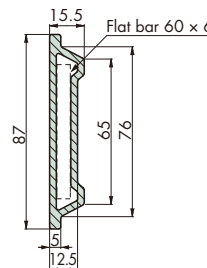
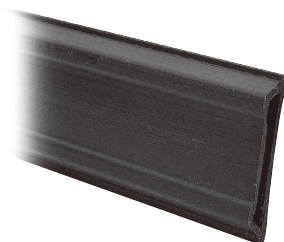
Tsubaki model no.	Standard length per unit m	Material		Approx. mass kg/m
		Guide rail	Frame	
<b>TP-C19500130-3MT-GR</b>	3	UHMW-PE (color: white)	Stainless steel	0.6

Note: Standard product.



Tsubaki model no.	Standard length per unit m	Material		Approx. mass kg/m
		Guide rail	Frame	
<b>TP-C19500165-3MT-GR</b>	3	UHMW-PE (color: white)	Stainless steel	0.86

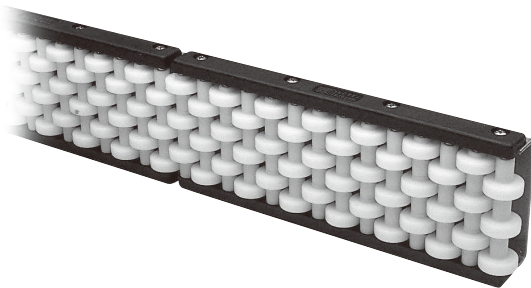
Note: Standard product.



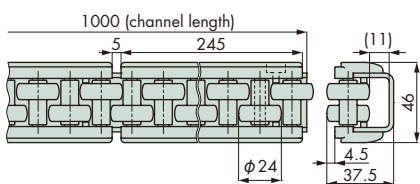
Tsubaki model no.	Standard length per unit m	Material	Approx. mass kg/m
TP-C19050LT-GR	3	UHMW-PE (color: black)	0.6

Note: Made-to-order product.

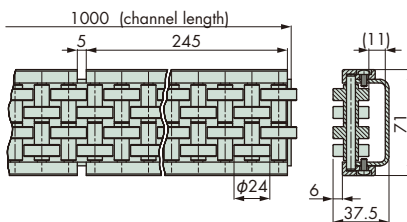
■ Accumulation Roller Side Guide



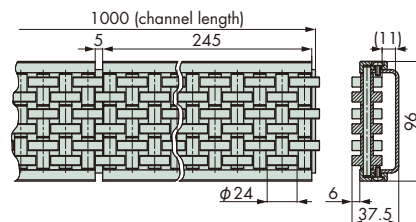
TP-C16686LSST-ARG



TP-C16683LSST-ARG



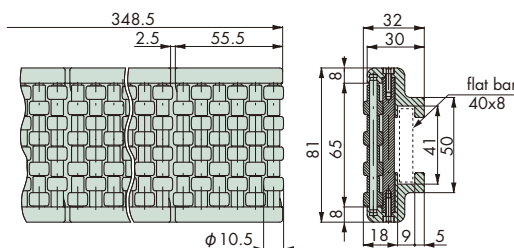
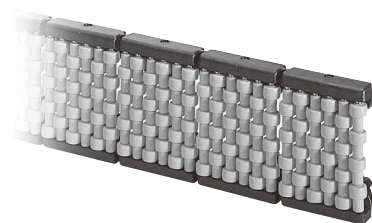
TP-C16689LT-ARG



Tsubaki model no.	Standard length per unit m	Material				Approx. mass kg/m
		Roller	Pin	Retainer	Channel	
TP-C16686LSST-ARG	1	Polyacetal (color: white)	Polyacetal (color: black)	Reinforced polyamide (color: black)	Stainless steel	2.6
TP-C16683LSST-ARG			Stainless steel			3.8
TP-C16689LT-ARG		5				

Note: Standard products.

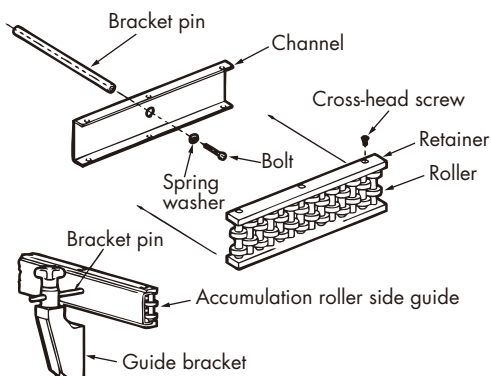
■ Roller Module Side Guide (For Curved Section)



Tsubaki model no.	Standard length per unit m	Material		
		Frame	Roller	Pin
TP-C16801KT-ARG	348.5	Reinforced polyamide (color: black)	Polyacetal (color: white)	Polyacetal (color: black)

- Note: 1. Standard product.
- 2. Use this part in combination with a 40 x 8 flat bar
- 3. Minimum sideflex radius: inner radius R250, outer radius R300

Notes for Handling Accumulation Roller Side Guide



[Assembly procedure]

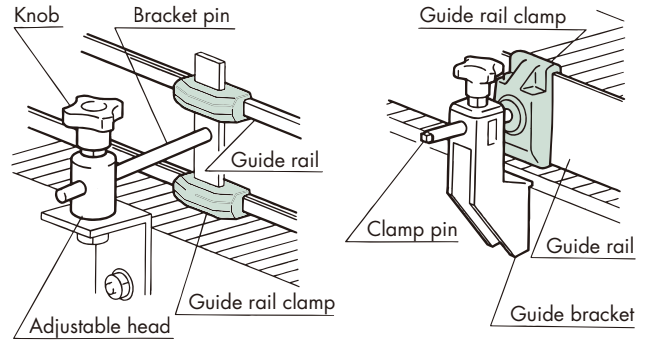
1. Remove the cross-head screw on the retainer and remove the retainer from the channel. (The length of the retainer is 245 mm, and it is installed at 4 places per standard length.)
2. Drill holes for bolts to fit in the channels. Select a bolt that does not interfere with or contact the roller.
3. Bolt the channel and bracket pin together.
4. After fixing, insert the retainer to the channel.
5. Align the screw holes on the channel with the mounting holes on the retainer, and secure with the cross-head screws.

# Guide Rail Clamp

## Applications

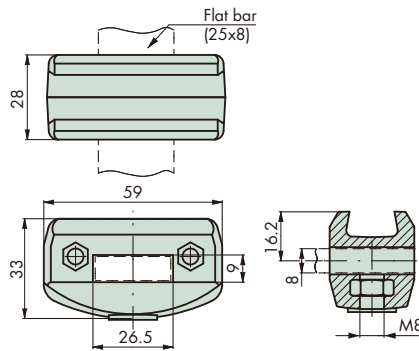
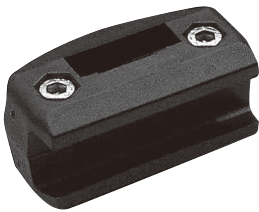
Use to fix the guide rails.

## Installation Example



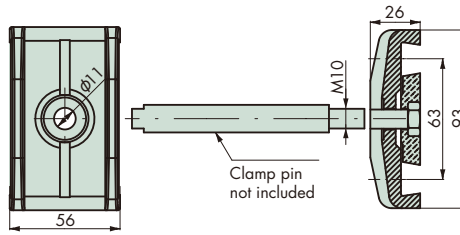
## Specifications

### ■ Guide Rail Clamp (GRC)



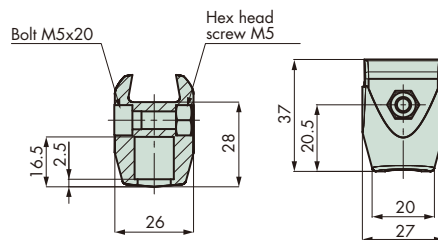
Tsubaki model no.	Material			Applicable guide rail	Applicable support
	Body	Bolt	Nut		
<b>TP-C13007T-GRC</b>	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	TP-C19S00130-3MT-GR TP-C19S00165-3MT-GR	Flat bar 25x8

Note: Standard product.

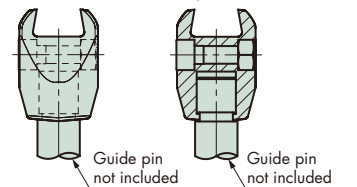


Tsubaki model no.	Material	Applicable guide rail	Applicable support
<b>TP-C13008NVT-GRC</b>	Reinforced polyamide (color: black)	TP-C19S00130-3MT-GR TP-C19S00165-3MT-GR	Clamp pin

Note: Standard product.



### Installation example



Tsubaki model no.	Material			Applicable guide rail	Applicable support
	Body	Bolt	Nut		
<b>TP-C13006NVT-GRC</b>	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	TP-C19S00130-3MT-GR TP-C19S00165-3MT-GR	Guide pin

Note: 1. Standard product.

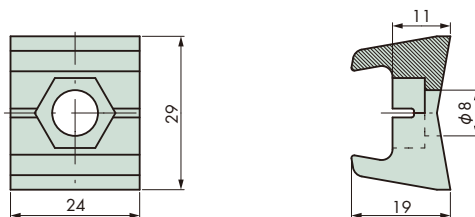
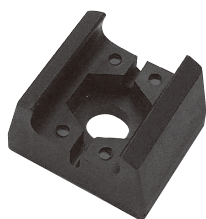
2. This guide rail clamp is stronger than the TP-C13012T-GRC clamp. Use this clamp in places where a stronger pressure is applied to rails (such as corner areas and accumulation lines).



# Guide Rail Clamp

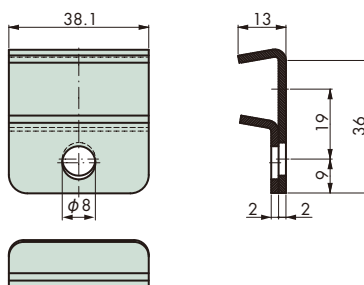
## Specifications

### ■ Guide Rail Clamp



Tsubaki model no.	Material	Applicable guide rail	Applicable support
<b>TP-C13012T-GRC</b>	Reinforced polyamide (color: black)	TP-C19S00130-3MT-GR TP-C19S00165-3MT-GR	Bracket pin $\phi$ 14

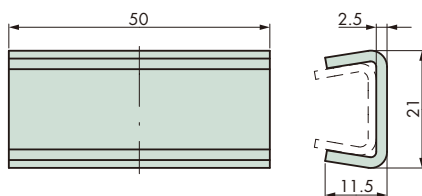
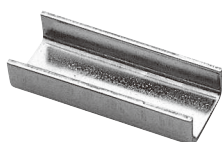
Note: Standard product.



Tsubaki model no.	Material	Applicable guide rail	Applicable support
<b>TP-C13014T-GRC</b>	Stainless steel	TP-C19S00130-3MT-GR TP-C19S00165-3MT-GR	Frame

Note: Standard product.

### ■ Guide Rail Joint

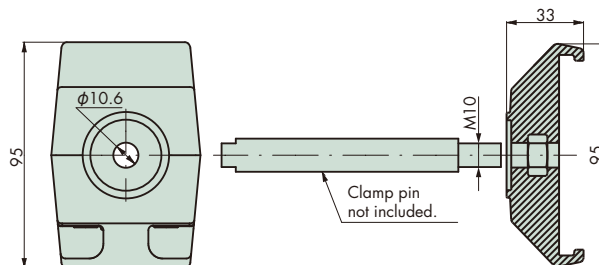


Tsubaki model no.	Material	Applicable guide rail
<b>TP-C13120T-GRC</b>	Stainless steel	TP-C19S00130-3MT-GR TP-C19S00165-3MT-GR

Note: 1. Standard product.

2. Use this part as a joint between guide rails. It eliminates the difference in level and any clearance between guide rails. Use a hammer to install.

### ■ Guide Rail Clamp (Exclusively for TP-C19050LT-GR Guide Rail)



Tsubaki model no.	Material		Applicable guide rail	Applicable support
	Body	Nut/Washer		
TP-C13718T-GRC	Reinforced polyamide (color: black)	Stainless steel	TP-C19050LT-GR	Clamp pin

Note: Made-to-order product.

Plastic Rails

Set Collar

Chain Guide Parts

Frame Support Parts

Product Guide Parts

Bearing Units

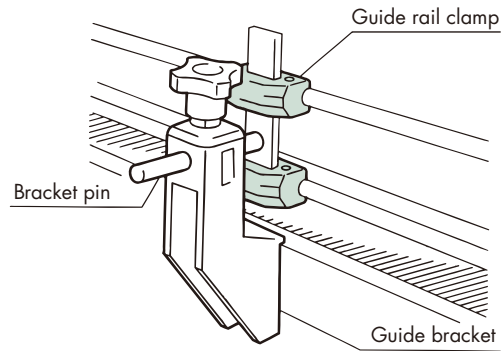
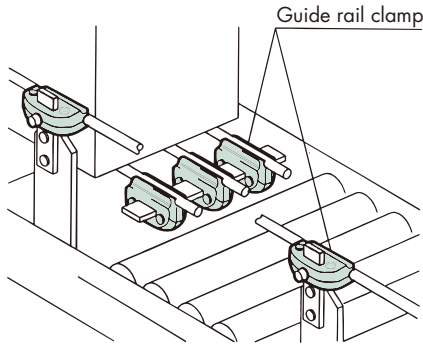
Disconnecting and Connecting Tools

# Guide Rail Clamp

## Applications

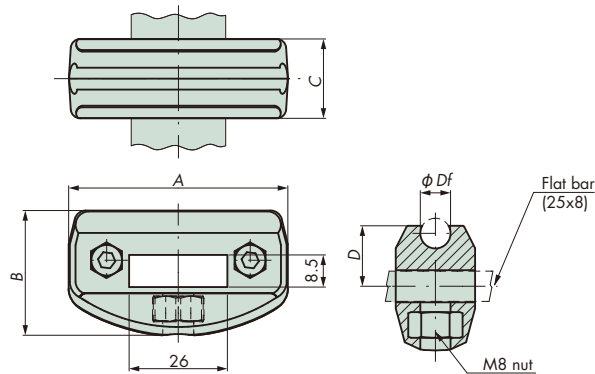
Use to fix the round bar guide.

## Installation Example



## Specifications

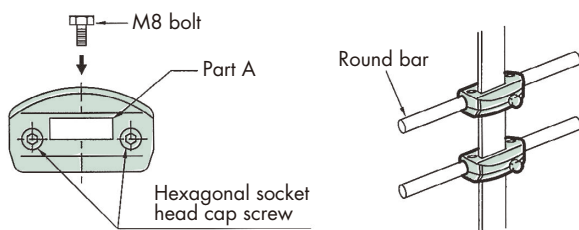
### ■ Guide Rail Clamp (For Round Bar)



Tsubaki model no.	Diameter					Material			Flat bar
	$\phi Df$	A	B	C	D	Body	Bolt	Nut	
<b>TP-C13743T-GRC</b>	8	58	33	21	16	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	25x8
<b>TP-C13741T-GRC</b>	10								
<b>TP-C13744NVT-GRC</b>	12	59	34.5	24	19				

Note: Standard products.

## Notes for Handling Guide Rail Clamp



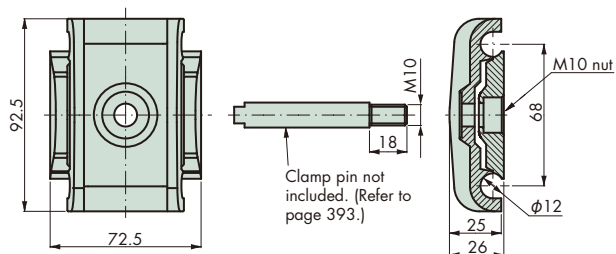
### [Assembly procedure]

1. When the hexagonal socket head cap screw fitted on the clamp is removed, the clamp is split into two parts.
2. Hold the round bar with the two clamp parts, and fasten the hexagonal socket head cap screw again.
3. Insert the flat bar (25 x 8) into part A, and secure it with the bolt (M8). (Hold the flat bar at the tip of the bolt.)
4. Adjust the position according to the height of the products to be conveyed.
5. The TP-C13007T-GRC guide rail clamp (page 383) can also be installed by the following procedure.

# Guide Rail Clamp

## Specifications

### ■ Guide Rail Clamp (For Round Bar)

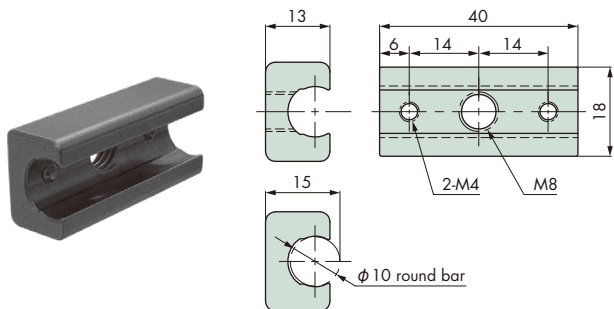


Tsubaki model no.	Material		Applicable round bar
	Body	Nut/Washer	
<b>TP-C13761XPT-GRC</b>	Reinforced polyamide (color: black)	Stainless steel	φ 12

Note: Standard product.

### ■ Guide Rail Clamp

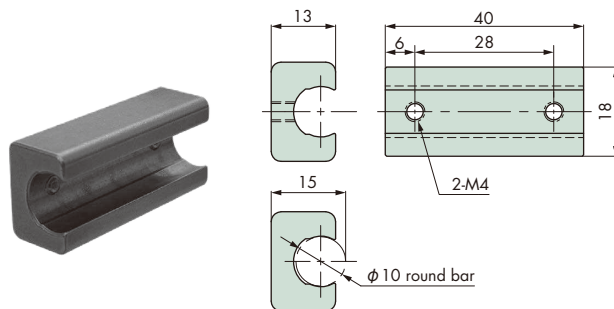
#### ◆ For Bracket



Tsubaki model no.	Material
TP-GHB	Stainless steel (sintered)

Note: Made-to-order product.

#### ◆ For Connection



Tsubaki model no.	Material
TP-GHA	Stainless steel (sintered)

Note: Made-to-order product.

Plastic Rails

Set Collar

Chain Guide Parts

Frame Support Parts

Product Guide Parts

Bearing Units

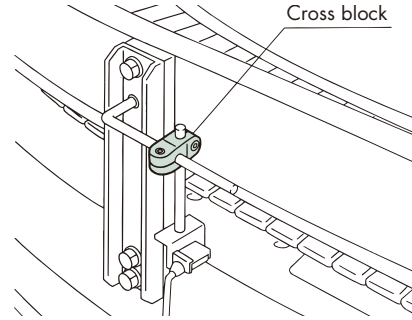
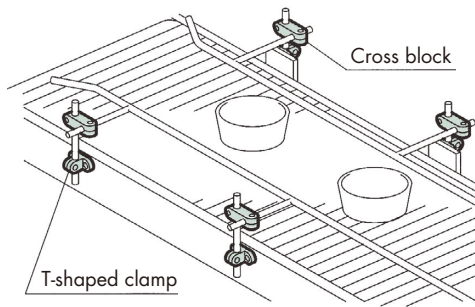
Disconnecting and Connecting Tools

# Cross Block/T-Shaped Clamp/L-Shaped Clamp

## Applications

Use in combination with a T-shaped clamp or cross block to install a guide or a sensor.

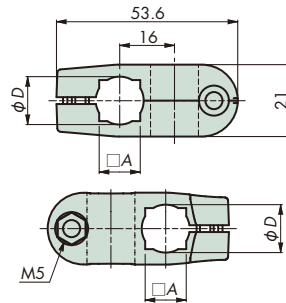
## Installation Example



## Specifications

### ■ Cross Block

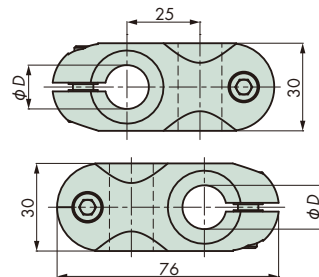
◆ For Use with Round Bar or Square Bar Guide



Tsubaki model no.	Diameter		Material		Bolt tightening torque N·m {kgf·m}	Allowable load (retainable load) N{kgf}
	$\phi D$	$\square A$	Body	Bolt/Nut		
<b>TP-C13500114T-CC</b>	10	8	Polyacetal (color: black)	Stainless steel	2.94 {0.3}	49.0 {5}
<b>TP-C13500115T-CC</b>	12	10				
<b>TP-C13500116T-CC</b>	14	12				

Note: Standard products.

◆ High-strength Type (Exclusively for a Round Bar)

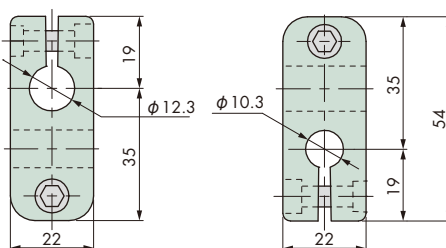


Tsubaki model no.	$\phi D$	Material			Bolt tightening torque N·m {kgf·m}	Allowable load (retainable load) N{kgf}
		Body	Bolt	Nut		
<b>TP-C13108T-CC</b>	15	Reinforced polyamide (color: black)	Stainless steel	Brass + nickel-plated	4.9 {0.5}	98.1 {10}

Note: Standard product.

# Cross Block/T-Shaped Clamp/L-Shaped Clamp

## ■ Cross Block

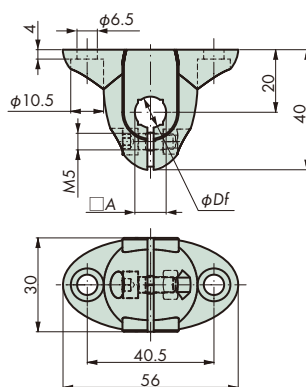


Tsubaki model no.	Material	
	Body	Bolt/Nut
<b>TP-CRB</b>	Reinforced polyamide (color: black)	Stainless steel

Note: Standard product.

## ■ T-shaped Clamp

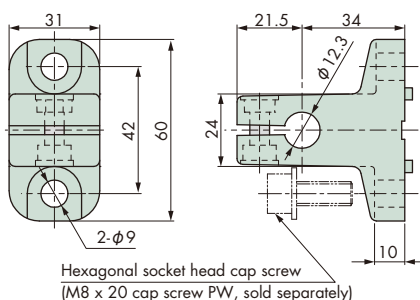
◆ For Use with Round Bar or Square Bar Guide



Tsubaki model no.	Diameter		Material		Bolt tightening torque N·m {kgf·m}	Allowable load (retainable load) N{kgf}
	$\phi Df$	$\square A$	Body	Bolt/Nut		
<b>TP-C13152T-TC</b>	10	8	Reinforced polyamide (color: black)	Stainless steel	2.94 {0.3}	49.0 {5}
<b>TP-C13115T-TC</b>	12	10				

Note: Standard products.

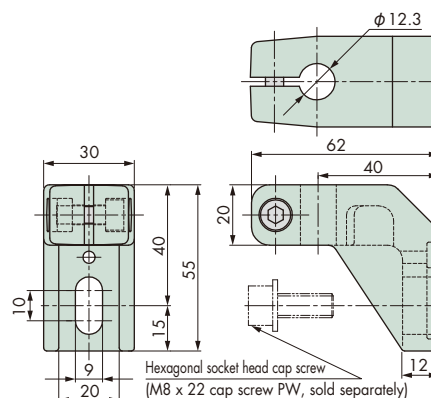
◆ For Use with Round Bar



Tsubaki model no.	Material	
	Body	Bolt/Nut
<b>TP-TC</b>	Reinforced polyamide (color: black)	Stainless steel

Note: Standard product.

## ■ L-shaped Clamp



Tsubaki model no.	Material	
	Body	Bolt/Nut
<b>TP-LC</b>	Reinforced polyamide (color: black)	Stainless steel

Note: Standard product.

Plastic Rails

Set Collar

Chain Guide Parts

Frame Support Parts

Product Guide Parts

Bearing Units

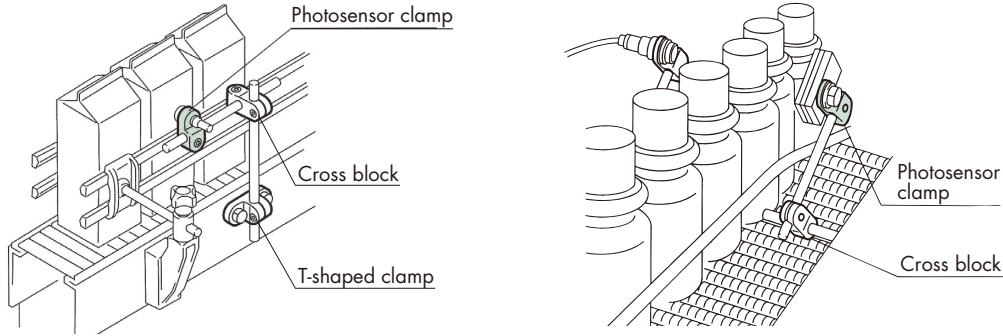
Disconnecting and  
Connecting Tools

# Photosensor Clamp/Clamp Lever

## Applications

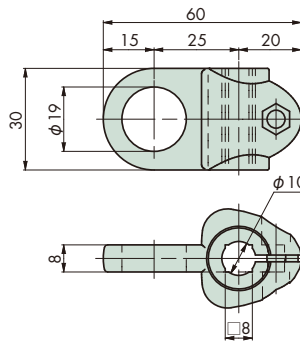
Use this clamp in combination with a cross block or T-shaped clamp when installing a sensor.

## Installation Example



## Specifications

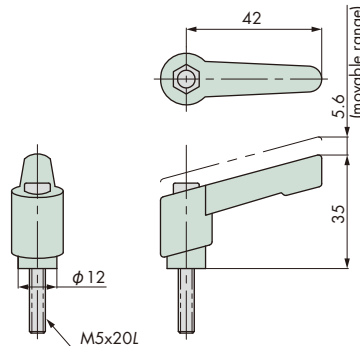
### ■ Photosensor Clamp



Tsubaki model no.	Material		Bolt tightening torque N·m {kgf·m}	Allowable load (retainable load) N{kgf}
	Body	Bolt/Nut		
<b>TP-C13153T-FSC</b>	Reinforced polyamide (color: black)	Stainless steel	2.94 {0.3}	49.0 {5}

Note: Standard product.

### ■ Clamp Lever



Tsubaki model no.	Material	
	Body	Bolt/Nut
TP-CL	Reinforced polyamide (color: black)	Stainless steel

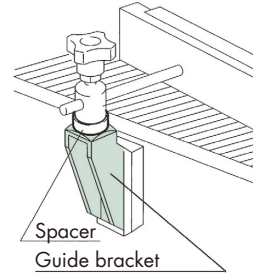
Note: Made-to-order product.

# Guide Bracket

## Applications

Use in combination with a guide rail clamp and clamp pin to fix the guide rails.

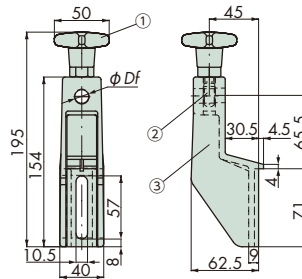
## Installation Example



## Specifications

### Guide Bracket

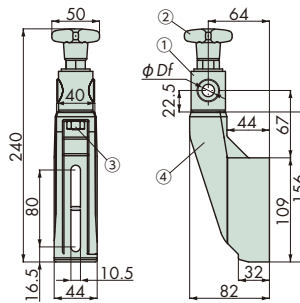
#### Fixed Type



Tsubaki model no.	$\phi Df$	Material		
		① Knob	② Eyebolt	③ Body
<b>TP-C13696T-GRB</b>	12	Polyamide brass + nickel-plated nut inserted nut inserted (color: black)	Stainless steel	Reinforced polyamide (color: black)
<b>TP-C13697T-GRB</b>	14			

Note: 1. Standard products.  
2. TP-C13250T-TS or TP-C13255-TS (tray supporter) can be installed in the groove on the back of the body.

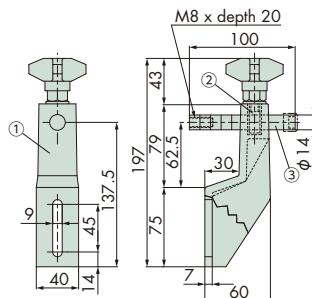
#### Rotating Type



Tsubaki model no.	$\phi Df$	Material			
		① Adjustable head (rotatable 360-degree)	② Knob	③ Bolt/Nut	④ Body
<b>TP-C13054T-GRB</b>	12	Reinforced polyamide (color: black)	Polyamide brass + nickel-plated nut inserted (color: black)	Stainless steel	Reinforced polyamide (color: black)
<b>TP-C13055T-GRB</b>	14				

Note: 1. Standard products.  
2. TP-C13250T-TS or TP-C13255-TS (tray supporter) can be installed in the groove on the back of the body.

#### Fixed Type



Tsubaki model no.	Material		
	① Body	② Eyebolt	③ Adjust pin
<b>TP-A0</b>	Reinforced polyamide (color: black)	Brass	Stainless steel

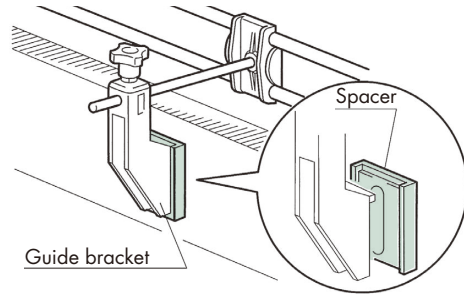
Note: 1. Standard product.  
2. The model number is "A zero".

# Spacer

## Applications

Use the spacer to adjust the height and width of the guide bracket.

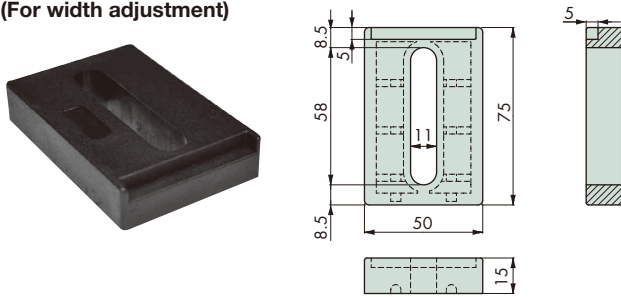
## Installation Example



## Specifications

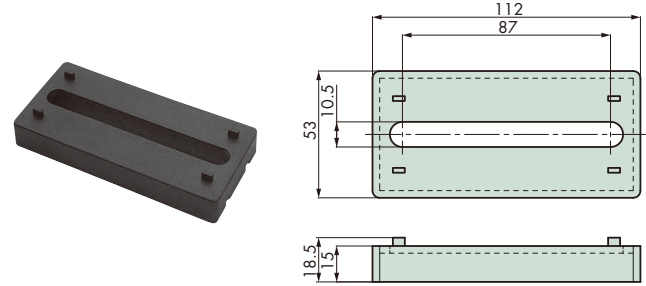
### ■ Spacer

(For width adjustment)



Tsubaki model no.	Material	Applicable guide rail
<b>TP-C13400T-SP</b>	Reinforced polyamide (color: black)	TP-C13696T-GRB TP-C13697T-GRB

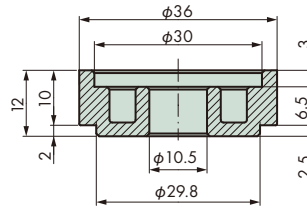
Note: 1. Standard product.  
2. TP-C13250T-TS or TP-C13255T-TS (tray supporter) can be installed in the groove on the back of the body.



Tsubaki model no.	Material	Applicable guide rail
<b>TP-C13019T-SP</b>	Reinforced polyamide (color: black)	TP-C13054T-GRB TP-C13055T-GRB

Note: 1. Standard product.  
2. TP-C13250T-TS or TP-C13255T-TS (tray supporter) can be installed in the groove on the back of the body.  
3. This product can be stacked multiple number of times.

(For height adjustment)

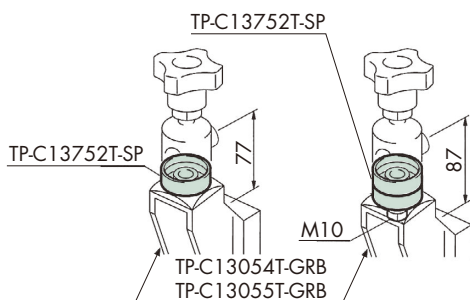


Tsubaki model no.	Material	Applicable guide rail
<b>TP-C13752T-SP</b>	Reinforced polyamide (color: black)	TP-C13054T-GRB TP-C13055T-GRB

Note: Standard product.

## Notes for Handling Spacer for Height Adjustment

Install the spacer under the adjustable head of the rotating adjustable bracket. One spacer increases the height by 10 mm.



A long-length M10 bolt is needed to use the spacer.

Bolt size  
M10 x 30 L hexagonal head bolt for using one spacer  
M10 x 40 L hexagonal head bolt for using two spacers

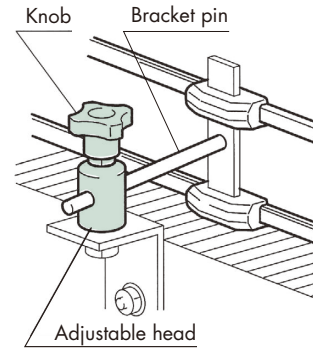


# Adjustable Head/Knob

## Applications

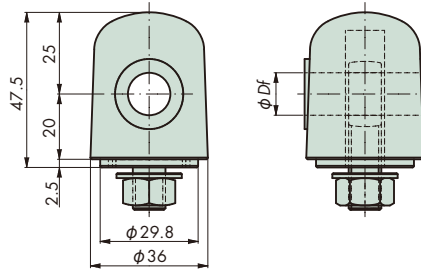
Use in combination with a guide rail clamp and clamp pin to fix the guide rails.

## Installation Example



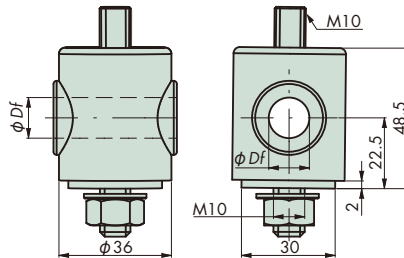
## Specifications

### Adjustable Head



Tsubaki model no.	$\phi Df$	Material	
		Head	Others
<b>TP-C13028T-SH</b>	12	Reinforced polyamide (color: black)	Stainless steel
<b>TP-C13029T-SH</b>	14		

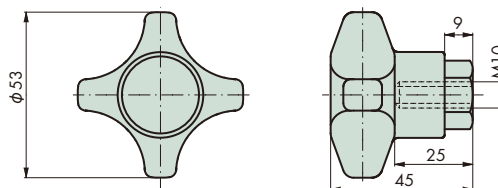
Note: Standard products.



Tsubaki model no.	$\phi Df$	Material	
		Head	Others
<b>TP-C13037T-SH</b>	12	Reinforced polyamide (color: black)	Stainless steel
<b>TP-C13038T-SH</b>	14		

Note: 1. Standard products.  
2. Use with TP-C13355T-HD knob.

### Knob



Tsubaki model no.	Material		Applicable adjustable Head
	Knob	Thread	
<b>TP-C13355T-HD</b>	Reinforced polyamide (color: black)	Brass + nickel-plated	TP-C13037T-SH TP-C13038T-SH

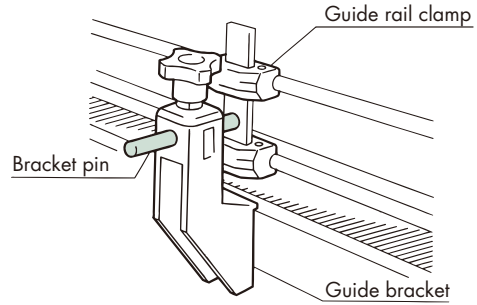
Note: Standard product.

# Guide Pin/Clamp Pin/Bracket Pin

## Applications

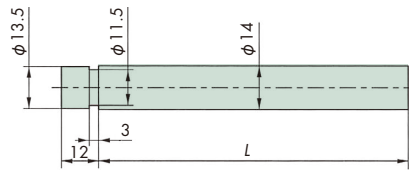
- Guide Pin:** Pin for exclusive use with the TP-C13006NVT-GRC guide rail clamp.
- Clamp Pin:** The external thread is on the securing side. Use clamp pin in combination with guide rail clamp and guide bracket.
- Bracket Pin:** The internal thread is on the securing side. Use bracket pin in combination with guide rail clamp and guide bracket.

## Installation Example



## Specifications

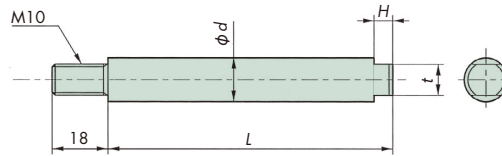
### Guide Pin



Tsubaki model no.	L	Material
<b>TP-C14-100T-GP</b>	100	Stainless steel
<b>TP-C14-200T-GP</b>	200	

Note: Standard products.

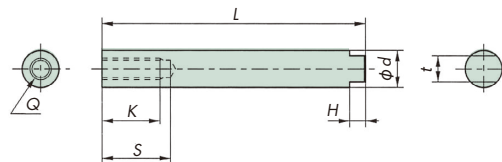
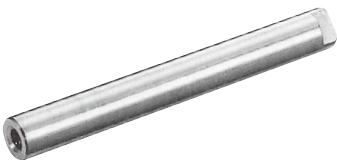
### Clamp Pin



Tsubaki model no.	Diameter				Material
	$\phi d$	L	H	t	
<b>TP-C12-100T-CP</b>	12	100	5	8	Stainless steel
<b>TP-C12-200T-CP</b>		200			
<b>TP-C14-100T-CP</b>	14	100	6	10	
<b>TP-C14-200T-CP</b>		200			
TP-C16-100T-CP	16	100	8	13	
TP-C16-200T-CP		200			

Note: Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.

### Bracket Pin



Tsubaki model no.	Diameter							Material
	$\phi d$	L	H	t	Q	S	K	
<b>TP-C12-100T-BP</b>	12	100	5	8	M6	24	20	Stainless steel
<b>TP-C12-200T-BP</b>		200						
<b>TP-C14-100T-BP</b>	14	100	6	10	M8	26	22	
<b>TP-C14-200T-BP</b>		200						
TP-C16-100T-BP	16	100	8	13	M10	30	27	
TP-C16-200T-BP		200						

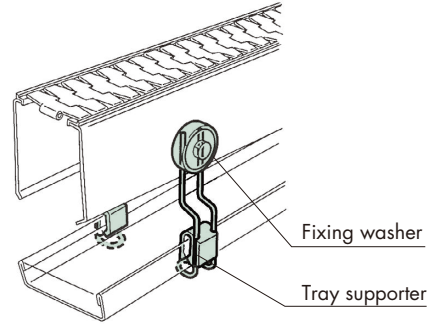
Note: Tsubaki model no. in boldface are standard products. Tsubaki model no. in normal face are made-to-order products.

# Tray Supporter/Fixing Washer

## Applications

Use it for installing a tray such as a drain pan. Use fixing washer in combination with tray supporter and M10 bolt.

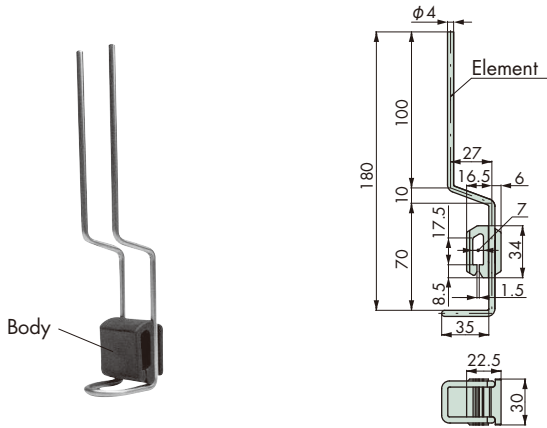
## Installation Example



## Specifications

### Tray Supporter

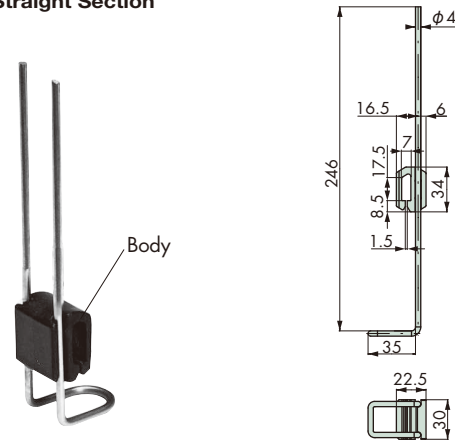
#### For Curved Section



Tsubaki model no.	Material	
	Body	Element
<b>TP-C13250T-TS</b>	Polyamide (color: black)	Stainless steel

Note: 1. Standard product.  
2. The tray is to be prepared by the customer.

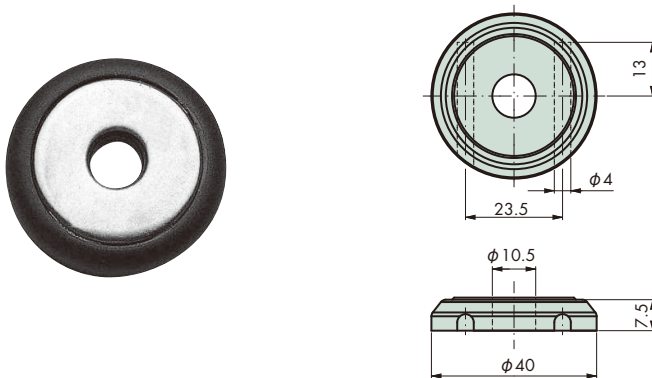
#### For Straight Section



Tsubaki model no.	Material	
	Body	Element
<b>TP-C13255T-TS</b>	Polyamide (color: black)	Stainless steel

Note: 1. Standard product.  
2. The tray is to be prepared by the customer.

### Fixing Washer



Tsubaki model no.	Material	
	Plate	Washer
<b>TP-C13252T-MP</b>	Polyamide (color: black)	Stainless steel

Note: Standard product.

Plastic Rails

Set Collar

Chain Guide Parts

Frame Support Parts

Product Guide Parts

Bearing Units

Disconnecting and Connecting Tools

# Bearing Units

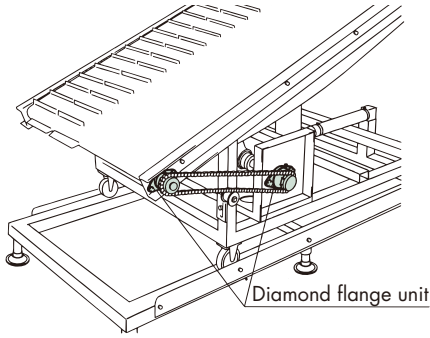
## Applications

Since the bearing unit is sealed both on the top and bottom surfaces, it can have a longer service life when used in a wet or dusty environment.

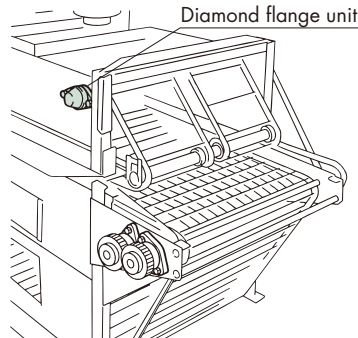
## Diamond Flange Unit

## Installation Example

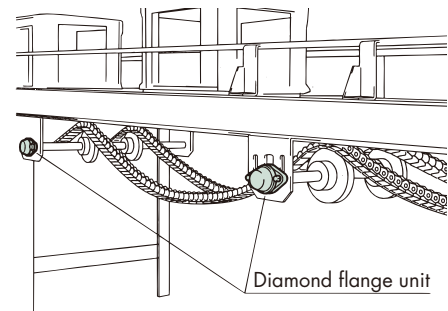
Washing machine



Washing machine



Bottle filling equipment (in a wet or dusty environment)

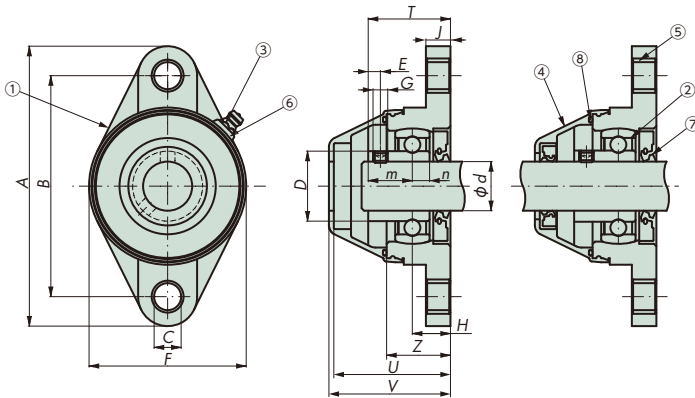


## Dimension Table

### ■ Closed Type



### ■ Open Type



### ■ Part Description

Part no.	Description	Material
①	Housing	Reinforced polyamide (color: black)
②	Ball bearing <small>Note: 1</small>	Steel
③	Grease nipple <small>Note: 2</small>	Stainless
④	Safety cap	Polypropylene (color: yellow)
⑤	Spacer bush	Brass + nickel-plated
⑥	Grease nipple washer	Polyethylene (color: yellow)
⑦	Seal	NBR (color: black)
⑧	O-ring	

Note: 1. The bearing is of the set-screw type.

2. The position of the grease nipple for the bore diameter of  $\phi 20$  is different from the left figure.

Tsubaki model no.	Diameter															
	Bore diameter $\phi d$	A	B	C	D	E	F	G	H	J	Z	T	m	n	U	V
TP-C54204NR-ECT-UCFL	20	114	90	11	29	5	70	M6x0.75	15.5	10	26	33.5	18	7	47.5	49.5
TP-C59204NR-ECT-UCFL					34	5.5										
TP-C54205NR-ECT-UCFL	25	130	99	11	34	5.5	70	M6x0.75	17	12.5	29	36.5	19.5	7.5	52.2	54.2
TP-C59205NR-ECT-UCFL					34	5.5										

## Specifications

Tsubaki model no.	Shape	Basic load rating: bearing kN{kgf}		Max. allowable load kN{kgf}	Approx. mass kg	Operating temperature range °C
		(basic) dynamic load rating Cr	(basic) static load rating Cor			
TP-C54204NR-ECT-UCFL	Closed	9.9 {1000}	6.6 {670}	7.5 {765}	0.21	0 to 80
TP-C59204NR-ECT-UCFL	Open					
TP-C54205NR-ECT-UCFL	Closed	10.8 {1100}	7.8 {795}	8.0 {815}	0.31	
TP-C59205NR-ECT-UCFL	Open					

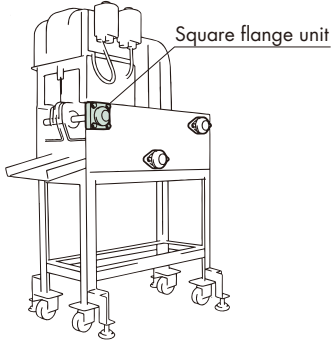
Note: 1. Standard products.

2. Self-alignment: maximum angle error between housing and shaft: 2°

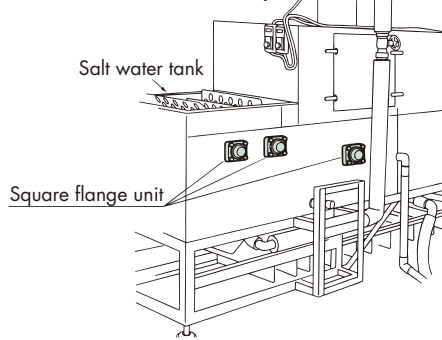
## Square Flange Unit

### Installation Example

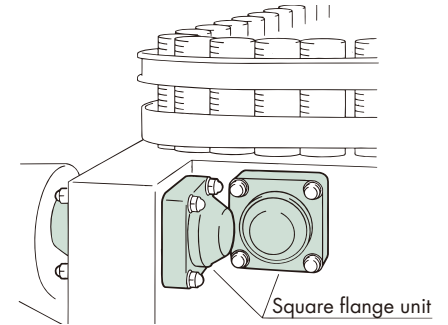
Food processing equipment (belt conveyor for food)



Food processing equipment (peeling machine for daikon radish)



Beverage equipment (in wet conditions)

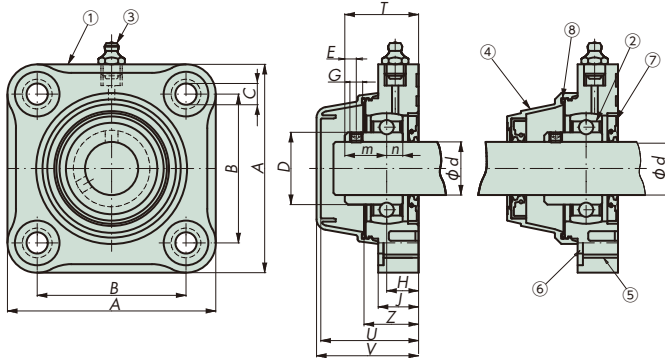
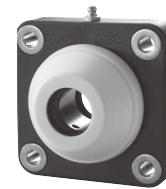


### Dimension Table

#### ■ Closed Type



#### ■ Open Type



#### ■ Part Description

Part no.	Part name	Material
①	Housing	Reinforced polyamide (color: black)
②	Ball bearing <sup>Note</sup>	Steel
③	Grease nipple	Stainless
④	Safety cap	Polypropylene (color: yellow)
⑤	Spacer bush	Brass + nickel-plated
⑥	Washer	SUS304
⑦	Seal	NBR (color: black)
⑧	O-ring	

Note: The bearing is of the set-screw type.

Tsubaki model no.	Diameter														
	Bore diameter $\phi d$	A	B	C	D	E	G	H	J	Z	T	m	n	U	V
TP-C50205ART-UCF	25	98	70	11	34	5.5	M6×0.75	15	19	25	34.5	19.5	7.5	50	52
TP-C55205ART-UCF					40.3	6.0									
TP-C50206RT-UCF	30	110	83	14	48	6.5	M8×1.00	20	25	35	43.5	23.5	8.5	67	69
TP-C55206RT-UCF															
TP-C50207NT-UCF	35	118	92	14	48	6.5	M8×1.00	20	25	35	43.5	23.5	8.5	67	69
TP-C55207NT-UCF															
TP-C50208FRT-UCF	40	130	101.5	14	53	7.0	M8×1.00	20	25	35	43.5	23.5	8.5	67	69
TP-C55208FRT-UCF															

### Specifications

Tsubaki model no.	Shape	Basic load rating: bearing kN{kgf}		Max. allowable load kN{kgf}	Approx. mass kg	Operating temperature range °C
		(basic) dynamic load rating Cr	(basic) static load rating Cor			
TP-C50205ART-UCF	Closed type	10.8	7.8	13.0	0.42	0 to 80
TP-C55205ART-UCF	Open type	{1100}	{795}			
TP-C50206RT-UCF	Closed type	15.0	11.3	{1320}	0.59	
TP-C55206RT-UCF	Open type	{1530}	{1150}			
TP-C50207NT-UCF	Closed type	19.7	15.3	12.5	0.9	
TP-C55207NT-UCF	Open type	{2000}	{1560}			
TP-C50208FRT-UCF	Closed type	22.4	17.9	{1270}	0.98	
TP-C55208FRT-UCF	Open type	{2280}	{1830}			

Note: 1. Standard products.

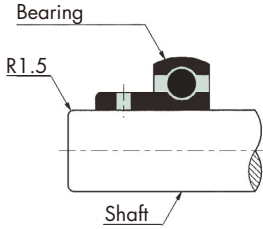
2. Self-alignment: maximum angle error between housing and shaft: 2°

# Bearing Units

## Notes for Handling

### 1. Shaft design

Chamfer the corners of the shaft (approx. R1.5) so as not to damage a seal or other parts when the bearing is inserted. The shaft is loosely fitted in general. Refer to Table 1 for the shaft's dimensional tolerance.

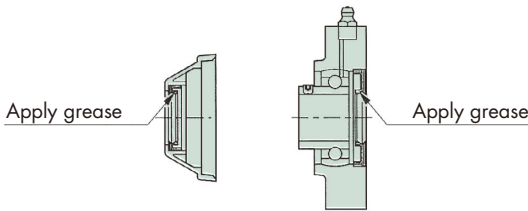


**Table 1: Dimensional tolerance of shaft**

Low speed	h9
Normal speed	h8
High speed	h7

### 2. Installation to shaft

2-1. Apply grease to the seal inner surface (surface in contact with the shaft) before installation.



2-2. The bearing is of the set-screw type. Clamp the two screws uniformly as referenced to the tightening force in table 2.

**Table 2: Tightening torque of set screw**

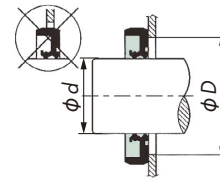
Bore diameter $\phi d$	Nominal size of screw	Recommended tightening torque N·m {kgf·m}
20	M6x0.75	3 {0.3}
25		
30		
35	M8x1.00	7 {0.7}
40		

### 3. Installation of housing

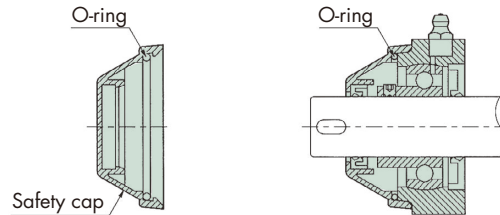
3-1. Make the hole diameter  $D$  in the frame installing surface smaller than  $D_{max}$  so that the seal is not removed. Make the hole diameter  $D$  larger than  $D_{min}$  so as to allow grease to be discharged.

**Table 3: Mounting surface hole diameter**

Bore diameter $\phi d$	$D_{min}$	$D_{max}$
20	30	42
25	35	45
30	45	55
35	50	60
40	55	70

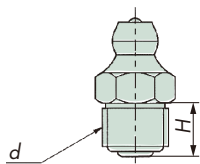


3-2. Set the O-ring on the safety cap, and fit it securely in the body.



## Maintenance

### ■ Grease Nipple



**Table 4: Grease nipple dimensions**

	Screw $d$	$H$
Diamond flange type	M6	6.5
Square flange type	1/8" GAS	

### ■ Grease

The bearing units are lubricated with H1-grade grease for food machines prior to shipment (Nevastane SFG2 of Total S.A.). Supply grease equivalent to this when replenishing.

Note: Nevastane is a registered trademark of Total S.A.

### ■ Lubrication Interval

Use only grease for lubrication. Do not use oil. The lubrication interval changes depending on operating conditions such as temperature, load, and speed. Refer to table 5 as a guide for the lubrication interval. Supply grease slowly when lubricating the machine so as not to damage the seal.

Also, the grease gun pressure should be within the range of 0.13MPa to 0.2MPa.

**Table 5: Grease lubrication interval (reference)**

Environmental condition	Operating temperature $^{\circ}\text{C}$	Lubrication interval
Clean	0 to 50	Every 6 to 12 months
	50 to 70	Every 4 to 8 months
	70 to 80	Every 1 to 3 months
Dirty	0 to 70	Every 0.5 to 2 months
	70 to 80	Every 0.5 to 1 month
Humid wet	-	Every 0.5 months



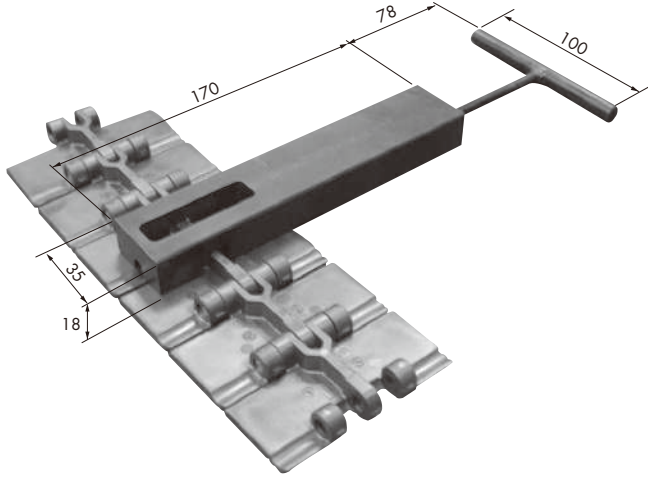
# Disconnecting and Connecting Tools for Plastic Top Chain and Stainless Steel Top Chain

## Applications

By using a tool, the chain can be easily disconnected and connected.

### For Plastic Top Chain TTP

Applicable Chain TTP Note: 2

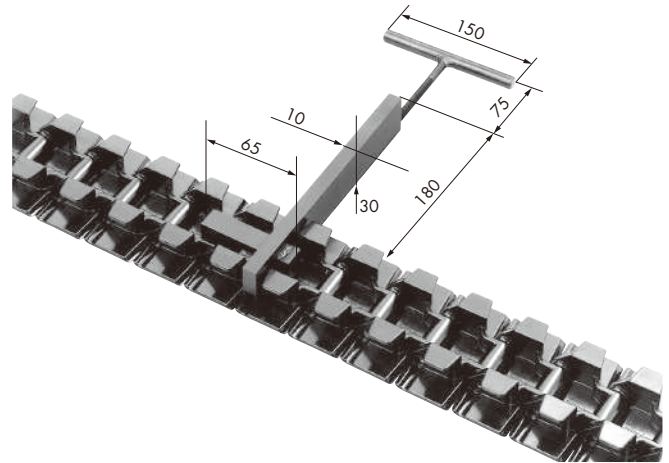


Tsubaki model no.	Color
TTP-KV-AST	Black

- Note: 1. Made-to-order product.  
 2. It can be used for plastic top chain TTP top plate width 114.3 mm or less.  
 3. Only stainless steel pin types can be used.  
 4. This tool can be used both for disconnecting and connecting a chain.

### For Plastic Top Chain TPS, TTUP, TPU

Applicable Chain TPS, TTUP, TPU Note: 2, 3

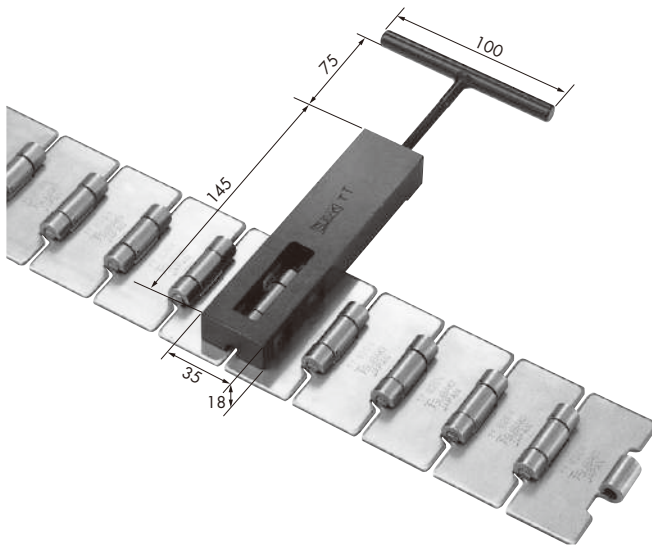


Tsubaki model no.	Color
TPS-TPU-KV-AST	Black

- Note: 1. Made-to-order product.  
 2. Plastic top chains TPS and TTUP can be used for top plate width of 190.5 mm or less.  
 3. TPU826 can be used only for TPU826-KV150, TPU826-KV180, TPU826-KV250.  
 4. Set the tool on the chain as shown and turn the handle until the pin is removed.  
 5. Only stainless steel pin type can be used.  
 6. This tool can be used both for disconnecting and connecting a chain.

### For Stainless Steel Top Chain TT

Applicable Chain TT Note: 2

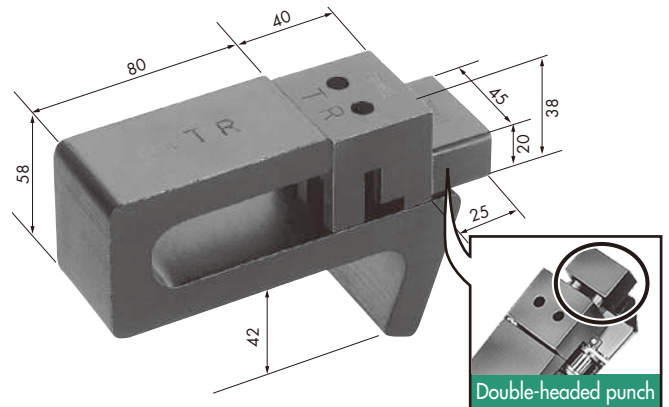


Tsubaki model no.	Color
TT-AST	Black

- Note: 1. Made-to-order product.  
 2. It can be used for stainless steel top chain TT top plate width 190.5 mm or less.  
 3. Set the tool on the chain as shown and turn the handle until the pin is removed.  
 4. This tool is specifically to be used only for disconnecting.

### For Stainless Steel Top Chain TRU, TTKU

Applicable Chain TRU, TTKU



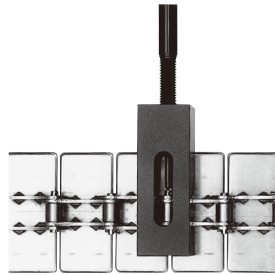
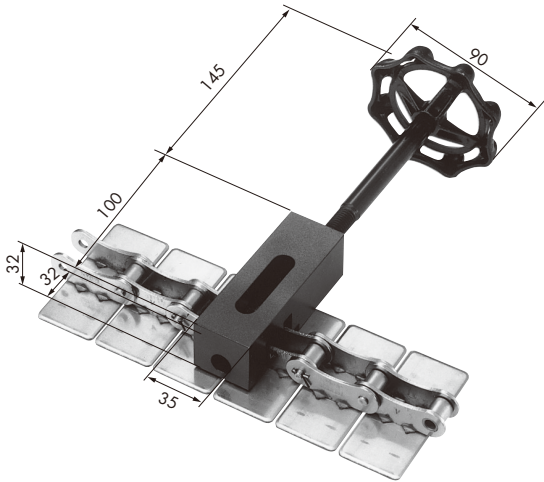
Tsubaki model no.	Color
TRU-TTKU-AST	Black

- Note: 1. Made-to-order product.  
 2. Grind off the rivets at the end of the two pins of the outer link to be cut, using a hand grinder. Take care not to damage the inner links on both sides. In the case of a TRU chain, grind off the rivet on the side having no float-preventive tabs.  
 3. Set the link with the rivet of the pin ground off on the tool.  
 4. Tap the double punch with a hammer, and pull out the two ground-off pins of the chain until they are removed from the outer plate.  
 5. This tool is specifically to be used for disconnecting.



For Stainless Steel Top Chain TS

Applicable Chain TS Note: 2

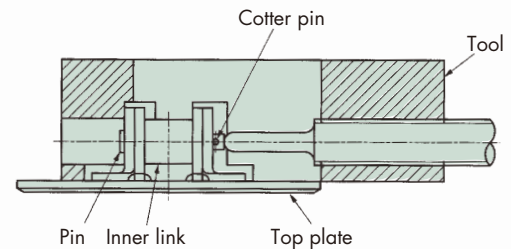
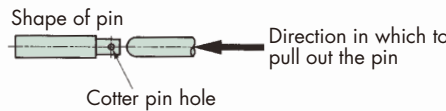


Tsubaki model no.	Color	
	Body	Knob
TS-AST	Black	Red

- Note: 1. Made-to-order product.  
 2. It can be used for stainless steel top chain TS top plate width 300 mm or less.  
 3. A chain can be disconnected by removing pins on the chain body one by one.  
 4. The tool can also be used for connecting chains since the pins on the chain body can be press-fitted one by one.

Procedure for Disconnecting Chain

1. Close the legs of the cotter pin and pull it out from the body pin.
2. Set the tool as shown in the photos above or diagrams on the right. Set it so that the tool is in contact with the surface of the top plate.
3. Turn the handle of the tool and push out the pin of the chain from one direction (cotter pin side).



Procedure for Connecting Chain

1. Pass the chain pin through the outer plate (larger diameter hole side), inner link, and outer plate (smaller diameter hole side), in this order. Turn the pin so that the cotter pin hole is level with the other pin, and stop turning it at the position where it feels a little tight.
2. Set the chain on the tool as shown in the diagram 1. (Press-fit the pin from the direction opposite to the removal procedure.)
3. Turn the handle of the tool and press-fit the pin of the chain. The position to stop press-fitting of the body pin is the position where the step of the body pin comes in contact with the outer plate. You can know the position because the turning force of the handle will feel heavy. You can also know it by looking at the position of the other body pins that have not been removed.
4. Pass the cotter pin through the hole of the body pin of the chain, then open the legs of the cotter pin about 60 degrees, to prevent the body pin from being removed.

Fig 1. Set the chain on the tool

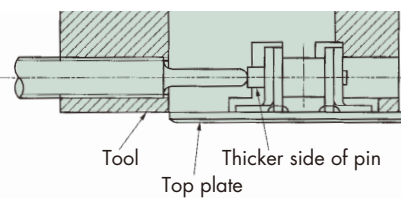
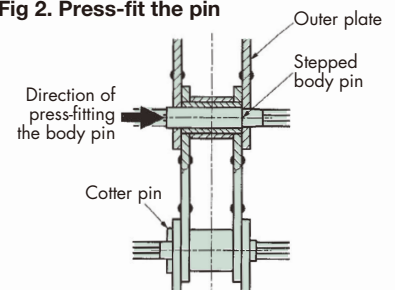
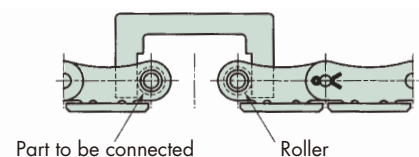


Fig 2. Press-fit the pin



How to Use the U-Shaped Tool Packaged with the TS-AST Tool

The tool holds both ends of the chains to be connected as shown on the right in order to facilitate the work mentioned above in 'Procedure for Connecting Chain' Step 1.





# Chain Selection

## ⚠ Important Selection Considerations

- Because of the risk of damage and/or breakage, plastic top chain is not recommended for use under conditions in which the chain may be subject to impact, or in which foreign materials or objects might become jammed in the conveyor. Please consider the use of a stainless steel top chain under these conditions. Also, be sure to start up and stop conveyor slowly using inverter or other control device.
- The presence of abrasives during operation will cause plastic top chain to wear prematurely. Please consider the use of stainless steel top chain in this case.
- When conveying food products, (DIA or DIY series) or (MPD or MPW series) is recommended in situations where a chance impact may damage the plastic top chain and there would be a possibility that broken chain pieces or fragments might become intermixed with the product or item being conveyed.
- Consult with a Tsubaki representative before using plastic top chain in cases where it will be in contact with special liquids (for example, solvents or chemicals such as acids or alkalis) or used under special environments (for example, exposure to ultraviolet radiation).
- Using plastic top chain in a wet condition will decrease the plastic's self-lubricating ability and thus shorten the life of the chain. Since this is apparent to the with stainless steel pins, we recommend using plastic pins.
- The operating temperature range for accessories, sprockets, and idler wheels made of UHMW-PE is -20°C to 60°C. Also, do not

use in environments where such components will be exposed to steam.

- Toxic gases may be generated if Y series (including SY series) and DIY series are exposed directly to an open flame or to temperatures above 150°C. Do not expose to excessive heat or to an open flame.
- Plastic chain is flammable. Do not use at temperatures above the maximum allowable temperature or use near an open flame. Combustion may generate dangerous toxic gases.

## ⚠ Corrosion Resistance to Various Fluids

When selecting a chain, refer to below table to determine the suitability of the chain material for specific applications. In addition, below table can be used to check the corrosion resistance of the wearstrip material to be used together with the top chain. The overall usage environment, including humidity and other conditions, must also be thoroughly evaluated in the selection process. Below table lists materials separately for the top plate and for other chain components. These must be considered together for optimal selection. Chemicals for which no concentration is noted in the table were used at 100% concentration or as saturated solutions. Note that conditions will change if a mixture of solutions is used.

The below table shows the results of lab tests conducted at 20°C and is provided for reference only. No warranty conditions whatsoever are stated or implied by the data in this table.

**Corrosion Resistance to Various Fluids**

Liquid name		Acetic acid (10%)	Acetone	Alcohol	Aqueous ammonia	Beer	Benzene	Carbon tetrachloride	Chromic acid (5%)	Citric acid	Drinking water/Coffee	Formic acid (50%)	Formic acid aldehyde	Fruit juice	Gasoline	Hydrochloric acid (2%)	Hydrogen peroxide (3%)	Iodine	Lactic acid	Milk/Butter	Nitric acid (5%)	Oils (vegetable, mineral)	Ozone	Paraffin	Peracetic acid	Phosphoric acid (10%)	Potassium hydroxide	Seawater	Soapy water	Sodium chloride	Sodium hypochlorite	Sodium hydroxide [caustic soda (25%)]	Sulfuric acid (5%)	Vegetable juice	Vinegar	Water	Whisky	Wine	Xylene								
																																								Material							
Steel		X	X	O	△	O	O	△	X	X	O	X	O	X	X	X	X	X	O	O	X	O	X	X	X	△	X	△	X	X	X	X	△	X	X	X	X	X	X	O	O	O	O	O			
Stainless steel	18-8	O	O	O	O	O	O	O	O	O	O	O	O	O	O	X	X	X	O	O	O	O	O	O	O	△	△	△	O	O	X	X	X	X	△	△	△	△	△	△	△	△	△	△	△	△	
	18Cr	O	O	O	O	O	O	△	O	O	O	O	O	△	O	X	△	X	△	O	O	△	△	△	O	O	O	X	O	O	X	X	X	X	O	O	△	△	△	△	△	△	△	△	△	△	
	13Cr	X	O	O	O	O	O	△	△	△	O	X	△	△	O	X	△	X	△	O	O	△	△	△	O	X	O	X	O	O	X	X	X	X	O	O	X	O	O	△	△	△	△	△	△	△	
AS series	O	O	O	O	O	O	O	△	O	O	O	O	O	O	O	X	△	X	O	O	O	O	O	O	O	O	O	O	O	O	X	X	X	X	O	O	O	O	O	O	O	O	O	O	O	O	
Plastic pins (special engineering plastic)		X	O	O	△	O	O	O	X	X	O	△	-	O	O	X	X	-	△	O	O	O	O	O	O	△	X	△	O	O	△	X	X	O	O	O	O	O	O	O	O	O	O	O	O	-	
Polypropylene (including HTW series)		-	O	O	O	O	△	△	X	O	O	O	O	O	O	O	O	-	O	O	O	O	O	X	O	O	-	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	△	
Standard series/polyacetal <sup>Note: 2</sup>		X	O	O	O	O	O	O	X	X	O	X	O	O	O	X	X	X	O	O	X	O	X	O	△	X	O	△	O	O	X	X	X	X	O	O	△	△	△	△	△	△	△	△	△	△	
LF series/polyacetal <sup>Note: 3</sup>		X	O	O	O	O	△	△	X	X	O	X	O	O	O	X	X	X	O	O	X	O	X	O	X	X	O	△	O	O	X	X	X	X	O	O	△	△	△	△	△	△	△	△	△	△	
KV180 series <sup>Note: 4</sup>		O	O	O	O	O	O	△	O	O	-	-	O	O	O	X	X	X	O	O	O	O	△	O	△	O	△	△	O	O	X	X	X	X	O	O	△	△	△	△	△	△	△	△	△	-	
KV250 series <sup>Note: 4</sup>		O	O	O	O	O	O	O	X	O	△	-	O	O	O	X	O	X	O	O	O	O	O	O	O	△	O	△	△	O	O	X	O	X	O	O	△	△	△	△	△	△	△	△	△	O	
Polyamide/reinforced polyamide (including slit pin)		X	O	O	O	O	O	O	X	△	O	X	O	O	O	X	X	X	△	O	X	O	X	O	X	X	X	△	O	O	X	△	X	O	X	O	X	O	O	O	O	O	O	O	O	-	
Y series (including DIY series) <sup>Note: 5</sup>		O	X	O	O	O	O	O	O	O	O	O	O	O	O	X	O	X	O	O	O	O	O	O	O	△	O	△	O	O	X	O	X	O	O	O	△	△	△	△	△	△	△	△	△	O	
SY series		O	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	
UHMW-PE (including LTW and UPE series)		O	O	O	O	△	△	O	O	O	O	O	O	O	△	O	O	△	O	O	△	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	△		
PK150 series		O	O	O	O	O	O	O	O	O	△	-	O	O	O	O	O	△	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

Note: 1. "O": Totally resistant, "△": Partially resistant (depending on operating conditions), "X": Not resistant, "-": No data  
 2. "Standard polyacetal" includes Standard, CB, ALF, WR, E, SE, UVR, PFS series  
 3. "LF polyacetal" includes LFV, LFG and LFB series. NLF, HG and MWS series.  
 4. KV series takes the corrosion resistance of stainless steel pins into account.  
 5. Y series takes the corrosion resistance of stainless steel pins into account.  
 6. Do not use plastic crescent chain, KV150, HS, DIA, MPD, or MF series chains in environments where the chain will be exposed to liquids such as liquid detergents or chemical solutions. Contact Tsubaki if you have any questions or requests.  
 7. Contact a Tsubaki representative regarding the corrosion resistance of MPW series.

# Top Chain

**Applicable products** Plastic top chain, plastic modular chain (mold to width), stainless steel top chain, plastic block chain

## 1. Selection Process for Top Chain

Follow the process below to select the top chain and the wearstrip that are most suitable for the application.

- Step 1: Check Conveyance Conditions
- Step 2: Select Top Plate Material and Chain Type
- Step 3: Select Wearstrip Material
- Step 4: Determine Coefficient
- Step 5: Calculate Chain Tension and Power Required
- Step 6: Determine Chain Type

Note: When selecting UPE series, please fill in the plastic block chain RSP80-UPE inquiry sheet on page 491 and contact a Tsubaki representative.

### Step 1. Check Conveyance Conditions

Check the operating condition as follows.

#### ■ Conveyance Conditions Checklist

1. Conveyed products	① Materials	
	② Mass per unit	g/unit
	③ Shape	
	④ Dimension (length x width x height) (diameter x height)	mm
	⑤ Direction of conveyance	
2. Conveyor layout	① Conveyance type	Straight conveyance    •    Sideflex conveyance
	② Length of conveyor	m
	③ Width of conveyor	mm
	④ Layout of conveyance	Draw a layout of the conveyance in the blank space below.
	⑤ Space	m
3. Conveying conditions	① Amount of conveyed products	BPM·Piece
	② Interval of conveyed products	mm
	③ Conveying speed	m/min
	④ Lubrication	Yes    •    No
	⑤ Stock of conveyed products (Accumulation and percentage)	Yes    •    No    (If "yes", accumulate length:    m)
4. Operating environment	① Temperature	°C
	② Conditions which may cause corrosion such as, contact with chemicals, water, and humidity (Refer to "Corrosion resistance to various fluids" on page 402.)	With    •    Without    (If "yes", name of liquid:    )
	③ Presence of abrasives which may accelerate wear such as glass fragments, paint scraps, metal powder, sand	Yes    •    No
	④ Exposure to UV radiation	Yes    •    No

2-④ Conveyance layout and others

## Step 2. Select Top Plate Material and Chain Type

### 2-1. Select Top Plate Material

Refer to below table choose a suitable top plate material according to the type of products to be conveyed.

Note: 1. See the relevant product page to check chain types, operating temperature and conditions.

2. Refer to "Corrosion resistance to various fluids" on page 402.

Table 1. Top Plate Material Selection Guide

Conveyed products	Top plate material	Lubrication			
		No lube		With lube	
		Abrasives			
		No	Yes	No	Yes
• Tin cans, aluminum cans, steel cans, metallic foil containers <sup>Note: 3</sup>	Polyacetal	C	×	A	D
• Plastics and plastic-covered containers, paper containers <sup>Note: 4</sup>	Stainless steel	D	C	B	A
• Glass bottles, glass products, ceramics <sup>Note: 5</sup>	Polyacetal	D	×	B	×
• Industrial parts <sup>Note: 6</sup>	Stainless steel	C	C	A	A

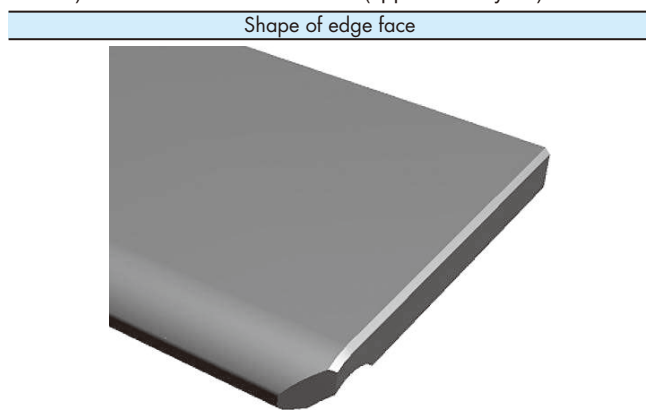
- Note: 1. A: Strongly recommended, B: Recommended, C: Very usable, D: Usable, X: Not appropriate
- Select MWS series chains when antibacterial and/or mold resistant properties are required for conveyor lines for foods and beverages. See page 42 for details on the antibacterial/mold resistant properties of MWS series products.
  - This includes beer cans, soft drink cans, cans having metal tops and bottoms and fiber sides, etc.
  - It also includes plastic, plastic coated containers and paper containers for dairy products such as milk, cheese and ice cream. Paper plate and bottom such as soap and cereal.
  - This includes glass bottles and glass containers used for liquor, food, pharmaceuticals, cosmetics, etc.
  - This includes machine parts, dies, castings, forgings, metals, bearings, bolts, nuts, etc.

### 2-2. Select top plate width

Generally, the top plate must be slightly wider than the conveyed products. When conveyed products are very wide and none of the top plate widths are satisfactory, top plates of the same width may be used in a multi-strand arrangement. Top plates of different widths can be used together, but this is not desirable since the tension on the chains will be uneven. In addition, plastic modular chains can also be used.

#### ■ Top Plate Edge Face Shape for Cut Chains

Cut edges of top plates are chamfered (approximately C0.5 to C0.8). Corners are also chamfered (approximately C2).



- Note: 1. Processed by machining.
- When manufacturing top plates to a width not noted, edges of top plates will be finished to the above specifications.
  - Special edge shapes are available upon request.
  - For a top plate with a small width, chamfer dimensions may be smaller accordingly.
  - Molded chain marks and actual chain width may not be identical because the width of the top plate is machine processed.

## Step 3. Select Wearstrip Material

Select an appropriate wearstrip material based on the chain materials.

Table 2. Wearstrip Material Selection Guide

Chain type	Wearstrip material	Lubrication			
		No lube		With lube	
		Abrasives			
		No	Yes	No	Yes
Stainless steel top chain • Straight running • Sideflexing running	Stainless steel	D	D	B	B
	Steel	D	C	B	A
	Plastic rail (P rail)				
	PMW rail	A	×	A	×
	PLF rail				
Plastic top chain, plastic block chain, plastic modular chain (Mold to width) • Straight running • Sideflexing running	M rail	A	×	×	×
	SJ-CNO				
	Stainless steel	B	D	A	A
	Steel	A	C	D	D
	Plastic rail (P rail)	D	×	A	×
	PMW rail				
	PLF rail	B	×	A	×
	M rail	A	×	×	×
	SJ-CNO				

- Note: 1. A: Strongly recommended, B: Recommended, C: Very usable, D: Usable, X: Not appropriate
- No lubrication is needed for Lambda chains.
  - Select stainless steel or steel wearstrips for KV series chains for normal temperatures, and a stainless steel wearstrip for high-temperature (over 50°C) applications.
  - Recommended metal wearstrip material is cold-rolled metal.
  - Steel wearstrip assumes oil lubrication.

#### ■ Material, Color and Features of Plastic Wearstrips

	Material, color	Features
Plastic rail (P rail)	UHMW-PE (color: white or green)	<ul style="list-style-type: none"> <li>Most commonly used rail</li> <li>Machined or extruded</li> <li>Recommended for plastic chains used under wet conditions</li> <li>Low water absorption; chemical and impact resistance are also excellent</li> </ul>
PMW rail PLF rail	Low friction, wear resistant UHMW-PE (color: white)	<ul style="list-style-type: none"> <li>Lower friction and more wear resistant than P rail</li> <li>Machined or extruded</li> </ul>
M rail SJ-CNO	Special polyamide [M rail (color: blue)], [SJ-CNO (color: purple)]	<ul style="list-style-type: none"> <li>Rail for only dry condition</li> <li>Wear resistant</li> <li>Machined</li> </ul>

- Note: Operating temperature range
- Plastic rail (P rail)
  - PLF rail and PMW rail: } : -20°C to 60°C
  - M rail, SJ-CNO: : -20°C to 80°C

# Top Chain

## Step 4. Determine Coefficient

Coefficient shown in table 3 to 6 are based on in house test data. These values may differ depending on the operation conditions, atmosphere, shape of the conveyed products, chain grime, and other conditions. Use these factors to calculate chain tension shown in step 5.

**Table 3: Coefficient of Dynamic Friction ( $\mu_1, \mu_2$ ) between Top Plate and Wearstrip**

Wearstrip and conveyed material	Lubrication	Top plate material											
		Stainless steel Note: 1	Steel	Polyacetal				KV Note: 2	DIA MPD	HTW	MF	HS	
				Standard Note: 3	LF Note: 4	CB	ALF						
Wearstrip material ( $\mu_1$ )	Stainless steel	No lube (dry)	0.35	0.35	0.25	0.20	—	0.14	0.25	0.30	0.35	0.27	0.25
		Water	0.35	—	0.25	0.20	—	0.14	0.25	—	0.35	—	—
		Soapy water	0.20	—	0.15	0.15	—	0.11	0.16	—	0.20	—	—
		Oil	0.20	0.20	—	—	—	—	—	—	—	—	—
	Steel	No lube (dry)	0.35	0.35	0.25	0.17	—	0.14	0.25	0.30	0.35	0.27	0.25
		Water	—	—	—	—	—	—	—	—	—	—	—
		Soapy water	—	—	—	—	—	—	—	—	—	—	—
		Oil	0.20	0.20	—	—	—	—	—	—	—	—	—
	Plastic rail (P rail) M rail Note: 5	No lube (dry)	0.25	0.25	0.25	0.20	0.20	0.15	—	0.30	0.30	0.27	—
		Water	0.25	—	0.25	0.20	0.20	0.15	—	—	0.30	—	—
		Soapy water	0.15	—	0.15	0.13	—	0.11	—	—	0.20	—	—
		Oil	0.15	0.15	—	—	—	—	—	—	—	—	—
PMW rail, SJ-NCO Note: 5	No lube (dry)	0.20	0.20	0.20	0.15	—	0.13	—	0.30	0.24	0.22	0.25	
	Water	0.20	—	0.20	0.15	—	0.13	—	—	0.24	—	—	
	Soapy water	0.15	—	0.12	0.12	—	0.11	—	—	0.20	—	—	
	Oil	0.15	0.15	—	—	—	—	—	—	—	—	—	
PLF rail	No lube (dry)	—	—	0.18	0.14	—	0.12	—	—	—	—	—	
	Water	—	—	0.18	0.14	—	0.12	—	—	—	—	—	
	Soapy water	—	—	0.12	0.12	—	0.11	—	—	—	—	—	
	Oil	—	—	—	—	—	—	—	—	—	—	—	
Conveyed material ( $\mu_2$ )	Metal can	No lube (dry)	0.35	—	0.25	0.20	0.19	0.14	0.23	0.30	0.35	0.28	0.22
		Water	0.35	—	0.25	0.20	0.19	0.14	0.23	—	0.35	—	—
		Soapy water	0.20	—	0.14	0.13	—	0.11	0.15	—	0.20	—	—
		Oil	—	—	—	—	—	—	—	—	—	—	—
	Glass bottle	No lube (dry)	0.25	—	0.22	0.14	0.12	0.10	0.18	0.25	0.22	0.25	—
		Water	0.25	—	0.22	0.14	0.12	0.10	0.18	—	0.22	—	—
		Soapy water	0.20	—	0.14	0.14	—	0.10	0.15	—	0.10	—	—
		Oil	—	—	—	—	—	—	—	—	—	—	—
	Plastic container	No lube (dry)	0.35	—	0.25	0.17	0.16	0.13	0.20	0.30	0.30	0.28	0.20
		Water	0.35	—	0.25	0.17	0.16	0.13	0.20	—	0.30	—	—
		Soapy water	0.20	—	0.15	0.13	—	0.11	0.15	—	0.20	—	—
		Oil	—	—	—	—	—	—	—	—	—	—	—
Paper package	No lube (dry)	0.40	—	0.31	0.29	0.29	0.22	0.35	0.38	0.35	0.38	0.32	
	Water	0.40	—	0.31	0.29	0.29	0.22	0.35	—	—	—	—	
	Soapy water	0.20	—	0.20	0.20	—	0.12	0.20	—	—	—	—	
	Oil	—	—	—	—	—	—	—	—	—	—	—	

- Note: 1. No lubrication is needed for Lambda chains.  
 2. For KV series, the coefficient of friction listed is for room temperature.  
 Under temperature conditions that exceed 50°C, use the dynamic friction coefficient 0.35. KV150 series is only for dry conditions.  
 3. Standard series, Y, E, DIY, MPW, UVR series and Plastic Crescent Chain.  
 4. LFW, LFG, LFB, NLF, WR, HG, MWS series.  
 5. M rail and SJ-CNO are only for dry use conditions.  
 6. With water lubrication, stainless steel pins will prematurely be worn and elongated earlier than plastic pins.  
 7. Depending on the type of conveyed product, the coefficient of dynamic friction coefficient can be greater than the values in ( $\mu_2$ ), which can result in adsorption.  
 To determine sliding performance, it is recommended that coefficient of friction be measured for each type of object conveyed.

**Table 5: Angle Factor ( $\alpha_L$ ) and Length Factor ( $\alpha_s$ ) when Using Curved Wearstrips**

	Top plate material	Lubrication	Sideflex angle						
			30°	60°	90°	120°	150°	180°	
Angle factor ( $\alpha_L$ )	Stainless steel or steel	No lube or water	1.20	1.45	1.75	2.10	2.50	3.00	
		Soapy water	1.10	1.25	1.35	1.50	1.70	1.85	
		Oil	1.10	1.25	1.35	1.50	1.70	1.85	
		Standard Note: 3	No lube or water	1.15	1.30	1.50	1.70	1.90	2.20
			Soapy water	1.10	1.15	1.25	1.35	1.50	1.60
		LF Note: 4	No lube or water	1.10	1.25	1.35	1.50	1.70	1.85
	Soapy water		1.10	1.15	1.25	1.35	1.50	1.60	
	CB	No lube or water	1.10	1.25	1.35	1.50	1.70	1.85	
		Soapy water	—	—	—	—	—	—	
	ALF	No lube or water	1.10	1.15	1.25	1.35	1.50	1.60	
		Soapy water	1.05	1.10	1.20	1.25	1.35	1.40	
	KV Note: 2	No lube or water	1.15	1.30	1.50	1.70	1.90	2.20	
		Soapy water	1.10	1.20	1.30	1.40	1.50	1.65	
	DIA, MPD	No lube (dry)	1.15	1.35	1.60	1.85	2.20	2.55	
		No lube or water	1.20	1.45	1.75	2.10	2.50	3.00	
	HTW	No lube or water	1.10	1.25	1.35	1.50	1.70	1.85	
Soapy water		1.10	1.25	1.35	1.50	1.70	1.85		
MF	No lube (dry)	1.15	1.35	1.55	1.75	2.05	2.35		
	No lube (dry)	1.15	1.30	1.50	1.70	1.90	2.20		
HS	No lube (dry)	1.15	1.30	1.50	1.70	1.90	2.20		
	No lube (dry)	1.15	1.30	1.50	1.70	1.90	2.20		
Length factor ( $\alpha_s$ )			0.5	1	1.6	2.1	2.6	3.1	

**Table 4: Coefficient of Rolling Friction ( $\mu_3$ ) between Conveyed Products and Plastic Rollers**

Chain type	Coefficient of rolling friction
Accumulation chain (TPDH-LBP) Curved accumulation chain (TPUS-LBP and TPUS-Y-LAP-LFB-MFR)	0.10
Curved accumulation chain (TPUS-Y-LAP, TP-30UTW-LAP, TP-36UTW-LAP)	0.07

**Table 6: Angle Factor ( $\alpha_c$ ) when Using Corner Discs**

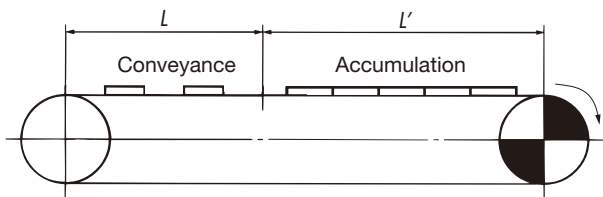
Chain type	Angle factor ( $\alpha_c$ )
TPUSR550, TPUSR826, TPUH-BO, TPUN555, TPUN550-LH, TPUN535-LH, TP-UB36, TP-50UNS (including D76)	Corner disc with integral bearing: 1.1 Corner disc without integral bearing: 1.15

- Note: 1. The  $\alpha_c$  factor is used for sideflexing movement of chains using corner discs, and is constant regardless of the sideflex angle.  
 2. TOS Plastic Crescent Chain uses sprockets in the corners. Use the values in the table above if the sprocket shaft hole includes an integral bearing.

- Note: 1. It is recommended that sideflexing conveyors be lubricated so that the chain slides smoothly on the wearstrip. In particular, when the sideflex radius spans an angle greater than 90°, the chain and the wearstrip will wear unevenly in a relatively short period of time, and chain float may occur. If lubrication is impossible, consider using a corner disc in the horizontal curved section.  
 2. Values for the KV series are for room temperature. For high temperature (over 50°), apply the value of "no lubrication" or "water lubrication" in "stainless steel" or "steel".  
 3. Standard, Y, E, DIY, MPW, UVR series and Plastic Crescent Chain.  
 4. LFW, LFG, LFB, NLF, WR, HG, MWS series.

## Step 5. Calculate Chain Tension and Power Required

### 5-1. Calculating Tension (F) for Straight-Running Movement



Note: SI units and gravimetric units  
 The formulas are given for both SI units and gravimetric units.  
 When calculating tension  $F$  with gravimetric units, the weight (kgf) in gravimetric units is the same value as the mass (kg) in SI units.

#### Description of Symbols

$F$	= Chain tension	kN{kgf}
$m_1$	= Chain mass	(kg/m)
$L$	= Length of conveyance section	(m)
$m_2$	= Mass of conveyed products	(kg/m)
$L'$	= Length of accumulation section	(m)
$m_3$	= Mass of conveyed products in accumulation section	(kg/m)
$\mu_1$	= Coefficient of dynamic friction between chain and wearstrip	(See table 3)
$\mu_2$	= Coefficient of dynamic friction between conveyed products and chain in accumulated section	(See table 3)
$\mu_3$	= Coefficient of rolling friction between conveyed products and plastic rollers	(See table 4)
$\alpha_L$	= Angle factor when using curved wearstrips	(See table 5)
$\alpha_C$	= Angle factor when using corner discs	(See table 6)
$\alpha_S$	= Length factor	(See table 5)
$\theta$	= Inclination angle	(degree)
$r$	= Sideflex radius	(m)
$P$	= Power required	(kW)
$V$	= Chain speed	(m/min)
$\eta$ <sup>Note</sup>	= Mechanical transmission efficiency for drive unit	

Note: For the mechanical transmission efficiency, check the drive unit used.

#### SI Units (kN)

##### Chain Tension

$$F = 9.80665 \times 10^{-3} \{ (2.1m_1 + m_2)L \cdot \mu_1 + (2.1m_1 + m_3)L' \cdot \mu_1 + m_3 \cdot L' \cdot \mu_2 \}$$

##### Power Required

$$P = \frac{F \cdot V}{60\eta}$$

#### Gravimetric Units (kgf)

##### Chain Tension

$$F = (2.1m_1 + m_2)L \cdot \mu_1 + (2.1m_1 + m_3)L' \cdot \mu_1 + m_3 \cdot L' \cdot \mu_2$$

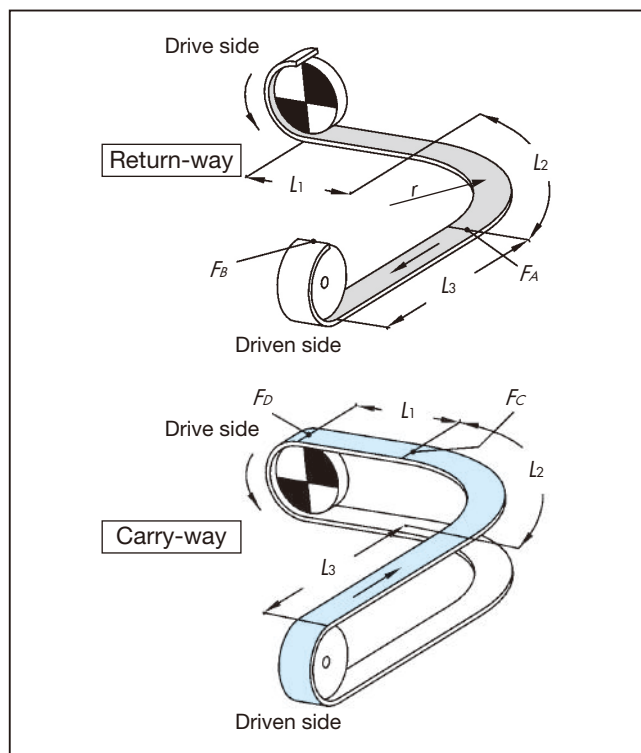
##### Power Required

$$P = \frac{F \cdot V}{6120\eta}$$

Note: When using accumulation chains (such as TTPDH-LBP), calculate by substituting  $\mu_3$  for  $\mu_2$  in the equations above.

### 5-2. Calculating Tension (F) for sideflexing conveyance (with one curved section)

The calculation is basically the same as for straight conveyance. The tension acting on the corner part is corrected using the angle coefficient. A calculation example is shown for the conveyor route below. Lubrication is recommended for curved conveyance where the chain and wearstrip slide against each other. Particularly in parts where the sideflex angle exceeds 90°, the chain or wearstrip can partially wear out in relatively short time, causing the chain to lift up. If lubrication is impossible, consider using a corner disc in the horizontal curved section.



$$F = 9.80665 \times 10^{-3} \cdot F_D \text{ (kN)}$$

#### Tension at return-way

[Tension at section A:  $F_A$ ]

$$F_A = m_1(L_1 + L_2) \mu_1 \cdot \alpha_L 90^\circ$$

$$L_2 = r \times \alpha_S 90^\circ$$

[Tension at section B:  $F_B$ ]

$$F_B = 1.1 \times (F_A + m_1 \cdot L_3 \cdot \mu_1)$$

#### Tension at carry-way

[Tension at section C:  $F_C$ ]

$$F_C = \{ F_B + (m_1 + m_2)(L_2 + L_3) \mu_1 + m_3(L_2 + L_3) \mu_2 \} \cdot \alpha_L 90^\circ$$

$$L_2 = r \times \alpha_S 90^\circ$$

[Tension at section D:  $F_D$ ]

$$F_D = F_C + \{ (m_1 + m_2)L_1 \cdot \mu_1 + m_3 \cdot L_1 \cdot \mu_2 \}$$

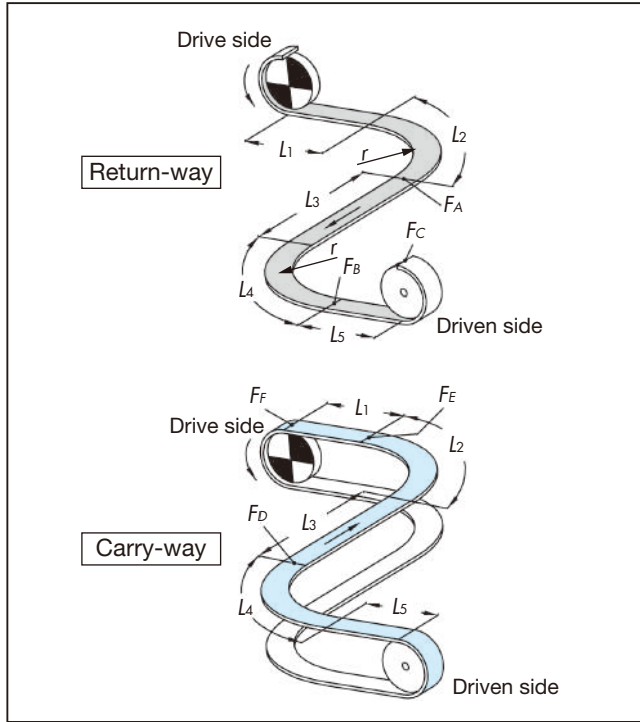
Note: 1. When using curved accumulation chains (such as type TPUH-LBP), calculate by substituting  $\mu_3$  for  $\mu_2$  in the equations above.

2. When using corner discs in the curved section, replace the angle factor  $\alpha_L$  with the corner disc angle factor  $\alpha_C$  for calculation.

# Top Chain

### 5-3. Calculating Tension (F) for Sideflexing Conveyance (with Two Curved Sections)

When sliding the chain against curved wearstrip, no more than two 90° curves should be allowed in one conveyor. Otherwise it may cause pulsation of the chain movement. To include additional curved sections, consider splitting the conveyor into sections or use the corner disc system.



$$F = 9.80665 \times 10^{-3} \cdot F_F \text{ (kN)}$$

#### Tension at return-way

[Tension at section A:  $F_A$ ]

$$F_A = m_1(L_1 + L_2) \mu_1 \cdot \alpha_L 90^\circ$$

$$L_2 = r \times \alpha_S 90^\circ$$

[Tension at section B:  $F_B$ ]

$$F_B = \{F_A + m_1(L_3 + L_4) \mu_1\} \alpha_L 90^\circ$$

$$L_4 = r \times \alpha_S 90^\circ$$

[Tension at section C:  $F_C$ ]

$$F_C = 1.1 \times (F_B + m_1 \cdot L_5 \cdot \mu_1)$$

#### Tension at carry-way

[Tension at section D:  $F_D$ ]

$$F_D = \{F_C + (m_1 + m_2)(L_4 + L_5) \mu_1 + m_3(L_4 + L_5) \mu_2\} \cdot \alpha_L 90^\circ$$

$$L_4 = r \times \alpha_S 90^\circ$$

[Tension at section E:  $F_E$ ]

$$F_E = \{F_D + (m_1 + m_2)(L_2 + L_3) \mu_1 + m_3(L_2 + L_3) \mu_2\} \cdot \alpha_L 90^\circ$$

$$L_2 = r \times \alpha_S 90^\circ$$

[Tension at section F:  $F_F$ ]

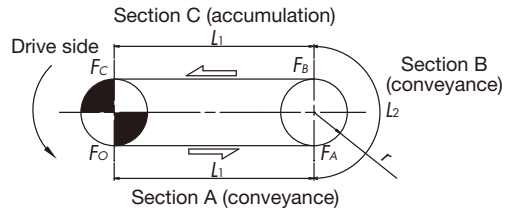
$$F_F = F_E + (m_1 + m_2)L_1 \mu_1 + m_3 \cdot L_1 \cdot \mu_2$$

Note: 1. When using curved accumulation chains (such as TPUS-LBP), calculate by substituting  $\mu_3$  for  $\mu_2$  in the equations above.  
 2. When using corner discs in the curved section, replace the angle factor  $\alpha_L$  with the corner disc angle factor  $\alpha_C$  for calculation.

### 5-4. Calculating Tension (F) for Sideflexing Movement (Horizontal Drive)

Applicable chain	TPUH-BO (horizontal conveyance), Plastic Crescent Chain (TORP, TOSP), Stainless Steel Top Chain (TO, TU)
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The calculation is basically the same as for straight conveyance. The tension acting on the corner part is corrected using the angle coefficient. A calculation example is shown for the conveyor route below.



$$F = 9.80665 \times 10^{-3} \cdot F_C \text{ (kN)}$$

[Tension at section A:  $F_A$ ]

$$F_A = (m_1 + m_2) \cdot L_1 \cdot \mu_1$$

[Tension at section B:  $F_B$ ]

$$F_B = \{F_A + (m_1 + m_2) \cdot L_2 \cdot \mu_1\} \cdot \alpha_C$$

$$L_2 = r \cdot \alpha_S 180^\circ$$

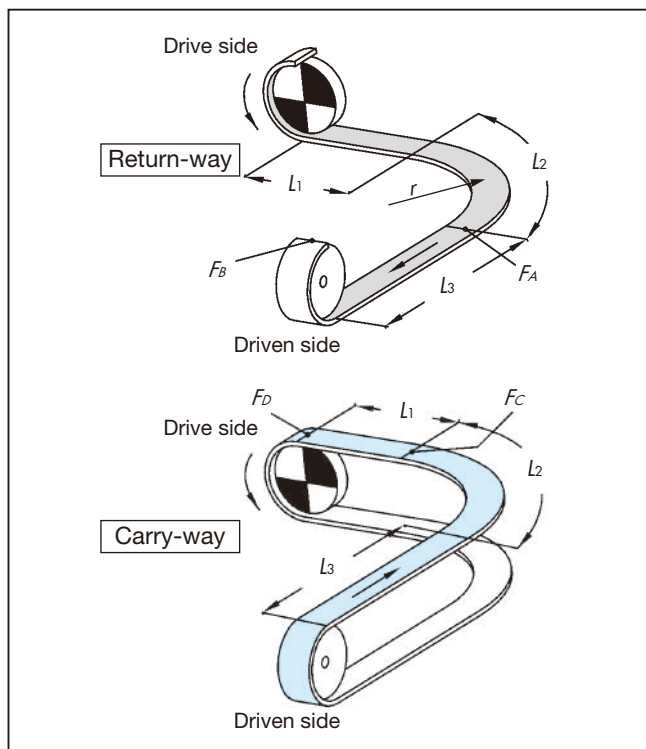
[Tension at section C:  $F_C$ ]

$$F_C = F_B + (m_1 + m_3) \cdot L_1 \cdot \mu_1 + m_3 \cdot L_1 \cdot \mu_2$$



### 5-5. Calculating Tension (F) for Sideflexing Movement (with one Curved Section) of TTUP(T)-M and TTUPM838H

The coefficient values shown in Table 7 is obtained from our in-house experiment. The values are subject to different variables such as operating conditions, shape and material of conveyed products. The value will be used in the tension calculations.



$$F = 9.80665 \times 10^{-3} \cdot F_D \text{ (kN)}$$

#### Tension at return-way

[Tension at section A:  $F_A$ ]

$$F_A = m_1(L_1 + L_2) \mu_1 \cdot \alpha_L 90^\circ$$

$$L_2 = r \times \alpha_S 90^\circ$$

[Tension at section B:  $F_B$ ]

$$F_B = 1.1 \times (F_A + m_1 \cdot L_3 \cdot \mu_1)$$

#### Tension at carry-way

[Tension at section C:  $F_C$ ]

$$F_C = \{F_B + (m_1 + m_2)L_2 \cdot (\mu_1 + \mu_4) + (m_1 + m_2) \cdot L_3 \cdot \mu_1 + m_3(L_2 + L_3) \cdot \mu_2\} \times \alpha_L 90^\circ$$

$$L_2 = r \times \alpha_S 90^\circ$$

[Tension at section D:  $F_D$ ]

$$F_D = F_C + \{(m_1 + m_2)L_1 \cdot \mu_1 + m_3 \cdot L_1 \cdot \mu_2\}$$

Table 7. Magnet Coefficients ( $\mu_4$ )

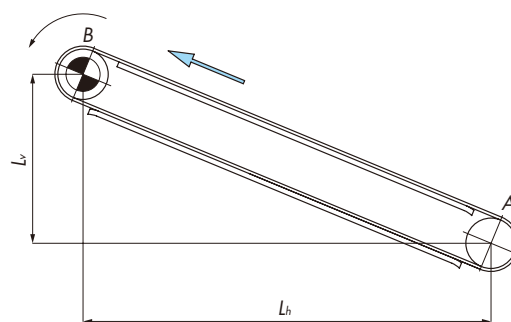
Lubrication state		Magnet coefficients	
		No lubrication/water lubrication	
Top plate material	CB	0.47	
	ALF		
	HG		

### 5-6. Calculating Tension (F) for Inclined Movement

The effects of speed, conveyed products, center of gravity, mass, environment, and other parameters will make it difficult to determine precisely the maximum inclination angle. Although the values given in Table 8 can serve as guidelines, it will be necessary to perform tests.

Table 8: Calculating Tension for Inclined Movement

Chain material	Without lubrication (dry)	Soapy water lubrication	Oil lubrication
Steel-based	10°	-	6°
Standard (Polyacetal)	5°	3°	-



$$F = 9.80665 \times 10^{-3} \cdot F_B \text{ (kN)}$$

#### Tension at return-way

[Tension at section A:  $F_A$ ]

$$F_A = 1.1m_1(L_h \cdot \mu_1 - L_v)$$

$$F_A < 0, F_A = 0$$

#### Tension at carry-way

[Tension at section B:  $F_B$ ]

$$F_B = F_A + \{(m_1 + m_2)(L_h \cdot \mu_1 + L_v)\}$$

#### Tension of chain

$$F = F_B$$

## Step 6. Determine Chain Type

Select a top chain having a maximum allowable load larger than the maximum tension (F) to be applied to the chain. Consult the maximum allowable load consider conveyor speed and ambient temperature.

To obtain maximum allowable load, refer to page on 421 to 435 for "allowable load graphs".

$$F \leq \text{Maximum allowable load (coupled with speed and temperature)}$$

When the maximum allowable load is insufficient, it can be corrected by using top plates with narrower width and increasing the number of chain strands, or by splitting it into many short conveyors. Also selecting a chain with a larger maximum allowable load. To determine an optimum chain type, remember to take environmental conditions into account.

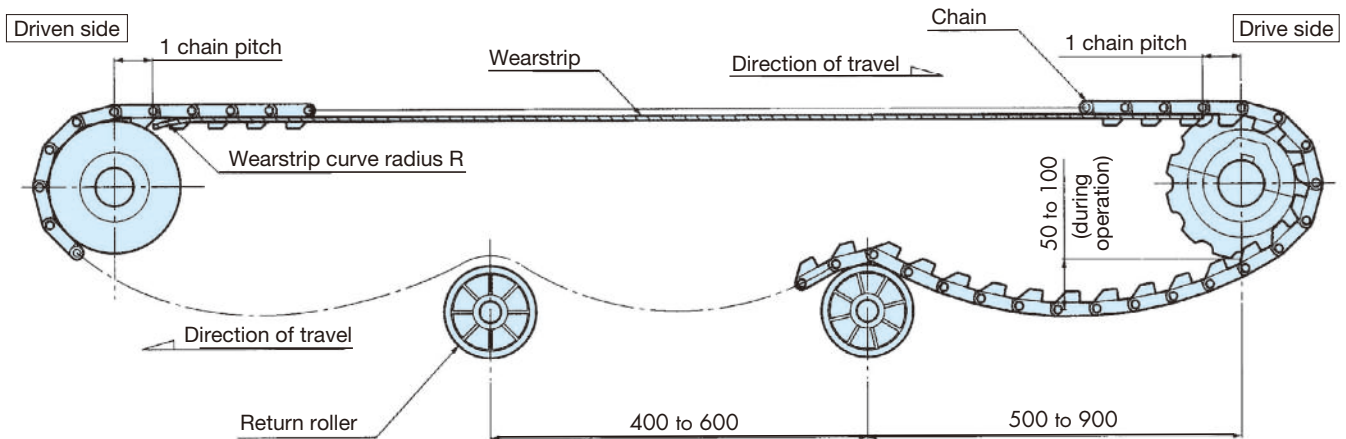
# Top Chain

**Applicable products** Plastic top chain, plastic modular chain (mold to width), stainless steel top chain, plastic block chain

## 2. Conveyor Design

Wearstrip arrangement depends on the installation space and other factors. An example is shown in the figure below. Refer to page on 412 for the layout of the return-way of the chain.

Note: Refer to page on 440 for "conveyor design" of plastic modular chains (mold to width).



### 1) Chain slack

The distance between return rollers should be spaced at intervals of 500 to 900 mm. The amount of slack between rollers should be 50 to 100 mm. This slack prevents tooth jumping. Tooth jumping may occur when the amount of slack and/or intervals falls outside of this range.

### 2) Engagement angle

The engagement angle between drive sprocket and the chain must be greater than 150°.

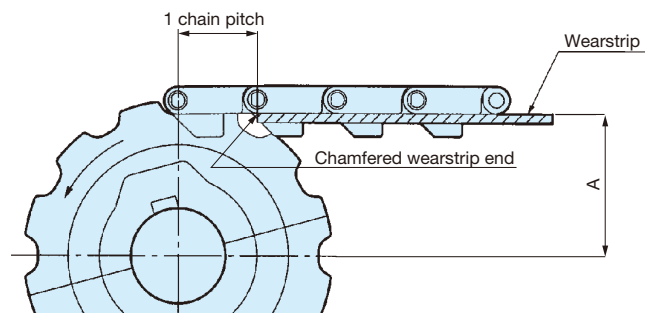
### 3) Wearstrip ends

The space between the center of drive/driven shaft and the end of wearstrip should be set to one pitch of the chain used. In addition, the end of the wearstrip faced to driven side should be rounded or chamfered downward in order to prevent the chain from snagging or catching on the wearstrip.

## 2-1. Wearstrip Positioning on the Drive/Driven Side

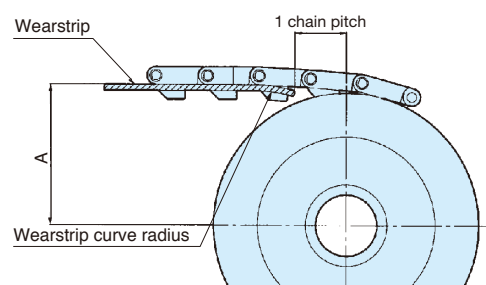
### 2-1-1. Positioning sprocket and wearstrip on carry-way

[ Drive side ]

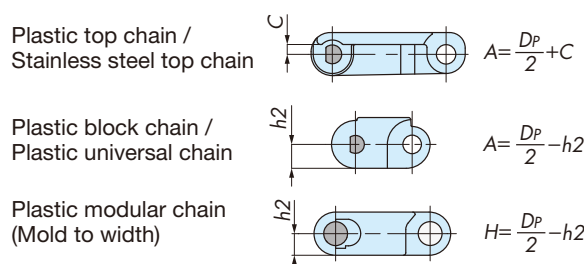
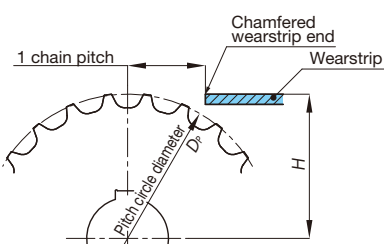


[ Driven side ]

When using an idler wheel (no teeth) for chains with top plates



For plastic modular chain (mold to width)



Note: 1.  $D_p$ : Pitch circle diameter  
 2. Adopt the pitch circle diameter of sprocket having the equivalent number of teeth to the idler wheel.

# Top Chain

## 2-2. Straight Wearstrips (Plastic Rails) on Carry-Way

### 2-2-1. Carry-Way Support

1. The guide width  $G_w$  should be about 2 mm wider than the width of the base chain hinge. (Refer to fig. 1) (Refer to 2-2-4. for guide width  $G_w$ .)
2. When multiple strands of chains are traveling in opposite directions, or in the same direction but at different speeds, use T rails so that the chain top plates do not make contact with each other (Refer to fig. 2).
3. When multiple strands of chains are traveling in the same direction at the same speed, the recommended gap between the chain top plates is 1.4 to 3 mm (Refer to fig. 3).
4. The use of wearstrips is recommended even though no wear will occur with the frame itself.
5. Considering wear, the wearstrip must be at least 3 mm thick.

Fig. 1: Chain carry-way support

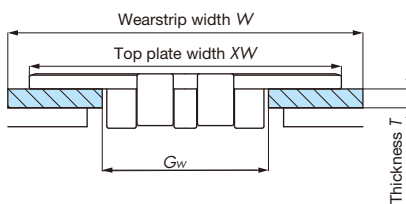


Fig. 2. When multiple strands of chains are traveling at different speeds

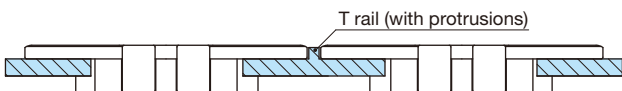
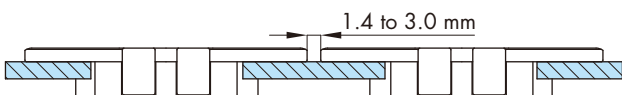
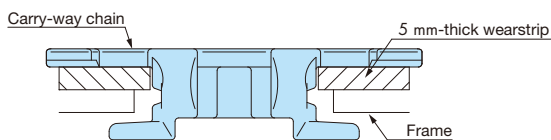


Fig. 3. Multiple strands having the same speed



### 2-2-2. Wearstrip When Using Chains with Float-Preventive Tabs

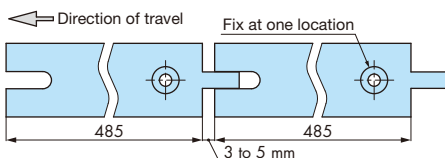


### 2-2-3. Mounting Straight Wearstrip

#### PR rails, PH rails and flat rails

Use a screw to attach only one end of the wearstrip to the frame and leave an appropriate clearance at the joint to allow for thermal expansion.

(Clearance for PH rails: 3 to 5 mm)



Note: 1. Coefficients of linear expansion

Plastic rail (P rail)	} :20×10 <sup>-5</sup> /°C
PLF and PMW rail	
M rail	:9×10 <sup>-5</sup> /°C

2. Operating temperature of wearstrips

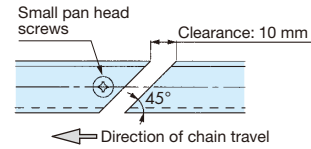
Plastic rail (P rail)	} :20°C to 60°C
PLF and PMW rail	
M rail	:20°C to 80°C

3. Do not use in environments where wearstrip components will be exposed to steam.
4. Refer to page on 417 for rails for KV series.

#### Mounting long straight wearstrip (extruded wearstrips such as Z, T, L, and flat)

##### [When the conveyor length is long]

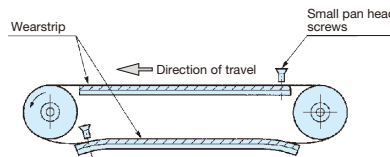
Assuming that these wearstrips are installed in 1-meter units, a clearance should be left between wearstrips to prevent chain sag as shown in the illustration below. (Clearance between long straight wearstrips: 10 mm per meter)



Note: If more than 1 meter, apply the coefficient of linear expansion to calculate the clearance dimension.

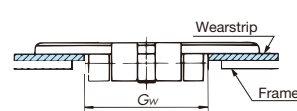
##### [When the conveyor length is short]

If both ends of the wearstrip are secured using small pan head screws, the wearstrip will warp (become rippled) due to the difference in coefficient of thermal expansion between the wearstrip and metal frame. Attach only one end of the wearstrip using a small pan head screws.



### 2-2-4. Guide Clearance for Chain and Wearstrip Inner Gap (Straight Sections)

#### [Plastic or stainless steel top chain]



#### [Plastic block chain]

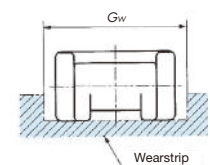


Table 9: Plastic Top Chain, Stainless Steel Top Chain

Chain type	Guide width $G_w$
TTP, TTPH, TPF, TPS, TP-OTD, TPH, TPM, TPM-SN, TT	44
TTPDH, TTPDH-LBP	140
TN	38
TPRF2040, TP-1843G	23
TPRF2060, TS, TTUPM-P, TTUPM-PC	32.5
TTPT, TSA	44.5
TTUP, TTUPH, TTU, TTUPS-H	43
TPU, TPUM	44
TPU-USR	46
TPUS	58
TPUS-LBP, TPUS-Y-LAP	60
TPUSR, TP-PTS	37
TNU	38
TRU, TTUP-LIPC	44.5
TTUP(T)-M, TPU(T)-LH, TPUH-BO, TTKU, TO, TU, TTUPM838H	45
TPM	32
TPSS	62
TTUPS	61.5
TP-36AK	31
TP-PT, TP-1873T, TP-UB36	34
TP-1873G	35
TP-30UTW-LAP	50.5
TP-36UTW-LAP	62
TOSP	27
TORP	48

Table 10: Plastic Block Chain, Plastic Universal Chain

Chain type	Guide width $G_w$
TPUN, TPUN-LH, TP-50UNS, TP-50UNS-D76 Note: 1	58
TP-50UNT-95	53
RSP35	16
RSP40, RSP40-SL300	23
RSP50	25.5
RSP40-T-CU	34
RSP60, RSP60-CU	33
RSP60-2, RSP-PO12-2S	63
RSP60-CU-2	66
RSP80	43
RSP50-SL350 Note: 2	26

Note: 1. Recommended wearstrip height for TPUN and TPUN-LH chains is 15 to 22 mm.

2. If support with top plate surface, recommended guide width is 24.

3. If the chain type is the same, the guide width is the same whether plastic or stainless steel pins are used.

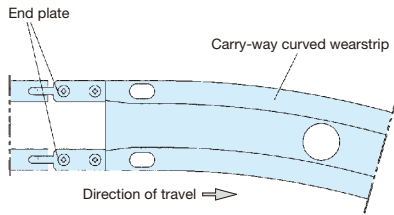
# Top Chain

## 2-3. Mounting Curved Wearstrips on Carry-Way

### 2-3-1. Design for Curved Wearstrip

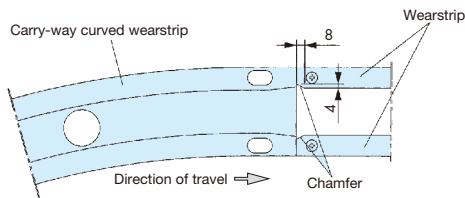
#### ■ Design for Head End

Install end plates on the straight wearstrip closely in front of the head end of the curved wearstrip.



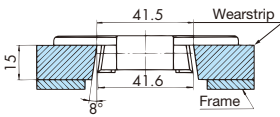
#### ■ Design for Tail End

Install end plates on the straight wearstrip closely after the tail end of the curved wearstrip. The edge of the wearstrip should be chamfered to prevent interference with the chain.

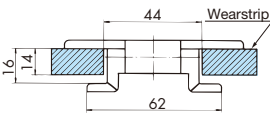


### 2-3-2. Chain and Wearstrip Cross-Sections

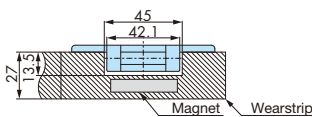
#### ● TTUP, TTUPH



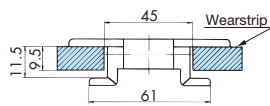
#### ● TPU, TPUM



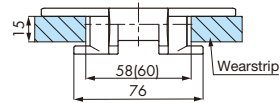
#### ● TTUP(T)-M



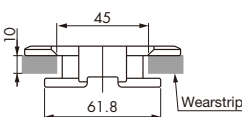
#### ● TPU(T)-LH, TPU-USR



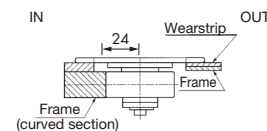
#### ● TPUS, TPUS-LBP, TPUS-Y-LAP



#### ● TPUH-BO

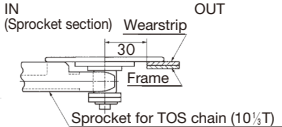


#### ● TORP



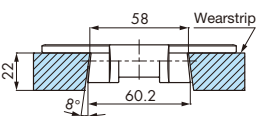
Sprocket section is identical to TOSP.  
Note: Refer to page on 416.

#### ● TOSP

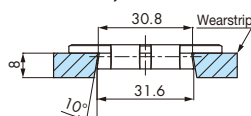


Note: Refer to page on 416.

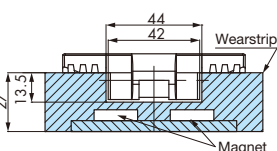
#### ● TTUPS



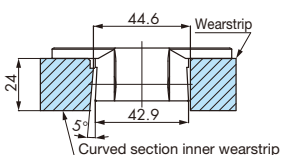
#### ● TTUPM-P, -PC



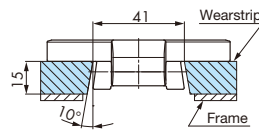
#### ● TTUPM838H



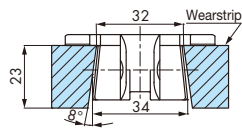
#### ● TTUP-LLPC



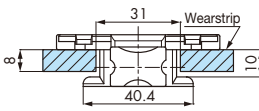
#### ● TTUPS-H



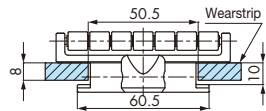
#### ● TP-UB36



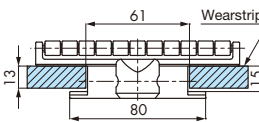
#### ● TP-36AK



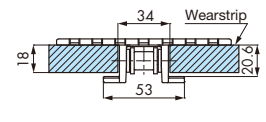
#### ● TP-30UTW-LAP



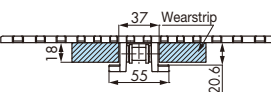
#### ● TP-36UTW-LAP



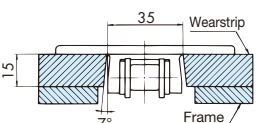
#### ● TP-PT



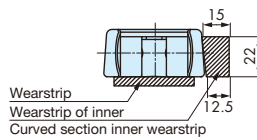
#### ● TP-PTS



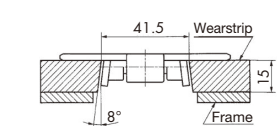
#### ● TNU



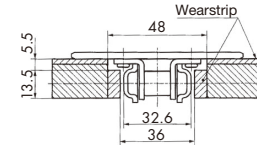
#### ● TPUN, TP-50UNS, TP-50UNS-D76



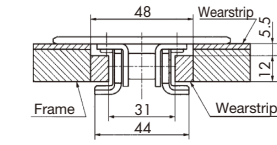
#### ● TTU



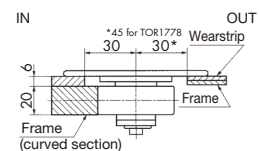
#### ● TTKU



#### ● TRU

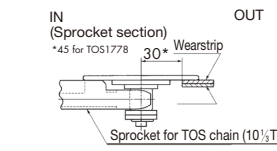


#### ● TOR



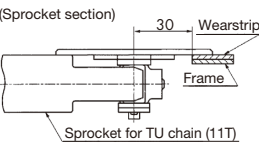
Sprocket section is identical to TOS.  
Note: Refer to page on 416.

#### ● TOS

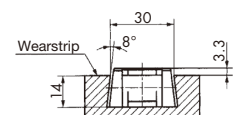


Note: Refer to page on 416.

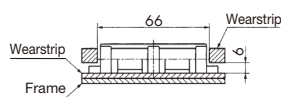
#### ● TU



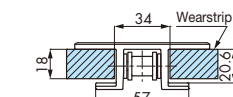
#### ● RSP60-CU



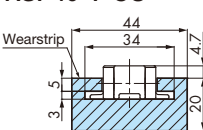
#### ● RSP60-CU-2



#### ● TP-1873-T



#### ● RSP40-T-CU



Note: 1. The use of corner discs is recommended with TPUSR, TPUN555, TPUN550-LH, TPUN535-LH, TP-UB36, TP-50UNS, and TP-50UNS-D76 chains.  
2. Special magnetic curved plastic rails should be used with TTUP(T)-M and TTUPM838H. Contact a Tsubaki representative for product details.

### 2-4. Straight Section Return-Way Layout

The return-way layout will vary according to the type of chain, the type of products being conveyed and the layout of the conveyor, but in general, layouts will be similar to those illustrated below.

<p>When working tension is less than 50% of maximum allowable chain load</p>	<p><b>Supported by return rollers</b></p> <p>This is the most common and recommended layout.</p> <ul style="list-style-type: none"> <li>• Angle of chain wrap on the drive sprocket must be at least 150°.</li> <li>• Make sure the return rollers rotate freely. If they do not rotate freely, localized sliding will occur, possibly generating wear dust or causing the top plate to wear unevenly.</li> <li>• Highly rotational return roller or return rollers with integrated bearings are recommended for the return rollers (Refer to page on 363 to 364).</li> <li>• For chain speeds greater than 50 m/min, dimension C must be less than 300 mm.</li> <li>• As to the installation dimension of the return rollers, B should be greater than C. If span C is the largest value, conveyance may not run smoothly.</li> </ul> <p>A : 50 to 100 mm (during operation)          B : 500 to 900 mm          C : 400 to 600 mm          D : Less than half the outer diameter of the sprocket</p> <p>May vary depending on chain type and conveying conditions. To be used only as a basic guide.</p> <p>Note: See the following pages for details.</p>
<p>When working tension is greater than 50% of maximum allowable chain load</p>	<p><b>Supported by wearstrip fitted with tabs</b></p> <p>Using a wearstrip to support chains fitted with float-preventive tabs eliminates sliding on the top plate surface. This is particularly applicable in situations where damage (such as scratching) to the top plate's upper surface must be avoided during conveying.</p> <ul style="list-style-type: none"> <li>• Angle of chain wrap on the drive sprocket must be at least 150°.</li> </ul> <p>A : 50 to 100 mm (during operation)          B : 500 to 900 mm</p> <p>May vary depending on chain type and conveying conditions. To be used only as a basic guide.</p> <p>Note: See the following pages for details.</p>
<p>When working tension is less than 50% of maximum allowable chain load</p>	<p><b>Supported by serpentine-style wearstrip</b></p> <p>Supporting the top plates only in localized areas may result in uneven wear. Install the wearstrip in an "8"-shaped or wavelike layout so that the top chain plates are fully supported at all points. The construction should be such that extraneous matter, dirt, etc., falls through easily.</p> <ul style="list-style-type: none"> <li>• Angle of chain wrap on the sprocket must be at least 150°.</li> </ul> <p>A : 50 to 100 mm (during operation)          B : 500 to 900 mm</p> <p>May vary depending on chain type and conveying conditions. To be used only as a basic guide.</p> <p>Note: See the following pages for details.</p>
<p>When working tension is greater than 50% of maximum allowable chain load</p>	<p><b>Supported by sliding shoes</b></p> <p>Suitable for relatively slow-speed conveying conditions (less than 50 m/min). Generally used for accumulation chain (TPDH-LBP) or plastic roller tables (ST/RT).</p> <ul style="list-style-type: none"> <li>• Angle of chain wrap on the drive sprocket must be at least 150°.</li> </ul> <p>A : 50 to 100 mm (during operation)          B : 500 to 900 mm          C : 400 to 600 mm</p> <p>May vary depending on chain type and conveying conditions. To be used only as a basic guide.</p> <p>Note: See the following pages for details.</p>
<p>When working tension is less than 50% of maximum allowable chain load</p>	<p><b>Using wearstrips only</b></p> <p>Although this is an economical option for layouts, it has a disadvantage in that the upper surface of the top plates is susceptible to damage from sliding. Suitable for chains with relatively large back-flex radius.</p> <ul style="list-style-type: none"> <li>• Angle of chain wrap on the drive sprocket must be at least 150°.</li> <li>• The radius of curvature (R) on both ends of the wearstrips must be greater than the backflex radius of the chain. (See table 11 on the next page.)</li> </ul> <p>A : 50 to 100 mm (during operation)          B : 500 to 900 mm</p> <p>May vary depending on chain type and conveying conditions. To be used only as a basic guide.</p>
<p>When working tension is greater than 50% of maximum allowable chain load</p>	<p><b>No support</b></p> <p>This conveyor layout is normally not recommended because the tension of the return-way from the weight of the chain causes chain vibration and prevents smooth operation. If this method is unavoidable in the case of short conveyor lengths (less than 1.5 m), provide a take-up mechanism on the driven side or splice the chain in case the chain elongates.</p> <ul style="list-style-type: none"> <li>• Angle of chain wrap on the drive sprocket must be at least 150°.</li> <li>• The amount of chain slack A should be approximately 10% of the conveyor length B.</li> </ul> <p>Note: See the following pages for details.</p>

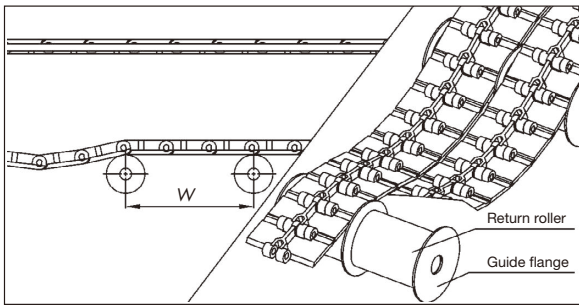
# Top Chain

## 2-4-1. Return-Way Layout Details

### ■ Support system using return rollers

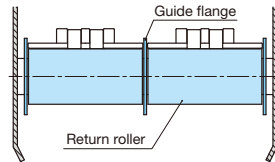
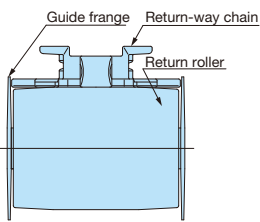
- Return rollers support the top surface of the chain on the return-way.
- When using return rollers, check the backflex radius of chains in Table 11. The radius of the return roller must be greater than the backflex radius of the chain. However, as long as the backflex radius is less than around 300 mm, return rollers can be used by keeping the chain slack low. These conditions do not apply to roller tables or accumulation chains.
- When using plastic top chain, the ratio of the inner diameter to the outside diameter of the return rollers should be 1:4 to ensure smooth rotation of rollers. In addition, TP-IR18 and TP-IR60 Return Rollers which use a soft material on the outer surface of the roller (only for dry conditions); and TP-C121963RNT-RR, TP-C121966RNT-RR, TP-C121967RNFT-RR, TP-C121970RNFT-RR, TP-RR61544-RB, TP-RR62032-RB, TP-RR62044-RB, TP-RR30850, TP-RR41050 (for dry and wet conditions) Return Rollers are effective in improving rotational performance.

Note: Use highly rotational return roller when the chain speed is less than 50 m/min.



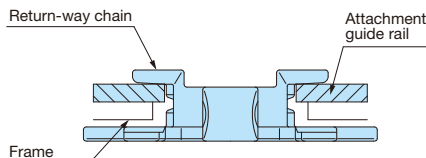
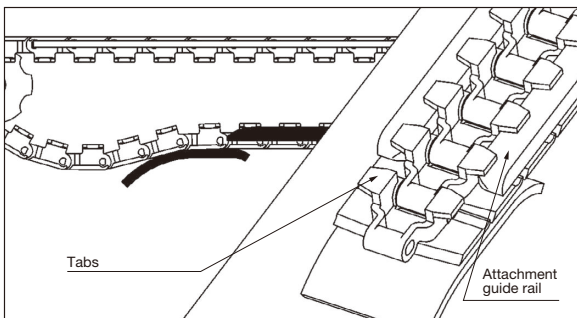
Single-strand

Multi-strand



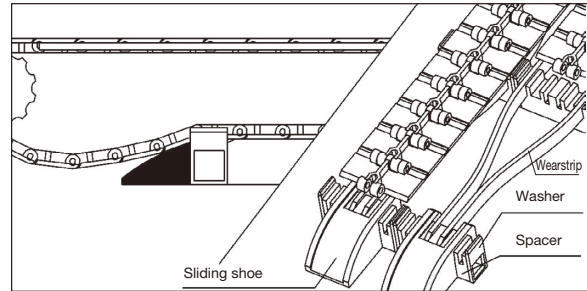
### ■ Support system using wearstrip fitted with float-preventive tabs

(when damage to the top plate's upper surface must be avoided)



### ■ Support system using wearstrips

Wearstrips should be positioned to make contact evenly across the chain width, taking into account wear on the chain-conveying surface. The construction should be such that extraneous matter, dirt, etc., falls through easily.



### ■ Support system using sliding shoes

Secure a 20mm-dia. polished (cold-finished) steel bar to the frame and attach the sliding shoe(s) by snapping them onto the steel bar. Use a collar or other hardware to prevent the sliding shoes from shifting laterally. With the steel bar serving as a pivot, the sliding shoes will rock up and down with the movement of the chain. The ★ mark in the illustration above indicates the location of a hole used to connect multiple sliding shoes horizontally in tandem to span a multi-strand conveyor.

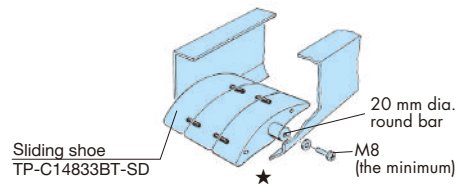


Table 11: Backflex Radius of Chains

Type	Chain	Backflex radius mm	Type	Chain	Backflex radius mm	
Plastic top chain, straight running	TTP	40	Plastic top chain, sideflexing running	TTUP, TPU	40	
	TTPT, TTPDH	50		TPU-USR, TTUPS	170	
	TTPM	25		TTUPS-H	35	
	TPF, TPS	40		TTUPH	50	
	TP-OTD	50		TTUP(T)-M, TPU(T)-LH, TPUH-BO, TPUS	20	
	TPH, TTPH	35		TTUPM-P	70	
	TPSS	50		TTUP-LLPC	100	
	TPM(-SN)	15		TTUPM838H	30	
	TPRF2040	350		TPUB36, TTUPM-PC	15	
	TPRF2060	50		TPUM	25	
	TN	100		TPUSR826	50	
	TTPDH-LBP	400		TPUSR550	75	
	Plastic block chain, straight running/ sideflexing running	RSP35		110	TP-36AK	100
		RSP35-KV180		150	TNU	150
RSP40		125	TP-1873T	305		
RSP40-SL300		50	TP-1843G, 1873G	-		
RSP40-T-CU		25	TPUS-LBP	400		
RSP50		200	TPUS-Y-LAP	250		
RSP50-SL350		140	TP-30UTW-LAP	180		
RSP60, RSP80		180	TP-36UTW-LAP	160		
RSP-PO8PF		125	TPUN555, TPUNLH	25		
RSP-PO8PFT		125	TP-50UNS	25		
RSP60-2		450	TP-50UNS-D76	-		
RSP-PO12-2S		400	TP-50UN-T95	500		
RSP60-CU		250	TPCC	35		
RSP60-CU-2		150	TORP, TOSP	-		
Stainless steel top chain, straight running	TT	180	Stainless steel top chain, sideflexing running	TTU	100	
TS, TSA	330	TTKU, TRU		300		
		TO, TU		-		

Note: 1. The “-” symbol indicates chains that have (almost) no backflex radius.  
 2. Backflex radius for RSP60 chains before design upgrade was 450 mm.  
 3. If the chain types are identical, the backflex radius will be the same whether stainless steel or plastic pins are used.

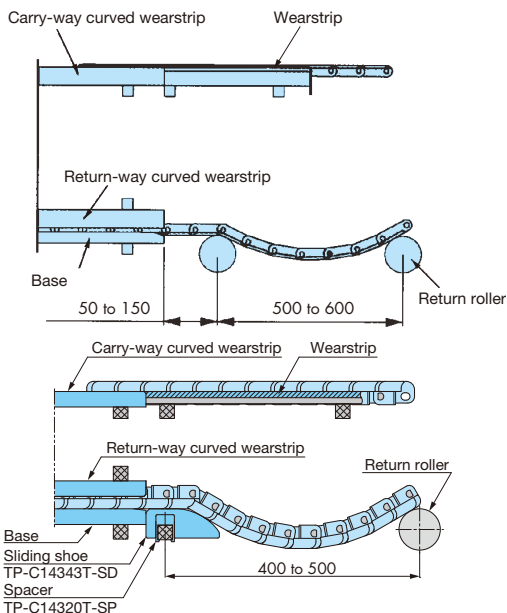
# Top Chain

## 2-5. Curved Section Return-Way Layout

### 2-5-1. Design for Return-Way Curved Wearstrip

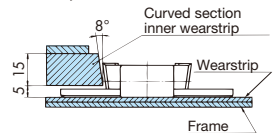
Position return rollers or sliding shoes (TP-C14343T-SD) at both ends of the curved wearstrip to guide the chain. Location of the return rollers or sliding shoes should be 50 to 150 mm away from the base.

#### Cross-section of conveyor

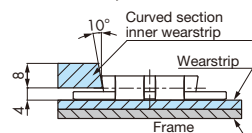


### 2-5-2. Chain and Wearstrip Cross-Sections

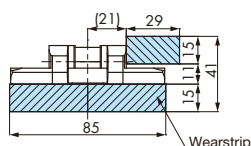
#### ●TTUP, TTUPH



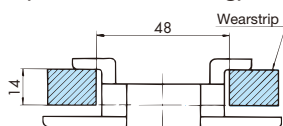
#### ●TTUPM-P, -PC



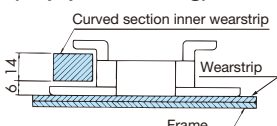
#### ●TTUPM838H



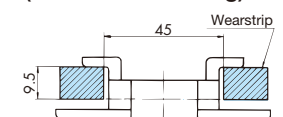
#### ●TPU, TPUM (Attachment sliding)



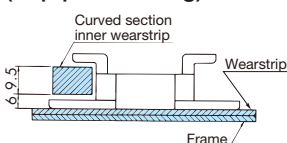
#### (Top plate sliding)



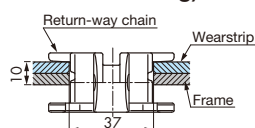
#### ●TPU(T)-LH, TPU-USR, TPUH-BO (Attachment sliding)



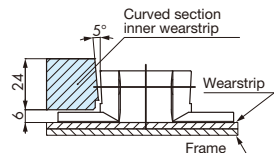
#### (Top plate sliding)



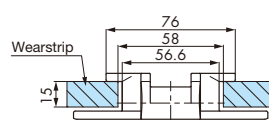
#### ●TPUSR (Attachment sliding)



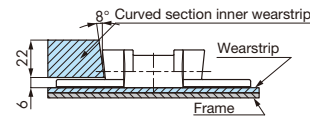
#### ●TTUP-LLPC



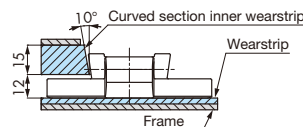
#### ●TPUS, TPUS-LBP TPUS-Y-LAP



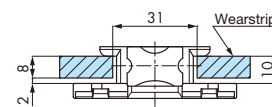
#### ●TTUPS



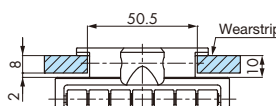
#### ●TTUPS-H



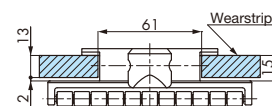
#### ●TP-36AK



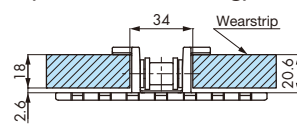
#### ●TP-30UTW-LAP



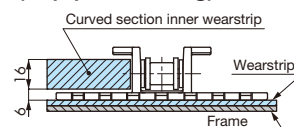
#### ●TP-36UTW-LAP



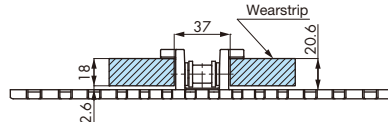
#### ●TP-PT (Attachment sliding)



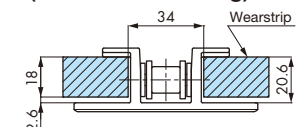
#### (Top plate sliding)



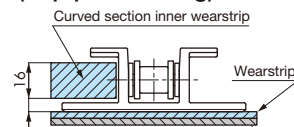
#### ●TP-PTS



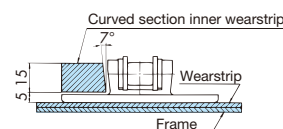
#### ●TP-1873-T (Attachment sliding)



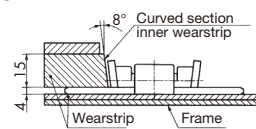
#### (Top plate sliding)



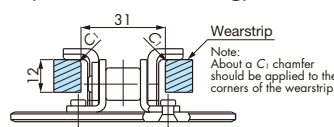
#### ●TNU



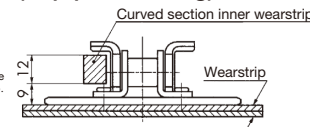
#### ●TTU



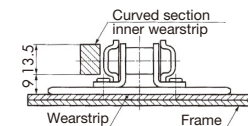
#### ●TRU (Attachment sliding)



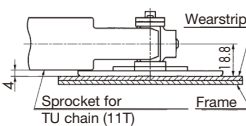
#### (Top plate sliding)



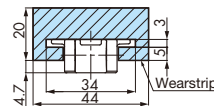
#### ●TTKU



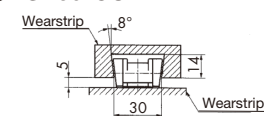
#### ●TU



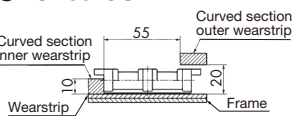
#### ●RSP40-T-CU



#### ●RSP60-CU



#### ●RSP60-CU-2

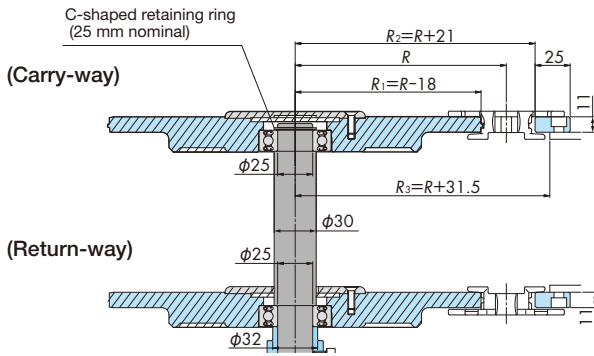


Note: Corner discs should be used with TPUSR, TPUN550-LH, TPUN535-LH, TP-UB36, TP-50UNS, TP-50UNS-D76 chains.

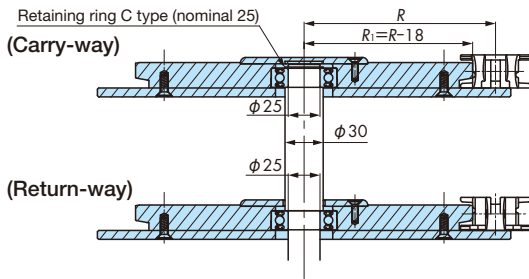
# Top Chain

## 2-6. Curved Section Using Corner Disc on TPUSR Chain

### TPUSR826



### TPUSR550



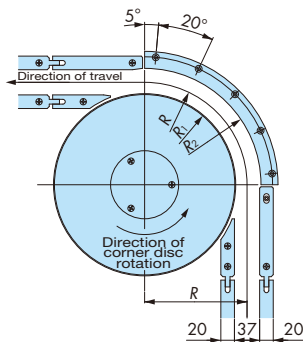
(Description of symbols)

- $R$ : Sideflex radius of chain (mm)
- $R_1$ : Outer radius of corner disc (mm)
- $R_2$ : Inside radius of wearstrip for outside of chain (mm)
- $R_3$ : Outside wearstrip inner circumference of conveyor frame used to secure (mm)

As shown in the figure below, for chains supported by return rollers, rollers must be installed to guide the straight portion of the return-way chain at the point where the chain enters and exits the corner.

Note: Recommended to use under dry conditions.

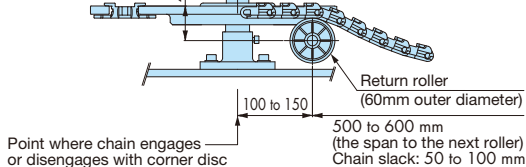
### Drawing



### (Carry-way)



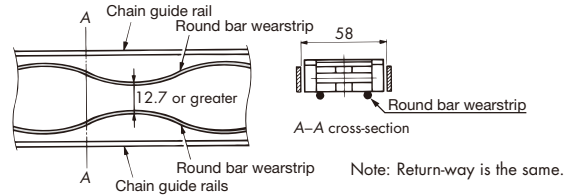
### (Return-way)



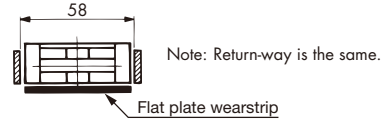
## 2-7. Conveyor Design for TPUN-LH Chain

### 2-7-1. Using Wearstrips

#### Round bar wearstrip



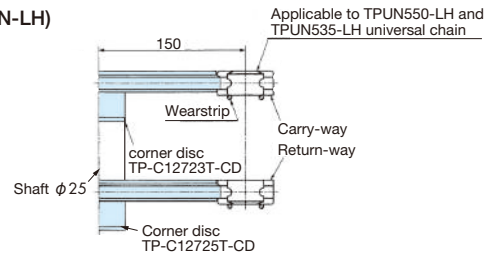
#### Flat plate wearstrip



### 2-7-2. Using Corner Discs

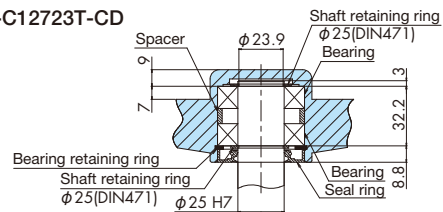
#### Curved section

(for TPUN-LH)

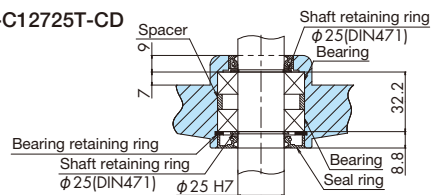


#### Corner disc mounting (closed shaft hole)

##### TP-C12723T-CD



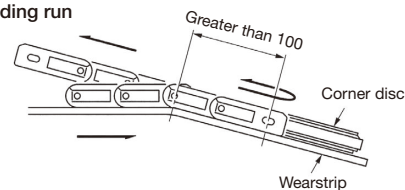
##### TP-C12725T-CD



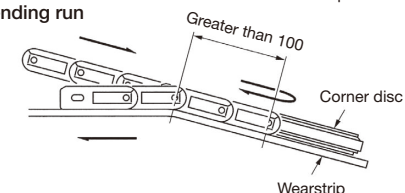
#### Elevator conveyance curved sections

The corner disc and the section of chain where it engages or disengages with the corner disc must be in the same plane so that the chain does not derail from the corner disc.

#### Ascending run



#### Descending run

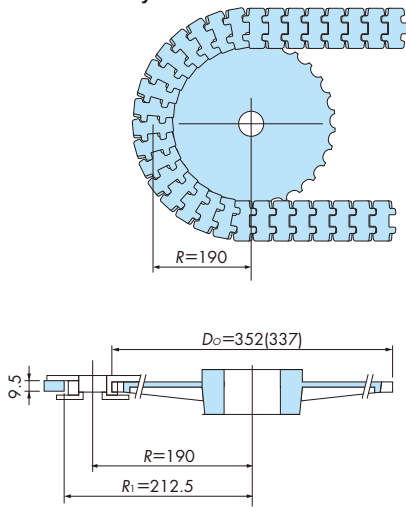




2-8. Horizontal Conveyor Design for TPUH-BO

2-8-1. Sprockets and Corner Disc for Horizontal Conveyance

Horizontal conveyance



(Discription of symbols)

- $D_o$ : Outer diameter of horizontal conveyance sprocket (corner disc) (mm)
- $R$ : Sideflex radius of chain (mm)
- $R_1$ : Radius of inner circumference of chain outer wearstrip (mm)

Note: 1. For horizontal conveyance, a mechanism must be set up to absorb chain elongation.  
 2. In horizontal conveyance, chain may move up and down slightly as the chain wraps around the sprocket and corner disc.

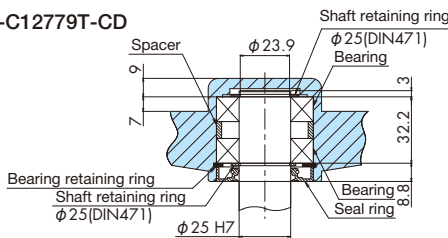
2-8-2. Shaft-Mounted Sprocket and Corner Disc

■ Sprocket mounting for horizontal conveyance

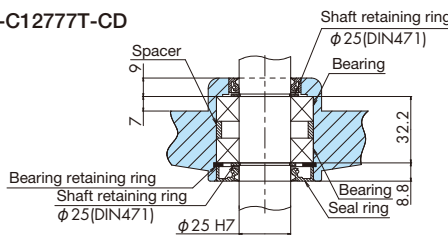
1. Press fit TP-C12773T-HB hub with keyway onto TP-C12781LT-SPR sprocket for horizontal conveyance.
2. Secure sprocket to 25-mm-dia. shaft (with key), and finally, install M8 set screw.

■ Corner disc mounting (closed shaft hole)

TP-C12779T-CD



TP-C12777T-CD



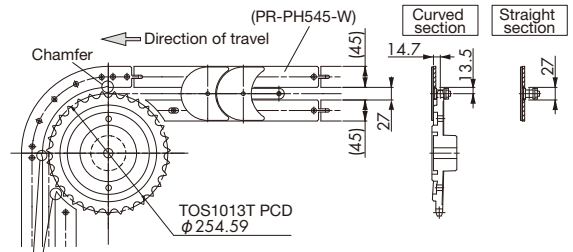
2-9. Conveyor Design for Plastic Crescent Chain

■ Wearstrip layout

Layout will vary depending on the installation space, but the following examples can be used for reference.

• Wearstrip layout example

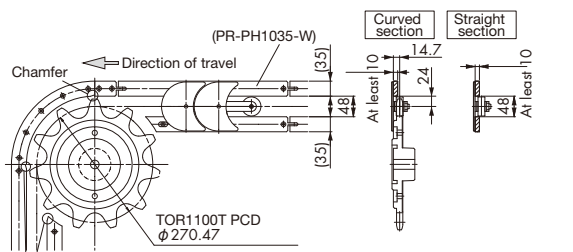
Case 1. Using TOSP1143 and corner sprocket



The point where the chain first makes contact with the curved wearstrip and the area immediately after the point where the chain ceases contact should be chamfered to prevent the chain from snagging or catching.

• Wearstrip layout example

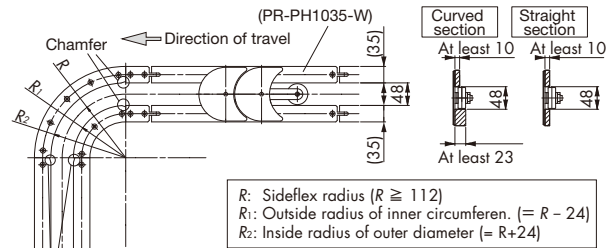
Case 2. Using TORP1143 and corner sprocket



The point where the chain first makes contact with the curved wearstrip and the area immediately after the point where the chain ceases contact should be chamfered to prevent the chain from snagging or catching.

• Wearstrip layout example

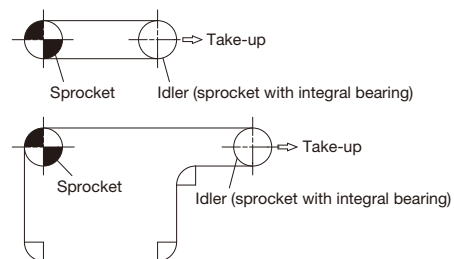
Case 3. Using TORP1143 and curved wearstrip



The point where the chain first makes contact with the curved wearstrip and the area immediately after the point where the chain ceases contact should be chamfered to prevent the chain from snagging or catching.

■ Precautions on conveyor layout

A take-up mechanism must be installed to absorb elongation resulting from temperature changes or wear elongation of the conveyor. See example below for reference:



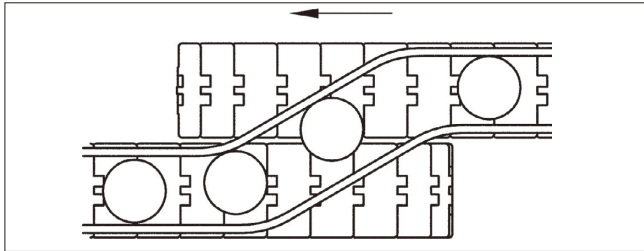
# Top Chain

## 2-10. Connection of Additional Conveyors

As the length of a conveyor grows, the chain tension increases and eventually the strength of the chain will prove to be inadequate to handle the load. In this case, additional conveyors should be used. As shown below, there are three basic methods of adding conveyors. The relationship between the heights of the two conveyors is critical to ensure a smooth transfer of products from one conveyor to another.

### 2-10-1. Side Transfers

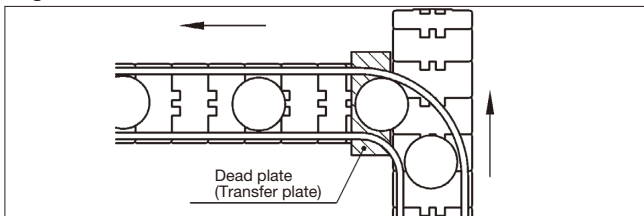
This is the easiest and the preferred method of product transfer. Two parallel chains are positioned side-by-side and guide rails are used to transfer the products.



1. The two chains must be positioned at the same height, or the infeed chain must be positioned slightly lower than the outfeed chain.
2. The angle and shape of the guide rails should be adjusted to provide a smooth product flow.

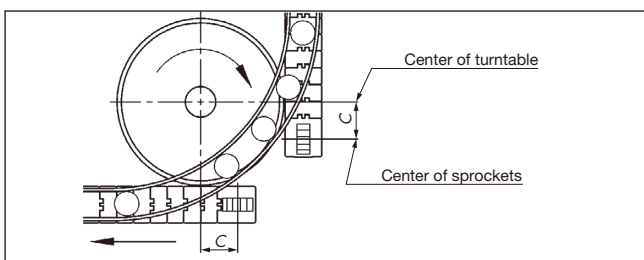
### 2-10-2. Dead-Plate Transfers

The dead-plate transfer method is used when the layout of the flow system demands that two chains be placed at right angles to each other.



1. To ensure smooth transfer, the dead-plate should be positioned slightly lower than the outfeed chain and slightly higher than the infeed chain.
2. The edges of the dead-plate should also be slightly chamfered.
3. The outfeed chain will be moving up and down as a result of chordal action of the driven side. Sufficient care should be taken to install the dead-plate properly to avoid contact or interference.

### 2-10-3. Turntable Transfers



This method uses a turntable for product transfer. Height of the turn table

- Turntables should be placed slightly lower than the infeed chain and slightly higher than the outfeed chain.
- The outside edges of the turntable should be chamfered. The outer circumference of the turn table should be chamfered.

The center of the turntable is, in general, aligned near the centers of the drive and driven sprockets. To avoid the effects of chordal action, move the turntable forward by the amount of center position (C), so it will not be affected by up-and-down movement and will be more stable.

## 2-11. Cautions When Using KV Series Top Chains

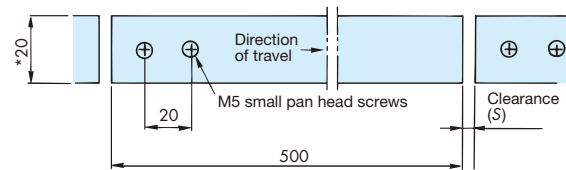
### 2-11-1. Use at Ambient Temperature

1. The recommended wearstrip materials are steel or steel with hard chrome finished plating with buff or cold rolled stainless steel.
2. Black wear dust will be generated. Be sure to clean on a regular basis.
3. Start up slowly and stop slowly.

### 2-11-2. Use at High Temperature

1. Recommended wearstrip material is cold-rolled stainless steel.
2. Secure only one end of the wearstrips to allow for thermal expansion. Also, remember to leave a clearance between wearstrips to allow for thermal expansion. (Reference: Coefficient of linear expansion for SUS304 is  $1.8 \times 10^{-5}/^{\circ}\text{C}$ )

Example: Securing stainless steel wearstrips, and leaving space between wearstrips



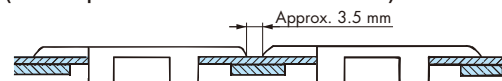
\* Figure is for types TTP-KV, TPS-KV, TTUP-KV and TPU-KV. For RSP35(40\*60)-KV, see page 410.

### Clearance (S) for wearstrip 500 mm in length

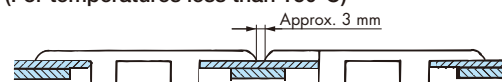
Operating temperature °C	50 to 100	100 to 150	150 to 200	200 to 250
Clearance (S)	1.5	2.0	2.5	3.0

3. Standard steel sprockets can be used for ambient temperatures below 150°C. Special sprockets must be used at temperatures higher than 150°C. Contact a Tsubaki representative for details.
4. Spacing between chains when multiple strands are used is shown below.

(For temperatures from 150°C to 250°C)



(For temperatures less than 150°C)



5. Take-up must be done to compensate for slack in the chain caused by thermal expansion. Take-up adjustments should be performed after reaching operating temperature. Lower temperatures only after loosening take-up.
6. Black wear dust will be generated. Be sure to clean on a regular basis.
7. Start up slowly (using inverter control) and stop slowly.



# Top Chain

Applicable products Plastic top chain, plastic block chain, stainless steel top chain

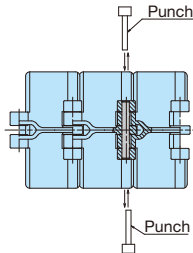
## 3. Handling Top Chains

### 3-1. Disconnecting and Connecting Chain

Note: 1. Refer to page on 469 for disconnecting and connecting of plastic modular chain.  
2. Refer to page on 399 and 400 for disconnecting and connecting for TTP, TT, TPS-KV, TPU-KV, TRU, TTKU and TS.

#### 3-1-1. When D-pins are used (except TPUN555)

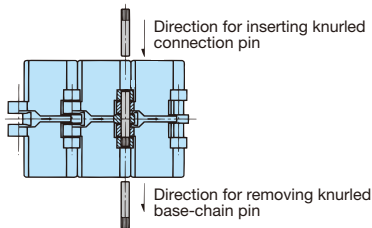
The chain can be disconnected at any link and the pin can be removed from either the left or the right.



#### 3-1-2. When knurled pins are used

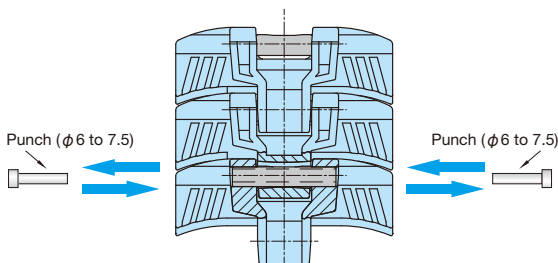
To disconnect, place a punch on the end of the connecting pin on the side that is not knurled and lightly tap it with a hammer to remove it. To reconnect, place a punch on the end of the connecting pin on the knurled side and lightly tap it with a hammer to insert it.

(For TTPDH and TTPDH-LBP only, the knurled side is inserted from the same side even for reconnecting.)



#### 3-1-3. TTUPM838H

Since this is a D-pin type, it can be inserted and removed from either the left or the right. Use a punch with a 6 to 7.5 mm outer diameter. The insert depth should not be excessive or insufficient.



If the outer diameter of the punch is less than 6 mm or more than 7.5 mm, the chain and pin will be damaged.

#### 3-1-4. TN/TNU/TRU/TP-PT/TP-PTS/TP-1873G/TP-1873T/TP-1843G

The pin for the connecting link is loosely fitted on the appropriate side of the outer plate. When disconnecting the chain at links other than the connecting link, remove a pair of pins parallel to one another by means of a chain vice. Once a chain is disconnected at links other than the connecting link, the link cannot be reused.

#### 3-1-5. ST and RT

All the pins are loosely fitted in the outer plates. The chain can be disconnected at any link and the pin can be removed from either the left or the right.

#### 3-1-6. TO and TU

Remove the pin from the side opposite to the top plate.

#### 3-1-7. TS

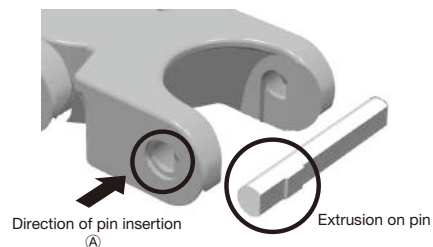
The chain can be disconnected at any link. Remove the pin from the side where the cotter pin is installed.

#### 3-1-8. TTKU

The pin for the connecting link is loosely fitted on the appropriate side of the outer plate. When disconnecting a chain at links other than the connecting link, grind the end of the pin since the pin is riveted and remove the pair of pins parallel to one another. Once a chain is disconnected at links other than the connecting link, the link cannot be reused.

#### 3-1-9. TPUN555

Pin insertion direction is from one direction only. Place a punch on the opposite end of the pin from the insertion direction, and tap it lightly with a hammer to remove it.



## Top Chain

### 3-1-10. Plastic Crescent Chain

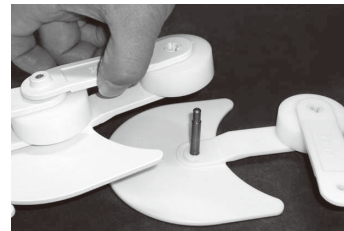
1. Remove the snap cotter pin from the connecting pin, and carefully pull the offset link up and off.



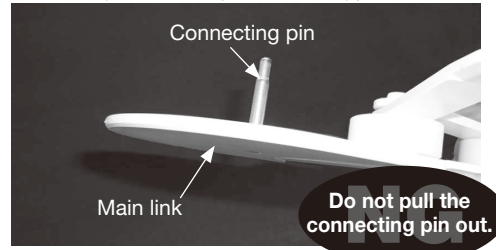
2. Turn the offset link 90°.



3. Remove the main link and the connecting pin from the previous link.



Note: When disconnecting, be sure not to pull the connecting pin out of the main link.



### 3-2. Points of Note When Disconnecting/Connecting, and Precautions for Use of Plastic Pin Chain

#### Applicable products

TTP-P, TTPH-P, TPUSR-P, TPS-P, TPH-P, TPM-P-SN, TTUP-P, TPU-P, TTUPM-P, TTUPM838H, TTUPM-PC, TPUSR-P, TP-UB36P, RSP40P, RSP60P and RSP60P-CU

1. Start and stop the chain gradually.
2. Do not apply initial tension to the chain.
3. When disconnecting chains that have engineering plastic pins, do not reuse a pin once removed since it may not engage properly or it may even come loose. Follow the proper procedures below.
4. Precautions for Plastic Modular Chain are described in its own section.
5. When using chains with engineering plastic pins under wet conditions, make sure that the temperature does not exceed 60°C.

#### ■ Connecting D-pin

1. Use the exclusively prepared connecting D-pin (base pin: white, connecting pin: orange) to connect the links.
2. The connecting D-pin is colored orange so as to distinguish it from base-chain pins (color: white).
3. One connecting D-pin is provided per chain as a spare.

#### ■ Procedure

##### ① Disconnecting

1. Place a punch which is a little thinner than the pin hole, on the edge of the D-pin and lightly knock it with a hammer to remove it. The pin may be removed from either the left or the right.
2. Never reuse D-pin once removed.

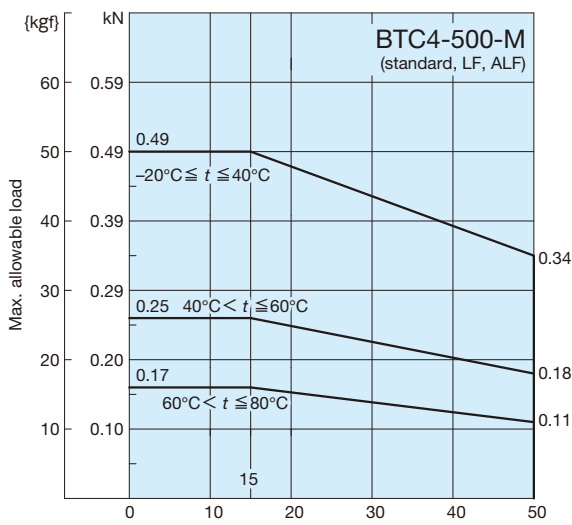
##### ② Connecting

1. Use the exclusively prepared connecting D-pin (color: orange).
2. Place a punch on the edge of the D-pin and lightly knock it with a hammer to insert it into the hole in the link. The pin may be inserted from either side, left or the right. Do not cut the chain where a connecting D-pin (color: orange) is already inserted.
3. Make sure that the connecting D-pin is inserted so that it is recessed an equal amount on both sides from the edges of the hinge.
4. Check whether the connected chain flexes smoothly.

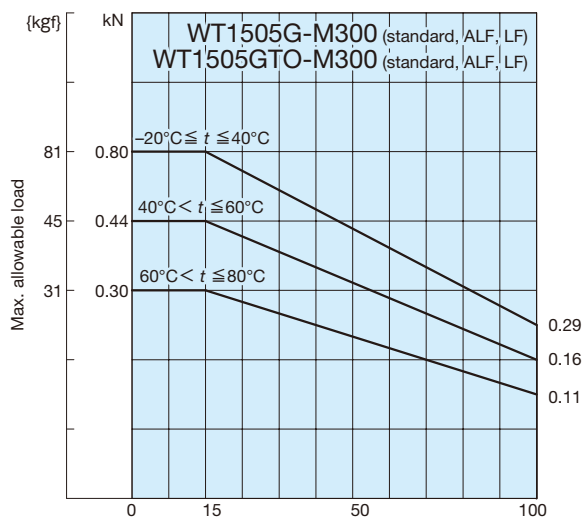
# Top Chain

## Allowable Load Graphs

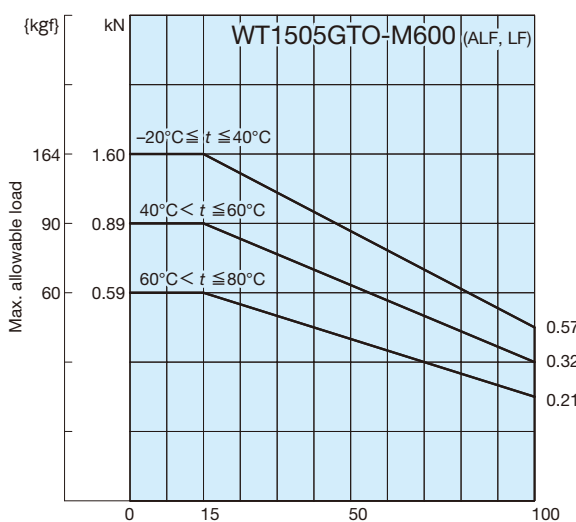
### Plastic modular chain (Mold to width)



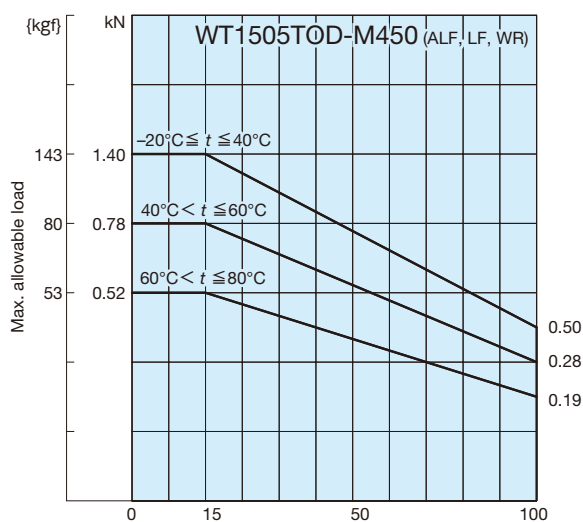
Chain speed in m/min  
Max. temperature under wet conditions: 60°C  
Max. allowable load for DIA/DIY is 80% of graph values



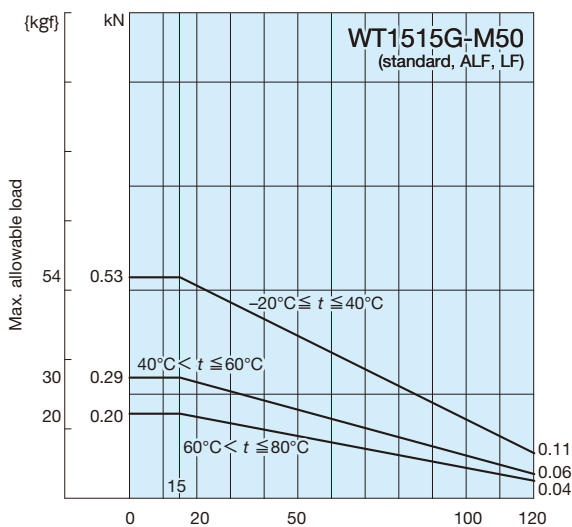
Chain speed in m/min  
No lubrication: 50 m/min or less  
Max. temperature under wet conditions: 60°C



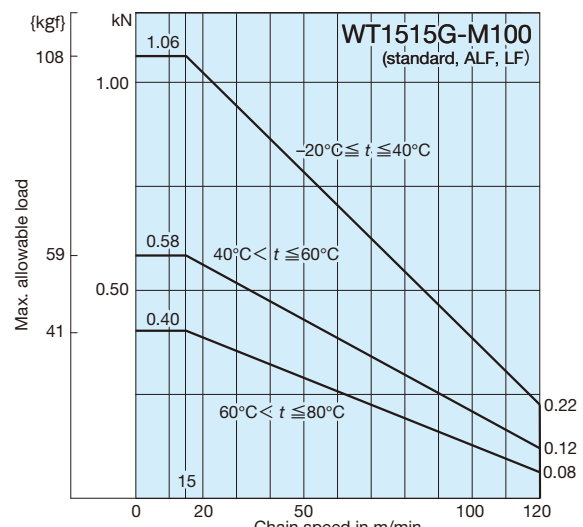
Chain speed in m/min  
No lubrication: 50 m/min or less  
Max. temperature under wet conditions: 60°C



Chain speed in m/min  
No lubrication: 50 m/min or less  
Max. temperature under wet conditions: 60°C



Chain speed in m/min  
No lubrication: 50 m/min or less  
Max. temperature under wet conditions: 60°C

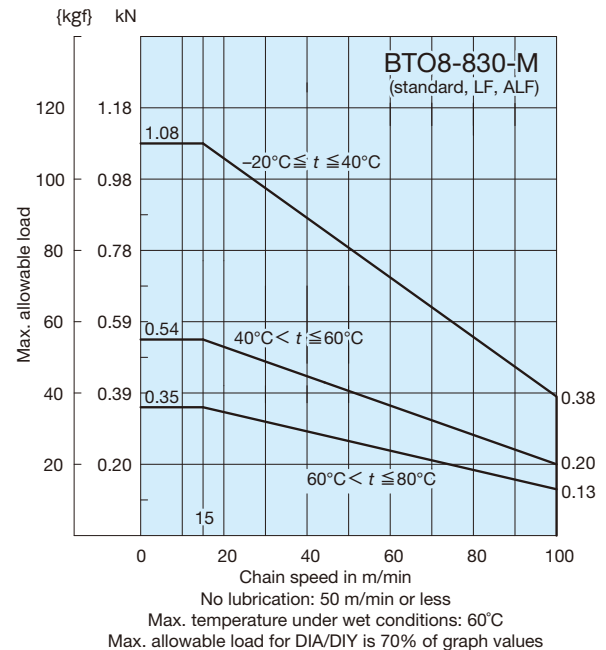
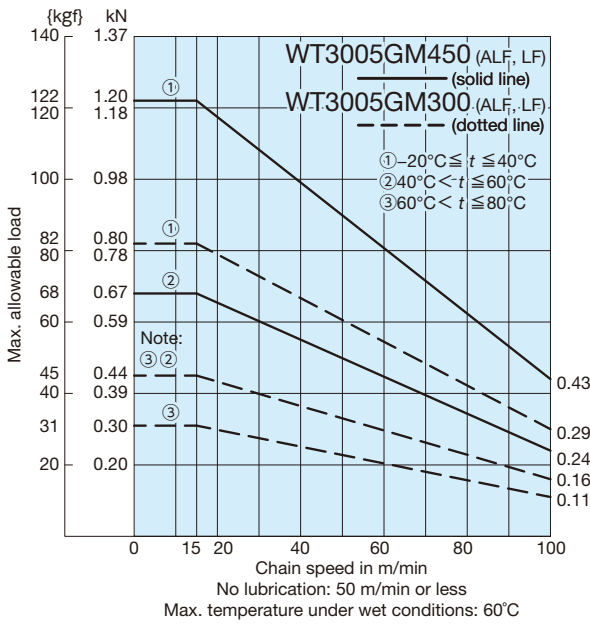
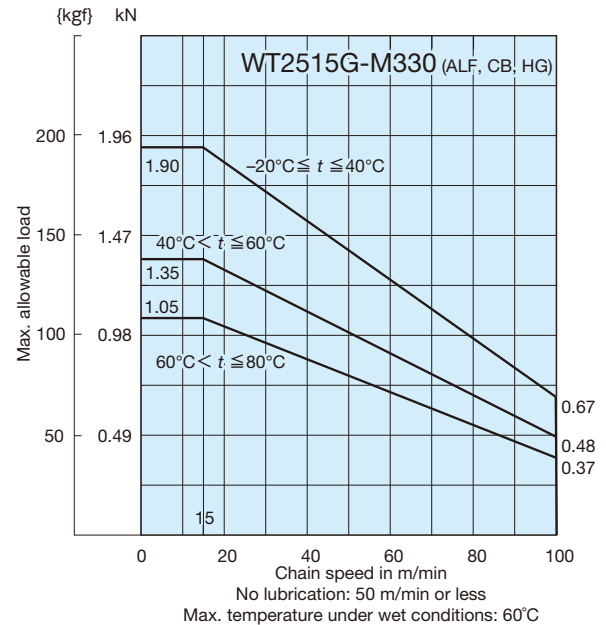
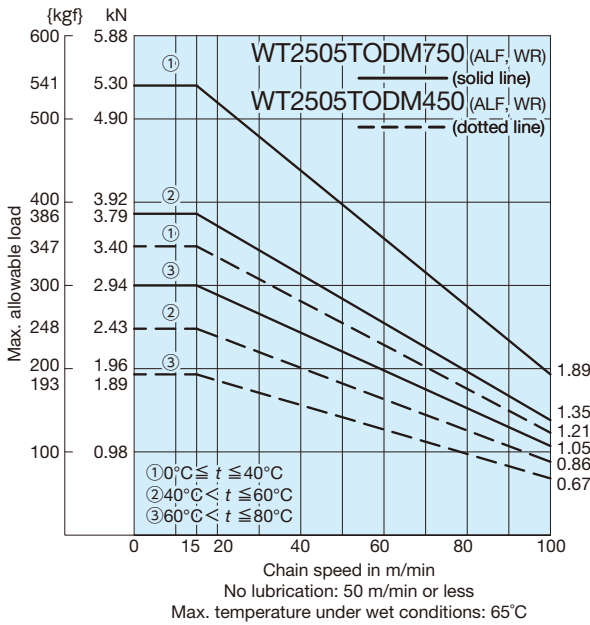
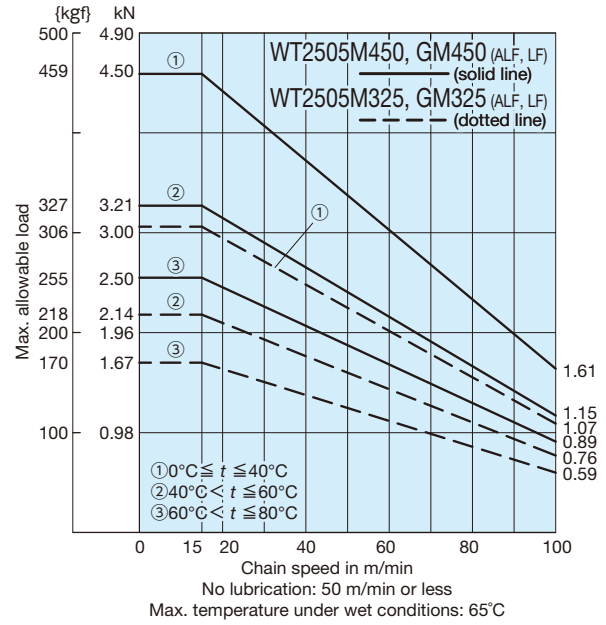
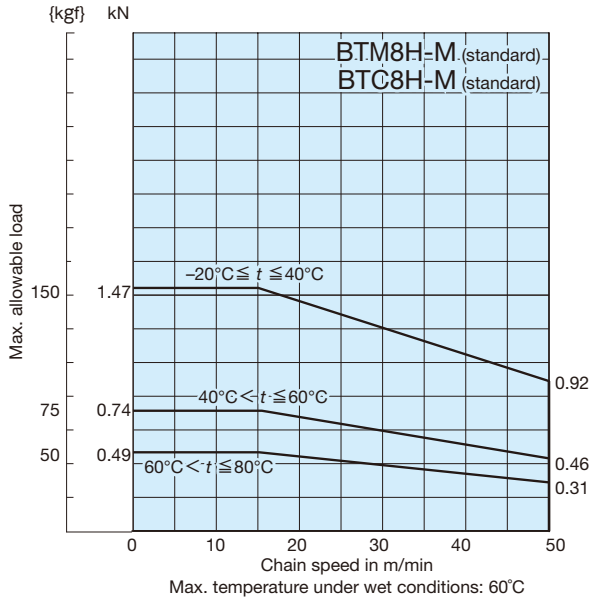


Chain speed in m/min  
No lubrication: 50 m/min or less  
Max. temperature under wet conditions: 60°C

※ t = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

Top Chain

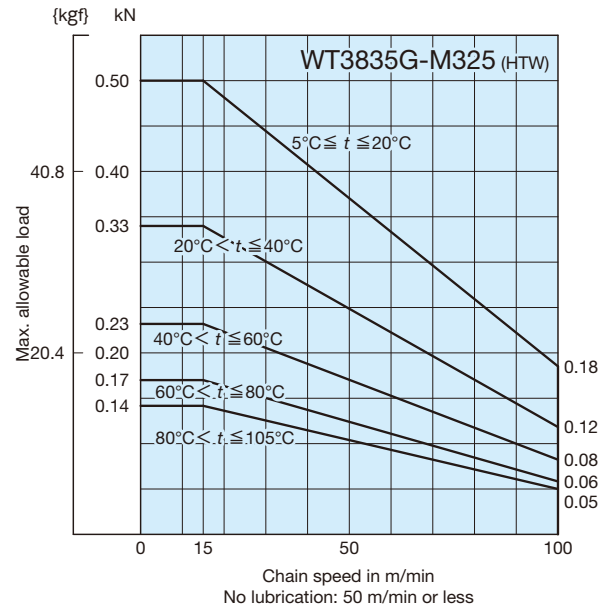
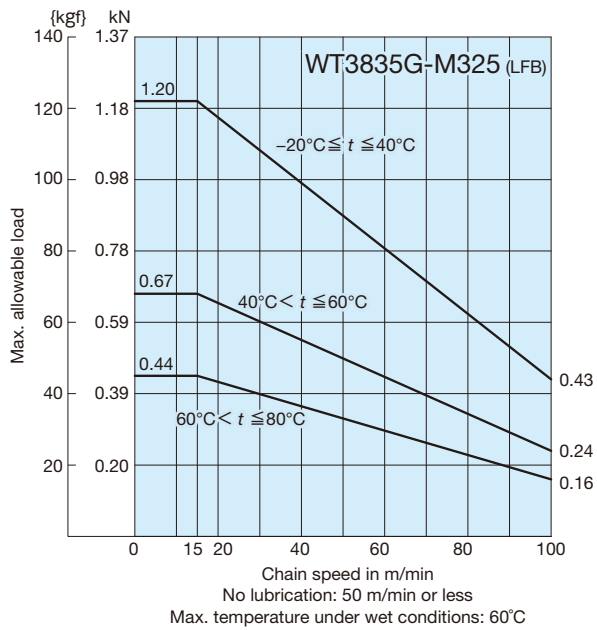
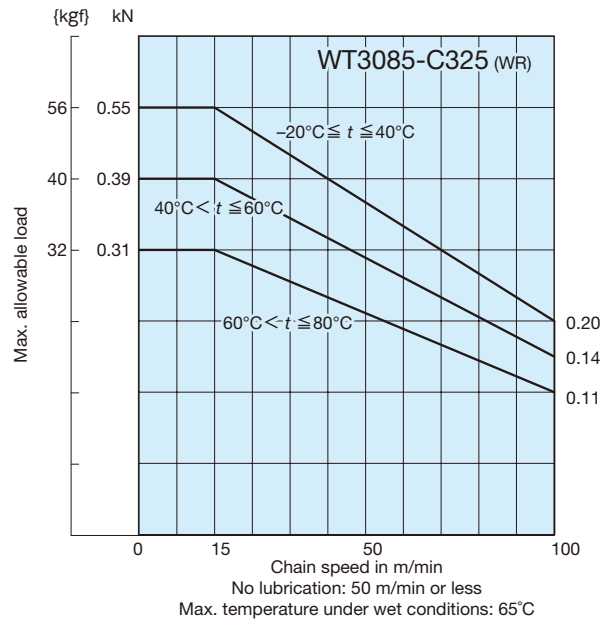
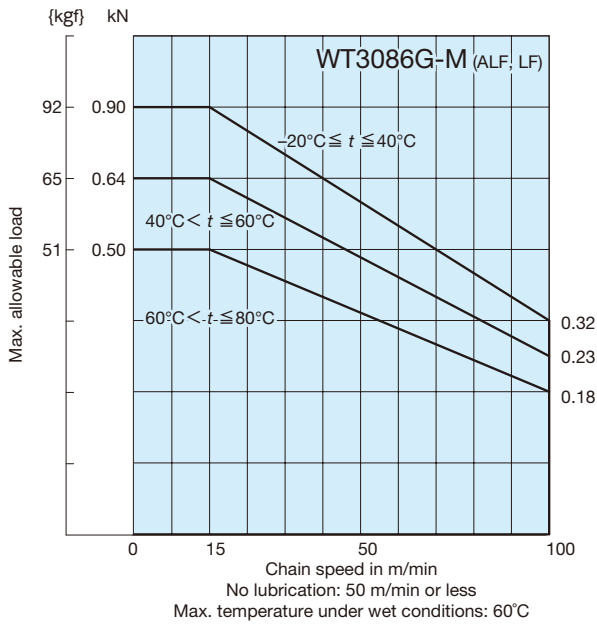


Note: The values of ③ of M450 and ② of M300 are the same.

※  $t$  = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

# Top Chain

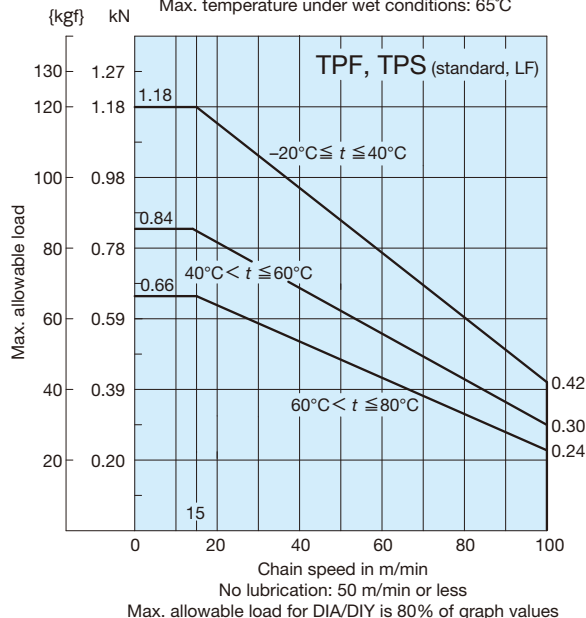
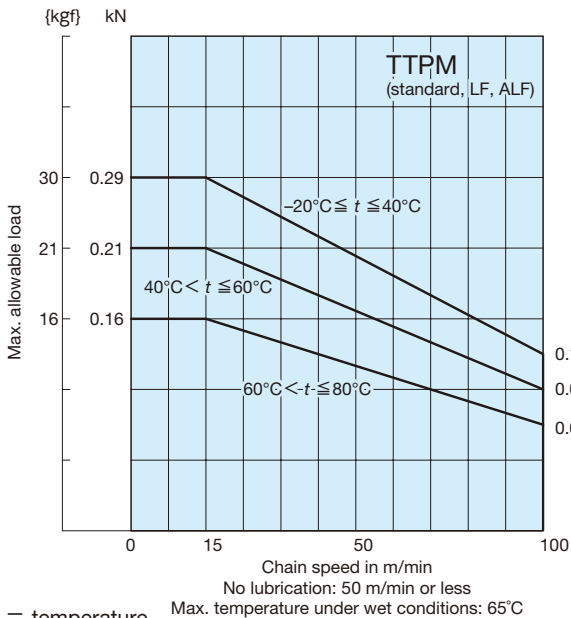
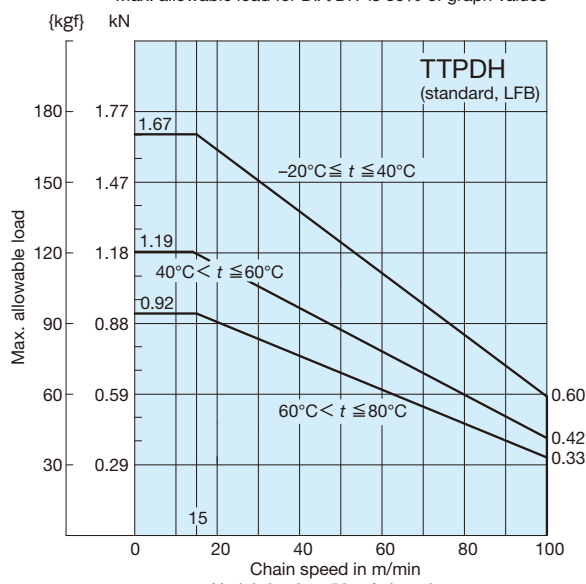
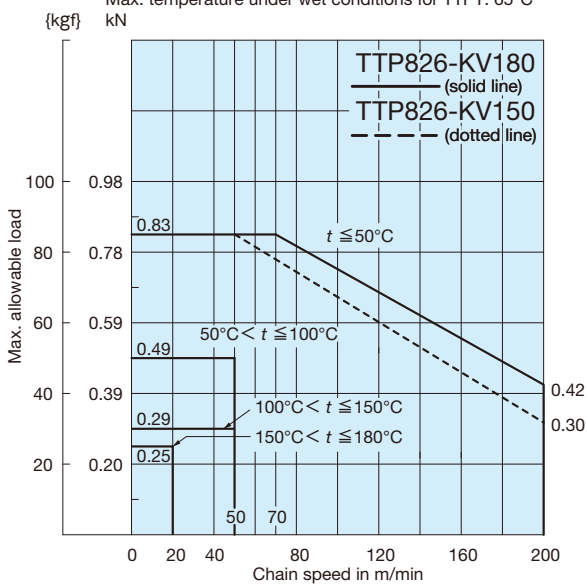
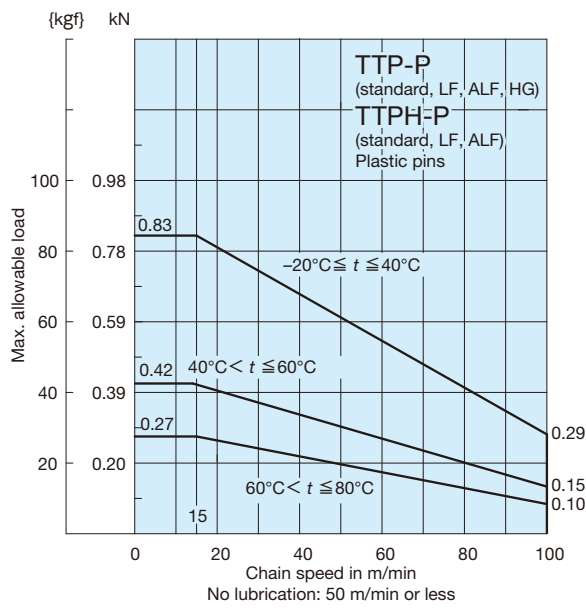
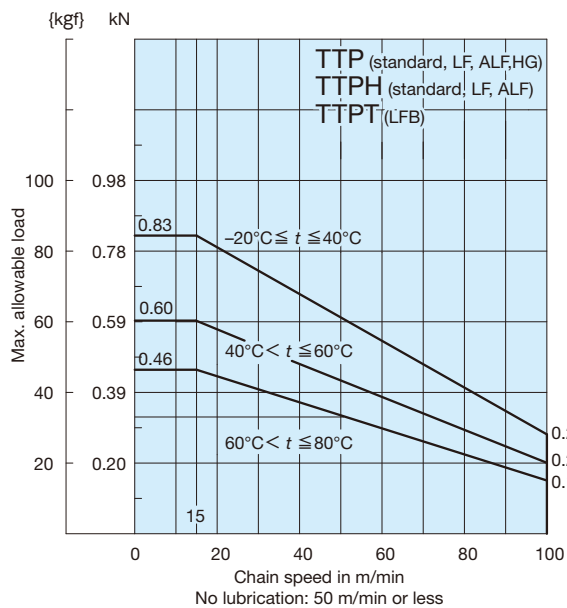


※ t = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.



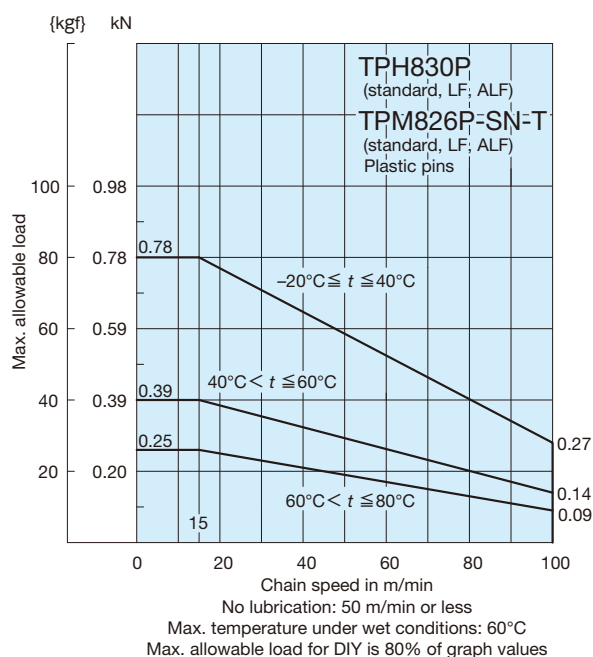
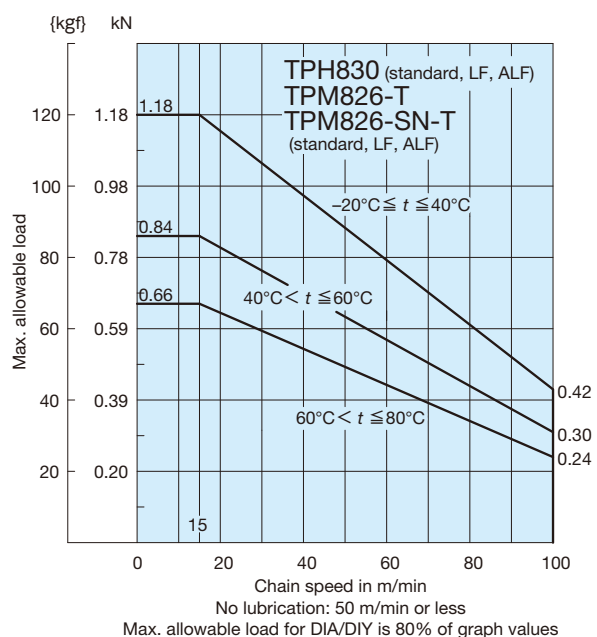
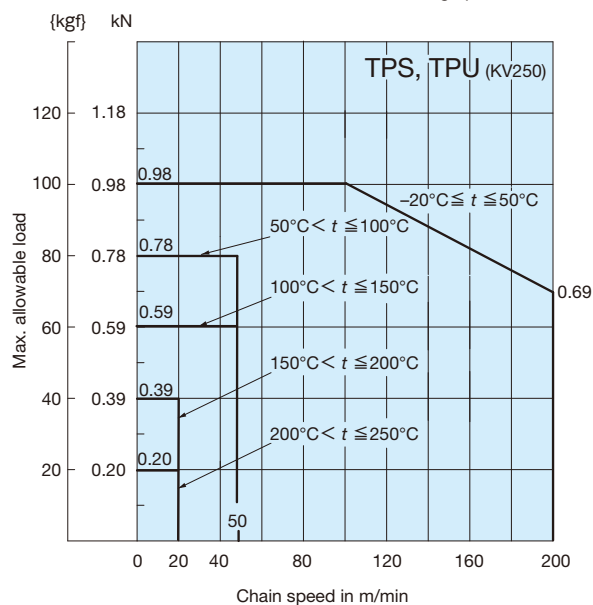
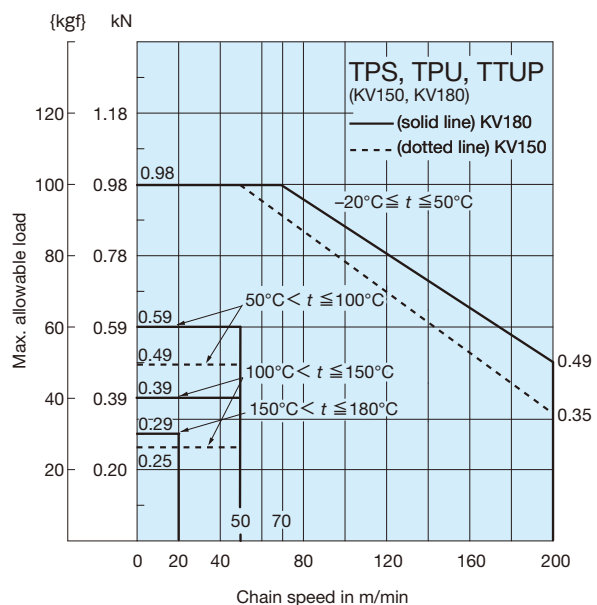
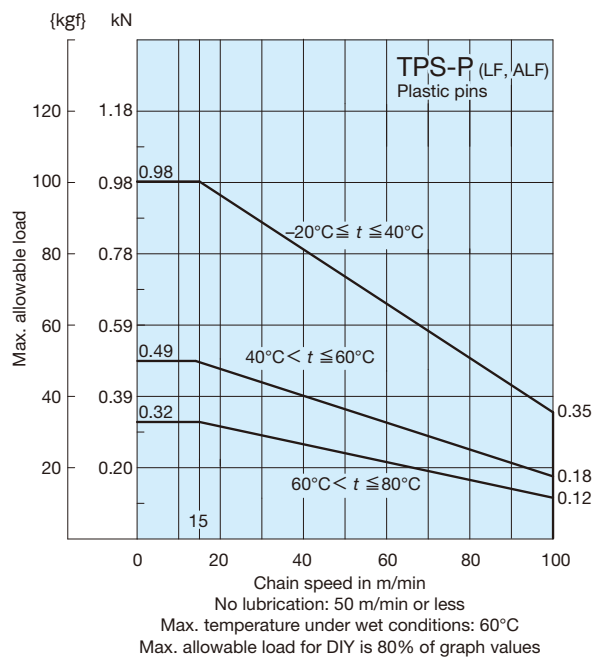
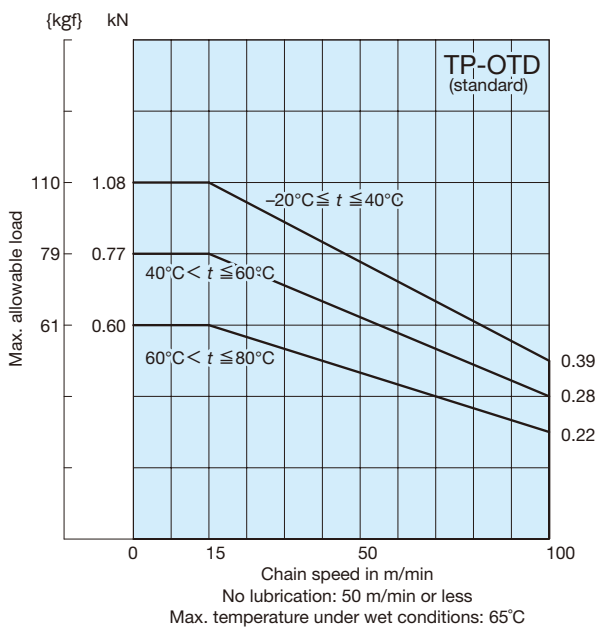
Plastic top chain



※ t = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

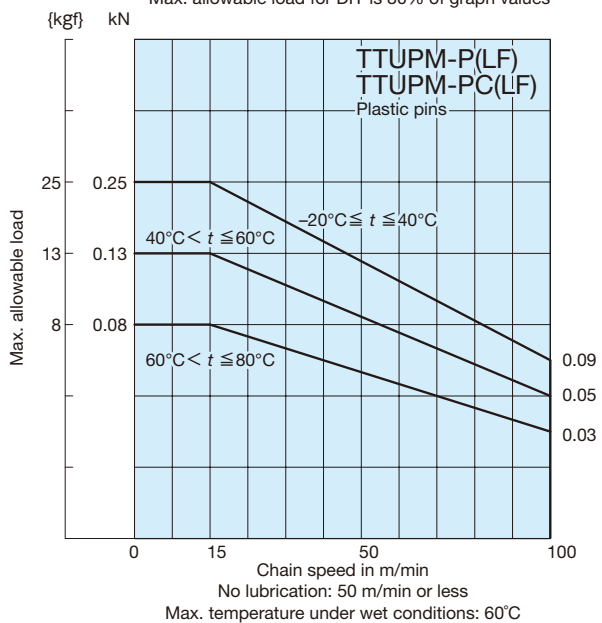
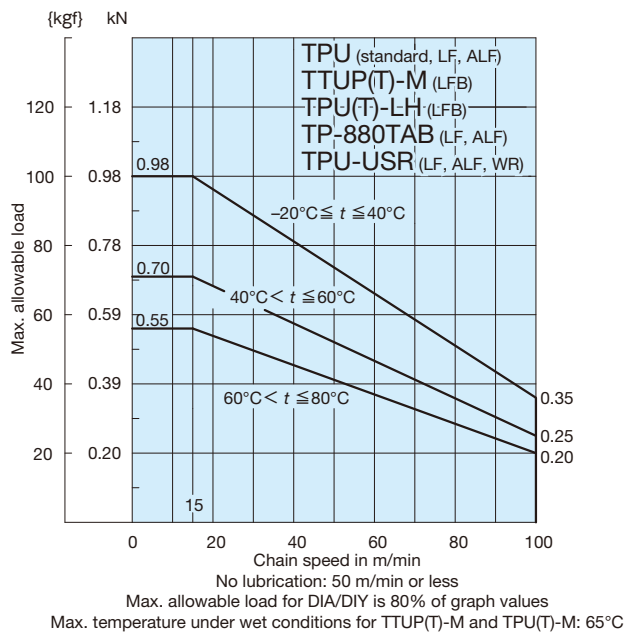
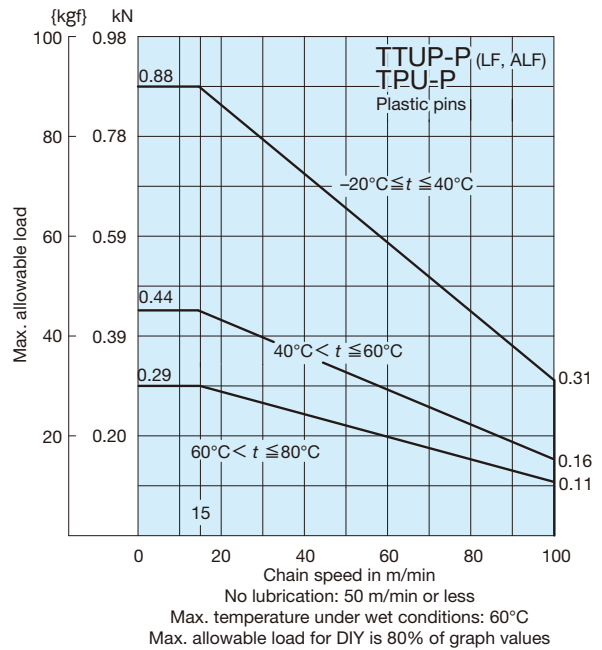
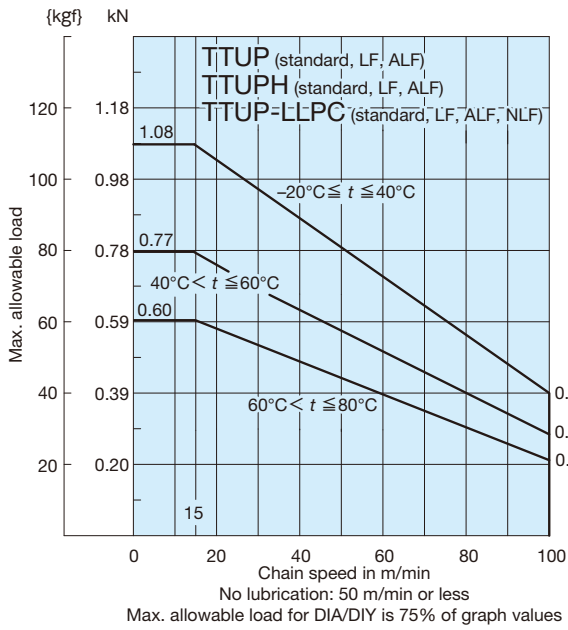
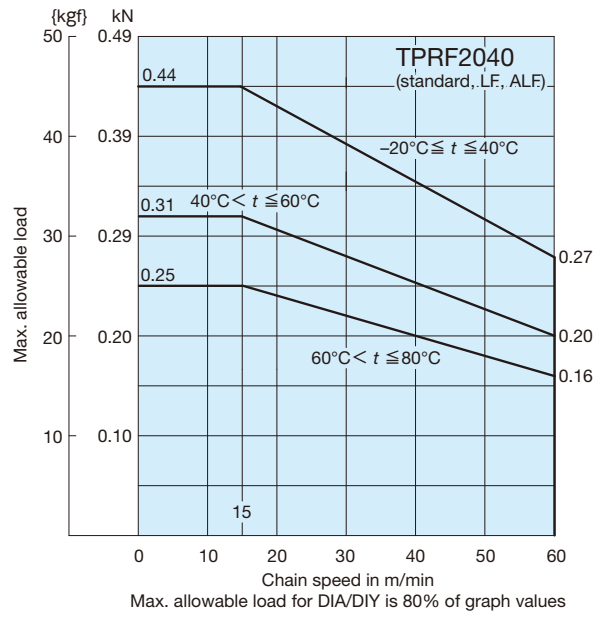
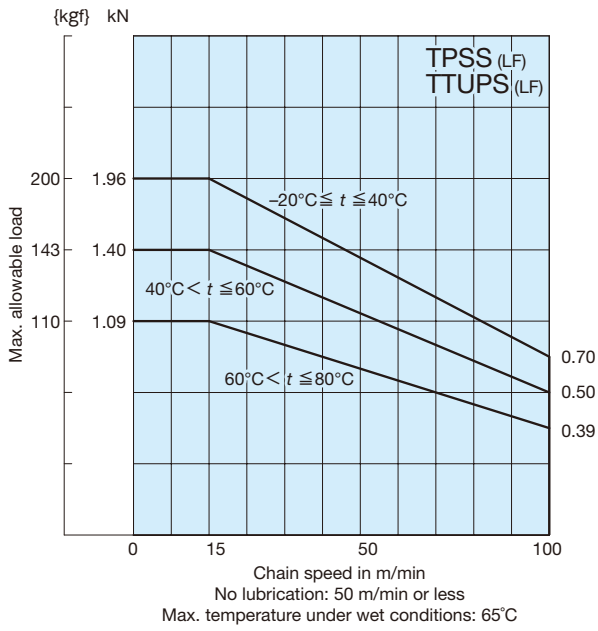
# Top Chain



※ t = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

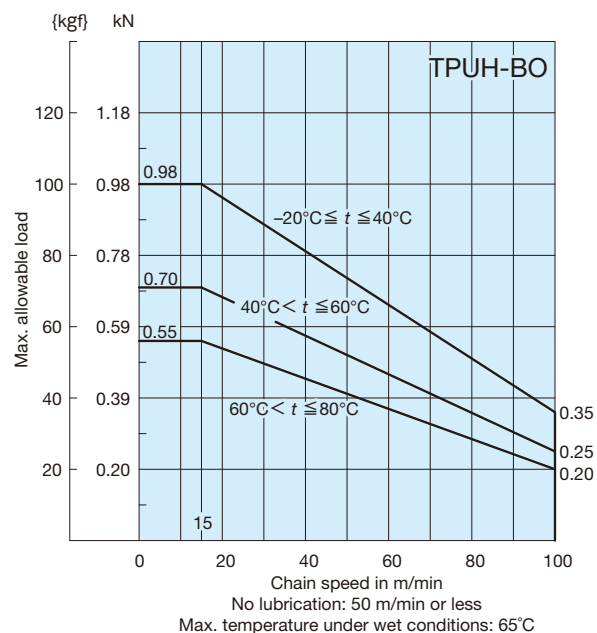
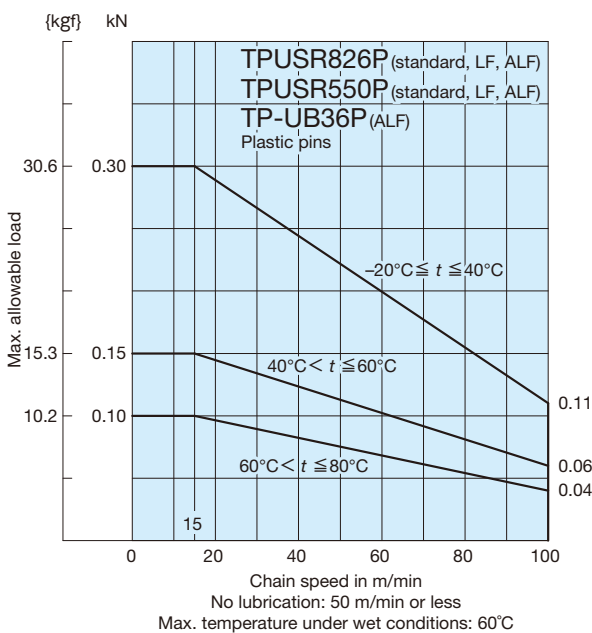
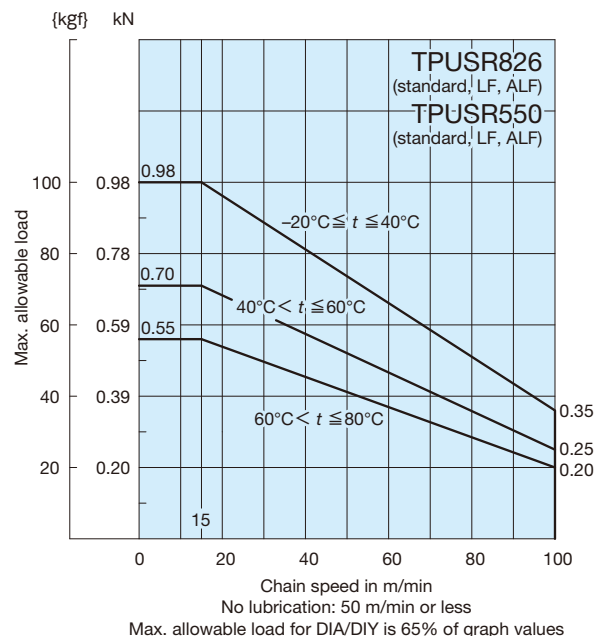
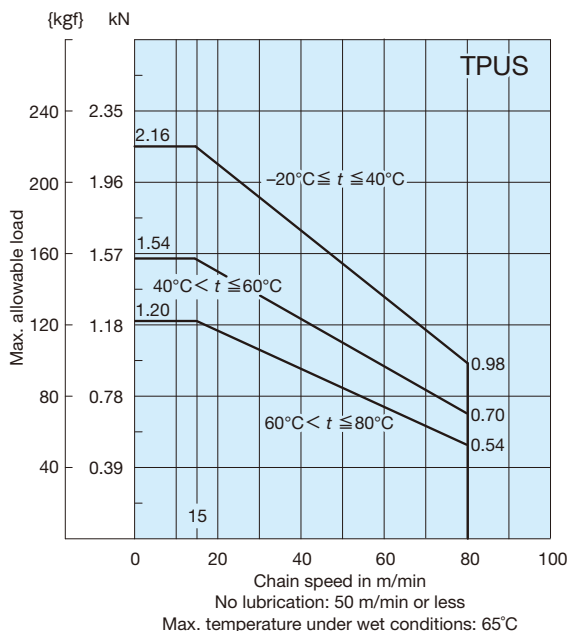
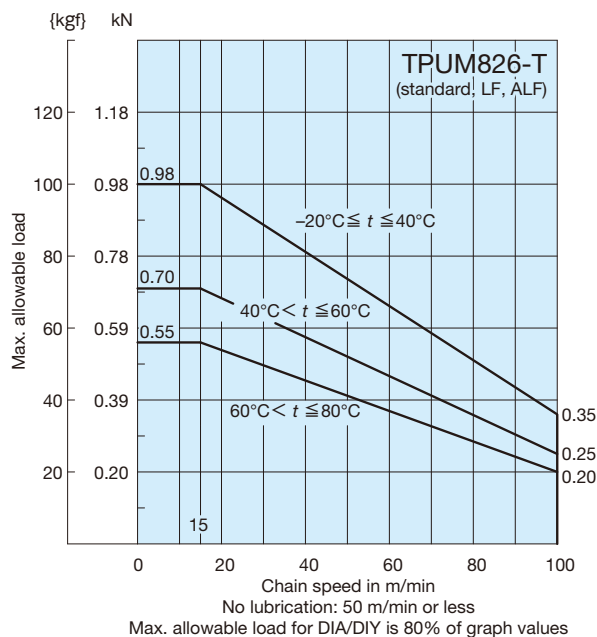
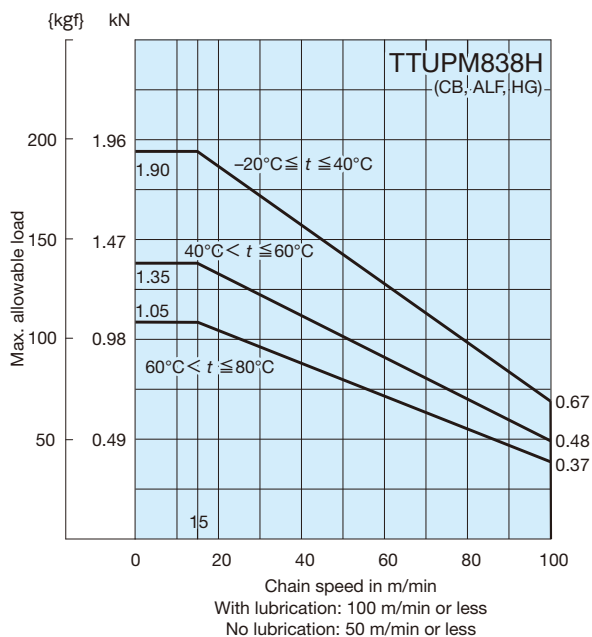
Top Chain



※ t = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

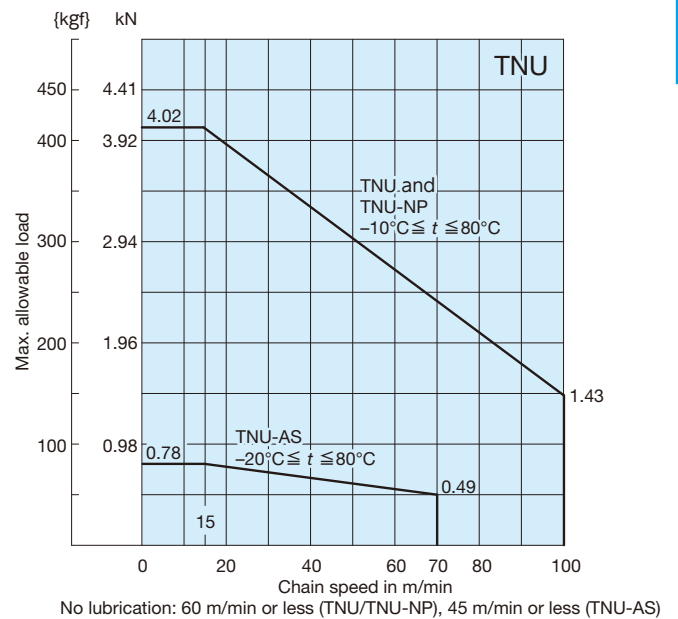
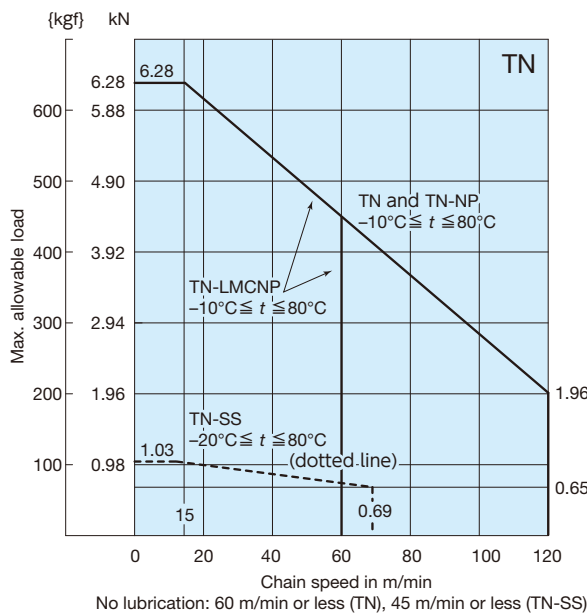
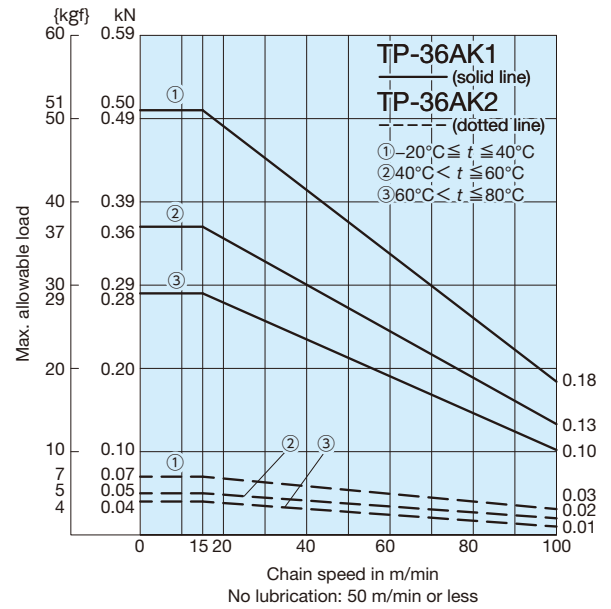
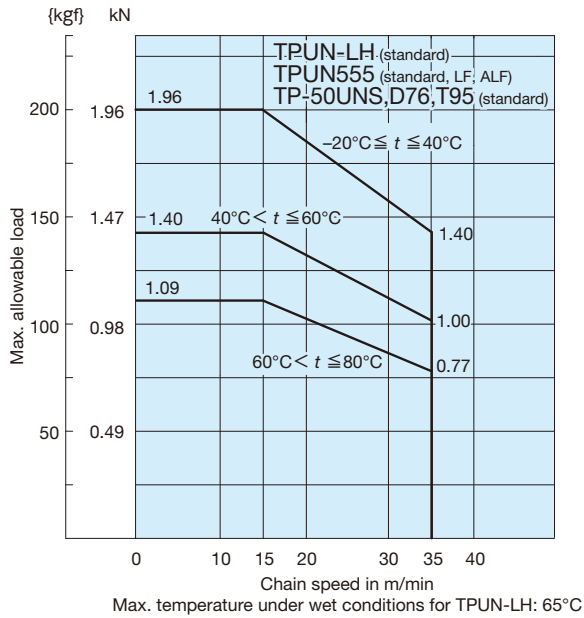
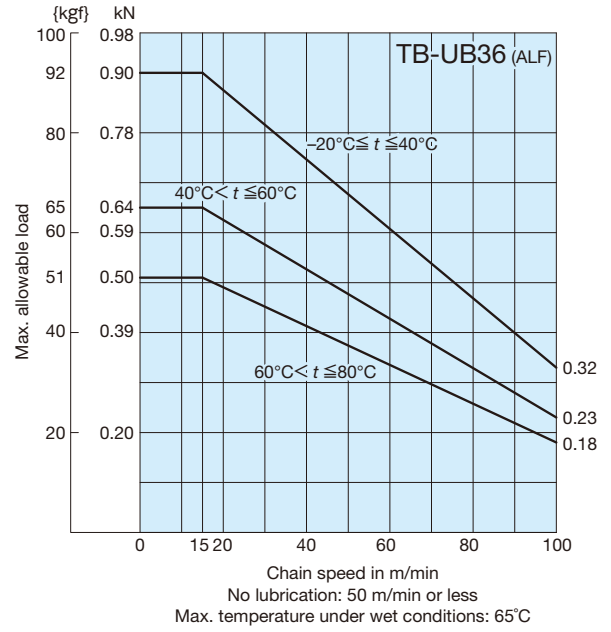
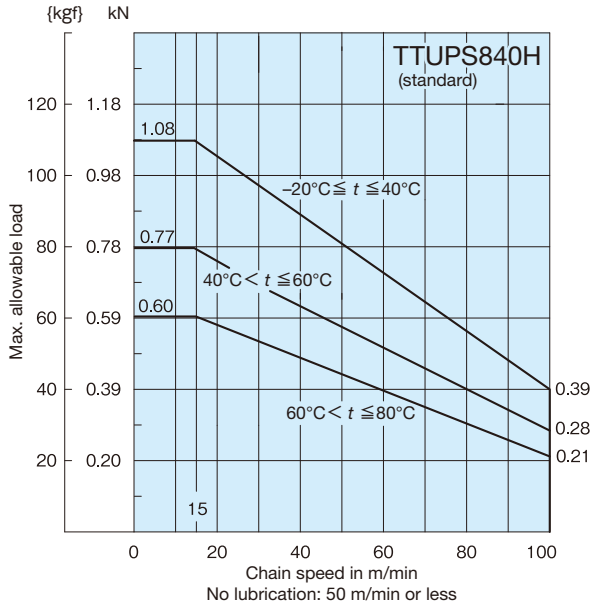
# Top Chain



※ t = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

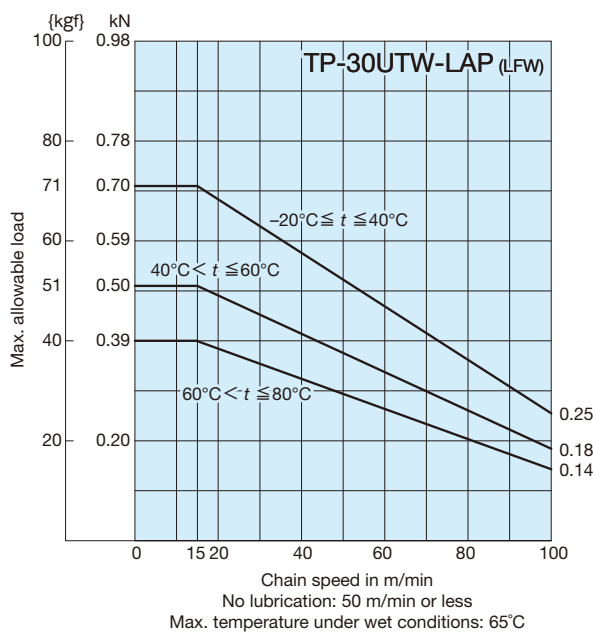
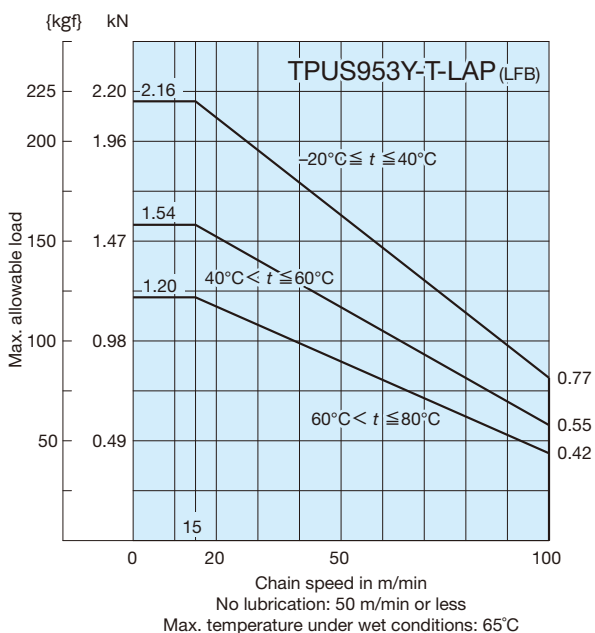
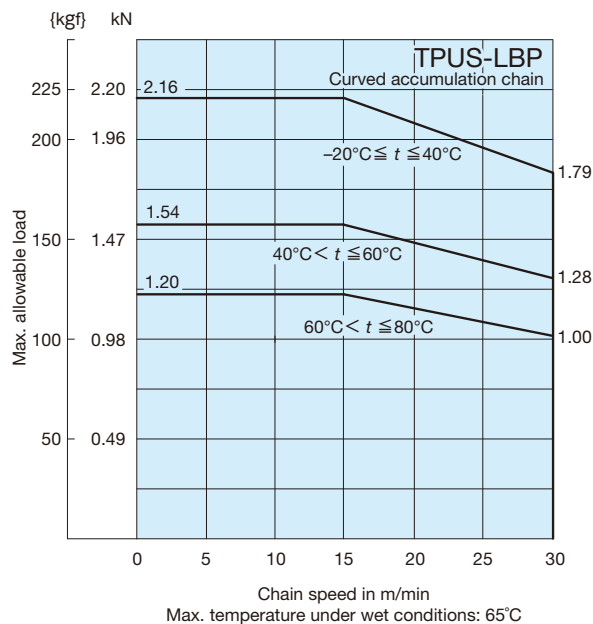
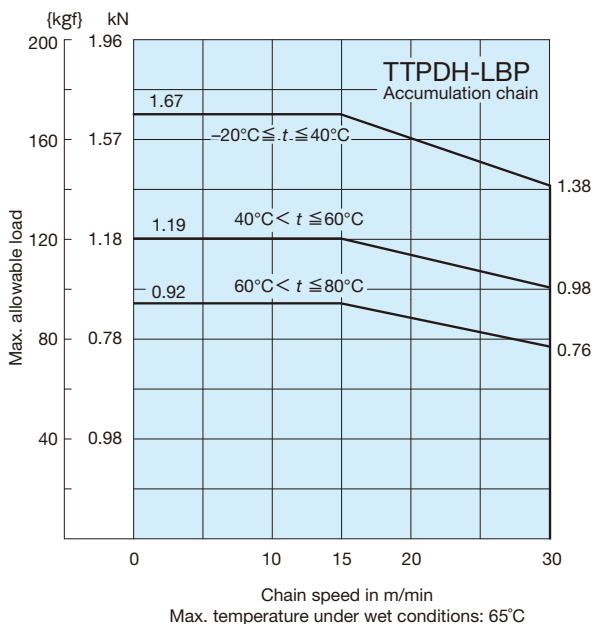
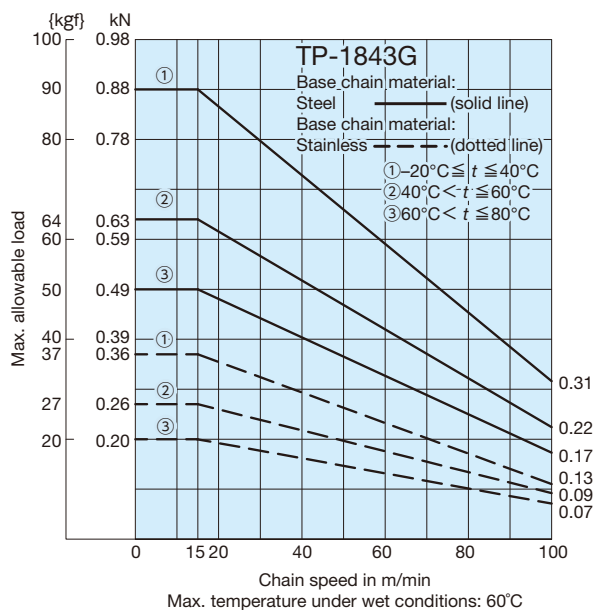
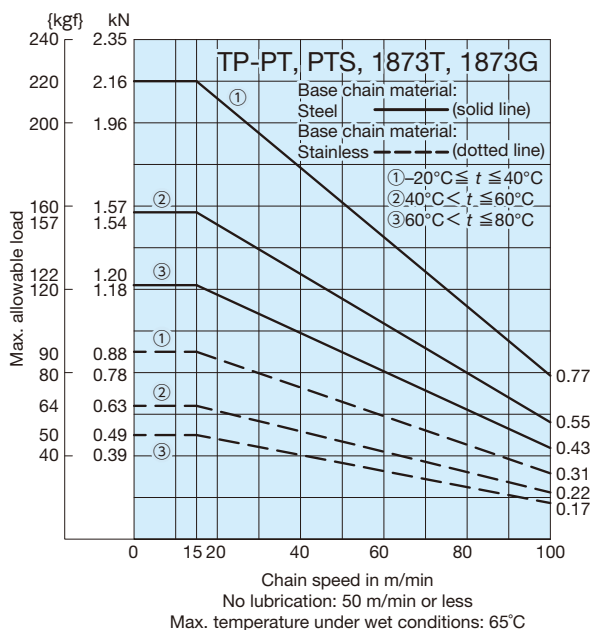
Top Chain



※ t = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

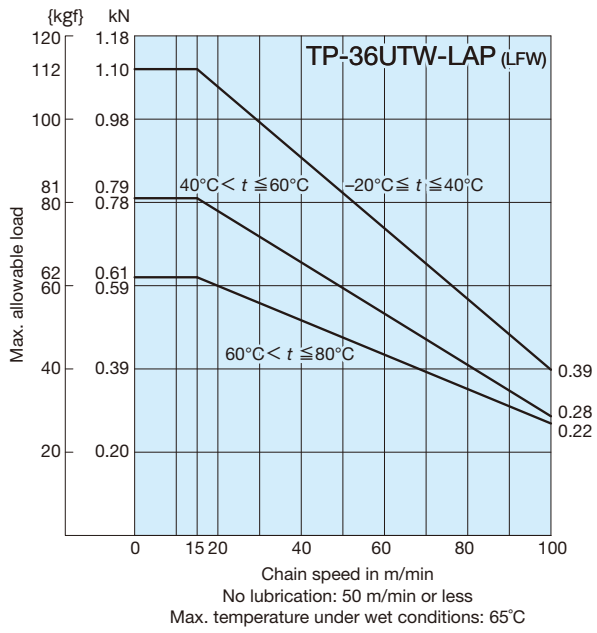
# Top Chain



※ t = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

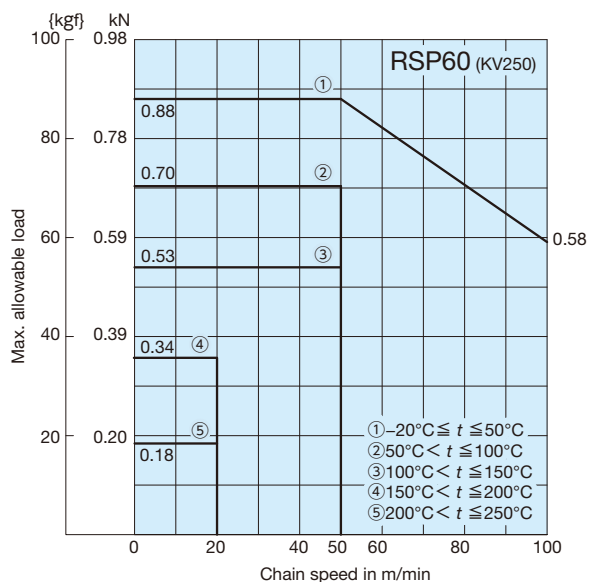
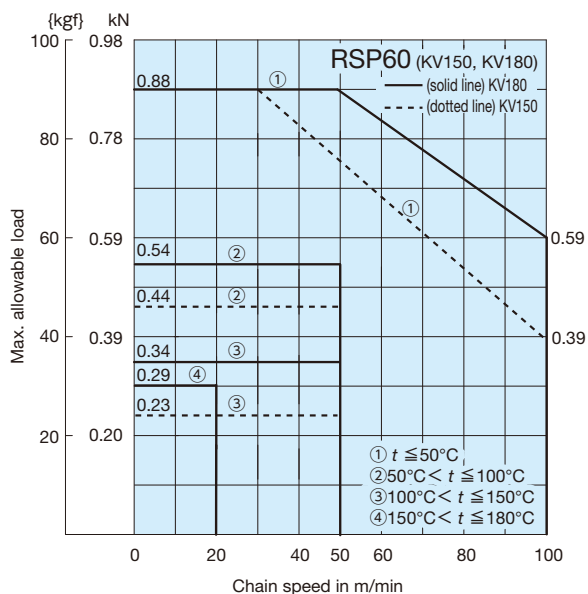
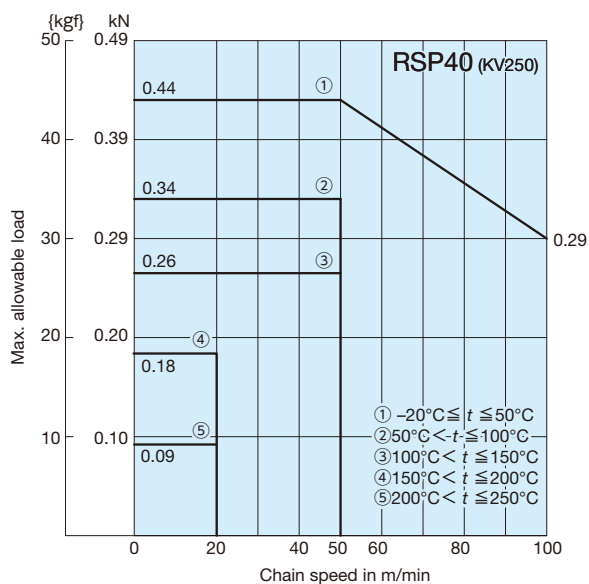
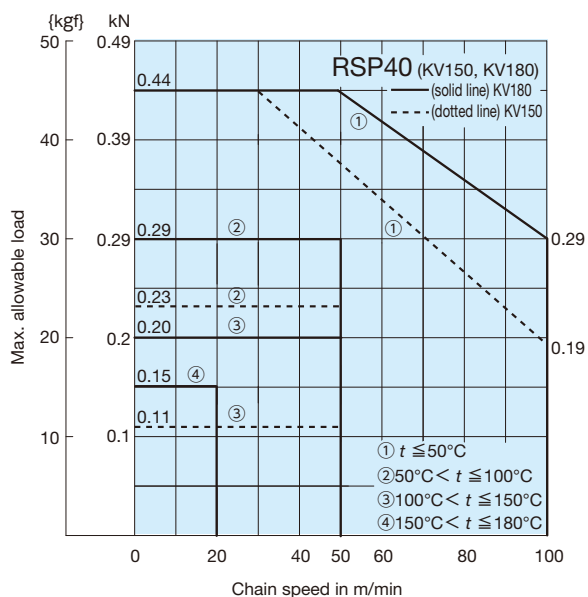
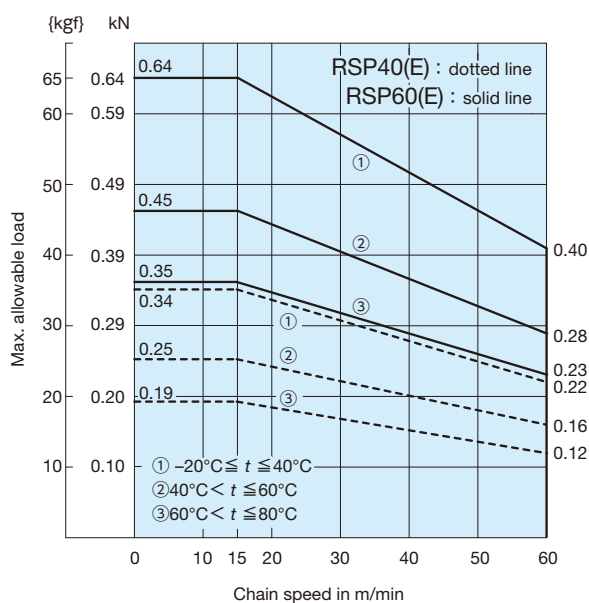
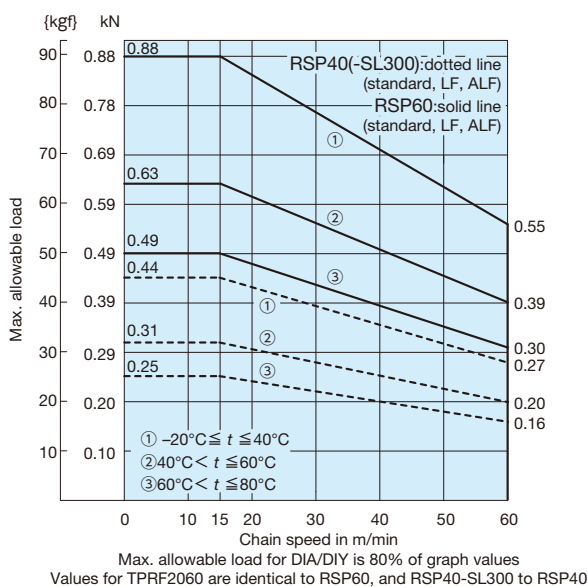
Top Chain



※  $t$  = temperature

# Top Chain

## Plastic block chain

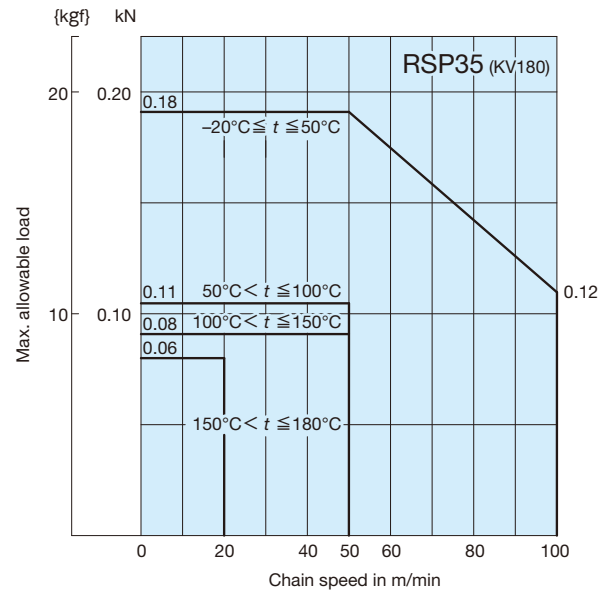
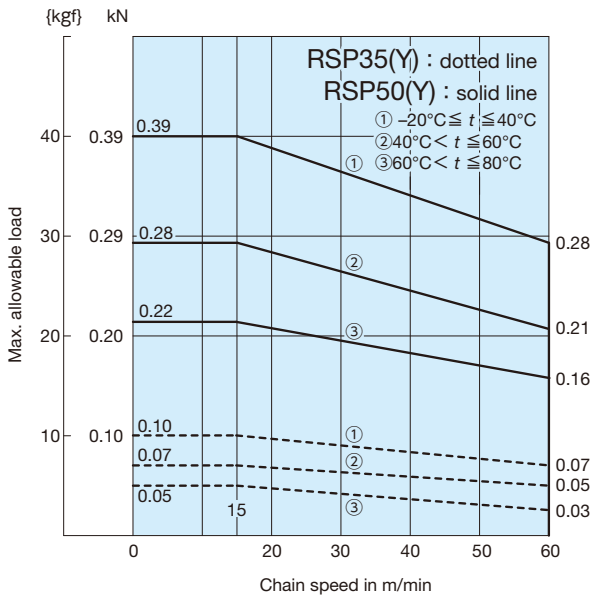
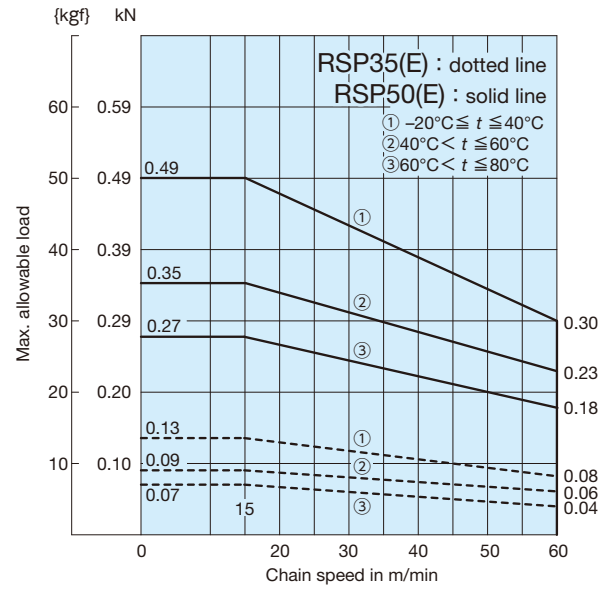
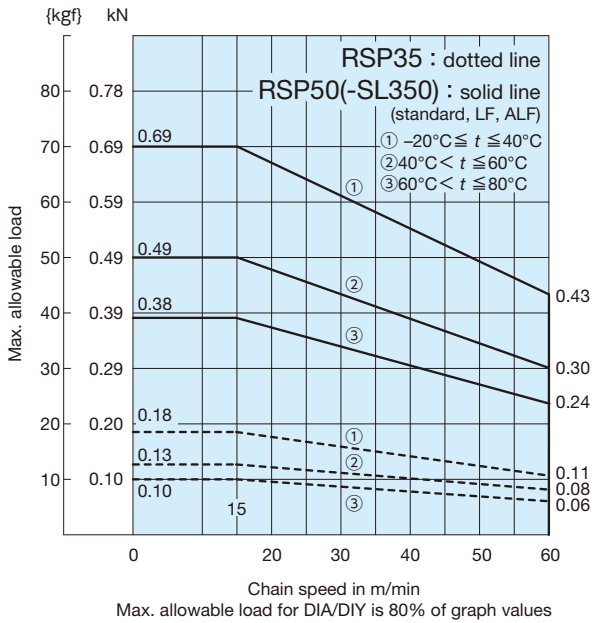
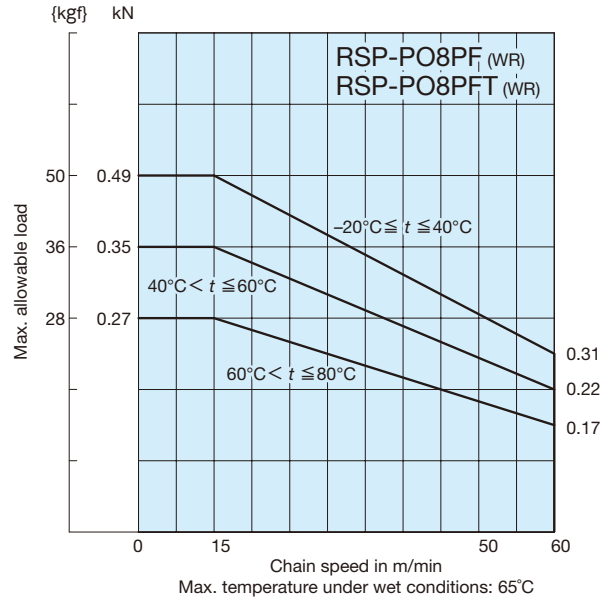
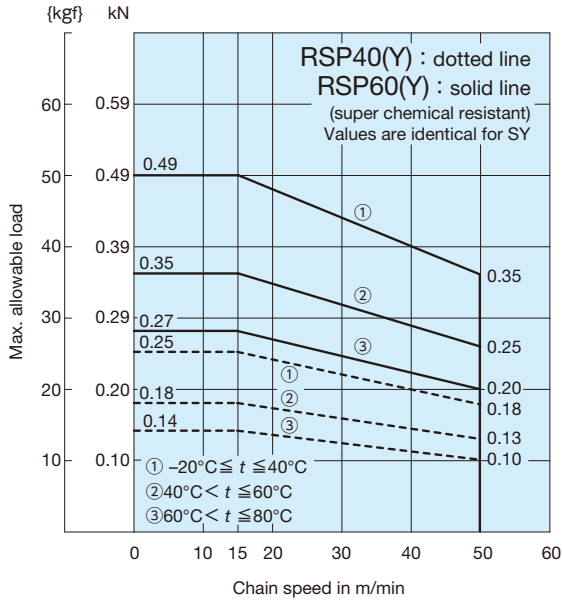


※  $t$  = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.



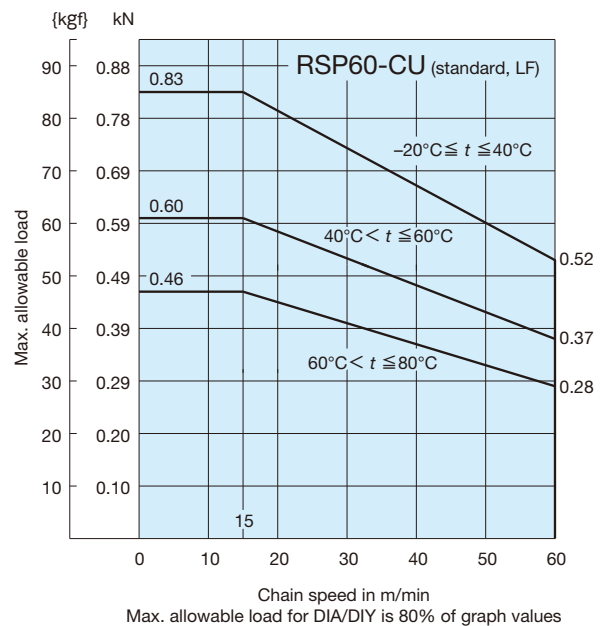
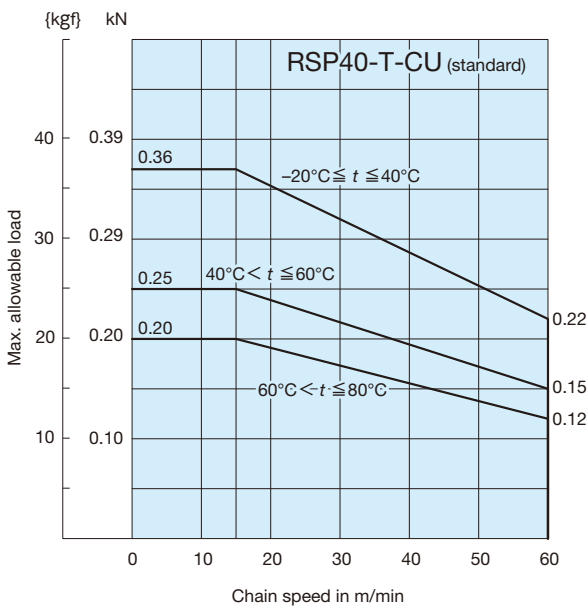
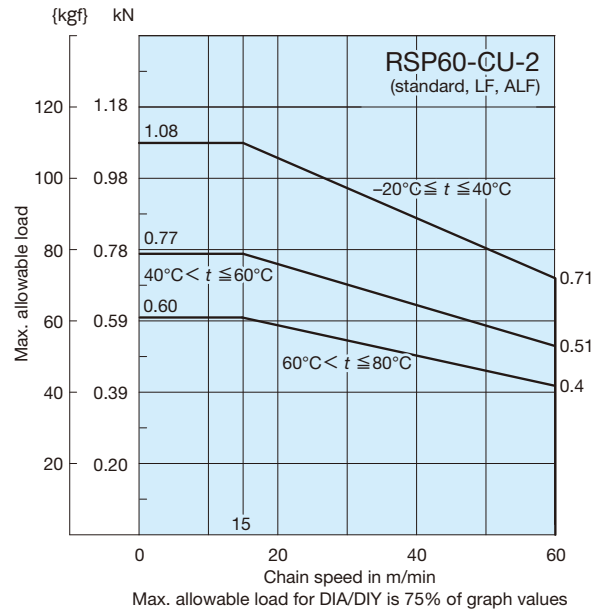
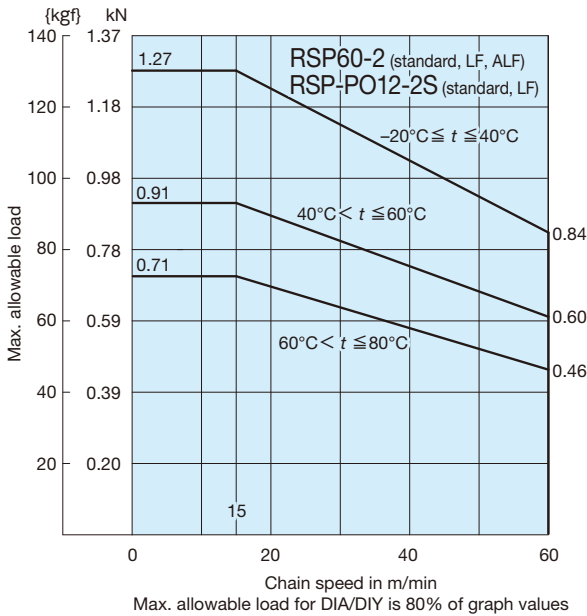
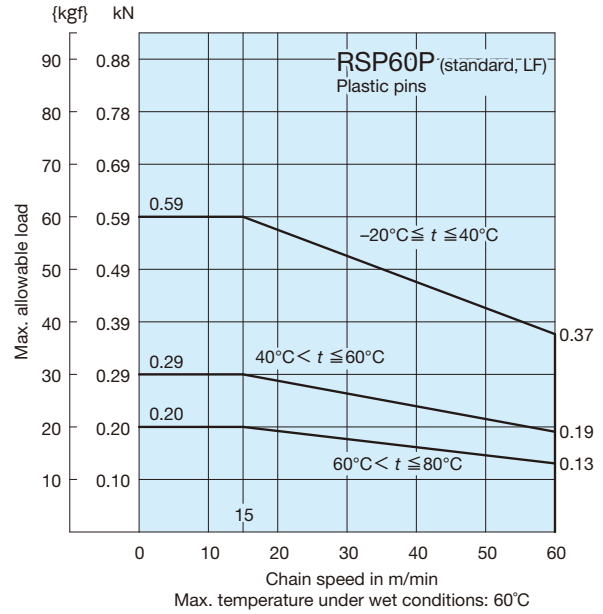
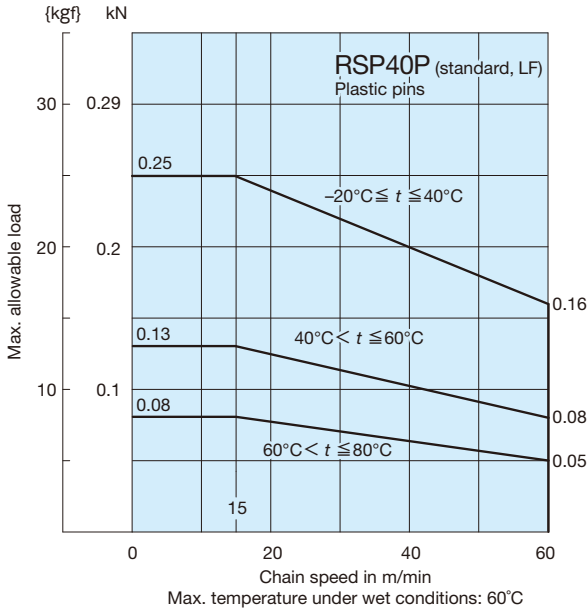
Top Chain



※ t = temperature

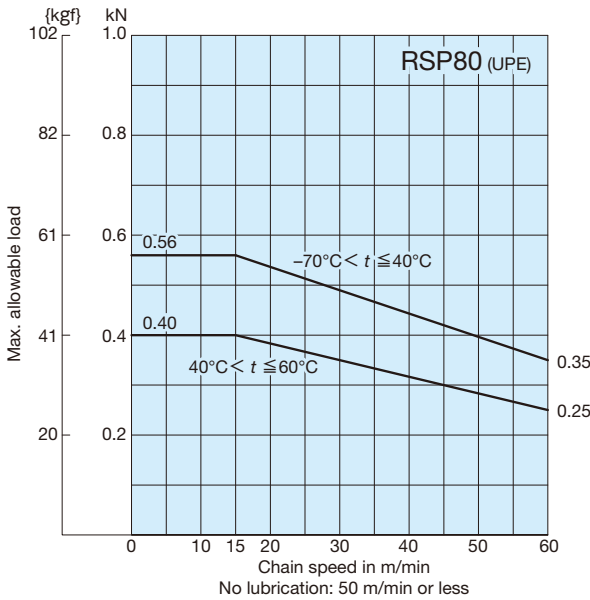
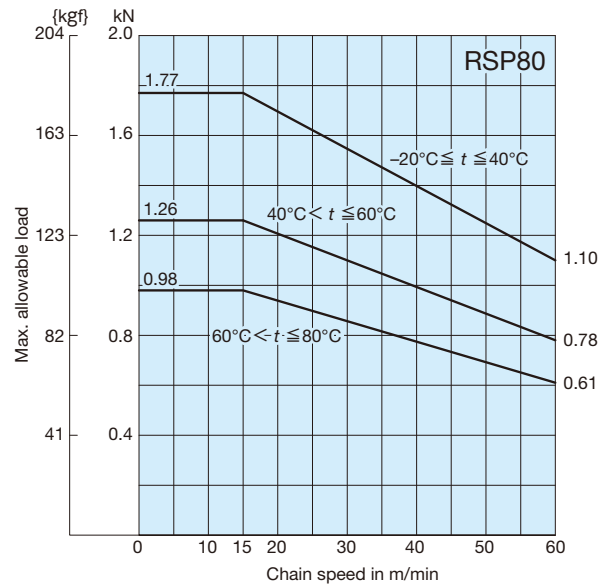
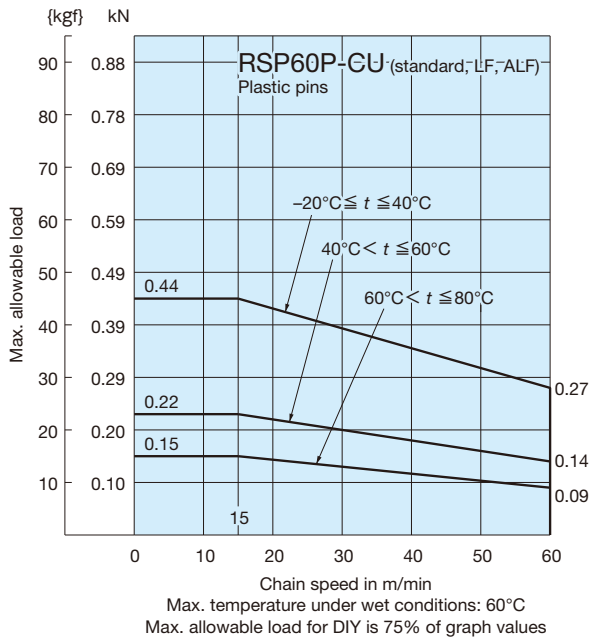
Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

# Top Chain



※ t = temperature

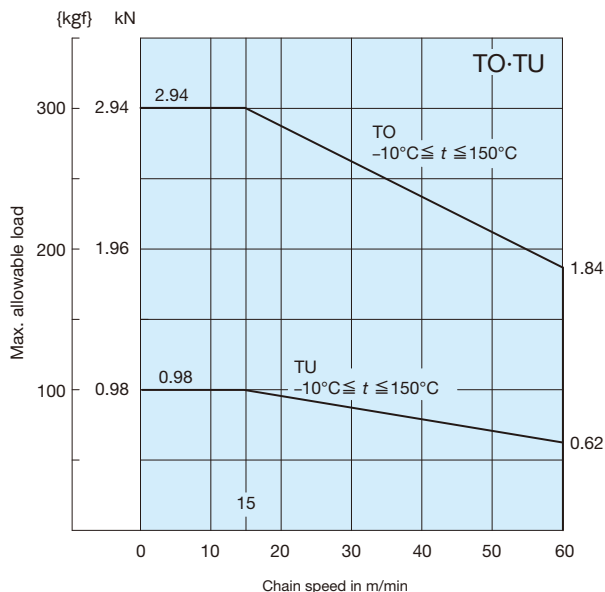
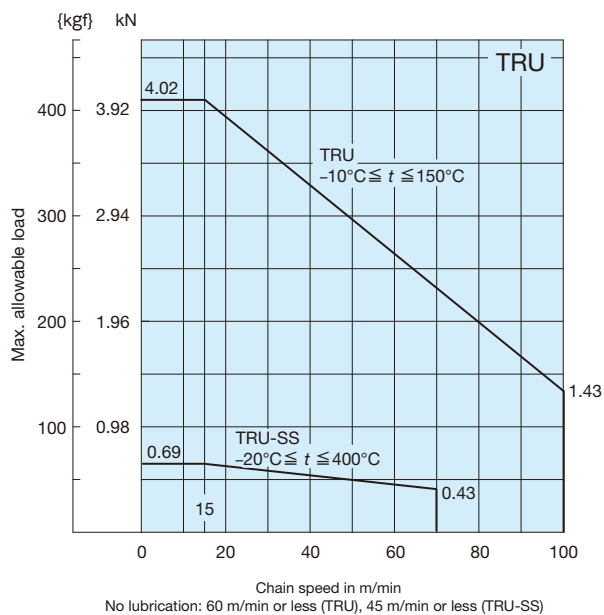
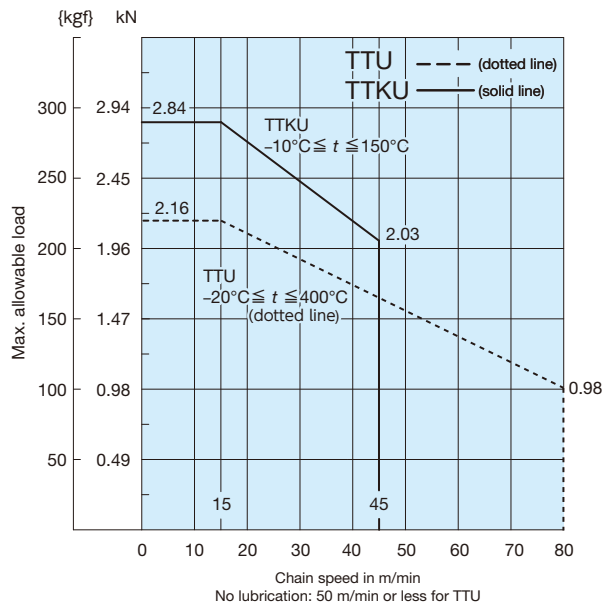
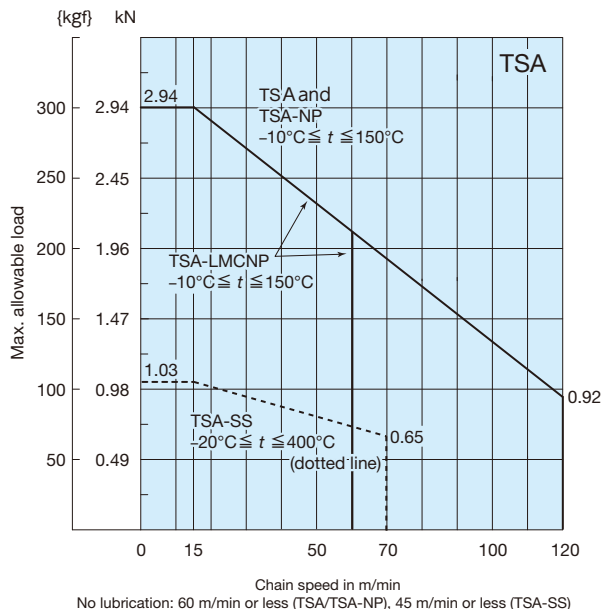
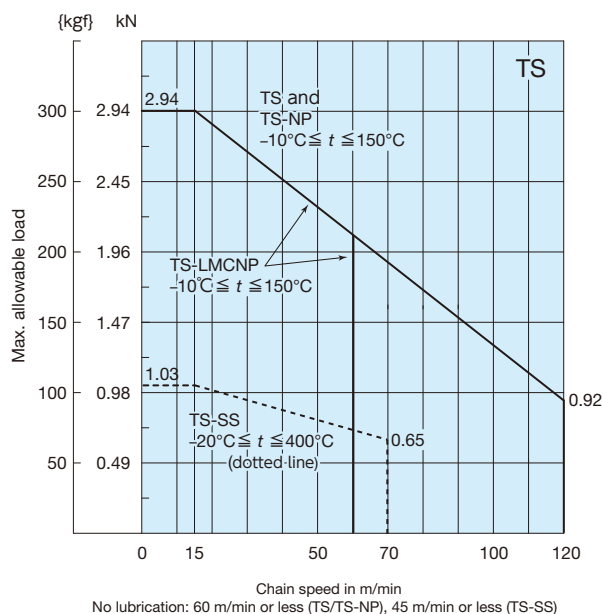
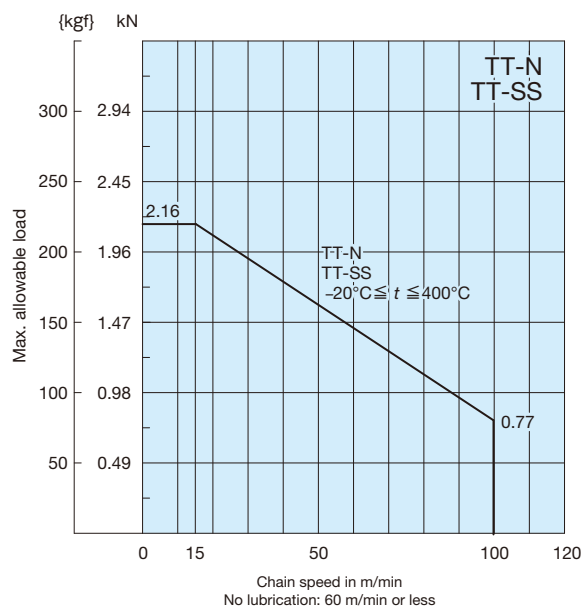
Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.



※ t = temperature

# Top Chain

## Stainless steel top chain



※  $t$  = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.



# Plastic Modular Chain (Wide Type)

Please refer to “Selection Process for Top Chain” on page 403 for plastic modular chain (mold-to-width type).

## 1. Selection Process for Plastic Modular Chain (Wide Width)

Follow the process below to select the plastic modular chain (wide type) and the wearstrip that are most suitable for the application.

Step 1: Check Conveyance Conditions

Step 2: Select Chain Material

Step 3: Select Wearstrip Material

Step 4: Determine Coefficient

Step 5: Calculate Chain Tension and Power Required

Step 6: Determine Chain Type and Chain Width

Note: 1. When selecting BTM8H, WT2515F-W, WT3109-W, BTH16 and LTW series, please fill in the inquiry sheet on page 486, and contact a Tsubaki representative.  
2. When selecting WT2250VG or WT2250 flight type, contact a Tsubaki representative.

## Step 1. Check Conveyance Conditions

Check the operating condition as follows.

### ■ Conveyance conditions checklist

1. Conveyed products	①Materials	
	②Mass per unit	g/unit
	③Shape	
	④Dimension (length x width x height) (diameter x height)	mm
	⑤Direction of conveyance	<div style="border: 1px solid black; display: inline-block; padding: 2px;">conveyed products</div> <span style="font-size: 2em; vertical-align: middle;">↑</span> <span style="font-size: 2em; vertical-align: middle;">→</span>
2. Conveyor layout	①Length of conveyor	m
	②Width of conveyor	mm
	③Layout of conveyance	Draw a layout of the conveyance in the blank space below.
	④Space	BPM·Piece
3. Conveying conditions	①Amount of conveyed products	BPM/Pieces per minute
	②Interval of conveyed products	mm
	③Conveying speed	m/min
	④Lubrication	Yes · No
	⑤Stock of conveyed products (Accumulation and percentage)	Yes · No (If “yes,” accumulation distance: m)
4. Operating environment	①Temperature	°C
	②Conditions which may cause corrosion such as, contact with chemicals, water, and humidity (Refer to “Corrosion resistance to various fluids” on page 402.)	Yes · No (If “yes,” name of liquid: )
	③Presence of abrasives which may accelerate wear such as glass fragments, paint scraps, metal powder, sand	Yes · No
	④Exposure to UV radiation	Yes · No

2-③Conveyance layout and others

# Plastic Modular Chain (Wide Type)

## Step 2. Select Chain Material

Determine the chain material to be used based on operating environment and application.

- Note: 1. Refer to the relevant product page for chain pitch of chain type, applicable chain material, and operating temperature range.  
 2. Refer to "Corrosion resistance to various fluids" on page 402.

## Step 3. Select Wearstrip Material

Select an appropriate wearstrip material based on the chain materials.

**Table 1. Wearstrip Material Selection Chart**

Chain type	Wearstrip material	Lubrication			
		No lube		With lube	
		Abrasive material			
		No	Yes	No	Yes
Plastic modular chain (wide type) • Straight running	Stainless steel	B	D	A	A
	Steel	A	C	B	B
	Plastic rail (P rail)	D	×	A	×
	PMW rail PLF rail	B	×	A	×
	M rail SJ-CNO	A	×	×	×

- Note: 1. A: Strongly recommended, B: Recommended, C: Very usable, D: Usable, x: Not appropriate  
 2. Select stainless steel or steel wearstrips for KV series chains for normal temperatures, and a stainless steel wearstrip for high-temperature applications.  
 3. Recommended metal wearstrip material is cold-rolled metal.  
 4. Steel wearstrip assumes oil lubrication.

**Wearstrip Material, Color, and Features**

	Material, color	Features
Plastic rail (P rail)	UHMW-PE (color: white or green)	<ul style="list-style-type: none"> <li>• Most commonly used rail</li> <li>• Machined or extruded</li> <li>• Recommended for plastic chains used under wet conditions</li> <li>• Low water absorption; chemical and impact resistance are also excellent</li> </ul>
PMW rail PLF rail	Low friction, wear resistant UHMW-PE (color: white)	<ul style="list-style-type: none"> <li>• Lower friction and more wear resistant than P rail</li> <li>• Machined or extruded</li> </ul>
M rail SJ-CNO	Special polyamide [M rail (color: blue)] [SJ-CNO (color: purple)]	<ul style="list-style-type: none"> <li>• Specifically designed for dry use</li> <li>• Wear resistant</li> <li>• Machined</li> </ul>

- Note: Operating temperature range  
 Plastic rail (P rail)  
 PLF rail and PMW rail : -20°C to 60°C  
 M rail, SJ-CNO : -20°C to 80°C

## Step 4. Determine Coefficient

Coefficient factors shown in table 2 are based on in house test data. These values may differ depending on the operation conditions, atmosphere, shape of the conveyed products, chain grime, and other conditions. Use these factors to calculate chain tension shown in step 5.

**Table 2. Coefficient of Dynamic Friction ( $\mu_1, \mu_2$ ) between Plastic Modular Chain and Wearstrip or Conveyed Product**

Wearstrip and conveyed material	Lubrication	Top plate material											
		Standard <small>Note: 5</small>	LFB, NLF, MWS, CB, WR, HG	Closed type/Open type					Net type		DIA	DIY	
				ALF	KV150	KV250	HTW	MF	LFB, MWS	ALF			
Wearstrip material ( $\mu_1$ )	Plastic rail (P rail) M rail	No lube or water	0.25	0.20	0.15	—	—	0.30	0.27	0.20	0.15	0.30	0.25
		Soapy water or oil	0.15	0.13	0.11	—	—	0.20	—	0.13	0.11	—	0.12
	PMW rail SJ-CNO	No lube or water	0.20	0.15	0.13	—	—	—	—	0.15	0.13	0.30	0.20
		Soapy water or oil	0.12	0.12	0.11	—	—	—	—	0.12	0.11	—	0.12
	PLF rail	No lube or water	0.18	0.14	0.12	—	—	—	—	0.14	0.12	—	—
	Soapy water	0.12	0.12	0.11	—	—	—	—	0.12	0.11	—	—	
Steel stainless steel	No lube or water	0.25	0.20	0.14	0.25	0.35	0.32	0.27	0.20	0.14	0.30	0.25	
	Soapy water or oil	0.15	0.15	0.11	—	—	0.20	—	0.15	0.11	—	0.12	
Conveyed material ( $\mu_2$ )	Metallic can	No lube or water	0.25	0.20	0.14	0.23	0.35	0.35	0.28	0.13	0.10	0.30	0.25
		Soapy water or oil	0.14	0.13	0.11	—	—	0.20	—	0.12	0.10	—	0.12
	Glass bottle	No lube or water	0.22	0.14	0.10	0.18	0.35	0.22	0.25	0.11	0.10	0.25	0.22
		Soapy water or oil	0.14	0.14	0.10	—	—	0.10	—	0.11	0.10	—	0.12
	Plastic container	No lube or water	0.25	0.17	0.13	0.20	—	0.30	0.28	0.11	0.10	0.30	0.25
		Soapy water or oil	0.15	0.13	0.11	—	—	0.20	—	0.11	0.10	—	0.15
	Paper package	No lube or water	0.31	0.29	0.22	0.35	—	0.35	0.38	0.20	0.15	0.38	0.30
		Soapy water or oil	0.20	0.21	0.12	—	—	—	—	0.19	0.11	—	0.20

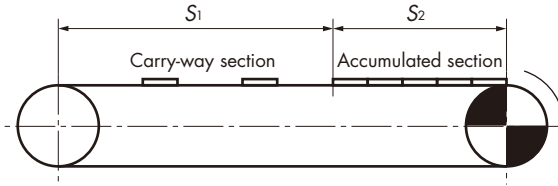
- Note: 1. The dynamic friction coefficients listed are for room temperature (50°C or below). Under temperature conditions that exceed 50°C, use the dynamic friction coefficient 0.35.  
 2. The dynamic friction coefficient data here is based on in-house test data above. The dynamic friction coefficient values can slightly vary due to residue on the chains, the shape of the contact surface of the objects being conveyed, and other conditions. In particular, paper package can have significant differences in dynamic friction coefficients based on the contact surface shape and the material used. For this reason, dynamic friction coefficient measurement is recommended for each object type.  
 3. M rails and SJ-CNO are only for dry use conditions.  
 4. In the case of water lubrication, depending on the type of object being conveyed, the dynamic friction coefficient can be greater than the values in table 2, which can result in adsorption.  
 5. Standard series, Y, E, and UVR series.

# Plastic Modular Chain (Wide Type/Mold-to-Width Type)

## Step 5. Calculate Chain Tension and Power Required

Based on the formula below, calculate the tension acting on the chain and the required power (general-purpose conveyor).

Note: Refer to page on 449 to 453 for special conveyors (pasteurizers, warmers, coolers) and conveyors with nose bars (on the driven side, front side, or both ends).



Note: SI units and gravimetric units

The formulas are given for both SI units and gravimetric units.

When calculating tension  $F$  with gravimetric units, the weight (kgf) in gravimetric units is the same value as the mass (kg) in SI units.

$F$  = Chain tension (kN{kgf})  
 $m_1$  = Chain mass (kg/m)

Chain mass calculation method:

Calculate the chain mass for a length of 1 m.

If the preferred chain width is  $A$  mm:

$m_1$  = Chain mass (Catalog value (kg/m<sup>2</sup>))  $\times A/1000$

$S_1$  = Length of carry-way section (m)

$m_2$  = Weight of conveyed products in carry-way section (kg/m)

$S_2$  = Length of accumulation section (m)

$m_3$  = Weight of conveyed products in accumulation section (kg/m)

$\mu_1$  = Coefficient of dynamic friction between chain and wearstrip (see table 2)

$\mu_2$  = Coefficient of dynamic friction between conveyed product and chain in accumulation section (see table 2)

$P$  = Power required (kW)

$V$  = Chain speed (m/min)

$\eta$ <sup>Note: 1</sup> = Mechanical transmission efficiency for drive unit

### SI Units (kN)

#### Chain Tension

$$F = 9.80665 \times 10^{-3} \{ (2.1m_1 + m_2) S_1 \cdot \mu_1 + (2.1m_1 + m_3) S_2 \cdot \mu_1 + m_3 \cdot S_2 \cdot \mu_2 \} \dots\dots(1)$$

#### Power Required

$$P = \frac{F \cdot V}{60 \eta} \text{ Note: 1}$$

### Gravimetric Units (kgf)

#### Chain Tension

$$F = (2.1m_1 + m_2) S_1 \cdot \mu_1 + (2.1m_1 + m_3) S_2 \cdot \mu_1 + m_3 \cdot S_2 \cdot \mu_2 \dots\dots(1)$$

#### Power Required

$$P = \frac{F \cdot V}{6120 \eta} \text{ Note: 1}$$

Note: 1. For the mechanical transmission efficiency, check the drive unit used.

2. Select a plastic modular chain (mold to width) according to "Selection Process for Top Chain" on page 403.

## Step 6. Determine Chain Type and Chain Width

The tension  $F$  (kN) applied to the chain derived using formula (1) is converted into chain tension  $F'$  (kN/m) per 1 meter of chain width by the following formula.

$$F' = \frac{1000F}{\text{chain width (mm)}} \dots\dots(2)$$

Select a chain type and the width of plastic modular chain whose maximum allowable load is greater than  $F'$ , the tension on chain width per meter obtained by formula (2).

Note: 1. The operating temperature under wet conditions is 60°C at maximum, except for the following: HTW series: Max. 105°C and KV250 series: Max. 250°C. KV150 series is not allowed to be used under wet conditions.

2. To obtain the maximum allowable load, refer to the allowable load graph on page 471 to 474, and specify the chain speed and operating temperature on the diagram.

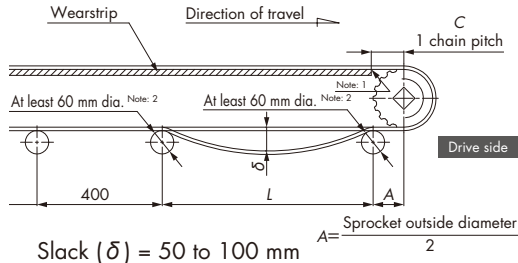
3. If the maximum allowable load is not adequate, select larger chains. To determine a chain type, the conveyance environment should be taken into account.



## 2. Conveyor Design

### 2-1. Wearstrip arrangement

Wearstrip arrangement depends on the installation space and other factors. An example is shown in the figure below. (High load application)



- Note: 1. The wearstrips and conveyor frame near the drive end should be chamfered to prevent chain from interference.  
 2. Return rollers having an 80 mm diameter or more should be used for WT1907, WT3827 and WT5707.

#### 2-1-1. Amount of chain slack

Table 3 shows the spacing  $L$  between return rollers supporting the chain on the return-way near the drive sprocket. The amount of the slack of the chain between these rollers should be 50 to 100 mm, or the chain may result in skipping. The slack prevents the chain skipping.

**Table 3: Return Roller Spacing  $L$**  (Units: mm)

Chain type	Return roller spacing $L$	
	chain tension rate (F1)	
	50% or less	More than 50%
WT0405, WT0705	400 to 600	
BT6, BT8	500 to 700	800 to 1000
WT2250, BTC8S, WT2515, WT2525	600 to 900	
WT1500, 2500, 3000, 3800	450 to 500	
WT3109, BTH16	750 to 1000	

**WT1907, WT3827, WT3835, WT5707** (Units: mm)

Conveyance conditions	Return roller spacing $L$
Length of conveyor: Less than 12 m/conveyed mass: 75 kg/m <sup>2</sup> or less	600 to 900
Length of conveyor: Less than 20 m/conveyed mass: 100 kg/m <sup>2</sup> or less	750 to 900
Length of conveyor: Less than 20 m/conveyed mass: exceeds 100 kg/m <sup>2</sup>	1200 to 1500

- Note: 1. Design with mold to width is same as plastic top chain (refer page 409).  
 2. For pasteurizers and other special conveyors, contact a Tsubaki representative.  
 3. Refer to page on 442 to 443 for when nose bars are mounted on both ends.

#### 2-1-2. Engagement angle

The engagement angle of the chain on the drive sprocket should be at least 180°. Note. If the engagement angle is too small, chain skipping may occur.

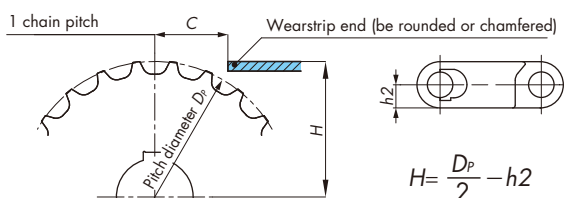
Note: The engagement angle of bottom power drive should be 200° or more.

#### 2-1-3. Wearstrip ends

A distance  $C$ , between the center of the sprocket and the end of the wearstrip, basically should be one pitch of the chain. Also the wearstrip end of the driven unit must be rounded or chamfered to prevent the wearstrip from catching or snagging the chain.

#### 2-1-4. Location of sprockets and wearstrips

Refer to drawing below.



Note: For WT3109-W and BTH16, contact a Tsubaki representative.

**Table 4: Backflex Radius**

Chain type	Backflex radius $R$ mm
WT0405-W	5
WT0705-W	10
BTN5, WT1505-K, WT1505G-K, WT1505GTO-K, WT1506-K, WT1515-W, WT1515G-W, WT1516-W, WT1515G-M, BTC6, BTO6, BTN6	15
WT1907-K	90
BTC8, BTM8H, WT2250-W, WT2525-K, BTC8S, WT2515-W, WT2515G-W	25
WT2505-K, WT2506-K, WT2706-K	20
WT2705-K, WT3005-K, WT3005G-K, WT3086-K, WT3086G-K	30
WT3109-W	35
WT3816-K, WT3835-K	40
WT3827-K	50
BTH16	60
WT5707-K	70
BTC4-M	10
WT1505G-M, WT1505GTO-M, WT1505TOD-M, WT1515G-M	15
BTO8-M, WT2505-M, WT2505G-M, WT2505TOD-M	20
BTC8H-M, BTM8H-M, WT2515G-M	25
WT3005G-M, WT3086G-M, WT3085C325	30
WT3835G-M	40

### 2-2. Guide Clearance

Leave a clearance between the chain and the wearstrip (guide clearance) as indicated below to allow for thermal expansion.

$$\text{Conveyor guide width (G)} = \text{chain width (X)} + \text{guide clearance (Gc)}$$

**Table 5: Guide Clearance  $Gc$**  (Units: mm)

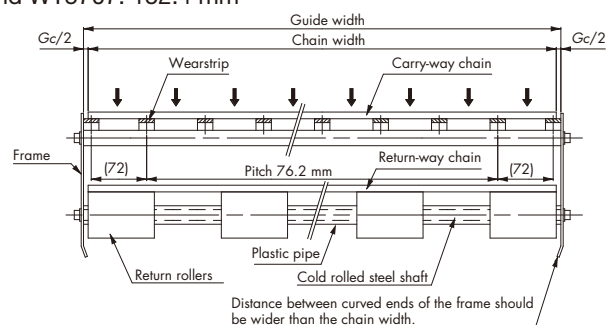
Chain width mm	Temperature °C		
	Guide clearance $Gc$		
	-20 to 40	40 to 60	60 to 80
300 or less	5.0	6.0	7.0
300 to 500	6.0	7.0	9.0
500 to 1,000	8.0	11.0	15.0
1,000 to 1,500	11.0	15.0	21.0
1,500 to 2,000	14.0	20.0	28.0
2,000 to 2,500	17.0	24.0	34.0
2,500 to 3,000	19.0	27.0	40.0

Note: Coefficient of linear expansion of polyacetal chain:  $12 \times 10^{-5}/^{\circ}\text{C}$

### 2-3. Example of wearstrip installation (at ambient temperature)

#### 2-3-1. Wide types (without tab guide attachments)

Wearstrips should be located at equal intervals alternating with sprockets. Wearstrip spacing are as follows;  
 WT0400 series: 45 mm/WT0700 series and WT1510 series: 50 mm/BTN5: 76 mm  
 BT6, BT8/WT1500 series, WT1907, WT3005, WT3835, WT2525 and BTC8S: 76.2 mm/WT2500 series: 76.2 mm (wearstrip width: 25 mm)/WT3086, WT2515 and WT2250: 85 mm/WT3816: 100 mm (wearstrip width: 30 mm)/WT3827 and WT5707: 152.4 mm

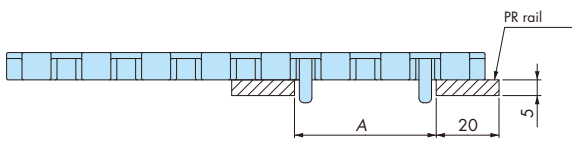
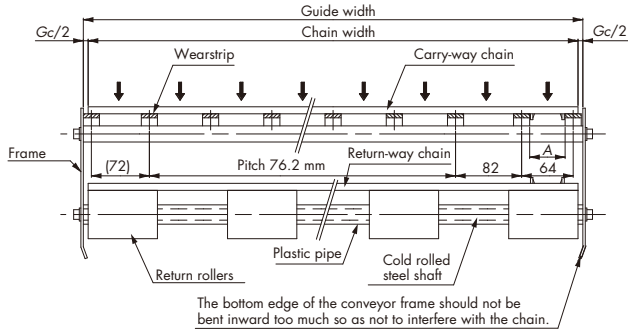


# Plastic Modular Chain (Wide Type/Mold-to-Width Type)

## 2-3-2. Wide types (with tab guide attachments)

(Chains with tab guide attachments: BTN5-A, WT1505GK, WT1515G-W, WT1505GTO-K, WT2515G-W, WT3005G-K, WT3086G-K and BTC8-A)

Tab guide attachments (to prevent meandering) should be installed so as not to interfere with the wearstrip.

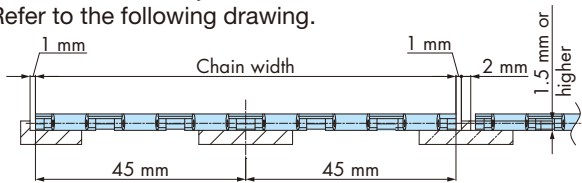


**Table 6: A Dimensions [Wide Types (with Tab Guide Attachments)]**

Chain type	A	Chain type	A
WT1505G-K	44	BTC8-A	44
WT1505GTO-K	47	WT3005G-K	44
BTN5-A	44	WT3086G-K	44
WT2515G-W	45	WT1515G-W	31

## 2-3-3. Wide type (WT0405-W)

In case of a multi strand application, do not make contact with the sides of adjacent strands each other. Refer to the following drawing.

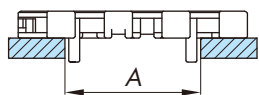


Note: Do not interfere sprocket with wearstrip.

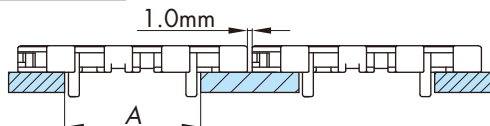
## 2-3-4. Mold-to-width type (with tab guide attachments)

Refer to the table below for guide clearance for chains with tab guide attachments. Leave a clearance of around 1 mm between chains when used in multi-strand conveyors.

For single strand



For multi strands



**Table 7: A Dimensions (Mold-to-Width Type with Tab Guide Attachments)**

Chain type	A	Chain type	A
WT1505G-M	44	WT2515G-M	45
WT1505GTO-M	47	WT3005G-M	44
WT1505TOD	53	WT3086G-M	44
WT1515G-M50	31	WT3835G-M	45
WT1515G-M100	61	BTO8-M	44
WT2505G-M	45	BTC8H-M	44
WT2505TOD	45	BTM8H-M	44

## 2-3-5. Wearstrip installation for KV series

- Recommended wearstrip material is stainless steel.
- Secure only one end of the wearstrip to allow for thermal expansion. Also, remember to leave a clearance between wearstrips to allow for thermal expansion.
- Take-up must be done to compensate for slack in the chain caused by thermal expansion. Take-up adjustments should be performed after reaching operating temperature. Lower temperatures only after loosening take-up.
- Black wear dust will be generated. Be sure to clean on a regular basis.

## 2-4. Conveyor layout

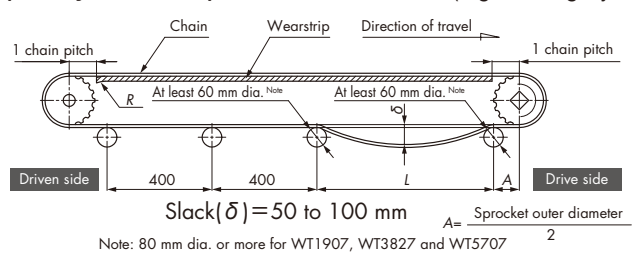
There are two methods of supporting the return-way: "support system using return rollers", and the "support system using wearstrips". Examples are shown below. Precautions:

1. Pay particular attention to the ends when connecting conveyors using TOD chain on the ends.
2. The infeed section of the return wearstrip should be made with a large radius of at least R40.
3. Cut the chain so that the catenary section will have an appropriate amount of slack to compensate for expansion and contraction caused by temperature changes. A tensioner or similar device should be used to adjust the chain take-up.

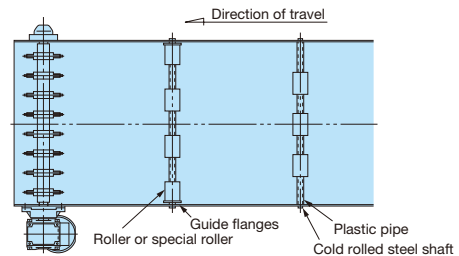
### 2-4-1. Support system using return rollers

The distance of the rollers (in the direction of the conveyor width) should be adjusted according to the width of the chain to be used.

(Conveyor side view) (High loading layout)

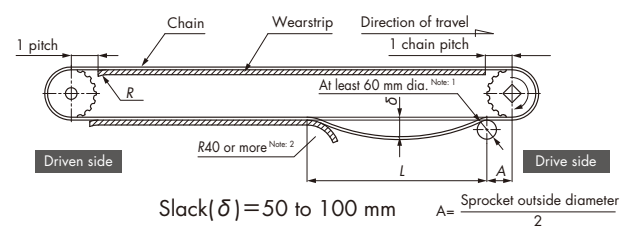


### Plan view of return-way conveyor



### 2-4-2. Support system using wearstrips

(Conveyor plan view) (High loading layout)

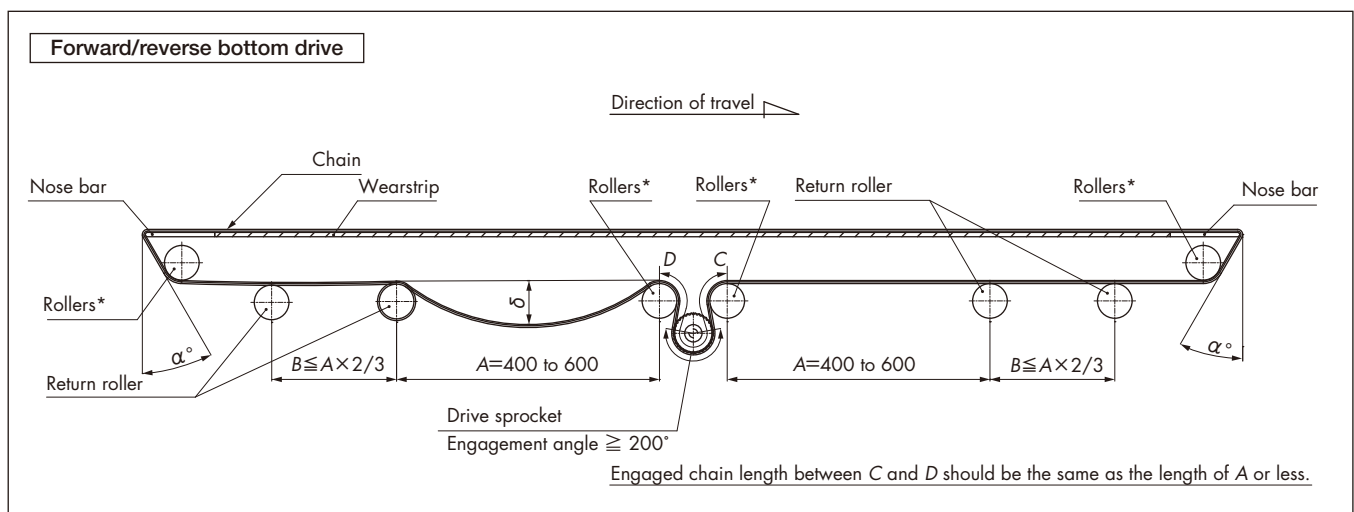
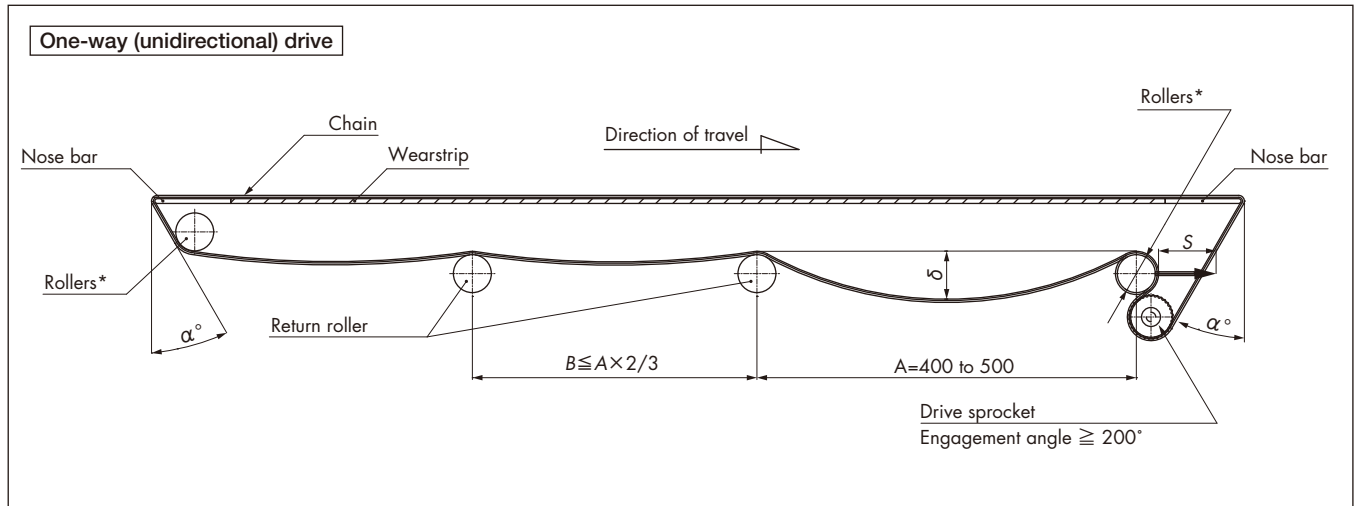


Note: 1. 80 mm dia. or more for WT1907, WT3827 and WT5707.  
2. Equal to its backflex radius or more for WT1907, WT3827, WT5707.

Refer to page on 440 for L dimensions.

## Plastic Modular Chain (Wide Type/Mold-to-Width Type)

## 2-5. WT0700 series with nose bars at both ends

**Important points regarding conveyor design**

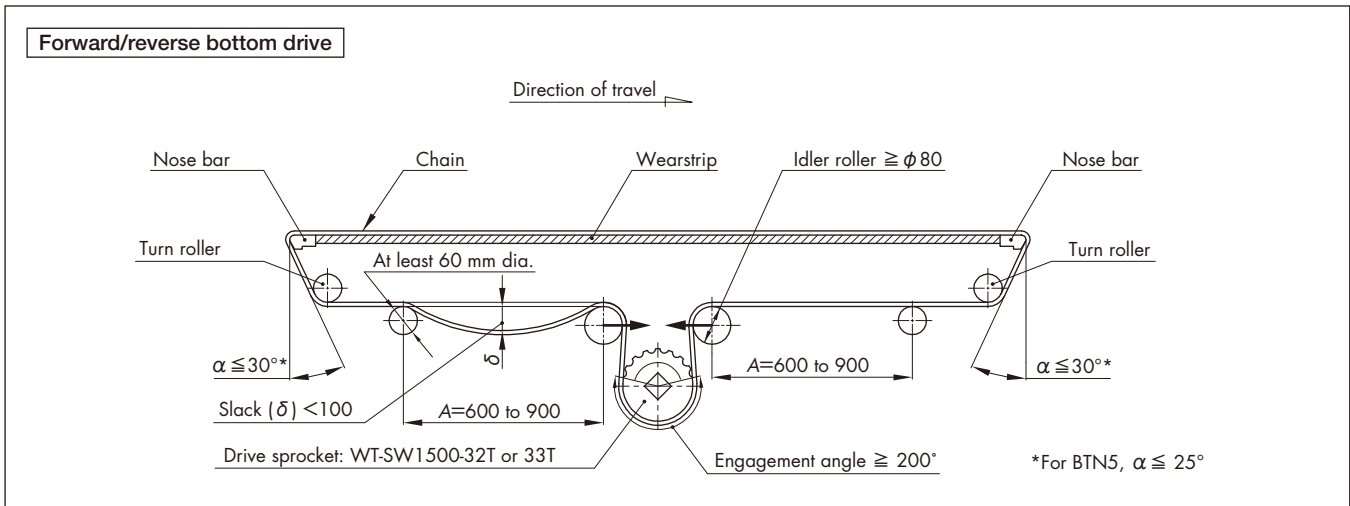
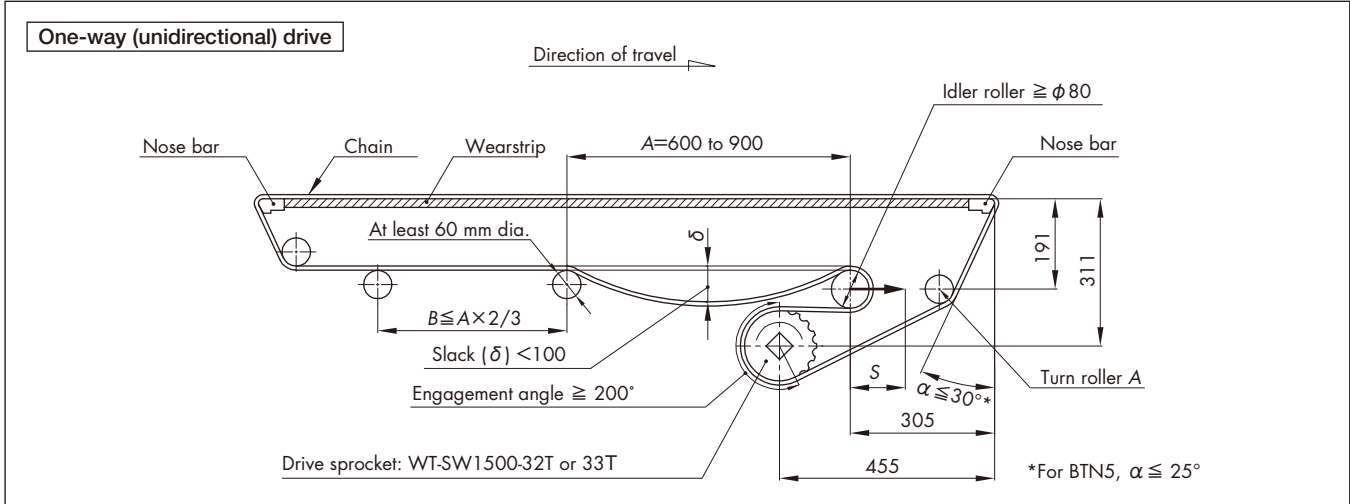
- Use rollers\* in the take-up system
  - It becomes easy to take up chain stretch, cut the chain, and adjust the slack ( $\delta$ ).
  - A rough guide for the take-up stroke (S) is  $S = \text{conveyor length} \times 1\%$ .
- With regard to rollers\*
  - Select rollers that has the largest possible outside diameter (at least 50 mm).
  - The shaft used for rollers must have adequate stiffness.
  - The rollers should be freely rotated.
- Because the chain will expand and contract due to changes in temperature, cut the chain so that an appropriate amount of slack is formed in the catenary section, or adjust using tensioners.  
Reference: Coefficient of linear expansion of polyacetal chain:  $12 \times 10^{-5}/^\circ\text{C}$
- In case of forward/reverse bottom drive, idler rollers receive 1.5 times higher tension load than operation tension, consider choosing more rigid shaft or supporting shaft at more than three places.  
Note: High loading conditions have been taken into account for the design material.

**Important points when using nose bars**

- Nose bars must be mounted using rigid bracing. Slack must be kept within 0.5 mm.
- Dimensional tolerance for bending, twisting, etc., of the frame in the direction of the conveyor width must be less than 0.3 mm.
- The position and dimensions of the nose bars, rollers\*, and sprockets must be set so that they form an angle  $\alpha \leq 30^\circ$ .
- The chain slides over the nose bar under load levels approaching the maximum working tension. Consequently, SJ-CNO (special polyamide) is recommended when running at high speeds and conveying high loading under dry conditions (no lubrication).

# Plastic Modular Chain (Wide Type)

## 2-6. WT1500 series and BTN5 with nose bars at both ends



### Important points regarding conveyor design

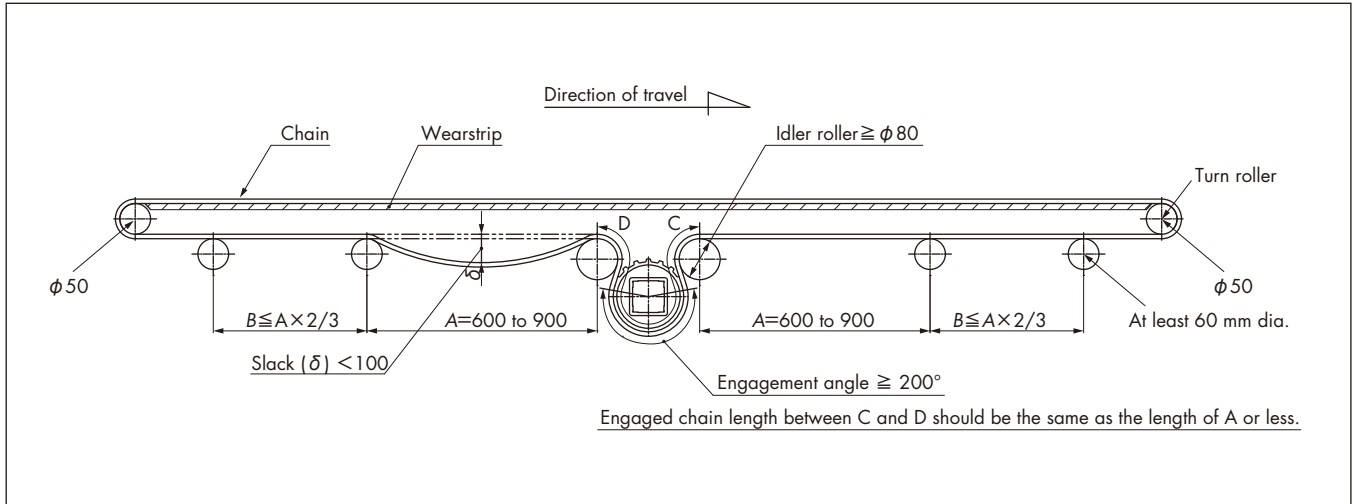
- Use idler rollers in the take-up system.
  - It becomes easy to take up chain stretch, cut the chain, and adjust the slack ( $\delta$ ).
  - A rough guide for the take-up stroke ( $S$ ) is  $S = \text{conveyor length} \times 1\%$ .
- Select the idler roller that has the largest possible outside diameter (at least  $80$  mm diameter).
- The idler roller should be freely rotated.
- The shaft used for turn roller A and turn rollers must have sufficient stiffness. (Do not use high-rotation return rollers for these turn rollers.)
- Because the chain will expand and contract due to changes in temperature, cut the chain so that an appropriate amount of slack is formed in the catenary section, or adjust using tensioners.  
Reference: Coefficient of linear expansion of polyacetal chain:  $12 \times 10^{-5}/^\circ\text{C}$
- In case of forward/reverse bottom drive, idler rollers receive 1.5 times higher tension load than operation tension, consider choosing more rigid shaft or supporting shaft at more than three places.

### Important points when using nose bars

- Nose bars must be mounted using rigid bracing. Slack must be kept within  $0.5$  mm.
- Dimensional tolerance for bending, twisting, etc., of the frame in the direction of the conveyor width must be less than  $0.3$  mm.
- The position and dimensions of the nose bars and turn rollers must be set so that they form an angle  $\alpha \leq 30^\circ$ .
- The chain slides over the nose bar under load levels approaching the maximum working tension. Consequently, PLF, PMW, or SJ-CNO (special polyamide), are recommended when running at high speeds and conveying high loading under dry conditions (no lubrication).

Note: High loading conditions have been taken into account for the design material.

## 2-7. Layout of forward/reverse bottom drive for WT2520 series



## Important points regarding conveyor design

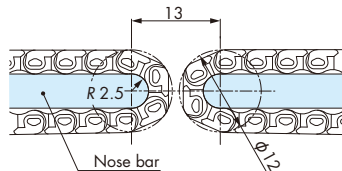
1. Select the idler roller that has the largest possible outside diameter (at least 80 mm diameter).
2. The idler roller should be freely rotated.
3. The shaft used for turn rollers must have sufficient stiffness. (Do not use high-rotation return rollers for these turn rollers.)
4. Because the chain will expand and contract due to changes in temperature, cut the chain so that appropriate slack is formed in the catenary section, or adjust using tensioners.  
Reference: Coefficient of linear expansion of polyacetal chain:  $12 \times 10^{-5}/^\circ\text{C}$
5. In case of forward/reverse bottom drive, idler rollers receive 1.5 times higher tension load than operation tension, consider choosing more rigid shaft or supporting shaft at more than three places.

# Plastic Modular Chain (WideType/Mold-to-Width Type)

## 2-8. In-line layout with nose bars

### 2-8-1. In-line layout of WT0405-W

With a nose bar with a 2.5 mm radius, in-line transfer layout will be possible. The gap in between can be reduced to 13 mm without mounting a dead plate, which was previously required.

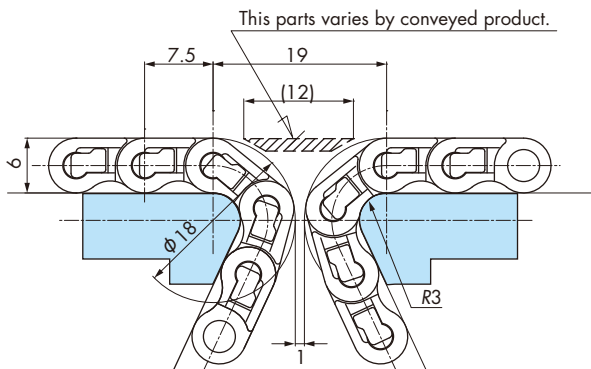


Note: Please contact a Tsubaki representative for details.

### 2-8-2. In-line layout of WT0705-W

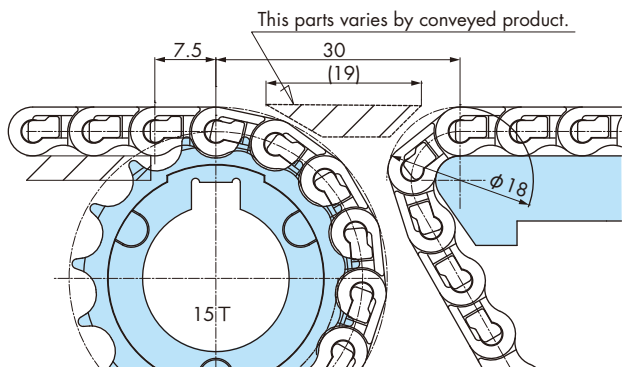
#### ■ In-line layout of WT0705-W nose bar

Both conveyor ends can be adjoined in a straight line. The use of a dead plate helps minimize space in between.



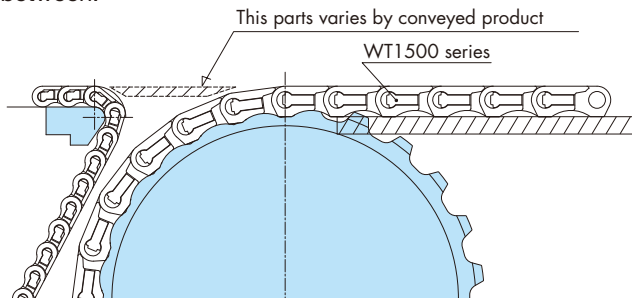
#### ■ In-line layout of WT0705-W with nose bar and sprocket

Conveyor ends and sprockets can be adjoined in a straight line. The use of a dead plate helps minimize space in between.



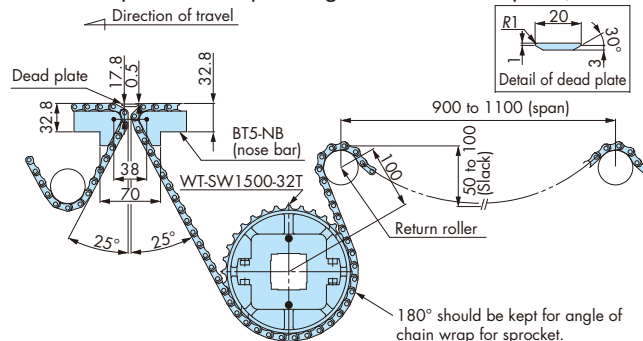
#### ■ In-line layout of WT0705-W with nose bar and WT1500 series sprocket

Conveyor ends and sprockets can be adjoined in a straight line. The use of a dead plate helps minimize space in between.



### 2-8-3. In-line layout of WT1500 series and BTN5

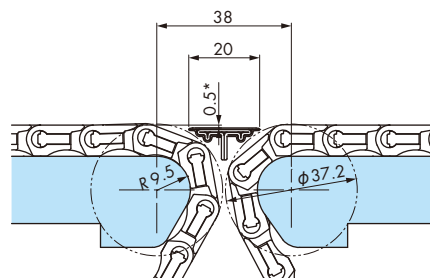
The figure below is an example layout. Mounting positions of wearstrips varies depending on installation space, etc.



Note: 1. Indicated dimensions are just for information, so finely adjust them depending on transfer conditions of the conveyed products.  
2. Even slight jerking due to the unstable shape of conveyed products may cause trouble. Contact a Tsubaki representative when such products have to be conveyed or chain jerking must be avoided.

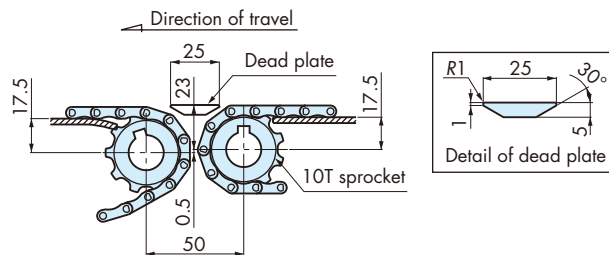
The use of WT1500 and WT1510 series or BTN5 allows layouts in which two conveyors connect head-to-tail. The width of the dead plate used in the space where the two conveyors abut can be as small as 20 mm.

Note: 1. Dimensions marked with \* will need to be adjusted depending on the conveyed products.  
2. Applicable chains are the WT1500, WT1510 series and BTN5 only. It should be noted that WT1505G cannot be adapted to this kind of layout.

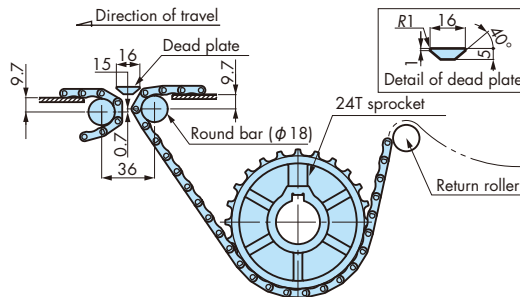


### 2-9. In-line layout of BTC4-M

• For straight transfer with 10T sprockets



• For straight transfer with round bar (φ 18)

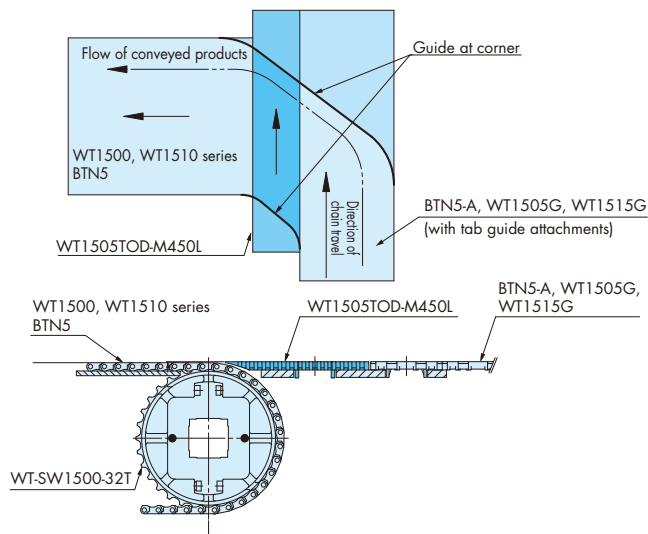


Note: The position level of the dead plate should be finely adjusted according to transfer conditions of the conveyed products.

# Plastic Modular Chain (Wide Type/Mold-to-Width Type)

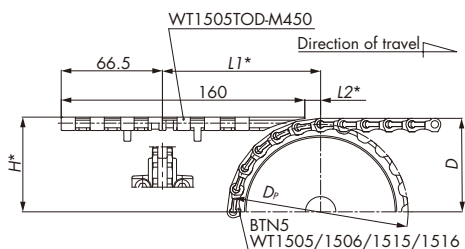
## 2-10. Layout of right-angle transfers

By using GTO and TOD or nose bar, right angled corners can smoothly be transferred without the use of dead plates.



• Dimensions for mounting the chains are given below.

### Insertion Conveyor (WT1505TOD/WT1500)

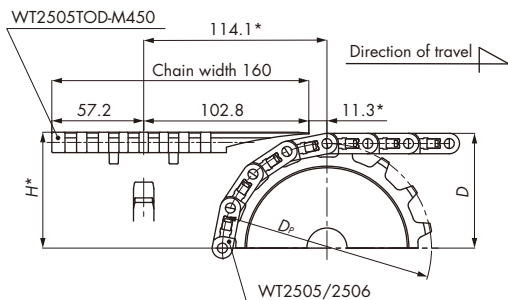


Teeth	Dimensions (mm)				
	$D_p$	$D$	$H^*$	$L1^*$	$L2^*$
24	114.9	61.4	62.2	103.9	10.4
32	153.0	80.5	81.3	104.9	11.4
33	157.8	82.9	83.7	105.0	11.5

Note: Dimensions marked with \* will need to be adjusted depending on the conveyed products.

### Insertion Conveyor (WT2505TOD/WT2500)

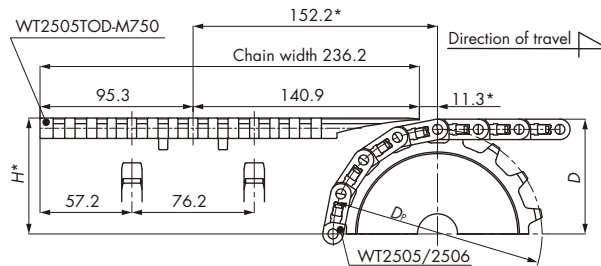
• Case of WT2505TOD-M450



Teeth	Dimensions (mm)		
	$D_p$	$D$	$H^*$
16	130.2	71.4	72.1
18	146.3	79.5	80.3
21	170.4	91.6	92.5
31	251.1	131.8	132.6

Note: Dimensions marked with \* will need to be adjusted depending on the conveyed products.

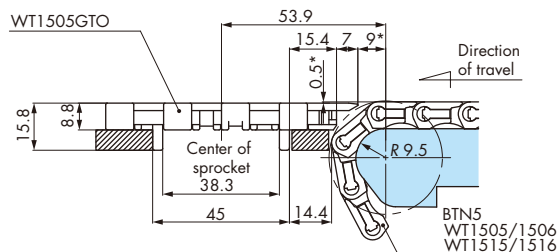
• Case of WT2505TOD-M750



Teeth	Dimensions (mm)		
	$D_p$	$D$	$H^*$
16	130.2	71.4	72.1
18	146.3	79.5	80.3
21	170.4	91.6	92.5
31	251.1	131.8	132.6

Note: Dimensions marked with \* will need to be adjusted depending on the conveyed products.

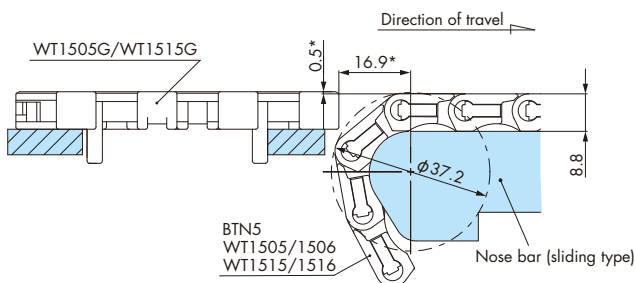
### Discharge Conveyor (WT1500/WT1505G/WT1515G)



Note: Dimensions marked with \* will need to be adjusted depending on the conveyed products.

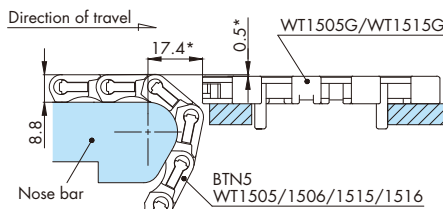
## 2-11. Right-angle transfer of WT1500 and WT1505G

### Insertion Conveyor (WT1500/WT1505G/WT1515G)



Note: Dimensions marked with \* will need to be adjusted depending on the conveyed products.

### Discharge Conveyor (WT1500/WT1505G/WT1515G)

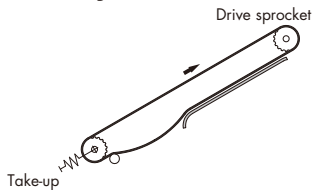


Note: Dimensions marked with \* will need to be adjusted depending on the conveyed products.

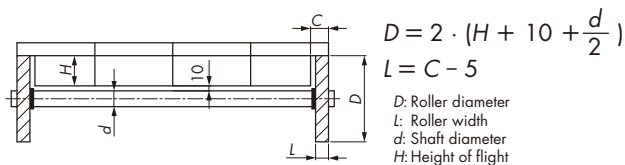
# Plastic Modular Chain (Wide Type/Mold-to-Width Type)

## 2-12. Take-up for inclined conveyors

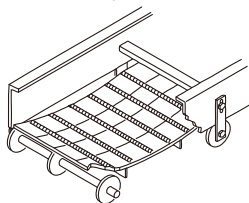
With inclined conveyors, the chain's own weight can cause it to come off the driven sprocket. Therefore, installing a take-up device is recommended.



## 2-13. Return-way in flight type chain

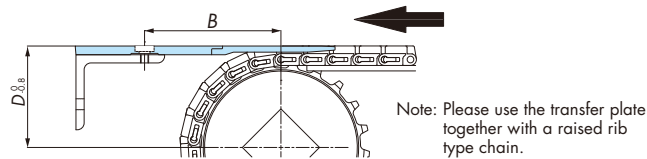


Note: For wide chain, rollers should be positioned at 765-mm intervals.



## 2-14. Installation of transfer plate

The figure below is a preferable layout for transfer plate installation.

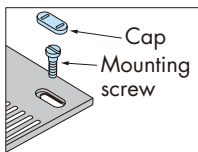


Chain type	Transfer plate Tsubaki model no.	B mm	D mm
WT1907-K	WT-TP1907-L114	70	$\frac{D_p}{2} + 9.9$
	WT-TP1907-L190	100	$\frac{D_p}{2} + 9.9$
WT3827-K	WT-TP3827-L152	82	$\frac{D_p}{2} + 12.7$
WT5707-K	WT-TP5707-L220	82	$\frac{D_p}{2} + 15.5$

*D<sub>p</sub>*: Pitch diameter

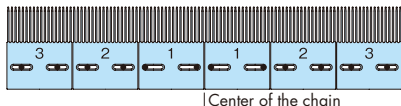
The figure on the right shows how to secure transfer plates with a dedicated cap and a screw.

Having taken thermal expansion into account, secure the screw on the plate in accordance with the guidelines below, which are separated by operating temperature.



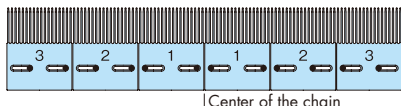
### 1) Stable room temperature (20°C)

The screws of transfer plates with number 2 and 3 are to be secured in the center of the slot in accordance with the figure on the right.



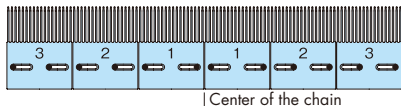
### 2) Low temperature

The screws of transfer plates with number 2 and 3 are to be secured nearing the center of the chain in accordance with the figure on the right.



### 3) High temperature

The screws of transfer plates with number 2 and 3 are to be secured nearing the edge of the chain in accordance with the figure on the right.





# Plastic Modular Chain (Wide Type)

## 3. Examples of selection procedure

### Step 1. Establish Operating Conditions

- Conveyor width: Approximately 600 mm
- Conveyor length: 10 m
- Conveying speed: 20 m/min
- Conveyed products: 350 ml can filled with contents (98 kg/m<sup>2</sup>)
- Accumulation: Fully accumulated on conveyor
- Temperature: Room temperature
- Lubrication: Soapy water

### Step 2. Select Chain Material and Chain Type

BT06-6096-LFB (open type, LFB series) is selected.

### Step 3. Select Wearstrip Material

UHMW-PE is selected.

### Step 4. Calculate Chain Tension

- $m_1$  = Chain mass.....4 kg/m  
For a chain width of 609.6 mm:  
6.56 (value from catalog in kg/m<sup>2</sup>) × 609.6/1000  
≐ 4 (kg/m)
- $S_1$  = Length of carry-way section.....0 m
- $m_2$  = Weight of conveyed products in carry-way section  
.....0 kg/m
- $S_2$  = Length of accumulation section.....10 m
- $m_3$  = Weight of conveyed products in accumulation  
section .....60 kg/m  
For a chain width of 609.6 mm:  
98 (conditions as above in kg/m<sup>2</sup>) × 609.6/1000  
≐ 60 (kg/m)
- $\mu_1$  = Coefficient of dynamic friction between chain and  
wearstrip.....0.13 (see table 2)
- $\mu_2$  = Coefficient of dynamic friction between  
conveyed products and chain in accumulation  
section.....0.13 (see table 2)
- $V$  = Chain speed.....20 m/min
- $\eta$  = Mechanical transmission efficiency for drive  
unit.....0.8

#### SI units (kN)

$$F = 9.80665 \times 10^{-3} \times \{(2.1 \times 4 + 0) \times 0 \times 0.13 + (2.1 \times 4 + 60) \times 10 \times 0.13 + 60 \times 10 \times 0.13\} = 1.64 \text{ kN}$$

$$P = \frac{1.64 \times 20}{60 \times 0.8} = 0.683 \text{ kW}$$

#### Gravimetric units

$$F = (2.1 \times 4 + 0) \times 0 \times 0.13 + (2.1 \times 4 + 60) \times 10 \times 0.13 + 60 \times 10 \times 0.13 = 166.9 \text{ kgf}$$

$$P = \frac{166.9 \times 20}{6120 \times 0.8} = 0.682 \text{ kW}$$

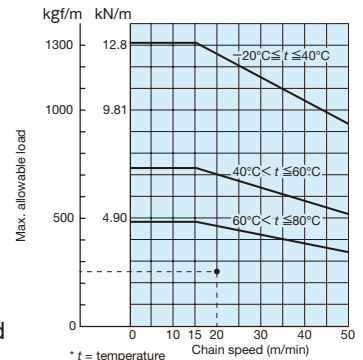
### Step 5. Determine Chain Type and Width

Tension applied per 1 meter of chain width

$$F' = \frac{1000 \times 1.64}{609.6} = 2.69 \text{ kN/m} \quad \{274 \text{ kgf/m}\}$$

Since the above value exists below the appropriate line in the allowable load graphs can be used.

(Refer to the allowable load graphs for page on 471.)



### Step 6: Select Sprocket, Shaft, and Bearing Unit

#### Sprocket, shaft, and bearing selection

Bearing support span = chain width (610) + 150 = 760 mm  
In accordance with “the tension applied per 1 meter of chain width (F’)”, “the bearing support span graph”, and Tables 10, 33, and 34 (Type of Shafts and Corresponding Bearing Units), one of the following combinations of shaft and bearing unit should be used.

10T 38 hexagonal shaft  
Bearing unit  $\phi 25$  to  $\phi 35$

or

24T 40 square shaft  
Bearing unit  $\phi 30$  to  $\phi 35$

is to be used.

### Step 7. Determine Sprocket Locations

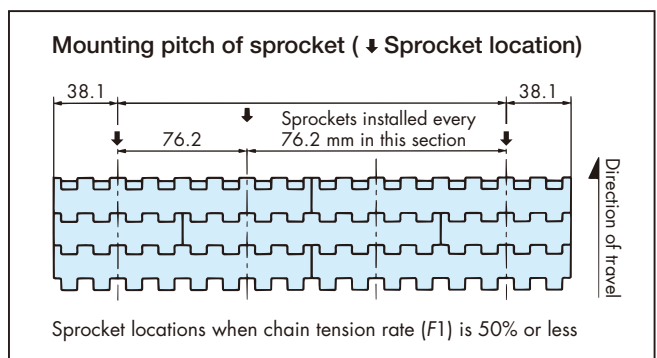
#### 1) Chain tension rate F1 (%) verification

$$F1 = \frac{100 \times 2.69}{12.8} = 21.0\%$$

#### 2) Determine sprocket locations

Since F1 is 50% or less, the sprockets should be installed with a center distance as shown below.

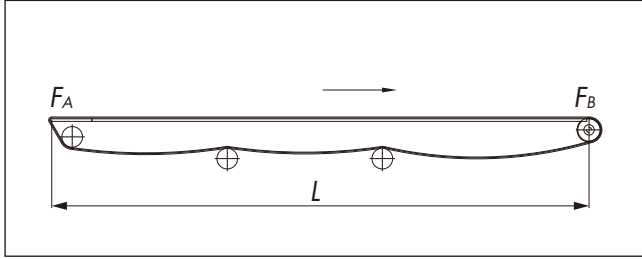
(Refer to the illustration ⑧ for page on 457).



# Plastic Modular Chain (Wide Type/Mold-to-Width Type)

## Selection example: WT0705-W

### ■ Nose bar on driven side



#### ● Calculation formula (SI units: kN)

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = m_1 \cdot L \cdot \mu_1 \cdot fn \times 9.80665 \times 10^{-3}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = F_A + \{(m_1 + m_2)L \cdot \mu_1 + m_2 \cdot Ls \cdot \mu_2\} \times 9.80665 \times 10^{-3}$
- Tension at chain  
 $F = F_B$   
Note:  $Ls = 0$  when there is no accumulation of conveyed products.

#### ● Calculation example (SI units)

Operating Conditions	
Chain type	WT0705-W300-LFG ( $m_1 = 5.9 \times 0.3 = 1.77$ kg/m)
Chain width	300 mm
Layout	$L = 2$ m
Chain speed	$V = 15$ m/min
Conveyed products	500-ml aluminum can (filled)
Conveyed product mass (per 1-meter unit of length)	$m_2 = 139$ kg/m <sup>2</sup> (523 g/piece) $\times 0.3$ m = 41.7 kg/m
Wearstrip	UHMW-PE (Plastic rail)
Accumulation distance	$Ls = 2$ m
Lubrication	Dry
Operating temperature	20°C
Dynamic coefficient of friction between chain and wearstrip	$\mu_1 = 0.2$
Dynamic coefficient of friction between chain and conveyed product	$\mu_2 = 0.2$
Nose bar coefficient	$fn = 1.8$

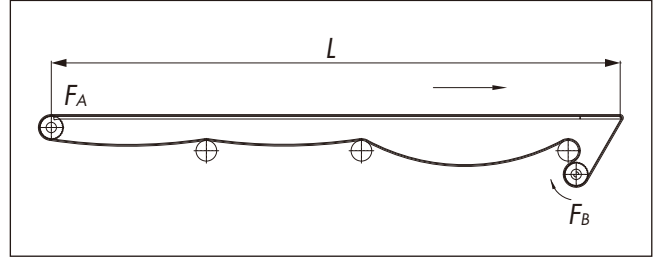
- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = 1.77 \times 2 \times 0.2 \times 1.8 \times 9.80665 \times 10^{-3} = 0.0125$  kN
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = 0.0125 + \{(1.77 + 41.7) \times 2 \times 0.2 + 41.7 \times 2 \times 0.2\} \times 9.80665 \times 10^{-3} = 0.35$  kN
- Determine acceptability  
Maximum allowable tension  $\geq F_B'$   
Converted to per meter of chain width:  
 $F_B' = \frac{1000 \times F_B}{300} = 1.17$  (kN/m)  
From the allowable load graph, maximum allowable tension is 2.5 (kN/m).  
 $2.5$  (kN/m)  $\geq 1.17$  (kN/m)

Selected chain is acceptable.

### ■ $fn$ (nose bar coefficient)

Lubrication	Nose bar coefficient: $fn$
	Sliding type
Dry	1.8
Soapy water	1.35

### ■ Nose bar on front end



#### ● Calculation formula (SI units: kN)

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = 1.1m_1 \cdot L \cdot \mu_1 \times 9.80665 \times 10^{-3}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = [F_A + \{(m_1 + m_2)L \cdot \mu_1 + m_2 \cdot Ls \cdot \mu_2\} \times 9.80665 \times 10^{-3}] \times fn$
- Tension at chain  
 $F = F_B$   
Note:  $Ls = 0$  when there is no accumulation of conveyed products.

#### ● Calculation example (SI units)

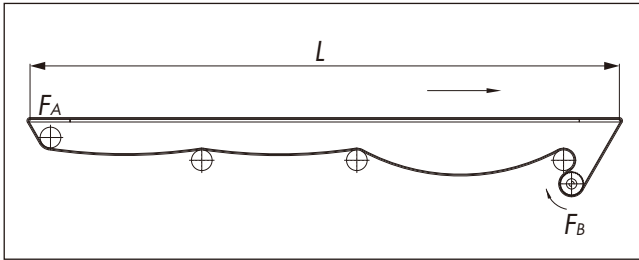
Operating Conditions	
Chain type	WT0705-W300-LFG ( $m_1 = 5.9 \times 0.3 = 1.77$ kg/m)
Chain width	300 mm
Layout	$L = 2$ m
Chain speed	$V = 15$ m/min
Conveyed products	500-ml aluminum can (filled)
Conveyed product mass (per 1-meter unit of length)	$m_2 = 139$ kg/m <sup>2</sup> (523 g/piece) $\times 0.3$ m = 41.7 kg/m
Wearstrip	UHMW-PE (Plastic rail)
Accumulation distance	$Ls = 2$ m
Lubrication	Dry
Operating temperature	20°C
Dynamic coefficient of friction between chain and wearstrip	$\mu_1 = 0.2$
Dynamic coefficient of friction between chain and conveyed product	$\mu_2 = 0.2$
Nose bar coefficient	$fn = 1.8$

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = 1.1 \times 1.77 \times 2 \times 0.2 \times 9.80665 \times 10^{-3} = 0.0077$  kN
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = [0.0077 + \{(1.77 + 41.7) \times 2 \times 0.2 + 41.7 \times 2 \times 0.2\} \times 9.80665 \times 10^{-3}] \times 1.8 = 0.62$  kN
- Determine acceptability  
Maximum allowable tension  $\geq F_B'$   
Converted to per meter of chain width:  
 $F_B' = \frac{1000 \times F_B}{300} = 2.07$  (kN/m)  
From the allowable load graph, maximum allowable tension is 2.5 (kN/m).  
 $2.5$  (kN/m)  $\geq 2.07$  (kN/m)

Selected chain is acceptable.

**Selection example: WT0705-W**

■ **Nose bar on both ends**



● **Calculation formula (SI units: kN)**

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = m_1 \cdot L \cdot \mu_1 \cdot f_n \times 9.80665 \times 10^{-3}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = [F_A + \{(m_1 + m_2) \cdot L \cdot \mu_1 + m_2 \cdot L_s \cdot \mu_2\} \times 9.80665 \times 10^{-3}] \times f_n$
- Tension at chain  
 $F = F_B$   
Note:  $L_s = 0$  when there is no accumulation of conveyed products.

● **Calculation example (SI units)**

Operating Conditions	
Chain type	WT0705-W300-LFG ( $m_1 = 5.9 \times 0.3 = 1.77 \text{ kg/m}$ )
Chain width	300mm
Layout	$L = 2\text{m}$
Chain speed	$V = 15\text{m/min}$
Conveyed products	500-ml aluminum can (filled)
Conveyed product mass (per 1-meter unit of length)	$m_2 = 139 \text{ kg/m}^2 (523 \text{ g/piece}) \times 0.3 \text{ m}$ $= 41.7 \text{ kg/m}$
Wearstrip	UHMW-PE (Plastic rail)
Accumulation distance	$L_s = 2 \text{ m}$
Lubrication	Dry
Operating temperature	20°C
Dynamic coefficient of friction between chain and wearstrip	$\mu_1 = 0.2$
Dynamic coefficient of friction between chain and conveyed product	$\mu_2 = 0.2$
Nose bar coefficient	$f_n = 1.8$

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = 1.77 \times 2 \times 0.2 \times 1.8 \times 9.80665 \times 10^{-3} = 0.0125\text{kN}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = [0.0125 + \{(1.77 + 41.7) \times 2 \times 0.2 + 41.7 \times 2 \times 0.2\} \times 9.80665 \times 10^{-3}] \times 1.8$   
 $= 0.63\text{kN}$
- Determine acceptability  
Maximum allowable tension  $\geq F_B'$   
Converted to per meter of chain width:  
 $F_B' = \frac{1000 \times F_B}{300} = 2.1 \text{ (kN/m)}$   
From the allowable load graph, maximum allowable tension is 2.5 (kN/m).  
 $2.5 \text{ (kN/m)} \geq 2.1 \text{ (kN/m)}$

Selected chain is acceptable.

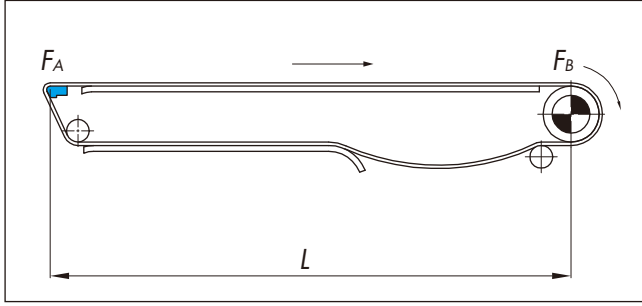
■  **$f_n$  (nose bar coefficient)**

Lubrication	Nose bar coefficient: $f_n$
	Sliding type
Dry	1.8
Soapy water	1.35

# Plastic Modular Chain (Wide Type/Mold-to-Width Type)

## Selection example: WT1500 series, WT1510 series and BTN5

### ■ Nose bar on driven end



#### ● Calculation formula (SI units: kN)

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = m_1 \cdot L \cdot \mu_1 \cdot fn \times 9.80665 \times 10^{-3}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = F_A + \{(m_1 + m_2)L \cdot \mu_1 + m_2 \cdot L_s \cdot \mu_2\} \times 9.80665 \times 10^{-3}$
- Tension at chain  
 $F = F_B$   
Note:  $L_s = 0$  when there is no accumulation of conveyed products.

#### ● Calculation example (SI units)

Operating Conditions	
Chain type	WT1506-K30-ALF ( $m_1 = 6.7 \times 0.762 = 5.1 \text{ kg/m}$ )
Chain width	762 mm
Layout	$L = 4 \text{ m}$
Chain speed	$V = 15 \text{ m/min}$
Conveyed products	500-ml aluminum can (filled)
Conveyed product mass (per 1-meter unit of length)	$m_2 = 139 \text{ kg/m}^2$ (523 g/piece) $\times 0.762 \text{ m} = 106 \text{ kg/m}$
Wearstrip	UHMW-PE (Plastic rail)
Accumulation distance	$L_s = 4 \text{ m}$
Lubrication	Dry
Operating temperature	20°C
Dynamic coefficient of friction between chain and wearstrip	$\mu_1 = 0.15$
Dynamic coefficient of friction between chain and conveyed product	$\mu_2 = 0.14$
Nose bar coefficient	$fn = 1.35$ (bearing/roller type)

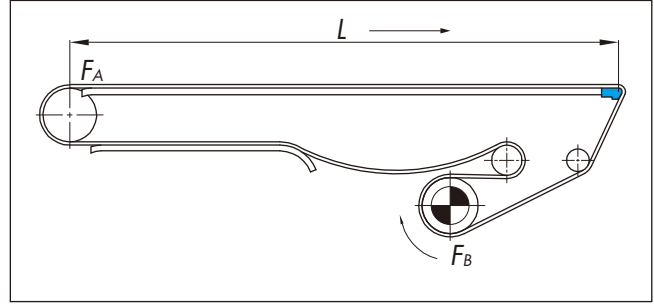
- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = 5.1 \times 4 \times 0.15 \times 1.35 \times 9.80665 \times 10^{-3} = 0.04 \text{ kN}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = 0.04 + \{(5.1 + 106) \times 4 \times 0.15 + 106 \times 4 \times 0.14\} \times 9.80665 \times 10^{-3} = 1.28 \text{ kN}$
- Determine acceptability  
Maximum allowable tension  $\geq F_B'$   
Converted to per meter of chain width:  
 $F_B' = \frac{1000 \times F_B}{762} = 1.68 \text{ (kN/m)}$   
From the allowable load graph, maximum allowable tension is 10.5 (kN/m).  
 $10.5 \text{ (kN/m)} \geq 1.68 \text{ (kN/m)}$

Selected chain is acceptable.

### ■ $fn$ (Nose bar coefficient)

Lubrication	Nose bar coefficient: $fn$	
	Sliding type	Roller/bearing type
Dry	1.8	1.35
Soapy water	1.35	

### ■ Nose bar on front end



#### ● Calculation formula (SI units: kN)

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = 1.1m_1 \cdot L \cdot \mu_1 \times 9.80665 \times 10^{-3}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = [F_A + \{(m_1 + m_2)L \cdot \mu_1 + m_2 \cdot L_s \cdot \mu_2\} \times 9.80665 \times 10^{-3}] \times fn$
- Tension at chain  
 $F = F_B$   
Note:  $L_s = 0$  when there is no accumulation of conveyed products.

#### ● Calculation example (SI units)

Operating Conditions	
Chain type	WT1506-K30-ALF ( $m_1 = 6.7 \times 0.762 = 5.1 \text{ kg/m}$ )
Chain width	762 mm
Layout	$L = 4 \text{ m}$
Chain speed	$V = 15 \text{ m/min}$
Conveyed products	500-ml aluminum can (filled)
Conveyed product mass (per 1-meter unit of length)	$m_2 = 139 \text{ kg/m}^2$ (523 g/piece) $\times 0.762 \text{ m} = 106 \text{ kg/m}$
Wearstrip	UHMW-PE (Plastic rail)
Accumulation distance	$L_s = 4 \text{ m}$
Lubrication	Dry
Operating temperature	20°C
Dynamic coefficient of friction between chain and wearstrip	$\mu_1 = 0.15$
Dynamic coefficient of friction between chain and conveyed product	$\mu_2 = 0.14$
Nose bar coefficient	$fn = 1.35$ (bearing/roller type)

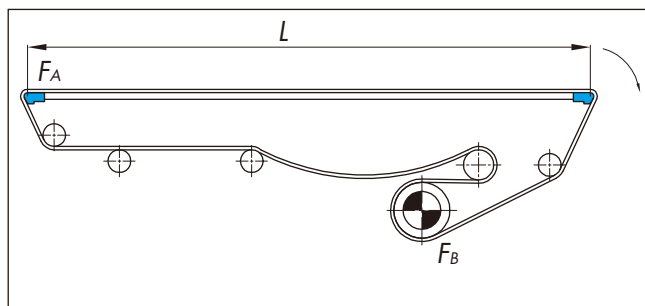
- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = 1.1 \times 5.1 \times 4 \times 0.15 \times 9.80665 \times 10^{-3} = 0.03 \text{ kN}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = [0.03 + \{(5.1 + 106) \times 4 \times 0.15 + 106 \times 4 \times 0.14\} \times 9.80665 \times 10^{-3}] \times 1.35 = 1.71 \text{ kN}$
- Determine acceptability  
Maximum allowable tension  $\geq F_B'$   
Converted to per meter of chain width:  
 $F_B' = \frac{1000 \times F_B}{762} = 2.24 \text{ (kN/m)}$   
From the allowable load graph, maximum allowable tension is 2.5 (kN/m).  
 $10.5 \text{ (kN/m)} \geq 2.24 \text{ (kN/m)}$

Selected chain is acceptable.

## Plastic Modular Chain (Wide Type/Mold-to-Width Type)

## Selection example: WT1500 series, WT1510 series and BTN5

## ■ Nose bar on both ends



## ● Calculation formula (SI units: kN)

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = m_1 \cdot L \cdot \mu_1 \cdot f_n \times 9.80665 \times 10^{-3}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = [F_A + \{(m_1 + m_2) \cdot L \cdot \mu_1 + m_2 \cdot L_s \cdot \mu_2\} \times 9.80665 \times 10^{-3}] \times f_n$
- Tension at chain  
 $F = F_B$   
Note:  $L_s = 0$  when there is no accumulation of conveyed products.

## ● Calculation example (SI units)

Operating Conditions	
Chain type	WT1506-K30-ALF ( $m_1 = 6.7 \times 0.762 = 5.1 \text{ kg/m}$ )
Chain width	762 mm
Layout	$L = 4 \text{ m}$
Chain speed	$V = 15 \text{ m/min}$
Conveyed products	500-ml aluminum can
Conveyed product mass (per 1-meter unit of length)	$m_2 = 139 \text{ kg/m}^2$ (523 g/piece) $\times 0.762 \text{ m}$ $= 106 \text{ kg/m}$
Wearstrip	UHMW-PE (Plastic rail)
Accumulation distance	$L_s = 4 \text{ m}$
Lubrication	Dry
Operating temperature	20°C
Dynamic coefficient of friction between chain and wearstrip	$\mu_1 = 0.15$
Dynamic coefficient of friction between chain and conveyed product	$\mu_2 = 0.14$
Nose bar coefficient	$f_n = 1.35$ (bearing/roller type)

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = 5.1 \times 4 \times 0.15 \times 1.35 \times 9.80665 \times 10^{-3} = 0.04 \text{ kN}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = [0.04 + \{(5.1 + 106) \times 4 \times 0.15 + 106 \times 4 \times 0.14\} \times 9.80665 \times 10^{-3}] \times 1.35$   
 $= 1.72 \text{ kN}$
- Determine acceptability  
Maximum allowable tension  $\geq F_B'$   
Converted to per meter of chain width:  
 $F_B' = \frac{1000 \times F_B}{762} = 2.26 \text{ (kN/m)}$   
From the allowable load graph, maximum allowable tension is 10.5 (kN/m).  
 $10.5 \text{ (kN/m)} \geq 2.26 \text{ (kN/m)}$

Selected chain is acceptable.

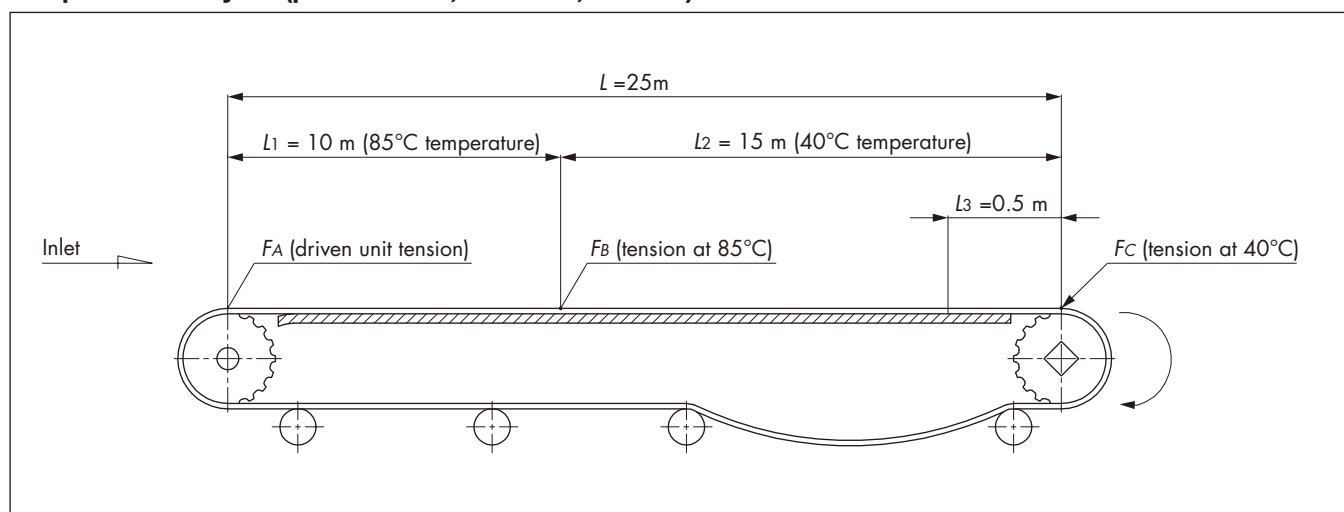
 ■  $f_n$  (Nose bar coefficient)

Lubrication	Nose bar coefficient: $f_n$	
	Sliding type	Roller/bearing type
Dry	1.8	1.35
Soapy water	1.35	

# Plastic Modular Chain (Wide Type)

## Selection example: WT3816-K

### Special conveyors (pasteurizers, warmers, coolers)



#### ● Calculation formula (SI units: kN)

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = 1.1m_1 \cdot L \cdot \mu_1 \times 9.80665 \times 10^{-3}$
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = F_A + (m_1 + m_2)L_1 \cdot \mu_1 \times 9.80665 \times 10^{-3}$   
[Tension at section C:  $F_C$ ]  
 $F_C = F_B + \{(m_1 + m_2)L_2 \cdot \mu_1 + m_2 \cdot L_3 \cdot \mu_2\} \times 9.80665 \times 10^{-3}$
- Tension at chain  
 $F = F_C$   
Note:  $L_3 = 0$  when there is no accumulation of conveyed products.

#### ● Calculation example (SI units)

Operating Conditions	
Chain type	WT3816-K2000-HTW ( $m_1 = 9.8 \times 2 = 19.6$ kg/m)
Chain width	2000 mm
Layout	$L = 25$ m, $L_1 = 10$ m, $L_2 = 15$ m
Chain speed	$V = 1$ m/min
Conveyed products	1,500-ml PET bottle
Conveyed product mass	$m_2 = 200$ kg/m <sup>2</sup> (1530 g/piece) $\times 2$ m = 400 kg/m
Wearstrip	Stainless steel (polished)
Accumulation distance	$L_3 = 0.5$ m
Lubrication	Water (hot water)
Ambient operating temperature	Hot water (85°C max.)
Dynamic coefficient of friction between chain and wearstrip	$\mu_1 = 0.35$
Dynamic coefficient of friction between chain and conveyed product	$\mu_2 = 0.35$

- Tension at return-way  
[Tension at section A:  $F_A$ ]  
 $F_A = 1.1 \times 19.6 \times 25 \times 0.35 \times 9.80665 \times 10^{-3} = 1.85$  kN
- Tension at carry-way  
[Tension at section B:  $F_B$ ]  
 $F_B = 1.85 + (19.6 + 400) \times 10 \times 0.35 \times 9.80665 \times 10^{-3} = 16.3$  kN  
[Tension at section C:  $F_C$ ]  
 $F_C = 16.3 + \{(19.6 + 400) \times 15 \times 0.35 + 400 \times 0.5 \times 0.35\} \times 9.80665 \times 10^{-3}$   
= 38.6 kN

- Determine acceptability  
A determination is made for each temperature range:  
Maximum allowable tension  $\geq F$
- At 85°C  
Working tension:  $F = F_B'$   
Converting into per a meter width  
 $F_B' = \frac{1000 \times F_B}{2000} = 8.15$  (kN/m)  
From the allowable load graph, maximum allowable tension at 85°C is 8.3 (kN/m).  
 $8.3$  (kN/m)  $\geq 8.15$  (kN/m)  
Selected chain is acceptable.
- At 40°C  
Working tension:  $F = F_C'$   
Converting into per a meter width  
 $F_C' = \frac{1000 \times F_C}{2000} = 19.3$  (kN/m)  
From the allowable load graph, maximum allowable load at 40°C is 20 (kN/m).  
 $20$  (kN/m)  $\geq 19.3$  (kN/m)  
Selected chain is acceptable.

Selected chain can be used in each temperature range.

## 4. Handling Plastic Modular Chain (Wide Type) Sprockets

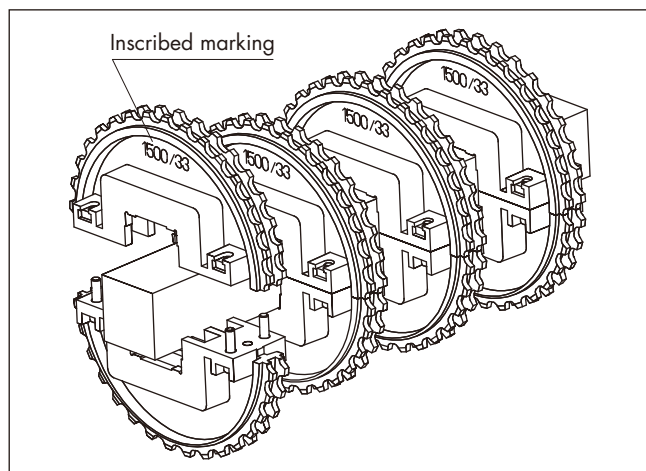
### 4-1. Handling sprockets

In general, square shafts are recommended for the drive and driven shafts used with plastic modular chains, except for special cases (such as mold-to-width type chains and right-angle transfers using TOD). Because changes in temperature will cause the chain to expand and contract, sprockets must be mounted so that they are free to move laterally in the across-the-width direction. However, to prevent meandering (snaking) of the chain, one (or two) sprocket(s) should be locked in position in the center of both the drive and driven shafts using setscrews or set-collars and hexagonal socket head cap screws. When installing the sprockets on the square shaft, the inscribed markings or identification marks should be used to orient the sprockets so that they all face the same direction and to keep the position of the teeth aligned.

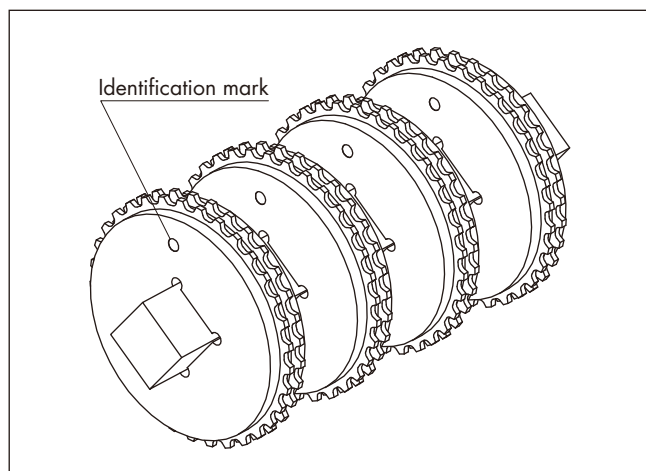
#### 4-1-1. Phase matching of sprockets

Install the sprockets on the shaft in such a manner that the direction and the position of all the inscribed markings or identification marks on the sprockets are aligned.

Split sprocket



Solid sprocket



#### 4-1-2. Chain expansion/contraction

Plastic modular chain is made of polymer resin, and will expand and contract with changes in temperature. A rough estimate for linear chain expansion is  $12 \times 10^{-5}$  ( $^{\circ}\text{C}$ ) using  $20^{\circ}\text{C}$  as the reference temperature. The expansion per nominal width ( $\Delta W$ ) is found using the following formula:  
 $\Delta W = \text{chain nominal width} \times (\text{operating ambient temperature} - 20^{\circ}\text{C}) \times 12 \times 10^{-5}$

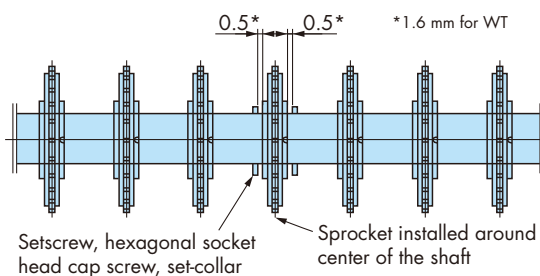
(Example)

For K60 chain (1,524 mm wide) used in an environment where the temperature rises from  $20^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ :

$$\Delta W = 1524 \times (60 - 20) \times 12 \times 10^{-5} = 7.3 \text{ mm}$$

#### 4-1-3. Locking sprockets

The sprockets and the shaft are loosely fitted in order to absorb differences in thermal expansion between the chain and the conveyor and also installation errors of the chain and the sprockets. However, a setscrew, a hexagonal socket head cap screw, or a set-collar should be mounted on each side of a sprocket installed around the center with about 0.5 mm (1.6 mm for WT) clearance with the sprocket in order to prevent winding motion in the chain.



\* Fix the sprocket to be installed between the tab guide attachments when using a chain equipped between tab guide attachments.

#### 4-1-4. Chain installation

Wind the chain onto the sprockets installed at the given intervals.



If the sprockets are installed at the wrong interval, the chain may run over the sprocket and break. Make certain of the center distance between the sprockets.

# Plastic Modular Chain (Wide Type)

## 4-2. Select sprockets, shafts, and bearing units

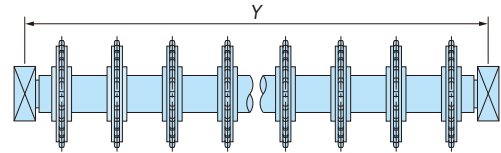
Select a shaft, bearing, and sprocket that satisfy requirements based on the shaft capacity graphs, tables 8 to 21, and tables 22 to 115 (type of shafts and corresponding bearing units) on pages 460 to 467.

Note:  $F'$  tension on the chain width per meter has a limit in some types of bearings (according to the internal diameter of the bearing).

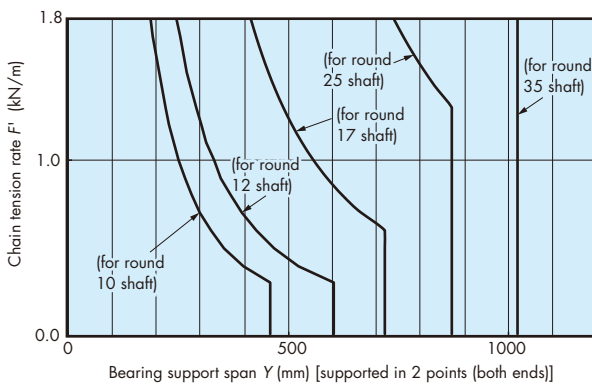
### Relation between chain tension ( $F'$ ) per 1 m of chain width and bearing unit support span

- Relation between bearing support span  $Y$  and chain width  $X$   
 For 40, 50 and 60 square shafts: Approximately  $Y = X + 150$  (mm)

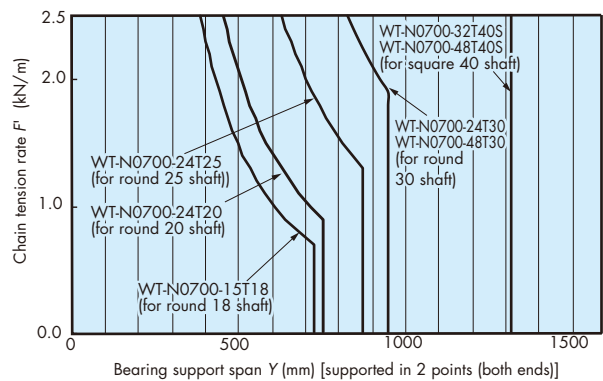
Note: Operating temperature range:  $-20^{\circ}\text{C}$  to  $80^{\circ}\text{C}$



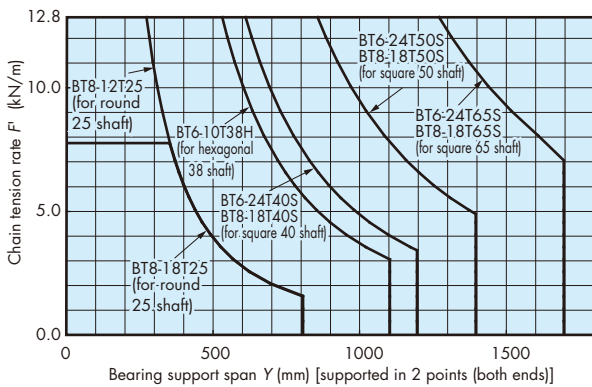
**Table 8. Shaft capacity graph: WT0405-W**



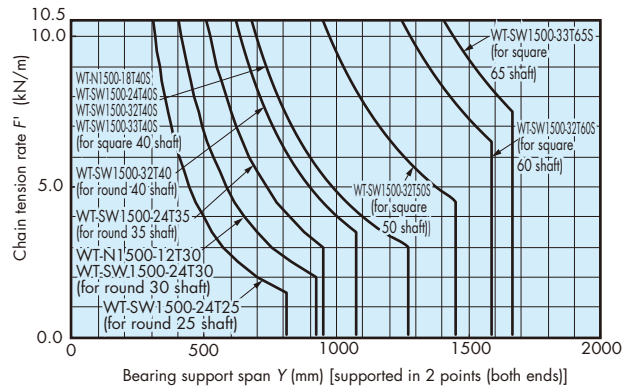
**Table 9. Shaft capacity graph: WT0705-W**



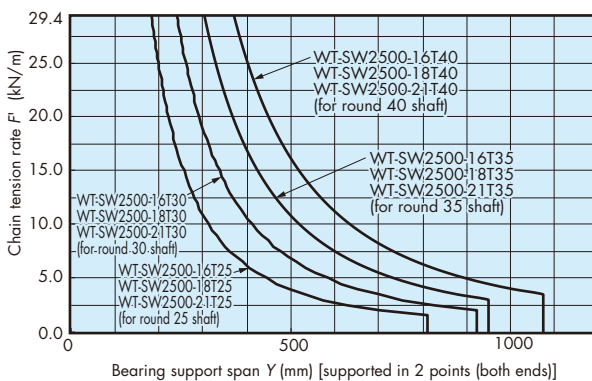
**Table 10. Shaft capacity graph: BT6 and BT8**



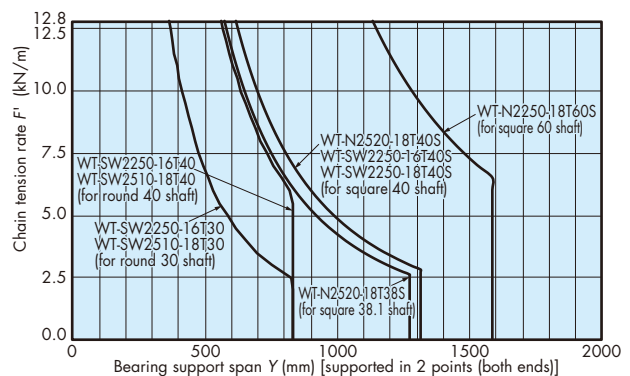
**Table 11. Shaft capacity graph: BT5, WT1500, WT1510 and 3000 series**



**Table 12. Shaft capacity graph: WT2500 series**



**Table 13. Shaft capacity graph: WT2250, WT2515-W, WT2525-K and BTC8S**





Plastic Modular Chain (Wide Type)

Table 14. Shaft capacity graph: WT1907-K

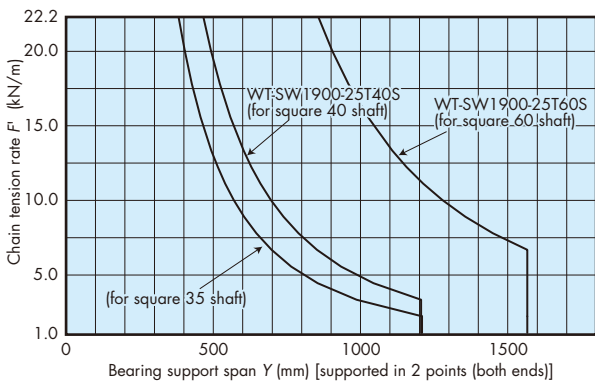


Table 15. Shaft capacity graph: WT2700 series

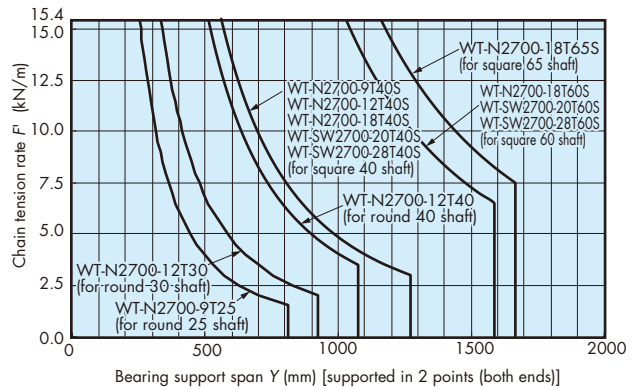


Table 16. Shaft capacity graph: WT3827-K

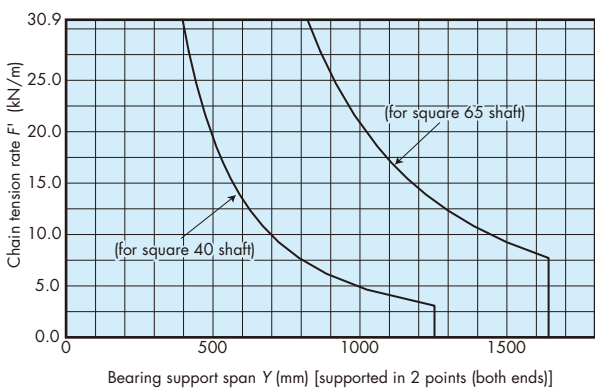


Table 17. Shaft capacity graph: WT3100 series

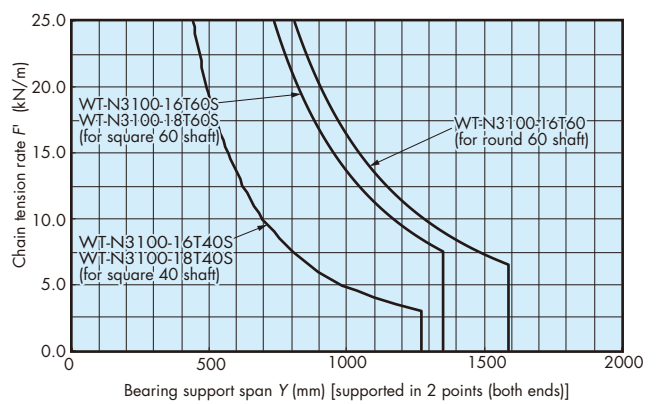


Table 18. Shaft capacity graph: BTH16

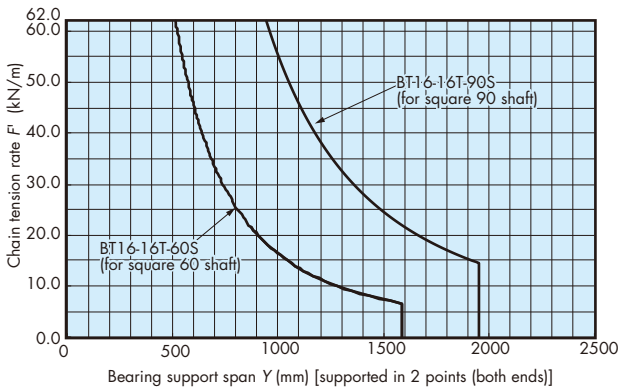


Table 19. Shaft capacity graph: WT3816-K

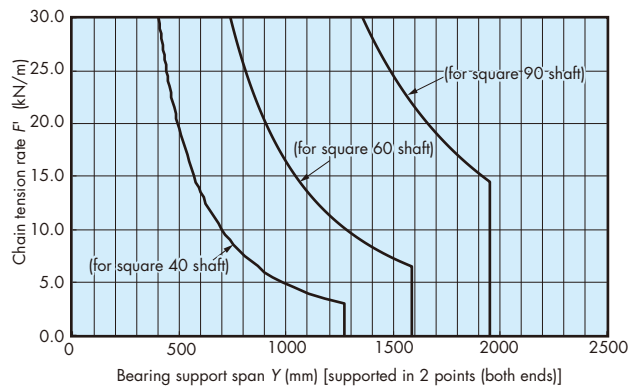


Table 20. Shaft capacity graph: WT3835-K

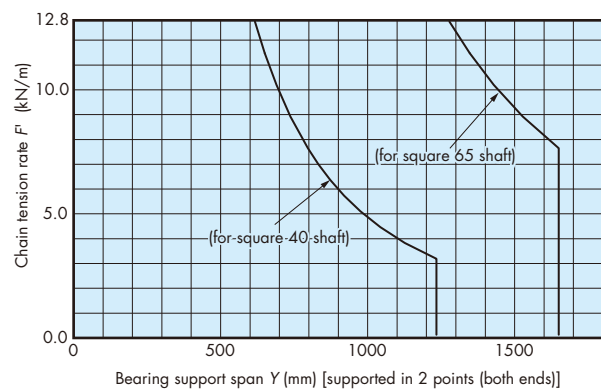
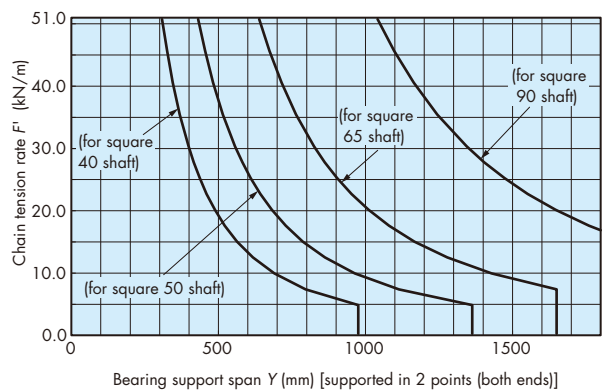


Table 21. Shaft capacity graph: WT5707-K



# Plastic Modular Chain (Wide Type)

## 4-3. Determine sprocket locations

The diagrams below show the location and distance between sprockets (pitch) for each type of chain. Find the percentage of maximum allowable load (maximum allowable load per 1 meter of chain width) that the tension per 1 meter of chain width  $F'$  derived by means of step 6 [formula (2)] represents. Note that the locations and pitch may change depending on chain tension rate  $F1$ .

### Formula of chain tension rate $F1$ (%)

$$F1 = \frac{100F'}{A} \dots(3)$$

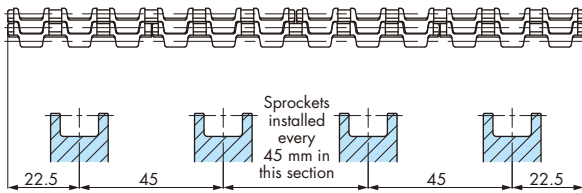
$F'$ : Tension applied per 1 meter of chain width derived by step 6 [kN (kgf)]

$A$ : Maximum allowable load per 1 meter of chain width with given temperature [kN (kgf)].

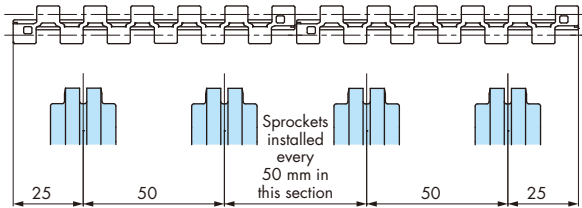
Refer to the allowable load graphs.

### Wide Type

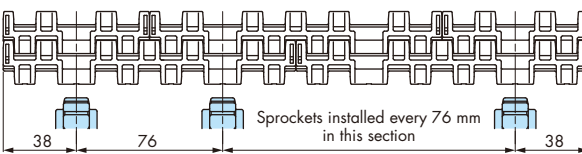
#### ① WT0405-W



#### ② WT0705-W

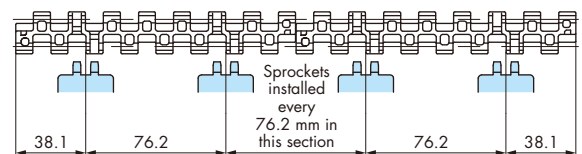


#### ③ BTN5, BTN5-A

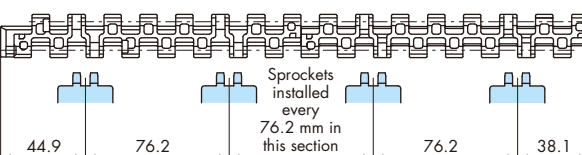


Note: BT5-24T sprocket cannot be used with BTN5-A (with tab guide attachment). Please consider using BT5-32T. WT-SW1500-24T can also be used.

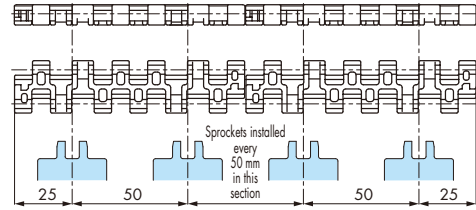
#### ④ WT1505-K, WT1505G-K, WT1506-K



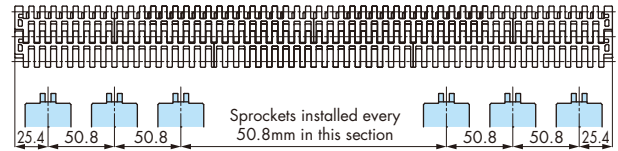
#### ⑤ WT1505GTO-K



#### ⑥ WT1515-W, WT1516-W, WT1515G-W



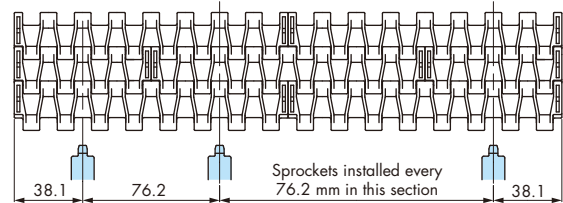
#### ⑦ WT1907-K



Note: If the chain width is an odd numbered inch, the mounting pitch will be 76.2 mm for each. Arrange the around the center portion for adjustment.

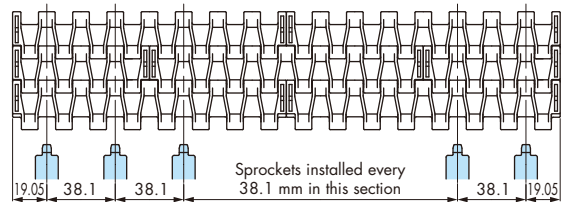
#### ⑧ BT6 series, BTC8, and BTC8-A

● Sprocket locations when chain tension rate ( $F1$ ) is 50% or less



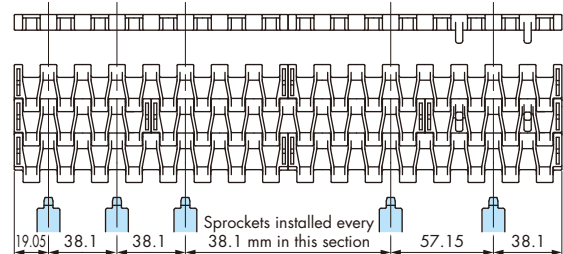
#### ⑨ BT6 series and BTC8

● Sprocket locations when chain tension rate ( $F1$ ) is greater than 50%.

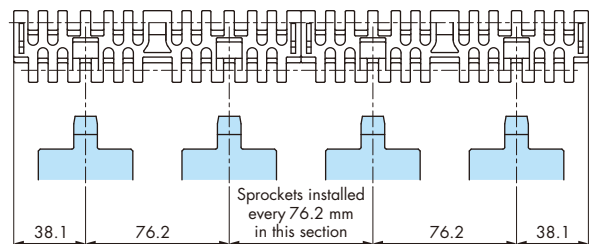


#### ⑩ BTC8-A

● Sprocket locations when chain tension rate ( $F1$ ) is greater than 50%.

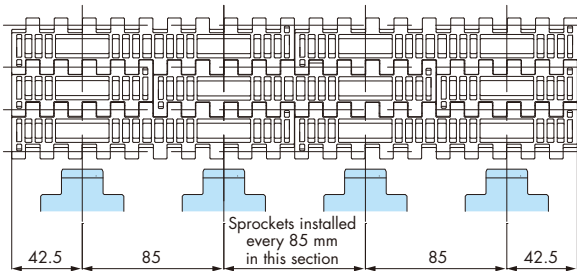


#### ⑪ WT2505-K, WT2506-K, BTM8H

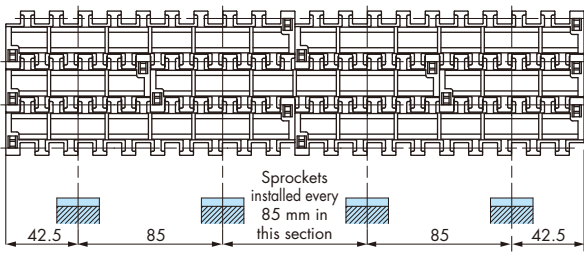


Plastic Modular Chain (Wide Type)

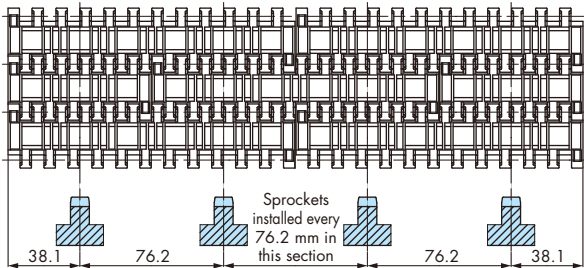
⑫ WT2515-W, WT2515G-W, WT2515F-W



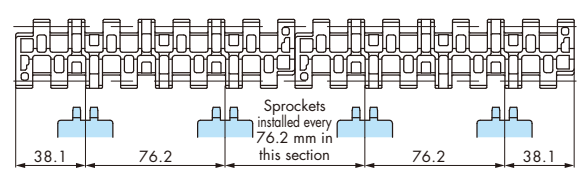
⑬ WT2250FT, FG, VG



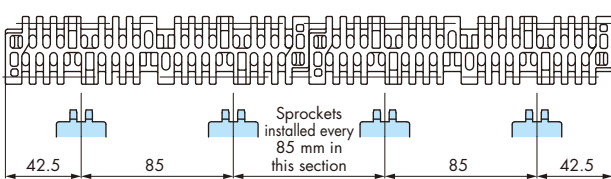
⑭ BTC8S, WT2525-K



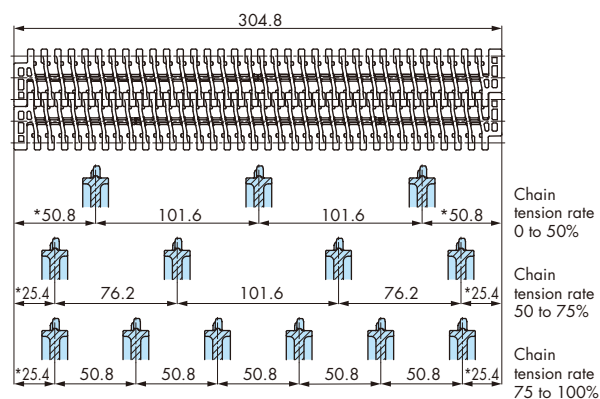
⑮ WT3005-K/WT3005G-K



⑯ WT3086-K/WT3086G-K

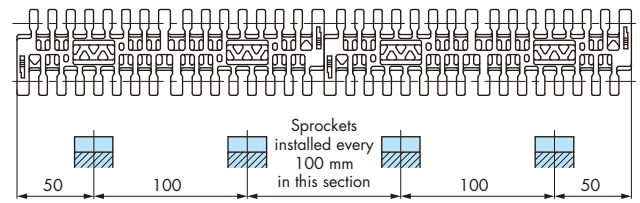


⑰ WT2705-K/WT2706-K

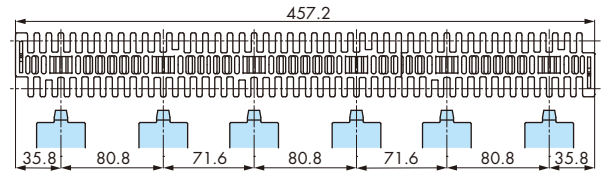


Note: 1. Be sure to place sprockets at the \* positions.  
2. If the width is an odd numbered inch, the mounting pitch will have one irregular pitch. Arrange the around the center portion for adjustment.

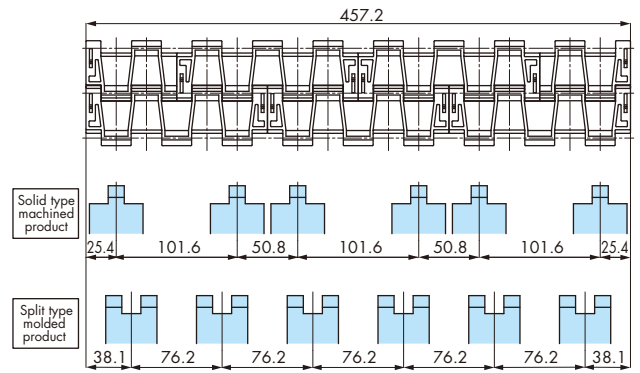
⑱ WT3816-K



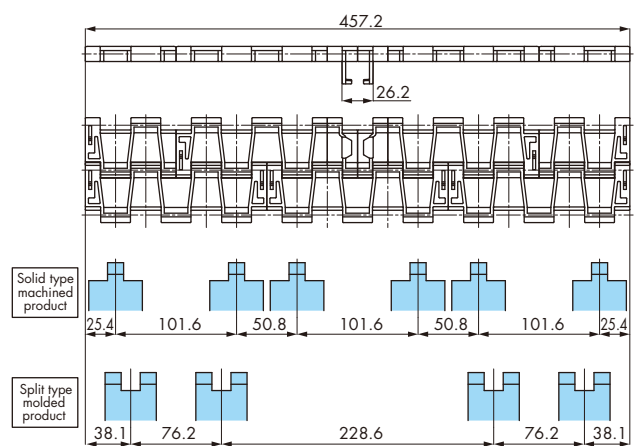
⑲ WT3827-K



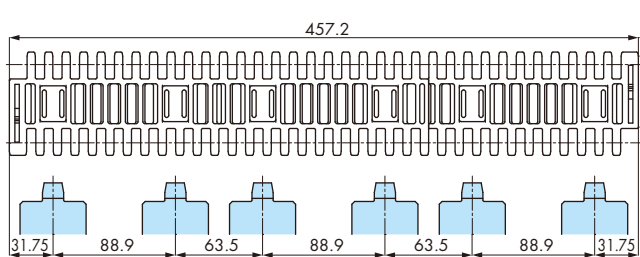
⑳ WT3835-K



㉑ WT3835-T (with float-preventive tab)



㉒ WT5707-K

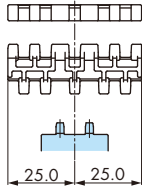


Chain Selection  
Conveyor Design  
Plastic Modular Chain (Wide Type)  
Handling  
Allowable Load Graphs

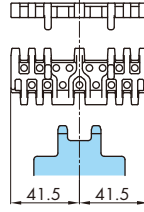
# Plastic Modular Chain (Mold-to-Width Type)

Mold-to-width type

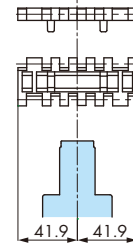
① BTC4-500-M



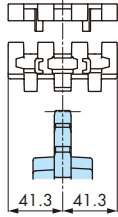
② BTO8-830-M



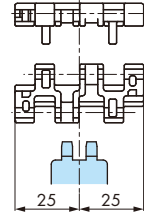
③ WT2515G-M



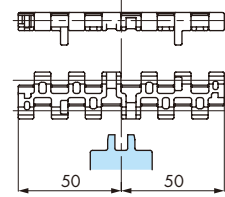
④ BTC8H-M/BTM8H-M



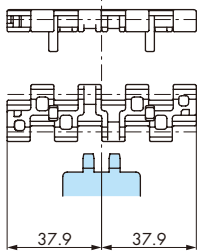
⑤ WT1515G-M50



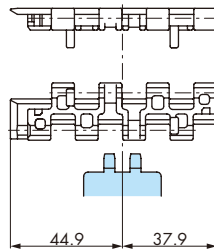
⑥ WT1515G-M100



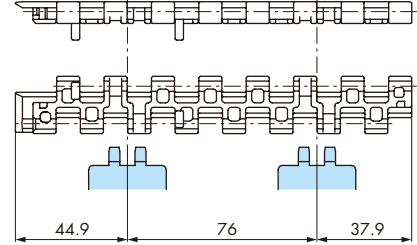
⑦ WT1505G-M300



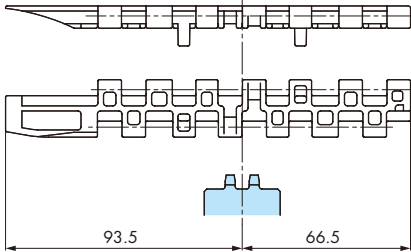
⑧ WT1505GTO-M300



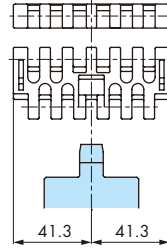
⑨ WT1505GTO-M600



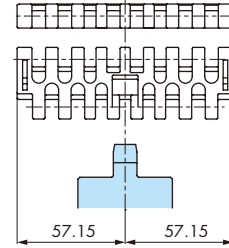
⑩ WT1505TOD-M450L



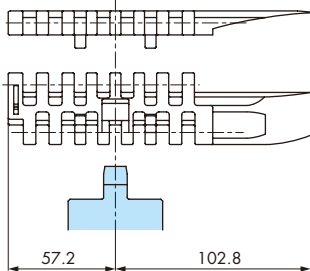
⑪ WT2505-M325/G-M325



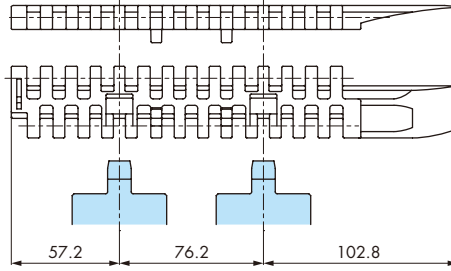
⑫ WT2505-M450/G-M450



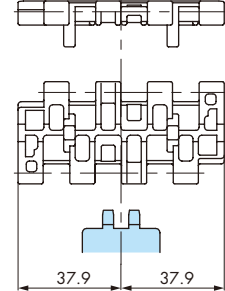
⑬ WT2505TOD-M450R



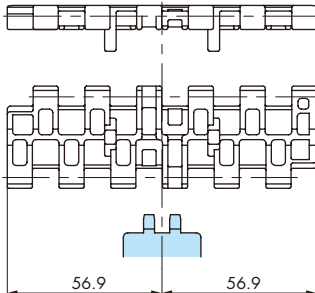
⑭ WT2505TOD-M750R



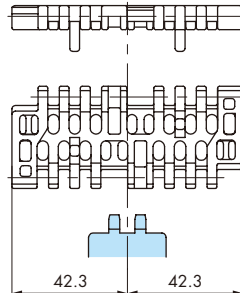
⑮ WT3005G-M300



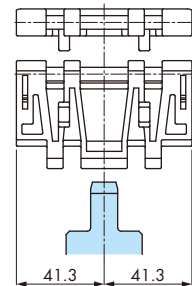
⑯ WT3005G-M450



⑰ WT3086G-M85



⑱ WT3835G-M325



# Plastic Modular Chain (Wide Type)

## 4-4. Type of shafts and corresponding bearing units

1. The upper face of a bearing unit with a \* mark protrudes above the chain conveyor surface.
2. For diamond and square flanges, the numbers following "TP-C" indicate the code for Tsubaki top chain components. (refer to page on 395).

Note: Operating temperature range: -20°C to 80°C

**Table 22. WT-S0400-20T (round bore 12)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 12 Cold rolled steel shaft	φ 12	* UCP201	* UCFL201	* UCF201	Applies only when 1.8 kN/m or less

**Table 23. WT-S0400-24T (round bore 17)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 17 Cold rolled steel shaft	φ 12	* UCP201	* UCFL201	* UCF201	Applies only when 1.8 kN/m or less
	φ 15	* UCP202	* UCFL202	* UCF202	
	φ 17	* UCP203	* UCFL203	* UCF203	

**Table 24. WT-S0400-32T (round bore 25)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 25 Cold rolled steel shaft	φ 15	* UCP202	* UCFL202	* UCF202	Applies only when 1.8 kN/m or less
	φ 17	* UCP203	* UCFL203	* UCF203	
	φ 20	* UCP204	* TP-C54204,59204 * UCFL204	* UCF204	
	φ 25	* UCP206	* UCFL206	* TP-C50206,55206 * UCF206	

**Table 25. WT-S0400-40T (round bore 35)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 35 Cold rolled steel shaft	φ 20	* UCP204	TP-C54204,59204 UCFL204	* UCF204	Applies only when 1.8 kN/m or less
	φ 25	* UCP205	* TP-C54205,59205 * UCFL205	* TP-C50205,55205 * UCF205	
	φ 30	* UCP206	* UCFL206	* TP-C50206,55206 * UCF206	
	φ 35	* UCP207	* UCFL207	* TP-C50207,55207 * UCF207	

**Table 26. WT-N0700-15T18**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 18 Cold rolled steel shaft	φ 12	* UCP201	* UCFL201	* UCF201	Applies only when 2.4 kN/m or less
	φ 15	* UCP202	* UCFL202	* UCF202	Applies only when 2.5 kN/m or less
	φ 17	* UCP203	* UCFL203	* UCF203	

**Table 27. WT-N0700-24T20**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 12	UCP201	UCFL201	* UCF201	Applies only when 0.8 kN/m or less
	φ 15	UCP202	UCFL202	* UCF202	Applies only when 2.5 kN/m or less
	φ 17	UCP203	UCFL203	* UCF203	
	φ 20	UCP204	TP-C54204,59204 UCFL204	* UCF204	

**Table 28. WT-N0700-24T25**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 25 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204 UCFL204	* UCF204	Applies only when 2.5 kN/m or less
	φ 25	* UCP205	* TP-C54205,59205 * UCFL205	* TP-C50205,55205 * UCF205	

**Table 29. WT-N0700-24T30**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 30 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204 UCFL204	* UCF204	Applies only when 2.5 kN/m or less
	φ 25	* UCP205	* TP-C54205,59205 * UCFL205	* TP-C50205,55205 * UCF205	
	φ 30	* UCP206	* UCFL206	* TP-C50206,55206 * UCF206	

**Table 30. WT-N0700-32T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	* TP-C50205,55205 * UCF205	Applies only when 2.5 kN/m or less
	φ 30	UCP206	UCFL206	* TP-C50206,55206 * UCF206	
	φ 35	* UCP207	* UCFL207	* TP-C50207,55207 * UCF207	

**Table 31. WT-N0700-48T30**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 30 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204 UCFL204	UCF204	Applies only when 1.4 kN/m or less
	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 2.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 2.5 kN/m or less

**Table 32. WT-N0700-48T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 2.0 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 2.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 2.5 kN/m or less

**Table 33. BT6-10T38H**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Hexagonal 38 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204 UCFL204	* UCF204	Applies only when 2.0 kN/m or less
	φ 25	UCP205	TP-C54205,59205 UCFL205	* TP-C50205,55205 * UCF205	Applies only when 7.0 kN/m or less
	φ 30	* UCP206	* UCFL206	* TP-C50206,55206 * UCF206	12.8 kN/m or less
	φ 35	* UCP207	* UCFL207	* TP-C50207,55207 * UCF207	12.8 kN/m or less

**Table 34. BT6-24T40S and BT8-18T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 3.0 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 7.0 kN/m or less

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**Table 35. BT6-24T50S and BT8-18T50S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 50 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 1.5 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 2.5 kN/m or less
				UCF206	
	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 4.0 kN/m or less
UCF207					
φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 8.0 kN/m or less	
			UCF208		
φ 45	UCP209	UCFL209	UCF209	12.8 kN/m or less	

**Table 36. BT6-24T65S and BT8-18T65S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 S45C SS400 Square 65 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 1.5 kN/m or less
				UCF206	
	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 2.5 kN/m or less
				UCF207	
	φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 3.5 kN/m or less
				UCF208	
	φ 45	UCP209	UCFL209	UCF209	Applies only when 5.5 kN/m or less
φ 50	UCP210	UCFL210	UCF210	Applies only when 8.0 kN/m or less	
φ 55	UCP211	UCFL211	* UCF211	12.8 kN/m or less	
φ 60	UCP212	UCFL212	* UCF212		

**Table 37. BT8-12T25**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 25 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 2.5 kN/m or less
			UCFL204		
φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 10.0 kN/m or less	
		UCFL205	UCF205		

**Table 38. BT8-18T25**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 25 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 4.5 kN/m or less	
		UCFL205	UCF205		

**Table 39. WT-N1500-12T30**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 30 Cold rolled steel shaft	φ 20	UCP204	* TP-C54204,59204	* UCF204	Applies only when 4.0 kN/m or less
			* UCFL204		
	φ 25	* UCP205	* TP-C54205,59205	* TP-C50205,55205	Applies only when 10.5 kN/m or less
φ 30	* UCP206	* UCFL205	* UCF205		
		* TP-C50206,55206	* UCF206		

**Table 40. WT-N1500-18T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
	φ 25	* UCP205	TP-C54205,59205	* TP-C50205,55205	Applies only when 2.5 kN/m or less
			UCFL205	* UCF205	
φ 30	* UCP206	UCFL206	* TP-C50206,55206	Applies only when 8.0 kN/m or less	
		* UCF206			
φ 35	* UCP207	UCFL207	* TP-C50207,55207	Applies only when 10.5 kN/m or less	
			* UCF207		

**Table 41. WT-SW1500-24T25**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 25 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.5 kN/m or less
			UCFL204		
φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 7.5 kN/m or less	
		UCFL205	UCF205		

**Table 42. WT-SW1500-24T30**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 30 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.5 kN/m or less
			UCFL204		
	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 4.0 kN/m or less
φ 30	UCP206	UCFL206	UCF206	10.5 kN/m or less	
			TP-C50206,55206		UCF206

**Table 43. WT-SW1500-24T35**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 35 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 2.5 kN/m or less
			UCFL205	UCF205	
φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 8.0 kN/m or less	
			UCF206		
φ 35	UCP207	UCFL207	TP-C50207,55207	10.5 kN/m or less	
			UCF207		

**Table 44. WT-SW1500-24T40**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 2.5 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 5.0 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	10.5 kN/m or less	
			UCF207		
φ 40	UCP208	UCFL208	* TP-C50208,55208	10.5 kN/m or less	
			* UCF208		

**Table 45. WT-SW1500-24T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 2.0 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 4.5 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	10.5 kN/m or less	
			UCF207		
φ 40	UCP208	UCFL208	* TP-C50208,55208	10.5 kN/m or less	
			* UCF208		

**Table 46. WT-SW1500-32T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 1.5 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 2.5 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 6.0 kN/m or less	
			UCF207		
φ 40	UCP208	UCFL208	TP-C50208,55208	10.5 kN/m or less	
			UCF208		

**Table 47. WT-SW1500-32T50S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 50 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 1.0 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 2.0 kN/m or less
				UCF206	
	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 3.5 kN/m or less
UCF207					
φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 7.0 kN/m or less	
			UCF208		
φ 45	UCP209	UCFL209	UCF209	Applies only when 10.5 kN/m or less	

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**Table 48. WT-SW1500-32T60S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 60 Cold rolled steel shaft	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 2.5 kN/m or less
				UCF207	
	φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 4.5 kN/m or less
				UCF208	
	φ 45	UCP209	UCFL209	UCF209	Applies only when 8.5 kN/m or less
φ 50	UCP210	UCFL210	UCF210	10.5 kN/m or less	
φ 55	UCP211	UCFL211	* UCF211		

**Table 49. WT-SW1500-33T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	UCFL205	TP-C54205,59205	Applies only when 1.5 kN/m or less
				UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 2.5 kN/m or less
				UCF206	
	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 6.0 kN/m or less
UCF207					
φ 40	UCP208	UCFL208	UCF208	10.5 kN/m or less	

**Table 50. WT-SW1500-33T65S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 65 Cold rolled steel shaft	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 1.5 kN/m or less
				UCF207	
	φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 2.5 kN/m or less
				UCF208	
	φ 45	UCP209	UCFL209	UCF209	Applies only when 4.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 7.0 kN/m or less
φ 55	UCP211	UCFL211	UCF211	10.5 kN/m or less	
φ 60	UCP212	UCFL212	* UCF212		

**Table 51. WT-SW2500-16T25**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 25 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
φ 25	UCP205	UCFL205	TP-C54205,59205	UCF205	Applies only when 5.0 kN/m or less
			UCFL205		

**Table 52. WT-SW2500-16T30**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 30 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
	φ 25	UCP205	UCFL205	TP-C50205,55205	UCF205
UCF205					
φ 30	UCP206	UCFL206	TP-C50206,55206	UCF206	10.0 kN/m or less
			UCF206		

**Table 53. WT-SW2500-16T35**

Shaft type	Bearing unit				Limitation on chain tension rate (F)	
	Bearing ID	Pillow	Diamond flange	Square flange		
SUS304 Round 35 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	UCF205	Applies only when 2.0 kN/m or less	
			UCFL205			
	φ 30	UCP206	UCFL206	TP-C50206,55206	UCF206	Applies only when 6.0 kN/m or less
				UCF206		
	φ 35	UCP207	UCFL207	TP-C50207,55207	UCF207	Applies only when 16.0 kN/m or less
UCF207						

**Table 54. WT-SW2500-16T40**

Shaft type	Bearing unit				Limitation on chain tension rate (F)	
	Bearing ID	Pillow	Diamond flange	Square flange		
SUS304 Round 40 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 4.0 kN/m or less	
				UCF206		
	φ 35	UCP207	UCFL207	TP-C50207,55207	UCF207	Applies only when 10.0 kN/m or less
				UCF207		
	φ 40	UCP208	UCFL208	TP-C50208,55208	UCF208	Applies only when 23.0 kN/m or less
UCF208						

**Table 55. WT-SW2500-18T25**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 25 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
φ 25	UCP205	UCFL205	TP-C54205,59205	UCF205	Applies only when 4.0 kN/m or less
			UCFL205		

**Table 56. WT-SW2500-18T30**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 30 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	UCF205	Applies only when 2.0 kN/m or less
			UCFL205		
φ 30	UCP206	UCFL206	TP-C50206,55206	UCF206	Applies only when 8.0 kN/m or less
			UCF206		

**Table 57. WT-SW2500-18T35**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 35 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	UCF205	Applies only when 2.0 kN/m or less
			UCFL205		
	φ 30	UCP206	UCFL206	TP-C50206,55206	UCF206
UCF206					
φ 35	UCP207	UCFL207	TP-C50207,55207	UCF207	Applies only when 12.0 kN/m or less
			UCF207		

**Table 58. WT-SW2500-18T40**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 40 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 3.0 kN/m or less
				UCF206	
	φ 35	UCP207	UCFL207	TP-C50207,55207	UCF207
UCF207					
φ 40	UCP208	UCFL208	TP-C50208,55208	UCF208	Applies only when 18.0 kN/m or less
			UCF208		

**Table 59. WT-SW2500-21T25**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 25 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
φ 25	UCP205	UCFL205	TP-C54205,59205	UCF205	Applies only when 4.0 kN/m or less
			UCFL205		

**Table 60. WT-SW2500-21T30**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 30 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	UCF205	Applies only when 2.5 kN/m or less
			UCFL205		
φ 30	UCP206	UCFL206	TP-C50206,55206	UCF206	Applies only when 8.0 kN/m or less
			UCF206		

**Table 61. WT-SW2500-21T35**

Shaft type	Bearing unit				Limitation on chain tension rate (F)	
	Bearing ID	Pillow	Diamond flange	Square flange		
SUS304 Round 35 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	UCF205	Applies only when 2.0 kN/m or less	
			UCFL205			
	φ 30	UCP206	UCFL206	TP-C50206,55206	UCF206	Applies only when 5.0 kN/m or less
				UCF206		
	φ 35	UCP207	UCFL207	TP-C50207,55207	UCF207	Applies only when 12.0 kN/m or less
UCF207						

**Table 62. WT-SW2500-21T40**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 30 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 3.0 kN/m or less
				UCF206	
	φ 35	UCP207	UCFL207	TP-C50207,55207	UCF207
UCF207					
φ 40	UCP208	UCFL208	TP-C50208,55208	UCF208	Applies only when 18.0 kN/m or less
			UCF208		

**Table 63. WT-SW2500-16T30**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 30 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
	φ 25	UCP205	UCFL205	TP-C54205,59205	UCF205
UCFL205					
φ 30	UCP206	UCFL206	TP-C50206,55206	UCF206	Applies only when 10.0 kN/m or less
			UCF206		

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**Table 64. WT-SW2250-16T40**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 40 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 2.5 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 5.0 kN/m or less
UCF206					
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 10.0 kN/m or less	
			UCF207		
φ 40	UCP208	UCFL208	TP-C50208,55208	12.8 kN/m or less	
			UCF208		

**Table 65. WT-SW2250-16T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 1.5 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 3.5 kN/m or less
				UCF206	
	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 8.0 kN/m or less
UCF207					
φ 40	UCP208	UCFL208	TP-C50208,55208	12.8 kN/m or less	
			UCF208		

**Table 66. WT-SW2250-18T30**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 30 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 2.5 kN/m or less
φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 8.0 kN/m or less	
			UCF206		

**Table 67. WT-SW2250-18T40**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Round 40 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204	UCF204	Applies only when 1.0 kN/m or less
			UCFL204		
	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 2.5 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 4.0 kN/m or less
UCF206					
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 8.0 kN/m or less	
			UCF207		
φ 40	UCP208	UCFL208	TP-C50208,55208	12.8 kN/m or less	
			UCF208		

**Table 68. WT-SW2250-18T40S, WT-N2520-18T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 1.5 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 2.5 kN/m or less
				UCF206	
	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 7.0 kN/m or less
UCF207					
φ 40	UCP208	UCFL208	TP-C50208,55208	12.8 kN/m or less	
			UCF208		

**Table 69. WT-N2520-18T38S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 1.5 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 3.0 kN/m or less
				UCF206	
	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 8.0 kN/m or less
UCF207					

**Table 70. WT-N2520-18T60S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 60 Cold rolled steel shaft	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 3.5 kN/m or less
				UCF207	
	φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 5.5 kN/m or less
				UCF208	
	φ 45	UCP209	UCFL209	UCF209	Applies only when 9.0 kN/m or less
UCF209					
φ 50	UCP210	UCFL210	UCF210	12.8 kN/m or less	
			UCF210		
φ 55	UCP211	UCFL211	* UCF211	12.8 kN/m or less	
			* UCF211		

**Table 71. WT-S1900-17T (square bore 35)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 35 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 2.0 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 7.5 kN/m or less
UCF206					
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 20.0 kN/m or less	
			UCF207		

**Table 72. WT-S1900-21T (square bore 40)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 1.0 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 3.0 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 8.5 kN/m or less	
			UCF207		
φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 20.0 kN/m or less	
			UCF208		

**Table 73. WT-S1900-21T (square bore 60)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 60 Cold rolled steel shaft	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 3.0 kN/m or less
			UCF207		
	φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 5.5 kN/m or less
				UCF208	
	φ 45	UCP209	UCFL209	UCF209	Applies only when 11.0 kN/m or less
UCF209					
φ 50	UCP210	UCFL210	UCF210	Applies only when 22.3 kN/m or less	
			UCF210		
φ 55	UCP211	UCFL211	UCF211	22.3 kN/m or less	
			UCF211		

**Table 74. WT-S1900-24T (square bore 35)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 35 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 1.0 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 3.0 kN/m or less
UCF206					
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 10.0 kN/m or less	
			UCF207		

**Table 75. WT-SW1900-25T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 1.0 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 2.0 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 6.5 kN/m or less	
			UCF207		
φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 13.5 kN/m or less	
			UCF208		



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Table 76. WT-SW1900-25T60S

Shaft type	Bearing unit				Limitation on chain tension rate (F')
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 60 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 1.0 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 2.0 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 3.0 kN/m or less
	φ 45	UCP209	UCFL209	UCF209	Applies only when 5.0 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 9.0 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 15.5 kN/m or less

Table 77. WT-S3830-1200T, WT-S3830-1212T (square bore 40)

Shaft type	Bearing unit				Limitation on chain tension rate (F')
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 1.0 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 2.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 6.0 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 12.7 kN/m or less

Table 78. WT-S3830-1200T, WT-S3830-1212T (square bore 65)

Shaft type	Bearing unit				Limitation on chain tension rate (F')
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 S45C SS400 Square 65 Cold rolled steel shaft	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 2.5 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 3.5 kN/m or less
	φ 45	UCP209	UCFL209	UCF209	Applies only when 5.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 7.5 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 12.7 kN/m or less
	φ 60	UCP212	UCFL212	UCF212	

Table 79. WT-S3820-8T (square bore 40)

Shaft type	Bearing unit				Limitation on chain tension rate (F')
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 1.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 4.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 13.5 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 30.9 kN/m or less

Table 80. WT-S3820-12T (square bore 40)

Shaft type	Bearing unit				Limitation on chain tension rate (F')
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 1.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 1.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 6.0 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 15.0 kN/m or less

Table 81. WT-S3820-12T (square bore 65)

Shaft type	Bearing unit				Limitation on chain tension rate (F')
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 S45C SS400 Square 65 Cold rolled steel shaft	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 1.5 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 3.0 kN/m or less
	φ 45	UCP209	UCFL209	UCF209	Applies only when 4.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 7.5 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 13.5 kN/m or less
	φ 60	UCP212	UCFL212	UCF212	Applies only when 21.5 kN/m or less

Table 82. WT-S5707-9T (square bore 40)

Shaft type	Bearing unit				Limitation on chain tension rate (F')
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 0.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 2.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 5.0 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 10.0 kN/m or less

Table 83. WT-S5707-9T (square bore 50)

Shaft type	Bearing unit				Limitation on chain tension rate (F')
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 Square 50 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 0.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 0.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 2.5 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 5.0 kN/m or less
	φ 45	UCP209	UCFL209	UCF209	Applies only when 10.0 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 22.0 kN/m or less

Table 84. WT-S5707-9T (square bore 65)

Shaft type	Bearing unit				Limitation on chain tension rate (F')
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 S45C SS400 Square 65 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 0.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 0.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 0.5 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 2.5 kN/m or less
	φ 45	UCP209	UCFL209	UCF209	Applies only when 2.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 5.0 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 10.0 kN/m or less
	φ 60	UCP212	UCFL212	UCF212	Applies only when 17.5 kN/m or less

Table 85. WT-S5707-12T (square bore 90)

Shaft type	Bearing unit				Limitation on chain tension rate (F')
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 S45C SS400 Square 90 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 0.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 0.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 0.5 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 0.5 kN/m or less
	φ 45	UCP209	UCFL209	UCF209	Applies only when 2.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 2.5 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 5.0 kN/m or less
	φ 60	UCP212	UCFL212	UCF212	Applies only when 7.5 kN/m or less

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**Table 86. WT-S5707-14T (square bore 40)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 0.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 0.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 2.5 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 5.0 kN/m or less

**Table 87. WT-S5707-14T (square bore 50)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 square 50 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 0.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 0.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 0.5 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 0.5 kN/m or less
	φ 45	UCP209	UCFL209	UCF209	Applies only when 5.0 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 7.5 kN/m or less

**Table 88. WT-S5707-14T (square bore 65)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 S45C SS400	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 0.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 0.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 0.5 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 0.5 kN/m or less
square 65 Cold rolled steel shaft	φ 45	UCP209	UCFL209	UCF209	Applies only when 2.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 2.5 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 10.0 kN/m or less
φ 60	UCP212	UCFL212	UCF212	Applies only when 17.5 kN/m or less	

**Table 89. WT-S5707-14T (square bore 90)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 S45C SS400	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 0.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 0.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 0.5 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 0.5 kN/m or less
square 90 Cold rolled steel shaft	φ 45	UCP209	UCFL209	UCF209	Applies only when 2.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 2.5 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 5.0 kN/m or less
φ 60	UCP212	UCFL212	UCF212	Applies only when 7.5 kN/m or less	

**Table 90. WT-N2700-9T25**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 round 25 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204 UCFL204	UCF204	Applies only when 4.0 kN/m or less
	φ 25	UCP205	TP-C54205,59205 UCFL205	* TP-C50205,55205 * UCF205	Applies only when 15.4 kN/m or less

**Table 91. WT-N2700-9T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 square 40 Cold rolled steel shaft	φ 30	UCP206	UCFL206	* TP-C50206,55206 * UCF206	Applies only when 9.5 kN/m or less
	φ 35	* UCP207	* UCFL207	* TP-C50207,55207 * UCF207	Applies only when 15.4 kN/m or less

**Table 92. WT-N2700-18T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 1.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 2.0 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 6.0 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 12.0 kN/m or less

**Table 93. WT-N2700-18T60S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 square 60 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 1.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 2.0 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 3.5 kN/m or less
	φ 45	UCP209	UCFL209	UCF209	Applies only when 5.0 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 8.5 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 15.4 kN/m or less

**Table 94. WT-N2700-18T65S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 S45C SS400 square 65 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 1.5 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 3.0 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 4.5 kN/m or less
	φ 45	UCP209	UCFL209	UCF209	Applies only when 6.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 10.5 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 15.4 kN/m or less
φ 60	UCP212	UCFL212	UCF212	Applies only when 15.4 kN/m or less	

**Table 95. WT-N2700-12T30**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 round 30 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204 UCFL204	TP-C50204,55204 UCF204	Applies only when 1.0 kN/m or less
	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 5.0 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 15.4 kN/m or less

**Table 96. WT-N2700-12T40**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 round 40 Cold rolled steel shaft	φ 20	UCP204	TP-C54204,59204 UCFL204	TP-C50204,55204 UCF204	Applies only when 1.0 kN/m or less
	φ 25	UCP205	TP-C54205,59205 UCFL205	TP-C50205,55205 UCF205	Applies only when 2.5 kN/m or less
	φ 30	UCP206	UCFL206	TP-C50206,55206 UCF206	Applies only when 6.0 kN/m or less
	φ 35	UCP207	UCFL207	TP-C50207,55207 UCF207	Applies only when 15.4 kN/m or less
	φ 40	UCP208	UCFL208	TP-C50208,55208 UCF208	Applies only when 15.4 kN/m or less

# Plastic Modular Chain (Wide Type)

**Table 97. WT-N2700-12T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 40 Cold rolled steel shaft	φ 25	UCP205	TP-C54205,59205	TP-C50205,55205	Applies only when 2.0 kN/m or less
			UCFL205	UCF205	
	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 5.0 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 13.5 kN/m or less	
φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 15.4 kN/m or less	
			UCF208		

**Table 98. WT-SW2700-20T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 40 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 2.0 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 5.0 kN/m or less	
			UCF207		

**Table 99. WT-SW2700-20T60S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 60 Cold rolled steel shaft	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 3.0 kN/m or less
				UCF207	
	φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 4.5 kN/m or less
				UCF208	
	φ 45	UCP209	UCFL209	UCF209	Applies only when 6.5 kN/m or less
φ 50	UCP210	UCFL210	UCF210	Applies only when 12.5 kN/m or less	
φ 55	UCP211	UCFL211	UCF211	Applies only when 15.4 kN/m or less	

**Table 100. WT-SW2700-28T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 40 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 1.5 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 2.5 kN/m or less	
			UCF207		

**Table 101. WT-SW2700-28T60S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 60 Cold rolled steel shaft	φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 2.0 kN/m or less
				UCF207	
	φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 3.0 kN/m or less
				UCF208	
	φ 45	UCP209	UCFL209	UCF209	Applies only when 4.5 kN/m or less
φ 50	UCP210	UCFL210	UCF210	Applies only when 6.0 kN/m or less	
φ 55	UCP211	UCFL211	UCF211	Applies only when 11.0 kN/m or less	

**Table 102. WT-N3100-16T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 40 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 29.5 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 5.5 kN/m or less	
			UCF207		

**Table 103. WT-N3100-16T60**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 round 60 Cold rolled steel shaft	φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 5.5 kN/m or less
				UCF208	
	φ 45	UCP209	UCFL209	UCF209	Applies only when 9.0 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 17.0 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 25.0 kN/m or less
φ 60	UCP212	UCFL212	UCF212	Applies only when 25.0 kN/m or less	

**Table 104. WT-N3100-16T60S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 60 Cold rolled steel shaft	φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 4.5 kN/m or less
				UCF208	
	φ 45	UCP209	UCFL209	UCF209	Applies only when 7.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 14.0 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 25.0 kN/m or less

**Table 105. WT-N3100-18T40S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 40 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 2.0 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 4.5 kN/m or less	
			UCF207		

**Table 106. WT-N3100-18T60S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 60 Cold rolled steel shaft	φ 40	UCP208	UCFL208	TP-C50208,55208	Applies only when 4.0 kN/m or less
				UCF208	
	φ 45	UCP209	UCFL209	UCF209	Applies only when 6.0 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 11.0 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 20.0 kN/m or less

**Table 107. WT-S3816-18T (square bore 40)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 40 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 1.5 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 3.0 kN/m or less	
			UCF207		

**Table 108. WT-S3816-18T (square bore 60)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 60 Cold rolled steel shaft	φ 45	UCP209	UCFL209	UCF209	Applies only when 5.0 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 7.5 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 14.0 kN/m or less

**Table 109. WT-S3816-20T (square bore 40)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 40 Cold rolled steel shaft	φ 30	UCP206	UCFL206	TP-C50206,55206	Applies only when 1.5 kN/m or less
				UCF206	
φ 35	UCP207	UCFL207	TP-C50207,55207	Applies only when 2.5 kN/m or less	
			UCF207		

**Table 110. WT-S3816-20T (square bore 60)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flang	Square flange	
SUS304 square 60 Cold rolled steel shaft	φ 45	UCP209	UCFL209	UCF209	Applies only when 4.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 6.0 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 11.0 kN/m or less

# Plastic Modular Chain (Wide Type)

**Table 111. WT-S3816-20T (square bore 90)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 square 90 Cold rolled steel shaft	φ 45	UCP209	UCFL209	UCF209	Applies only when 3.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 5.0 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 7.0 kN/m or less
	φ 60	UCP212	UCFL212	UCF212	Applies only when 9.0 kN/m or less

**Table 112. WT-S3816-24T (square bore 60)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 square 60 Cold rolled steel shaft	φ 45	UCP209	UCFL209	UCF209	Applies only when 3.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 5.0 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 7.5 kN/m or less

**Table 113. WT-S3816-24T (square bore 90)**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 square 90 Cold rolled steel shaft	φ 45	UCP209	UCFL209	UCF209	Applies only when 3.0 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 4.0 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 5.5 kN/m or less
	φ 60	UCP212	UCFL212	UCF212	Applies only when 7.5 kN/m or less

**Table 114. BT16-16T-60S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 square 60 Cold rolled steel shaft	φ 45	UCP209	UCFL209	UCF209	Applies only when 4.0 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 6.0 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 9.5 kN/m or less

**Table 115. BT16-16T-90S**

Shaft type	Bearing unit				Limitation on chain tension rate (F)
	Bearing ID	Pillow	Diamond flange	Square flange	
SUS304 square 90 Cold rolled steel shaft	φ 45	UCP209	UCFL209	UCF209	Applies only when 3.5 kN/m or less
	φ 50	UCP210	UCFL210	UCF210	Applies only when 4.5 kN/m or less
	φ 55	UCP211	UCFL211	UCF211	Applies only when 6.5 kN/m or less
	φ 60	UCP212	UCFL212	UCF212	Applies only when 8.5 kN/m or less

## 4-5. Handling plastic modular chain

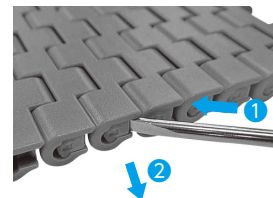
### 4-5-1. Disconnecting and connecting chain with slit pins WT0705-W and WT1510 series

#### ● Disconnecting and connecting chain of slit pins

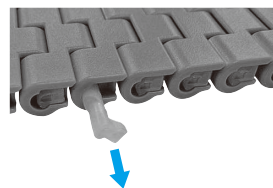
(WT0705-W50-SP, WT0705-W100-SP, WT1515-W50-SP, WT1515-W100-SP, WT1516-W50-SP, WT1516-W100-SP, WT1515G-M50-SP, W1515G-M100-SP)

#### ● Disconnecting

- ① Place a narrow flathead screwdriver (less than with 1.5 mm width or similar tool) on the back side of the slit pin's stopper on the side of the chain, then lever it forward as you pull out the stopper.

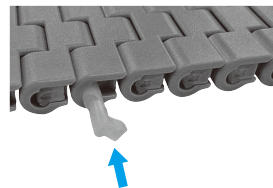


- ② Grip the stopper as it comes out and pull out the slit pin, then disconnect the chain.



#### ● Connecting

- ① Connect sections of chain by pulling them towards each other and inserting a slit pin from one of the ends.



- ② Noting the direction of the stopper, insert the pin until it makes a clicking sound.

- ③ Double check that the slit pin is placed correctly.



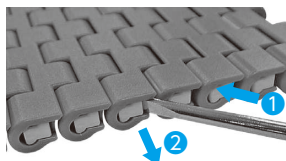
## Plastic Modular Chain (Wide Type)

### ● Disconnecting and connecting chain with plug retention system

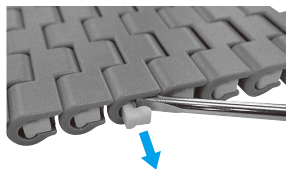
(WT0705-W: chains wider than 100 mm)

#### ● Disconnecting

① Insert a small flathead screwdriver (less than with 1.5 mm width or similar tool) between the chain and the plug-clip on the side of the chain.



② Remove the plug by levering it out. Be careful not to let the plug jump at this time.



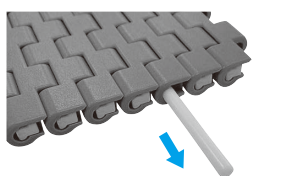
③ Remove the plug on the opposite side as in ① and ②.



④ Insert the bar inside the pin hole on the side of the chain, then push out the pin.

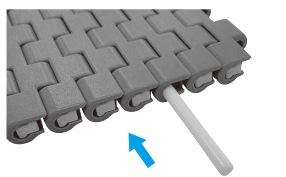


⑤ Grip the pin coming out from the other end, then disconnect the sections of chain.

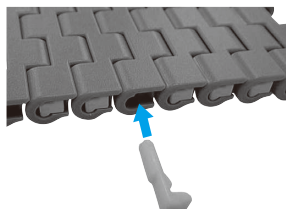


#### ● Connecting

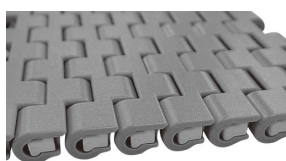
① Connect sections of chain by pulling them towards each other and inserting the pin from one of the ends.



② Then use a plug to block the pin insertion section.



③ At this point, while noting the direction of the plug, insert the pin until it makes a clicking sound.



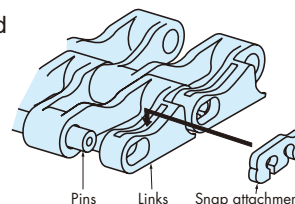
④ Double check that the plug is placed correctly.

Note: Use only the attached or dedicated pin or slit pin for connecting chain.

### 4-5-2. Structure and disconnecting/reconnecting of the BTN5, BT6, and BT8 series

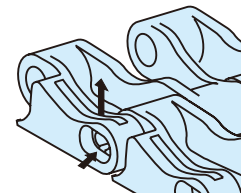
#### ● Structure of both ends of chain

A snap attachment is inserted in the link from the underside of the link at each end of the chain to prevent the pin from coming out (snap fit).

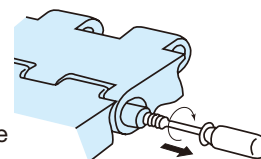


#### ● Procedure for disconnecting and reconnecting

① Insert a flathead screwdriver into the gap (about 1 mm) between the link hole and the snap attachment to detach the snap attachment.



② Use a threaded head screwdriver and screw it into the center hole (1.0 mm dia.) of the pin and pull out the pin to disconnect the chain.



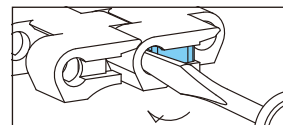
③ When connecting the links of a chain, bring both ends of the chain together and insert the pin in the hole from one side. Finally, insert the snap attachment from the underside of the chain. Make certain that the snap attachment does not protrude from the bottom of the link.

Note: Use only the attached or dedicated pin for connecting pins.

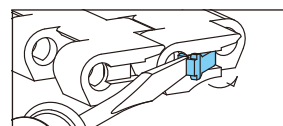
### 4-5-3. Disconnecting/connecting of the WT1500/1510/1900/2510/2520 (old type of plug)/2700/3000 series

#### ● Disconnecting

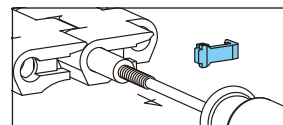
① Insert a flathead screwdriver or similar tool with a tip of 2 mm or less in between a chain and a plug on the side of the chain.



② By using the screwdriver as a lever, pull the plug off the base chain. Work carefully so that the plug does not pop out and is flung away.

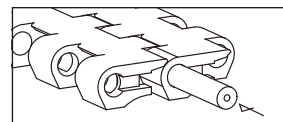


③ Using a threaded head screwdriver, screw it into the center hole (1 mm diameter) of the pin, and pull out the pin to disassemble the chain.

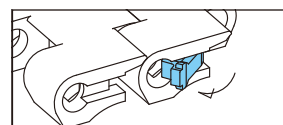


#### ● Connecting

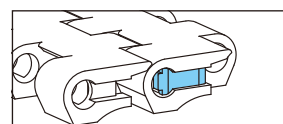
① To start connecting chains, assemble the chains and then insert a pin from another side.



② Next, insert a plug to close the pin hole. At this point, confirm the orientation of the plug (check if the shape fits in the pin hole), and push it in until it makes a clicking sound.



③ Make sure that the plug has been properly installed.



Note: 1. Use only the attached or dedicated pin for connecting chain.

2. Refer to the instruction for WT0705-W and WT1510 series on page 467 for disconnecting/connecting of WT2520 series.

# Plastic Modular Chain (Wide Type/Mold-to-Width Type)

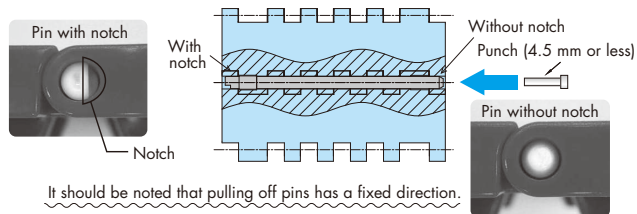
## 4-5-4. Disconnecting/connecting of the

### WT2515G-M330, BTC8H-M and BTM8H-M

Note: Punch length requires 50 mm or more as an effective length.

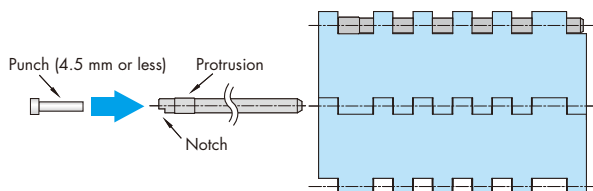
#### • Disconnecting

Place a punch (4.5 mm or less) on the side without a notch and strike a hammer on it to thrust off the pin.



#### • Connecting

Use dedicated connecting pins (special stepped plastic connecting pin color: orange) only. Pin should be inserted from the end without notch forward. Pushing pin using punch and hammer to connect the chain. Pin can be inserted either side of the chain.

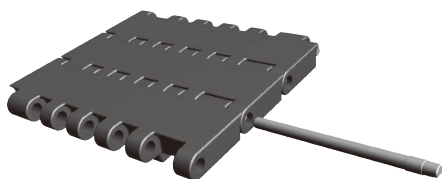


#### • Reconnecting

Do not connect at a location where connecting pins (special stepped plastic connecting pin) have been inserted.

#### • Special stepped plastic connecting pin

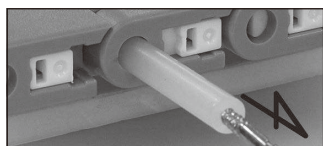
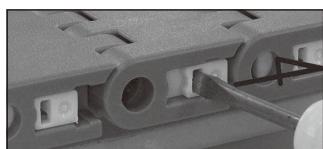
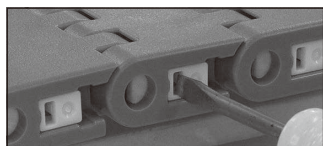
Use only dedicated connecting pins (special stepped plastic connecting pin). The orange color is designed to distinguish it from pins used for base chain color (white). Each chain has only one connecting pin (special stepped plastic connecting pin) provided.



## 4-5-5. Disconnecting/connecting of the WT2500, WT3100, WT3820, WT3830 series and BTM8H

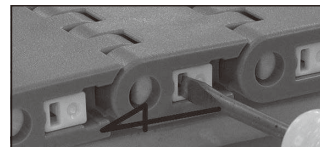
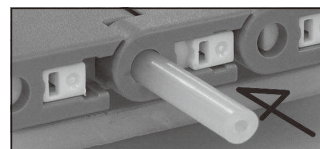
#### • Disconnecting

- ① Insert a small flathead screwdriver or similar tool between the chain and the plug on the side of the chain.
- ② Push the screwdriver in the direction of the arrow to slide the plug to the side.
- ③ Use a threaded head screwdriver and screw it into the center hole (1.0 mm dia.) of the pin and pull out the pin to disconnect the chain.



#### • Connecting

- ① When reconnecting the links of a chain, bring the ends of the two chains together, interlace the links, and insert the connecting pin from one side.
- ② Slide the plug to the side to cover the insertion area.

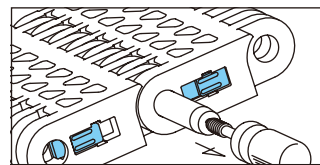
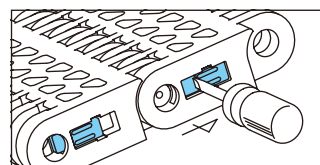
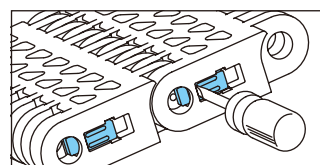


Note: Use only the attached or dedicated pin for connecting chain.

## 4-5-6. Disconnecting/connecting of the WT3810, WT5700, BT16 series

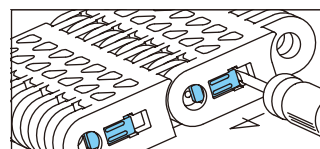
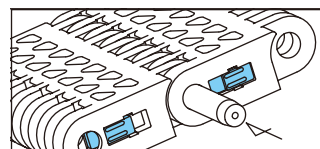
#### • Disconnecting

- ① Insert a small flathead screwdriver or similar tool between the chain and the plug-clip on the side of the chain.
- ② Push the screwdriver in the direction of the arrow to slide the plug to the side.
- ③ Use a threaded head screwdriver, screw it into the center hole (1.0 mm diameter) of the pin, and pull out the pin to disconnect the chain.



#### • Connecting

- ① When reconnecting the links of a chain, bring the ends of the two chains together, interlace the links, and insert the connecting pin from one side.
- ② Slide the plug to the side to cover the insertion area.



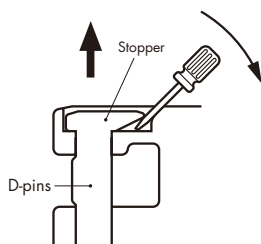
Note: Use only the attached or dedicated pin for connecting chain.

## Plastic Modular Chain (Wide Type/Mold-to-Width Type)

### 4-5-7. Disconnecting/connecting of the BTC-4M and BTO8-M

#### • Disconnecting

Place a punch (2.5 mm dia. or smaller) on the outer edge of the D-pin on the D-hole side of the link and lightly knock the punch with a hammer to remove the pin.



Or, the pin can be removed using a small flathead screwdriver from the stopper side.

#### • Connecting

- ① Use the exclusively prepared D-pin (colored orange).
- ② Make certain that the D-pin is facing the correct direction and insert it into the chain link.
- ③ Push by a finger or lightly knock by a hammer the stopper of the D-pin.

#### • Reconnecting

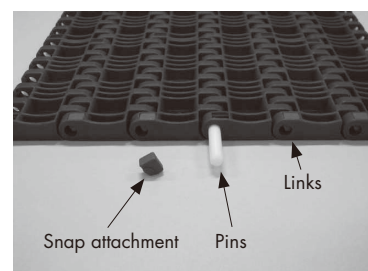
- ① Do not cut the chain where a connecting D-pin (color: orange) is already inserted.

#### • Connecting D-pin

- ① Use the exclusively prepared D-pin to connect the chain links.
- ② The connecting D-pin is colored orange so as to distinguish it from base chain pins (color: white).
- ③ One connecting D-pin is provided per chain.

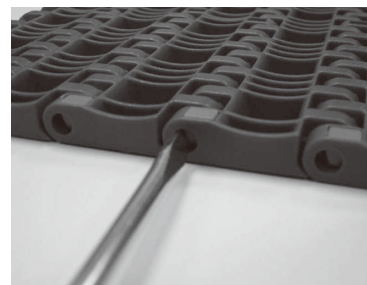
### 4-5-8. Disconnecting/connecting of the WT2250 and BTC8S

- Chain construction of both ends  
A snap attachment is inserted in the link from the underside of the link at each end of the chain to prevent the pin from coming out (snap fit).

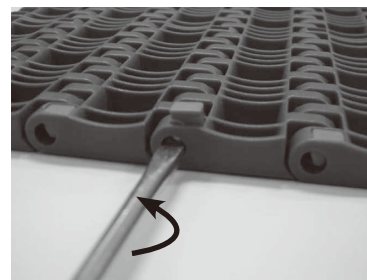


#### • Procedure for disconnecting and reconnecting

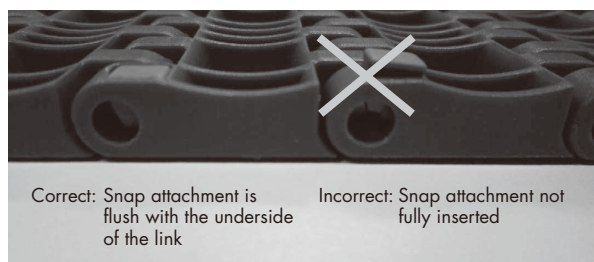
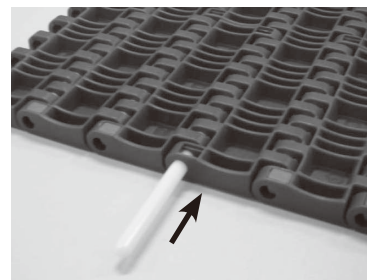
- ① Insert a small flathead screwdriver into the gap (about 1 mm) between the link hole and the snap attachment to detach the snap attachment.



- ② Use a threaded head screwdriver and screw it into the center hole (1.0 mm dia.) of the pin and pull out the pin to disconnect the chain.



- ③ When connecting the links of a chain, bring both ends of the chain together and insert the pin in the hole from one side. Finally, insert the snap attachment from the underside of the chain. Make certain that the snap attachment does not protrude from the bottom of the link.

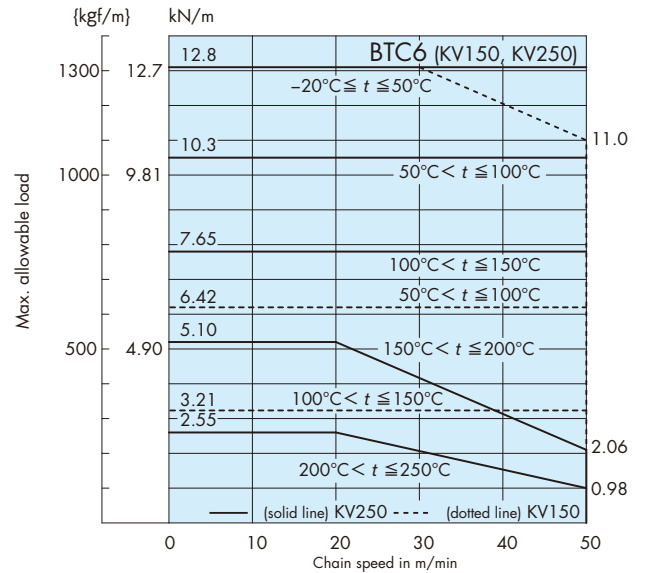
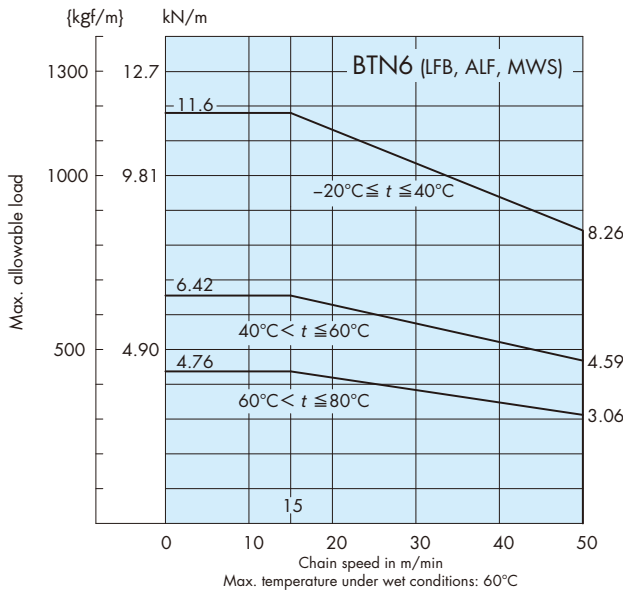
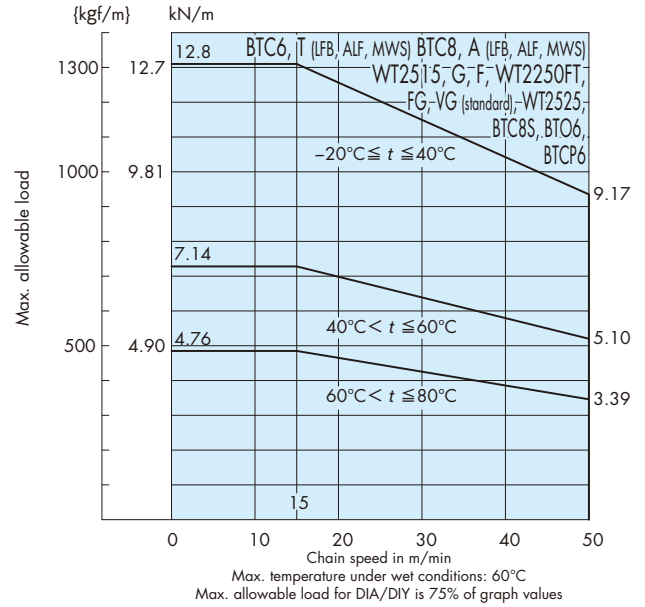
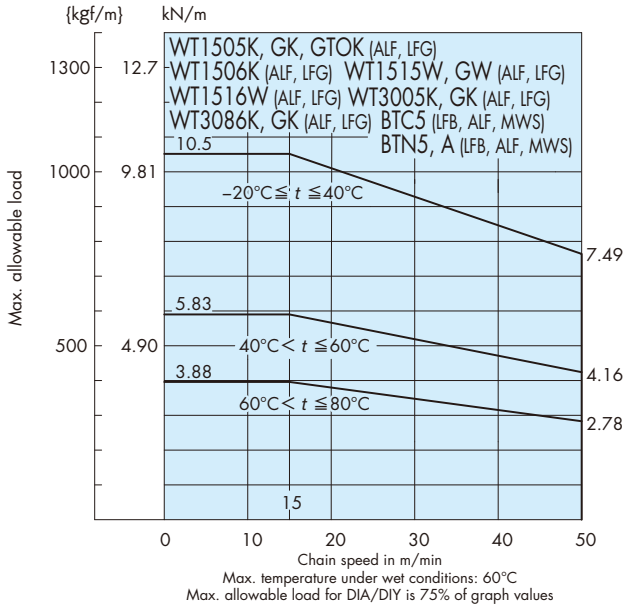
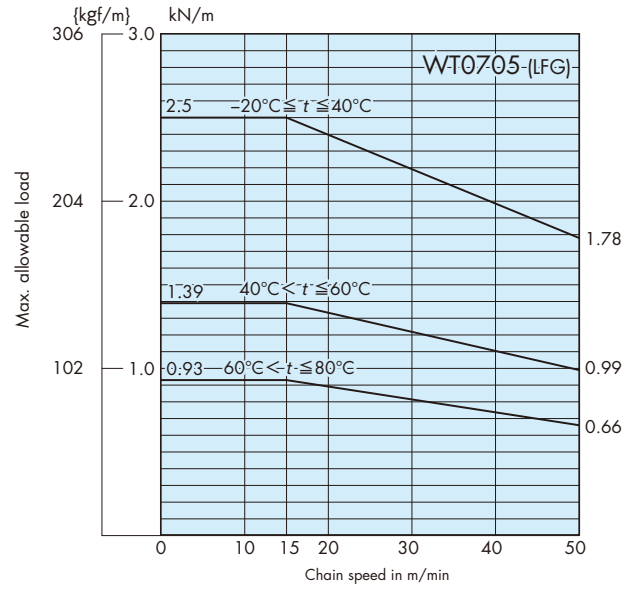
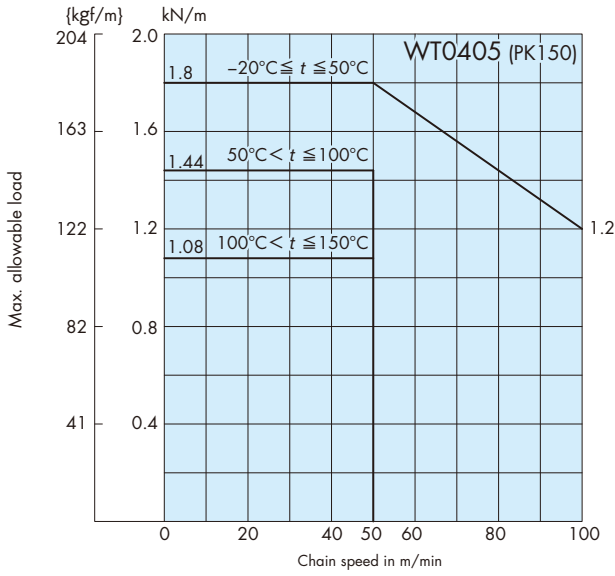


Correct: Snap attachment is flush with the underside of the link

Incorrect: Snap attachment not fully inserted

# Plastic Modular Chain (Wide Type)

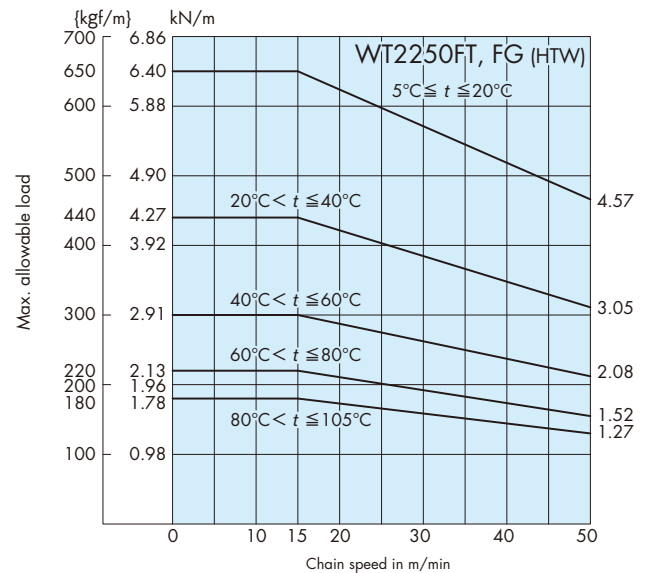
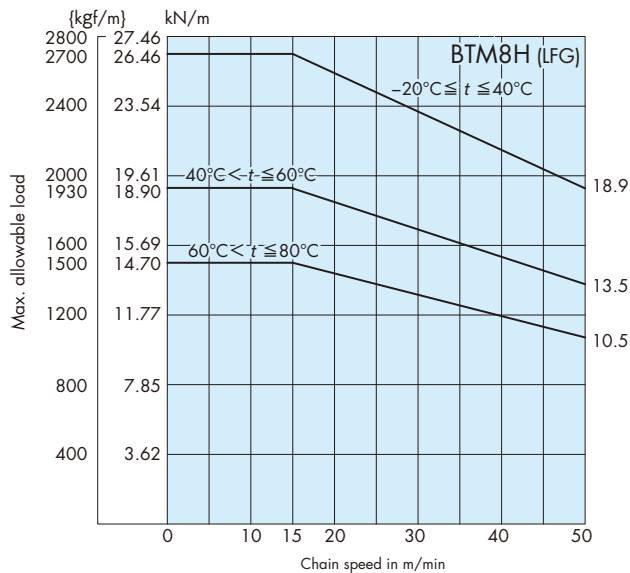
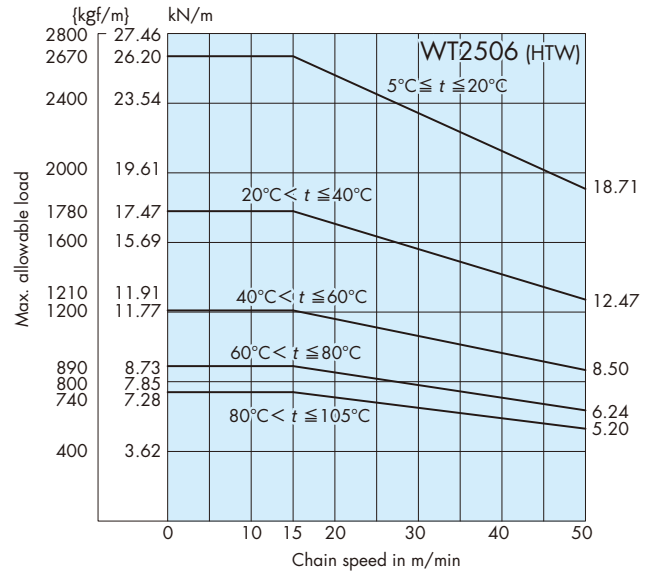
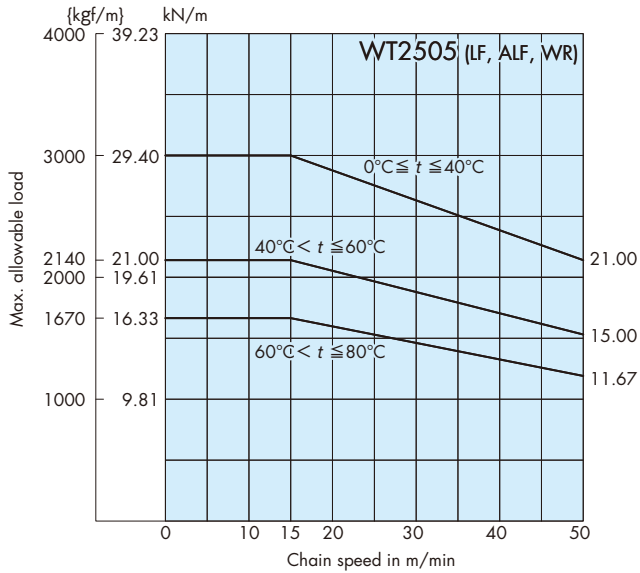
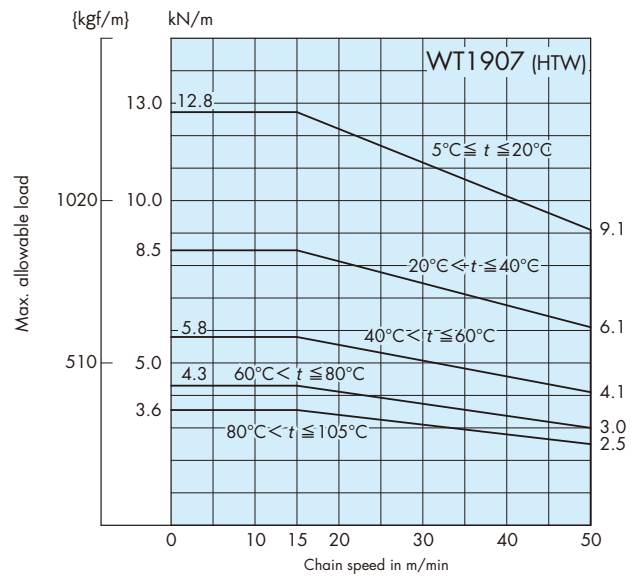
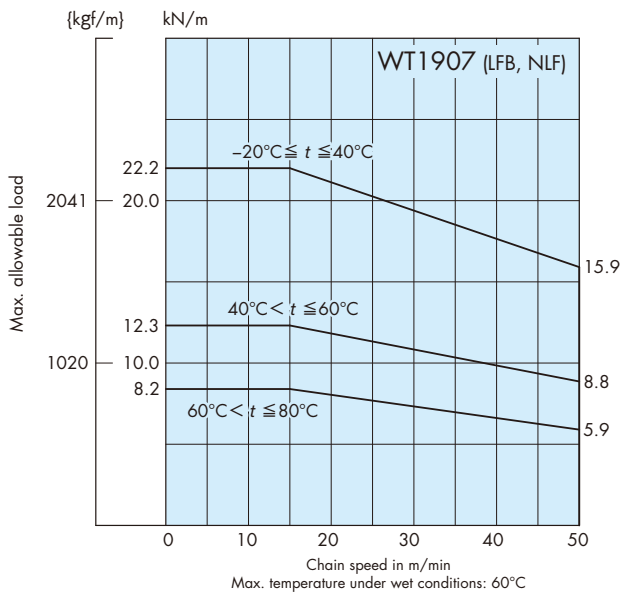
## Allowable Load Graphs



※ t = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

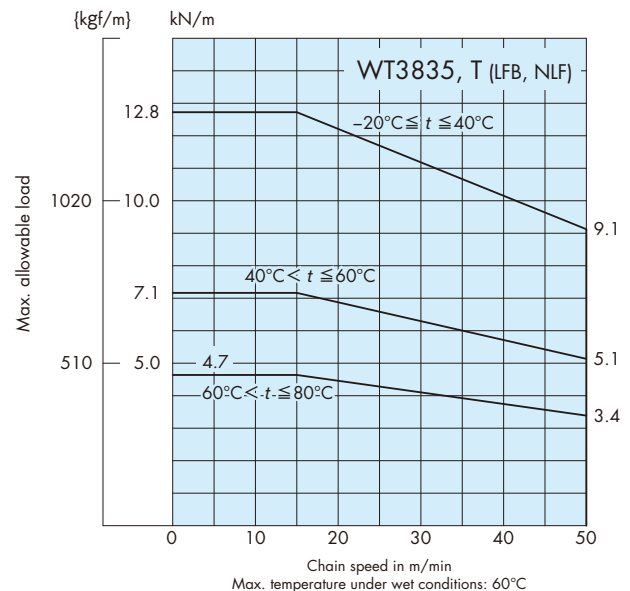
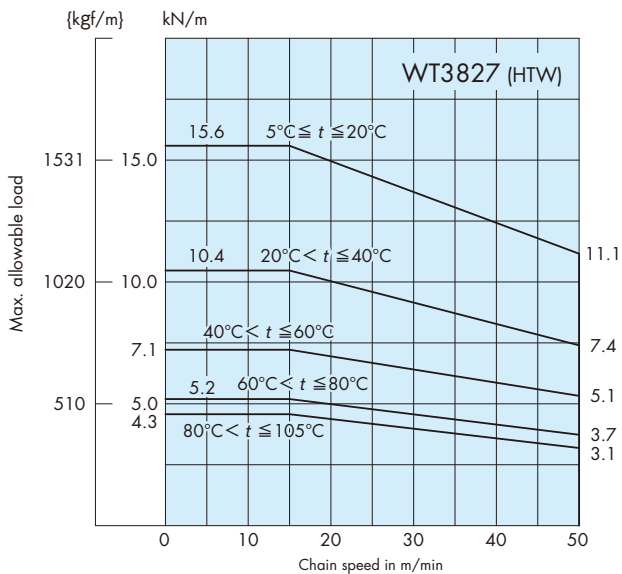
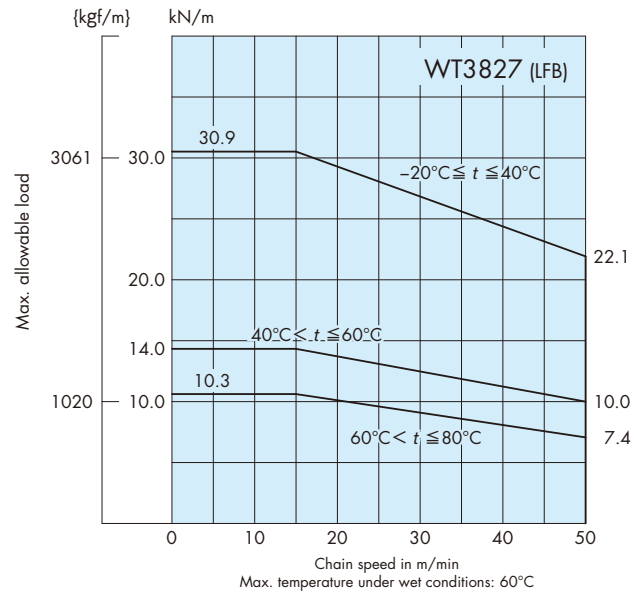
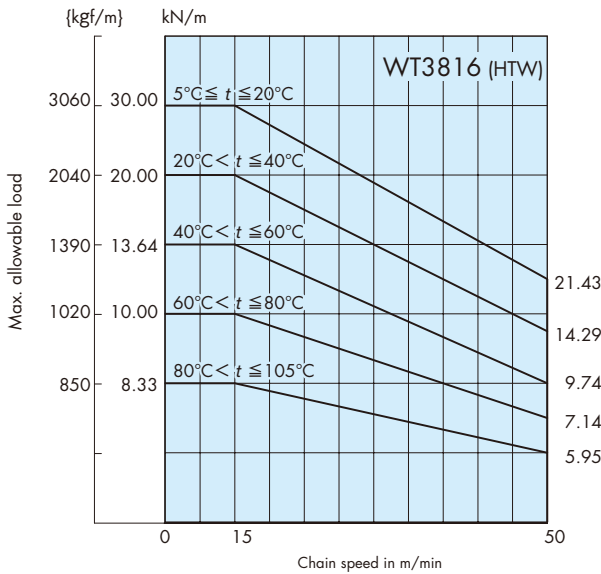
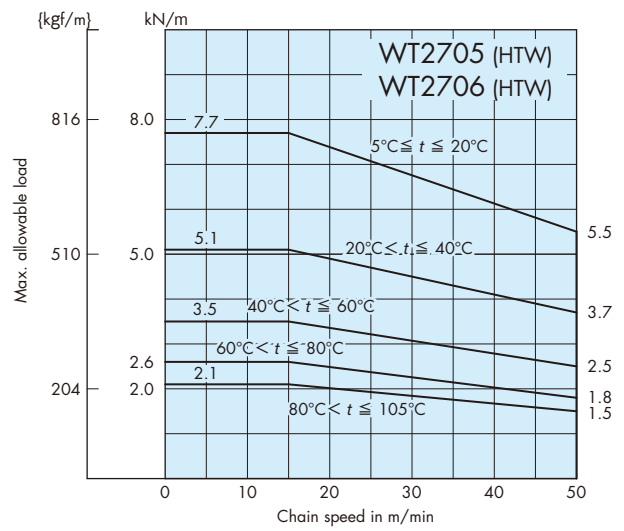
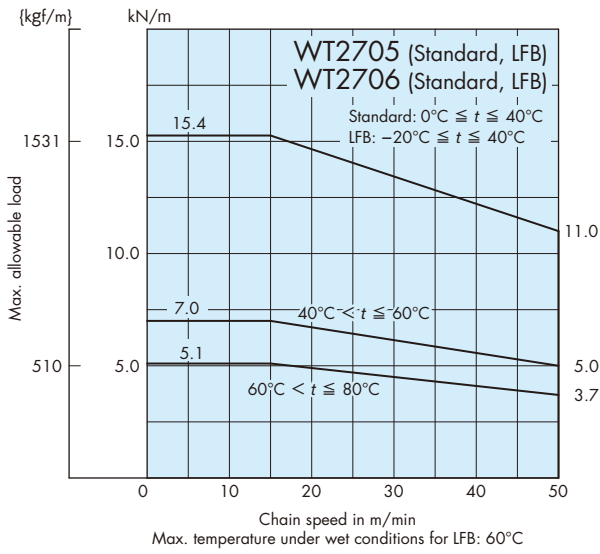




※ t = temperature

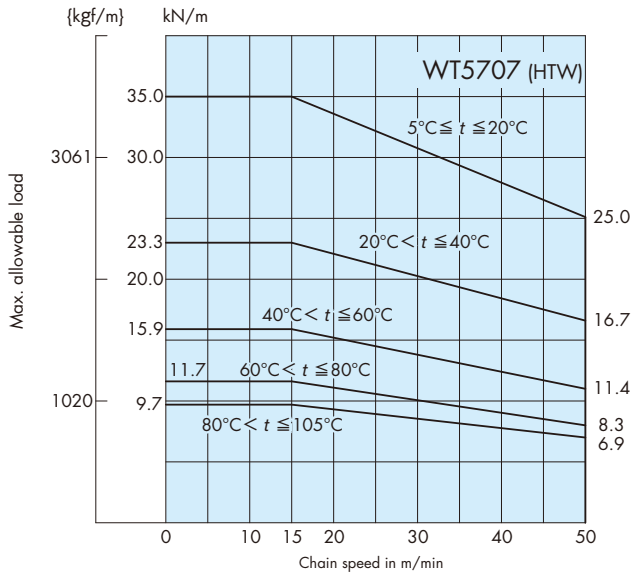
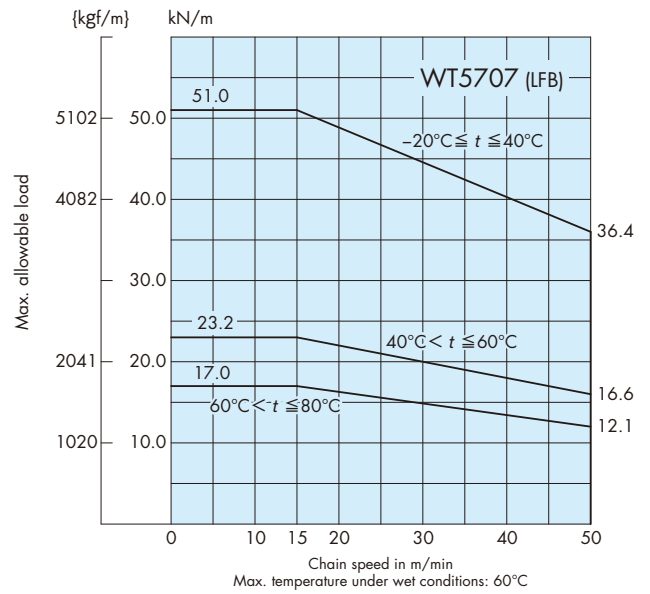
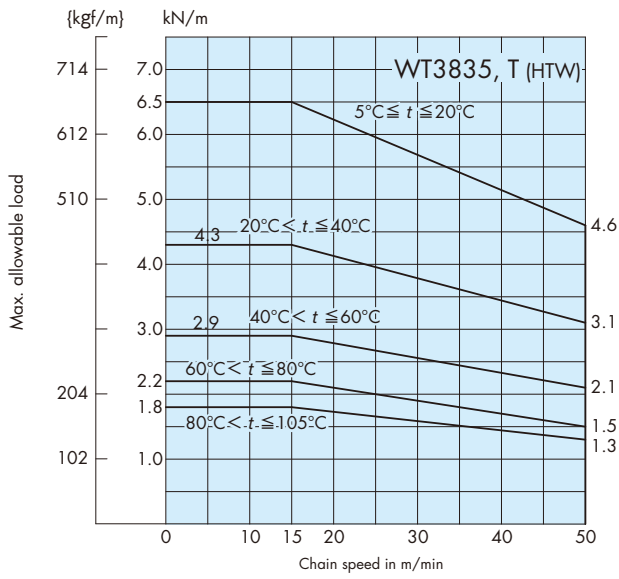
Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.

# Plastic Modular Chain (Wide Type)



※  $t$  = temperature

Note: For allowable load graphs of the chains and materials not found on these pages, contact a Tsubaki representative.



※  $t$  = temperature

# Plastic Roller Table

Follow the procedure below to select the most appropriate plastic roller table and the wearstrip according to specific operating conditions.

## 1. Selection Process for Plastic Roller Table

1. Check Conveyance Conditions
2. Select Chain Type
3. Select Chain Size
4. Calculate Power Required

### Step 1. Check Conveyance Conditions

Check the operating condition as follows.

#### ■ Check items of operating conditions

1. Conveyed products	① Materials		
	② Mass per unit		g/unit
	③ Dimension (length × width)		mm
2. Conveyor layout	① Layout of conveyance	Draw a layout of the conveyance in the blank space below.	
	② Length of conveyor		m
	③ Space		m
3. Conveying conditions	① Conveying capacity		/min
	② Interval/spacing between products to be conveyed		mm
	③ Conveying speed		m/min
4. Operating environment	① Temperature		°C
	② Conditions which may cause corrosion such as, contact with chemicals, water, and humidity (See "Corrosion resistance to various fluids" on page 402)	Yes      •      No	

2-④ Conveyance layout and others

### Step 2. Select Chain Type

ST: Used when the products are transversely loaded or unloaded.

RT: Used when the products are not transversely loaded or unloaded (straight loading/unloading). However, large-size products such as pallets may be transversely loaded or unloaded.

### Step 3. Select Chain Size

The size of the chain should be decided using table 1: Selection of Chain Size in Relation to Size of Products and table 2: Conveyor Capacity of ST Roller Tables and RT Roller Tables.

Note: Refer to page on 334 for the wearstrip.

Table 1: Selection of Chain Size in Relation to Size of Products

Chain size	Dimension of products (mm)
300 series	30 or longer
400 series	44 or longer
500 series	55 or longer
600 series	66 or longer

Note: The "Dimension of products" is the bottom dimension. Since the dimension of products depends on a balance between the dimension of the bottom and the dimension of the height, the above values are for reference only.

# Plastic Roller Table

Table 2: Conveyor Capacity of ST Roller Tables and RT Roller Tables

< ST type >		< RT type >									
$m_2 = 300 \text{ kg/m}^2$		$m_2 = 300 \text{ kg/m}^2$									
If overall length is 10 meter, plastic roller tables ST504 to ST512 can be used.		If overall length is 10 meter, plastic roller tables RT504 to RT512 can be used.									
$m_2 = \text{Conveying load (kg/m}^2) = \frac{\text{Mass of conveyed products (kg)}}{\text{Area of bottom (m}^2)}$		$m_2 = \text{Conveying load (kg/m}^2) = \frac{\text{Mass of conveyed products (kg)}}{\text{Area of bottom (m}^2)}$									
<b>ST300</b>	<table border="1"> <tr><td>Max. allowable conveying load</td><td>50 kg/m<sup>2</sup></td></tr> <tr><td>Max. allowable conveyor length</td><td>10 m</td></tr> </table>	Max. allowable conveying load	50 kg/m <sup>2</sup>	Max. allowable conveyor length	10 m	<b>RT300</b>	<table border="1"> <tr><td>Max. allowable conveying load</td><td>50 kg/m<sup>2</sup></td></tr> <tr><td>Max. allowable conveyor length</td><td>10 m</td></tr> </table>	Max. allowable conveying load	50 kg/m <sup>2</sup>	Max. allowable conveyor length	10 m
Max. allowable conveying load	50 kg/m <sup>2</sup>										
Max. allowable conveyor length	10 m										
Max. allowable conveying load	50 kg/m <sup>2</sup>										
Max. allowable conveyor length	10 m										
<b>ST400</b>		<b>RT400</b>									
<b>ST500</b>		<b>RT500</b>									
		<b>RT600</b>									

• How to calculate conveying load  $m_2$  (kg/m<sup>2</sup>) of round objects

$$m_2 = \text{Conveying load (kg/m}^2) = \frac{\text{Mass of conveyed products (kg)}}{\text{Area of bottom (m}^2)}$$

$$m_2 = \frac{\omega \times 10^6}{D^2 \sin 60^\circ} \text{ (kg/m}^2)$$

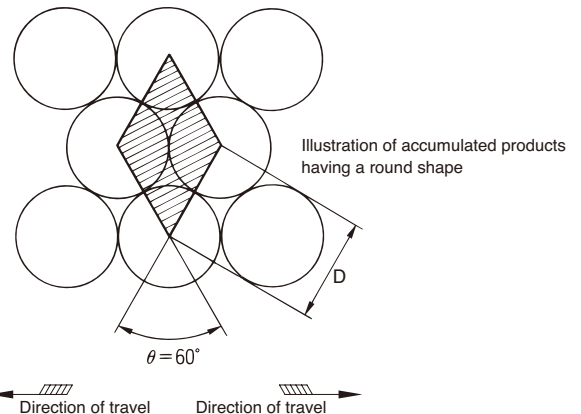
$m_2$  : Conveying load (kg/m<sup>2</sup>)

$\omega$  : Unit mass of single conveyed products (kg)

$D$  : Outside diameter (OD) of conveyed products (mm)

Example: For 350 ml can of 66 mm OD and unit mass of 0.37 kg/can

$$m_2 = \frac{0.37 \times 10^6}{66^2 \times \sin 60^\circ} = 98 \text{ kg/m}^2$$



## Step 4. Calculate Power Required

The power required is calculated using the following formula.

$$kW = \frac{X \cdot (m_1 + m_2 \cdot H) \cdot S \cdot u}{5565 \cdot \eta}$$

kW = Power required

$m_1$  = Chain mass (kg/m)

$m_2$  = Conveying load (kg/m<sup>2</sup>)

$H$  = Conveyor width (effective width) (m)

$S$  = Center distance of shafts (m)

$u$  = Chain speed (m/min)

$\eta$  Note = Mechanical transmission efficiency for drive unit

$X$  = Coefficient of lubrication (different from coefficient of friction)

• When base chain is lubricated:  $X = 0.3$

• When base chain is not lubricated:  $X = 0.4$

Note: See the drive unit used to check the mechanical transmission efficiency.

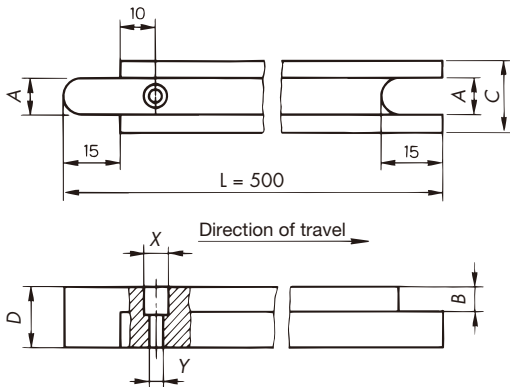
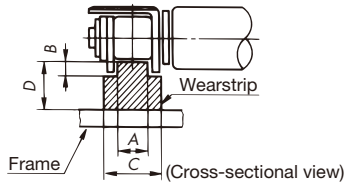
# Plastic Roller Table

## 2. Conveyor Design

Note: Refer to page on 334 for the wearstrip.

### 2-1. Wearstrip on carry-way (ST and RT)

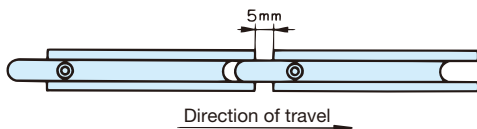
#### 2-1-1. Single-strand roller tables



Size	Dimensions						Locking screws	Material	
	A	B	C	D	X: Depth	Y			
ST300	4.0	2.7	9.5	10	φ 3.2 : 3	φ 1.8	M1.6 pan-head screw	P rail UHMW-PE	
RT300		1.6							
ST400	7.0	3.1	12	10	φ 4.0 : 4	φ 2.2			M2 pan-head screw
RT400		1.7							
ST500	8.5	3.5	15	10	φ 6.0 : 4	φ 3.2			M3 pan-head screw
RT500		2.0							
RT600	11.7	2.6	19	10	φ 6.0 : 4	φ 3.2	M3 pan-head screw		

#### 2-1-3. Wearstrip mounting

- The wearstrip should be supported by the frame with zero clearance.
- Since the wearstrips are made of ultra-high molecular weight polyethylene (UHMW-PE), they elongate greatly with temperature and/or humidity, requiring that each be mounted with just one screw at the end. Leave a



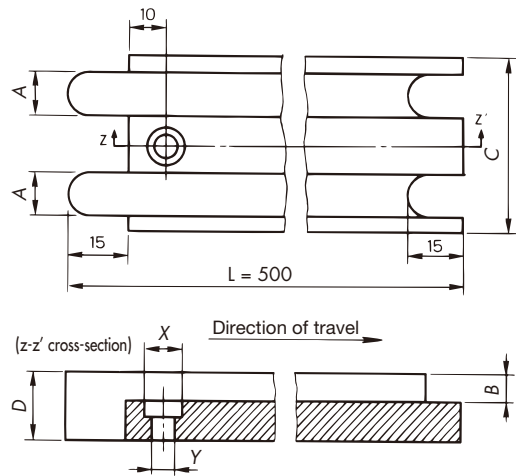
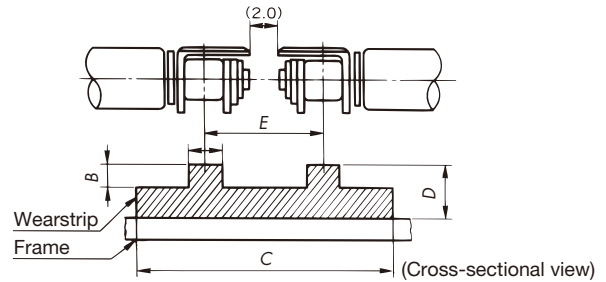
\*Coefficients of linear expansion

Plastic rail (P rail)	} 20 × 10 <sup>-5</sup> /°C
PLF rail/PMW rail	
M rail	

Note: 1. Operating temperature of wearstrips  
 Plastic rail (P rail) } :-20°C to 60°C  
 PLF rail/PMW rail }  
 M rail } :-20°C to 80°C

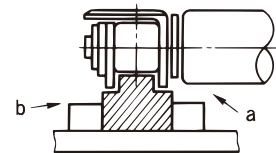
2. Do not use in environments where wearstrip components will be exposed to steam.

#### 2-1-2. Multi-strand ST roller tables



Size	Dimensions							Locking screws	Material
	A	B	C	D	E	X: Depth	Y		
ST300	4.0	2.7	26	10	16.5	φ 8 : 5	φ 4.2	M4 pan-head screw	P rail UHMW-PE
ST400	7.0	3.1	36.5	10	24.5				
ST500	8.5	3.5	43.5	10	28.5				

- clearance of around 5 mm at the joint part between the two wearstrips.
- Square steel or stainless steel parts should be provided on both sides of the wearstrip to prevent the roller table from being dislocated.

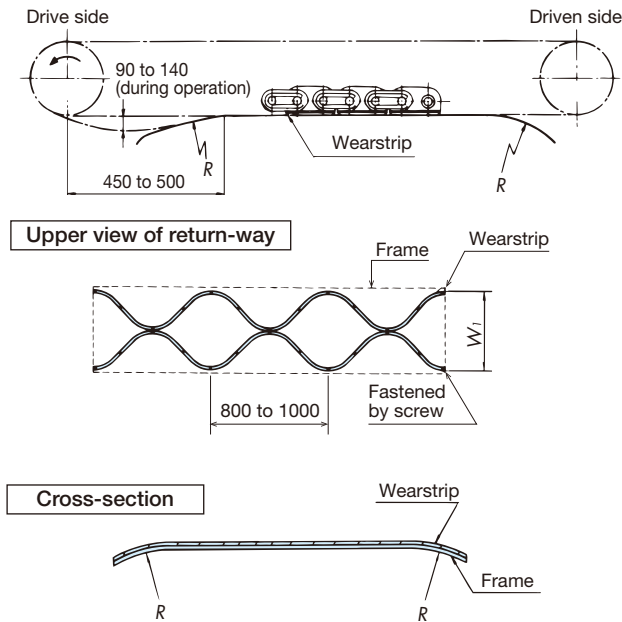


Note: Part a: Prevents interference with the plastic roller of the roller table.  
 Part b: Prevents interference with the neighboring top chain and other parts.

# Plastic Roller Table

## 2-2. Wearstrip on return-way

### 2-2-1. Common configuration for both ST and RT roller



- The curve radius  $R$  at both ends should be as shown in the table below.

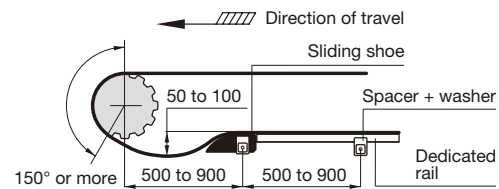
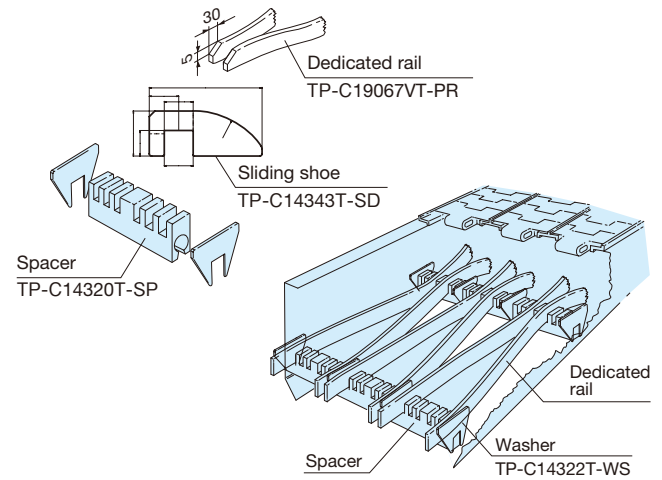
Size	Curve radius $R$
ST300, RT300, RT400, RT500, RT600	200 or more
ST400	250 or more
ST500	300 or more

- Slack as shown in the above figure should be provided beneath the drive sprocket during conveyor operation.
- Select a configuration for the wearstrip that prevents the plastic rollers of a given row from wearing down.
- The width of the wearstrip ( $W1$ ) should be shorter than  $C1$  (effective width) by 10 mm.
- Select UHMW-PE (ultra-high molecular weight polyethylene) for the material of the wearstrip.

### 2-2-2. Use Top Chain Accessories

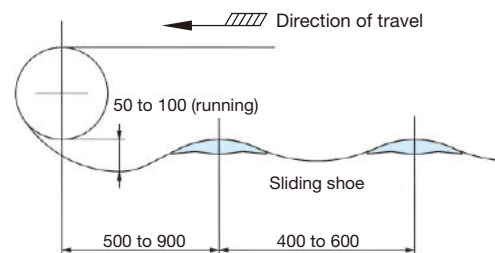
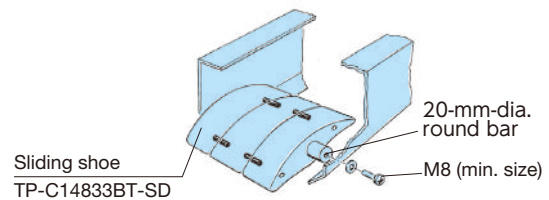
- Use TP-C14343T-SD sliding shoe and TP-C14320T-SP spacer.

Applicable chain: RT roller table



- Use TP-C14833BT-SD sliding shoe.

Applicable chain: ST300, ST400 and RT roller tables



# Snap Cover Chain

## 1. Selection Process for Snap Cover Chain

### 1-1. Select chain size

#### 1-1-1. Check maximum allowable load

Make certain that the load applied per link is within the maximum allowable load indicated in Table 1.

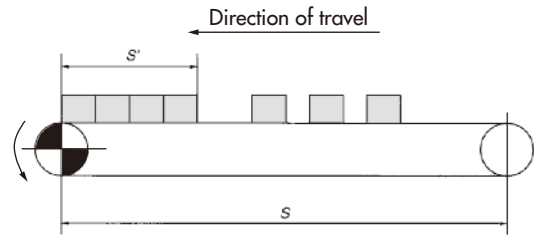
#### 1-1-2. Calculate chain tension

- $F$  = Maximum chain tension kN{kgf}
- $m_1$  = Mass of conveyed products (kg/m)
- $m_2$  = Chain mass (kg/m)
- $S$  = Length of conveyance  
(sprocket center distance) (m)
- $S'$  = Length of accumulation section (m)
- $\mu_1$  = Coefficient of friction between chain and  
wearstrip (carry-way) (see table 2)
- $\mu_2$  = Coefficient of friction between chain and  
wearstrip (return-way) (see table 3)
- $\mu_3$  = Coefficient of dynamic friction between conveyed  
products and chain (see table 4)
- $P$  = Power required (kW)
- $V$  = Chain speed (m/min)
- $K$  = Coefficient of speed (see table 5)
- $\eta^{\text{Note}}$  = Mechanical transmission efficiency for drive unit
- $G$  = Gravitational acceleration 9.80665m/s<sup>2</sup>

Note: See the drive unit used to check the mechanical transmission efficiency.

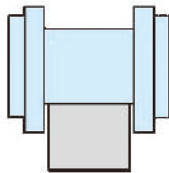
**Table 1. Maximum Allowable Load of Snap Cover**

	Allowable Load kN{kgf}/1 link					
	RF06B-SC	RS40-SC	RS50-SC	RS60-SC	RS80-SC	RS100-SC
Standard NP Lambda	0.03 {3}	0.05 {5}	0.07 {7}	0.10 {10}	0.15 {15}	0.25 {25}
SS	0.03 {3}	0.05 {5}	0.06 {6}	0.09 {9}	0.15 {15}	0.25 {25}



**Table 2. Coefficient of Rolling Friction ( $\mu_1$ ) between Chain and Wearstrip**

Without lubrication	With lubrication
0.21	0.14



**Table 3. Coefficient of Sliding Friction ( $\mu_2$ ) between Chain (Plastic Cover) and Wearstrip**

Wearstrip material	Stainless steel	UHMW-PE
Standard Electroconductive	0.25	0.25

Note: Without lubrication

**Table 4. Coefficient of Dynamic Friction ( $\mu_3$ ) between Conveyed Products and Chain (Plastic Cover)**

Conveyed products	Plastic cover material	Standard Electroconductive
Steel cans, aluminum cans		0.25
Paper packages		0.30
Glass bottles		0.22
Plastic containers		0.25
Industrial parts (metal)		0.25

Note: Without lubrication

**Table 5. Coefficient of Speed (K)**

Chain speed (m/min)	Coefficient of speed (K)
Less than 15	1.0
15 to 30	1.2
30 to 50	1.4
50 to 60	1.6

**[Calculation formula]**

• SI units (kN)

$$F = \{(m_1 + m_2) S \cdot \mu_1 + 1.1 m_2 \cdot S \cdot \mu_2 + m_1 \cdot S' \cdot \mu_3\} \cdot \frac{G}{1000}$$

• Gravimetric units (kgf)

$$F = (m_1 + m_2) S \cdot \mu_1 + 1.1 m_2 \cdot S \cdot \mu_2 + m_1 \cdot S' \cdot \mu_3$$

**[Determine chain size]**

Using the maximum tension ( $F$ ) and the speed coefficient ( $K$ ) shown in Table 5, check whether or not the following formulas are satisfied.

One strand of chains  $F \times K \leq \text{Maximum allowable load}$       Two strands of chains in a pair  $0.6F \times K \leq \text{Maximum allowable load}$

### 1-2. Calculate Power Required

• SI units (kN)

$$P = \frac{F \cdot V}{60 \times \eta}$$

• Gravimetric units (kgf)

$$P = \frac{F \cdot V}{6120 \times \eta}$$

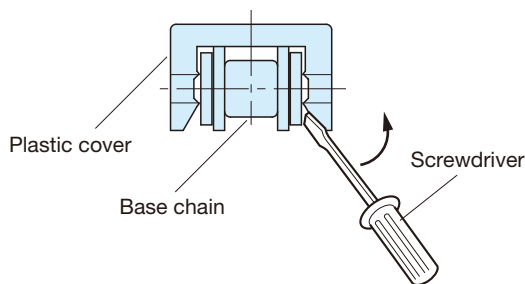


# Snap Cover Chain

## 2. Disconnecting

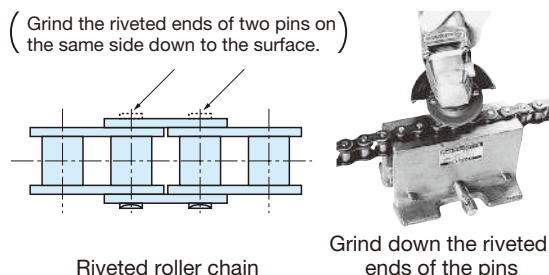
### 2-1. Detaching plastic covers

Use a screwdriver to detach the plastic cover. When attaching the plastic cover, attach the cover in the base chain firmly.



### 2-2. Disassembling base chain

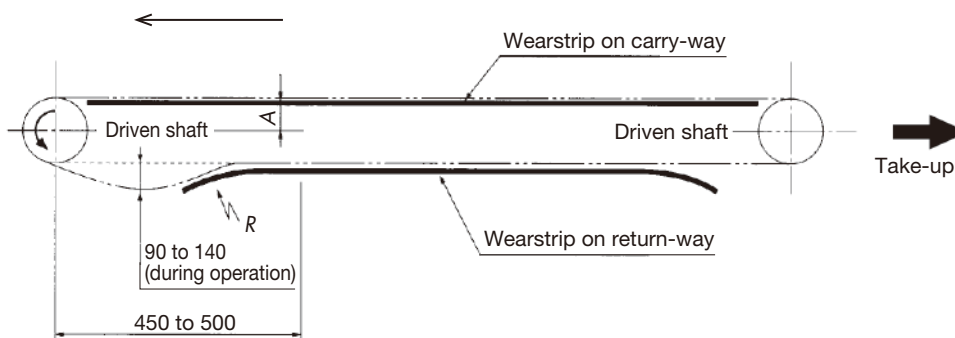
For riveted roller chain, use a hand grinder to remove the riveted ends of the two pins (on the same side) of the outer link to be cut. Be careful not to overheat the chain when performing the grinding operation. For Lambda chains, work especially slowly so as not to heat the oil-impregnated bushes.



## 3. Conveyor Design

### Basics of wearstrip

Conveyance should be provided only on the carry-way and the return-way should be supported by the wearstrip of which both ends should be curved slightly to prevent vibrations and pulsations of the chain.



### Chain slack

The necessary slack in the chain during conveyor operation is 90 to 140 mm below the drive sprocket as shown in the above figure.

### Wearstrip height

$$A = \frac{\text{Sprocket pitch circular diameter} - \text{roller diameter}}{2}$$

### Curve at end of wearstrip

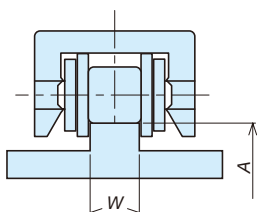
The curve radius of the wearstrip should be larger than the backflex radius of the chain (see table below).

	RF06B-SC	RS40-SC	RS50-SC	RS60-SC	RS80-SC	RS100-SC
Backflex radius R mm	280	380	480	560	740	880

### Ways to support chain

- Carry-way ... Make sure the chain is supported by the rollers. If supported by the plastic cover, the cover will quickly wear down.
- Return-way... The whole surface of the plastic cover should be supported.

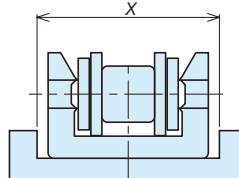
#### [Carry-way]



Rail width (W): In general, it should be the thickness of sprocket teeth.

(Distance from the center of sprocket)

#### [Return-way]



Groove width on return-way (X): Chain width (L) + 2 to 3 mm

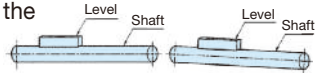
# Installation and Inspection

## 1. Sprocket installation

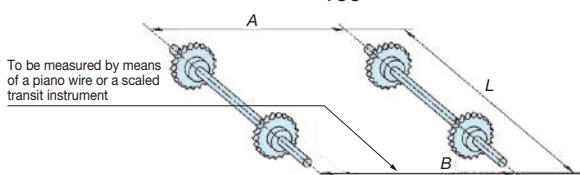
Installation of the sprockets is critical for smooth operation of the conveyor, and the chain life depends on the properness of the installation. The installation should be properly carried out in accordance with the procedure described below.

- 1) Check the horizontal positioning of the shafts with a level. Adjust the level within the tolerance of

$$\pm \frac{1}{300}$$



- 2) Adjust the shafts so that the parallelism as calculated with a formula  $\frac{A-B}{L}$  is within  $\pm \frac{1}{100}$



- 3) Align the sprocket faces in a pair.

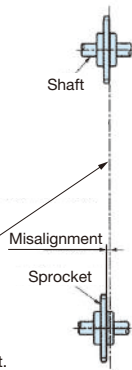
Tolerance relative to center distance  
Up to 1 m :  $\pm 1$  mm

Tolerance relative to center distance  
1 to 10 m :

$$\pm \frac{\text{Distance between shafts (mm)}}{1000}$$

Distance between shafts  
10 m or longer:  $\pm 10$  mm

The misalignment is to be measured by means of:  
A straight edge when the distance is short.  
A piano wire when the distance is long.  
A leveling string or a piano wire when the sprocket positions are different from each other in terms of height.

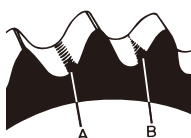


- 4) After the processes 1) to 3) have been completed, lock each of the sprockets to each shaft by means of keys or Tsubaki POWER-LOCK. Lock the sprockets that are installed and used on the same shaft so that the teeth of both sprockets align in terms of phase.

## 2. Inspection

Frequently inspect the chain during the initial operating period in order to carry out necessary adjustment. Inspect the following items.

1. Unusual wear of chain
2. Slack in chain
3. Flatness of chain surface
4. Difference in height of top plates between appropriate plate and neighboring plate
5. Foreign matter between top plates and clearance between top plates
6. Vibration and jerking of chain
7. Unusual wear of sprocket, unusual contact of sprocket with other components due to eccentricity, dust accumulated on root of teeth. When the sprocket properly engages with the chain, even contact is represented by the trace of contact shown as A in the illustration, while uneven trace of contact as B in the illustration represents improper installation of the sprocket or a twisted chain. Rechecking is needed. Proper contact should be traced a little above the root. However, when initial tension remains in the slacked side of the chain, the chain slightly contacts the root. However, even in this case, strong contact should be traced around A. In the case of idlers and tighteners, contact happens at the middle of the root.
8. Too much wear of the wearstrip
9. Any abnormality in the lubricating system



## Causes of vibration, jerking and unusual wear

1. Overload, glass fragments or bottle caps caught between components
2. Warping of the chain on the return-way
3. Insufficient lubrication or no lubrication
4. Interference between top plates
5. Wear of the sprocket
6. Unusual wear or breakage of the chain

## 3. Lubrication

Lubrication may drastically decrease elongation of the chain due to wear, wear of the sprockets and wear of the top plates and the wearstrips. Utilization of a lubricant also reduces noise and power loss in operation. Though plastic chains have self lubricating characteristics, lubrication exerts the same effect.

The most desirable lubricant is high-quality lubricating oil, however a lubricant prepared exclusively for this purpose or soap are often used when lubricating oil is not available. Enough attention should be paid so that such a lubricant may be sufficiently applied to parts liable to wear such as those described above.

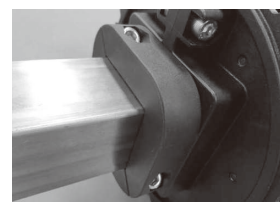
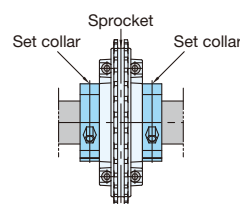
## 4. Cleaning

Chain wear dust, grease, general dust, spilled beverage syrup, etc., tend to accumulate during ordinary use, and may result in the following undesirable conditions that will require cleaning of the chain and the conveyor.

1. Contamination, damage, tip-over, or slippage of conveyed products
2. Increased load on the chain and/or the motor
3. Accelerated wear of sprocket teeth
4. Vibration and/or jerking of the conveyor
5. Accelerated wear in the curves and the top plates of the chain
6. Accelerated wear of the wearstrip
7. Growth of bacteria or other microorganisms

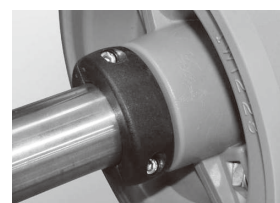
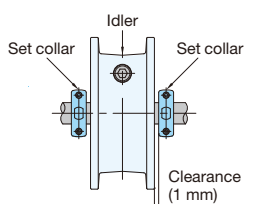
Note: When the top chain is in operation, wear debris is normally generated. Cleaning especially during initial operational periods should be performed because wear debris is prone to be generated more.

## Method of fixing sprockets for plastic top chains



Place set collars tightly on both sides of a sprocket without leaving any clearances between them and use bolts to fix each set collar using the specified bolt tightening torque.

## Method of fixing idlers



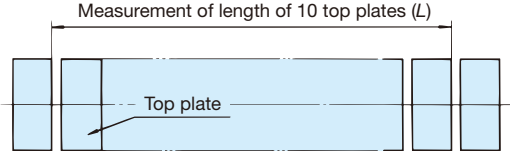
Place set collars on both sides of an idler and fix each set collar using the specified bolt tightening torque. Ensure that there is clearance between the idler and set collar and that the idler rotates.

Note: Refer to page on 357 for details.

## Installation and Inspection

### Replacement of the chains, sprockets and wearstrips

#### 5-1. Chain

Item	Method of Inspection	Judgment Criteria																			
Chain elongation due to wear	<p>Measure the length of 10 top plates by means of a measure with the chain slightly stretched to eliminate backlash through the chain links.</p> 	<table border="1"> <thead> <tr> <th>Grade</th> <th>Percentage of chain elongation X</th> </tr> </thead> <tbody> <tr> <td>A</td> <td><math>0 \leq X &lt; +1.2\%</math></td> </tr> <tr> <td>B</td> <td><math>+1.2 \leq X &lt; +2.6\%</math></td> </tr> <tr> <td>C</td> <td><math>+2.6\% \leq X</math></td> </tr> </tbody> </table> <p>Percentage of elongation X  <math>= (\text{Measured length} - \text{Reference length}) \div \text{Reference length} \times 100</math>                      Reference length = chain pitch <math>\times 10</math>                      Example: TTP chain: Result of measuring 10 links (reference length: 381 mm)                      Percentage of elongation and judgment when measured length was 387 mm:                      Percentage of elongation X = <math>(387 - 381) \div 381 \times 100 \approx 1.6\%</math>                      From table above, judgment is B.</p>	Grade	Percentage of chain elongation X	A	$0 \leq X < +1.2\%$	B	$+1.2 \leq X < +2.6\%$	C	$+2.6\% \leq X$											
Grade	Percentage of chain elongation X																				
A	$0 \leq X < +1.2\%$																				
B	$+1.2 \leq X < +2.6\%$																				
C	$+2.6\% \leq X$																				
Wear of top plate (Plastic Top Chain and Stainless Steel Top Chain only)	Use a vernier caliper to measure the thickness of the part of the top plate that slides on the wearstrip. Also, verify that there are no bumps, depressions, or other irregularities measuring more than 1 mm in height or depth on the conveyor surface.	<table border="1"> <thead> <tr> <th>Grade</th> <th>Engineering plastic (plate thickness 4 mm)</th> <th>Steel (plate thickness 3.2 mm)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>3.4 to 4.0 mm</td> <td>2.7 to 3.2 mm</td> </tr> <tr> <td>B</td> <td>2.5 to 3.3 mm</td> <td>2.0 to 2.6 mm</td> </tr> <tr> <td>C</td> <td>2.4 mm or thinner</td> <td>1.9 mm or thinner</td> </tr> </tbody> </table>	Grade	Engineering plastic (plate thickness 4 mm)	Steel (plate thickness 3.2 mm)	A	3.4 to 4.0 mm	2.7 to 3.2 mm	B	2.5 to 3.3 mm	2.0 to 2.6 mm	C	2.4 mm or thinner	1.9 mm or thinner							
Grade	Engineering plastic (plate thickness 4 mm)	Steel (plate thickness 3.2 mm)																			
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B	2.5 to 3.3 mm	2.0 to 2.6 mm																			
C	2.4 mm or thinner	1.9 mm or thinner																			
Link height wear (Plastic Modular Chain and Plastic Block Chain)	Use a vernier caliper to measure the height of a link sliding on a wearstrip or with conveyed products.	<table border="1"> <thead> <tr> <th rowspan="2">Grade</th> <th colspan="3">Amount lost to wear Y</th> </tr> <tr> <th>Plastic modular chain</th> <th>RSP35, BTC4-M</th> <th>RSP40, 50, 60</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>0 to 0.6 mm</td> <td>0 to 0.3 mm</td> <td>0 to 1.2 mm</td> </tr> <tr> <td>B</td> <td>0.7 to 0.9 mm</td> <td>0.4 to 0.6 mm</td> <td>1.3 to 1.9 mm</td> </tr> <tr> <td>C</td> <td>1.0 mm or more</td> <td>0.7 mm or more</td> <td>2.0 mm or more</td> </tr> </tbody> </table> <p>Amount lost to wear Y = reference link height (value from catalog) - measured height</p>	Grade	Amount lost to wear Y			Plastic modular chain	RSP35, BTC4-M	RSP40, 50, 60	A	0 to 0.6 mm	0 to 0.3 mm	0 to 1.2 mm	B	0.7 to 0.9 mm	0.4 to 0.6 mm	1.3 to 1.9 mm	C	1.0 mm or more	0.7 mm or more	2.0 mm or more
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C	1.0 mm or more	0.7 mm or more	2.0 mm or more																		
Corrosion	Check whether or not there is any place where the chain articulation is not proper due to corrosion. If corrosion should worsen, remove rust and measure the thickness of the link plate by means of a vernier caliper.	<table border="1"> <thead> <tr> <th>Grade</th> <th>Criteria</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Corrosion penetration is shallow and dispersed.</td> </tr> <tr> <td>B</td> <td>The entire surface is affected by corrosion.</td> </tr> <tr> <td>C</td> <td>Corrosion has worsened to such an extent that the thickness of the plate has been reduced.</td> </tr> </tbody> </table>	Grade	Criteria	A	Corrosion penetration is shallow and dispersed.	B	The entire surface is affected by corrosion.	C	Corrosion has worsened to such an extent that the thickness of the plate has been reduced.											
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A	Corrosion penetration is shallow and dispersed.																				
B	The entire surface is affected by corrosion.																				
C	Corrosion has worsened to such an extent that the thickness of the plate has been reduced.																				
Deformation of top plate	Inspect whether or not any of the following problems have happened: deformation of the top plate caused by things such as a broken bottle or bottle cap caught in the components; lifting of curled sections; looseness of a rivet in the top plate; or scratches on the upper surface of the top plate due to abnormal contact.	Replace the part if deemed that it may affect operation. For scratches on the upper surface of the top plate due to abnormal contact, investigate the wearstrip on the return-way to find the causes and repair it as necessary.																			
Chipping or unsmooth rotation of the roller	Check whether or not there is any chipping of the roller and rotation is smooth.	Replace the chain and the rollers as appropriate when there is any roller that is chipped, does not rotate smoothly or is partially worn.																			

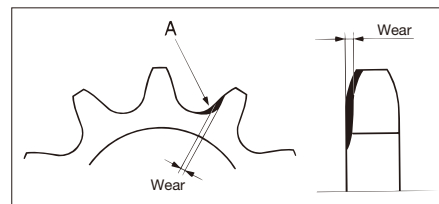
A: Can be still used    B: Still has margin of chain life but necessary to consider replacement

C: Chain life already expired, needs to be replaced

Note: Contact a Tsubaki representative regarding standards for link height wear for TPUN chain.

#### 5-2. Sprockets

When the sprocket is worn as illustrated right (to the left), the chain is prone to being caught by the tips of the teeth (A), making the departure of the chain from the sprocket difficult, hence resulting in vibration of the chain. Though wear allowance depends on the type of conveyor and the size of the chain to a certain extent, if the sprocket is replaced when the wear reaches 1.5 to 2 mm, damage to the chain can be avoided. When the sprocket is worn in the direction of the facewidth as illustrated right (to the right), the shaft may not be properly aligned, therefore correct it.



#### 5-3. Wearstrips

Replace the wearstrip when the thickness has been reduced to half of the original thickness.

# Installation and Inspection

## 6. Troubleshooting Guide to Chain/Sprocket/Rail Problems


Type of Problem	Possible Cause	Corrective Action
Abnormal noise	Chain may be hitting safety cover, frame, etc.	Locate the source of the noise and make corrections so that the chain is not making contact.
	Chain is running in a place where guide clearance with the wearstrip is tight.	Locate where guide clearance with the wearstrip is tight, check for temperature-related expansion and/or deformation of the wearstrip, and make corrections.
Squeaking	Wearstrip surface finish is rough or dimensions and/or materials are inappropriate.	Replace with wearstrip that has a smooth surface finish, that is dimensionally accurate, or made from appropriate material.
Rattling	Travel direction of chain is backward.	Re-install the chain.
	Lubrication is inadequate or operating conditions are too extreme.	Change the lubricant and/or lubrication method.
Pulsating/surging	The location and/or spacing of return rollers and/or size and/or position of the catenary curve are inappropriate.	Refer to this Engineering Manual and make modifications to areas that need correction so that a smooth return is achieved.
	Idler sprocket and/or return roller not spinning smoothly.	Take corrective measures such as using bearings so that they spin more smoothly or increase the outer diameter of the return rollers.
	Chain is running in a place where guide clearance with the wearstrip is tight.	Locate where guide clearance with the wearstrip is tight, check for temperature-related expansion and/or deformation of the wearstrip, and make corrections.
	Foreign matter adhering to the wearstrip is impeding smooth sliding.	Clean wearstrip to remove foreign matter.
	Chain is catching or snagging on obstructions and/or on sharp edges at the ends of wearstrips.	Smooth out sharp edges and remove obstructions.
Abnormal wear of the conveying surface of the chain	Lubrication is inadequate or operating conditions are too extreme.	Change the lubricant and/or lubrication method.
	Return rollers not rotating.	Increase the outer diameter of the return rollers or change their specifications.
	Small return intake radius R, or diameter of return rollers is too small.	Refer to the Engineering Manual and make corrections.
	Return wearstrip surface finish is rough or layout and/or materials are inappropriate.	Correct the layout so that return-way rail made of appropriate material with smooth surface finish makes uniform contact across the chain width.
	Rough or gritty spots that promote friction are adhering to the return rollers or rail.	Clean the conveyor. Take measures to identify the cause.
Abnormal wear and scratches on the back surface of the chain	Guide rails and/or obstructions are causing damage.	Identify the obstruction and make corrections.
	Foreign matter is adhering to or embedded in the carry-way wearstrip, and damaging the chain.	Remove foreign matter and clean.
	Surface finish of carry-way wearstrip is rough.	Make changes to the surface finish or replace with appropriate wearstrip.
	Idler wheel contact marks.	Replace with sprocket if necessary.
Abnormal wear on the side of the chain	Position of sprockets or wearstrips inappropriate.	Correct the position.
	Surface finish of curved plastic rail is rough or material is inappropriate.	Replace with curved plastic rail with a smooth surface finish.
	Insufficient lubrication or operating conditions too extreme for curved conveyor.	Change the lubrication method.
Teeth jumping and/or failure to mesh with sprocket teeth	Excessive chain elongation.	Replace chain and/or sprockets.
	Foreign matter has accumulated on the roots of the sprocket teeth.	Remove foreign matter and clean.
	Sprocket has shifted out of position or is misaligned.	Re-install.
Chain breaks or is damaged	Defective sprocket (damaged, deformed, swollen, corroded).	Investigate the cause and re-check specifications. Replace as needed.
	Chain caught or snagged on foreign matter or obstruction.	Remove foreign matter and obstructions.
	Deterioration caused by chemicals or high temperatures, brittle fracture due to corrosion.	Identify cause and modify operating conditions or change the chain material.
	Chain climbs sprocket teeth.	Caused by elongation caused by excessive wear of chain. Replace the chain.
Discoloration of chain	Operating conditions too extreme and chain subjected to catastrophic excess tension.	Determine the cause and take corrective action.
	Adhesion of dirt or other contaminants.	Clean chain.
	Deterioration due to exposure to chemicals, high temperatures, ultraviolet light, etc.	Check operating conditions and replace with chain made of appropriate material.
Wear dust or debris accumulates along wearstrips and below drive sprocket	Surface finish of curved plastic rail or other component is rough.	Replace the curved plastic rail made of an appropriate material grade.
	Sharp edges at ends of wearstrips or obstructions are abrading or gouging the chain.	Smooth the edges.
	Inadequate lubrication.	Ensure adequate lubrication.
	Presence of rough or gritty spots.	Identify the cause and take corrective action.
Conveyed products tip over at conveyor transfer points	Sliding is poor, or there are problems with the location or shape of guide rails, chain level, or speed ratio.	Make the guide angle gentler. Change the position of the guides. Make corrections to speed and lubrication. Check level. Make changes if necessary.
Chain flexing is stiff	Pins and links have become bent as a result of overload, etc., and scoring (galling) has occurred.	Remove and replace the stiff sections or replace with a new chain.



# Inquiry Form

## Plastic Top Chain Inquiry Sheet

For inquiries about plastic top chain or to request a quote, please fill out the inquiry sheet below.

Plastic Top Chain Inquiry Sheet	
Company	Your name
Contact number (fax)	E-mail address
1. Equipment	
2. Conveyed products	① Conveyed products
	② Material <input type="checkbox"/> Steel <input type="checkbox"/> Aluminum <input type="checkbox"/> Paper <input type="checkbox"/> Glass <input type="checkbox"/> Plastic
	③ Mass <span style="float: right;">kg/unit</span>
	④ Dimensions Square object (mm) (L) × (W) × (H) Round object (mm) (Diameter) X (Height)
	⑤ Shape of bottom <input type="checkbox"/> Flat <input type="checkbox"/> Raised <input type="checkbox"/> Other Travel direction : 
	⑥ Static electricity Does static electricity damage the conveyed products? <input type="checkbox"/> Yes <input type="checkbox"/> No
3. Conveyor layout	① Straight or sideflexing running <input type="checkbox"/> Straight running <input type="checkbox"/> Sideflexing running (Sideflex radius: ____ sideflex angle: ____)
	② Conveyor length <span style="float: right;">m</span>
	③ Layout Sketch the layout in the space provided in "8. Description of the equipment and chains".
4. Conveying conditions	① Conveying speed <span style="float: right;">m/min.</span>
	② Interval/spacing in b/w conveyed products, and amount of object Interval _____ mm, amount _____ unit/meter
	③ Operating time _____ hours/day _____ days/year
	④ Lubrication <input type="checkbox"/> None <input type="checkbox"/> Yes ( <input type="checkbox"/> soapy water <input type="checkbox"/> water <input type="checkbox"/> other )
	⑤ Accumulation <input type="checkbox"/> No <input type="checkbox"/> Yes
	⑥ Wearstrip material <input type="checkbox"/> Steel <input type="checkbox"/> Stainless steel <input type="checkbox"/> PLF rail <input type="checkbox"/> PMW rail <input type="checkbox"/> M rail <input type="checkbox"/> Plastic rail (P rail)
	⑦ Support on return-way <input type="checkbox"/> Rollers <input type="checkbox"/> Wearstrip
	⑧ Impact <input type="checkbox"/> No <input type="checkbox"/> Yes (Description: _____ )
5. Operating environment	① Temperature <input type="checkbox"/> Room temperature (-10°C to 40°C) <input type="checkbox"/> Other ( _____ °C to _____ °C)
	② Corrosive conditions (Chemicals, disinfectants, detergents, etc.) Type of chemicals, disinfectants, detergents, etc.: Concentration: _____ % Usage frequency: _____ times per _____ Water/Humidity: _____ %
	③ Abrasive conditions <input type="checkbox"/> None <input type="checkbox"/> Yes ( <input type="checkbox"/> glass fragments <input type="checkbox"/> paint chips <input type="checkbox"/> metal powder <input type="checkbox"/> sand <input type="checkbox"/> other )
	④ Other Volatile gases: <input type="checkbox"/> None <input type="checkbox"/> Yes ( _____ )
6. Part number: Chain	
7. Part number: Sprocket	Number of teeth:
8. Description of the equipment and chains: (Please provide a layout sketch and other remarks such as shape of conveyed product, method of support on the return-way, etc.)	

## Plastic Modular Chain BTM8H Inquiry Sheet

For conveyor design of inclined conveyors with plastic modular chain magnet type, information about the operating conditions such as conveyed product, and inclination angle is required. Please fill out the inquiry sheet below and contact us for further consultation.

Plastic Modular Chain BTM8H Inquiry Sheet			
Company		Your name	
Contact number (fax)		E-mail address	
1. Equipment	① Description	<input type="checkbox"/> New installation <input type="checkbox"/> Redesign (Existing equipment: _____ )	
	② Conveyor length		
	③ Conveyor width	mm	
	④ Inclination angle	degree(s)	
	⑤ Direction of travel	<input type="checkbox"/> Ascending <input type="checkbox"/> Descending	
2. Conveyed products	① Conveyed products		
	② Mass	kg/unit	
	③ Magnetic property	<input type="checkbox"/> Magnetic material <input type="checkbox"/> Non-magnetic material	
	④ Magnetization to conveyed products	<input type="checkbox"/> Allowed <input type="checkbox"/> Not allowed	
	⑤ Shape	<input type="checkbox"/> Flat <input type="checkbox"/> Square <input type="checkbox"/> Cylinder <input type="checkbox"/> Other	
	⑥ Bottom shape	<input type="checkbox"/> Flat <input type="checkbox"/> Raised <input type="checkbox"/> Irregular	
3. Conveying conditions	① Conveying speed	m/min.	
	② Amount of object	Unit/minute	
	③ Impact	<input type="checkbox"/> No <input type="checkbox"/> Yes (Description: _____ )	
	④ Accumulation	<input type="checkbox"/> No <input type="checkbox"/> Yes	
4. Operating environment	① Temperature	from    °C up to    °C	
	② Temperature of conveyed products	from    °C up to    °C	
5. Description of the equipment and chains: (Please provide a layout sketch and other remarks such as shape of conveyed product, method of support on the return-way, etc.)			

# Inquiry Form

## Plastic Modular Chain WT2515F-W Flight Type Inquiry Sheet

For inquiries or quotes about plastic modular chain WT2515F-W flight type, please fill in the inquiry sheet below.

Plastic Modular Chain WT2515F-W Flight Type Inquiry Sheet			
Company		Your name	
Contact number (fax)		E-mail address	
1. Chain material	<input type="checkbox"/> Low friction/wear resistant (CB) series (link color: blue) <input type="checkbox"/> High temperature (HTW) series (link color: white)		
2. Chain width (W)	*Chain width begins at 170 mm in 85 mm increments. _____ mm		
3. Flight mounting spacing (P)	*Available from 50.8 mm with 25.4 mm intervals. _____ mm		
4. Flight height (F)	<input type="checkbox"/> 50.8 mm <input type="checkbox"/> 76.2 mm (maximum height) <input type="checkbox"/> Customize _____ mm		
5. Indent (N)	<input type="checkbox"/> 0 mm <input type="checkbox"/> 17 mm <input type="checkbox"/> 34 mm <input type="checkbox"/> 51 mm <input type="checkbox"/> Other _____ mm		
6. Equipment	① Description	<input type="checkbox"/> New installation <input type="checkbox"/> Remodeling (Existing equipment: _____)	
	② Layout	Layout sketch:	
	③ Horizontal conveyance distance	Drive side: _____ mm	Driven side: _____ mm
7. Conveyed products	① Conveyed products		
	② Mass	_____ kg/m <sup>2</sup>	
	③ Conveying speed	_____ m/min	
	④ Ambient temperature	from _____ °C up to _____ °C	
	⑤ Temperature of conveyed products	from _____ °C up to _____ °C	
	⑥ Amount of conveyance	_____ kg/min	
	⑦ Impact	<input type="checkbox"/> None <input type="checkbox"/> Yes (Description: _____)	



## Plastic Modular Chain WT3109-W Inquiry Sheet

If you are considering the use of plastic modular chain WT3109-W, please inform us on the operating conditions such as application, conveyance, machine length, environment, speed, temperature, etc. in order to confirm availability. Please fill out the inquiry sheet below and contact us for further consultation.

Plastic Modular Chain WT3109-W Inquiry Sheet	
Company	Your name
Contact number (fax)	E-mail address
1. Application	<input type="checkbox"/> Assembly line <input type="checkbox"/> Inspection line <input type="checkbox"/> Others ( _____ )
2. Conveyed products	① Conveyed products <input type="checkbox"/> Trolley <input type="checkbox"/> Worker <input type="checkbox"/> Others ( _____ )
	② Mass _____ kg × _____ number of unit / _____ kg × _____ number of persons
	③ Dimensions of trolley (L) _____ × (W) _____ × (H) _____ mm
3. Conveyor layout	① Conveyor length _____ m
	② Width *Chain width begins at 300 mm in 100 mm increments. _____ mm
	③ Layout Sketch the layout in the space provided in "6. Description of the equipment and chains".
4. Conveying conditions	① Conveying speed _____ m / min
	② Takt time operation <input type="checkbox"/> No <input type="checkbox"/> Yes (Distance per a takt _____ m, time per a takt _____ s)
	③ Lubrication <input type="checkbox"/> No <input type="checkbox"/> Yes (Water or others: _____)
	④ Operating time Daily: _____ hours, Yearly: _____ days, _____ unit per meter
	⑤ Wearstrip material <input type="checkbox"/> Steel <input type="checkbox"/> Stainless steel <input type="checkbox"/> Wearstrip (Electrostatic preventive)
	⑥ Method of support on the return-way <input type="checkbox"/> Roller <input type="checkbox"/> Wearstrip
5. Operating environment	① Temperature <input type="checkbox"/> Room temperature (-10°C to 40°C) <input type="checkbox"/> Other ( _____ °C to _____ °C)
	② Corrosive conditions (Chemical, disinfectant, detergent, etc.) Type of chemicals, disinfectants, detergents, etc.: Concentration: _____ % Usage frequency: _____ times per _____ Water/Humidity: _____ %
	③ Abrasive conditions <input type="checkbox"/> None <input type="checkbox"/> Yes ( <input type="checkbox"/> paint chips <input type="checkbox"/> metal powder <input type="checkbox"/> sand <input type="checkbox"/> other: _____)
	④ Others Volatile gases: <input type="checkbox"/> None <input type="checkbox"/> Yes ( _____ )
6. Description of the equipment and the chain: (Please provide a layout sketch and other remarks such as shape of conveyed product, method of support on the return-way, etc.)	

# Inquiry Form

## Plastic Modular Chain BTH16 Inquiry Sheet

If you are considering the use of plastic modular chain BTH16, please inform us of the operating conditions such as application, conveyance, machine length, environment, speed, temperature, etc. in order to confirm availability. Please fill out the inquiry sheet below and contact us.

Plastic Modular Chain BTH16 Inquiry Sheet		
Company		
Contact number (fax)		
Your name		
E-mail address		
1. Application	<input type="checkbox"/> Car washing line <input type="checkbox"/> Assembly line <input type="checkbox"/> Inspection line <input type="checkbox"/> Others ( )	
2. Conveyed products	① Conveyed products	<input type="checkbox"/> Vehicle <input type="checkbox"/> Trolley <input type="checkbox"/> Worker <input type="checkbox"/> Others ( )
	② Mass	_____ kg × _____ number of unit / _____ kg × _____ number of persons
	③ Dimensions of trolley	(L) _____ × (W) _____ × (H) _____ mm
3. Conveyor layout	① Conveyor length	_____ m
	② Width	*Chain begins at 400 mm in 100 mm increments   _____ mm
	③ Layout	Sketch the layout in the blank "6. Description of the equipment and chains".
4. Conveying conditions	① Conveying speed	_____ m / min
	② Takt time operation	<input type="checkbox"/> No <input type="checkbox"/> Yes (Distance per a takt _____ m, time per a takt _____ s)
	③ Lubrication	<input type="checkbox"/> No <input type="checkbox"/> Yes ( <input type="checkbox"/> Water <input type="checkbox"/> others: )
	④ Operating time	Daily: _____ hours,   Yearly: _____ days,   _____ unit per meter
	⑤ Wearstrip material	<input type="checkbox"/> Steel <input type="checkbox"/> Stainless steel <input type="checkbox"/> Wearstrip (Electrostatic preventive)
	⑥ Method of support on the return-way	<input type="checkbox"/> Roller <input type="checkbox"/> Wearstrip
	⑦ Vehicle involvement	<input type="checkbox"/> No <input type="checkbox"/> Yes (Wearstrip: _____ m/s <sup>2</sup> )
5. Operating environment	① Temperature	<input type="checkbox"/> Room temperature (−10°C to 40°C) <input type="checkbox"/> Other ( _____ °C to _____ °C)
	② Corrosive conditions (Chemical, disinfectant, detergent, etc.)	Type of chemicals, disinfectants, detergents, etc.: _____ Concentration: _____ %   Usage frequency: _____ times per _____ Water/Humidity: _____ %
	③ Abrasive conditions	<input type="checkbox"/> None <input type="checkbox"/> Yes ( <input type="checkbox"/> paint chips <input type="checkbox"/> metal powder <input type="checkbox"/> sand <input type="checkbox"/> other: )
	④ Others	Volatile gases: <input type="checkbox"/> None <input type="checkbox"/> Yes ( )
6. Description of the equipment and chains: (Please provide a layout sketch and other remarks such as shape of conveyed product, method of support on the return-way, etc.)		

## Chain Material LTW Freezer Series Inquiry Sheet

The temperature difference between in operation and off operation may cause dimension fluctuation of the freezer chain, therefore, conveyor design which includes installing sprockets or tensioners may carefully be studied in accordance with the operating conditions when using a freezer. Please fill out the inquiry sheet below and contact us for further consultation.

LTW Freezer Series Inquiry Sheet			
Company		Your name	
Contact number (fax)		E-mail address	
① Description	<input type="checkbox"/> New installation <input type="checkbox"/> Replacement (Conveyor type of existing equipment: _____ )		
② Reference model number of purchasing (interested) chain			
③ Chain width or conveyance width			
④ Conveying speed	m / min		
⑤ Conveyed products		⑥ Shape/material	
⑦ Mass of conveyed products	kg/m		
⑧ Is conveyed product prone to stick to conveyor surface?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
⑨ Accumulation	<input type="checkbox"/> Yes <input type="checkbox"/> No		
⑩ Temperature, inside of freezer	°C	⑪ Temperature, outside of freezer	°C
⑫ Location of driver side	<input type="checkbox"/> Inside of freezer <input type="checkbox"/> Outside of freezer		
⑬ Location of drive side	<input type="checkbox"/> Inside of freezer <input type="checkbox"/> Outside of freezer		
⑭ Sprocket	No. of teeth [       ]		Material [       ]
	Bore diameter [       ]		Shape of bore [ <input type="checkbox"/> round <input type="checkbox"/> square ]
⑮ Condition of chain surface	<input type="checkbox"/> Wet <input type="checkbox"/> Dry		
⑯ Washing method		⑰ Name of used chemical	
⑱ Wearstrip material		⑲ Installation of tensioner	<input type="checkbox"/> Yes <input type="checkbox"/> No
⑳ Freezer length	m	㉑ Conveyor length	m
㉒ Description of the equipment and chains: (Please provide a layout sketch and other remarks such as shape of conveyed product, method of support on the return-way, etc.)			

# Inquiry Form

## Plastic Block Chain RSP80-UPE (Low Temperature Application) Inquiry Sheet

For inquiries about plastic block chain RSP80-UPE or to request a quote, please fill in the inquiry sheet below.

Plastic Block Chain RSP80-UPE (Low-Temperature Application) Inquiry Sheet			
Company		Your name	
Contact number (fax)		E-mail address	
Description	<input type="checkbox"/> New installation <input type="checkbox"/> Replacement (conveyor type of existing equipment: _____ )		
① Conveying speed	m / min		
② Conveyed products		③ Shape/material of conveyed products	
④ Mass of conveyed products	Kg/m	⑤ Direction of travel of conveyed products	<div style="border: 1px solid black; padding: 2px; display: inline-block;">             ↑              conveyed products →           </div>
⑥ Is conveyed product likely to adhere to conveyor surface?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
⑦ Conveyor length	m		
⑧ Operating temperature range	from    °C up to    °C	⑨ Default temperature of freezer conveyor	°C
⑩ Low temperature section	<input type="checkbox"/> Drive section <input type="checkbox"/> Section in between <input type="checkbox"/> Driven section <input type="checkbox"/> All		
⑪ Length of low temperature section	m		
⑫ Accumulation	<input type="checkbox"/> Yes <input type="checkbox"/> No		
⑬ Accumulation section	<input type="checkbox"/> Drive section <input type="checkbox"/> Section in between <input type="checkbox"/> Driven section <input type="checkbox"/> All		
⑭ Length of accumulation	m		
⑮ Sprocket	No. of teeth [                      ]		Material [                      ]
	Bore diameter [                      ]		Shape of bore [                      ]
⑯ Condition of chain surface	<input type="checkbox"/> Wet <input type="checkbox"/> Dry		
⑰ Washing method		⑱ Name of used chemical	
⑲ Wearstrip material		⑳ Installation of tensioner	<input type="checkbox"/> Yes <input type="checkbox"/> No
㉑ Description of the equipment and chains: (Please provide a layout sketch and other remarks such as shape of conveyed product, method of support on the return-way, etc.)			

# For Your Safety When Using the Chain



## Warning

To avoid danger, observe the following rules.

### General

- Do not use chain or chain accessories for any purpose other than their originally intended use.
- Never perform additional work on chain (including machining, grinding, annealing, cleaning with acids or alkalis, electroplating, or welding or cutting with a torch which will cause heat effects). These processes may cause the chain to break during operation, leading to a risk of severe injury.
- When replacing a worn or damaged part, do not replace just the worn or damaged part. Replace all parts with new parts. The chain may break during operation, leading to a risk of severe injury.
- When using chain in a lifting device, set up a safety barrier and do not allow anyone to go under the equipment. Also, when jigs or tools are connected to the edges of the chain, be sure to adequately lubricate the connecting parts. Detachment of the chain or unexpected chain breakage may lead to severe injury from flying or falling parts.
- Strictly observe the general guidelines listed in Section 1, Chapter 1, 2nd Edition of the Japanese Occupational Safety and Health Regulations as well as rules and regulations concerning occupational safety and health in your region/country. Always install safety equipment (safety covers, etc.) on chain and sprockets. There is a risk of severe injury from conveyed items or the chain as a result of becoming caught in the chain or from unexpected chain breakage.
- Chain and sprockets must be inspected on a regular basis. Damaged parts, or parts that have reached the end of their service life, should be replaced with new parts. There is a risk not only of the chain not functioning properly, but also of severe injury from chain breakage or abnormal operation. Perform the work as instructed in the manual, catalog or other documentation that was provided with the product.

### During Installation

- Before starting work, turn off the power switch and take measures to prevent it from being turned on accidentally. There is a risk of severe injury from becoming caught in the chain.
- Always wear safety goggles when using hammers while working to connect chains. There is a risk of severe injury from flying metal fragments or splinters.
- Secure the chain and parts to prevent them from moving freely. There is a risk of severe injury from chain components moving under their own weight, or from falling and body parts becoming pinched in the chain.



## Caution

To prevent accidents, observe the following rules.

- Understand the structure and specifications of the chain that you are handling.
- Before installing chain, inspect it to make sure no damage occurred during delivery.
- Inspect and maintain chain and sprockets at regular intervals.
- Chain strength varies by manufacturer. Only Tsubaki products should be used when chain is selected using Tsubaki catalogs.
- Start and stop the chain gradually, and do not subject it to sudden impact.
- Do not apply initial tension to the chain.
- Consult with a Tsubaki representative before using the chain in cases where it will be in contact with special liquids or used under special environments.
- Do not reuse the engineering plastic pins once removed since those may not engage properly or may come loose.
- When using chains with engineering plastic pins under wet conditions, make sure that the temperature does not exceed 60°C.
- The material for CB, ALF series, PLF rail and PMW rail contains silicone-based lubricant. Therefore, do not use these products in printing process or where silicone will have a harmful effect.
- The TP-IR18/IR60 (return rollers), PR520-M (M plastic rail), and SJ-CNO are dry conveyor parts (lube-free, no water adhesion). DIA, MPD, MF, HS, and KV150 series are specifically for dry environments. Do not use these on a conveyor under wet conditions (environments where they will come into contact with water, soapy water or other liquids), since this may cause the chain to malfunction. Bearing corner discs are also designed for use in dry environments.
- Using a plastic top chain in a wet environment will decrease the resin's self-lubricating ability and thus shorten the life of the chain. Since this is remarkable for the stainless steel pins, we recommend using plastic pins or KV series.
- The operating temperature range for accessories, sprockets, and idler wheels made of UHMW-PE (ultra-high molecular weight polyethylene) is -20°C to 60°C. Also, do not use in environments where such components will be exposed to steam.
- Toxic gases may be generated if the Chemical Resistant series (including Super Chemical Resistant) is exposed directly to open flame, or to temperatures above 150°C. Do not expose to excessive heat or to open flame.
- Plastic chain is flammable. Do not use at temperatures above the maximum allowable temperature or use near open flame. Combustion may generate dangerous toxic gases.



## Warranty

### 1. Warranty Period

Products manufactured by Tsubakimoto Chain Co. ("Products") are warranted against defects in materials and workmanship for eighteen (18) months from the date of shipment from the factory or twelve (12) months from the date the Products are first placed into operation (calculated from the date the Products have been installed on the customer's equipment), whichever comes first.

### 2. Scope of Warranty

During the warranty period, if defects arise in the Products when installed, used, and maintained correctly in accordance with Tsubakimoto Chain's catalogs, installation manuals (including any documents specially prepared and provided to the customer) and the like, Tsubakimoto Chain will repair or replace such defective Products thereof free of charge upon confirmation of said defect by Tsubakimoto Chain. This warranty shall only apply to Products received, and Tsubakimoto Chain shall not be liable for the following costs and/or damages (including installation manuals or other documents specially prepared and provided to the customer):

- (1) Costs required for removing the defective Products from or re-installing the replacement Products on the customer's equipment for replacement or repair of the defective Product, as well as any associated installation costs.
- (2) Costs required to transport the customer's equipment, if needed, to a repair shop or the like.
- (3) Any consequential or indirect damages or loss of profits or benefits the customer may incur due to the defects or repair of the Products.

### 3. Out of Warranty Service and Repair

Regardless of the warranty period, Tsubakimoto Chain will provide investigation, repair, and/or manufacture of the products for the defects by the following for a fee.

- (1) Placement, installation (including connecting and disconnecting), lubrication, or maintenance of the Products not in accordance with Tsubakimoto Chain's catalogs, installation manuals (including documents specially prepared and provided to the customer), or the like.
- (2) Use of the Products (including operating conditions, environment, and allowances) not in accordance with Tsubakimoto Chain's catalogs, installation manuals (including documents specially prepared and provided to the customer), or the like.
- (3) Inappropriate disassembly, modification, or processing of the Products by the customer.
- (4) Use of the Products with damaged or worn products. (Example: Use of the Products with a worn sprocket, drum, rail, or the like.)
- (5) When the operating conditions exceed the performance of the Products as selected using the Tsubakimoto Chain selection method.
- (6) Use of the Products in conditions other than what have been discussed.
- (7) When consumables such as bearings, oil seals, and lubricant in the Products deplete, wear, or degrade.
- (8) When secondary damage occurs to the Products due to initial or primary damage or failure to the customer's equipment.
- (9) Damage or failure of the Products due to forces majeure such as natural disasters.
- (10) Damage or failure of the Products due to unlawful conduct by third parties.
- (11) Damage or failure of the Products due to causes not attributable to Tsubakimoto Chain

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Japan Tsubakimoto Chain Co. <https://tsubakimoto.com/>

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