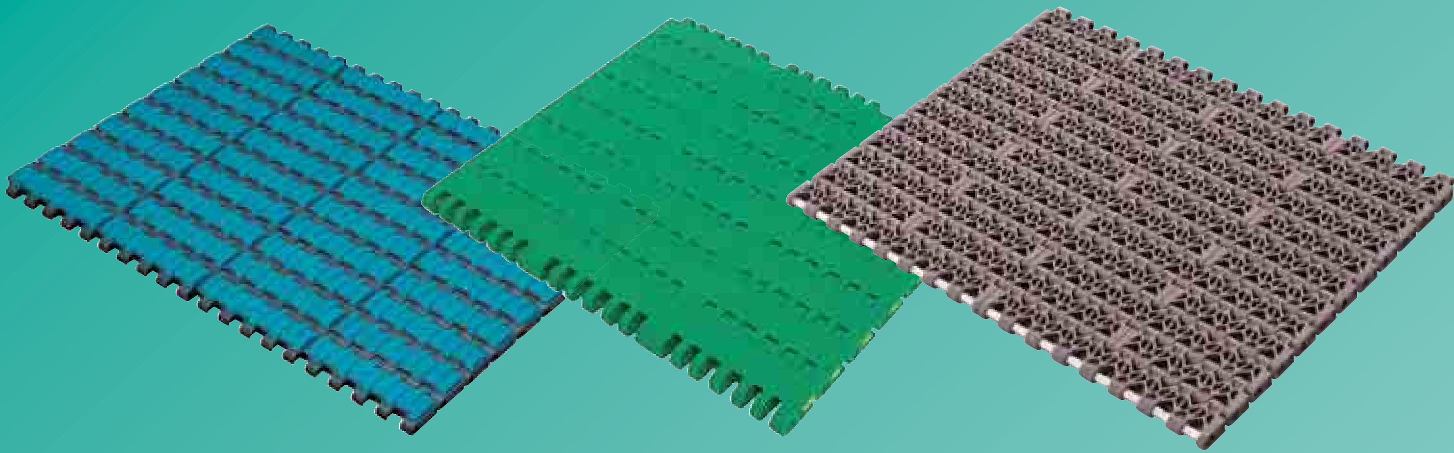
Innovation in Motion
TSUBAKI

TSUBAKI TOP CHAIN

Innovation



Tsubaki Top Chains: The Result of Trust and Close Ties with Customers

We bring customers ideal chain solutions by putting our materials technology to work.

Comprehensive Product Selection

Wide Selection

Tsubaki's line-up of top chains offers an extensive range of features and constructions. We also have a wealth of accessories besides chains. If you're looking for a particular type of chain to suit your needs or improve work processes, you'll find it at Tsubaki.

Dedication to Quality and Technology

High Quality &Technology

Tsubaki's Kuki Plant meets the needs of worldwide customers through its long years of know-how, consistently high quality, and continuing quest for new technology. We believe that it's our dedication to quality and technology, along with our spirit of endeavor, that allow us to satisfy our customers.

Economical and Environmental

Environment

Today, more than ever, we must do all we can to reduce our environmental impact. By using the plastic chains that are core to our top chain line-up, customers can reduce their energy consumption and the man-hours needed for waste disposal. This makes our top chains economical and environmentally friendly.

in Motion

Our Mission

We aim to provide the best value and comprehensive solutions to our customers worldwide.

Our Vision

We aim to be a world-leading company in plastic chain products and modular conveyor systems.

Tsubaki Group Environmental Policy

Philosophy

The Tsubaki Group believes that environmental conservation is a critical challenge facing humanity. We will remain mindful of the environment in all our operations and contribute to the world through our workmanship.

Basic Policy

- We will acknowledge the environmental impact of our operations, products, and services. In the interests of environmental conservation, we will use our creativity to exhibit industry leadership in reducing our environmental load.
- We will create a management system for environmental conservation and will promote pollution control and continual improvement.
- We will strictly comply with environmental laws, rules, and regulations, and we will seek to develop good relationships with our stakeholders.
- Through environmental training and in-house public relations, we will work to enhance awareness of environmental conservation among all Tsubaki Group employees.

At the Kuki Plant, we strive to protect the environment by conducting green business activities and offering products and services with minimal environmental impact.

Kuki Plant

ISO 14001
JQA-EM6201

Tsubaki Top Chain Features and Line-up

Plastic Chain Features

Protects Conveyed Goods

Using a roller conveyor or steel chain to convey objects such as parts, manufactured items, pallets, and the like can result in damage from sliding or impact. The unique softness of plastic top plates makes them ideal for transporting products and materials that are easily scratched.

Simple Construction

Plastic chain consists of connecting pins and links with a top surface on which objects are carried. Links can be removed or replaced simply by removing the connecting pins—there's no need to remove bearing blocks, as is the case with flat belts. Attachments are available that can be removed with a flat-blade screwdriver.

Note: Except for steel-base chains.

Lightweight

Plastic chain is one-third the weight of stainless steel chain. In addition, using plastic pins (Plastic Pin series) provides a further 15% to 25% reduction in weight, minimizing required power and making handling easy.

Excellent Sliding Performance (Low Friction)

With a friction coefficient 30% to 60% lower than that of stainless steel, plastic chain requires less power and is less likely to cause conveyed objects to topple from frictional resistance. Whereas flat belts are prone to sudden rupture from sliding with conveyed objects, most plastic chain uses polyacetal resin, which offers superior sliding properties over a long service life.

Quiet Operation

Plastic chain is 5 dB to 7 dB quieter than stainless steel top chain, with less ear-jarring noise.

Sanitary

Plastic chain is sanitary because it will not rust or corrode. Food items and the like can be placed directly onto the links, and because this chain does not use lubricant, the work environment can be kept clean and sanitary.

Stainless Steel Top Chain Features

High Allowable Load

Maximum allowable load is approximately double that of TTP and TP series plastic top chains.

Heat Resistant

304 stainless steel top chains can be used in temperatures ranging from –20°C to 400°C.

Corrosion and Chemical Resistant

When all components are made from 304 stainless steel, these chains can serve as standard corrosion-resistant chains.

Plastic and Stainless Steel Chain Comparison Chart

Parameter	Plastic	Stainless Steel (SS)
Noise	–5 dB to –7 dB	With SS as 0
Weight	1/3	With SS as 1
Coefficient of friction	1/1.5 to 1/2.5	With SS as 1

Parameter	Plastic	Stainless Steel (SS)
Operating temperature	–20°C to 80°C (with some exceptions)	–20°C to 400°C
Allowable load	1/2	With SS as 1

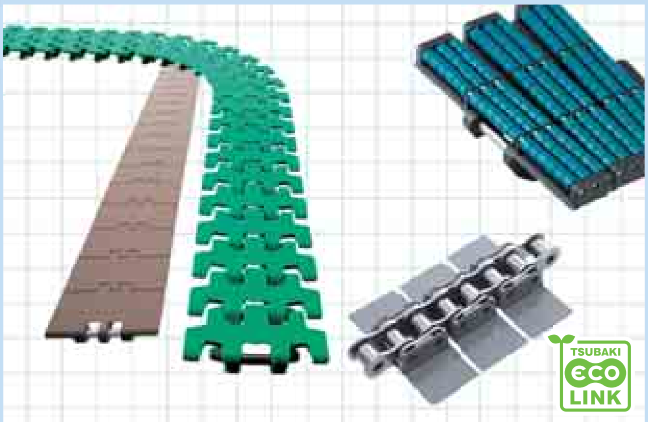
Plastic Modular Chain

Plastic Modular Chains use an alternating combination of interconnected modular engineering plastic links to transport goods 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 goods being conveyed: closed, open, net, and GTO-K types.

In addition, the line-up 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 Chain offers a wider conveying surface than Plastic Block Chain or Plastic Top Chain.

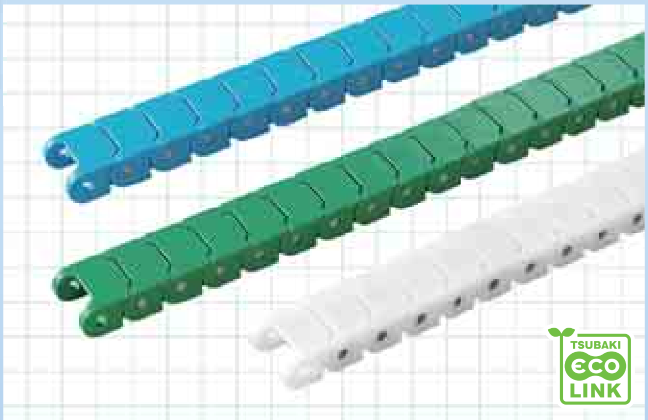
Plastic Top Chain



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. Yet another type includes rollers attached to a plastic top plate chain. The rollers rotate freely and reduce line pressure during accumulation.

Plate width ranges from 50 mm to 304.8 mm, and can be selected to match the objects being conveyed.

Plastic Block Chain

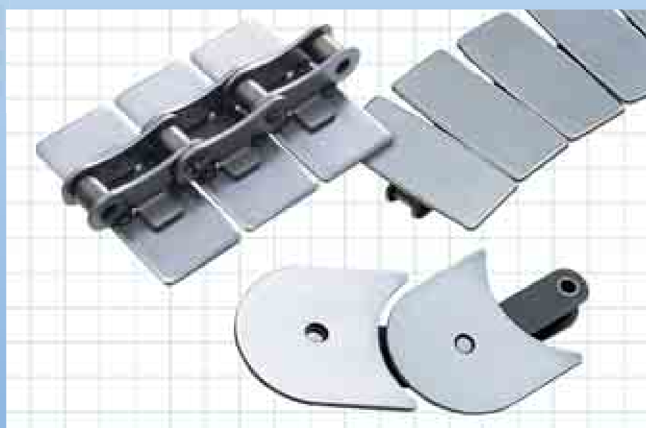


The small pitch of Plastic Block Chain allows smaller-diameter sprockets to be used, reducing the dead space between conveyors and ensuring smooth transfer of conveyed goods from one conveyor to another.

Plastic Block Chain features a simple construction in which block-shaped links are connected by pins.

Link width is narrow, ranging from 13 mm to 60 mm, enabling Plastic Block Chain to be installed in confined spaces.

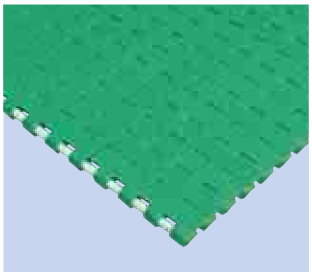
Stainless Steel Top Chain

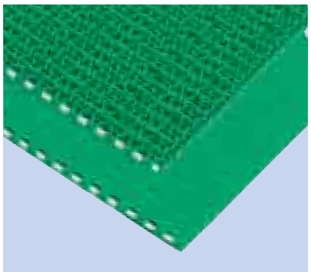


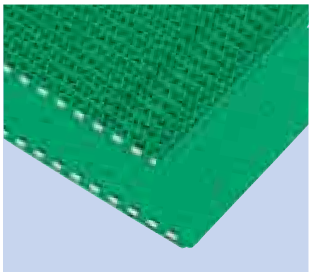
Stainless steel top chain uses highly corrosion-resistant stainless steel for key components. Two styles are available: one in which top plates are integrated with the chain, and one in which the two components are separate and mechanically joined. Stainless steel top chain offers a higher maximum allowable load than standard plastic top chain.

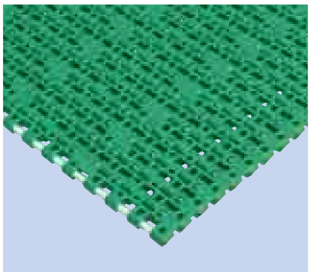
Plastic Modular Chain

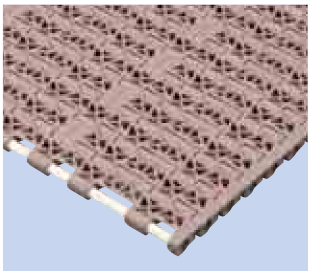
Straight Running

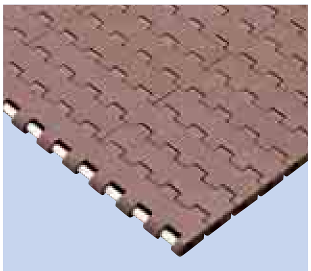


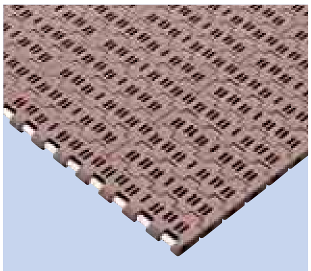


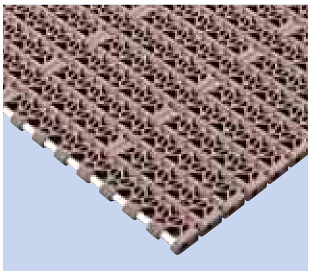


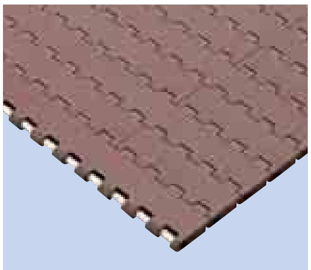


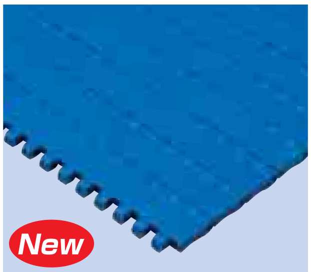


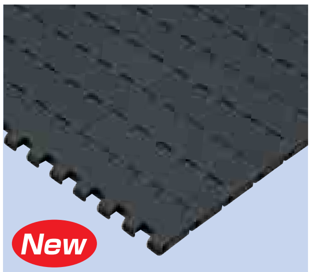


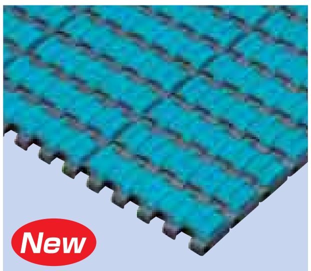


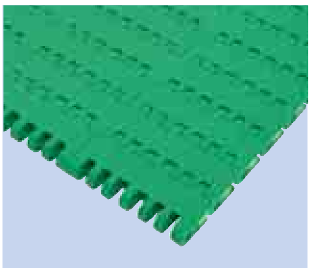






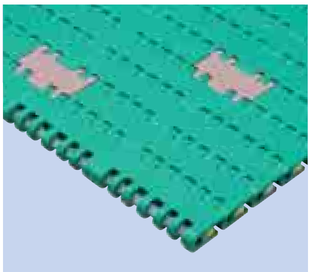


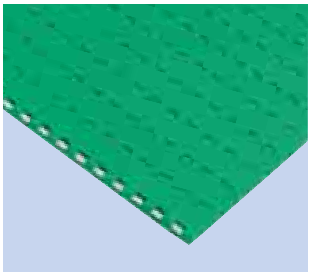


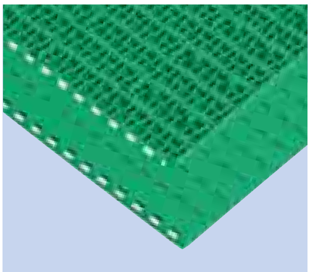


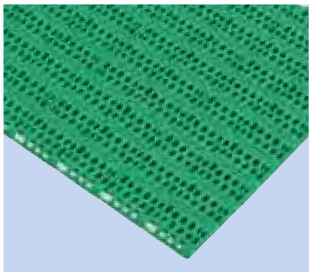
Plastic Modular Chain

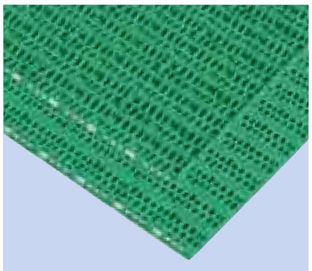
Straight Running

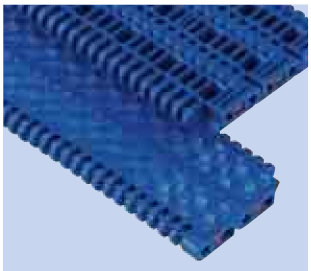








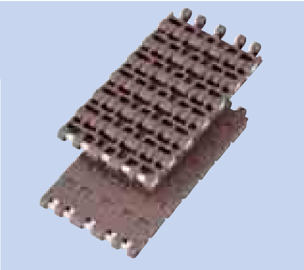


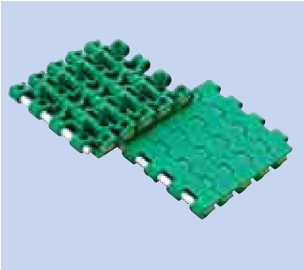


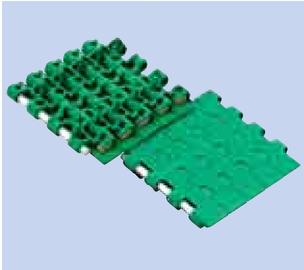
Tsubaki Top Chain Line-up

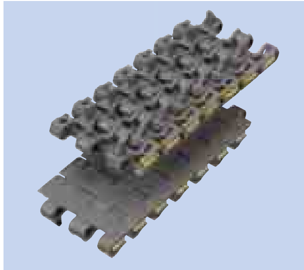
Plastic Modular Chain: Fixed-Width Type

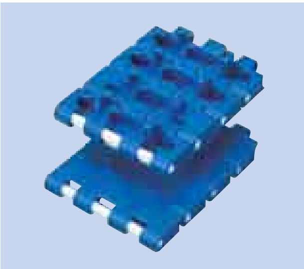
Straight Running

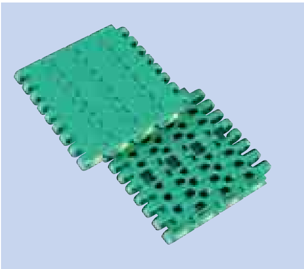


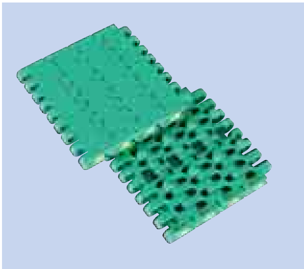


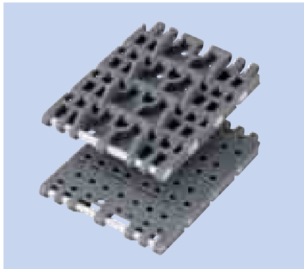


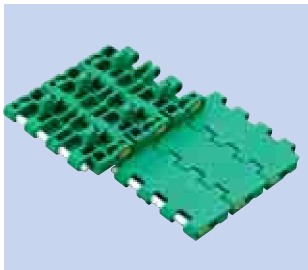


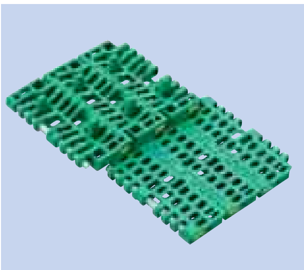




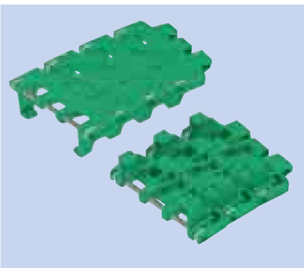






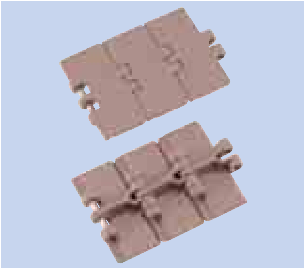


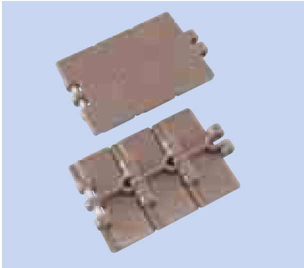
Sideflexing

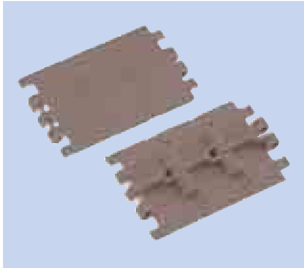


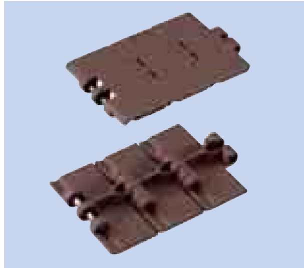
Plastic Top Chain

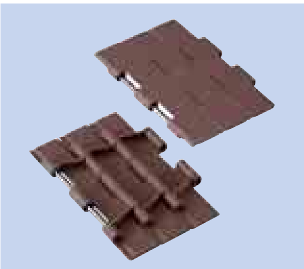
Straight Running

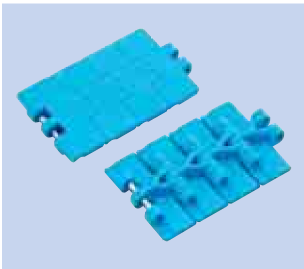


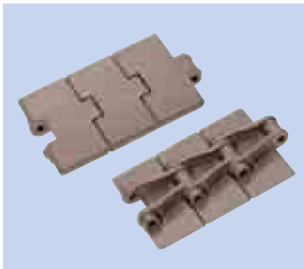


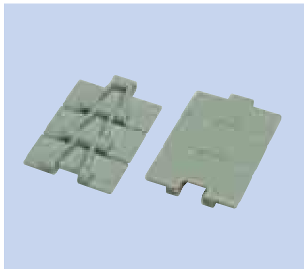


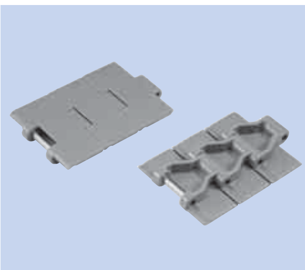


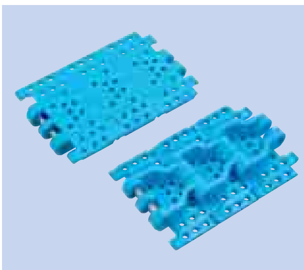


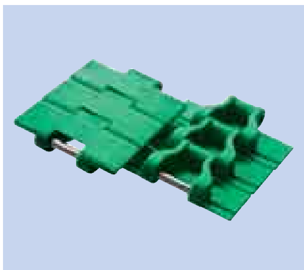


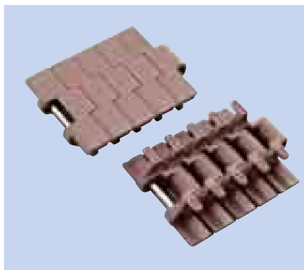


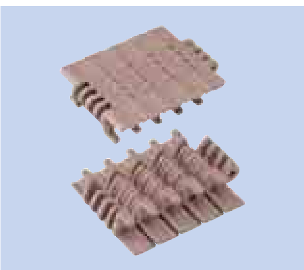


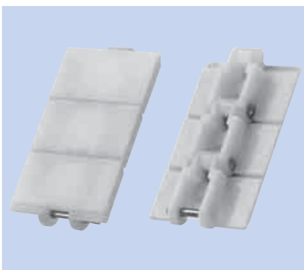


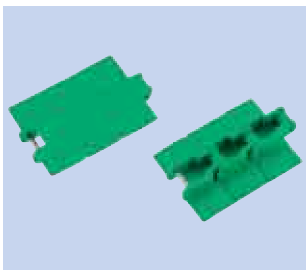










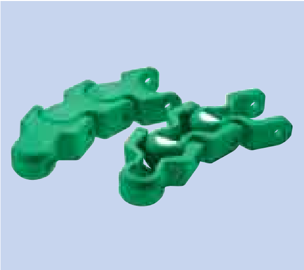


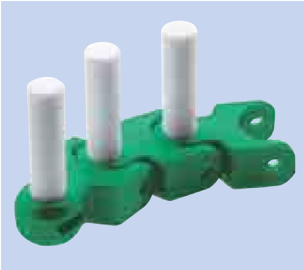
Plastic Top Chain

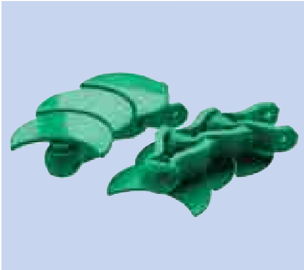
Sideflexing

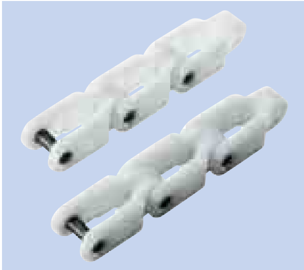
Plastic Top Chain

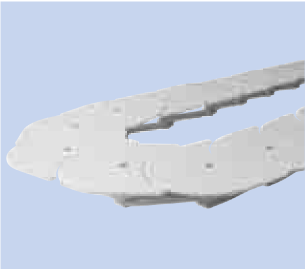
Sideflexing

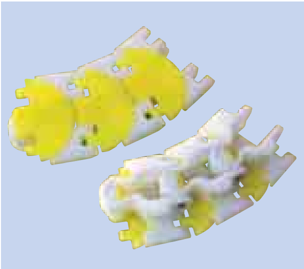






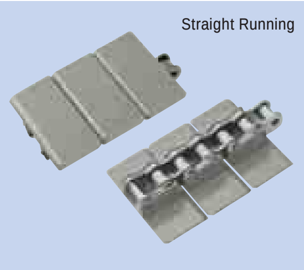


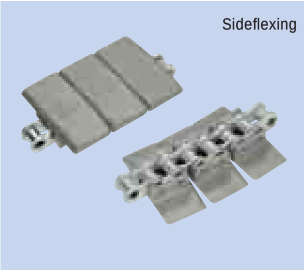


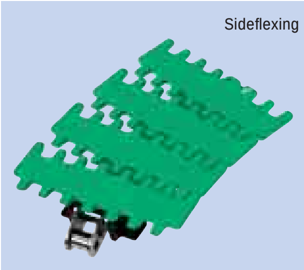


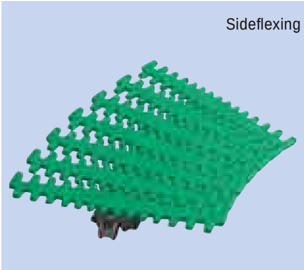
Plastic Top Chain

Snap Top Chain



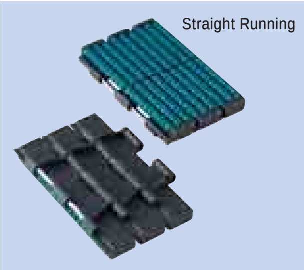


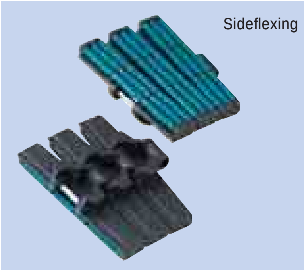


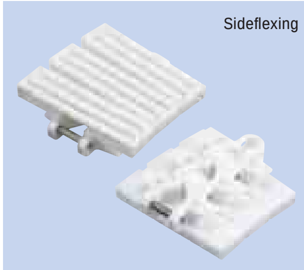


Plastic Top Chain

Chain with Accumulation Rollers





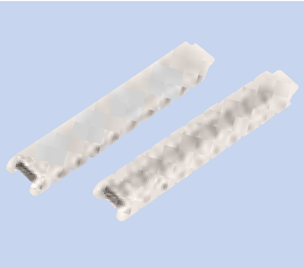


Plastic Roller Table

Tsubaki Top Chain Line-up

Plastic Block Chain

Straight Running



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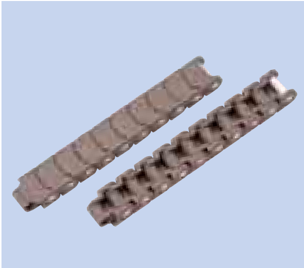

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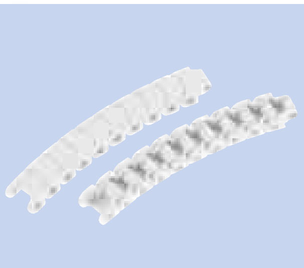

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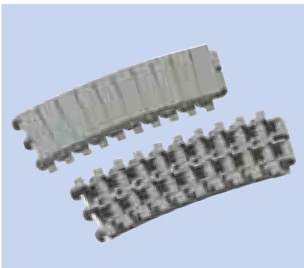

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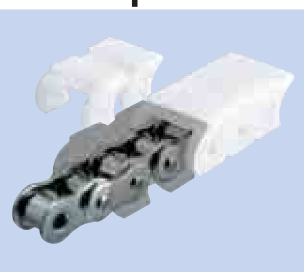
Snap Cover Chain



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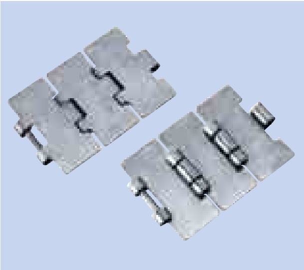
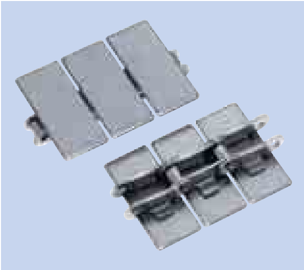
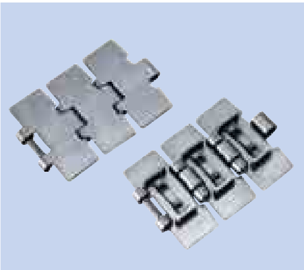
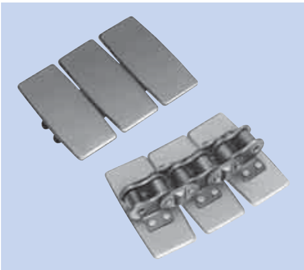
Straight Running

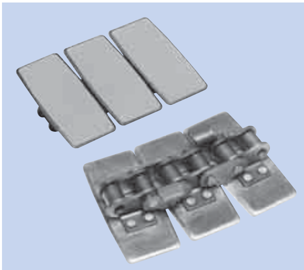


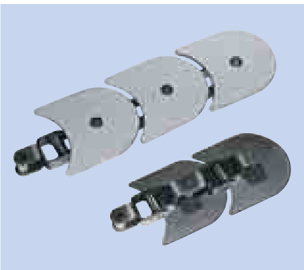


Sideflexing



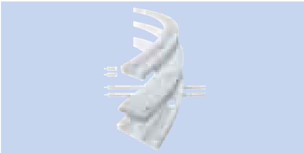






Tsubaki Top Chain Line-up

Plastic Guide Rails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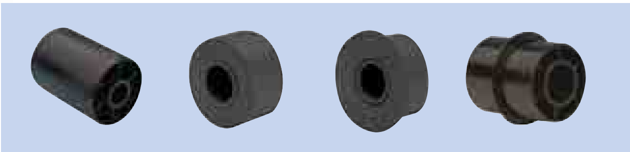
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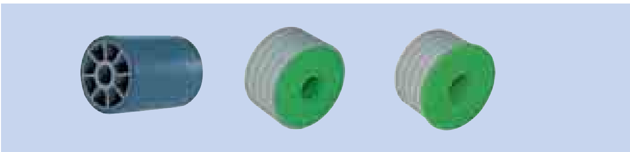
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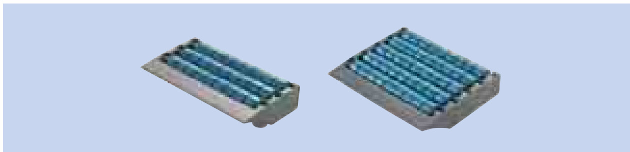
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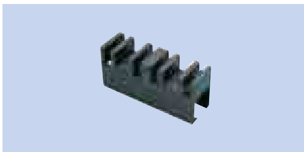
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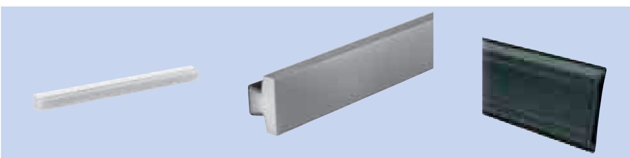
Guide Rails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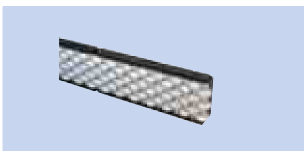
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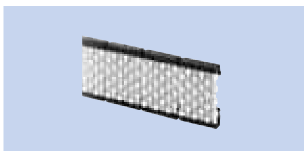
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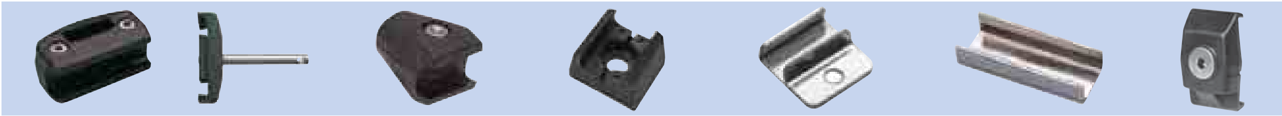
Guide Rail Clamps & Other Clamps



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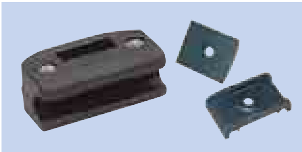

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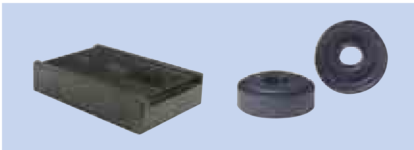

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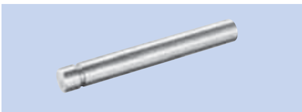

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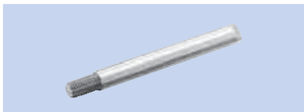

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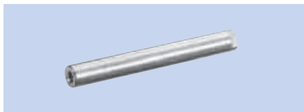

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Top Chain

Plastic Top Chain

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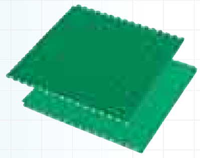

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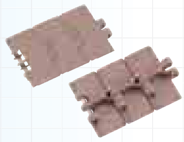

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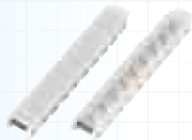

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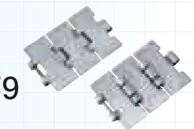

Top Chain Parts and Components

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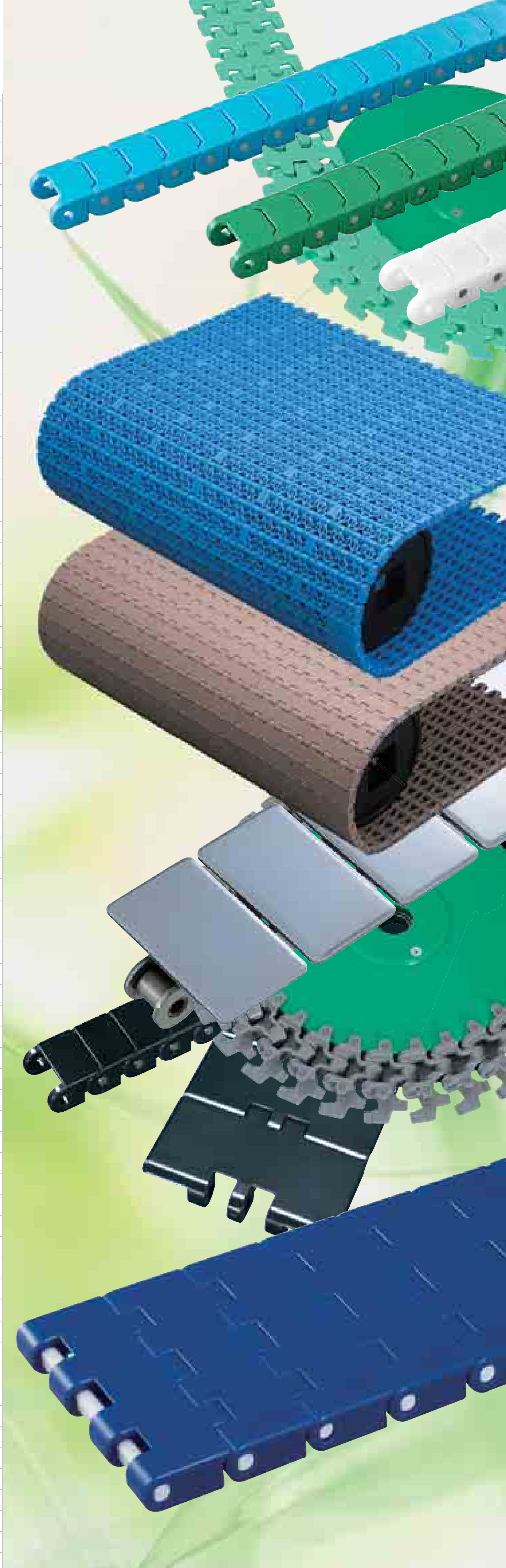
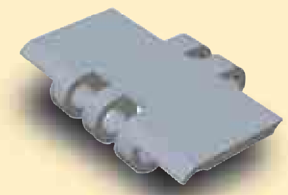


Specifications (Plastic Chain Materials)

Standard Series

General-purpose polyacetal chain links



Color: Gray

Color: White

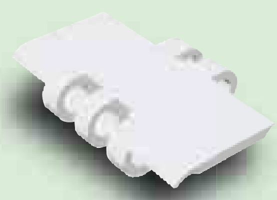
1. **General-purpose type**
   Uses a commercial-grade polyacetal resin with excellent mechanical properties.
2. **Antistatic**
   Features antistatic properties to prevent adhesion of dust and wear dust from static electricity (color: gray only).

Note: 1. Some products, such as plastic roller tables and universal chain, do not use the description "Standard Series."
2. For gray or white color, refer to specific product page.

LF Low Friction/Anti-Wear Series

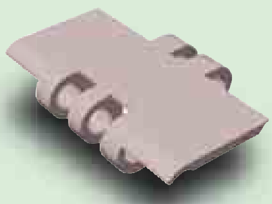
Low-friction wear-resistant polyacetal chain links

1. **Protects conveyed items**
   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 items.
2. **Long life (compared to Standard Series)**
   Chain life is 1.2 to 2 times longer than Standard Series because of lower chain load.
3. **Smooth divergence and accumulation of conveyed items**
4. **Less required drive power**



LFW (color: white)

LFG (color: green)



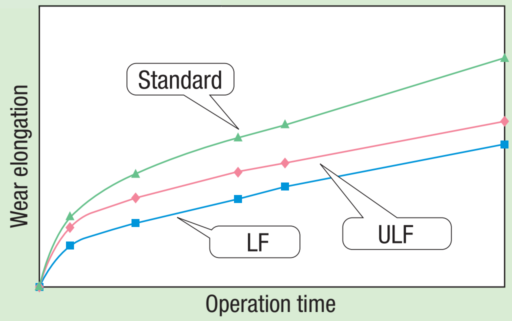
LFB (color: brown)

Three different chain link colors are available.

Applications

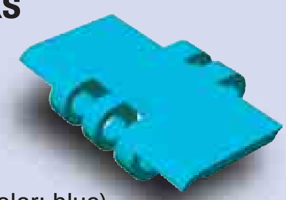
- Versatile type of chain that can be used in a wide range of applications
- Ideal in harsh conditions (high speeds, high loads) where chain elongation is accelerated resulting in short chain replacement cycles
- Ideal in high line pressure conditions where conveyed goods may be damaged

Standard/LF/ULF Wear Resistance



ULF — Ultra Low Friction Series

Ultra low friction polyacetal chain links



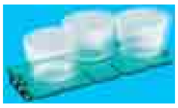
ULF (color: blue)

1. **Protects conveyed items**
   A special material incorporating a silicone-based lubricant significantly lowers the coefficient of friction by 15% to 30% compared to that of LF Series (under dry conditions). Line pressure is reduced during accumulation, minimizing potential scratching or other damage to conveyed items.
2. **Smooth divergence and accumulation of conveyed items**
3. **Less required drive power**

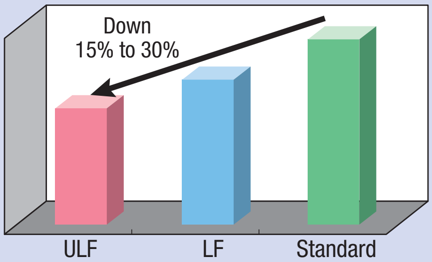
Caution: As ULF chain uses a silicone-based lubricant, refrain from using it where there is a risk of peeling during the printing process. Also, depending on usage conditions, ULF chain may generate more wear dust than LF chain.

Applications

- Ideal for conveying PET bottles and paper packs
- Ideal for use in accumulation areas just before casers and inspection equipment
- Ideal for combiners
- Ideal for reducing or eliminating lubricants (soapy water, etc.)
- When better slipperiness than the LF Series is desired

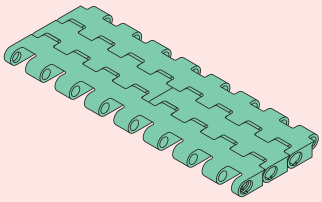


Coefficient of Dynamic Friction



UL — Low Friction Series

Low-friction polyacetal chain links



UL (color: green)

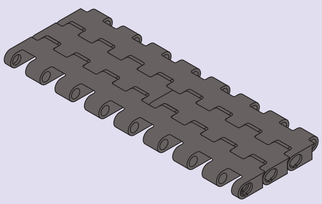
1. **Protects conveyed items**
   Coefficient of friction is 7% to 28% lower than Standard Series, resulting in reduced line pressure during accumulation and minimizing potential scratching or other damage to conveyed items.
2. **Smooth divergence and accumulation of conveyed items**
3. **Less required drive power**

Applications

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

NLF — Low Friction Series

Low-friction polyacetal chain links



NLF (color: dark gray)

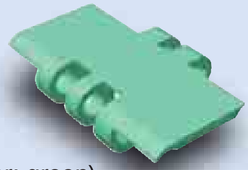
1. **Protects conveyed items**
   Coefficient of friction is 10% to 30% lower than Standard Series, resulting in reduced line pressure during accumulation and minimizing potential scratching or other damage to conveyed items.
2. **Smooth divergence and accumulation of conveyed items**
3. **Less required drive power**

Applications

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

WR — Low Friction Series (WR)

Corrosion-resistant polyacetal chain links



WR (color: green)

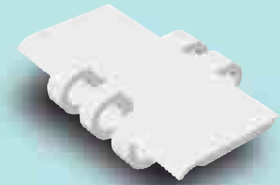
Applications

- When using chemicals such as sodium hypochlorite
- Ideal in high line pressure conditions that can damage goods

1. **Protects conveyed items**
   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 items.
2. **Corrosion resistant**
   Improved resistance to corrosion from sodium hypochlorite and similar chemicals. Ideal for food and beverage conveyors.
3. **Smooth divergence and accumulation of conveyed items**
4. **Less required drive power**

Y — Chemical Resistant Series

Special engineering plastic chain links



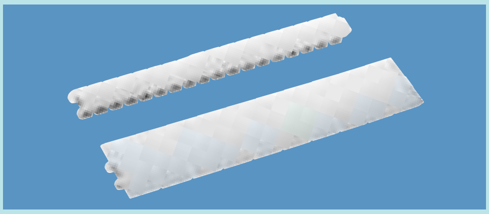
Y (color: matte white)

1. **Chemical resistant**
   These chains are designed to resist most organic solvents, inorganic salts, acids, alkalis, and oxidizers.
2. **Impact resistant**
   Plastic has greater resistance to chipping and shattering than Standard Series.
3. **Conforms to food sanitation regulations**
   Manufactured from materials in accordance with Japan's Food Sanitation Act.

A Super Chemical Resistant Series (SY) is also available with titanium connecting pins for even greater chemical resistance. (Refer to product pages.)

Applications

- Conveyors for production lines for lithium-ion batteries and similar products
- Conveyors for batteries
- Chemical cleaning processes for printed circuit boards and silicon wafers
- Conveyors in food processing plants that use chlorine-based cleaning solutions (lines for products that contain acid such as vinegar and retort packaging lines)



E — Electroconductive Series

Special engineering plastic chain links

E (color: black)

1. **Electroconductive**
   Superior electroconductivity compared to Standard Series, with specific volume resistivity of $10^{6}\Omega\cdot cm$ or less (specific volume resistivity of Standard Series is 10^{14} to $10^{15}\Omega\cdot cm$).
2. **Antistatic**
   Outstanding electroconductivity prevents electrical noise and sparking.
3. **Conforms to food sanitation regulations**
   Manufactured from materials in accordance with Japan's Food Sanitation Act.

Note: When using steel sprockets and rails, the entire conveyor should be grounded.

Applications

- Conveying printed circuit boards after soldering
- Protection against sparking (electrostatic discharge) after accumulation or washing/drying machines
- Conveying automotive parts (electrical components)
- Conveying solar panels to cutting machines before and after the lamination process
- Applications in which a black-colored chain is desirable

KV Heat Resistant/High Speed Series

Special engineering plastic chain links

KV150/KV180/KV250
(color: black)

Applications

- Shrink packaging
- Drying lines
- High-speed conveyor lines for empty cans
- Conveyors for before and after drink fillers
- Where polyacetal chain links are prone to corrosion by chemicals

1. **Heat resistant**
   Withstands temperatures up to 150°C (KV150), 180°C (KV180), or 250°C (KV250).
2. **High conveyance speed**
   Can be used at speeds up to 200 m/min (for Plastic Top Chain).
3. **Chemical resistant**
   Excellent resistance to chemicals used for cleaning and sterilization.
4. **Electroconductive**
   Surface electrical resistance is low ($10^6\Omega$) and the chain does not generate static electricity. Suitable for preventing dust adhesion and sparks.
5. **Fire resistant**
   Conforms to UL standard V-0 classification (UL's highest flame-resistant classification). (Except KV150)
6. **Conforms to food sanitation regulations**
   Manufactured from materials in accordance with Japan's Food Sanitation Act. (Except KV150)

Note: 2 dB to 3 dB louder compared to Standard Series chains. KV150 is specifically designed for use in dry environments.

HS High Speed Series

Special engineering plastic chain links

HS (color: cream)

Applications

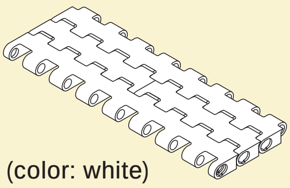
- High-speed conveyor lines for filled or empty cans

1. **High speed**
   High limiting PV value of 230 m/min (straight line).
2. **Conforms to food sanitation regulations**
   Manufactured from materials in accordance with Japan's Food Sanitation Act.

Notes on use:
- Dry environments only.
- Available only with stainless steel pins.
- Allowable load is approximately 80% of Standard Series.
- Stainless steel rails (polished) should be used for high-speed applications.

HTW Heat Resistant Series

Polypropylene chain links



HTW (color: white)

Applications

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

1. **Maximum usable temperature: 105°C**
   Ideal chain for use in coolers and warmers in beverage plants where hot water is used.
2. **Chemical resistant**
   Excellent chemical resistance, including to acids and alkaline substances.
3. **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.
4. **Lightweight**
   About 40% lighter than polyacetal chain. Easy to handle and can reduce drive power requirements.

Note: Max. allowable load is approx. 40% of Standard Series.

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

MWS (color: cream)

Applications

- Ideal for cleaning measures in bottling factories
- For food conveyors where food is placed directly on the conveyor or where 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 environment

1. Excellent antibacterial and mold resistant properties

This chain employs a proprietary antimicrobial agent. As well as being effective against bacteria such as colon bacillus (E.coli), staphylococcus, and lactobacillus, its anti-mold properties are effective against blue and other forms of mold.

2. Long lasting

The antimicrobial agent is inorganic and 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.

3. Safe

Worry-free due to highly safe antimicrobial agents. The base material complies with Japan's Food Sanitation Act (Ministry of Health, Labour and Welfare Notification No. 20), and additional antimicrobial and anti-mold functions make this chain suitable for use in food-related applications.

4. Advanced functions

The link materials are made of low-friction/anti-wear material. Virtually no change in performance arises from the addition of antimicrobial agents, ensuring superb low-friction and anti-wear properties.

Antibacterial/Anti-Mold Features

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

LF equivalent	MWS
	

Note: Test method
Antimicrobial Products: Test for Antimicrobial Activity and Efficacy I (1995), in accordance with film contact method
- Organization contracted to perform test: Japan Food Research Laboratories
- Date certificate of analysis issued: August 6, 1997
- Certificate of analysis issue number: No. 397050652-002

Test Results for Antimicrobial Activity (Compared to LF Equivalent Chain)

Test strain	Test specimen	Immediately after inoculation	After 24 hours at 35°C
E. coli	MWS	2.4×10^5	Not detected
	LF equivalent	2.4×10^5	2.0×10^7
Staphylococcus aureus	MWS	1.4×10^5	Not detected
	LF equivalent	1.4×10^5	2.9×10^4
Saccharomyces (a type of yeast)	MWS	2.1×10^3	Not detected
	LF equivalent	2.1×10^3	7.9×10^2
Lactobacillus	MWS	1.2×10^4	Not detected
	LF equivalent	1.2×10^4	50
Pathogenic E. coli 0-157 (H7)	MWS	6.0×10^4	Not detected
	LF equivalent	6.0×10^4	1.8×10^3

Fungal Growth Test Results (Compared to LF Equivalent Chain)

Test fungus	Test specimen	After 7 days	After 14 days	After 21 days
Blue mold	MWS	0	0	0
	LF 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)

Note: 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
- Date certificate of analysis issued: July 18, 1997
- Certificate of analysis issue number: No. 397050653-001

MPD/MPW Metal Detectable Series

Special engineering plastic chain links

MPD/MPW (color: black)

Applications

- Conveyors on which foodstuffs are carried directly on the chain surface before entering packaging machinery
- Food (such as frozen noodles) can be placed directly on the chain surface (MPW)
- Transporting of trays in bakeries (MPD)

1. **Can be detected by a metal detector**
   In the unlikely event that a conventional plastic chain breaks, chips or fragments of the broken chain cannot be detected by metal detectors. However, the plastic material used in these chains is metal detectable, preventing food contamination.
2. **Impact resistant**
   Does not chip easily even when chain is subjected to mechanical shock.
3. **Conforms to food sanitation regulations**
   Manufactured from materials in accordance with Japan's Food Sanitation Act.
4. **Usage environment**
   MPD: Dry environments MPW: Wet environments
5. **Allowable load** MPD: Approx. 80% of Standard Series
   MPW: Approx. 40% of Standard Series

DIA Impact Resistant Series for Dry Environments

Special engineering plastic chain links

DIA (color: cream)

Applications

- Transporting of trays in bakeries
- Dry transport of foodstuffs placed directly on the chain
- Slightly inclined food transport conveyors

1. **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.
2. **High friction**
   Coefficient of friction is 1.2 times the Standard Series. Can be used at a slight incline under dry conditions.
3. **Conforms to food sanitation regulations**
   Manufactured from materials in accordance with Japan's Food Sanitation Act.
4. **Lightweight**
   About 20% lighter than polyacetal top chain. Easy to handle and can reduce drive power requirements.

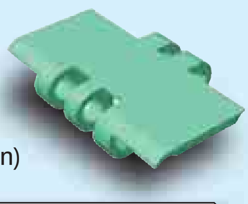
Impact resistance (resistance to chipping or shattering when subjected to mechanical impact)

DIA >> DIY > Standard Series
Better ←——→ Worse

Caution: This chain is specifically designed for use in dry environments. Do not use in wet conditions, such as conveyor applications involving exposure to water or with water lubrication.

DIY Impact Resistant Series for Wet and Dry Environments

Special engineering plastic chain links



DIY (color: green)

Applications

- Transporting of food items or containers in wet environments
- Situations in which equipment is frequently disinfected
- Situations in which using polyacetal chain—where there is the chance of chipping or shattering—would be problematic

1. **Highly impact resistant**
   Compared to polyacetal plastic chain, this plastic is more resistant to chipping or shattering even when the chain is subjected to mechanical impact.
2. **Chemical resistant**
   Excellent resistance to chemicals used for cleaning and sterilization. Suitable for conveyor equipment that is sterilized or cleaned frequently.
3. **Non-sticky**
   Conveyed objects tend not to stick to the chain.
4. **UV resistant**
   Excellent weatherability compared to polyacetal plastic chain.
5. **Conforms to food sanitation regulations**
   Manufactured from materials in accordance with Japan's Food Sanitation Act.

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

DIA >> DIY > Standard Series
Better ←——→ Worse

Caution: Plastic fragments may shatter under certain conditions, such as use at low temperatures.

Series	Features, Applications	Notes
Freezer (LTW)	• Link: Polyethylene (white) • Pin: Polyethylene • Conveyor applications for freezers • Suitable for conveying in low-temperature environments	• Allowable load is about 33% of Standard Series • Operating temperature range: –70° to 60°C • Supported chain configurations: BTN5, BTC6, BTN6, and BTC8 Plastic Modular Chain
Electrostatic Preventive (SE)	• Link: Special polyacetal (gray) • Pin: 304 stainless steel, plastic • Specific volume resistivity: 1 X $10^{13}\Omega \cdot$ cm (Standard Series 1 X 10^{14} to $^{15}\Omega \cdot$ cm) • Counters dust and wear dust adhesion by static electricity (counters static electricity when conveyance is dry) • Antistatic properties have been added to Standard Series gray- and green-colored chain	• Allowable load is equal to that of Standard Series • Coefficient of friction is equal to that of Standard Series • Knurled pin type: Available • Plastic pin type: Available • When using steel sprockets and rails, the entire conveyor should be grounded. • Operating temperature range: –20° to 80°C (upper limit is 60°C for plastic pins in wet environments)
Middle Friction (MF)	• Link: Yellow • Pin: Plastic • Material has a moderate degree of friction; ideal for incline conveyors • Dry environments only	• Allowable load is about 75% of Standard Series • Coefficient of friction is 1.1 times the Standard Series • Stainless steel pin type: Not available • Plastic pin type: Available • Operating temperature range: –20° to 80°C (dry environments only)
Super Chemical Resistant (SY)	• Link: Special engineering plastic (matte white) • Pin: Titanium (diamond knurled) • Y Series pin changed to titanium, thereby enhancing chemical resistance	• Allowable load is about 50% of Standard Series • Coefficient of friction is equal to that of Standard Series • D-pin type: Not available • Plastic pin type: Not available • DO NOT use in locations where open flames are present or in high-temperature environments • Operating temperature range: –20° to 80°C
Acid Resistant (AR)	• Link: Special engineering plastic (white) • Pin: 304 stainless steel • Compared to Standard and LF Series, corrosion resistance is excellent; however, affected by strong acids and alkalis • Resists corrosion by soapy water containing sodium hypochlorite	• Allowable load is about 90% of Standard Series • Coefficient of friction is equal to that of Standard Series • Plastic pin type: Not available • DO NOT use in an environment where exposed to water of a temperature greater than 60°C • Operating temperature range: –20° to 80°C (upper limit is 60°C in wet environments)
High Friction (HF)	• Link: Special polyacetal (cream) • Pin: 304 stainless steel, plastic • Ideal for incline conveyors, etc.	• Allowable load is about 50% of Standard Series • Coefficient of friction is 1.1 times the Standard Series • Knurled pin type: Not available • Plastic pin type: Available • Operating temperature range: –20° to 50°C (dry environments only)
Ultraviolet Resistant (UVR)	• Link: Special polyacetal (light gray) • Pin: 304 stainless steel, plastic • Excellent resistance to outdoor ultraviolet degradation (discoloration, loss of strength) compared to Standard and LF Series	• Allowable load is equal to that of Standard Series • Coefficient of friction is equal to that of Standard Series • Knurled pin type: Not available • Plastic pin type: Available • Operating temperature range: –20° to 80°C (upper limit is 60°C for plastic pins in wet environments)

Note:
- Specifications other than those listed above can be manufactured to suit various customer environments. Contact a Tsubaki representative for details.
- Contact a Tsubaki representative regarding availability of the above specifications for specific chain types.

Pin specifications
- D-pins
  Pin cross-section has a “D” shape with a protrusion. This protrusion engages the link body and prevents the pin from coming out.
- Knurled pins
  A knurling process is applied to one end of the connecting pin. The knurled part is press-fit into the link body to prevent the pin from coming out.

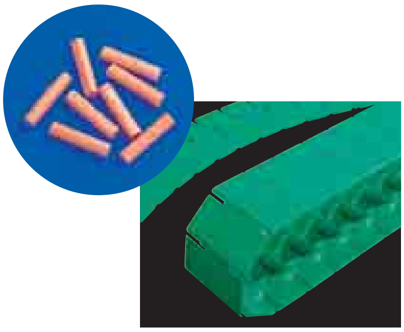
For details, please refer to Pin Shapes on the following page.

Pin Specifications

Pin Materials

Plastic Pins

Special engineering plastic is used instead of stainless steel



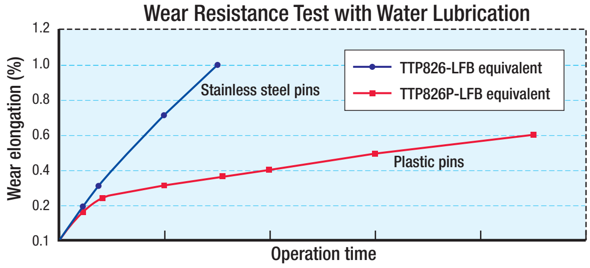
1. **Allowable load roughly equal to stainless steel pins (80% to 100%)**
   Improvements have been made to the structure of the thick plastic pins and hinges.
2. **Long life**
   A combination of proprietary Tsubaki materials allows the chain to exhibit outstanding wear resistance between the pin and bushes under dry, soapy water, or wet conditions. The chain works particularly well when using water as the lubricant.
3. **Lightweight**
   15% to 25% lighter than stainless steel pin top chains. Easy to handle and effective in reducing noise and required power.
4. **Easy disposal**
   As the entire chain is made of plastic, it can be disposed of as is.
5. **Conforms to food sanitation regulations**
   The links and pins are manufactured from materials that are in accordance with Japan's Food Sanitation Act.

Note: Operating temperature up to 60°C is allowed when plastic pin chains are used in wet conditions.

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

Wear Resistance Test with Water Lubrication

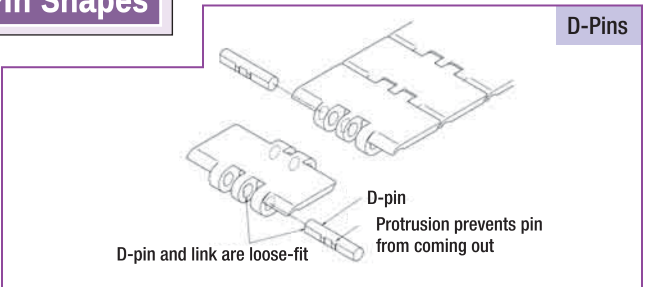


Stainless Steel Pins

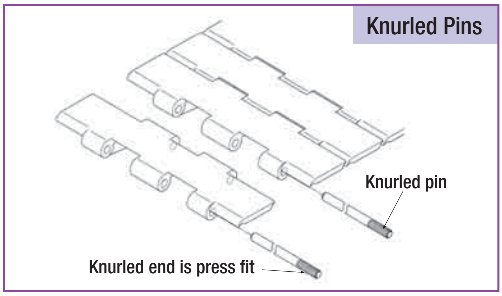
Features	• Most commonly used connecting pins in the world • Assured allowable load: Supports top chain strength
Applications	• Ideal for situations that demand heat resistance, such as exposure to ambient hot temperatures or water temperatures greater than 60°C

Pin Shapes

D-Pins



Knurled Pins



■ **Press fit (knurled pin)**
- When the shafts and holes are fitted together, there is a continuous interferential fit.
- The tolerance zone of the hole is below the tolerance zone of the shaft (pin or bush).

■ **Loose fit (D-pin)**
- When the shafts and holes are fitted together, there is a continuous loose fit.
- The tolerance zone of the hole is above the tolerance zone of the shaft (pin or bush).

■ **Tsubaki recommends loose-fit D-pins.**

■ **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
  - When the chain will be exposed to ultraviolet light (outdoor use)

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

Plastic Chain Inquiry Sheet

1. Equipment		
2. Conveyed Object	① Conveyed Object	
	② Material	Steel / Aluminum / Paper / Glass / Plastic
	③ Mass	kg/pc
	④ Dimensions	(square object) mm x mm x height mm
		(round object) mm diameter x height mm
	⑤ Shape of Bottom	Flat / Raised / Other
	⑥ Static Electricity	Possibility of damage due to static electricity: Yes / No
3. Conveyor Arrangement	① Straight Running or Sideflexing	Straight running / Sideflexing (sideflex radius: sideflex angle:)
	② Conveyor Length	m
	③ Layout	Sketch the layout in the space below.
4. Conveying Conditions	① Conveying Speed	m ／ min
	② Interval/Spacing between Conveyed Objects, Conveyance Amount	(interval) mm, (amount) pc/m
	③ Operating Time	hours/day hours/year
	④ Lubrication	None / Yes (soapy water / water/ other)
	⑤ Accumulation	No / Yes
	⑥ Wearstrip Material	Steel / Stainless steel / PMW plastic rail / M plastic rail / Solidur (P plastic rail)
	⑦ Support on Return Way	Rollers / Rail
	⑧ Impact	No / Yes (description:)
5. Environment	① Temperature	Normal temperature (-10°C to 40°C) / Other (°C to °C)
	② Corrosive Conditions (chemicals, disinfectants, detergents, etc.)	Chemicals, etc. (name:) (concentration %, usage frequency times) Water, humidity (%)
	③ Abrasive Conditions	None / Yes (glass fragments / paint chips / metal powder / sand / other)
	④ Other	Volatile gases : None / Yes ( )
6. Chain Number		
7. Sprocket Number	(no. of teeth)	

8. Brief description of equipment and chain: Conveyor layout, shape of conveyed objects, method of support on the return way, and other remarks

Company Name: Division:

Name: Tel.:

Date: Fax:

BTM8H (Wide Type) Plastic Modular Chain Inquiry Sheet

When configuring an inclined conveyor using magnetic BTM8H Plastic Modular Chain, conveyor design must take into account operating conditions such as the type of objects to be conveyed and the inclination angle.
Please give us the following information regarding your use of BTM8H Modular Plastic Chain.

Company Name		Name	
Tel.		Fax	

Equipment	Description	New installation / Remodeling (type of conveyor on existing equipment:)		
	Conveyor Length	m	Conveyor Width	mm
	Inclination Angle	degrees	Direction	Upward / Downward
Conveyed Object	Object		Mass	kg/pc
	Characteristics	Magnetic / Non-magnetic	Magnetic Attraction to Conveyed Object	Acceptable / Not acceptable
	Shape	Flat / Square / Cylindrical / Other	Shape of Bottom	Flat / Raised / Other
Conveying Conditions	Speed	m/min	Amount	piece/min
	Impact	No / Yes (description:)	Accumulation	No / Yes
Environment	Ambient Temperature	°C to °C	Temperature of Conveyed Object	°C to °C

Special Configuration Availability Chart

◆ Plastic Modular Chain

Specifications (Plastic Chain Materials)	Electrostatic Preventive SE	Middle Friction MF	Acid Resistant AR	High Friction HF	UV Resistant UVR
WT1505-K	(※)	▲	×	×	×
WT1505G-K	(※)	▲	×	×	×
WT1505GTO-K	(※)	×	×	×	×
WT1506-K	(※)	▲	×	×	×
BTN5/BTN5-A	(※)	×	×	×	○
BTC6	(※)	×	×	○	○
BTO6	(※)	×	×	○	○
BTN6	(※)	×	×	○	○
BTC8/BTC8-A	(※)	×	×	○	○
WT2505-K	(※)	▲	×	×	×
WT2506-K	×	×	×	×	×
BTM8H	×	×	×	×	×
WT3005-K	(※)	▲	×	×	×
WT3005G-K	(※)	▲	×	×	×
WT3086-K	(※)	▲	×	×	×
WT3086G-K	(※)	▲	×	×	×
WT3816-K	×	×	×	×	×
BTC4-M	(※)	×	×	○	○
WT1505G-M	(※)	○	×	×	×
WT1505GTO-M	(※)	×	×	×	×
WT1515G-M	(※)	▲	×	×	×
BTC8H-M	×	×	×	×	×
BTM8H-M	×	×	×	×	×
WT2505-M	(※)	▲	×	×	×
WT2505G-M	(※)	▲	×	×	×
BTO8-M	(※)	×	×	○	○
WT3005G-M	(※)	▲	×	×	×
WT3086G-M	(※)	▲	×	×	×
WT3085-C325	(※)	×	×	×	×

◆ Plastic Top Chain

Specifications (Plastic Chain Materials)	Electrostatic Preventive SE	Middle Friction MF	Acid Resistant AR	High Friction HF	UV Resistant UVR
TTP	(※)	×	○	○	○
TTP-P	(※)	○	×	○	○
TTPH	(※)	×	○	○	○
TTPH-P	(※)	×	×	○	○
TTPM	(※)	×	×	×	×
TPF	(※)	×	○	○	○
TP-OTD	(※)	×	×	×	×
TPS	(※)	×	○	○	○
TPS-P	(※)	×	×	○	○
TPH	(※)	×	○	○	○
TPH-P	(※)	×	×	○	○
TPSS	(※)	×	×	×	×
TPM	(※)	×	○	○	○
TPM-SN/TPM-P-SN	(※)	×	×	×	×
TPRF2040	○	×	○	○	○
TPRF2060	(※)	×	○	○	○
TTUP	(※)	×	○	○	○
TTUP-P	(※)	○	×	○	○
TTUPH	(※)	×	○	○	○
TTUPS	(※)	×	×	×	×
TTUPM-P	(※)	×	×	×	×
TPU	(※)	×	○	○	○
TPU-P	(※)	×	×	×	×
TP-880TAB	(※)	×	×	×	×
TPUM	(※)	×	○	○	○
TPUSR550/TPUSR826	(※)	×	○	○	○
TP-UB36	(※)	×	×	×	×
TPUN	(※)	×	○	×	○
TP-50UNS/-D76/-T95	(※)	×	×	×	×
TP-36AK1	(※)	○	×	×	×

◆ Snap Top Chain

Specifications (Plastic Chain Materials)	Electrostatic Preventive SE	Middle Friction MF	Acid Resistant AR	High Friction HF	UV Resistant UVR
TN	(※)	×	×	×	○
TNU	(※)	×	×	×	○
TP-PT	(※)	×	×	×	×
TP-PTS	(※)	×	×	×	×
TP-1873-T	(※)	×	×	×	×

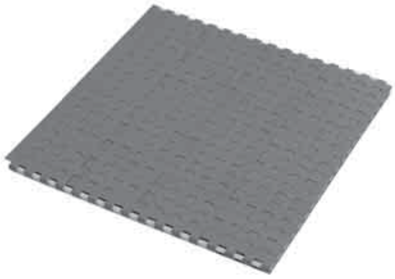
◆ Plastic Block Chain

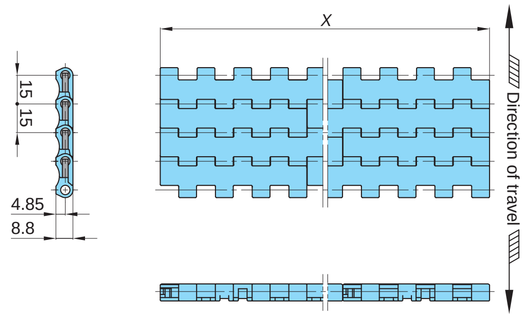
Specifications (Plastic Chain Materials)	Electrostatic Preventive SE	Middle Friction MF	Acid Resistant AR	High Friction HF	UV Resistant UVR
RSP35	○	×	○	○	○
RSP40	○	×	○	○	○
RSP50	○	×	○	○	○
RSP60	○	×	○	○	○
RSP40P	○	×	×	○	○
RSP60P	○	×	×	○	○
RSP-SL	○	×	○	○	○
RSP-PO8PF	(※)	×	×	×	×
RSP-PO8PFT	(※)	×	×	×	×
RSP60-2	(※)	×	○	○	○
RSP60-CU	○	×	○	○	○
RSP60P-CU	○	×	×	○	○
RSP60-CU-2	(※)	×	○	○	○

Note: 1. See page 25 for a description of these plastic chain materials.
2. ○ : Available − : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative on usage conditions and other details.
※ : Standard-type chain is given an electrostatic preventive property.

No tab guide attachments

U.S. Patent 6196381 B1
U.S. Patent 6050397
EP 0845425 B1





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
ULF	15	Blue	2	10.5 {1070}	6.7	-20 to 80 (60)	Special engineering plastic
UL		Green					
NLF		Dark gray					

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. Operating temperature of (60) is for wet conditions.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT1505-K
Standard chain	Standard	–	Gray	10.5 {1070}	50 (50)	50 (30)	-20 to 80 (60)	▲
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green					▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Chemical Resistant	Y	Matte white	8.0 { 816}	50 (50)	50 (30)	-20 to 80 (60)	▲
	Electroconductive	E	Black					
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	7.8 { 796}		50 (30)	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Maximum allowable speeds in ( ) are for when using nose bars made of UHMW-PE. Nose bars made of SJ-CNO (special polyamide) must be used under dry conditions without lubrication.
3. Operating temperature of (60) is for wet conditions.
4. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
76.2	WT1505-K03-ULF	WT1505-K03-UL	WT1505-K03-NLF
152.4	WT1505-K06-ULF	WT1505-K06-UL	WT1505-K06-NLF
228.6	WT1505-K09-ULF	WT1505-K09-UL	WT1505-K09-NLF
304.8	WT1505-K12-ULF	WT1505-K12-UL	WT1505-K12-NLF
381.0	WT1505-K15-ULF	WT1505-K15-UL	WT1505-K15-NLF
457.2	WT1505-K18-ULF	WT1505-K18-UL	WT1505-K18-NLF
533.4	WT1505-K21-ULF	WT1505-K21-UL	WT1505-K21-NLF

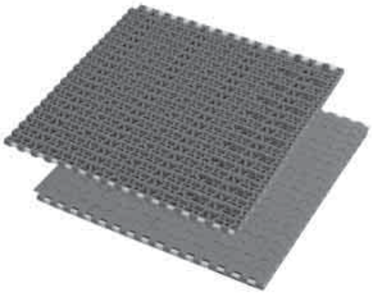
Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
609.6	WT1505-K24-ULF	WT1505-K24-UL	WT1505-K24-NLF
685.8	WT1505-K27-ULF	WT1505-K27-UL	WT1505-K27-NLF
762.0	WT1505-K30-ULF	WT1505-K30-UL	WT1505-K30-NLF
838.2	WT1505-K33-ULF	WT1505-K33-UL	WT1505-K33-NLF
914.4	WT1505-K36-ULF	WT1505-K36-UL	WT1505-K36-NLF
1219.2	WT1505-K48-ULF	WT1505-K48-UL	WT1505-K48-NLF
1524.0	WT1505-K60-ULF	WT1505-K60-UL	WT1505-K60-NLF

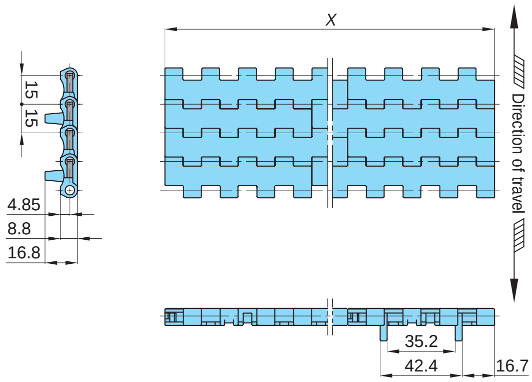
Note: 1. Custom chain widths and widths greater than 1,524mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width X shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.
3. Cannot be used with BT5-24T/BT5-32T sprockets for BT5 chain.

Contact a Tsubaki representative for sprocket attachment positions.

Sprockets …See page 33/34 Wearstrips …See page 191/193 Peripheral Parts …See page 35–38 Return-Way Parts …See page 203–205

With tab guide attachments





U.S. Patent 6196381 B1
U.S. Patent 6050397
EP 0845425 B1

Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
ULF	15	Blue	2	10.5 {1070}	6.7	-20 to 80 (60)	Special engineering plastic
UL		Green					
NLF		Dark gray					

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. When using the WT-N1500-12T30 solid sprocket, make the sprocket key length 30mm to engage the tab guide attachment module.
3. Cannot be used with nose bars.
4. Operating temperature of (60) is for wet conditions.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT1505G-K
Standard chain	Standard	–	Gray	10.5 {1070}	50	50	-20 to 80 (60)	▲
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green					▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					–
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	8.0 { 816}	50	50	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	7.8 { 796}		50	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
152.4	WT1505G-K06-ULF	WT1505G-K06-UL	WT1505G-K06-NLF
228.6	WT1505G-K09-ULF	WT1505G-K09-UL	WT1505G-K09-NLF
304.8	WT1505G-K12-ULF	WT1505G-K12-UL	WT1505G-K12-NLF
381.0	WT1505G-K15-ULF	WT1505G-K15-UL	WT1505G-K15-NLF
457.2	WT1505G-K18-ULF	WT1505G-K18-UL	WT1505G-K18-NLF
533.4	WT1505G-K21-ULF	WT1505G-K21-UL	WT1505G-K21-NLF
609.6	WT1505G-K24-ULF	WT1505G-K24-UL	WT1505G-K24-NLF

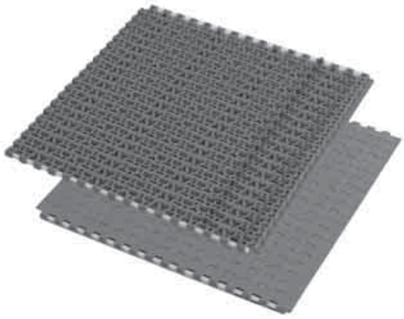
Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
685.8	WT1505G-K27-ULF	WT1505G-K27-UL	WT1505G-K27-NLF
762.0	WT1505G-K30-ULF	WT1505G-K30-UL	WT1505G-K30-NLF
838.2	WT1505G-K33-ULF	WT1505G-K33-UL	WT1505G-K33-NLF
914.4	WT1505G-K36-ULF	WT1505G-K36-UL	WT1505G-K36-NLF
990.6	WT1505G-K39-ULF	WT1505G-K39-UL	WT1505G-K39-NLF
1219.2	WT1505G-K48-ULF	WT1505G-K48-UL	WT1505G-K48-NLF
1524.0	WT1505G-K60-ULF	WT1505G-K60-UL	WT1505G-K60-NLF

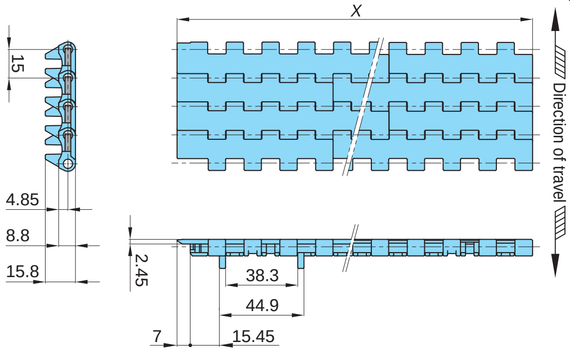
Note: 1. Custom chain widths and widths greater than 1,524mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width X shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.
3. Cannot be used with BT5-24T/BT5-32T sprockets for BT5 chain.

Contact a Tsubaki representative for sprocket attachment positions.

Sprockets …See page 33/34 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

With tab guide attachments





U.S. Patent 6196381 B1
U.S. Patent 6708818 B2
U.S. Patent 6050397
EP 0845425 B1
EP 1422171 B1

Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
ULF	15	Blue	2	10.5 {1070}	6.7	-20 to 80 (60)	Special engineering plastic
UL		Green					
NLF		Dark gray					

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. When using the WT-N1500-12T30 solid sprocket, make the sprocket key length 30mm to engage the tab guide attachment module.
3. Operating temperature of (60) is for wet conditions.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT1505GTO-K
Standard chain	Standard	–	Gray	10.5 {1070}	50 (50)	50 (30)	-20 to 80 (60)	▲
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green					▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	8.0 { 816}	50 (50)	50 (30)	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	7.8 { 796}	50 (50)	–	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Maximum allowable speeds in ( ) are for when using nose bars made of UHMW-PE. Nose bars made of SJ-CNO (special polyamide) must be used under dry conditions without lubrication.
3. Operating temperature of (60) is for wet conditions.
4. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
235.6	WT1505GTO-K09-ULF	WT1505GTO-K09-UL	WT1505GTO-K09-NLF
311.8	WT1505GTO-K12-ULF	WT1505GTO-K12-UL	WT1505GTO-K12-NLF
388.0	WT1505GTO-K15-ULF	WT1505GTO-K15-UL	WT1505GTO-K15-NLF
464.2	WT1505GTO-K18-ULF	WT1505GTO-K18-UL	WT1505GTO-K18-NLF
540.4	WT1505GTO-K21-ULF	WT1505GTO-K21-UL	WT1505GTO-K21-NLF
616.6	WT1505GTO-K24-ULF	WT1505GTO-K24-UL	WT1505GTO-K24-NLF
692.8	WT1505GTO-K27-ULF	WT1505GTO-K27-UL	WT1505GTO-K27-NLF

Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
769.0	WT1505GTO-K30-ULF	WT1505GTO-K30-UL	WT1505GTO-K30-NLF
845.2	WT1505GTO-K33-ULF	WT1505GTO-K33-UL	WT1505GTO-K33-NLF
921.4	WT1505GTO-K36-ULF	WT1505GTO-K36-UL	WT1505GTO-K36-NLF
997.6	WT1505GTO-K39-ULF	WT1505GTO-K39-UL	WT1505GTO-K39-NLF
1073.8	WT1505GTO-K42-ULF	WT1505GTO-K42-UL	WT1505GTO-K42-NLF
1226.2	WT1505GTO-K48-ULF	WT1505GTO-K48-UL	WT1505GTO-K48-NLF
1531.0	WT1505GTO-K60-ULF	WT1505GTO-K60-UL	WT1505GTO-K60-NLF

Note: 1. Custom chain widths and widths greater than 1,531mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width X shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.
3. Cannot be used with BT5-24T/BT5-32T sprockets for BT5 chain.

Contact a Tsubaki representative for sprocket attachment positions.

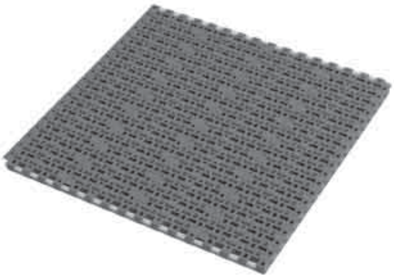
Sprockets …See page 33/34 Wearstrips …See page 191/193 Peripheral Parts …See page 35–38 Return-Way Parts …See page 203–205

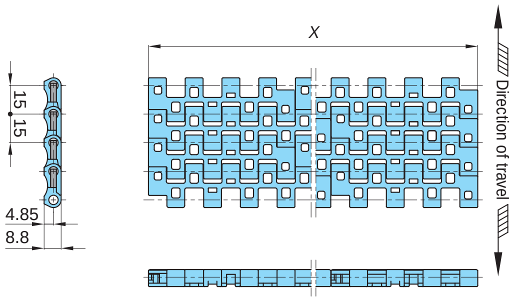
Plastic Modular Chain WT1506-K

Open Type: Straight Running

No tab guide attachments

U.S. Patent 6196381 B1
U.S. Patent 6050397
EP 0845425 B1





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
ULF	15	Blue	26	10.5 {1070}	6.7	-20 to 80 (60)	Special engineering plastic
UL		Green					
NLF		Dark gray					

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. Operating temperature of (60) is for wet conditions.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT1506-K
Standard chain	Standard	–	Gray	10.5 {1070}	50 (50)	50 (30)	-20 to 80 (60)	▲
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green					▲
High-function chain	Heat Resistant/ High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White	4.25{ 434}	50	30	5 to 105	▲
	Chemical Resistant	Y	Matte white	–	–	–	–	–
	Electroconductive	E	Black	8.0 { 816}	50 (50)	50 (30)	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	7.8 { 796}		50 (30)	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Maximum allowable speeds in ( ) are for when using nose bars made of UHMW-PE. Nose bars made of SJ-CNO (special polyamide) must be used under dry conditions without lubrication.
3. Operating temperature of (60) is for wet conditions.
4. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Chain width *X* mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
76.2	WT1506-K03-ULF	WT1506-K03-UL	WT1506-K03-NLF
152.4	WT1506-K06-ULF	WT1506-K06-UL	WT1506-K06-NLF
228.6	WT1506-K09-ULF	WT1506-K09-UL	WT1506-K09-NLF
304.8	WT1506-K12-ULF	WT1506-K12-UL	WT1506-K12-NLF
381.0	WT1506-K15-ULF	WT1506-K15-UL	WT1506-K15-NLF
457.2	WT1506-K18-ULF	WT1506-K18-UL	WT1506-K18-NLF
533.4	WT1506-K21-ULF	WT1506-K21-UL	WT1506-K21-NLF

Chain width *X* mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
609.6	WT1506-K24-ULF	WT1506-K24-UL	WT1506-K24-NLF
685.8	WT1506-K27-ULF	WT1506-K27-UL	WT1506-K27-NLF
762.0	WT1506-K30-ULF	WT1506-K30-UL	WT1506-K30-NLF
838.2	WT1506-K33-ULF	WT1506-K33-UL	WT1506-K33-NLF
914.4	WT1506-K36-ULF	WT1506-K36-UL	WT1506-K36-NLF
1219.2	WT1506-K48-ULF	WT1506-K48-UL	WT1506-K48-NLF
1524.0	WT1506-K60-ULF	WT1506-K60-UL	WT1506-K60-NLF

Note: 1. Custom chain widths and widths greater than 1,524mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width *X* shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.
3. Cannot be used with BT5-24T/BT5-32T sprockets for BT5 chain.

Contact a Tsubaki representative for sprocket attachment positions.

Sprockets …See page 33/34 Wearstrips …See page 191/193 Peripheral Parts …See page 35–38 Return-Way Parts …See page 203–205

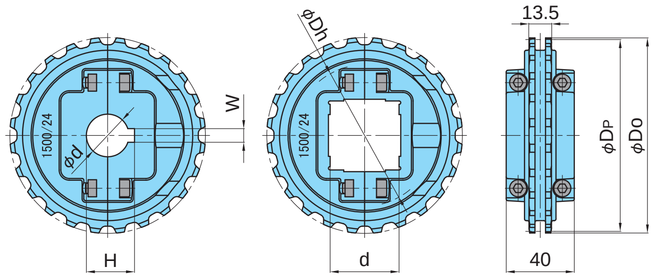
Sprockets for WT1500/3000 Chain

Engineering Plastic

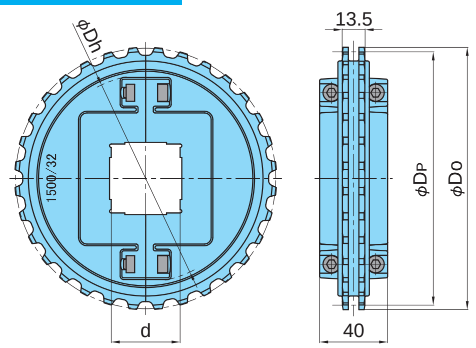
Applicable chain WT1505 (including G/GTO), 1506, 3005 (including G), 3086 (including G), BTN5(-A)

● SW1500 Split Sprockets

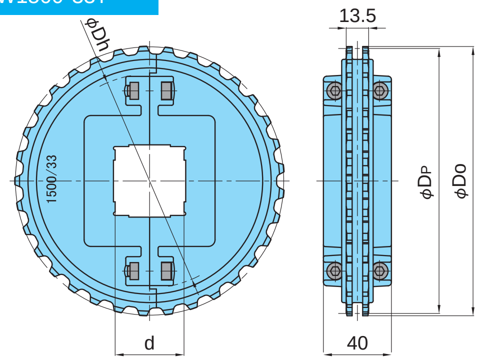
SW1500-24T



SW1500-32T



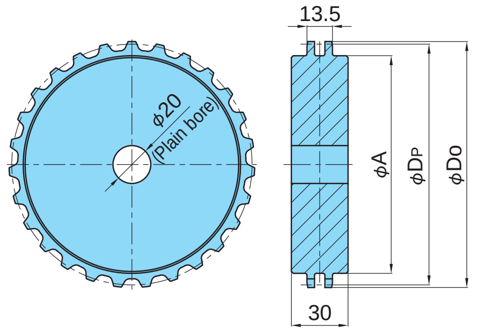
SW1500-33T



Tsubaki model no.	Teeth	Pitch diameter *Dp*	Outside diameter *Do*	Bore shape	Bore diameter *d*	Keyway		Hub diameter *Dh*	Approx. mass kg	Type	Material	
						W	*H*				Body	Bolt & nut
WT-SW1500-24T25	24	114.9	115.5	Round	25	8	28.3	83	0.3	Split	Reinforced polyamide (black)	Stainless steel
WT-SW1500-24T30					30	8	33.3					
WT-SW1500-24T35					35	10	38.3					
WT-SW1500-24T40					40	12	43.3					
WT-SW1500-24T40S				Square	40	–	–					
WT-SW1500-32T40S	32	153.0	154.8	Square	40	–	–	121.5	0.4			
WT-SW1500-32T60S					60	–	–					
WT-SW1500-33T40S	33	157.8	158.6	Square	40	–	–	126	0.4			
WT-SW1500-33T65S					65	–	–					

Note: 1. Bolt tightening torque: 5.7 N·m
2. When assembling the sprockets, do not mix the pairs.
3. Bolts and nuts are made of stainless steel.
4. Operating temperature range: –20°C to 80°C

● S1500 Solid Sprockets



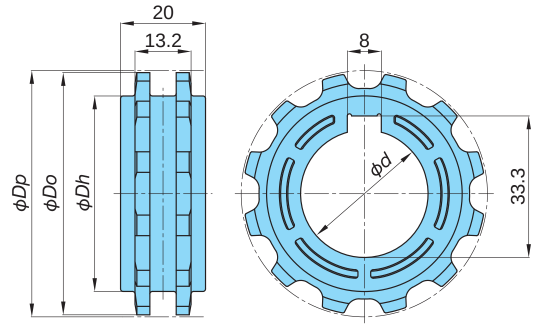
Tsubaki model no.	Teeth	Pitch diameter *Dp*	Outside diameter *Do*	Hub diameter A	Bore shape	Bore diameter *d*	Type	Material
WT-S1500-24T	24	114.9	115	100	Bore shape and size are made-to-order.		Solid	UHMW-PE (green)
WT-S1500-25T	25	119.7	120	105				
WT-S1500-27T	27	129.2	130	115				
WT-S1500-31T	31	148.3	149	134				
WT-S1500-32T	32	153.0	154	138				
WT-S1500-33T	33	157.8	158.6	144				

Note: 1. Made-to-order product.
2. Sprockets can also be manufactured with other shapes and number of teeth than noted above.

Dimensions in mm

Applicable chain WT1505 (including G/GTO), 1506, 1515G, BTN5

● N1500 Solid Sprockets (Molded)



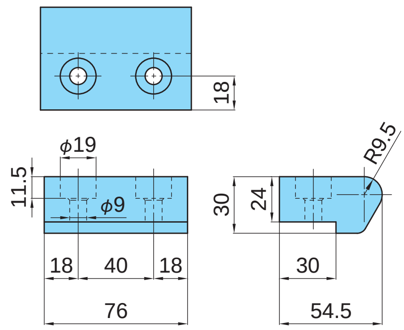
Tsubaki model no.	Teeth	Pitch diameter *Dp*	Outside diameter *Do*	Bore shape	Bore diameter *d*	Hub diameter *Dh*	Approx. mass kg	Type	Material
WT-N1500-12T30	12	57.96	57	Round	30	46	0.027	Solid	Reinforced polyamide (black)

Note: 1. Cannot be used with WT3000 series chain.
2. When using with WT1505G/1505GTO chain and with WT1515G-M50 chain, make the sprocket key length 30mm and 20mm, respectively, to engage the tab guide attachment module.
3. Operating temperature range: –20°C to 80°C

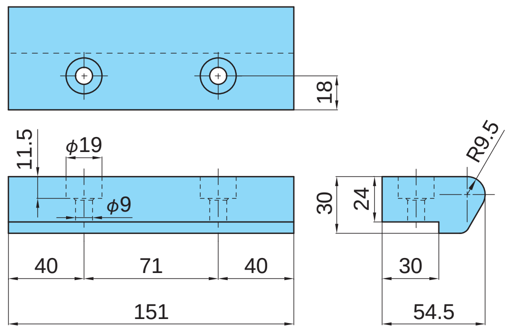
Dimensions in mm

● NB-76/151/302 Nose Bars (Sliding Series)

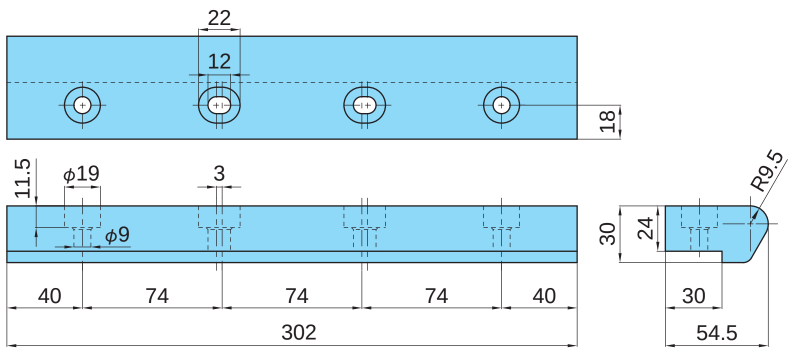
NB-76



NB-151



NB-302



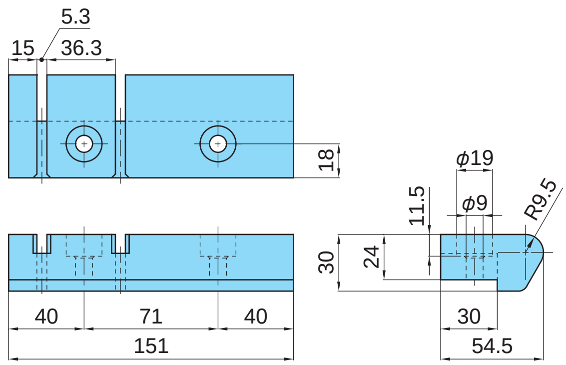
Tsubaki model no.	Material	Material grade	Color	Application
WT-NB76-10-301	Ultra-high molecular weight polyethylene	10-301	Green	Ideal for use with water lubricant or under other wet running conditions.
WT-NB76-10-100M9	Ultra-high molecular weight polyethylene (oil impregnated)	10-100M9	White	Ideal for use under light load, low speed, dry running conditions.
WT-NB76-CNO	Special polyamide	SJ-CNO	Gray	Ideal for use under heavy load, high speed, dry running conditions.
WT-NB151-10-301	Ultra-high molecular weight polyethylene	10-301	Green	Ideal for use with water lubricant or under other wet running conditions.
WT-NB151-10-100M9	Ultra-high molecular weight polyethylene (oil impregnated)	10-100M9	White	Ideal for use under light load, low speed, dry running conditions.
WT-NB151-CNO	Special polyamide	SJ-CNO	Gray	Ideal for use under heavy load, high speed, dry running conditions.
WT-NB302-10-301	Ultra-high molecular weight polyethylene	10-301	Green	Ideal for use with water lubricant or under other wet running conditions.
WT-NB302-10-100M9	Ultra-high molecular weight polyethylene (oil impregnated)	10-100M9	White	Ideal for use under light load, low speed, dry running conditions.
WT-NB302-CNO	Special polyamide	SJ-CNO	Gray	Ideal for use under heavy load, high speed, dry running conditions.

Note: 1. Made-to-order product.
2. Cannot be used with WT1505G-M300, WT1515G-M50, or WT1505G-K series chains.
3. Contact a Tsubaki representative for mounting dimensions.

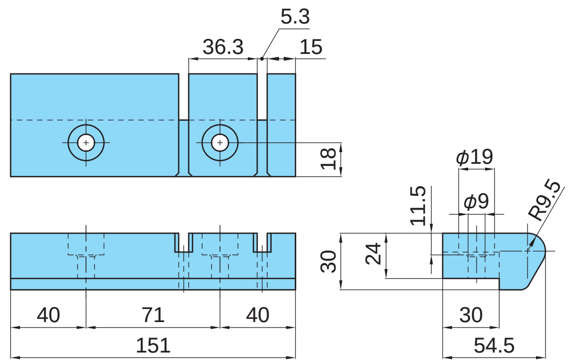
Dimensions in mm

NB-151TOL/151TOR Nose Bars (Sliding Series)

NB-151TOL



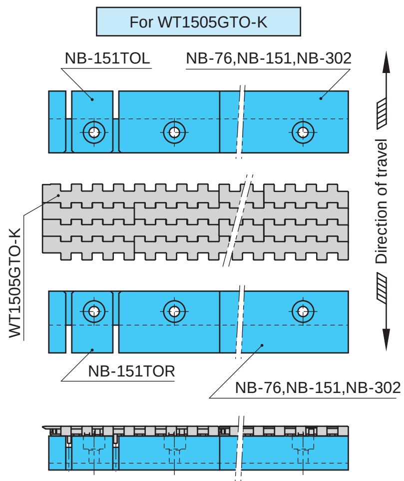
NB-151TOR



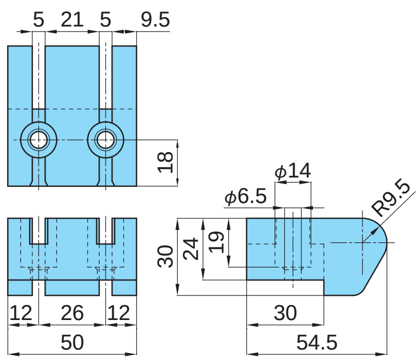
Tsubaki model no.	Material	Material grade	Color
WT-NB151TOL-10-301	Ultra-high molecular weight polyethylene	10-301	Green
WT-NB151TOL-10-100M9	Ultra-high molecular weight polyethylene (oil impregnated)	10-100M9	White
WT-NB151TOL-CNO	Special polyamide	SJ-CNO	Gray
WT-NB151TOR-10-301	Ultra-high molecular weight polyethylene	10-301	Green
WT-NB151TOR-10-100M9	Ultra-high molecular weight polyethylene (oil impregnated)	10-100M9	White
WT-NB151TOR-CNO	Special polyamide	SJ-CNO	Gray

Note: 1. Made-to-order product.
2. Cannot be used with WT1505G-M300, WT1515G-M50, or WT1505G-K series chains.
3. Contact a Tsubaki representative for mounting dimensions.

Using Nose Bar on WT1505GTO-K Chain



WT-NBG50 Nose Bar for WT1515G-M50 Chain



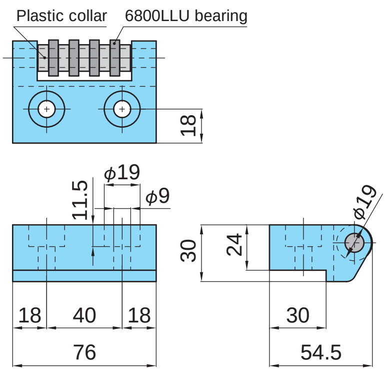
Tsubaki model no.	Material	Material grade	Color
WT-NBG50-10-301	Ultra-high molecular weight polyethylene	10-301	Green
WT-NBG50-10-100M9	Ultra-high molecular weight polyethylene (oil impregnated)	10-100M9	White
WT-NBG50-CNO	Special polyamide	SJ-CNO	Gray

Note: 1. Made-to-order product.
2. Cannot be used with WT1505G-M300, WT1505GTO-M300 & 600, WT1505G-K, or WT1505GTO-K series chains.
3. Contact a Tsubaki representative for mounting dimensions.

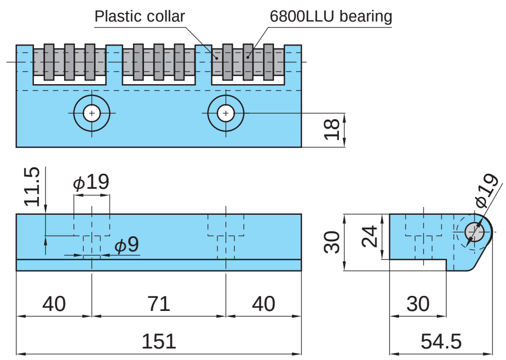
Dimensions in mm

● NR-76/151/76TO Nose Bars (Integrated Bearing Series)

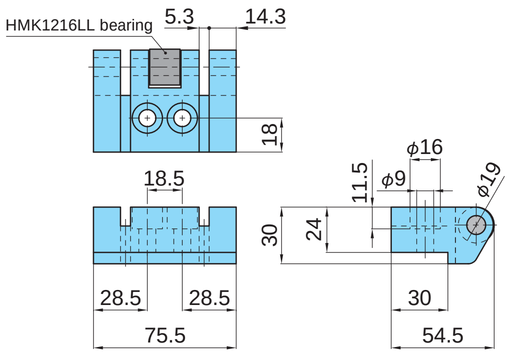
NR-76



NR-151



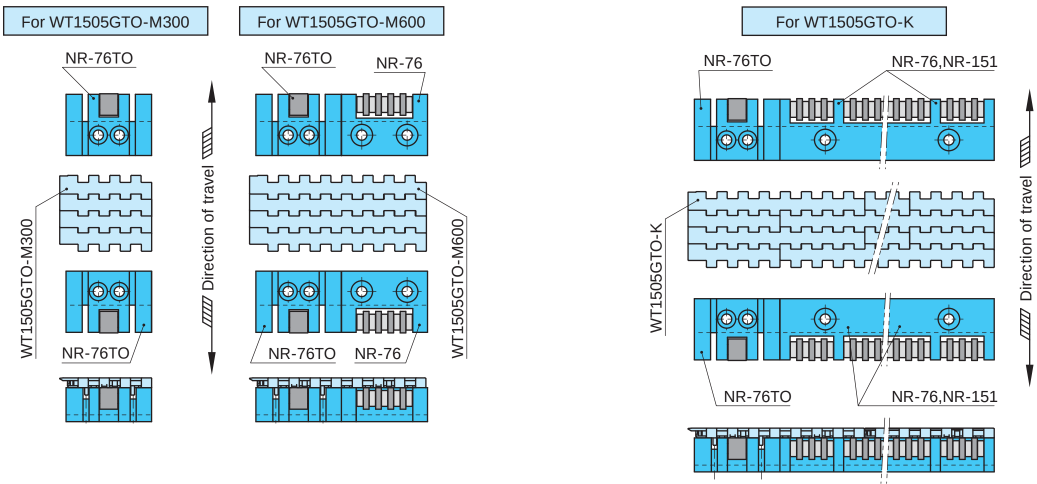
NR-76TO



Tsubaki model no.	Main body material	Material grade	Color	Bearing	Shaft material
WT-NR151	UHMW-PE	10-301	Green	Ball	Stainless steel
WT-NR76				Ball	
WT-NR76-TO				Needle	

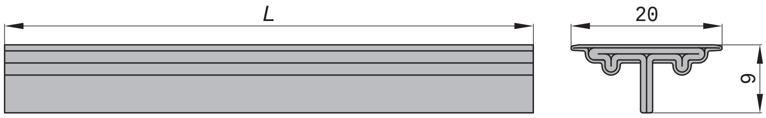
Note: 1. Made-to-order product.
2. Cannot be used with WT1505G-M300, WT1515G-M50, or WT1505G-K series chains.
3. Standard bearing material is steel.

● Using Nose Bar on WT1505GTO-K Chain



Dimensions in mm

Dead Plate



Tsubaki model no.	*L* mm	Material
WT-DP12	400	Stainless steel
WT-DP18	550	
WT-DP24	700	
WT-DP30	850	

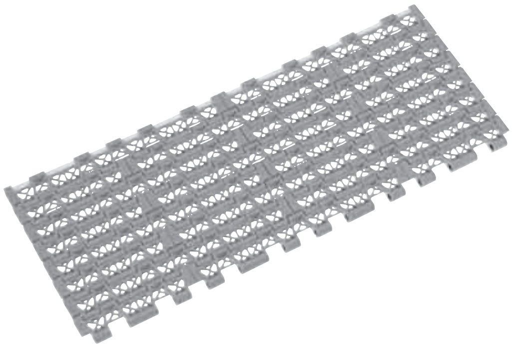
Note: 1. Made-to-order product.
2. Contact a Tsubaki representative for further information regarding dead plates for chain widths greater than 762mm (K30) and hard chrome-plated dead plates.
3. Contact a Tsubaki representative for mounting dimensions.

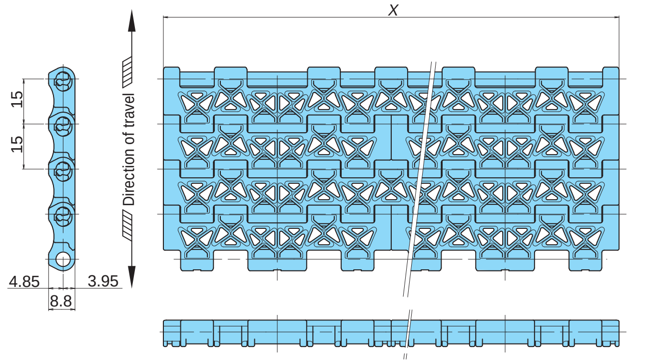
Dimensions in mm

Plastic Modular Chain BTN5

Net Type: Straight Running

No tab guide attachments





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
LFB	15	Brown	30	10.5 {1070}	5.90	-20 to 80 (60)	Special engineering plastic
MWS		Cream					
ULF		Blue					
DIA		Cream		7.85{ 800}	4.60		
DIY		Green			7.25		

Note: 1. Operating temperature of (60) is for wet conditions. When plastic pins are replaced with stainless steel pins, the chain can be used from 60°C to 80°C in wet conditions. In this case, initial chain length will be slightly longer and chain mass heavier. Be sure to contact a Tsubaki representative before use.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
(Example: Max. allowable load for BTN5-3048-LFB = 10.5 x 304/1000 ≒ 3.19 kN)

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min		Operating temperature range °C	BTN5
					With lube	No lube		
Standard chain	Standard	–	Gray	10.5 {1070}	50	50	-20 to 80 (60)	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	–
		UL	Green					
		NLF	Dark gray					
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Low Temperature	LTW	White	3.43{350}	15	15	-70 to 60	○
	Chemical Resistant	Y	Matte white	5.3 {540}	50	50	-20 to 80 (60)	▲
	Electroconductive	E	Black	7.4 {750}				○
	Impact Resistant	DIA	Cream	7.85{800}	–		-20 to 80	
		DIY	Green		50		-20 to 80 (60)	
	Antibacterial/Mold Resistant	MWS	Cream	10.5{1070}				
	Metal Detectable	MPD	Black	Contact a Tsubaki representative.				▲
		MPW						

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. See precautionary notes above regarding maximum allowable load and operating temperature range.

Chain (Plastic Pins)

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
76	BTN5-760-LFB	BTN5-760-ULF
152	BTN5-1520-LFB	BTN5-1520-ULF
228	BTN5-2280-LFB	BTN5-2280-ULF
304	BTN5-3040-LFB	BTN5-3040-ULF
380	BTN5-3800-LFB	BTN5-3800-ULF
456	BTN5-4560-LFB	BTN5-4560-ULF
532	BTN5-5320-LFB	BTN5-5320-ULF

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
608	BTN5-6080-LFB	BTN5-6080-ULF
684	BTN5-6840-LFB	BTN5-6840-ULF
760	BTN5-7600-LFB	BTN5-7600-ULF
836	BTN5-8360-LFB	BTN5-8360-ULF
912	BTN5-9120-LFB	BTN5-9120-ULF
988	BTN5-9880-LFB	BTN5-9880-ULF
1064	BTN5-10640-LFB	BTN5-10640-ULF

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
1140	BTN5-11400-LFB	BTN5-11400-ULF
1216	BTN5-12160-LFB	BTN5-12160-ULF
1292	BTN5-12920-LFB	BTN5-12920-ULF
1368	BTN5-13680-LFB	BTN5-13680-ULF
1444	BTN5-14440-LFB	BTN5-14440-ULF
1520	BTN5-15200-LFB	BTN5-15200-ULF

Note: 1. Custom chain widths and widths greater than 1,520mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width *X* shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.
3. Can be used with WT-SW1500 sprockets for WT1500 series chain.

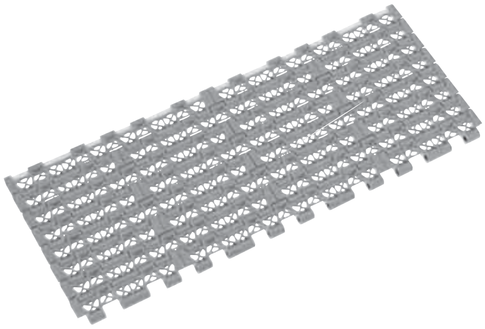
Contact a Tsubaki representative for sprocket attachment positions.

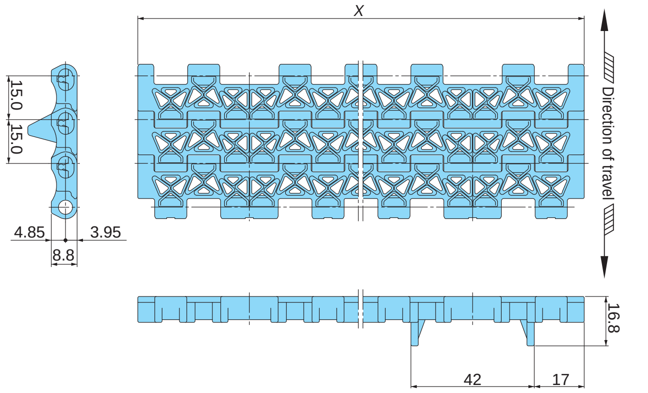
Sprockets …See page 33/34
Wearstrips …See page 191/193
Peripheral Parts …See page 41
Return-Way Parts …See page 203–205

Plastic Modular Chain BTN5-A

Net Type: Straight Running

With tab guide attachments





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
LFB	15	Brown	30	10.5 {1070}	5.90	-20 to 80 (60)	Special engineering plastic
MWS		Cream					
ULF		Blue					
DIA		Cream		7.85{ 800}	4.60		
DIY		Green			7.25		

Note: 1. Operating temperature of (60) is for wet conditions. When plastic pins are replaced with stainless steel pins, the chain can be used from 60°C to 80°C in wet conditions. In this case, initial chain length will be slightly longer and chain mass heavier. Be sure to contact a Tsubaki representative before use.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
(Example: Max. allowable load for BTN5-3040-A-LFB = 10.5 x 304/1000 ≒ 3.19 kN)
3. Chain with tab guide attachments will be 0.5 kg/m heavier. Tab guide attachments are attached to every second link on one side of the chain.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	BTN5-A
Standard chain	Standard	–	Gray	10.5 {1070}	50	50	-20 to 80 (60)	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	–
		UL	Green					
		NLF	Dark gray					
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Low Temperature	LTW	White					
	Chemical Resistant	Y	Matte white	5.3 {540}	50	50	-20 to 80 (60)	▲
	Electroconductive	E	Black	7.4 {750}				○
	Impact Resistant	DIA	Cream	7.85{800}	–		-20 to 80	
		DIY	Green		50		-20 to 80 (60)	
	Antibacterial/Mold Resistant	MWS	Cream	10.5{1070}				
	Metal Detectable	MPD	Black	–	–	–	–	–
		MPW						

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. See precautionary notes above regarding maximum allowable load and operating temperature range.

Chain (Plastic Pins)

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
76	BTN5-760-A-LFB	BTN5-760-A-ULF
152	BTN5-1520-A-LFB	BTN5-1520-A-ULF
228	BTN5-2280-A-LFB	BTN5-2280-A-ULF
304	BTN5-3040-A-LFB	BTN5-3040-A-ULF
380	BTN5-3800-A-LFB	BTN5-3800-A-ULF
456	BTN5-4560-A-LFB	BTN5-4560-A-ULF
532	BTN5-5320-A-LFB	BTN5-5320-A-ULF
608	BTN5-6080-A-LFB	BTN5-6080-A-ULF
684	BTN5-6840-A-LFB	BTN5-6840-A-ULF
760	BTN5-7600-A-LFB	BTN5-7600-A-ULF
836	BTN5-8360-A-LFB	BTN5-8360-A-ULF
912	BTN5-9120-A-LFB	BTN5-9120-A-ULF
988	BTN5-9880-A-LFB	BTN5-9880-A-ULF
1064	BTN5-10640-A-LFB	BTN5-10640-A-ULF
1140	BTN5-11400-A-LFB	BTN5-11400-A-ULF
1216	BTN5-12160-A-LFB	BTN5-12160-A-ULF
1292	BTN5-12920-A-LFB	BTN5-12920-A-ULF
1368	BTN5-13680-A-LFB	BTN5-13680-A-ULF
1444	BTN5-14440-A-LFB	BTN5-14440-A-ULF
1520	BTN5-15200-A-LFB	BTN5-15200-A-ULF

Note: 1. Custom chain widths and widths greater than 1,520mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width X shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.
3. Can be used with WT-SW1500 sprockets for WT1500 series chain.

Contact a Tsubaki representative for sprocket attachment positions.

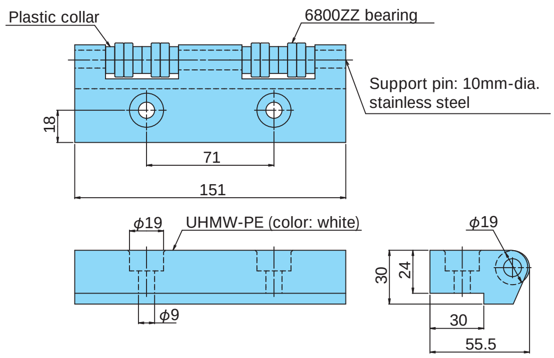
Sprockets …See page 33 Wearstrips …See page 191/193 Peripheral Parts …See page 41 Return-Way Parts …See page 203–205

NB151/75 Nose Bars (Integrated Bearing Series)

・Standard Type

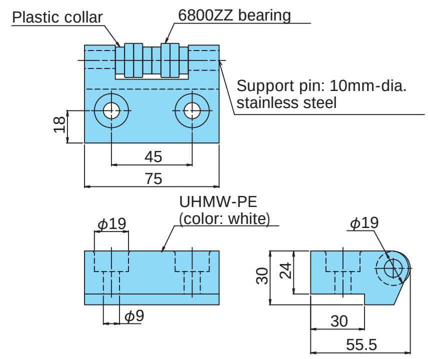
Tsubaki model no.: BT5-NB151-D19

Note:
1. Made-to-order product.
2. For use under dry conditions only. Units with SUS stainless steel bearings can also be manufactured.
3. Operating temperature range: –20°C to 60°C
4. Shape changed after December 2010.
5. Contact a Tsubaki representative if previous type is required.



Tsubaki model no.: BT5-NB75-D19

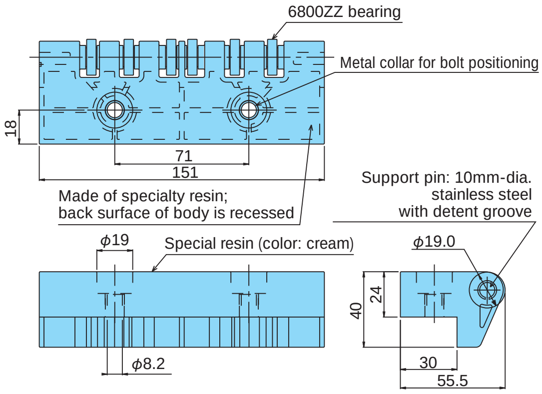
Note:
1. Made-to-order product.
2. For use under dry conditions only. Units with SUS stainless steel bearings can also be manufactured.
3. Operating temperature range: –20°C to 60°C
4. Shape changed after December 2010.
5. Contact a Tsubaki representative if previous type is required.



・Lightweight Type (easy to handle)

Tsubaki model no.: BT5-NB151-D19-LW

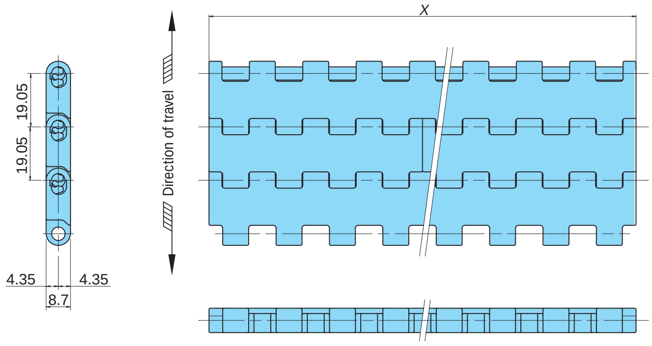
Note:
1. Made-to-order product.
2. For use under dry conditions only. Units with SUS stainless steel bearings can also be manufactured.
3. Operating temperature range: –20°C to 60°C



Model Numbering

Chain used		Nose bar	Nose bar width		Tip diameter		Type
BT5	—	**NB**	**151**	—	**D19**	—	**LW**
							[blank]: Standard LW: Lightweight

Note: Do not leave spaces between letters and symbols.



Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
LFB	19.05	Brown	3	12.8 {1300}	6.56	-20 to 80 (60)	Special engineering plastic
MWS		Cream					
ULF		Blue					
DIA		Cream		9.8 {1000}	5.25		
DIY		Green			8.55		
KV250		Black		12.8 {1300}	13.12	-20 to 250	Stainless steel

Note: 1. Operating temperature of (60) is for wet conditions. When plastic pins are replaced with stainless steel pins, the chain can be used from 60°C to 80°C in wet conditions. In this case, initial chain length will be approx. 1% longer. Chain mass is identical to KV250 chain.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
(Example: Max. allowable load for BTC6-3048-LFB = 12.8 x 304.8/1000 ≒ 3.9 kN)
3. BTC6 chain with tab guide attachments or holes for vacuum operation are also available. Contact a Tsubaki representative for further information.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	BTC6
Standard chain	Standard	–	Gray	12.8 {1300}	50	50	-20 to 80 (60)	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	–
		UL	Green					
		NLF	Dark gray					
High-function chain	Heat Resistant/ High Speed	KV150	Black	12.8 {1300}	–	50	-20 to 150	○ (stainless steel pin)
		KV180		–	–	–	–	–
		KV250		12.8 {1300}	50	50	-20 to 250	○ (stainless steel pin)
	High Temperature	HTW	White	–	–	–	–	–
	Low Temperature	LTW	White	4.22{430}	15	15	-70 to 60	○
	Chemical Resistant	Y	Matte white	6.4 {650}	50	50	-20 to 80 (60)	▲
	Electroconductive	E	Black	9.0 {910}				○
	Impact Resistant	DIA	Cream	9.8{1000}	–		-20 to 80	
		DIY	Green		50		-20 to 80 (60)	
	Antibacterial/Mold Resistant	MWS	Cream	12.8{1300}				
	Metal Detectable	MPD	Black	Contact a Tsubaki representative.				▲
		MPW						

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. See precautionary notes above regarding maximum allowable load and operating temperature range.

Chain (Plastic Pins)

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
76.2	BTC6-762-LFB	BTC6-762-ULF
152.4	BTC6-1524-LFB	BTC6-1524-ULF
228.6	BTC6-2286-LFB	BTC6-2286-ULF
304.8	BTC6-3048-LFB	BTC6-3048-ULF
381.0	BTC6-3810-LFB	BTC6-3810-ULF
457.2	BTC6-4572-LFB	BTC6-4572-ULF
533.4	BTC6-5334-LFB	BTC6-5334-ULF

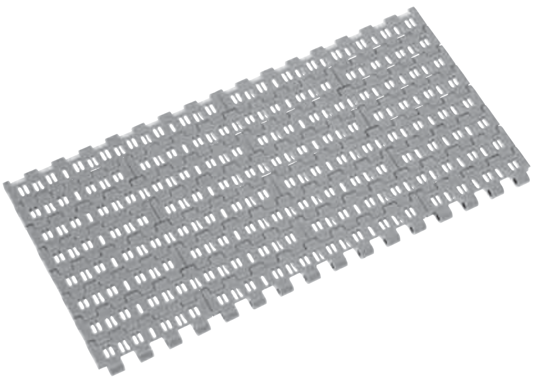
Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
609.6	BTC6-6096-LFB	BTC6-6096-ULF
685.8	BTC6-6858-LFB	BTC6-6858-ULF
762.0	BTC6-7620-LFB	BTC6-7620-ULF
838.2	BTC6-8382-LFB	BTC6-8382-ULF
914.4	BTC6-9144-LFB	BTC6-9144-ULF
990.6	BTC6-9906-LFB	BTC6-9906-ULF
1066.8	BTC6-10668-LFB	BTC6-10668-ULF

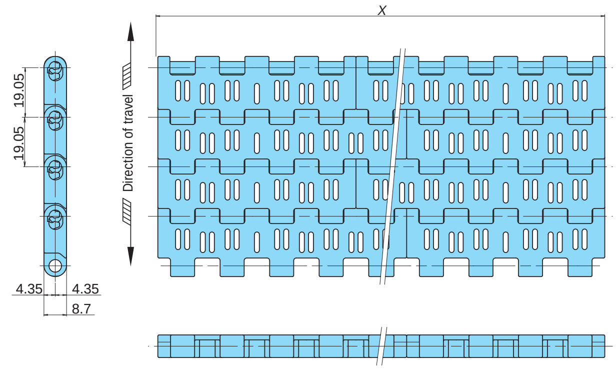
Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
1143.0	BTC6-11430-LFB	BTC6-11430-ULF
1219.2	BTC6-12192-LFB	BTC6-12192-ULF
1295.4	BTC6-12954-LFB	BTC6-12954-ULF
1371.6	BTC6-13716-LFB	BTC6-13716-ULF
1447.8	BTC6-14478-LFB	BTC6-14478-ULF
1524.0	BTC6-15240-LFB	BTC6-15240-ULF

Note: 1. Custom chain widths and widths greater than 1,524mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width X shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

Contact a Tsubaki representative for sprocket attachment positions.

Sprockets …See page 45 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
LFB	19.05	Brown	17	12.8 {1300}	6.56	-20 to 80 (60)	Special engineering plastic
MWS		Cream					
ULF		Blue					
DIA		Cream		9.8 {1000}	5.25		
DIY		Green			8.55		

Note: 1. Operating temperature of (60) is for wet conditions. When plastic pins are replaced with stainless steel pins, the chain can be used from 60°C to 80°C in wet conditions. In this case, initial chain length will be approx. 1% longer. Chain mass is identical to BTC6 type KV250 chain.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
(Example: Max. allowable load for BTO6-3048-LFB = 12.8 x 304.8/1000 ≒ 3.9 kN)

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	BTO6
Standard chain	Standard	–	Gray	12.8{1300}	50	50	-20 to 80 (60)	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	–
		UL	Green					
		NLF	Dark gray					
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Low Temperature	LTW	White					
	Chemical Resistant	Y	Matte white	6.4{650}	50	50	-20 to 80 (60)	▲
	Electroconductive	E	Black	9.0{910}				○
	Impact Resistant	DIA	Cream	9.8{1000}	–		-20 to 80	
		DIY	Green		50		-20 to 80 (60)	
	Antibacterial/Mold Resistant	MWS	Cream	12.8{1300}				
	Metal Detectable	MPD	Black	Contact a Tsubaki representative.				▲
		MPW						

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. See precautionary notes above regarding maximum allowable load and operating temperature range.

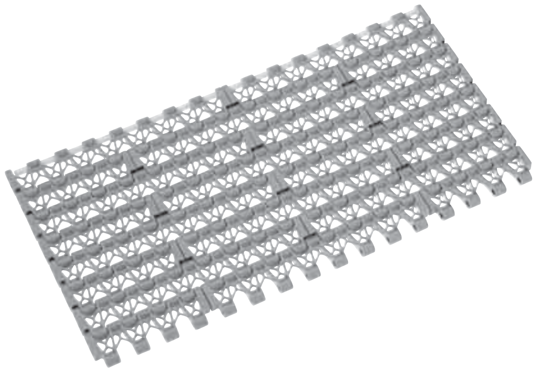
Chain (Plastic Pins)

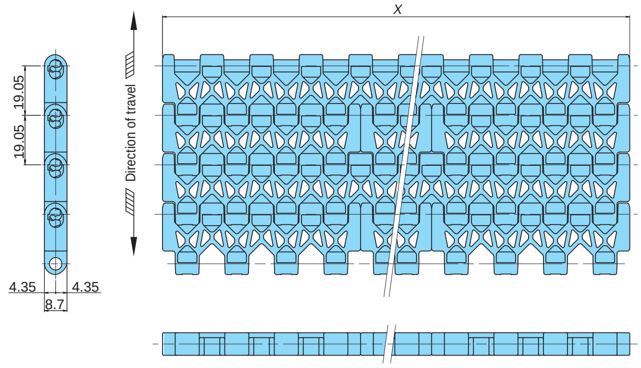
Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
76.2	BTO6-762-LFB	BTO6-762-ULF
152.4	BTO6-1524-LFB	BTO6-1524-ULF
228.6	BTO6-2286-LFB	BTO6-2286-ULF
304.8	BTO6-3048-LFB	BTO6-3048-ULF
381.0	BTO6-3810-LFB	BTO6-3810-ULF
457.2	BTO6-4572-LFB	BTO6-4572-ULF
533.4	BTO6-5334-LFB	BTO6-5334-ULF
609.6	BTO6-6096-LFB	BTO6-6096-ULF
685.8	BTO6-6858-LFB	BTO6-6858-ULF
762.0	BTO6-7620-LFB	BTO6-7620-ULF
838.2	BTO6-8382-LFB	BTO6-8382-ULF
914.4	BTO6-9144-LFB	BTO6-9144-ULF
990.6	BTO6-9906-LFB	BTO6-9906-ULF
1066.8	BTO6-10668-LFB	BTO6-10668-ULF
1143.0	BTO6-11430-LFB	BTO6-11430-ULF
1219.2	BTO6-12192-LFB	BTO6-12192-ULF
1295.4	BTO6-12954-LFB	BTO6-12954-ULF
1371.6	BTO6-13716-LFB	BTO6-13716-ULF
1447.8	BTO6-14478-LFB	BTO6-14478-ULF
1524.0	BTO6-15240-LFB	BTO6-15240-ULF

Note: 1. Custom chain widths and widths greater than 1,524mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width X shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

Contact a Tsubaki representative for sprocket attachment positions.

Sprockets …See page 45 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
LFB	19.05	Brown	53	11.6 {1180}	5.58	-20 to 80 (60)	Special engineering plastic
MWS		Cream					
ULF		Blue					
DIA		Cream		8.83 { 900}	4.60		
DIY		Green			6.60		

Note: 1. Operating temperature of (60) is for wet conditions. When plastic pins are replaced with stainless steel pins, the chain can be used from 60°C to 80°C in wet conditions. In this case, initial chain length will be approx. 1% longer and chain mass heavier. Be sure to contact a Tsubaki representative before use.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain. (Example: Max. allowable load for BTN6-3048-LFB = 11.6 x 304.8/1000 ≒ 3.5 kN)

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	BTN6
Standard chain	Standard	–	Gray	11.6{1180}	50	50	-20 to 80 (60)	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	–
		UL	Green					
		NLF	Dark gray					
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Low Temperature	LTW	White	3.82{390}	15	15	-70 to 60	○
	Chemical Resistant	Y	Matte white	5.8{590}	50	50	-20 to 80 (60)	▲
	Electroconductive	E	Black	8.1{830}				○
	Impact Resistant	DIA	Cream	8.83{900}	–		-20 to 80	
		DIY	Green		50		-20 to 80 (60)	
	Antibacterial/Mold Resistant	MWS	Cream	11.6{1180}				
	Metal Detectable	MPD	Black	Contact a Tsubaki representative.				▲
		MPW						

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. See precautionary notes above regarding maximum allowable load and operating temperature range.

Chain (Plastic Pins)

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
76.2	BTN6-762-LFB	BTN6-762-ULF
152.4	BTN6-1524-LFB	BTN6-1524-ULF
228.6	BTN6-2286-LFB	BTN6-2286-ULF
304.8	BTN6-3048-LFB	BTN6-3048-ULF
381.0	BTN6-3810-LFB	BTN6-3810-ULF
457.2	BTN6-4572-LFB	BTN6-4572-ULF
533.4	BTN6-5334-LFB	BTN6-5334-ULF

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
609.6	BTN6-6096-LFB	BTN6-6096-ULF
685.8	BTN6-6858-LFB	BTN6-6858-ULF
762.0	BTN6-7620-LFB	BTN6-7620-ULF
838.2	BTN6-8382-LFB	BTN6-8382-ULF
914.4	BTN6-9144-LFB	BTN6-9144-ULF
990.6	BTN6-9906-LFB	BTN6-9906-ULF
1066.8	BTN6-10668-LFB	BTN6-10668-ULF

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
1143.0	BTN6-11430-LFB	BTN6-11430-ULF
1219.2	BTN6-12192-LFB	BTN6-12192-ULF
1295.4	BTN6-12954-LFB	BTN6-12954-ULF
1371.6	BTN6-13716-LFB	BTN6-13716-ULF
1447.8	BTN6-14478-LFB	BTN6-14478-ULF
1524.0	BTN6-15240-LFB	BTN6-15240-ULF

Note: 1. Custom chain widths and widths greater than 1,524mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width X shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

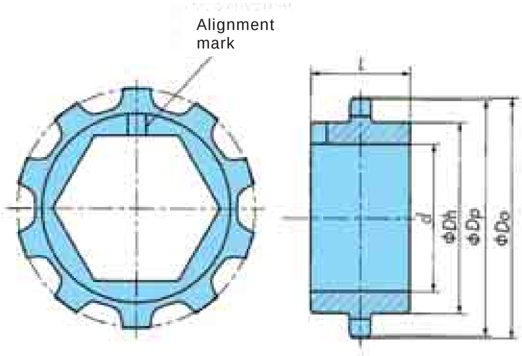
Contact a Tsubaki representative for sprocket attachment positions.

Sprockets ···See page 45 Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

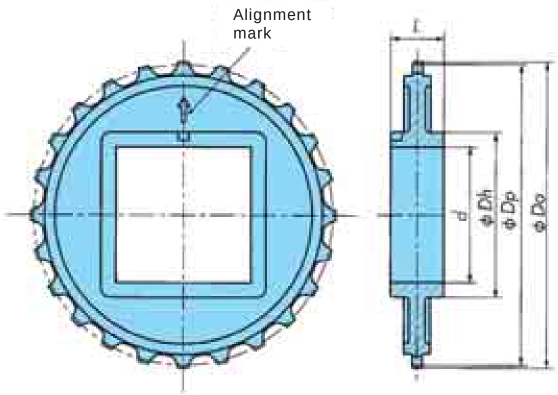
Sprockets for BT6 Chain

Applicable chain BTC6, BTO6, BTN6

● BT6-10T



● BT6-24T



Sprockets for LFB, MWS, ULF, DIA, and DIY Series

Tsubaki model no.	Teeth	Pitch diameter *Dp* mm	Outside diameter *Do* mm	Hub mm		Bore diameter *d* mm	Approx. mass g	Shaft	Material (color)	Type
				Diameter *Dh*	Length *L*					
BT6-10T-38H	10	61.65	62.5	50	25.4	38	30	Hexagonal 38 polished steel bar	Reinforced polyamide (black)	Solid
BT6-24T-40S	24	145.95	148.0	80	25.4	40	260	Square 40 polished steel bar		
BT6-24T-50S	24	145.95	148.0	80	25.4	50	230	Square 50 polished steel bar		
BT6-24T-65S	24	145.95	148.0	80	25.4	65	170	Square 65 polished steel bar		

Note: 1. Operating temperature range: –20°C to 80°C
2. The BT6-10T sprocket can reduce the dead space in conveyors and work to make the conveyor more compact.
3. The BT6-24T sprocket can minimize chain-speed variations resulting from chordal action, ensuring smooth conveyance.
4. BT6 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. BT6 sprockets have an alignment mark for phase matching.
6. The number of BT6 sprockets installed, and positions where BT6 sprockets are installed, will vary depending on load conditions. Contact a Tsubaki representative for sprocket attachment positions.
7. Made-to-order product.

Sprockets for KV150 and KV250 Series

Tsubaki model no.	Teeth	Bore diameter *d* mm	Approx. mass g	Shaft	Material	Operating temperature range
BT6-KV-10T-38H	10	38	40	Hexagonal 38 polished steel bar	Special engineering plastic	80°C to 200°C
BT6-KV-24T-50S	24	50	290	Square 50 polished steel bar	Special engineering plastic	

Note: 1. Materials and sizes for KV series sprockets will vary depending on operating temperatures. Be sure to contact a Tsubaki representative before use.
2. Sprockets having numbers of teeth other than those above can also be manufactured.
3. Sprockets for LFB chain can be used when operating temperature is in the range from -20°C to 80°C.
4. Made-to-order product.

● Model Numbering

Chain type		Teeth		Bore diameter	Bore shape
BT6	—	**10T**	—	**38**	**H**

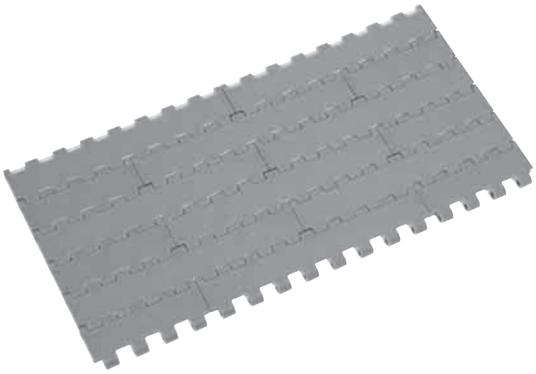
H: Hexagonal
S: Square

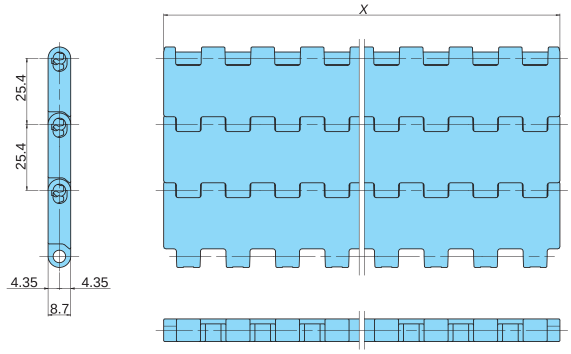
Note: Do not leave spaces between letters and symbols.

Plastic Modular Chain BTC8

Closed Type: Straight Running

No tab guide attachments





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
LFB	25.4	Brown	2.5	12.8 {1300}	5.90	-20 to 80 (60)	Special engineering plastic
MWS		Cream					
ULF		Blue					
DIA		Cream		9.8 {1000}	5.25		
DIY		Green			7.90		

Note: 1. Operating temperature of (60) is for wet conditions. When plastic pins are replaced with stainless steel pins, the chain can be used from 60°C to 80°C in wet conditions. In this case, initial chain length will be slightly longer and chain mass heavier. Be sure to contact a Tsubaki representative before use.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
(Example: Max. allowable load for BTC8-3048-LFB = 12.8 x 304.8/1000 ≒ 3.9 kN)

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	BTC8
Standard chain	Standard	–	Gray	12.8{1300}	50	50	-20 to 80 (60)	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	–
		UL	Green					
		NLF	Dark gray					
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Low Temperature	LTW		4.22{430}	15	15	-70 to 60	○
	Chemical Resistant	Y	Matte white	6.4{650}	50	50	-20 to 80 (60)	▲
	Electroconductive	E	Black	9.0{910}				○
	Impact Resistant	DIA	Cream	9.8{1000}	–		-20 to 80	
		DIY	Green		50		-20 to 80 (60)	
	Antibacterial/Mold Resistant	MWS	Cream	12.8{1300}				
	Metal Detectable	MPD	Black	Contact a Tsubaki representative.				▲
		MPW						

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. See precautionary notes above regarding maximum allowable load and operating temperature range.

Chain (Plastic Pins)

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
76.2	BTC8-762-LFB	BTC8-762-ULF
152.4	BTC8-1524-LFB	BTC8-1524-ULF
228.6	BTC8-2286-LFB	BTC8-2286-ULF
304.8	BTC8-3048-LFB	BTC8-3048-ULF
381.0	BTC8-3810-LFB	BTC8-3810-ULF
457.2	BTC8-4572-LFB	BTC8-4572-ULF
533.4	BTC8-5334-LFB	BTC8-5334-ULF
609.6	BTC8-6096-LFB	BTC8-6096-ULF
685.8	BTC8-6858-LFB	BTC8-6858-ULF
762.0	BTC8-7620-LFB	BTC8-7620-ULF
838.2	BTC8-8382-LFB	BTC8-8382-ULF
914.4	BTC8-9144-LFB	BTC8-9144-ULF
990.6	BTC8-9906-LFB	BTC8-9906-ULF
1066.8	BTC8-10668-LFB	BTC8-10668-ULF
1143.0	BTC8-11430-LFB	BTC8-11430-ULF
1219.2	BTC8-12192-LFB	BTC8-12192-ULF
1295.4	BTC8-12954-LFB	BTC8-12954-ULF
1371.6	BTC8-13716-LFB	BTC8-13716-ULF
1447.8	BTC8-14478-LFB	BTC8-14478-ULF
1524.0	BTC8-15240-LFB	BTC8-15240-ULF

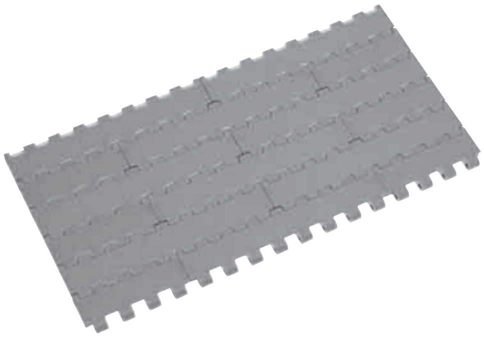
Note: 1. Custom chain widths and widths greater than 1,524mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width *X* shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

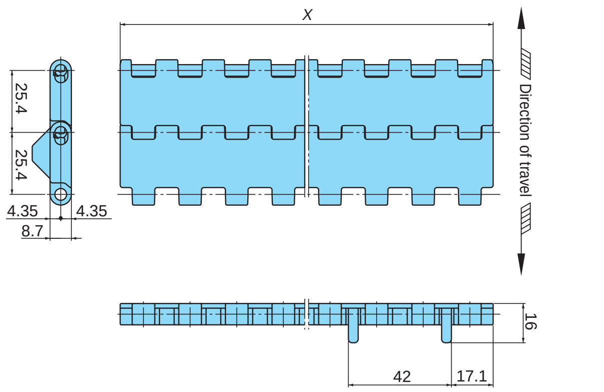
Contact a Tsubaki representative for sprocket attachment positions.

Sprockets …See page 48 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

Plastic Modular Chain
Plastic Top Chain
Plastic Block Chain
Stainless Steel Top Chain
Accessories

With tab guide attachments





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
LFB	25.4	Brown	2.5	12.8 {1300}	5.90	-20 to 80 (60)	Special engineering plastic
MWS		Cream					
ULF		Blue					
DIA		Cream		9.8 {1000}	5.25		
DIY		Green			7.90		

Note: 1. Operating temperature of (60) is for wet conditions. When plastic pins are replaced with stainless steel pins, the chain can be used from 60°C to 80°C in wet conditions. In this case, initial chain length will be slightly longer and chain mass heavier. Be sure to contact a Tsubaki representative before use.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
(Example: Max. allowable load for BTC8-3048-A-LFB = 12.8 x 304.8/1000 ≒ 3.9 kN)
3. Chain with tab guide attachments will be 0.5 kg/m heavier. Tab guide attachments are attached to every second link on one side of the chain.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	No lube	Operating temperature range °C	BTC8-A
Standard chain	Standard	–	Gray	12.8{1300}	50	50	-20 to 80 (60)	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	–
		UL	Green					
		NLF	Dark gray					
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Low Temperature	LTW						
	Chemical Resistant	Y	Matte white	6.4{ 650}	50	50	-20 to 80 (60)	▲
	Electroconductive	E	Black	9.0{910}				○
	Impact Resistant	DIA	Cream	9.8{1000}	–		-20 to 80	
		DIY	Green		50		-20 to 80 (60)	
	Antibacterial/Mold Resistant	MWS	Cream	12.8{1300}				
	Metal Detectable	MPD	Black	Contact a Tsubaki representative.				–
		MPW						

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. See precautionary notes above regarding maximum allowable load and operating temperature range.

Chain (Plastic Pins)

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
76.2	BTC8-762-A-LFB	BTC8-762-A-ULF
152.4	BTC8-1524-A-LFB	BTC8-1524-A-ULF
228.6	BTC8-2286-A-LFB	BTC8-2286-A-ULF
304.8	BTC8-3048-A-LFB	BTC8-3048-A-ULF
381.0	BTC8-3810-A-LFB	BTC8-3810-A-ULF
457.2	BTC8-4572-A-LFB	BTC8-4572-A-ULF
533.4	BTC8-5334-A-LFB	BTC8-5334-A-ULF

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
609.6	BTC8-6096-A-LFB	BTC8-6096-A-ULF
685.8	BTC8-6858-A-LFB	BTC8-6858-A-ULF
762.0	BTC8-7620-A-LFB	BTC8-7620-A-ULF
838.2	BTC8-8382-A-LFB	BTC8-8382-A-ULF
914.4	BTC8-9144-A-LFB	BTC8-9144-A-ULF
990.6	BTC8-9906-A-LFB	BTC8-9906-A-ULF
1066.8	BTC8-10668-A-LFB	BTC8-10668-A-ULF

Chain width X mm	LFB Tsubaki model no.	ULF Tsubaki model no.
1143.0	BTC8-11430-A-LFB	BTC8-11430-A-ULF
1219.2	BTC8-12192-A-LFB	BTC8-12192-A-ULF
1295.4	BTC8-12954-A-LFB	BTC8-12954-A-ULF
1371.6	BTC8-13716-A-LFB	BTC8-13716-A-ULF
1447.8	BTC8-14478-A-LFB	BTC8-14478-A-ULF
1524.0	BTC8-15240-A-LFB	BTC8-15240-A-ULF

Note: 1. Custom chain widths and widths greater than 1,524mm are available upon request. Contact a Tsubaki representative for further information.
2. Chain width X shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

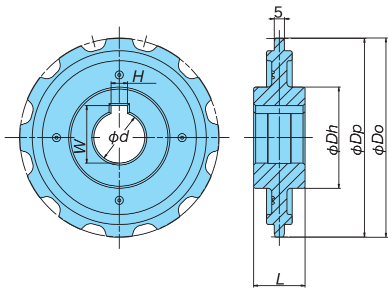
Contact a Tsubaki representative for sprocket attachment positions.

Sprockets …See page 48
Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

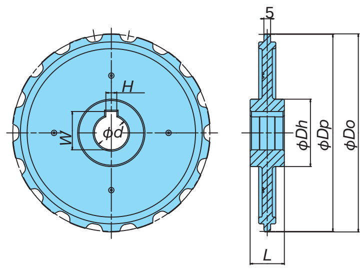
Sprockets for BT8 Chain

Applicable chain BTC8 (Note: Cannot be used with BTO8-M chain.)

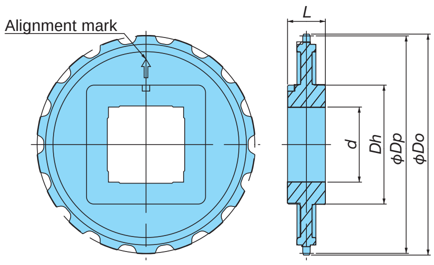
● BT8-12T-25



● BT8-18T-25



● BT8-18T-40S/50S/65S

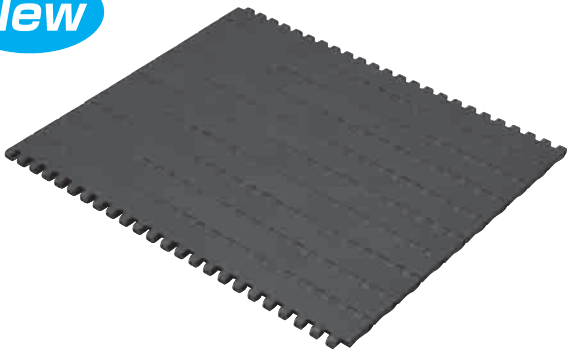


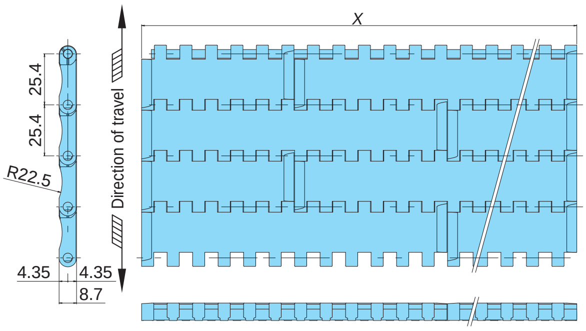
Tsubaki model no.	Teeth	Pitch diameter *Dp*	Outside diameter *Do*	Hub Diameter *Dh*	Hub Length *L*	Bore diameter *d*	Keyway *W*	Keyway *H*	Approx. mass g	Shaft	Material (color)	Type
BT8-12T-25	12	98.14	98.5	φ50	25.4	φ25.1	8.1	28.4	90	Round 25 polished steel bar	Reinforced polyamide (black)	Solid
BT8-18T-25	18	146.27	147.0	φ50	25.4	φ25.1	8.1	28.4	190	Round 25 polished steel bar		
BT8-18T-40S	18	146.27	147.0	80.0	25.4	40	–	–	250	Square 40 polished steel bar		
BT8-18T-50S	18	146.27	147.0	80.0	25.4	50	–	–	225	Square 50 polished steel bar		
BT8-18T-65S	18	146.27	147.0	80.0	25.4	65	–	–	165	Square 65 polished steel bar		

Note: 1. Operating temperature range: –20°C to 80°C
2. BT8 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.
3. BT8 sprockets (square bore) have an alignment mark for phase matching.
4. The number of BT8 sprockets installed, and positions where BT8 sprockets are installed, will vary depending on load conditions. Contact a Tsubaki representative for sprocket attachment positions.
5. Cannot be used with BTO8-M chain.
6. Made-to-order product.
7. Contact a Tsubaki representative when considering BT8-12T25 or BT8-18T25 sprockets.

Dimensions in mm

New





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Max. allowable speed m/min		Operating temperature range °C	Pin material
						With lube	No lube		
Standard	25.4	Blue	3	12.8 {1305}	8.5	50		-20 to 80 (60)	Special engineering plastic

Note: 1. Operating temperature of (60) is for wet conditions.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
(Example: Max. allowable load for BTC8S-3048 = 12.8 x 304.8/1000 ≒ 3.9 kN)
3. Made-to-order product.

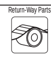
Chain (Plastic Pins)

Chain width *X* mm	Standard Tsubaki model no.
76.2	BTC8S-762
152.4	BTC8S-1524
228.6	BTC8S-2286
304.8	BTC8S-3048
381.0	BTC8S-3810
457.2	BTC8S-4572
533.4	BTC8S-5334
609.6	BTC8S-6096
685.8	BTC8S-6858
762.0	BTC8S-7620

Chain width *X* mm	Standard Tsubaki model no.
838.2	BTC8S-8382
914.4	BTC8S-9144
990.6	BTC8S-9906
1066.8	BTC8S-10668
1143.0	BTC8S-11430
1219.2	BTC8S-12192
1295.4	BTC8S-12954
1371.6	BTC8S-13716
1447.8	BTC8S-14478
1524.0	BTC8S-15240

Note: 1. Widths greater than 1,524mm are available upon request.
2. Chain width *X* shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

Contact a Tsubaki representative for sprocket attachment positions.

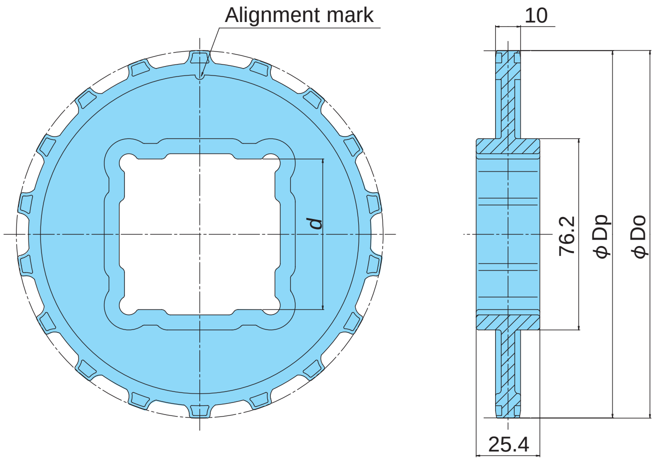
···See page 191/193


···See page 203–205

Sprockets for BTC8S Chain

Engineering Plastic

Applicable chain BTC8S



Tsubaki model no.	Teeth	Pitch diameter *Dp*	Outside diameter *Do*	Bore diameter *d*	Approx. mass g	Shaft	Material (color)	Type
BT8S-18T-40S	18	146.27	146.5	40	230	Square 40 polished steel bar	Polyamide (light gray)	Solid
BT8S-18T-60S				60	120	Square 60 polished steel bar		

Note: 1. Operating temperature range: –20°C to 80°C
2. BT8S 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.
3. Made-to-order product.

● Model Numbering

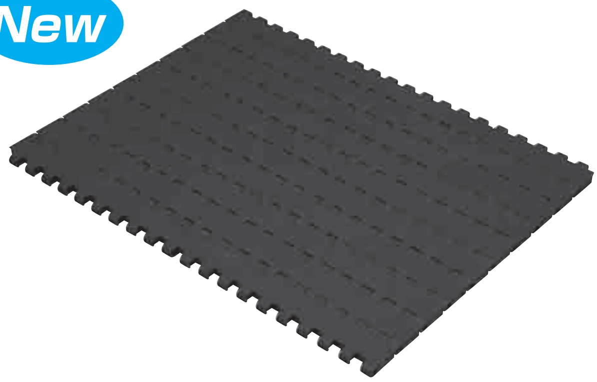
Chain type		Teeth		Bore diameter	Bore shape
BT8S	—	**18T**	—	**60**	**S**

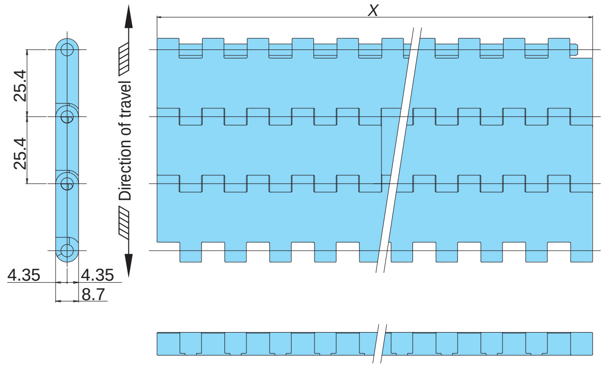
S: Square

Note: Do not leave spaces between letters and symbols.

Dimensions in mm

New





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Max. allowable speed m/min		Operating temperature range °C	Pin material
						With lube	No lube		
Standard G	25.4	Gray	3	12.8 {1305}	9.6	50		-20 to 80 (60)	Special engineering plastic
High Temperature HTW		White		6.4 { 650}	6.9			5 to 105	Polypropylene

Note: 1. Operating temperature of (60) is for wet conditions.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
(Example: Max. allowable load for WT2250FT-W340-G = 12.8 x 340/1000 ≒ 4.4 kN)
3. Made-to-order product.

Chain (Plastic Pins)

Chain width *X* mm	G	HTW
	Tsubaki model no.	Tsubaki model no.
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
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
1700	WT2250FT-W1700-G	WT2250FT-W1700-HTW

Note: 1. Widths greater than 1,700mm are available upon request.
2. Chain width *X* shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

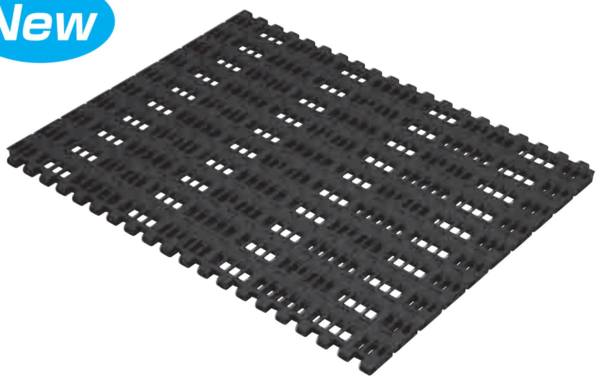
Contact a Tsubaki representative for sprocket attachment positions.

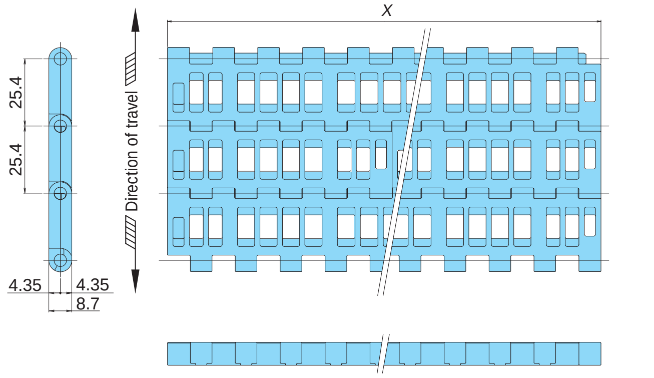
Sprockets …See page 56 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

Plastic Modular Chain WT2250FG

Open Type: Straight Running

New





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Max. allowable speed m/min		Operating temperature range °C	Pin material
						With lube	No lube		
Standard G	25.4	Gray	23	12.8 {1305}	7.9	50		-20 to 80 (60)	Special engineering plastic
High Temperature HTW		White		6.4 { 650}	5.6			5 to 105	Polypropylene

Note: 1. Operating temperature of (60) is for wet conditions.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
(Example: Max. allowable load for WT2250FG-W340-G = 12.8 x 340/1000 ≒ 4.4 kN)
3. Made-to-order product.

Chain (Plastic Pins)

Chain width *X* mm	G	HTW
	Tsubaki model no.	Tsubaki model no.
85	WT2250FG-W85-G	WT2250FG-W85-HTW
170	WT2250FG-W170-G	WT2250FG-W170-HTW
255	WT2250FG-W255-G	WT2250FG-W255-HTW
340	WT2250FG-W340-G	WT2250FG-W340-HTW
425	WT2250FG-W425-G	WT2250FG-W425-HTW
510	WT2250FG-W510-G	WT2250FG-W510-HTW
595	WT2250FG-W595-G	WT2250FG-W595-HTW
680	WT2250FG-W680-G	WT2250FG-W680-HTW
765	WT2250FG-W765-G	WT2250FG-W765-HTW
850	WT2250FG-W850-G	WT2250FG-W850-HTW
935	WT2250FG-W935-G	WT2250FG-W935-HTW
1020	WT2250FG-W1020-G	WT2250FG-W1020-HTW
1105	WT2250FG-W1105-G	WT2250FG-W1105-HTW
1190	WT2250FG-W1190-G	WT2250FG-W1190-HTW
1275	WT2250FG-W1275-G	WT2250FG-W1275-HTW
1360	WT2250FG-W1360-G	WT2250FG-W1360-HTW
1445	WT2250FG-W1445-G	WT2250FG-W1445-HTW
1530	WT2250FG-W1530-G	WT2250FG-W1530-HTW
1615	WT2250FG-W1615-G	WT2250FG-W1615-HTW
1700	WT2250FG-W1700-G	WT2250FG-W1700-HTW

Note: 1. Widths greater than 1,700mm are available upon request.
2. Chain width *X* shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

Contact a Tsubaki representative for sprocket attachment positions.

Sprockets …See page 56 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

WT2250FT/FG Flight Plastic Modular Chain

Straight Running

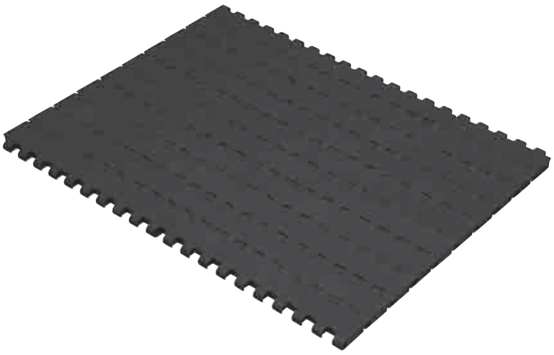
A new line-up of plastic modular chain on which flights can be mounted to enable inclined conveyance of bulk material or loose items.

New

Flight-Attachable Chain

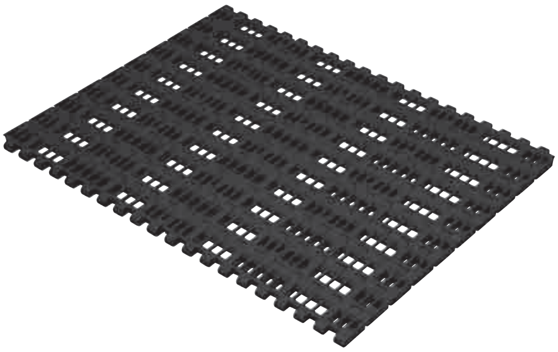
● **WT2250FT-G/HTW**

(See page 51 for maximum allowable load and other parameters)



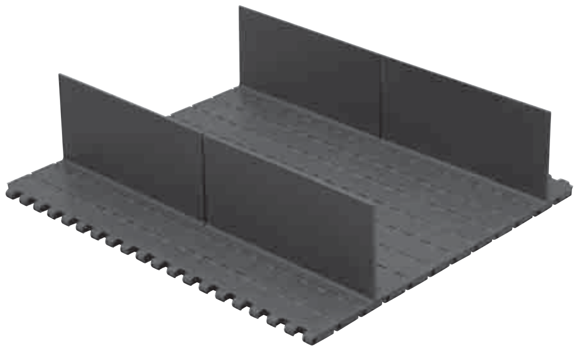
● **WT2250FG-G/HTW**

(See page 52 for maximum allowable load and other parameters)



Inclined conveyor with attached flights

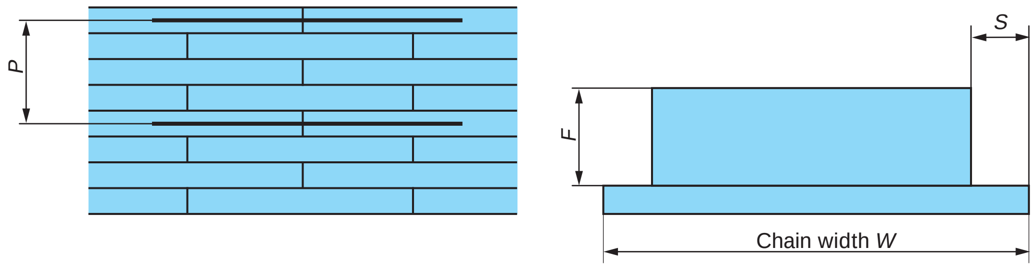
Example of flight shape



Flight Dimensions

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

- P = flight mount spacing (Flights can be mounted at integral multiples of the chain pitch of 25.4mm.)
- F = flight height (Select from 25.4mm, 50.8mm, or 76.2mm.)
- S = indent (Select from 0mm, 17mm, 34mm, or 51mm. Indents are necessary to support the chain on the return side using rollers or the like.)



Note: Made-to-order product. Contact a Tsubaki representative for further information.

Sprockets …See page 56
Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

WT2250FT/FG Flight Plastic Modular Chain Inquiry Sheet

Please give us the following information when placing an order for or inquiring about WT2250FT/FG Flight Plastic Modular Chain.

WT2250FT/FG Inquiry Sheet			
Company Name		Name	
Tel.		Fax	

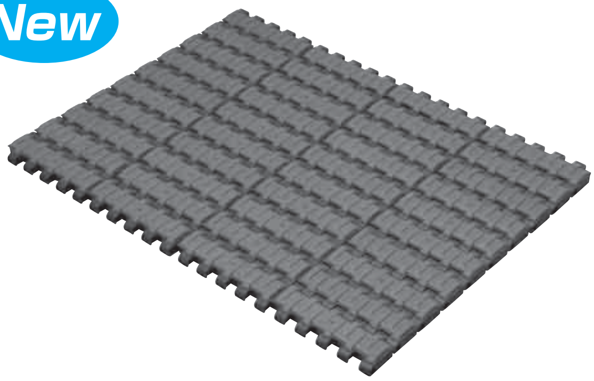
Chain Type	☐ FT (closed type)		☐ FG (open type)				
Chain Width W	mm	(Standard chain width is 170mm and available in 85mm increments)					
Chain Material	☐ Standard G (polyacetal: gray)		☐ High Temperature HTW (polypropylene: white)				
Flight Mount Spacing P	mm	(Flights can be mounted in 25.4mm intervals)					
Flight Height F	☐ 25.4mm	☐ 50.8mm	☐ 76.2mm	☐ Other (mm)			
Indent S	☐ 17mm	☐ 34mm	☐ 51mm	☐ Other (mm)			

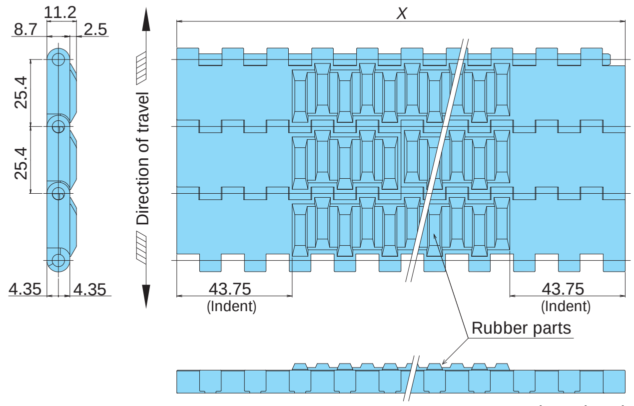
Equipment	Description	☐ New installation ☐ Remodeling (existing equipment:)			
	Layout	(schematic diagram)			
	Horizontal Conveyance Distance	(drive side)	mm	(driven side)	mm
Conveyed Object	Conveyed Object		Mass		kg/m²
	Conveying Speed	m/min	Ambient Temperature		℃
	Temperature of Conveyed Object	℃	Conveyance Amount		kg/min
	Impact	☐ No ☐ Yes (description:)			

Plastic Modular Chain WT2250VG

Rubber Type: Inclined Conveyance

New





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Max. allowable speed m/min		Operating temperature range °C	Pin material
						With lube	No lube		
Standard	25.4	Chain body: Gray Rubber parts: Blue	3	12.8 {1305}	11.3	50		-20 to 80 (60)	Special engineering plastic

Note: 1. Operating temperature of (60) is for wet conditions.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Contact a Tsubaki representative for chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain. (Example: Max. allowable load for WT2250VG-W340 = 12.8 x 340/1000 ≒ 4.4 kN)
3. Made-to-order product.
4. Rubber material: thermoplastic rubber.

Chain (Plastic Pins)

Chain width *X* mm	G Tsubaki model no.
85	WT2250VG-W85-G
170	WT2250VG-W170-G
255	WT2250VG-W255-G
340	WT2250VG-W340-G
425	WT2250VG-W425-G
510	WT2250VG-W510-G
595	WT2250VG-W595-G
680	WT2250VG-W680-G
765	WT2250VG-W765-G
850	WT2250VG-W850-G
935	WT2250VG-W935-G
1020	WT2250VG-W1020-G
1105	WT2250VG-W1105-G
1190	WT2250VG-W1190-G
1275	WT2250VG-W1275-G
1360	WT2250VG-W1360-G
1445	WT2250VG-W1445-G
1530	WT2250VG-W1530-G
1615	WT2250VG-W1615-G
1700	WT2250VG-W1700-G

Note: 1. Widths greater than 1,700mm are available upon request.
2. Chain width *X* shown is a nominal width. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.
3. Rubber type plastic modular chains require indents (areas where there is no rubber). These indent areas are used together with return rollers to support the chain on the return way.

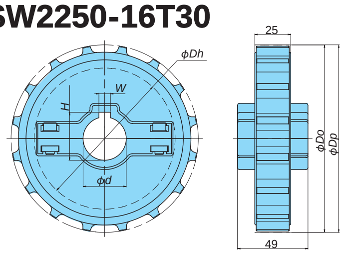
Contact a Tsubaki representative for sprocket attachment positions.

Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

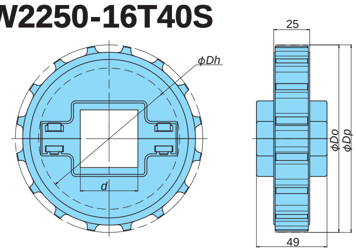
Applicable chain	WT2250FT, WT2250FG, WT2250VG

Sprockets

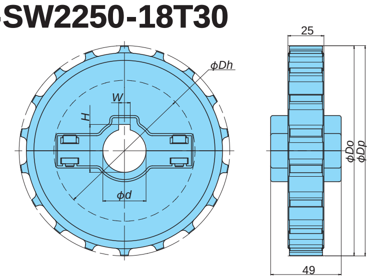
● WT-SW2250-16T30



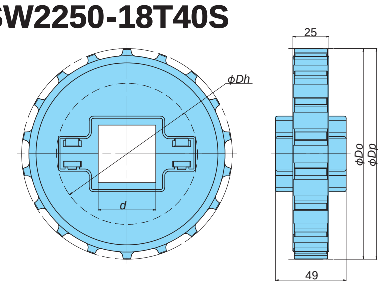
● WT-SW2250-16T40S



● WT-SW2250-18T30



● WT-SW2250-18T40S

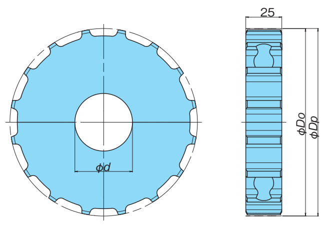


Tsubaki model no.	Teeth	Pitch diameter *Dp*	Outside diameter *Do*	Bore diameter *d*	Keyway W	Keyway H	Bore shape	Shaft	Material	Type
WT-SW2250-16T30	16	130.2	130	ϕ30	8	33.3	Round	Round 30 polished steel bar	Reinforced polyamide (black)	Split
WT-SW2250-16T40S				40	–	–	Square	Square 40 polished steel bar		
WT-SW2250-18T30	18	146.3	146	ϕ30	8	33.3	Round	Round 30 polished steel bar		
WT-SW2250-18T40S				40	–	–	Square	Square 40 polished steel bar		

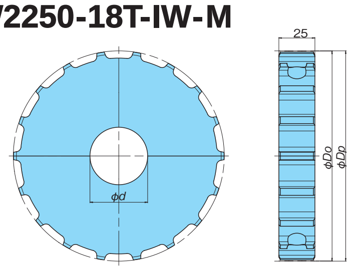
Note: 1. Operating temperature range: –20°C to 80°C
2. Square-hole sprockets are made to fit loosely on the shaft to absorb differences in thermal expansion between the chain and conveyor, and alignment errors between the sprocket and chain.
3. Round-bore sprockets should be used only for chain widths of less than 680mm and under conditions in which the temperature will vary by less than ±30°C.
4. Made-to-order product.

Idler Wheels

● WT-SW2250-16T-IW-M



● WT-SW2250-18T-IW-M



Tsubaki model no.	Teeth	Pitch diameter *Dp*	Outside diameter *Do*	Bore diameter *d*	Shaft	Material	Type
WT-SW2250-16T30IW-M	16	130.2	130	ϕ30	Round 30 polished steel bar	Polyamide (white)	Split
WT-SW2250-16T40IW-M				ϕ40	Round 40 polished steel bar		
WT-SW2250-18T30IW-M	18	146.3	146	ϕ30	Round 30 polished steel bar		
WT-SW2250-18T40IW-M				ϕ40	Round 40 polished steel bar		

Note: 1. Operating temperature range: –20°C to 80°C
2. For idler wheel use only.
3. Made-to-order product.

● Model Numbering

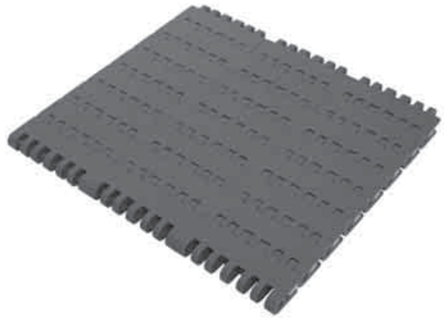
Chain type		Type	Chain type		Teeth	Bore diameter	Bore shape
WT	—	**SW**	**2250**	—	**18T**	**40**	**S**
		SW: Split					S: Square hole [blank]: Round hole (with keyway) IW: Round hole (no keyway; idler wheel)

Note: Do not leave spaces between letters and symbols.

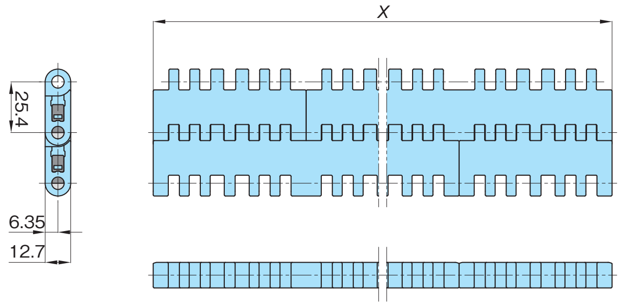
Dimensions in mm

Plastic Modular Chain WT2505-K

Closed Type: Straight Running



U.S. Patent 6308825 B1



Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
ULF	25.4	Blue	3	29.4{3000}	12.6	-20 to 80 (60)	Polypropylene
LFG		Green					

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. Operating temperature of (60) is for wet conditions.
3. Made-to-order product.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT2505-K
Standard chain	Standard	–	Gray	29.4 {3000}	50	50	-20 to 80 (60)	▲
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					○
		LFB	Brown					▲
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					▲
		NLF	Dark gray					
		WR	Green					
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	22.4 {2285}	50	50	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	21.8 {2224}		50	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Chain width X mm	ULF Tsubaki model no.	LFG Tsubaki model no.
76.2	WT2505-K03-ULF	WT2505-K03-LFG
152.4	WT2505-K06-ULF	WT2505-K06-LFG
228.6	WT2505-K09-ULF	WT2505-K09-LFG
304.8	WT2505-K12-ULF	WT2505-K12-LFG
381.0	WT2505-K15-ULF	WT2505-K15-LFG
457.2	WT2505-K18-ULF	WT2505-K18-LFG
533.4	WT2505-K21-ULF	WT2505-K21-LFG
609.6	WT2505-K24-ULF	WT2505-K24-LFG

Chain width X mm	ULF Tsubaki model no.	LFG Tsubaki model no.
762.0	WT2505-K30-ULF	WT2505-K30-LFG
914.4	WT2505-K36-ULF	WT2505-K36-LFG
1219.2	WT2505-K48-ULF	WT2505-K48-LFG
1524.0	WT2505-K60-ULF	WT2505-K60-LFG
1828.8	WT2505-K72-ULF	WT2505-K72-LFG
2438.4	WT2505-K96-ULF	WT2505-K96-LFG
3048.0	WT2505-K120-ULF	WT2505-K120-LFG

Note: 1. Custom chain widths and widths greater than 3,048mm are available upon request.
2. Chain width *X* shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

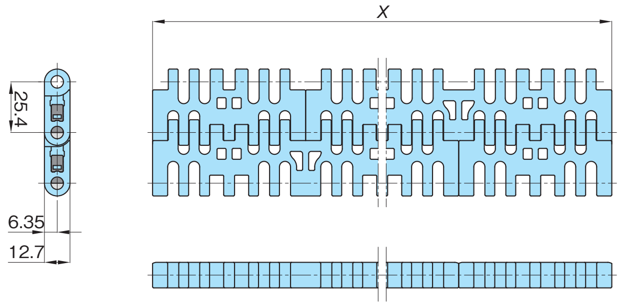
Contact a Tsubaki representative for sprocket attachment positions.

Sprockets  ···See page 60
Wearstrips  ···See page 191/193
Return-Way Parts  ···See page 203–205

Plastic Modular Chain WT2506-K

Open Type: Straight Running

U.S. Patent 6308825 B1



Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
HTW	25.4	White	16	26.2{2675}	8.1	5 to 105	Polypropylene

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. Available only in HTW material.
3. Made-to-order product.

Chain (Plastic Pins)

Chain width *X* mm	HTW Tsubaki model no.
228.6	WT2506-K09-HTW
304.8	WT2506-K12-HTW
381.0	WT2506-K15-HTW
457.2	WT2506-K18-HTW
609.6	WT2506-K24-HTW
762.0	WT2506-K30-HTW
914.4	WT2506-K36-HTW
1219.2	WT2506-K48-HTW
1295.4	WT2506-K51-HTW
1371.6	WT2506-K54-HTW
1447.8	WT2506-K57-HTW
1524.0	WT2506-K60-HTW
1600.2	WT2506-K63-HTW
1676.4	WT2506-K66-HTW
1752.6	WT2506-K69-HTW
1828.8	WT2506-K72-HTW

Chain width *X* mm	HTW Tsubaki model no.
1905.0	WT2506-K75-HTW
1981.2	WT2506-K78-HTW
2057.4	WT2506-K81-HTW
2133.6	WT2506-K84-HTW
2209.8	WT2506-K87-HTW
2286.0	WT2506-K90-HTW
2362.2	WT2506-K93-HTW
2438.4	WT2506-K96-HTW
2514.6	WT2506-K99-HTW
2590.8	WT2506-K102-HTW
2667.0	WT2506-K105-HTW
2743.2	WT2506-K108-HTW
2819.4	WT2506-K111-HTW
2895.6	WT2506-K114-HTW
2971.8	WT2506-K117-HTW
3048.0	WT2506-K120-HTW

Note: 1. Custom chain widths and widths greater than 3,048mm are available upon request.
2. Chain width *X* shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

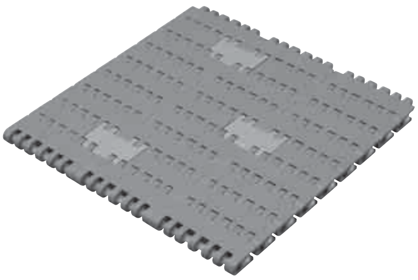
Contact a Tsubaki representative for sprocket attachment positions.

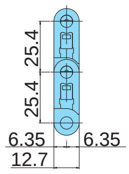
Sprockets …See page 60 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

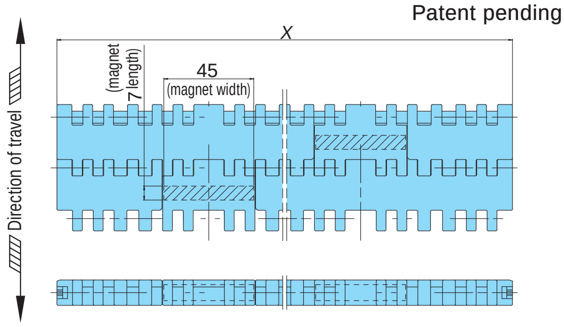
Features

- Magnets embedded in the links enable inclined conveyance by holding conveyed (magnetic) objects to the link surface.
- Because no flights are used, it prevents damage caused by friction between the conveyed goods and the flights.

Patent pending



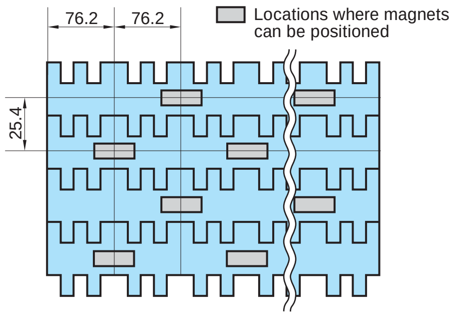




Dimensions in mm

Magnet Model Diagram

Locations where the magnets can be positioned can be selected as desired to match the application and conveyed objects.The diagram below shows locations where magnets can be attached.



Tsubaki model no.	Material mark	Link color	Chain width X	Open area %	Max.allowable load kN/m {kgf/m} *2	Chain mass kg/m² *3	Operating temperature range °C	Max.allowable speed m/min	Pin material
BTM8H	LFG	Green (magnet links: brown)	to 152.4	3	26.4{2700}	12.6	-20 to 80	50	Special engineering plastic

Note:
1. Chain width can be composed of units ranging from 76.2mm to 152.4mm wide. However, using the 152.4mm chain width arrangement means that the spacing between magnet links will be larger than when magnet links are placed every second link.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width.
3. Chain mass shown in the table above does not include the mass of the magnets. Add 0.02 kg for each magnet.
4. BTM8H Magnetic Chain is intended for use only in dry environments. 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. For such applications, be sure to contact a Tsubaki representative.
5. Made-to-order product.

Model Numbering

Chain type	Link shape	Chain pitch	Chain type		Chain width		Chain material		Chain type
BT	**M**	**8**	**H**	—	**3048**	—	**LFG**	—	**TK**
	M : Magnetic type	8 : 25.4mm			3048 = 304.8mm Note: Chain width is indicated as an integer including the first place after the decimal point.				TK: Indicates special design product (Magnet-mounting positions should be designed according to operational conditions.)

Note: Do not leave spaces between letters and symbols.

Contact a Tsubaki representative for sprocket attachment positions.

Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

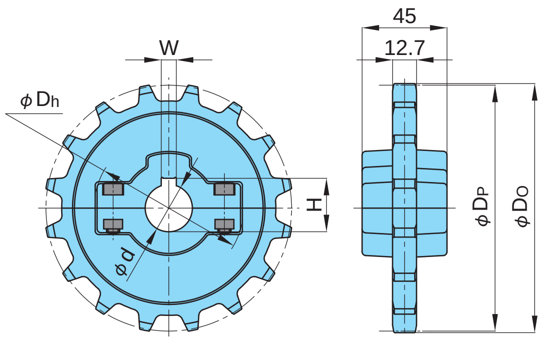
Sprockets for WT2500 Chain

Engineering Plastic

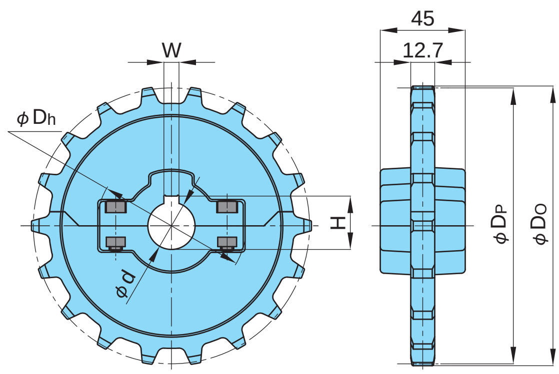
Applicable chain WT2505, WT2506, BTM8H, BTC8H-M, BTM8H-M

● Split Sprockets

WT-SW2500-16T



WT-SW2500-18T

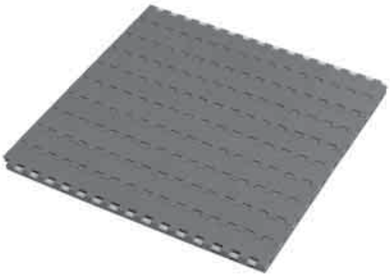


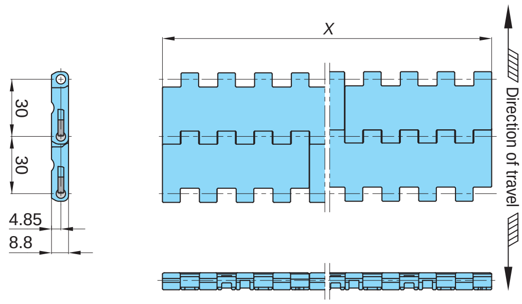
Tsubaki model no.	Teeth	Pitch diameter Dp	Outside diameter Do	Bore shape	Bore diameter d	Keyway W	Keyway H	Hub diameter Dh	Approx. mass kg	Type	Material Body	Material Bolts and nuts
WT-SW2500-16T25	16	130.2	131.9	Round	25	8	28.3	82	0.3	Split	Reinforced polyamide (black)	Stainless steel
WT-SW2500-16T30					30	8	33.3					
WT-SW2500-16T35					35	10	38.3					
WT-SW2500-16T40					40	12	43.3					
WT-SW2500-18T25	18	146.3	148.3	Round	25	8	28.3	82	0.3			
WT-SW2500-18T30					30	8	33.3					
WT-SW2500-18T35					35	10	38.3					
WT-SW2500-18T40					40	12	43.3					

Note: 1. Bolt tightening torque: 5.7 N·m
2. When assembling the sprockets, do not mix the pairs.
3. Bolts and nuts are made of stainless steel.
4. Operating temperature range: –20°C to 80°C
5. Machined solid sprockets (steel or engineering plastic) can also be fabricated upon request. Contact a Tsubaki representative for further information.

Dimensions in mm

No tab guide attachments





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
ULF	30	Blue	4	10.5 {1070}	6.3	-20 to 80 (60)	Special engineering plastic
UL		Green					
NLF		Dark gray					

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. Operating temperature of (60) is for wet conditions.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT3005-K
Standard chain	Standard	–	Gray	10.5{1070}	50	50	-20 to 80 (60)	▲
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green	–	–	–	–	–
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	8.0{ 816}	50	50	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	7.8{ 796}		50	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special con゙gurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
76.2	WT3005-K03-ULF	WT3005-K03-UL	WT3005-K03-NLF
152.4	WT3005-K06-ULF	WT3005-K06-UL	WT3005-K06-NLF
228.6	WT3005-K09-ULF	WT3005-K09-UL	WT3005-K09-NLF
304.8	WT3005-K12-ULF	WT3005-K12-UL	WT3005-K12-NLF
381.0	WT3005-K15-ULF	WT3005-K15-UL	WT3005-K15-NLF
457.2	WT3005-K18-ULF	WT3005-K18-UL	WT3005-K18-NLF
533.4	WT3005-K21-ULF	WT3005-K21-UL	WT3005-K21-NLF

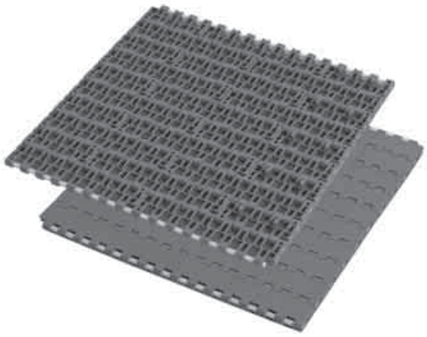
Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
609.6	WT3005-K24-ULF	WT3005-K24-UL	WT3005-K24-NLF
762.0	WT3005-K30-ULF	WT3005-K30-UL	WT3005-K30-NLF
838.2	WT3005-K33-ULF	WT3005-K33-UL	WT3005-K33-NLF
914.4	WT3005-K36-ULF	WT3005-K36-UL	WT3005-K36-NLF
1066.8	WT3005-K42-ULF	WT3005-K42-UL	WT3005-K42-NLF
1219.2	WT3005-K48-ULF	WT3005-K48-UL	WT3005-K48-NLF
1524.0	WT3005-K60-ULF	WT3005-K60-UL	WT3005-K60-NLF

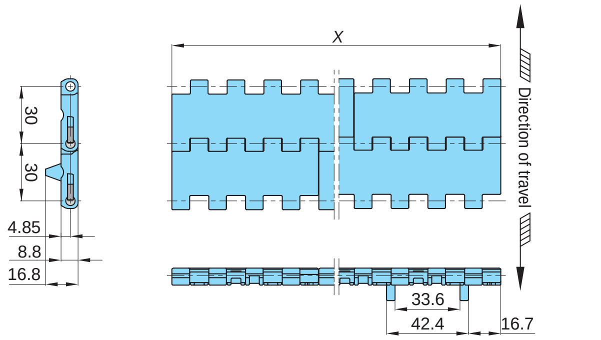
Note: 1. Custom chain widths and widths greater than 1,524mm are available upon request.
2. Chain width *X* shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

Contact a Tsubaki representative for sprocket attachment positions.

Sprockets …See page 33 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

With tab guide attachments





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
ULF	30	Blue	4	10.5 {1070}	6.3	-20 to 80 (60)	Special engineering plastic
UL		Green					
NLF		Dark gray					

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. Operating temperature of (60) is for wet conditions.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT3005G-K
Standard chain	Standard	–	Gray	10.5{1070}	50	50	-20 to 80 (60)	▲
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green	–	–	–	–	–
High-function chain	Heat Resistant/ High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	8.0{ 816}	50	50	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	7.8{ 796}		50	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
152.4	WT3005G-K06-ULF	WT3005G-K06-UL	WT3005G-K06-NLF
228.6	WT3005G-K09-ULF	WT3005G-K09-UL	WT3005G-K09-NLF
304.8	WT3005G-K12-ULF	WT3005G-K12-UL	WT3005G-K12-NLF
381.0	WT3005G-K15-ULF	WT3005G-K15-UL	WT3005G-K15-NLF
457.2	WT3005G-K18-ULF	WT3005G-K18-UL	WT3005G-K18-NLF
533.4	WT3005G-K21-ULF	WT3005G-K21-UL	WT3005G-K21-NLF
609.6	WT3005G-K24-ULF	WT3005G-K24-UL	WT3005G-K24-NLF

Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
838.2	WT3005G-K33-ULF	WT3005G-K33-UL	WT3005G-K33-NLF
914.4	WT3005G-K36-ULF	WT3005G-K36-UL	WT3005G-K36-NLF
1143.0	WT3005G-K45-ULF	WT3005G-K45-UL	WT3005G-K45-NLF
1219.2	WT3005G-K48-ULF	WT3005G-K48-UL	WT3005G-K48-NLF
1295.4	WT3005G-K51-ULF	WT3005G-K51-UL	WT3005G-K51-NLF
1371.6	WT3005G-K54-ULF	WT3005G-K54-UL	WT3005G-K54-NLF
1524.0	WT3005G-K60-ULF	WT3005G-K60-UL	WT3005G-K60-NLF

Note: 1. Custom chain widths and widths greater than 1,524mm are available upon request.
2. Chain width X shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

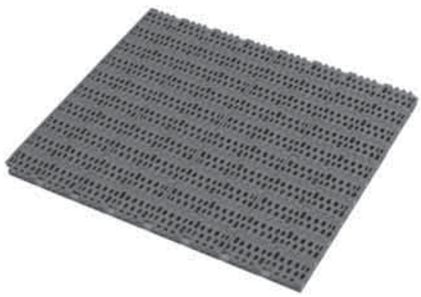
Contact a Tsubaki representative for sprocket attachment positions.

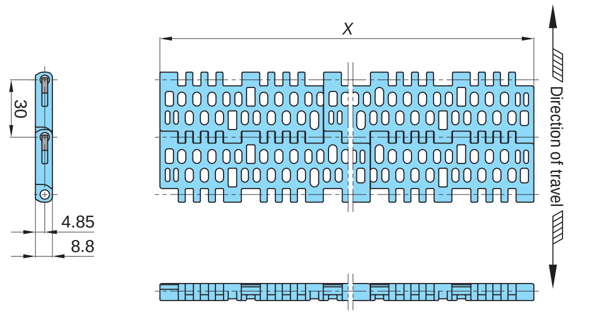
Sprockets …See page 33 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

Plastic Modular Chain WT3086-K

Open Type: Straight Running

No tab guide attachments





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
ULF	30	Blue	27	10.5 {1070}	6.0	-20 to 80 (60)	Polypropylene
UL		Green					
NLF		Dark gray					

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. Operating temperature of (60) is for wet conditions.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT3086-K
Standard chain	Standard	–	Gray	10.5{1070}	50	50	-20 to 80 (60)	▲
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green	–	–	–	–	–
High-function chain	Heat Resistant/ High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	8.0{ 816}	50	50	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	7.8{ 796}		50	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

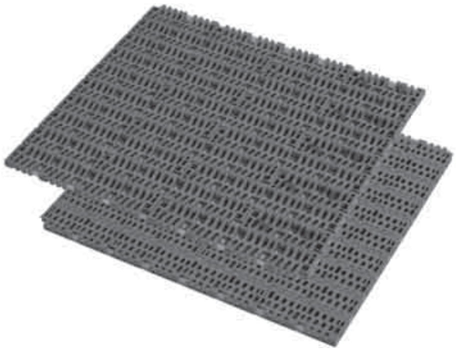
Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
170	WT3086-K170-ULF	WT3086-K170-UL	WT3086-K170-NLF
255	WT3086-K255-ULF	WT3086-K255-UL	WT3086-K255-NLF
340	WT3086-K340-ULF	WT3086-K340-UL	WT3086-K340-NLF
425	WT3086-K425-ULF	WT3086-K425-UL	WT3086-K425-NLF
510	WT3086-K510-ULF	WT3086-K510-UL	WT3086-K510-NLF
595	WT3086-K595-ULF	WT3086-K595-UL	WT3086-K595-NLF
680	WT3086-K680-ULF	WT3086-K680-UL	WT3086-K680-NLF
765	WT3086-K765-ULF	WT3086-K765-UL	WT3086-K765-NLF
850	WT3086-K850-ULF	WT3086-K850-UL	WT3086-K850-NLF
935	WT3086-K935-ULF	WT3086-K935-UL	WT3086-K935-NLF
1020	WT3086-K1020-ULF	WT3086-K1020-UL	WT3086-K1020-NLF
1190	WT3086-K1190-ULF	WT3086-K1190-UL	WT3086-K1190-NLF
1360	WT3086-K1360-ULF	WT3086-K1360-UL	WT3086-K1360-NLF
1530	WT3086-K1530-ULF	WT3086-K1530-UL	WT3086-K1530-NLF

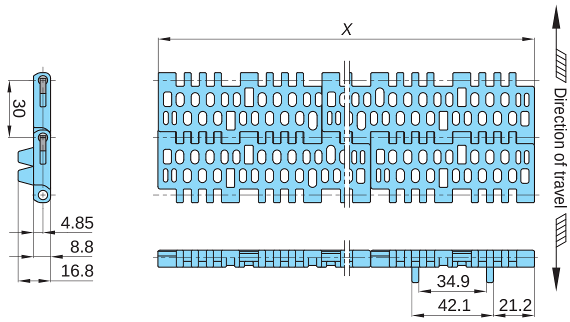
Note: 1. Custom chain widths and widths greater than 1,530mm are available upon request.
2. Chain width X shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

Contact a Tsubaki representative for sprocket attachment positions.

Sprockets ···See page 33 Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

With tab guide attachments





Dimensions in mm

Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
ULF	30	Blue	27	10.5 {1070}	6.0	-20 to 80 (60)	Polypropylene
UL		Green					
NLF		Dark gray					

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. Operating temperature of (60) is for wet conditions.

Material

	Material	Material mark	Link color	Max. allowable load kN/m {kgf/m}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT3086G-K
Standard chain	Standard	–	Gray	10.5 {1070}	50	50	-20 to 80 (60)	▲
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green	–	–	–	–	–
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	8.0{ 816}	50	50	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	7.8{ 796}		50	-20 to 80	▲

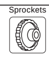
Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Chain width X mm	ULF Tsubaki model no.	UL Tsubaki model no.	NLF Tsubaki model no.
170	WT3086G-K170-ULF	WT3086G-K170-UL	WT3086G-K170-NLF
255	WT3086G-K255-ULF	WT3086G-K255-UL	WT3086G-K255-NLF
340	WT3086G-K340-ULF	WT3086G-K340-UL	WT3086G-K340-NLF
425	WT3086G-K425-ULF	WT3086G-K425-UL	WT3086G-K425-NLF
510	WT3086G-K510-ULF	WT3086G-K510-UL	WT3086G-K510-NLF
595	WT3086G-K595-ULF	WT3086G-K595-UL	WT3086G-K595-NLF
680	WT3086G-K680-ULF	WT3086G-K680-UL	WT3086G-K680-NLF
765	WT3086G-K765-ULF	WT3086G-K765-UL	WT3086G-K765-NLF
850	WT3086G-K850-ULF	WT3086G-K850-UL	WT3086G-K850-NLF
935	WT3086G-K935-ULF	WT3086G-K935-UL	WT3086G-K935-NLF
1020	WT3086G-K1020-ULF	WT3086G-K1020-UL	WT3086G-K1020-NLF
1190	WT3086G-K1190-ULF	WT3086G-K1190-UL	WT3086G-K1190-NLF
1360	WT3086G-K1360-ULF	WT3086G-K1360-UL	WT3086G-K1360-NLF
1530	WT3086G-K1530-ULF	WT3086G-K1530-UL	WT3086G-K1530-NLF

Note: 1. Custom chain widths and widths greater than 1,530mm are available upon request.
2. Chain width *X* shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

Contact a Tsubaki representative for sprocket attachment positions.



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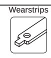

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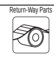
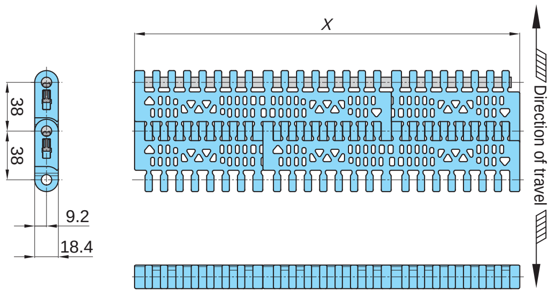


…See page 203–205

Plastic Modular Chain WT3816-K

Open Type: Straight Running

U.S. Patent 6308825 B1



Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
HTW	38	White	28	30{3058}	9.8	5 to 105	Polypropylene

Note: 1. Values for max. allowable load are at ambient temperature (20°C) and assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.
2. Available only in HTW material.
3. Made-to-order product.

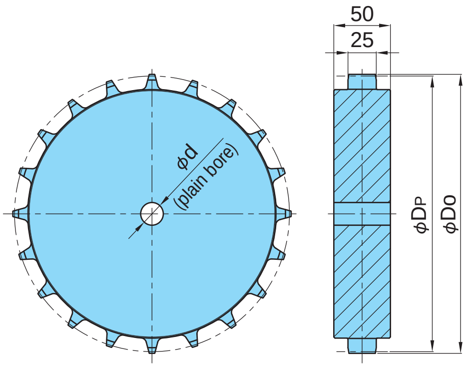
Chain (Plastic Pins)

Chain width *X* mm	HTW Tsubaki model no.
200	WT3816-K200-HTW
300	WT3816-K300-HTW
400	WT3816-K400-HTW
500	WT3816-K500-HTW
600	WT3816-K600-HTW
700	WT3816-K700-HTW
800	WT3816-K800-HTW

Chain width *X* mm	HTW Tsubaki model no.
900	WT3816-K900-HTW
1000	WT3816-K1000-HTW
1500	WT3816-K1500-HTW
2000	WT3816-K2000-HTW
2500	WT3816-K2500-HTW
3000	WT3816-K3000-HTW
3500	WT3816-K3500-HTW

Note: 1. Custom chain widths and widths greater than 3,500mm are available upon request.
2. Chain width *X* shown is a nominal width. Actual width range is $^{+0}_{-0.7\%}$ at 20°C operating temperature. Chain width is subject to expansion or contraction with changes in temperature. Expansion/contraction rate is 0.00015/°C based on reference temperature of 20°C.

● S3816 Solid Sprockets



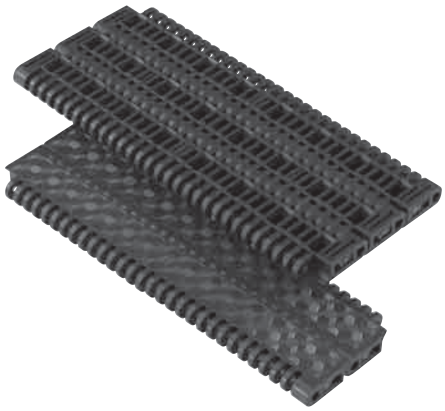
Tsubaki model no.	Teeth	Pitch diameter DP	Outside diameter DO	Approx. mass kg	Bore shape	Bore diameter d	Type	Material
WT-S3816-18	18	218.8	221.6	1.5	Bore shape and size are made-to-order.		Solid	UHMW-PE (green)
WT-S3816-20	20	242.9	245.9	1.8				
WT-S3816-24	24	291.1	294.3	2.8				

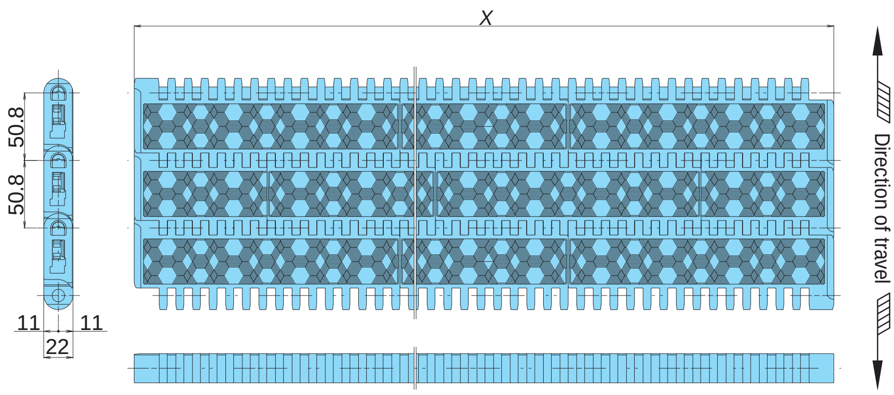
Note: Sprockets can also be manufactured with other shapes and number of teeth than noted above.

Dimensions in mm

Features

- High-rigidity chain provides the highest maximum allowable load for Plastic Modular Chain (62 kN/m). Suitable for conveying bulk quantities or heavy objects.
- A special relief pattern embossed on the top surface of the chain provides an anti-slip effect. Its design acts to minimize slippage and works to prevent objects from becoming snagged on the chain surface. Ideal for man conveyors such as moving walkways.
- Slide lock pin retention system allows easy installation and maintenance.





Dimensions in mm

Tsubaki model no.	Chain pitch mm	Chain width X	Link color	Max.allowable load kN/m {kgf/m}	Approx. mass kg/m²	Operating temperature range	Pin material
BTH16	50.8	400mm (min. width); chain width can be expanded in units of 100mm	Blue	62{6330}	21.70	-20°C to 80°C	Special engineering plastic

Note: 1.When considering the use of this chain, contact a Tsubaki representative to review usage conditions (nature of the application, objects to be conveyed, conveyor length, type of environment, speed, operating temperature, etc.).
2.Values for max. allowable load assume that tension acts uniformly over the entire chain width. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain.

Model Numbering

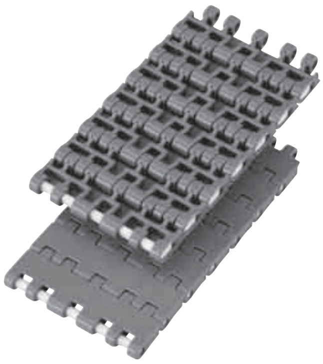
Chain type	Link shape	Chain pitch		Chain width
BT	**H**	**16**	—	**15000**
	H = High-strength type	16 = 50.8mm		15000 = 1500mm Note: Chain width is indicated as an integer including the first place after the decimal point.

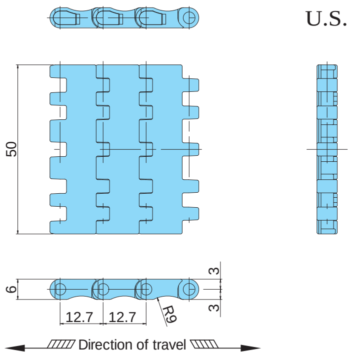
Note: Do not leave spaces between letters and symbols.

Plastic Modular Chain
Plastic Top Chain
Plastic Block Chain
Stainless Steel Top Chain
Accessories

Features

- Small chain pitch of 12.7mm is ideal for conveying small, lightweight containers.
- Underside of links is curved, allowing the chain to wrap around an 18mm diameter shaft and effectively reducing the dead space between conveyors.
- Unique multi-hinge link construction ensures smooth accumulation and smooth transition between conveyors.
- Antistatic properties are added to standard link material to make this chain effective in countering the static electricity that often accumulates on mini-bottles and small containers under dry conditions.
- All-plastic construction means the chain is lightweight and easy to handle, and eliminates the need to sort and separate for waste disposal. The chain can also be used in application that use metal detectors.





U.S. Patent 6213292

Dimensions in mm

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	BTC4-M
Standard chain	Standard	–	Gray	0.49 {50}	50	50	-20 to 80 (60)	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	–
		UL						
		NLF	Dark gray					
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Low Temperature	LTW						
	Chemical Resistant	Y	Matte white					▲
	Electroconductive	E	Black	0.34 {35}	50	50	-20 to 80 (60)	○
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream	0.49 {50}	50	50	-20 to 80 (60)	○
	Metal Detectable	MPD	Black	–	–	–	–	–
		MPW						

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer.
2. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
3. Operating temperature of (60) is for wet conditions.

Chain (Plastic Pins)

Material	Standard chain: Standard	Standard chain: Low Friction/Anti-Wear			Standard chain: Ultra Low Friction	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	
Tsubaki model no.	BTC4-500-M	BTC4-500-M-LFW	BTC4-500-M-LFG	BTC4-500-M-LFB	BTC4-500-M-ULF	0.25

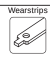
Note: 1. For use with special plastic pins.
2. The connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).

Model Numbering

Chain type	Chain pitch		Chain width		Fixed width		Chain material
BTC	**4**	**—**	**500**	**—**	**M**	**—**	**LFB**
	4 = 12.7mm		500 = 50.0mm				

Note: Do not leave spaces between letters and symbols.

Contact a Tsubaki representative for sprocket attachment positions.



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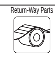


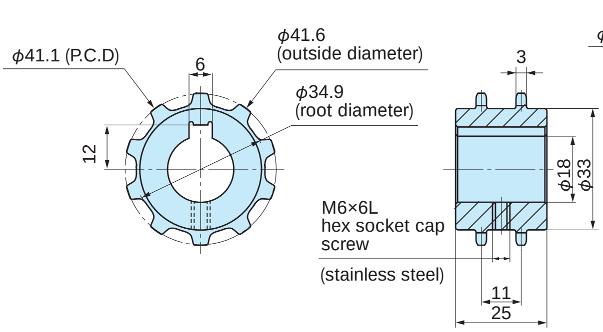
···See page 204

Sprockets for BTC4-M Chain

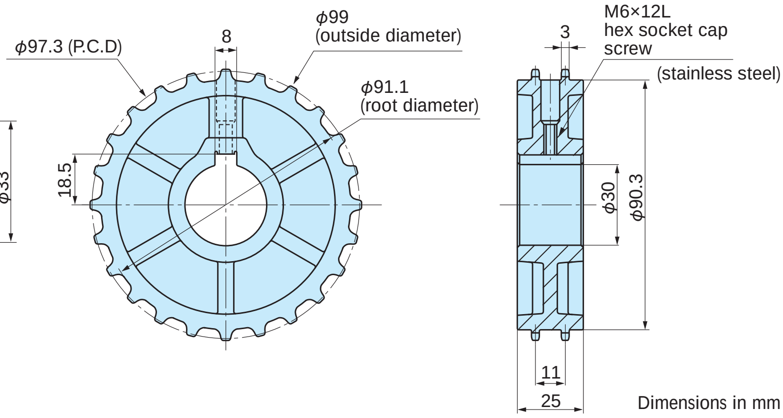
Engineering Plastic

Applicable chain BTC4-M

● BTC4-10T18



● BTC4-24T30



Dimensions in mm

Tsubaki model no.	Teeth	Bore diameter	Mass g	Material (color)	Type
BTC4-10T18	10	φ18	25	Reinforced polyamide (light gray)	Solid
BTC4-24T30	24	φ30	110		

Note: 1. Operating temperature range: –20°C to 80°C
2. BTC4-10T17 (17mm dia. bore) sprocket can also be manufactured.
3. Made-to-order product.

●Model Numbering

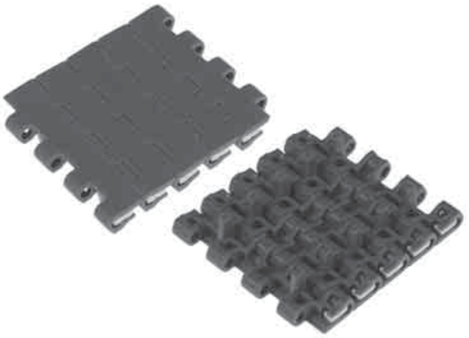
Chain type		Teeth	Bore diameter
BTC4	—	**10T**	**18**

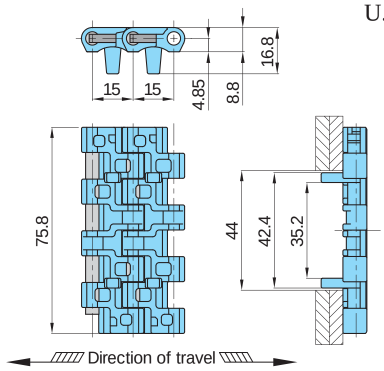
Note: Do not leave spaces between letters and symbols.

Plastic Modular Chain WT1505G-M Closed Type: Straight Running

Features

- Small chain pitch of 15mm is ideal for conveying small, lightweight containers.
- Tab guide attachments make this chain ideal for layouts with lateral transitions between conveyors.
- All-plastic construction. Lightweight and easy to handle.





U.S. Patent 6196381 B1
U.S. Patent 6050397
EP 0845425 B1

Dimensions in mm

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min		Operating temperature range °C	WT1505G-M300
					With lube	No lube		
Standard chain	Standard	–	Gray	0.8 {81 }	120	50	-20 to 80 (60)	▲
	Low Friction / Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green					▲
High-function chain	Heat Resistant / High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	0.6 {61.2}	120	50	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial / Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	0.59 {60.2}		50	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Material	Ultra Low Friction	Low Friction	Low Friction	Open area %	Approx. mass kg/m	Pin material
Material mark	ULF	UL	NLF			
Tsubaki model no.	WT1505G-M300-ULF	WT1505G-M300-UL	WT1505G-M300-NLF	2	0.6	Special engineering plastic

Note: 1. Nose bars (sliding types, integrated-bearing types) cannot be used.
2. BT5-24T / BT5-32T sprockets for BT5 chain cannot be used.

● Model Numbering

Chain type	Chain pitch	Chain type	Tab guide attachments		Fixed width	Plate width		Chain material
WT	**15**	**05**	**G**	**—**	**M**	**300**	**—**	**ULF**

300 = 75.8mm

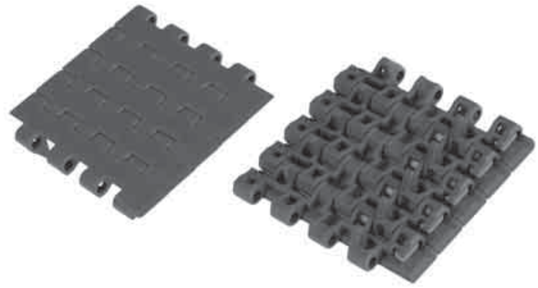
Note: Do not leave spaces between letters and symbols.

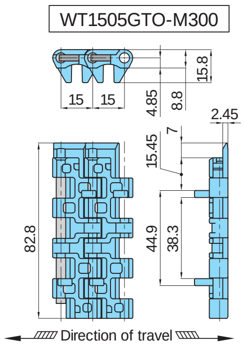
Contact a Tsubaki representative for sprocket attachment positions.

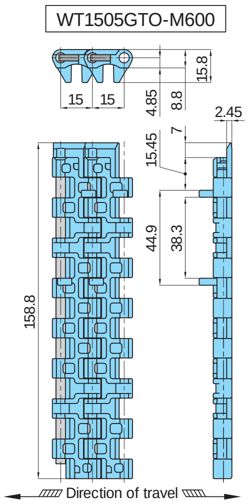
Sprockets …See page 33/34 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

Features

- Small chain pitch of 15mm is ideal for conveying small, lightweight containers.
- Extended plate edges facilitate smoother right-angle transfers.
- All-plastic construction. Lightweight and easy to handle.







U.S. Patent 6196381 B1
U.S. Patent 6708818 B2
U.S. Patent 6050397
EP 0845425 B1
EP 1422171 B1

Dimensions in mm

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf} M300	Max. allowable load kN {kgf} M600	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT1505GTO -M300	WT1505GTO -M600
Standard chain	Standard	–	Gray	0.8 {81 }	1.6 {162.2}	120 (50)	50 (30)	-20 to 80 (60)	▲	▲
	Low Friction/Anti-Wear	LFW	White							
		LFG	Green							
		LFB	Brown							
	Ultra Low Friction	ULF	Blue						○	○
	Low Friction	UL	Green							
		NLF	Dark gray							
		WR	Green						▲	▲
High-function chain	Heat Resistant/ High Speed	KV150	Black	–	–	–	–	–	–	–
		KV180								
		KV250								
	Chemical Resistant	Y	Matte white							
	Electroconductive	E	Black	0.6 {61.2}	1.2 {122.4}	120 (50)	50 (30)	-20 to 80 (60)	▲	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–	–	–
		DIY	Green							
	Antibacterial/Mold Resistant	MWS	Cream							
	Metal Detectable	MPD	Black							
		MPW								
	Middle Friction	MF	Yellow	0.59 {60.2}	1.18 {120.4}		50 (30)	-20 to 80	▲	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Maximum allowable speeds in ( ) are for when using nose bars made of UHMW-PE. Nose bars made of SJ-CNO (special polyamide) must be used under dry conditions with no lubrication.
3. Operating temperature of (60) is for wet conditions.
4. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Material	Ultra Low Friction	Low Friction	Low Friction	Open area %	Approx. mass kg/m	Pin material
Material mark	ULF	UL	NLF			
Tsubaki model no.	WT1505GTO-M300-ULF	WT1505GTO-M300-UL	WT1505GTO-M300-NLF	2	0.6	Special engineering plastic
	WT1505GTO-M600-ULF	WT1505GTO-M600-UL	WT1505GTO-M600-NLF		1.2	

Note: BT5-24T/BT5-32T sprockets for BT5 chain cannot be used.

Model Numbering

Chain type	Chain pitch	Chain type	Tab guide attachments	Chain type		Fixed width	Plate width		Chain material
WT	**15**	**05**	**G**	**TO**	**—**	**M**	**300**	**—**	**ULF**

300 = 82.8mm
600 = 158.8mm

Note: Do not leave spaces between letters and symbols.

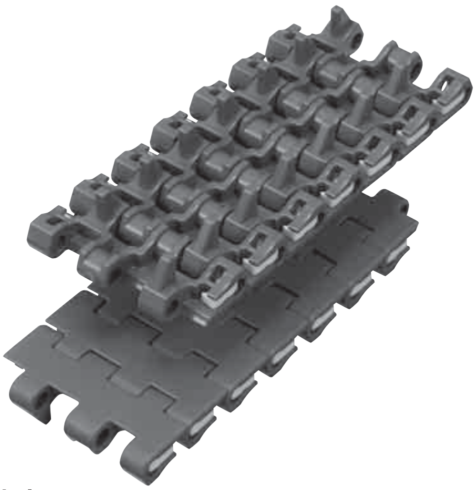
Contact a Tsubaki representative for sprocket attachment positions.

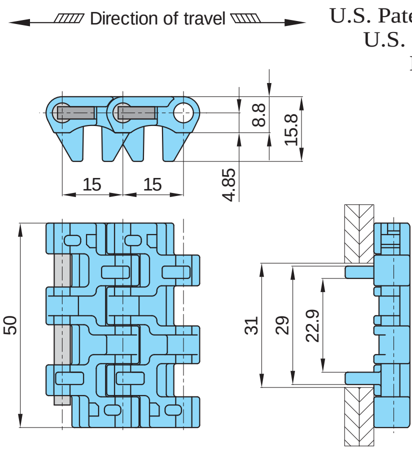
Sprockets …See page 33/34 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

Plastic Modular Chain
Plastic Top Chain
Plastic Block Chain
Stainless Steel Top Chain
Accessories

Features

- Small chain pitch of 15mm is ideal for conveying small, lightweight containers.
- Tab guide attachments make this chain ideal for layouts with lateral transitions between conveyors.
- All-plastic construction. Lightweight and easy to handle.





U.S. Patent 6196381 B1
U.S. Patent 6050397
EP 0845425 B1

Dimensions in mm

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT1515G-M50
Standard chain	Standard	–	Gray	0.53 {54 }	120 (50)	50 (30)	-20 to 80 (60)	▲
	Low Friction / Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green					▲
High-function chain	Heat Resistant / High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	0.4 {40.8}	120 (50)	50 (30)	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial / Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	0.4 {40.8}		50 (30)	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Maximum allowable speeds in ( ) are for when using nose bars made of UHMW-PE. Nose bars made of SJ-CNO (special polyamide) must be used under dry conditions with no lubrication.
3. Operating temperature of (60) is for wet conditions.
4. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Material	Ultra Low Friction	Low Friction	Low Friction	Open area %	Approx. mass kg/m	Pin material
Material mark	ULF	UL	NLF			
Tsubaki model no.	WT1515G-M50-ULF	WT1515G-M50-UL	WT1515G-M50-NLF	2	0.4	Special engineering plastic

Note: 1. Integrated-bearing type nose bars cannot be used.
2. BT5-24T/BT5-32T sprockets for BT5 chain cannot be used.

Model Numbering

Chain type	Chain pitch	Chain type	Tab guide attachments		Fixed width	Plate width		Chain material
WT	**15**	**15**	**G**	—	**M**	**50**	—	**ULF**
						50mm		

Note: Do not leave spaces between letters and symbols.

Contact a Tsubaki representative for sprocket attachment positions.

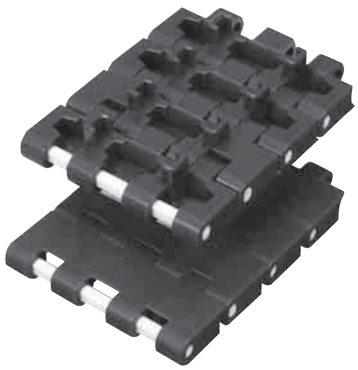
Sprockets …See page 33/34 Wearstrips …See page 191/193 Peripheral Parts …See page 36 Return-Way Parts …See page 203–205

Plastic Modular Chain BTC8H-M & BTM8H-M

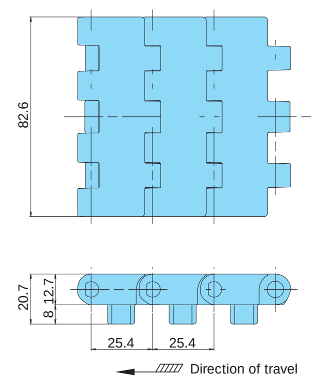
Closed and Magnetic Types: Straight Running

Features

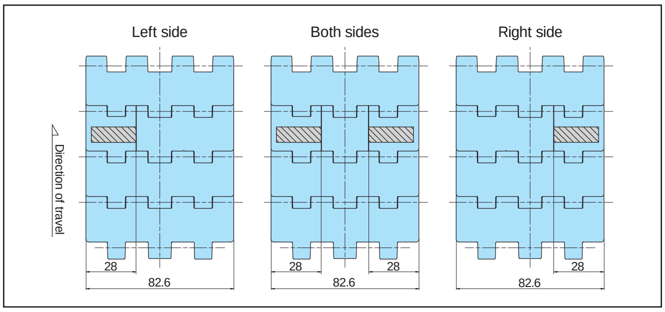
- Ideal for conveying trays using multiple chain strands running side-by-side.
- Lineup includes BTC8H-M Closed Type suitable for the flat sections of the conveyor, and BTM8H-M Magnetic Type suitable for inclined sections.
- Magnetic Type enables inclined conveyance of metal trays through magnets embedded in the links.



BTC8H-M Closed Type (without magnets)

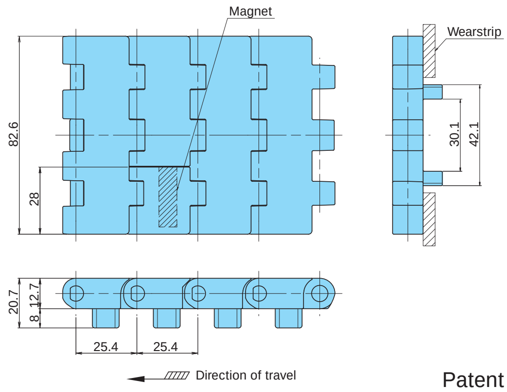


Magnet Configuration Examples



Magnets can be incorporated into BTM8H-M Magnetic Chain 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.

BTM8H-M Magnetic Type



Patent pending

Tsubaki model no.	Material mark	Link color	Max. allowable load kN{kgf}	Chain mass kg/m	Operating temperature range ℃	Max. allowable speed m/min	Pin material
BTC8H-826-M	Standard	Blue	1.47 {150}	1.2	-20 to 80 (60)	50	Special engineering plastic
BTM8H-826-M				1.2*1			

Note:
1. Chain mass for BTM8H-M does not include the mass of the magnets. Add 0.015 kg for each magnet.
2. Values for max. allowable load, chain mass, operating temperature range, and allowable speed shown in the table above are for the Standard series.
3. Operating temperature of (60) is for wet conditions.
4. For use with special plastic pins. The connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).
5. BTM8-M Magnetic Chain is designed to be used only under dry conditions, and cannot be used in environments where the chain will be exposed to water or steam. Also, magnets are sensitive to heat. Avoid storage or use in environments where temperatures exceed 80°C.
6. Made-to-order product. Chain links can also be manufactured from impact-resistant material to resist chipping, heat-resistant material suitable for conveying high-temperature trays, or low-friction/anti-wear material to minimize generation of wear dust. Contact a Tsubaki representative for further information.

Model Numbering

Chain type	Link shape	Chain pitch	Chain type		Chain width	Fixed width		Chain material		Chain type
BT	M	8	H	—	826	M	—	LFG	—	TK
	C: Closed type M: Magnetic type	8 = 25.4mm			826 = 82.6mm					[blank]: Closed type TK: Magnetic type

Note: Do not leave spaces between letters and symbols.

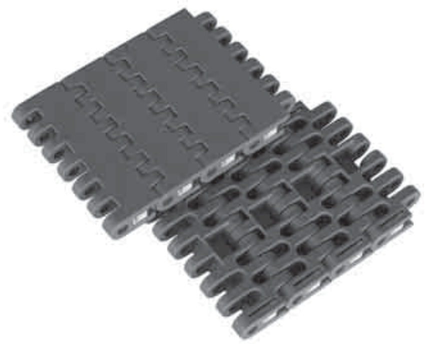
Contact a Tsubaki representative for sprocket attachment positions.

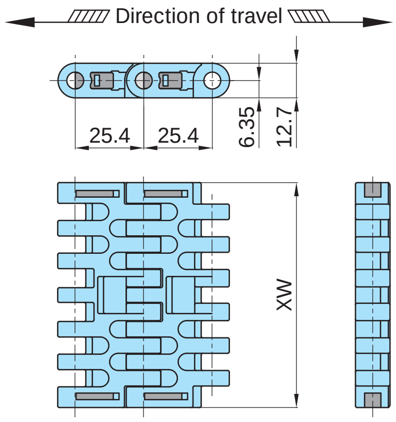
Sprockets ···See page 60   Wearstrips ···See page 191/193   Return-Way Parts ···See page 203–205

Dimensions in mm

Features

- Chain pitch of 25.4mm is ideal for conveying medium-sized containers.
- All-plastic construction. Lightweight and easy to handle.





U.S. Patent 6308825 B1

Dimensions in mm

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf} M325	Max. allowable load kN {kgf} M450	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT2505 -M325	WT2505 -M450
Standard chain	Standard	–	Gray	3.0 {306}	4.5 {459}	120	50	-20 to 80 (60)	▲	▲
	Low Friction/Anti-Wear	LFW	White							
		LFG	Green						○	○
		LFB	Brown						▲	▲
	Ultra Low Friction	ULF	Blue						○	○
	Low Friction	UL	Green						▲	▲
		NLF	Dark gray							
		WR	Green							
High-function chain	Heat Resistant/ High Speed	KV150	Black	–	–	–	–	–	–	–
		KV180								
		KV250								
	Chemical Resistant	Y	Matte white							
	Electroconductive	E	Black	2.2 {224}	3.4 {347}	120	50	-20 to 80 (60)	▲	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–	–	–
		DIY	Green							
	Antibacterial/Mold Resistant	MWS	Cream							
	Metal Detectable	MPD	Black							
		MPW								
	Middle Friction	MF	Yellow	2.2 {224}	3.3 {337}		50	-20 to 80	▲	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special con□gurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Material	Ultra Low Friction	Low Friction/Anti-Wear	Open area %	Plate width XW mm	Approx. mass kg/m	Pin material
Material mark	ULF	LFG				
Tsubaki model no.	WT2505-M325-ULF	WT2505-M325-LFG	3	82.6	1.0	Polypropylene
	WT2505-M450-ULF	WT2505-M450-LFG		114.3	1.4	

Model Numbering

Chain type	Chain pitch	Chain type		Fixed width	Plate width		Chain material
WT	**25**	**05**	**—**	**M**	**450**	**—**	**ULF**

325 = 82.6mm
450 = 114.3mm

Note: Do not leave spaces between letters and symbols.

Contact a Tsubaki representative for sprocket attachment positions.

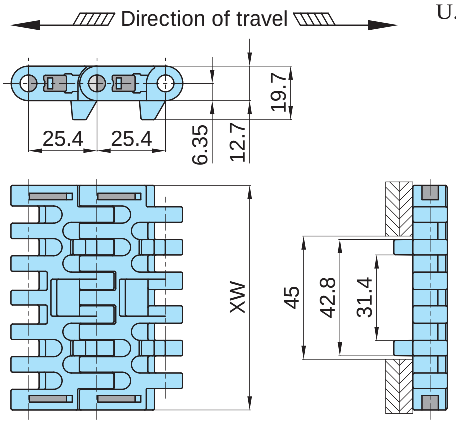
Sprockets …See page 60 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

Plastic Modular Chain WT2505G-M

Closed Type: Straight Running

Features

- Chain pitch of 25.4mm is ideal for conveying medium-sized containers.
- Tab guide attachments make this chain ideal for layouts with lateral transitions between conveyors.
- All-plastic construction. Lightweight and easy to handle.



U.S. Patent 6308825 B1

Dimensions in mm

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf} M300	Max. allowable load kN {kgf} M450	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT2505G -M325	WT2505G -M450
Standard chain	Standard	–	Gray	3.0 {306}	4.5 {459}	120	50	-20 to 80 (60)	▲	▲
	Low Friction/Anti-Wear	LFW	White							
		LFG	Green						○	○
		LFB	Brown						▲	▲
	Ultra Low Friction	ULF	Blue						○	○
	Low Friction	UL	Green						▲	▲
		NLF	Dark gray							
		WR	Green							
High-function chain	Heat Resistant/ High Speed	KV150	Black	–	–	–	–	–	–	–
		KV180								
		KV250								
	Chemical Resistant	Y	Matte white							
	Electroconductive	E	Black	2.2 {224}	3.4 {347}	120	50	-20 to 80 (60)	▲	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–	–	–
		DIY	Green							
	Antibacterial/Mold Resistant	MWS	Cream							
	Metal Detectable	MPD	Black							
		MPW								
	Middle Friction	MF	Yellow	2.2 {224}	3.3 {337}		50	-20 to 80	▲	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special con□gurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Material	Ultra Low Friction	Low Friction/Anti-Wear	Open area %	Plate width XW mm	Approx. mass kg/m	Pin material
Material mark	ULF	LFG				
Tsubaki model no.	WT2505G-M325-ULF	WT2505G-M325-LFG	3	82.6	1.1	Polypropylene
	WT2505G-M450-ULF	WT2505G-M450-LFG		114.3	1.5	

Model Numbering

Chain type	Chain pitch	Chain type	Tab guide attachments		Fixed width	Plate width		Chain material
WT	**25**	**05**	**G**	–	**M**	**450**	–	**LFG**
			[blank]: No G: Yes			325 = 82.6mm 450 = 114.3mm		

Note: Do not leave spaces between letters and symbols.

Contact a Tsubaki representative for sprocket attachment positions.

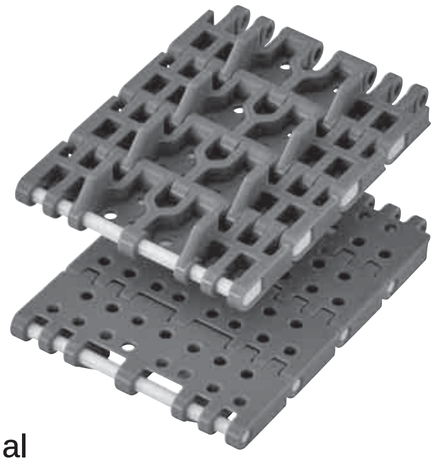
Sprockets ···See page 60 Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

Plastic Modular Chain BTO8-M

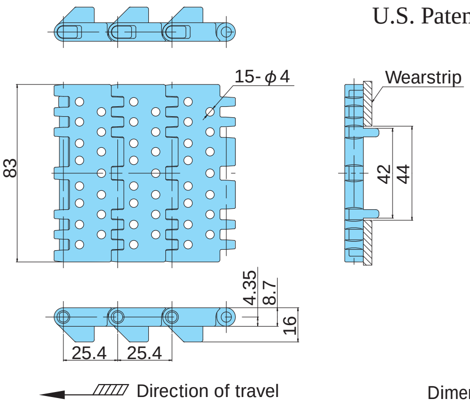
Open Type: Straight Running

Features

- Unique multi-hinge link construction ensures stable conveyance of small items and smooth transitions between conveyors.
- Plates are perforated with numerous drainage holes that effectively remove excess lubricant and water remaining on plate surface.
- All-plastic construction. Lightweight and easy to handle.



U.S. Patent 6213292



Dimensions in mm

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	BTO8-M
Standard chain	Standard	–	Gray	1.08 {110}	50	50	-20 to 80 (60)	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green					
		UL						
		NLF	Dark gray					
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature	HTW	White					
	Low Temperature	LTW	White					
	Chemical Resistant	Y	Matte white					▲
	Electroconductive	E	Black	0.76 { 77}	50	50	-20 to 80 (60)	○
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream	1.08 {110}	50	50	-20 to 80 (60)	○
	Metal Detectable	MPD	Black	–	–	–	–	–
		MPW						

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer.
2. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
3. Operating temperature of (60) is for wet conditions.

Chain (Plastic Pins)

Material	Standard chain: Standard	Standard chain: Low Friction/Anti-Wear			Standard chain: Ultra Low Friction	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	
Tsubaki model no.	BTO8-830-M	BTO8-830-M-LFW	BTO8-830-M-LFG	BTO8-830-M-LFB	BTO8-830-M-ULF	0.7

Note: 1. For use with special plastic pins.
2. The connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).

Model Numbering

Chain type	Chain pitch		Chain width		Fixed width		Chain material
BTO	**8**	—	**830**	—	**M**	—	**LFB**
	8 = 25.4mm		830 = 83mm				

Note: Do not leave spaces between letters and symbols.

Contact a Tsubaki representative for sprocket attachment positions.

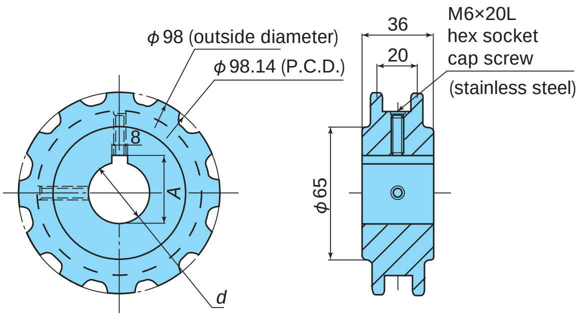
Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

Sprockets & Idler Wheels for BTO8-M Chain

Applicable chain   BTO8-M   Note: Cannot be used with BTC8, BTM8H, BTC8H-M, or BTM8H-M chain.

Sprockets

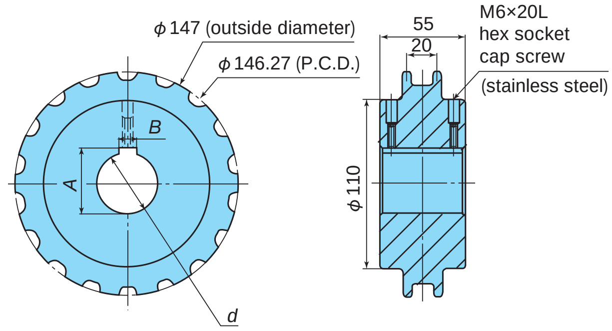
● BTO8-12T



Tsubaki model no.	Bore dimensions		Approx. mass g	Type
	d	*A*		
BTO8-12T25	25	28.3	200	Solid
BTO8-12T30	30	33.3		

- Material (main body): UHMW-PE
- Outside color: White
- Operating temperature range: –20°C to 60°C
- Made-to-order product

● BTO8-18T

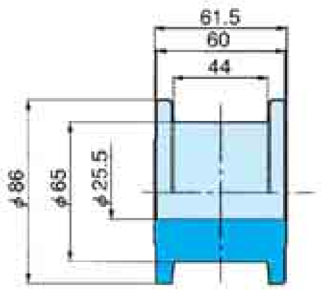


Tsubaki model no.	Bore dimensions			Approx. mass g	Type
	d	*A*	*B*		
BTO8-18T30	30	33.3	8	520	Solid
BTO8-18T40	40	43.3	12		

- Material (main body): UHMW-PE
- Outside color: White
- Operating temperature range: –20°C to 60°C
- Made-to-order product

Idler Wheels

● BTO8-12T25-IW (Equivalent to 12T Sprocket)



- Material (main body): UHMW-PE
- Outside color: White
- Operating temperature range: –20°C to 60°C
- Mass: 200 g
- Made-to-order product

● Idler Wheels (Equivalent to 18T Sprocket)

Tsubaki model no.	Shaft diameter	Material (color)
TP-C12200BT-IW	25	Polyamide (black)
TP-C12201BT-IW	30	
TP-C12203BT-IW	40	
TP-C12077BT-IW	25	
TP-C12078BT-IW	30	
TP-C12079BT-IW	35	
TP-C12080BT-IW	40	

- Operating temperature range: –20°C to 80°C
- See page 84 for further information

● Model Numbering

Chain type	Teeth	Bore diameter	Idler wheel or sprocket
BT08 —	**12T**	**25** —	**IW**

IW: Idler wheel
[blank]: Sprocket
(round hole; with keyway)

Note: Do not leave spaces between letters and symbols.

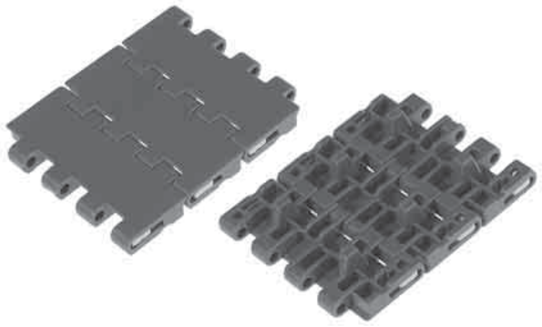
Dimensions in mm

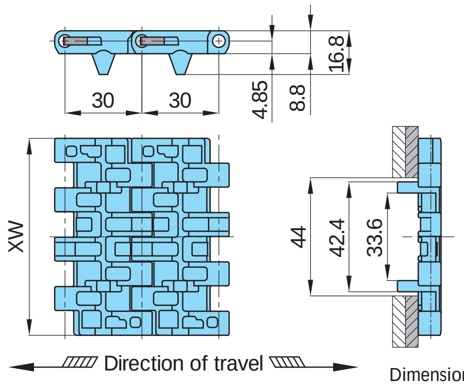
Plastic Modular Chain WT3005G-M

Closed Type: Straight Running

Features

- Chain pitch is 30mm; chain can be driven using the same shafts as the WT1500 series.
- Tab guide attachments make this chain ideal for layouts with lateral transitions between conveyors.
- All-plastic construction. Lightweight and easy to handle.





Dimensions in mm

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf} M300	Max. allowable load kN {kgf} M450	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT3005G-M300	WT3005G-M450
Standard chain	Standard	–	Gray	0.8 {81.1}	1.2 {122.0}	120	50	-20 to 80 (60)	▲	▲
	Low Friction / Anti-Wear	LFW	White							
		LFG	Green							
		LFB	Brown							
	Ultra Low Friction	ULF	Blue						○	○
	Low Friction	UL	Green							
		NLF	Dark gray							
		WR	Green						▲	▲
High-function chain	Heat Resistant / High Speed	KV150	Black	–	–	–	–	–	–	–
		KV180								
		KV250								
	Chemical Resistant	Y	Matte white							
	Electroconductive	E	Black	0.6 {61.2}	0.9 {92.1}	120	50	-20 to 80 (60)	▲	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–	–	–
		DIY	Green							
	Antibacterial / Mold Resistant	MWS	Cream							
	Metal Detectable	MPD	Black							
		MPW								
	Middle Friction	MF	Yellow	0.59 {60.2}	0.89 {90.6}		50	-20 to 80	▲	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special con□gurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Material	Ultra Low Friction	Low Friction	Low Friction	Open area %	Plate width XW mm	Approx. mass kg/m	Pin material
Material mark	ULF	UL	NLF				
Tsubaki model no.	WT3005G-M300-ULF	WT3005G-M300-UL	WT3005G-M300-NLF	4	75.8	0.6	Special engineering plastic
	WT3005G-M450-ULF	WT3005G-M450-UL	WT3005G-M450-NLF		113.8	0.8	

Model Numbering

Chain type	Chain pitch	Chain type	Tab guide attachments		Fixed width	Plate width		Chain material
WT	**30**	**05**	**G**	**—**	**M**	**300**	**—**	**ULF**

300 = 75.8mm
450 = 114.3mm

Note: Do not leave spaces between letters and symbols.

Contact a Tsubaki representative for sprocket attachment positions.

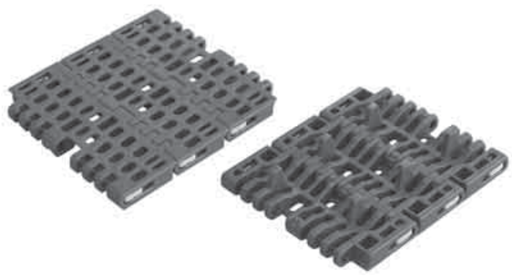
Sprockets …See page 33 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

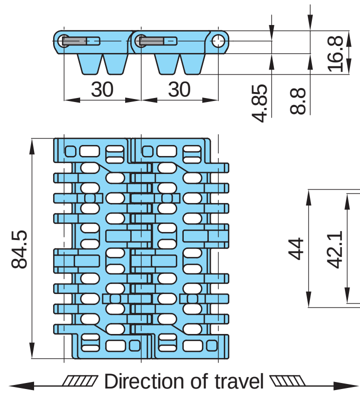
Plastic Modular Chain WT3086G-M

Closed Type: Straight Running

Features

- Chain pitch is 30mm; chain can be driven using the same shafts as the WT1500 series.
- Tab guide attachments make this chain ideal for layouts with lateral transitions between conveyors.
- All-plastic construction. Lightweight and easy to handle.





Dimensions in mm

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT3086G-M85
Standard chain	Standard	–	Gray	0.9 {90.4}	120	50	-20 to 80 (60)	▲
	Low Friction / Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					○
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green					▲
High-function chain	Heat Resistant / High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	0.69 {68.9}	120	50	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial / Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow	0.67 {67.3}		50	-20 to 80	▲

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special con□gurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.
3. MF Medium Friction series must be used without lubrication (lube-free).

Chain (Plastic Pins)

Material	Ultra Low Friction	Low Friction	Low Friction	Open area %	Approx. mass kg/m	Pin material
Material mark	ULF	UL	NLF			
Tsubaki model no.	WT3086G-M85-ULF	WT3086G-M85-UL	WT3086G-M85-NLF	27	0.6	Polypropylene

● Model Numbering

Chain type	Chain pitch	Chain type	Tab guide attachments		Fixed width	Plate width		Chain material
WT	**30**	**86**	**G**	**—**	**M**	**85**	**—**	**ULF**
						85mm		

Note: Do not leave spaces between letters and symbols.

Contact a Tsubaki representative for sprocket attachment positions.

Sprockets …See page 33 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

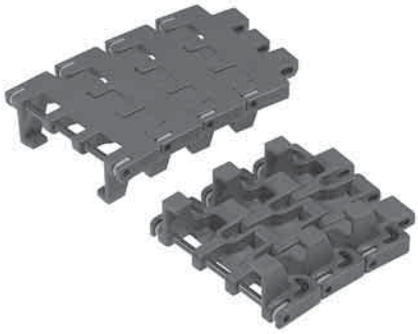
Plastic Modular Chain
Plastic Top Chain
Plastic Block Chain
Stainless Steel Top Chain
Accessories

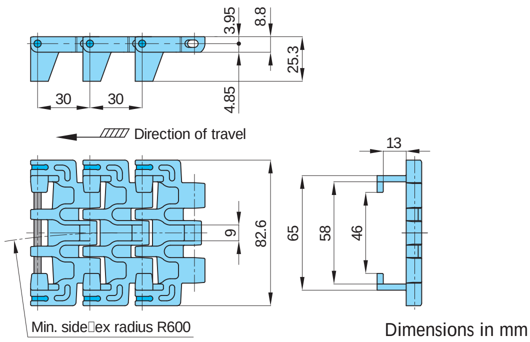
Plastic Modular Chain WT3085-C325

Closed Type: Sideflexing

Features

- Chain pitch is 30mm; chain can be driven using the same shafts as the WT1500 and WT3000 series.
- Because the height of the chain rails and conveying surface are the same as the WT1500 and WT3000 series, the height of the chain rail surfaces can be made the same as for the WT1500 and WT3000 series.





Dimensions in mm

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	WT3085-C325
Standard chain	Standard	–	Gray	0.55 {56}	100	50	-20 to 80	▲
	Low Friction / Anti-Wear	LFW	White				-20 to 80 (65)	
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	UL	Green					
		NLF	Dark gray					
		WR	Green				-20 to 80	○
High-function chain	Heat Resistant / High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Speed	HS	Cream	0.50 {51}		230	-20 to 50	○
	Chemical Resistant	Y	Matte white	–		–	–	–
	Electroconductive	E	Black					
	Impact Resistant	DIA	Cream					
		DIY	Green					
	Antibacterial / Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						
	Middle Friction	MF	Yellow					

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. High Speed chain is intended for use only in dry environments (no lubrication). When used at chain speeds greater than 50 meters/minute, wearstrip must be SJ-CNO (special polyamide) or stainless steel (polished).
3. Operating temperature of (65) is for wet conditions.

Chain (Stainless steel Pins)

Material	Low Friction	High Speed	Plate width mm	Approx. mass kg/m		Pin material
Material mark	WR	HS		WR	HS	
Tsubaki model no.	WT3085-C325-WR	WT3085-C325-HS	82.6	0.9	0.8	Stainless steel

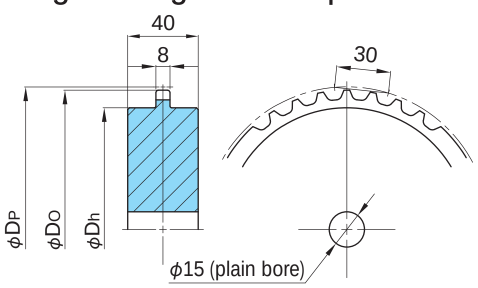
Model Numbering

Chain type		Curved	Plate width		Chain Material
WT3085	—	**C**	**325**	—	**WR**

(Plate width/100)
Inch = 3.25 inches x 25.4 = 82.6mm

Note: Do not leave spaces between letters and symbols.

Engineering Plastic Sprockets for WT3085-C325 Chain



Dimensions in mm

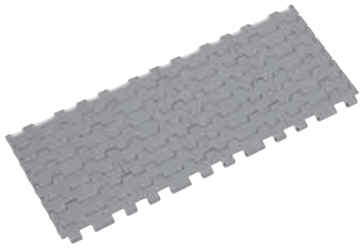
Tsubaki model no.	Effective teeth	Teeth	Pitch diameter Dp mm	Outside diameter Do mm	Hub diameter Dh mm	Approx. mass kg	Material
WT-S3085C3-27T	13-1/2	27	129.7	129	105	0.3	UHMW-PE
WT-S3085C3-31T	15-1/2	31	148.5	148	125	0.5	
WT-S3085C3-33T	16-1/2	33	158.0	158	135	0.6	

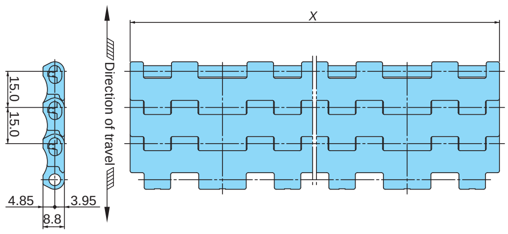
Note: 1. Made-to-order product. Contact a Tsubaki representative for further information.
2. Sprockets can also be fabricated with other shapes and number of teeth than noted above.
3. Operating temperature range is –20° to 60°C. If operating temperatures will exceed 60°C, use stainless steel sprockets (made-to-order product).

Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

BTC5

No tab guide attachments



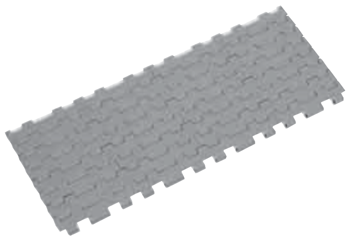


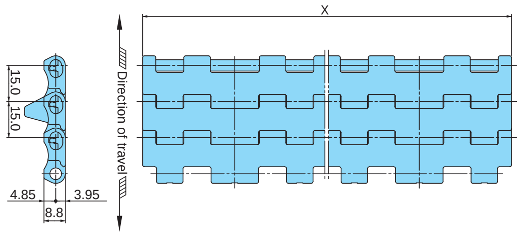
Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
LFB	15	Brown	2.5	10.5 {1072}	7.90	-20 to 80 (60)	Special engineering plastic
MWS		Cream					
ULF		Blue					
DIA		Cream		7.85 { 800}	5.90		
DIY		Green			9.20		

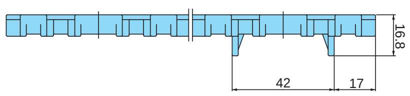
Note:
1. Operating temperature of (60) is for wet conditions. When plastic pins are replaced with stainless steel pins, the chain can be used in temperatures 60°C to 80°C in wet conditions. In this case, initial chain length will be slightly longer and chain mass heavier. Be sure to contact a Tsubaki representative before use.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Refer to chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain. (Example: Max. allowable load for BTC5-3040-LFB = 10.5 x 304/1000 ≒ 3.19 kN)
3. Made-to-order product.

BTC5-A

With tab guide attachments







Material mark	Chain pitch mm	Link color	Open area %	Max. allowable load kN/m {kgf/m}	Chain mass kg/m²	Operating temperature range °C	Pin material
LFB	15	Brown	2.5	10.5 {1072}	7.90	-20 to 80 (60)	Special engineering plastic
MWS		Cream					
ULF		Blue					
DIA		Cream		7.85 { 800}	5.90		
DIY		Green			9.20		

Note:
1. Operating temperature of (60) is for wet conditions. When plastic pins are replaced with stainless steel pins, the chain can be used in temperatures 60°C to 80°C in wet conditions. In this case, initial chain length will be slightly longer and chain mass heavier. Be sure to contact a Tsubaki representative before use.
2. Values for max. allowable load assume that tension acts uniformly over the entire chain width and will vary according to operating conditions (temperature and speed). Refer to chain max. allowable load graphs. Values for max. allowable load in the table above are for chain that is one meter (1m) in width. To calculate values for other chain widths, multiply the chain width in question by the max. allowable load for one-meter (1m) wide chain. (Example: Max. allowable load for BTC5-3040-A-LFB = 10.5 x 304/1000 ≒ 3.19 kN)
3. Made-to-order product.
4. Chain with tab guide attachments will be 0.5 kg/m heavier. Tab guide attachments are attached to every second link on one side of the chain.

Special Sprockets for BT5 Chain

Contact a Tsubaki representative for further information on using BT5 Special Sprockets (BT5-24T, BT5-32T).

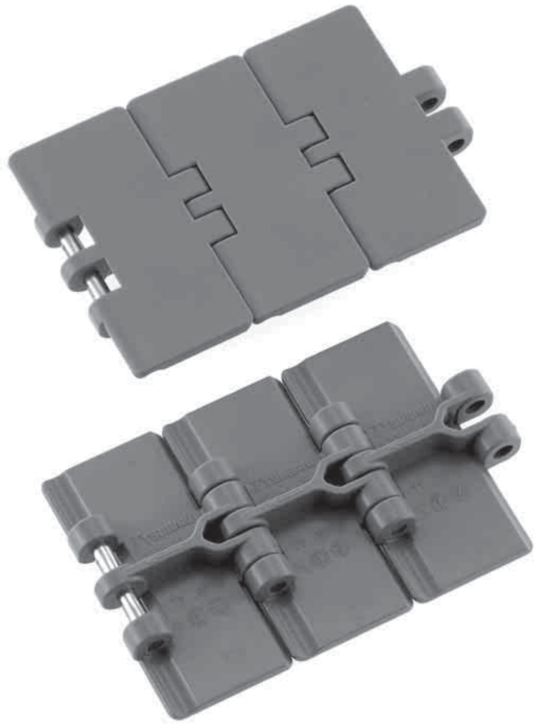
BTC6 Chain with Float-Preventive Tabs

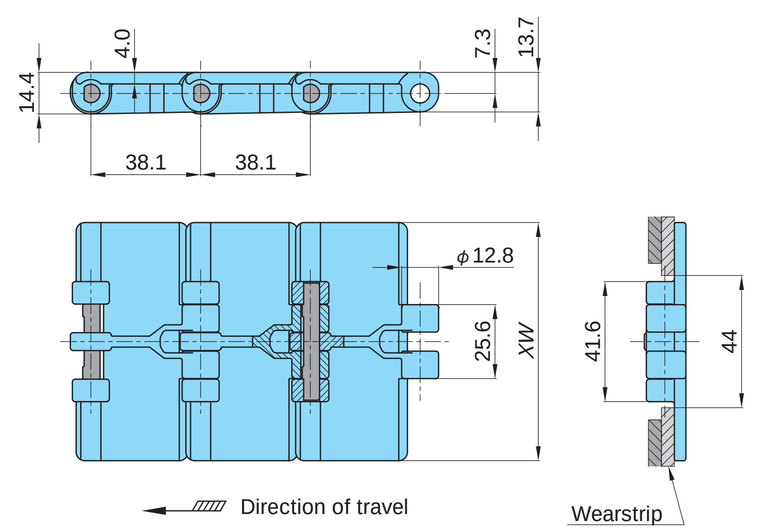
BTC6 Closed Type Plastic Modular Chain can also be manufactured with float-preventive tabs to prevent chain float around curves.

Dimensions in mm

Features

- Worldwide standard shape. Can be used in a diverse range of applications.
- Wide range of plate widths available. Can accommodate a wide range of conveyed object sizes.





Dimensions in mm

Model Numbering

Chain type	Plate width		Chain material
TTP	**826**	—	**ULF**

Note: Do not leave spaces between letters and symbols.

Connecting Pin

1. 304 stainless steel D-pin
   Model no. TTP-SUS-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TTP 635	TTP 762	TTP 826	TTP 1016	TTP 1143	TTP 1270	TTP 1524	TTP 1651	TTP 1905
Standard chain	Standard	–	Gray	0.83 {85}	100	50	-20 to 80	○	○	●	○	●	○	○	○	●
	Low Friction / Anti-Wear	LFW	White							○		○				○
		LFG	Green							●		●				●
		LFB	Brown													
	Ultra Low Friction	ULF	Blue													○
	Low Friction	WR	Green													
High-function chain	Heat Resistant / High Speed	KV150	Black	0.83 {85}	–	200	-20 to 150			○	–	–	–	–	–	–
		KV180			200		-20 to 180									
		KV250		–	–	–	–	–	–	–						
	High Speed	HS	Cream	0.74 {75}	–	230	-20 to 50	○	○	○	○	○	○	○	○	○
	Chemical Resistant	Y	Matte white	0.41 {42}	100	50	-20 to 80									
	Electroconductive	E	Black	0.58 {59}												
	Impact Resistant	DIA	Cream	0.69 {70}	–									▲	▲	▲
		DIY	Green		100											
	Antibacterial / Mold Resistant	MWS	Cream	0.83 {85}												
	Metal Detectable	MPD	Black	0.69 {70}	–									–	–	–
		MPW		–	–	–	–	▲	▲	▲	▲	▲	▲			

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. ● : Standard product ○ : Made-to-order product – : Not available
▲ : Special configurations may be available. Contact a Tsubaki representative for further information.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Low Friction	Top plate width XW mm	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	WR		
Tsubaki model no.	TTP635	TTP635-LFW	TTP635-LFG	TTP635-LFB	TTP635-ULF	TTP635-WR	63.5	0.8
	TTP762	TTP762-LFW	TTP762-LFG	TTP762-LFB	TTP762-ULF	TTP762-WR	76.2	0.9
	TTP826	TTP826-LFW	TTP826-LFG	TTP826-LFB	TTP826-ULF	TTP826-WR	82.6	0.9
	TTP1016	TTP1016-LFW	TTP1016-LFG	TTP1016-LFB	TTP1016-ULF	TTP1016-WR	101.6	1.0
	TTP1143	TTP1143-LFW	TTP1143-LFG	TTP1143-LFB	TTP1143-ULF	TTP1143-WR	114.3	1.0
	TTP1270	TTP1270-LFW	TTP1270-LFG	TTP1270-LFB	TTP1270-ULF	TTP1270-WR	127.0	1.1
	TTP1524	TTP1524-LFW	TTP1524-LFG	TTP1524-LFB	TTP1524-ULF	TTP1524-WR	152.4	1.2
	TTP1651	TTP1651-LFW	TTP1651-LFG	TTP1651-LFB	TTP1651-ULF	TTP1651-WR	165.1	1.3
	TTP1905	TTP1905-LFW	TTP1905-LFG	TTP1905-LFB	TTP1905-ULF	TTP1905-WR	190.5	1.4

Material	Heat Resistant/High Speed		Impact Resistant		Top plate width XW mm	Approx. mass kg/m
Material mark	KV150	KV180	DIA	DIY		
Tsubaki model no.	TTP826-KV150	TTP826-KV180	TTP826-DIA	TTP826-DIY	82.6	0.9 DIA: 0.75 DIY: 1.10
	–	–	TTP1143-DIA	TTP1143-DIY	114.3	DIA: 0.8 DIY: 1.20

Note: 1. As of October 2007, knurled connecting pins have been changed to D-pins.
2. Knurled-pin chain can be connected to D-pin chain.

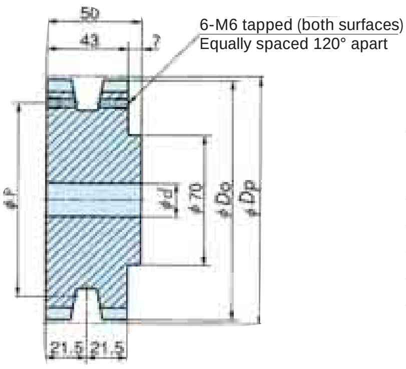
Sprockets ···See page 83/84 Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

Sprockets for TTP Chain

Steel

Applicable chain TTP, TTPH, TTPT

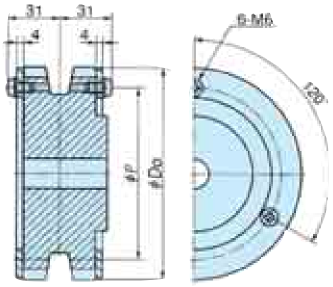
● Sprockets (with Plain Bore)



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter *Dp*	Outside diameter *Do*	*P*	Bore diameter *d* Plain bore	Bore diameter *d* Max.	Approx. mass kg	Material
TTP912T	19	9½	117.34	117	92	18	40	2.5	Carbon steel
TTP1012T	21	10½	129.26	129	104			3.2	
TTP1112T	23	11½	141.22	141	116			3.7	
TTP1212T	25	12½	153.20	153	128			4.4	

Note: Teeth on all sprockets have not been hardened.

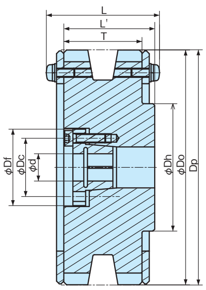
• Guide Rings



Tsubaki model no.	Applicable sprocket no.	Outside diameter *Do*	Installed pitch diameter *P*	Approx. mass kg
TT912G	TTP912T TT912T	116	92	0.17
TT1012G	TTP1012T TT1012T	128	104	0.19
TT1112G	TTP1112T TT1112T	140	116	0.21
TT1212G	TTP1212T TT1212T	152	128	0.23

Note: One set consists of two (2) guide rings and six (6) mounting bolts.

● Lock Sprockets



■ Lock Sleeve Dimensions

Sleeve no.	Df diameter mm	Dc diameter mm	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	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	Pitch diameter *Dp* mm	Outside diameter *Do* mm	Facewidth *T* mm	Hub diameter Dh mm	Length *L* mm	Length *L'* mm
TTP912T	19	117.34	117	43.0	70	62	50
TTP1012T	21	129.26	129				
TTP1112T	23	141.22	141				
TTP1212T	25	153.20	153				

■ Sleeve Combinations and Transfer Torque Values

Sleeve no.		S2							S3			S4			S5			
Bore diameter *d* mm		15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45
		Max. allowable transfer torque N·m																
Tsubaki model no.	TTP912T TTP1012T TTP1112T TTP1212T	139	149	158	167	177	186	205	167	174	195	279	298	325	442	465	586	628

● Model Numbering

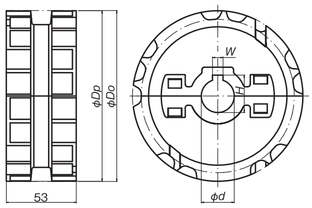
Chain type	Effective teeth	Sprocket or guide ring		Bore diameter
TTP	**1012**	**T**	—	**S18**
TTP TTPH TTPT (All chain types are to be speci▯ed "TTP")		T: Sprocket G: Guide ring		[blank]: Plain bore S + bore diameter: Lock sprocket

Note: Do not leave spaces between letters and symbols.

Dimensions in mm

● Sprockets

Applicable chain TTP, TTPH, TTPT



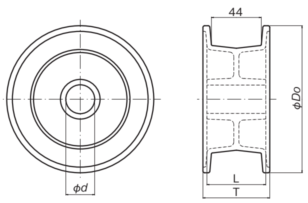
Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter *Dp*	Outside diameter *Do*	Shaft diameter *d*	Keyway		Approx. mass kg	Type	Material	
						W	*H*			Body	Bolt & nut
TP-C12057NT-SPR	21	10½	129.26	129.0	25	8	28.3	0.45	Split type. Keyway specifications: DIN 6885 key seat	Reinforced polyamide (color: black)	Brass + nickel plating
TP-C12058NT-SPR					30	8	33.3	0.44			
TP-C12059NT-SPR					35	10	38.3	0.42			
TP-C12060NT-SPR					40	12	43.3	0.42			
TP-C12104NT-SPR	23	11½	141.22	142.0	25	8	28.3	0.48			
TP-C12105NT-SPR					30	8	33.3	0.45			
TP-C12106NT-SPR					35	10	38.3	0.45			
TP-C12107NT-SPR					40	12	43.3	0.42			
TP-C12069NT-SPR	25	12½	153.20	154.0	25	8	28.3	0.60			
TP-C12070NT-SPR					30	8	33.3	0.59			
TP-C12071NT-SPR					35	10	38.3	0.57			
TP-C12072NT-SPR					40	12	43.3	0.55			

Note: 1. Standard product.
2. Operating temperature range: –20°C to 80°C
3. Bolt tightening torque: 6 N·m {0.61 kgf·m}
4. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

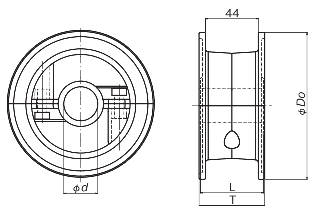
● Idler Wheels

Applicable chain TTP, TTPH, TTPT, TPF, TT, TP-OTD, TPS, TTUP, TTUPH, TTU, TPH

Solid type



Split type



Tsubaki model no.	Equivalent no. of teeth	Outside diameter *Do*	Shaft diameter *d*	Hub length *L*	Width *T*	Approx. mass kg	Material	Type
TP-C12200BT-IW	21	129.8	25	52	58	0.21	Polyamide (color: black)	Solid
TP-C12201BT-IW			30			0.21		
TP-C12203BT-IW			40			0.19		
TP-C12212BT-IW	23	142.2	25	52	58	0.20		
TP-C12213BT-IW			30			0.20		
TP-C12215BT-IW			40			0.21		
TP-C12204BT-IW	25	154.7	25	52	58	0.23		
TP-C12205BT-IW			30			0.23		
TP-C12207BT-IW			40			0.25		
TP-C12077BT-IW	21	129.8	25	61	58	0.26	Bolt & nut: Stainless steel Body: Polyamide (color: black)	Split
TP-C12078BT-IW			30			0.25		
TP-C12079BT-IW			35			0.28		
TP-C12080BT-IW			40			0.25		
TP-C121928BT-IW	23	142.2	25	61	58	0.29		
TP-C121929BT-IW			30			0.27		
TP-C121930BT-IW			35			0.30		
TP-C121931BT-IW			40			0.27		
TP-C12081BT-IW	25	154.7	25	61	58	0.32		
TP-C12082BT-IW			30			0.30		
TP-C12083BT-IW			35			0.32		
TP-C12084BT-IW			40			0.30		

Note: 1. Standard product.
2. Operating temperature range: –20°C to 80°C
3. Bolt tightening torque: 6 N·m {0.61 kgf·m}
4. When assembling the halves of the idler wheel, do not mix the halves with halves from other idler wheels.
5. Should not be used under abrasive conditions.
6. Shaft metal must be polished.

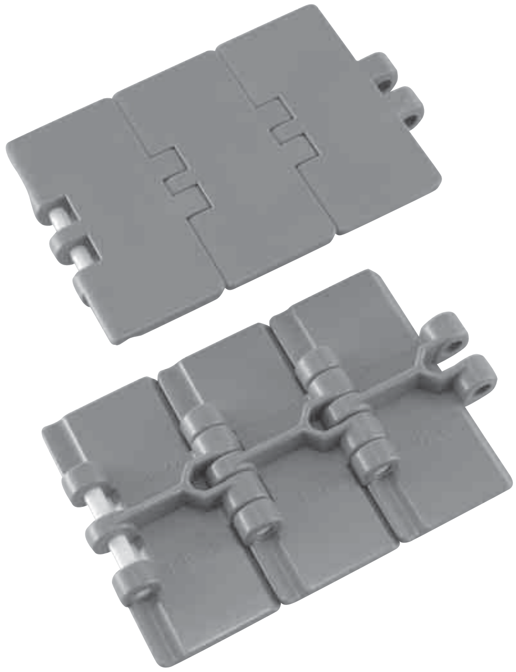
Dimensions in mm

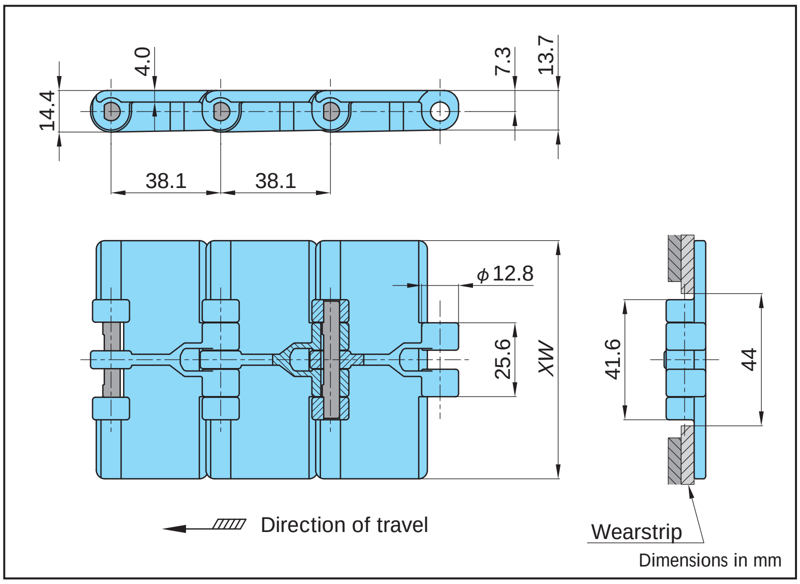
Plastic Top Chain TTP

Plastic Pins: Straight Running

Features

- Worldwide standard shape. Can be used in a diverse range of applications.
- Wide range of plate widths available. Can accommodate a wide range of conveyed object sizes.
- All-plastic construction means light weight and easy handling. Longer service life under water lubrication than stainless steel pins.





● Model Numbering

Chain type	Plate width	Plastic pin		Chain material
TTP	**826**	**P**	**–**	**ULF**

Note: Do not leave spaces between letters and symbols.

● Connecting Pin

1. Special engineering plastic D-pin, orange
   Model no. TTP-PLA-JPD

Material

<table>
<tr><th rowspan="2"></th><th rowspan="2">Material</th><th rowspan="2">Material mark</th><th rowspan="2">Link color</th><th rowspan="2">Max. allowable load kN {kgf}</th><th colspan="2">Max. allowable speed m/min</th><th rowspan="2">Operating temperature range °C</th><th rowspan="2">TTP 635P</th><th rowspan="2">TTP 762P</th><th rowspan="2">TTP 826P</th><th rowspan="2">TTP 1016P</th><th rowspan="2">TTP 1143P</th><th rowspan="2">TTP 1270P</th><th rowspan="2">TTP 1524P</th><th rowspan="2">TTP 1651P</th><th rowspan="2">TTP 1905P</th></tr>
<tr><th>With lube</th><th>No lube</th></tr>
<tr><td rowspan="6">Standard chain</td><td>Standard</td><td>–</td><td>Gray</td><td rowspan="6">0.83 {85}</td><td rowspan="6">100</td><td rowspan="6">50</td><td rowspan="6">-20 to 80 (60)</td><td rowspan="6">○</td><td rowspan="6">○</td><td>●</td><td rowspan="6">○</td><td>●</td><td rowspan="6">○</td><td rowspan="6">○</td><td rowspan="6">○</td><td rowspan="6">○</td></tr>
<tr><td rowspan="3">Low Friction/Anti-Wear</td><td>LFW</td><td>White</td><td>○</td><td>○</td></tr>
<tr><td>LFG</td><td>Green</td><td rowspan="4">●</td><td rowspan="4">●</td></tr>
<tr><td>LFB</td><td>Brown</td></tr>
<tr><td>Ultra Low Friction</td><td>ULF</td><td>Blue</td></tr>
<tr><td>Low Friction</td><td>WR</td><td>Green</td></tr>
<tr><td rowspan="11">High-function chain</td><td rowspan="3">Heat Resistant/High Speed</td><td>KV150</td><td rowspan="3">Black</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td></tr>
<tr><td>KV180</td></tr>
<tr><td>KV250</td></tr>
<tr><td>High Speed</td><td>HS</td><td>Cream</td></tr>
<tr><td>Chemical Resistant</td><td>Y</td><td>Matte white</td><td>0.41 {42}</td><td rowspan="2">100</td><td rowspan="5">50</td><td rowspan="5">-20 to 80 (60)</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td></tr>
<tr><td>Electroconductive</td><td>E</td><td>Black</td><td>0.58 {59}</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td></tr>
<tr><td rowspan="2">Impact Resistant</td><td>DIA</td><td>Cream</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td></tr>
<tr><td>DIY</td><td>Green</td><td>0.69 {70}</td><td rowspan="2">100</td><td rowspan="2">○</td><td rowspan="2">○</td><td rowspan="2">○</td><td rowspan="2">○</td><td rowspan="2">○</td><td rowspan="2">▲</td><td rowspan="2">▲</td><td rowspan="2">▲</td><td rowspan="2">▲</td></tr>
<tr><td>Antibacterial/Mold Resistant</td><td>MWS</td><td>Cream</td><td>0.83 {85}</td></tr>
<tr><td rowspan="2">Metal Detectable</td><td>MPD</td><td rowspan="2">Black</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td></tr>
<tr><td>MPW</td><td>0.34 {35}</td><td colspan="2">50</td><td>-20 to 60</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td></tr>
</table>

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. ● : Standard product ○ : Made-to-order product – : Not available
▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
3. The plastic connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).
4. Operating temperature of (60) is for wet conditions.

Chain (Plastic Pins)

Material	Standard	Low Friction / Anti-Wear			Top plate width XW mm	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB		
Tsubaki model no.	TTP635P	TTP635P-LFW	TTP635P-LFG	TTP635P-LFB	63.5	0.55
	TTP762P	TTP762P-LFW	TTP762P-LFG	TTP762P-LFB	76.2	0.65
	TTP826P	TTP826P-LFW	TTP826P-LFG	TTP826P-LFB	82.6	0.65
	TTP1016P	TTP1016P-LFW	TTP1016P-LFG	TTP1016P-LFB	101.6	0.75
	TTP1143P	TTP1143P-LFW	TTP1143P-LFG	TTP1143P-LFB	114.3	0.8
	TTP1270P	TTP1270P-LFW	TTP1270P-LFG	TTP1270P-LFB	127.0	0.85
	TTP1524P	TTP1524P-LFW	TTP1524P-LFG	TTP1524P-LFB	152.4	0.95
	TTP1651P	TTP1651P-LFW	TTP1651P-LFG	TTP1651P-LFB	165.1	1.05
	TTP1905P	TTP1905P-LFW	TTP1905P-LFG	TTP1905P-LFB	190.5	1.2

Material	Ultra Low Friction	Low Friction	Impact Resistant	Top plate width XW mm	Approx. mass kg/m
Material mark	ULF	WR	DIY		
Tsubaki model no.	TTP635P-ULF	TTP635P-WR	TTP635P-DIY	63.5	0.55
	TTP762P-ULF	TTP762P-WR	TTP762P-DIY	76.2	0.65
	TTP826P-ULF	TTP826P-WR	TTP826P-DIY	82.6	0.65 DIY: 0.80
	TTP1016P-ULF	TTP1016P-WR	TTP1016P-DIY	101.6	0.75
	TTP1143P-ULF	TTP1143P-WR	TTP1143P-DIY	114.3	0.80 DIY: 1.00
	TTP1270P-ULF	TTP1270P-WR	–	127.0	0.85
	TTP1524P-ULF	TTP1524P-WR	–	152.4	0.95
	TTP1651P-ULF	TTP1651P-WR	–	165.1	1.05
	TTP1905P-ULF	TTP1905P-WR	–	190.5	1.20

Note: 1. As of October 2007, knurled connecting pins have been changed to D-pins.
2. Knurled-pin chain can be connected to D-pin chain.

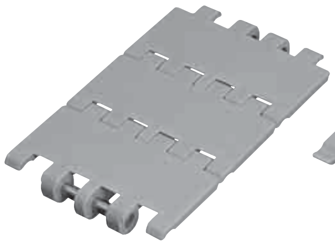
Sprockets ···See page 83/84 Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

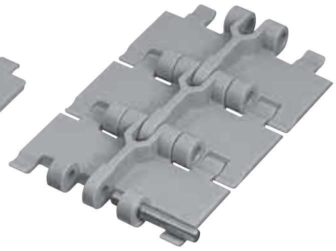
Plastic Top Chain TTPH

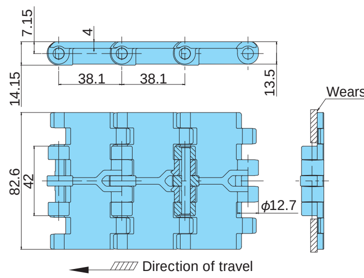
Straight Running

Features

- Comb-toothed plates minimize gaps between links. Ideal for conveying unstable containers such as PET bottles and dessert cups.
- Surface of top plate is flatter and smoother. Effective in preventing container wobbling and toppling during conveyance.
- Both ends of the plates are slightly chamfered, ensuring smooth lateral plate-to-plate transfers between adjacent chains.
- Same basic dimensions as TTP826 plastic top chain. Can provide stable container conveyance simply by replacing the chain.







Dimensions in mm

Model Numbering

Chain type	Plate width	Plastic pin		Chain material
TTPH	826	P	—	LFB

Note: Specify "P" only when pins are to be plastic.
Do not leave spaces between letters and symbols.

Connecting Pin

1. 304 stainless steel D-pin
   Model no. TTP-SUS-JPD
2. Special engineering plastic D-pin, orange
   Model no. TTP-PLA-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TTPH	TTPH-P
Standard chain	Standard	–	Gray	0.83 {85}	100	50	-20 to 80 (60)	○	○
	Low Friction/Anti-Wear	LFW	White						
		LFG	Green					●	●
		LFB	Brown						
	Ultra Low Friction	ULF	Blue						
	Low Friction	WR	Green					▲	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–	–
		KV180							
		KV250							
	High Speed	HS	Cream						
	Chemical Resistant	Y	Matte white	0.41 {42}	100	50	-20 to 80 (60)	○	▲
	Electroconductive	E	Black	0.58 {59}					○
	Impact Resistant	DIA	Cream	0.69 {70}	–				–
		DIY	Green		100				○
	Antibacterial/Mold Resistant	MWS	Cream	0.83 {85}					
	Metal Detectable	MPD	Black	–	–	–	–	▲	–
		MPW							▲

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. ● : Standard product ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
3. The plastic connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).
4. Operating temperature of (60) is for using plastic-pin chain in wet conditions.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant		Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIA	DIY	
Tsubaki model no.	TTPH826	TTPH826-LFW	TTPH826-LFG	TTPH826-LFB	TTPH826-ULF	TTPH826-DIA	TTPH826-DIY	0.9 DIA: 0.75 DIY: 1.10

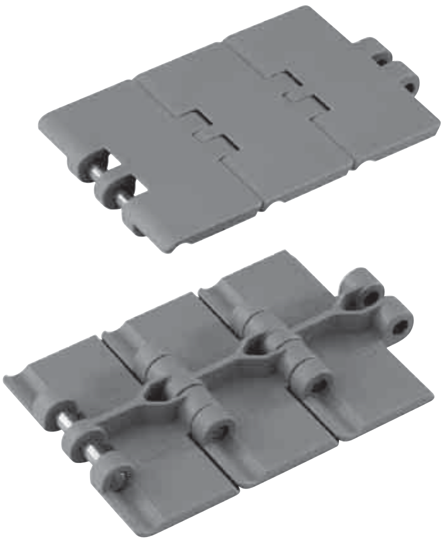
Chain (Plastic Pins)

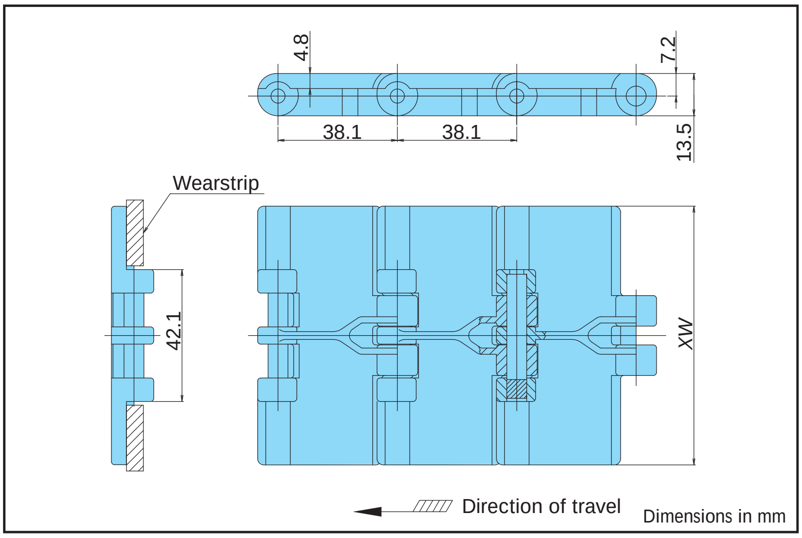
Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIY	
Tsubaki model no.	TTPH826P	TTPH826P-LFW	TTPH826P-LFG	TTPH826P-LFB	TTPH826P-ULF	TTPH826P-DIY	0.65 DIY: 0.80

Sprockets …See page 83/84
Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

Features

- Plates are thicker than TTP chain. Ideal for applications where the plates would be susceptible to wear. (Plate thickness: TTPT = 4.8mm, TTP = 4.0mm)





● Model Numbering

Chain type	Plate width		Chain material
TTPT	826	—	LFB

Note: Do not leave spaces between letters and symbols.

Chain (Stainless Steel Pins)

Tsubaki model no.	Chain width *XW* mm	Top plate		Max. allowable load kN{kgf}	Approx. mass kg/m
		Material	Color		
TTPT826-LFB	82.6	Low-friction polyacetal	Brown	0.83{85}	1.04
TTPT1143-LFB	114.3				1.29
TTPT1905-LFB	190.5				1.82

Note: 1. Standard product.
2. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
3. Available only in LFB (Low Friction/Anti-Wear) material.
4. Connecting pins not sold separately.
5. Plastic pins are not available.

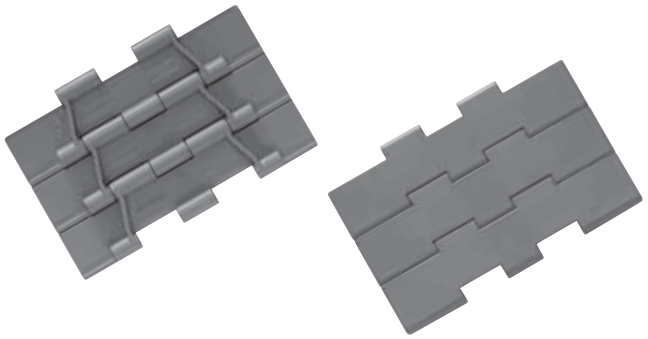
Sprockets ···See page 83/84 Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

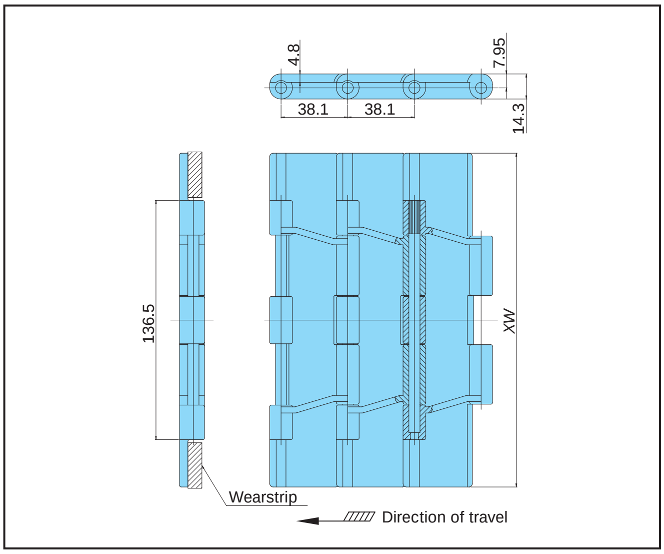
Plastic Top Chain TTPDH

Straight Running

Features

- Higher maximum allowable load than TTP chain (approx. double). Ideal for higher applied load conditions.
- Plates are wider, and thus can be used to convey larger objects.





Model Numbering

Chain type	Plate width		Chain material
TTPDH	**1905**	**—**	**LFB**

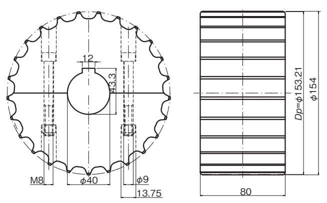
Note: Do not leave spaces between letters and symbols.

Chain (Stainless Steel Pins)

Material	Tsubaki model no.	Chain width *XW* mm	Top plate		Max. allowable load kN{kgf}	Approx. mass kg/m
			Material	Color		
Standard	TTPDH1905	190.5	Polyacetal	Gray	1.67 {170}	2.59
	TTPDH2540	254.0				3.08
	TTPDH3048	304.8				3.35
Low Friction/Anti-Wear	TTPDH1905-LFB	190.5	Low-friction polyacetal	Brown		2.59
	TTPDH2540-LFB	254.0				3.08
	TTPDH3048-LFB	304.8				3.35

Note: 1. Standard product.
2. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
3. Available only in Standard and LFB (Low Friction/Anti-Wear) material.
4. Connecting pins are 304 stainless steel knurled pins.
5. Plastic pins are not available.

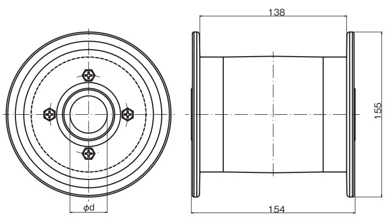
Sprockets



Tsubaki model no.	Actual teeth	Effective teeth	Approx. mass kg	Material	Keyway	Type
TP-C12295T-SPR	25	12½	0.97	Polyamide (color: white) Bolt: Stainless steel Nut: Brass + nickel plating	DIN 6885 key seat	Split

Note: 1. Standard product.
2. Operating temperature range: –20°C to 80°C
3. Bolt tightening torque: 6 N·m {0.61 kgf·m}
4. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

Idler Wheels



Tsubaki model no.	Equivalent no. of teeth	Shaft diameter d	Approx. mass kg	Material	Color	Type
TP-C121646T-IW	25	35	0.76	Body: Polyamide Bolt: Stainless steel	Black	Solid

Note: Standard product.

Wearstrips ···See page 191/193
Return-Way Parts ···See page 203–205

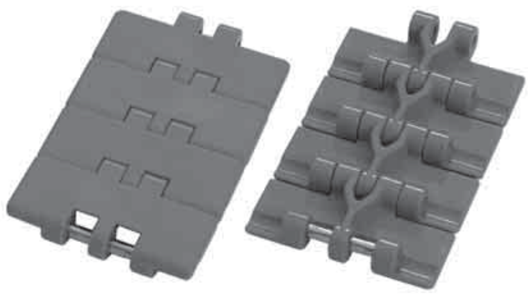
Dimensions in mm

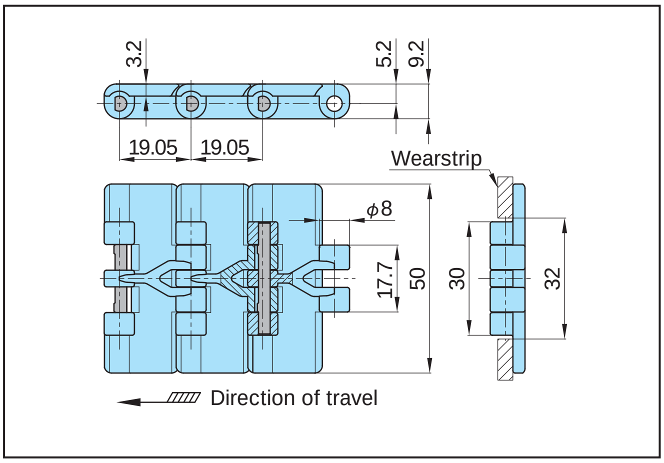
Plastic Top Chain TTPM

Straight Running

Features

- Chain pitch is approximately one-half of conventional conveyor chains, effectively lowering conveyor noise level and reducing the gap between the end of one conveyor and the start of the next conveyor.
- With a plate width of 50mm, this plastic top chain is ideal for conveying small objects.





● Model Numbering

Chain type	Plate width		Chain material
TTPM	**500**	**—**	**BL**

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TTPM500
Standard chain	Standard	W	White	0.29 {30}	100	50	-20 to 80	●
		BL	Sky blue					
	Low Friction/Anti-Wear	LFW	White				-20 to 80 (65)	▲
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green				-20 to 80	
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature/Chemical Resistant	HTW	White	0.15 {15}	100	50	5 to 100	▲
	High Speed	HS	Cream	–	–	–	–	–
	Chemical Resistant	Y	Matte white	0.29 {30}	100	50	-20 to 80	▲
	Electroconductive	E	Black	0.24 {24}	100	50	-20 to 80	
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						

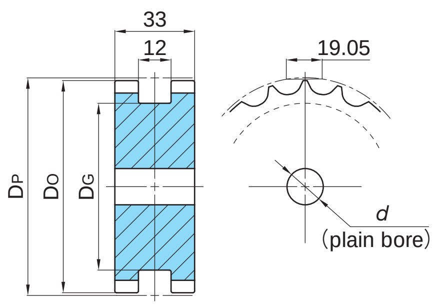
Note: 1. ● : Standard product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (65) is for wet conditions.
3. Standard chain length is 160 links.

Chain (Stainless Steel Pins)

Material	Standard		Approx. mass kg/m
Material mark	W	BL	
Tsubaki model no.	TTPM500-W	TTPM500-BL	0.4

Note: 1. Can be connected to older existing round-pin chain (TTDS-20).
2. Plastic pins are not available.

● Steel Sprockets for TTPM Chain



Tsubaki model no.	Teeth	Pitch diameter D_P	Outside diameter D_O	Groove diameter D_G	Bore diameter d Plain bore	Bore diameter d Max.	Approx. mass kg	Material
TTPM1200T	12	73.6	73	59	15	35	0.9	Carbon steel
TTPM1400T	14	85.6	85	70		40	1.2	
TTPM1500T	15	91.6	92	75			1.4	
TTPM1900T	19	115.7	116	100		50	2.4	
TTPM2100T	21	127.8	128	110			2.9	
TTPM2300T	23	139.9	141	125			3.5	

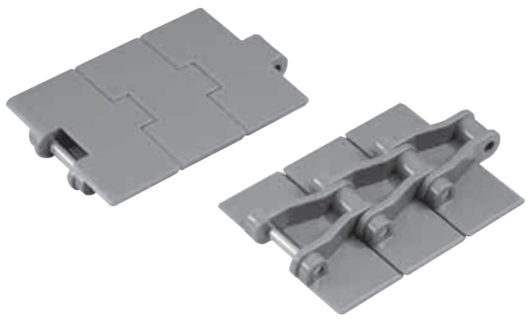
Note: 1. Made-to-order product.
2. Sprockets can also be manufactured with other number of teeth than noted above.

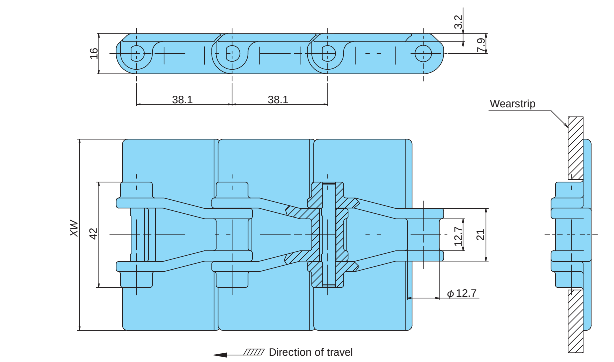
Wearstrips ···See page 191/193
Return-Way Parts ···See page 203–205

Dimensions in mm

Features

- Approx. 40% higher maximum allowable load than TTP plastic top chain. Ideal for higher applied load conditions.
- 3.2mm plate thickness, the same plate thickness as TT stainless steel top chain.





Dimensions in mm

Model Numbering

Chain type	Plate width		Chain material
TPF	**826**	—	**LFB**

Note: Do not leave spaces between letters and symbols.

Connecting Pin

1. 304 stainless steel D-pin
   Model no. TPF-SUS-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TPF762	TPF826
Standard chain	Standard	–	Gray	1.18 {120}	100	50	-20 to 80	●	●
		W	White					○	○
	Low Friction/Anti-Wear	LFW							
		LFG	Green						●
		LFB	Brown						
	Ultra Low Friction	ULF	Blue						○
	Low Friction	WR	Green					▲	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–	–
		KV180							
		KV250							
	High Speed	HS	Cream						
	Chemical Resistant	Y	Matte white	0.59 { 60}	100	50	-20 to 80	○	○
	Electroconductive	E	Black	0.82 { 84}				–	–
	Impact Resistant	DIA	Cream	0.93 { 95}	–			○	○
		DIY	Green		100				
	Antibacterial/Mold Resistant	MWS	Cream	1.18 {120}					
	Metal Detectable	MPD	Black	–	–	–	–	▲	▲
		MPW							

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. ●: Standard product ○: Made-to-order product –: Not available
▲: Special configurations may be available. Contact a Tsubaki representative for further information.

Chain (Stainless Steel Pins)

Material	Standard		Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant		Top plate width *XW* mm	Approx. mass kg/m
Material mark	–	W	LFW	LFG	LFB	ULF	DIA	DIY		
Tsubaki model no.	TPF762	TPF762-W	TPF762-LFW	TPF762-LFG	TPF762-LFB	TPF762-ULF	TPF762-DIA	TPF762-DIY	76.2	0.85 DIA: 0.75 DIY: 1.10
	TPF826	TPF826-W	TPF826-LFW	TPF826-LFG	TPF826-LFB	TPF826-ULF	TPF826-DIA	TPF826-DIY	82.6	0.85 DIA: 0.75 DIY: 1.10

Note: 1. Plastic pins are not available.
2. As of January 2009, knurled connecting pins have been changed to D-pins.
3. Knurled-pin chain and D-pin chain cannot be connected. When replacing, always replace the entire chain.

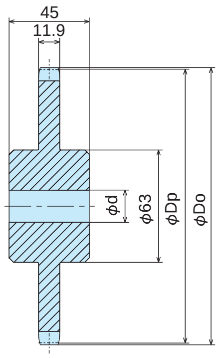
Idler Wheels ···See page 84
Wearstrips ···See page 191/193
Return-Way Parts ···See page 203–205

Sprockets for TPF Chain

Steel

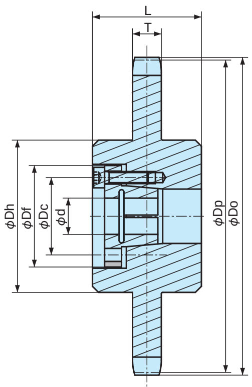
Applicable chain TPF

● Sprockets (with Plain Bore)



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter *Dp* mm	Outside diameter *Do* mm	Bore diameter *d* mm		Approx. mass kg	Material
					Plain bore	Max.		
TPF912T	19	9½	117.34	120.0	18	42	1.7	Carbon steel (machined)
TPF1012T	21	10½	129.26	131.5			1.9	
TPF1112T	23	11½	141.22	143.5			2.1	
TPF1212T	25	12½	153.20	155.5			2.3	

● Lock Sprockets



■ Lock Sleeve Dimensions

Sleeve no.	Df diameter mm	Dc diameter mm	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	8.3
S4	56.0	46.0	M5 × 20	8.3

Tsubaki model no.	Actual teeth	Pitch diameter *Dp* mm	Outside diameter *Do* mm	Facewidth *T* mm	Hub diameter Dh mm	Length *L* mm
TPF912T	19	117.34	120.0	11.9	63	45
TPF1012T	21	129.26	131.5			
TPF1112T	23	141.22	143.5			
TPF1212T	25	153.20	155.5			

■ Sleeve Combinations and Transfer Torque Values

Sleeve no.		S2							S3			S4		
Bore diameter *d* mm		15	16	17	18	19	20	22	24	25	28	30	32	35
		Max. allowable transfer torque N·m												
Tsubaki model no.	TPF912T TPF1012T TPF1112T TPF1212T	105	112	119	126	133	139	153	167	174	195	279	298	325

● Model Numbering

Chain type	Effective teeth		Bore diameter
TPF	**1012T**	—	**S18**

[blank]: Plain bore
S + bore diameter: Lock sprocket

Note: Do not leave spaces between letters and symbols.

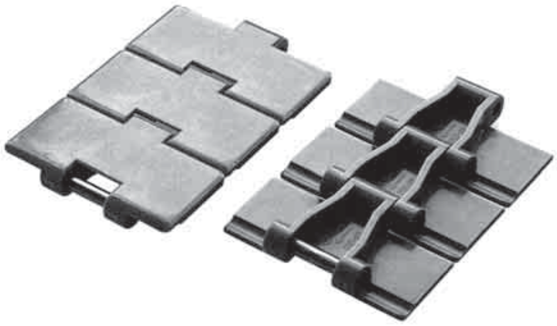
Dimensions in mm

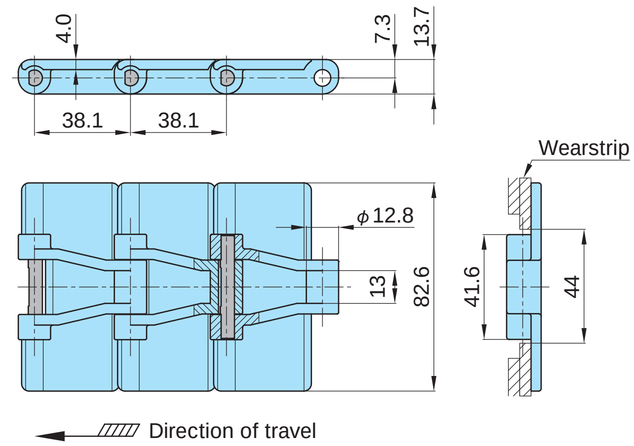
Plastic Top Chain TP-OTD

Straight Running

Features

- Approx. 30% higher maximum allowable load than TTP plastic top chain. Ideal for higher applied load conditions.
- Uses the same 4.0mm plate thickness as TTP and TTUP types, making it easy to adjust the level of wearstrips of lines running in parallel.





Model Numbering

Chain type	Plate width
TP-OTD	**32**
	32 = 82.6mm

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TP-OTD32
Standard chain	Standard	–	Gray	1.08 {110}	100	50	-20 to 80	●
	Low Friction/Anti-Wear	LFW	White				-20 to 80 (65)	▲
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green				-20 to 80	
High-function chain	Heat Resistant/ High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Speed	HS	Cream	0.97 {100}		230	-20 to 50	○
	Chemical Resistant	Y	Matte white	1.08 {110}	100	50	-20 to 80	▲
	Electroconductive	E	Black	0.86 { 88}				
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						

Note: 1. ● : Standard product ○ : Made-to-order product – : Not available
▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (65) is for wet conditions.
3. Standard chain length is 80 links.

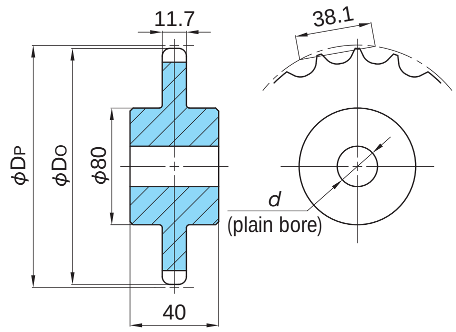
Chain (Stainless Steel Pins)

Material	Standard	Plate width mm	Approx. mass kg/m
Material mark	–		
Tsubaki model no.	TP-OTD32	82.6	0.9

Note: Plastic pins are not available.

Idler Wheels …See page 84 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

● Steel Sprockets for TP-OTD Chain



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter *Dp*	Outside diameter *Do*	Bore diameter *d*		Approx. mass kg	Material
					Plain bore	Max.		
TP-OTD1012T	21	10 ½	129.2	129	20	40	2.1	Carbon steel
TP-OTD1112T	23	11 ½	141.2	141			2.3	

Note: 1. Made-to-order product.
2. Sprockets can also be manufactured with other number of teeth than noted above.

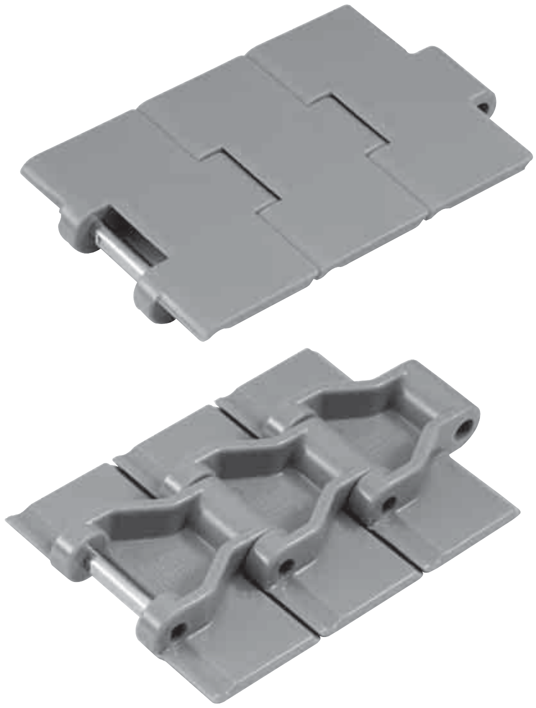
Dimensions in mm

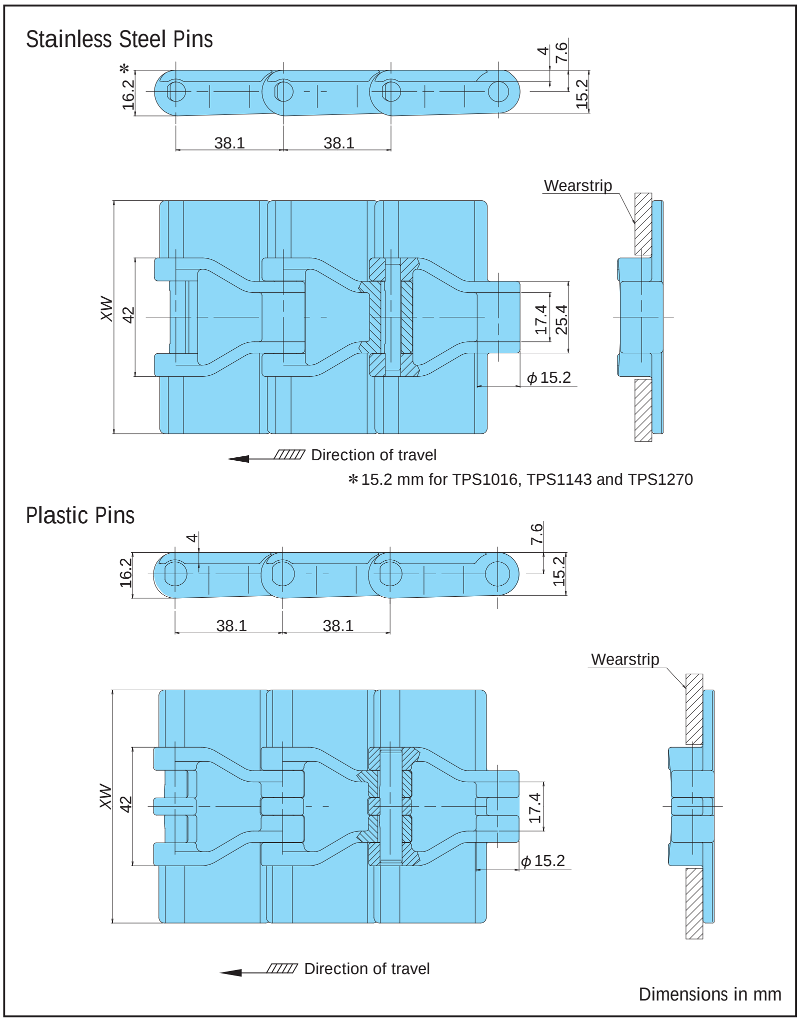
Plastic Top Chain TPS

Straight Running

Features

- Approx. 40% higher maximum allowable load than TTP plastic top chain. Ideal for higher applied load conditions.
- Uses the same sprockets as TTUP and TPU sideflexing plastic top chains. Designed to allow common sprockets to be used.
- Models with plastic pins also available. All-plastic construction means light weight and easy handling. Longer service life under water lubrication than stainless steel pins.





Model Numbering

Chain type	Plate width	Plastic pin		Chain material
TPS	**826**	**P**	—	**LFB**

Note: Specify "P" only when pins are to be plastic.
Do not leave spaces between letters and symbols.

Connecting Pin

1. 304 stainless steel D-pin
   Model no. TTUP-SUS-JPD
2. Special engineering plastic D-pin, orange
   Model no. TPS-PLA-JPD

Material

<table>
<tr><th rowspan="2"></th><th rowspan="2">Material</th><th rowspan="2">Material mark</th><th rowspan="2">Link color</th><th colspan="2">Max. allowable load kN {kgf}</th><th colspan="2">Max. allowable speed m/min</th><th rowspan="2">Operating temperature range °C</th><th colspan="5">Stainless steel pin</th><th colspan="2">Plastic pin</th></tr>
<tr><th>Stainless steel pin</th><th>Plastic pin</th><th>With lube</th><th>No lube</th><th>TPS 762</th><th>TPS 826</th><th>TPS 1016</th><th>TPS 1143</th><th>TPS 1270</th><th>TPS 826P</th><th>TPS 1143P</th></tr>
<tr><td rowspan="6">Standard chain</td><td>Standard</td><td>–</td><td>Gray</td><td rowspan="6">1.18 {120}</td><td rowspan="6">0.98 {100}</td><td rowspan="6">100</td><td rowspan="6">50</td><td rowspan="6">-20 to 80 (60)</td><td rowspan="5">○</td><td>●</td><td>●</td><td>●</td><td>●</td><td rowspan="2">○</td><td rowspan="5">○</td></tr>
<tr><td rowspan="3">Low Friction/Anti-Wear</td><td>LFW</td><td>White</td><td>○</td><td rowspan="4">○</td><td rowspan="4">○</td><td rowspan="4">○</td></tr>
<tr><td>LFG</td><td>Green</td><td rowspan="2">●</td><td rowspan="3">●</td></tr>
<tr><td>LFB</td><td>Brown</td></tr>
<tr><td>Ultra Low Friction</td><td>ULF</td><td>Blue</td><td>○</td></tr>
<tr><td>Low Friction</td><td>WR</td><td>Green</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td></tr>
<tr><td rowspan="11">High-function chain</td><td rowspan="3">Heat Resistant/High Speed</td><td>KV150</td><td rowspan="3">Black</td><td rowspan="3">0.98 {100}</td><td rowspan="3">–</td><td>–</td><td rowspan="3">200</td><td>-20 to 150</td><td rowspan="3">○</td><td rowspan="3">○</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td></tr>
<tr><td>KV180</td><td rowspan="2">200</td><td>-20 to 180</td></tr>
<tr><td>KV250</td><td>-20 to 250</td></tr>
<tr><td>High Speed</td><td>HS</td><td>Cream</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td></tr>
<tr><td>Chemical Resistant</td><td>Y</td><td>Matte white</td><td>0.59 {60}</td><td>–</td><td rowspan="2">100</td><td rowspan="5">50</td><td rowspan="2">-20 to 80 (60)</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td><td>▲</td><td>▲</td></tr>
<tr><td>Electroconductive</td><td>E</td><td>Black</td><td>0.82 {84}</td><td>0.69 {70}</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td><td>▲</td><td>○</td><td>○</td></tr>
<tr><td rowspan="2">Impact Resistant</td><td>DIA</td><td>Cream</td><td rowspan="2">0.93 { 95}</td><td>–</td><td>–</td><td>-20 to 80</td><td rowspan="3">○</td><td rowspan="3">○</td><td rowspan="3">○</td><td rowspan="3">○</td><td rowspan="3">○</td><td>–</td><td>–</td></tr>
<tr><td>DIY</td><td>Green</td><td>0.78 {80}</td><td rowspan="2">100</td><td rowspan="2">-20 to 80 (60)</td><td rowspan="2">○</td><td rowspan="2">○</td></tr>
<tr><td>Antibacterial/Mold Resistant</td><td>MWS</td><td>Cream</td><td>1.18 {120}</td><td>0.98 {100}</td></tr>
<tr><td rowspan="2">Metal Detectable</td><td>MPD</td><td rowspan="2">Black</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">▲</td><td rowspan="2">▲</td><td rowspan="2">▲</td><td rowspan="2">▲</td><td rowspan="2">▲</td><td>–</td><td>–</td></tr>
<tr><td>MPW</td><td>▲</td><td>▲</td></tr>
</table>

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. ● : Standard product ○ : Made-to-order product – : Not available
▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
3. The plastic connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).
4. Operating temperature of (60) is for using plastic-pin chain in wet conditions.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant		Heat Resistant/High Speed	Top plate width XW mm	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIA	DIY	KV150/180/250		
Tsubaki model no.	TPS762	TPS762-LFW	TPS762-LFG	TPS762-LFB	TPS762-ULF	TPS762-DIA	TPS762-DIY	TPS762-KV150 TPS762-KV180 TPS762-KV250	76.2	0.85
	TPS826	TPS826-LFW	TPS826-LFG	TPS826-LFB	TPS826-ULF	TPS826-DIA	TPS826-DIY	TPS826-KV150 TPS826-KV180 TPS826-KV250	82.6	0.85 DIA: 0.75 DIY: 1.10
	TPS1016	TPS1016-LFW	TPS1016-LFG	TPS1016-LFB	TPS1016-ULF	TPS1016-DIA	TPS1016-DIY	–	101.6	1.05 DIA: 0.90 DIY: 1.30
	TPS1143	TPS1143-LFW	TPS1143-LFG	TPS1143-LFB	TPS1143-ULF	TPS1143-DIA	TPS1143-DIY	–	114.3	1.10 DIA: 0.95 DIY: 1.35
	TPS1270	TPS1270-LFW	TPS1270-LFG	TPS1270-LFB	TPS1270-ULF	TPS1270-DIA	TPS1270-DIY	–	127.0	1.20 DIA: 1.0 DIY: 1.45

Chain (Plastic Pins)

Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant	Top plate width XW mm	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIY		
Tsubaki model no.	TPS826P	TPS826P-LFW	TPS826P-LFG	TPS826P-LFB	TPS826P-ULF	TPS826P-DIY	82.6	0.75 DIY: 0.90
	TPS1143P	TPS1143P-LFW	TPS1143P-LFG	TPS1143P-LFB	TPS1143P-ULF	TPS1143P-DIY	114.3	1.00 DIY: 1.20

Note: 1. As of January 2009, stainless steel knurled connecting pins have been changed to D-pins.
2. Knurled-pin chain and D-pin chain cannot be connected. When replacing, always replace the entire chain.

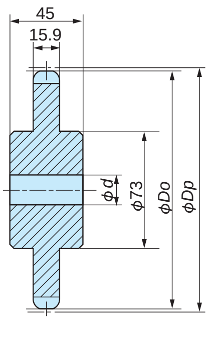
Sprockets ···See page 97/98 Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

Sprockets for TPS Chain

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)

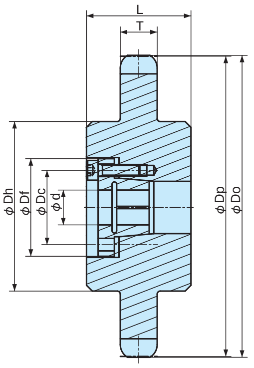
● Sprockets (with Plain Bore)



Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter *Dp* mm	Outside diameter *Do* mm	Bore diameter *d* mm		Approx. mass kg	Material
					Plain bore	Max.		
TTUP900T	–	9	111.40	111	18	47	2.0	Carbon steel
TTUP912T	19	9½	117.34	117			2.1	
TTUP1000T	–	10	123.29	123			2.2	
TTUP1012T	21	10½	129.26	130			2.4	
TTUP1100T	–	11	135.23	135			2.6	
TTUP1112T	23	11½	141.22	142			2.8	
TTUP1200T	–	12	147.21	147			3.0	
TTUP1212T	25	12½	153.20	154			3.2	
TTUP1300T	–	13	159.20	159			3.4	

Only TTUP1012T, TTUP1112T or TTUP1212T sprockets can be used on TPM/TPUM chain. For number of teeth other than these or for engineering plastic sprockets, contact a Tsubaki representative.

● Lock Sprockets



■ Lock Sleeve Dimensions

Sleeve no.	Df diameter mm	Dc diameter mm	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	8.3
S4	56.0	46.0	M5 × 20	8.3
S5	66.0	56.0	M5 × 20	8.3

Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter *Dp* mm	Outside diameter *Do* mm	Facewidth *T* mm	Hub diameter Dh mm	Length *L* mm
TTUP900T	–	9	111.40	111	15.9	73	45
TTUP912T	19	9½	117.34	117			
TTUP1000T	–	10	123.29	123			
TTUP1012T	21	10½	129.26	130			
TTUP1100T	–	11	135.23	135			
TTUP1112T	23	11½	141.22	142			
TTUP1200T	–	12	147.21	147			
TTUP1212T	25	12½	153.20	154			
TTUP1300T	–	13	159.20	159			

■ Sleeve Combinations and Transfer Torque Values

Sleeve no.		S2							S3			S4			S5			
Bore diameter *d* mm		15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45
		Max. allowable transfer torque N·m																
Tsubaki model no.	TTUP900T to TTUP1300T	139	149	158	167	177	186	205	167	174	195	279	298	325	442	465	586	628

● Model Numbering

Chain type	Effective teeth		Bore diameter
TTUP	**1012T**	—	**S18**

[blank]: Plain bore
S + bore diameter: Lock sprocket

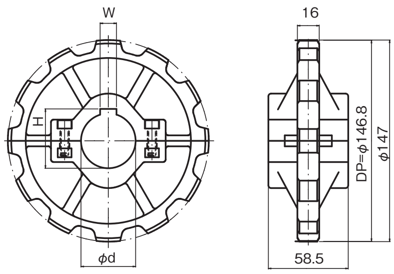
Note: Do not leave spaces between letters and symbols.

Dimensions in mm

Applicable chain	TPS, TPH, TTUP, TTUPH, TPU, TPU-LH, TPUT-LH, TPUH-BO, TTUP-M, TTUPT-M, TP-880TAB

● Split Sprockets (Engineering Plastic)

Sprockets



Tsubaki model no.	Teeth	Shaft diameter *d*	Keyway		Approx. mass kg
			W	*H*	
TP-C12400T-SPR	12	25	8	28.3	0.38
TP-C12711T-SPR		30	8	33.3	0.37
TP-C12401T-SPR		35	10	38.3	0.35
TP-C12402T-SPR		40	12	43.3	0.35

Note: 1. Standard product.
2. Operating temperature range: –20°C to 80°C
3. Bolt tightening torque: 6 N·m {0.61 kgf·m}
4. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.
5. Cannot be used with TPM / TTUPM chain.

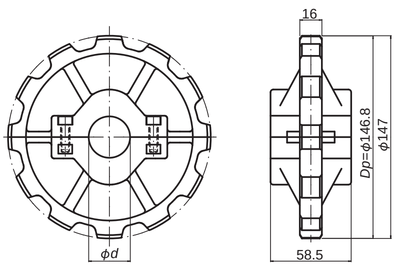
Specifications

(Common)
Type: Split
Material:
Bolt: Stainless steel
Nut: Brass + nickel plating
Color: Black

(Sprockets)
Keyway: DIN 6885 key seat
Material:
Body: Reinforced polyamide

(Idler Wheels)
Material:
Body: Polyamide

Idler Wheels



Tsubaki model no.	Effective teeth	Shaft diameter *d*	Approx. mass kg
TP-C12404T-IW	12	30	0.31

Note: 1. Standard product.
2. Operating temperature range: –20°C to 80°C
3. Bolt tightening torque: 6 N·m {0.61 kgf·m}
4. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.
5. Cannot be used with TPM / TTUPM chain.

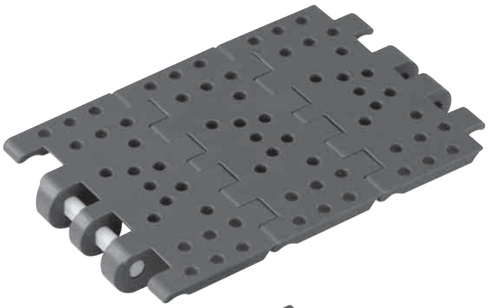
Dimensions in mm

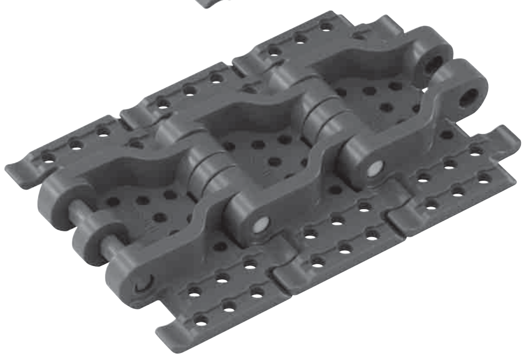
Plastic Top Chain TPH

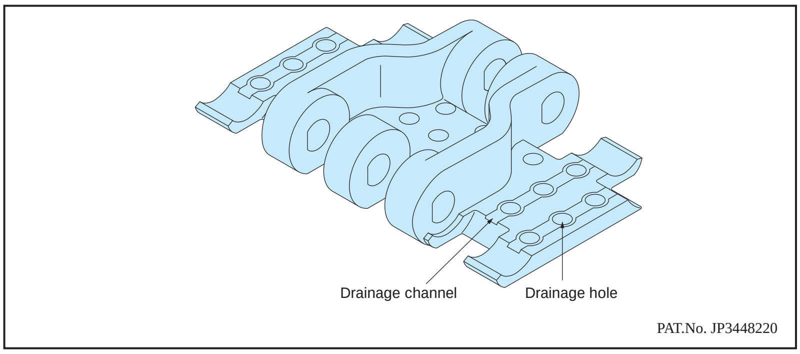
Straight Running

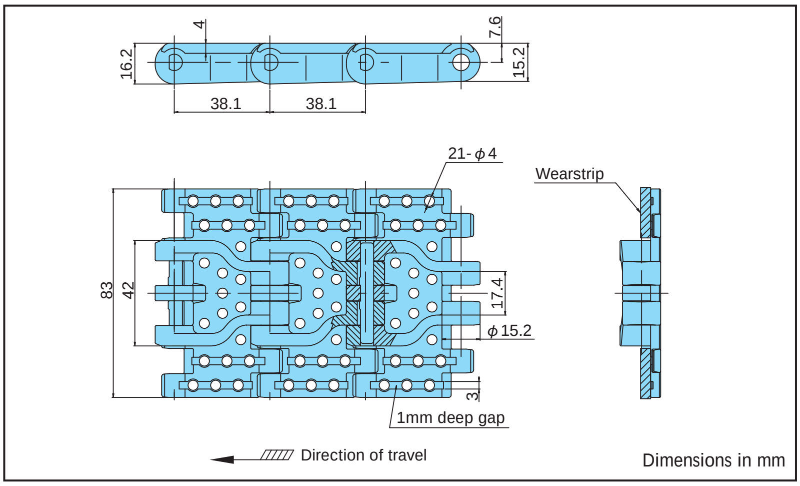
Features

- Comb-toothed plates minimize gaps between links. Ideal for conveying unstable containers such as PET bottles and dessert cups.
- Surface of top plate is flatter and smoother. Effective in preventing container wobbling and toppling during conveyance.
- Plates are perforated with numerous drainage holes that effectively remove excess lubricant and water remaining on plate surface.
- Same basic dimensions as TPS plastic top chain. Can provide stable container conveyance simply by replacing the chain.
- Models with plastic pins also available. All-plastic construction means light weight and easy handling. Longer service life under water lubrication than stainless steel pins.









Model Numbering

Chain type	Plate width	Plastic pin		Chain material
TPH	**830**	**P**	—	**ULF**

Note: Specify "P" only when pins are to be plastic.
Do not leave spaces between letters and symbols.

Connecting Pin

1. 304 stainless steel D-pin
   Model no. TTP-SUS-JPD
2. Special engineering plastic D-pin, orange
   Model no. TTP-PLA-JPD

Note: Same connecting pin used for TTP chain.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}		Max. allowable speed m/min		Operating temperature range °C	TPH830	TPH830P
				Stainless steel pin	Plastic pin	With lube	No lube			
Standard chain	Standard	–	Gray	1.18 {120}	0.78 { 80}	100	50	-20 to 80 (60)	○	○
	Low Friction / Anti-Wear	LFW	White							
		LFG	Green							
		LFB	Brown							
	Ultra Low Friction	ULF	Blue						●	●
	Low Friction	WR	Green	–	–	–	–	–	▲	▲
High-function chain	Heat Resistant / High Speed	KV150	Black	–	–	–	–	–	–	–
		KV180								
		KV250								
	High Speed	HS	Cream							
	Chemical Resistant	Y	Matte white	0.59 { 60}	–	100	50	-20 to 80 (60)	○	▲
	Electroconductive	E	Black	0.82 { 84}	0.54 { 55}					○
	Impact Resistant	DIA	Cream	0.93 { 95}	–	–				–
		DIY	Green		0.64 { 65}	100				○
	Antibacterial / Mold Resistant	MWS	Cream	1.18 {120}	0.78 { 80}					
	Metal Detectable	MPD	Black	–	–	–	–	–	▲	–
		MPW								▲

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. ● : Standard product ○ : Made-to-order product – : Not available
▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
3. The connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).
4. Operating temperature of (60) is for using plastic-pin chain in wet conditions.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction / Anti-Wear			Ultra Low Friction	Impact Resistant		Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIA	DIY	
Tsubaki model no.	TPH830	TPH830-LFW	TPH830-LFG	TPH830-LFB	TPH830-ULF	TPH830-DIA	TPH830-DIY	1.0 DIA: 0.85 DIY: 1.20

Chain (Plastic Pins)

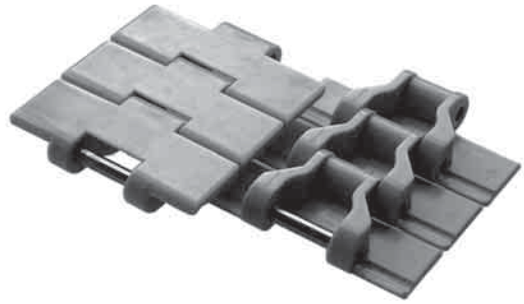
Material	Standard	Low Friction / Anti-Wear			Ultra Low Friction	Impact Resistant	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIY	
Tsubaki model no.	TPH830P	TPH830P-LFW	TPH830P-LFG	TPH830P-LFB	TPH830P-ULF	TPH830P-DIY	0.75 DIY: 0.90

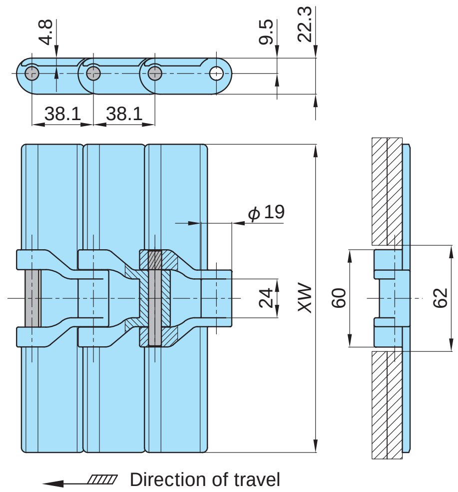
Sprockets …See page 98 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

Plastic Top Chain TPSS

Features

- Chain is 2.3 times stronger than TTP chains. Suitable for higher load applications.
- Can handle larger and heavier products.





Dimensions in mm

Model Numbering

Chain type	Plate width		Chain material
TPSS	1143	—	LFB

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TPSS 1143	TPSS 1270	TPSS 1524	TPSS 1905
Standard chain	Standard	–	Gray	1.96 {200}	100	50	-20 to 80	▲	▲	▲	▲
	Low Friction/Anti-Wear	LFW	White				-20 to 80 (65)				
		LFG	Green					○			○
		LFB	Brown								
	Ultra Low Friction	ULF	Blue	–	–	–	–	–	–	–	–
	Low Friction	WR	Green	1.96 {200}	100	50	-20 to 80	▲	▲	▲	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–	–	–	–
		KV180									
		KV250									
	High Speed	HS	Cream								
	Chemical Resistant	Y	Matte white								
	Electroconductive	E	Black								
	Impact Resistant	DIA	Cream								
		DIY	Green								
	Antibacterial/Mold Resistant	MWS	Cream								
	Metal Detectable	MPD	Black								
		MPW									

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (65) is for wet conditions.
3. Standard chain length is 80 links.

Chain (Stainless Steel Pins)

Material	Low Friction/Anti-Wear		Top plate width XW mm	Approx. mass kg/m
Material mark	LFG	LFB		
Tsubaki model no.	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. Made-to-order product.
2. Plastic pins are not available.
3. Top plate widths of 127.0mm and 152.4mm are made by trimming a 190.5mm-wide top plate.

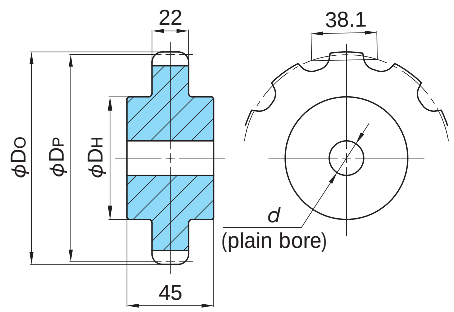
Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

Sprockets for TPSS Chain

Steel

Applicable chain TPSS, TTUPS, TPUS-Y-T

● Steel 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.		
TPSS900T	9	114.4	111	63	20	35	1.9	Carbon steel
TPSS1000T	10	123.3	124	71		40	2.3	
TPSS1100T	11	135.2	136				2.7	
TPSS1200T	12	147.2	149				3.1	
TPSS1300T	13	159.2	161				3.6	
TPSS1400T	14	171.2	173				4.1	
TPSS1500T	15	183.3	186				4.6	

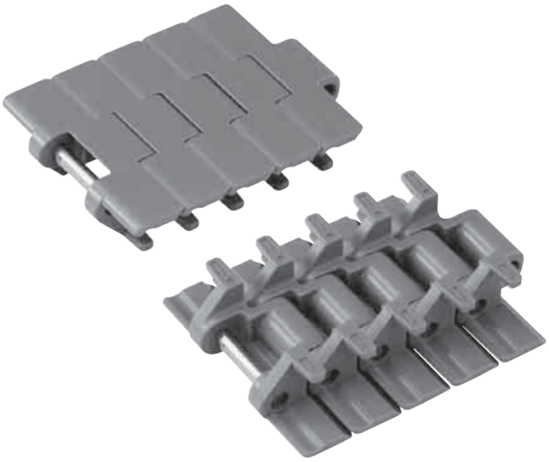
Note: 1. Made-to-order product.
2. Sprockets can also be manufactured with other number of teeth than noted above.

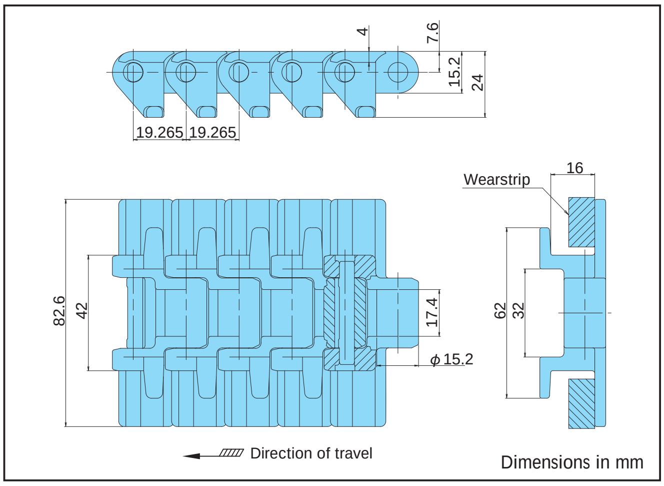
Dimensions in mm

Plastic Top Chain TPM

Features

- Chain pitch is approximately one-half of conventional conveyor chains, effectively lowering conveyor noise level and reducing the gap between the end of one conveyor and the start of the next conveyor.
- Type TPS sprockets (odd number of teeth) can be used. Designed to allow common sprockets to be used.
- Equipped with float-preventive tabs. Keeps the chain securely in position on corner turns and in incline/decline sections, as well as preventing damage (scratches, etc.) to the top surface of the plates on the return way.





Pitch (p = 19.265) has been designed for engagement with TPS sprockets (TTUP1012T; number of actual teeth is 21).

Model Numbering

Chain type	Plate width		Tab		Chain material
TPM	**826**	—	**T**	—	**LFB**

Note: Do not leave spaces between letters and symbols.

Connecting Pin

1. 304 stainless steel D-pin
   Model no. TTUP-SUS-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TPM
Standard chain	Standard	–	Gray	1.18 {120}	100	50	-20 to 80	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Speed	HS	Cream					
	Chemical Resistant	Y	Matte white	0.59 { 60}	100	50	-20 to 80	○
	Electroconductive	E	Black	0.82 { 84}				
	Impact Resistant	DIA	Cream	0.93 { 95}	–			
		DIY	Green		100			
	Antibacterial/Mold Resistant	MWS	Cream	1.18 {120}				
	Metal Detectable	MPD	Black	–	–	–	–	▲
		MPW						

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 160 links.
2. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction/Anti-Wear			Antibacterial/Mold Resistant	Ultra Low Friction	Impact Resistant		Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	MWS	ULF	DIA	DIY	
Link color	Gray	White	Green	Brown	Cream	Blue	Cream	Green	
Max. allowable load kN {kgf}	1.18 {120}						0.93 {95}		
Tsubaki model no.	TPM826-T	TPM826 -T-LFW	TPM826 -T-LFG	TPM826 -T-LFB	TPM826-T-MWS	TPM826-T-ULF	TPM826 -T-DIA	TPM826 -T-DIY	1.4 DIA: 1.2 DIY: 1.7

Note: 1. Made-to-order product.
2. Plastic pins are not available.

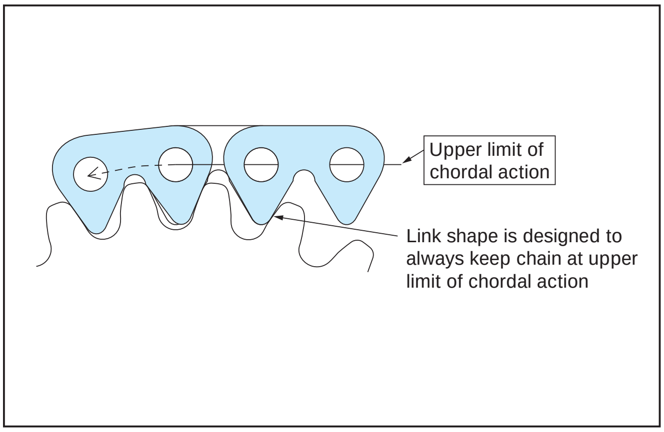
Sprockets …See page 97 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

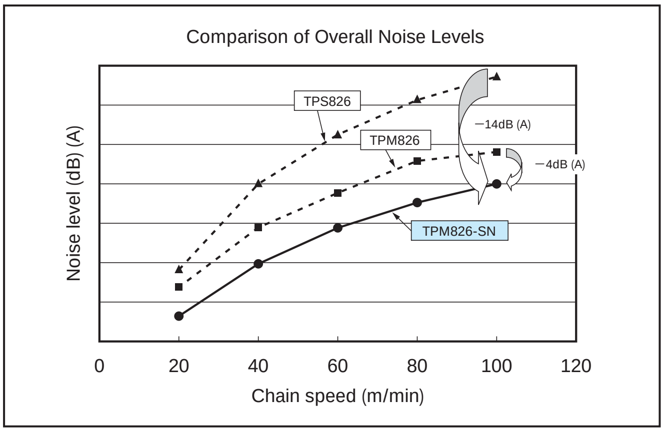
Plastic Top Chain TPM-SN

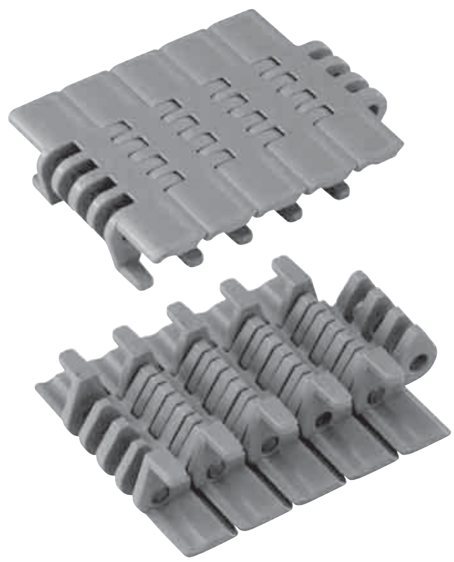
Straight Running

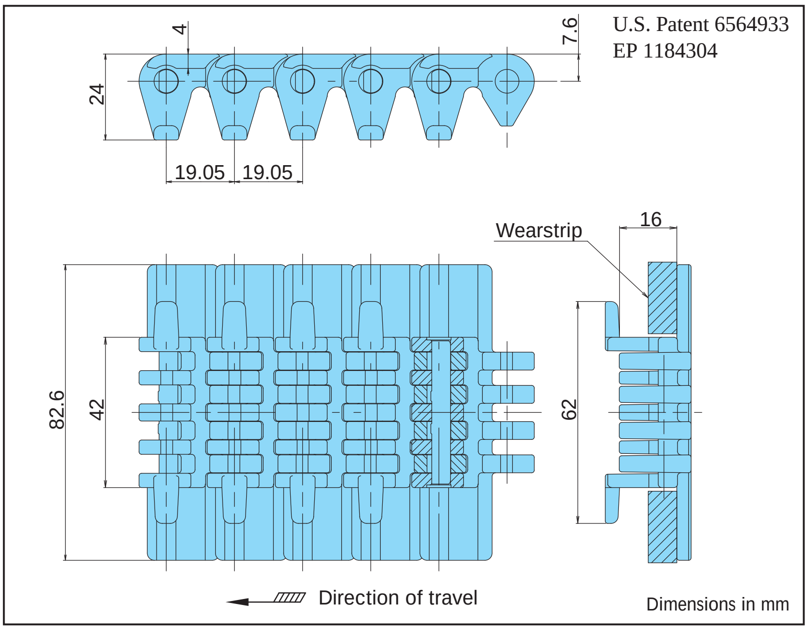
Features

- Applies the concept of silent chain engagement. Extremely effective in reducing conveyor noise.
- Uses special sprockets. Suppresses chordal action of the chain when engaging with the sprocket, enabling stable chain travel.
- Equipped with float-preventive tabs. Keeps the chain securely in position on corner turns and in incline/decline sections, as well as preventing damage (scratches, etc.) to the top surface of the plates on the return way.









Model Numbering

Chain type	Plate width	Plastic pin		Chain type		Tab		Chain material
TPM	**826**	**P**	—	**SN**	—	**T**	—	**LFB**

Note: Specify "P" only when pins are to be plastic.
Do not leave spaces between letters and symbols.

Connecting Pin

1. 304 stainless steel D-pin
   Model no. TTP-SUS-JPD
2. Special engineering plastic D-pin, orange
   Model no. TTP-PLA-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf} Stainless steel pin	Max. allowable load kN {kgf} Plastic pin	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TPM826-SN-T	TPM826P-SN-T
Standard chain	Standard	–	Gray	1.18 {120}	0.78 { 80}	100	50	-20 to 80 (60)	○	○
	Low Friction/Anti-Wear	LFW	White	1.18 {120}	0.78 { 80}	100	50	-20 to 80 (60)	○	○
		LFG	Green	1.18 {120}	0.78 { 80}	100	50	-20 to 80 (60)	○	○
		LFB	Brown	1.18 {120}	0.78 { 80}	100	50	-20 to 80 (60)	○	○
	Ultra Low Friction	ULF	Blue	1.18 {120}	0.78 { 80}	100	50	-20 to 80 (60)	○	○
	Low Friction	WR	Green	–	–	–	–	–	–	–
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–	–	–
		KV180	Black	–	–	–	–	–	–	–
		KV250	Black	–	–	–	–	–	–	–
	High Speed	HS	Cream	–	–	–	–	–	–	–
	Chemical Resistant	Y	Matte white	0.59 { 60}	–	100	50	-20 to 80 (60)	○	▲
	Electroconductive	E	Black	0.82 { 84}	0.54 { 55}	100	50	-20 to 80 (60)	○	○
	Impact Resistant	DIA	Cream	0.93 { 95}	–	–	50	-20 to 80 (60)	○	○
		DIY	Green	0.93 { 95}	0.64 { 65}	100	50	-20 to 80 (60)	○	○
	Antibacterial/Mold Resistant	MWS	Cream	1.18 {120}	0.78 { 80}	100	50	-20 to 80 (60)	○	○
	Metal Detectable	MPD	Black	–	–	–	–	–	▲	–
		MPW	Black	–	–	–	–	–	▲	▲

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 160 links.
2. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
3. The connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).
4. Operating temperature of (60) is for using plastic-pin chain in wet conditions.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant		Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIA	DIY	
Tsubaki model no.	TPM826 -SN-T	TPM826 -SN-T-LFW	TPM826 -SN-T-LFG	TPM826 -SN-T-LFB	TPM826 -SN-T-ULF	TPM826 -SN-T-DIA	TPM826 -SN-T-DIY	1.4 DIA: 1.2 DIY: 1.7

Chain (Plastic Pins)

Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIY	
Tsubaki model no.	TPM826P -SN-T	TPM826P -SN-T-LFW	TPM826P -SN-T-LFG	TPM826P -SN-T-LFB	TPM826P -SN-T-ULF	TPM826P -SN-T-DIY	1.1 DIY: 1.35

Sprockets

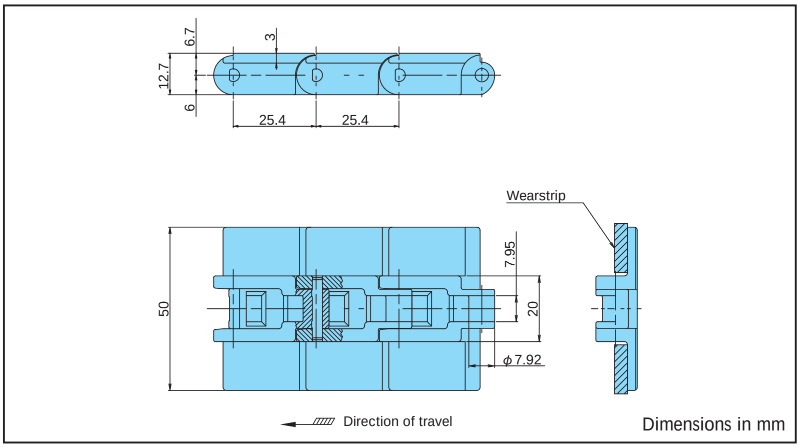
Use dedicated 21-tooth sprockets for TPM-SN chain.

Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

● TPRF2040

Features

- With a plate width of 50mm and a 25.4mm pitch, this plastic top chain is ideal for conveying small objects.
- RF2040S sprockets can be used (19 teeth or more).



● Model Numbering

Chain type	Chain pitch		Chain material
TPRF	**2040**	–	**LFB**

Note: Do not leave spaces between letters and symbols.

● Connecting Pin

1. 304 stainless steel D-pin
   Model no. RSP40-SUS-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TPRF2040
Standard chain	Standard	–	White	0.44 {45}	60		-20 to 80	●
	Low Friction/Anti-Wear	LFW	White					○
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Speed	HS	Cream					
	Chemical Resistant	Y	Matte white	0.22 {22}	60	60	-20 to 80	○
	Electroconductive	E	Black	0.31 {31}				
	Impact Resistant	DIA	Cream	0.34 {35}	–			
		DIY	Green		60			
	Antibacterial/Mold Resistant	MWS	Cream	0.44 {45}				
	Metal Detectable	MPD	Black	–	–	–	–	▲
		MPW						

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 120 links.
2. ● : Standard product ○ : Made-to-order product – : Not available
▲ : Special configurations may be available. Contact a Tsubaki representative for further information.

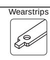
Chain (Stainless Steel Pins)

Material	Standard	Low Friction/Anti-Wear			Antibacterial/Mold Resistant	Ultra Low Friction	Impact Resistant		Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	MWS	ULF	DIA	DIY	
Tsubaki model no.	TPRF2040	TPRF2040-LFW	TPRF2040-LFG	TPRF2040-LFB	TPRF2040-MWS	TPRF2040-ULF	TPRF2040-DIA	TPRF2040-DIY	0.42 DIA: 0.36 DIY: 0.52

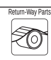
Note: 1. Plastic pins are not available. 2. As of July 2008, knurled connecting pins have been changed to D-pins. 3. Knurled-pin chain can be connected to D-pin chain.

Sprockets

Use standard ANSI #C2040 sprockets with at least 19 teeth.



···See page 191/193

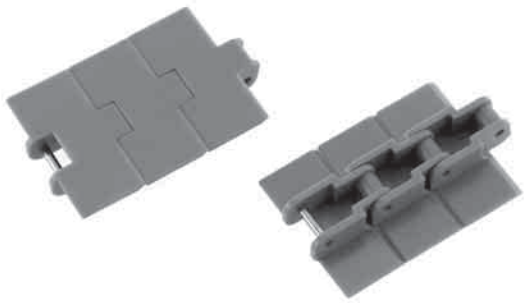


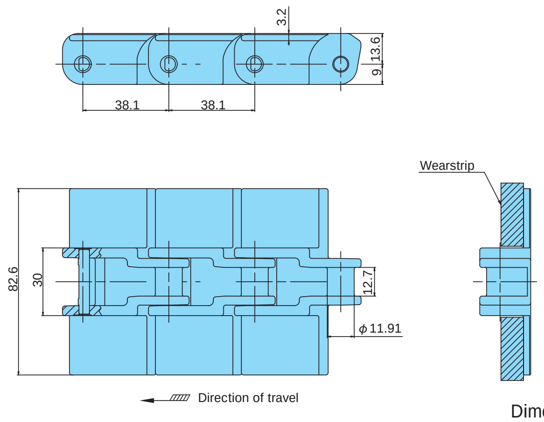
···See page 203–205

● TPRF2060

Features

- Double-pitch top chain featuring wider plastic top plates for better product support.
- RF2060S sprockets can be used (19 teeth or more).





Dimensions in mm

● Model Numbering

Chain type	Chain pitch		Chain material
TPRF	**2060**	—	**LFB**

Note: Do not leave spaces between letters and symbols.

● Connecting Pin

1. 304 stainless steel D-pin
   Model no. RSP60-SUS-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TPRF2060
Standard chain	Standard	–	Gray	0.88 {90}	60		-20 to 80	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Speed	HS	Cream					
	Chemical Resistant	Y	Matte white	0.44 {45}	60	60	-20 to 80	○
	Electroconductive	E	Black	0.62 {63}				
	Impact Resistant	DIA	Cream	0.69{70}	–			
		DIY	Green		60			
	Antibacterial/Mold Resistant	MWS	Cream	0.88{90}				
	Metal Detectable	MPD	Black	–	–	–	–	▲
		MPW						

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction/Anti-Wear			Antibacterial/Mold Resistant	Ultra Low Friction	Impact Resistant		Approx. mass
Material mark	–	LFW	LFG	LFB	MWS	ULF	DIA	DIY	kg/m
Tsubaki model no.	TPRF2060	TPRF2060-LFW	TPRF2060-LFG	TPRF2060-LFB	TPRF2060-MWS	TPRF2060-ULF	TPRF2060-DIA	TPRF2060-DIY	0.9 DIA: 0.7 DIY: 1.1

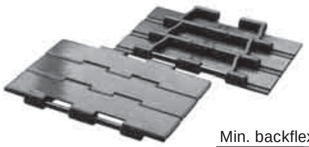
Note: 1. Made-to-order product. 2. Plastic pins are not available.

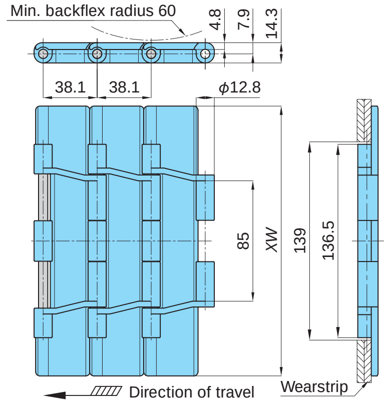
Sprockets

Use standard ANSI #C2060 sprockets with at least 19 teeth.

Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

● TTPDH-Y

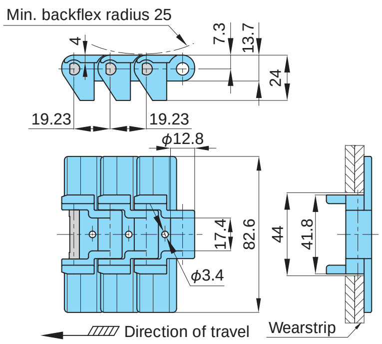




Material	Low Friction	Top plate width XW	Max. allowable load kN{kgf}	Approx. mass kg/m
Material mark	WR			
Link color	Green			
Connecting pin	Knurled pins			
Tsubaki model no.	TTPDH1905Y-WR	190.5	1.67 {170}	2.5
	TTPDH2540Y-WR	254.0		3.0
	TTPDH3048Y-WR	304.8		3.3

Note: 1. Made-to-order product.
2. Plastic pins are not available.

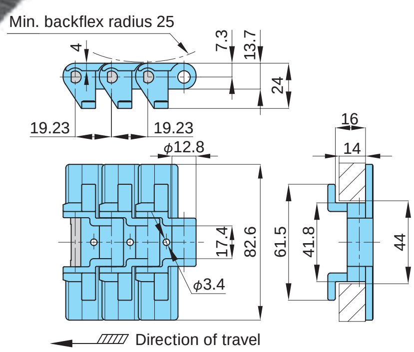
● TP-YS



Material	Low Friction	High Speed	Top plate width	Max. allowable load kN{kgf}	Approx. mass kg/m
Material mark	WR	HS			
Link color	Green	Cream			
Connecting pin	D-pins				
Tsubaki model no.	TP-YS32-WR	TP-YS32-HS	82.6	0.83 {85}	1.3

Note: 1. Made-to-order product.
2. Plastic pins are not available.

● TP-YST



Material	Low Friction	High Speed	Top plate width	Max. allowable load kN{kgf}	Approx. mass kg/m
Material mark	WR	HS			
Link color	Green	Cream			
Connecting pin	D-pins				
Tsubaki model no.	TP-YST32-WR	TP-YST32-HS	82.6	0.83 {85}	1.4

Note: 1. Made-to-order product.
2. Plastic pins are not available.

Dimensions in mm

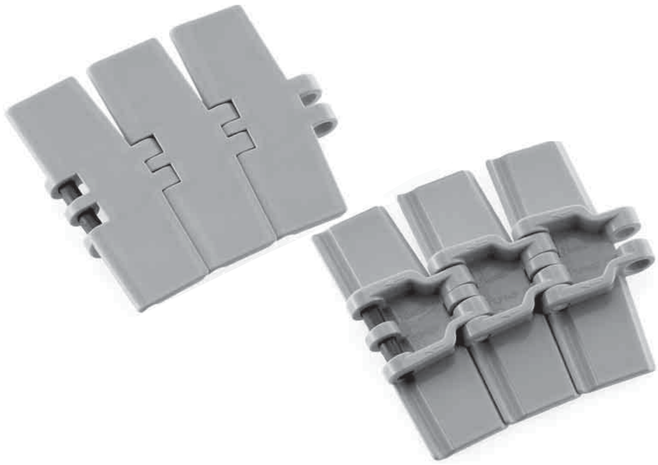
Plastic Top Chain TTUP

Features

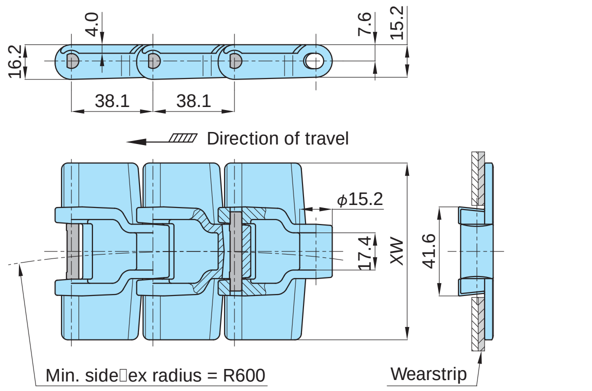
- Most popular chain series designed for use in sideflexing conveyors. Simple construction facilitates washing and clean-up.
- Uses the same sprockets as TPS and TPU plastic top chains. Designed to allow common sprockets to be used.

● Stainless Steel Pin Type

● Plastic Pin Type

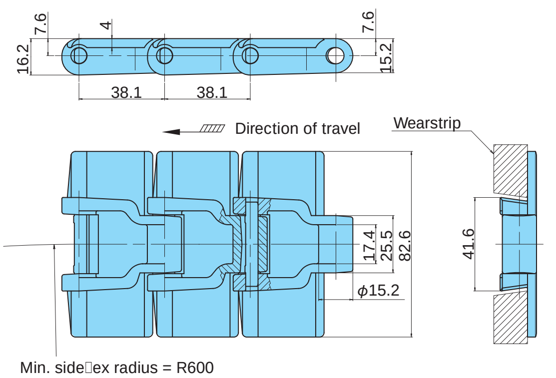


TTUP826 (materials other than those below), TTUP1143, TTUP1905

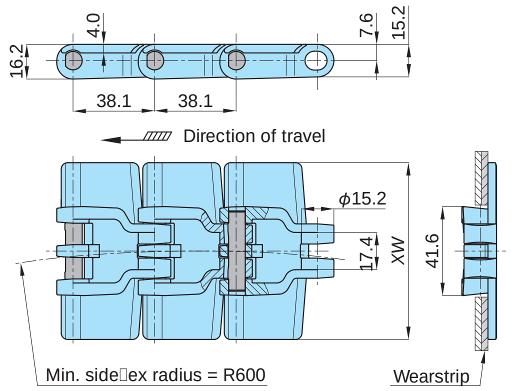


Registered patent

TTUP826-MWS, DIA, DIY, KV150, KV180, MPD, MPW

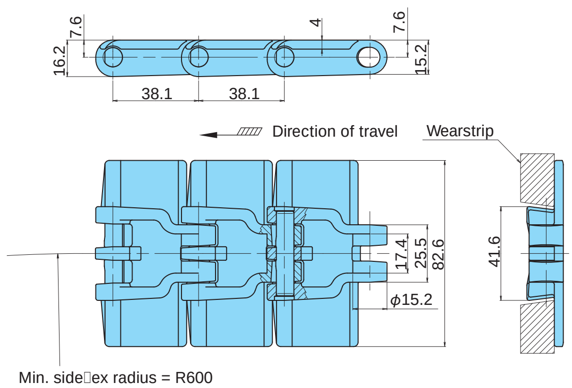


TTUP826P (materials other than those below), TTUP1143P



Registered patent

TTUP826P-MWS, DIY, MPW



● Model Numbering

Chain type	Plate width	Plastic pin		Chain material
TTUP	**826**	**P**	**—**	**ULF**

Note: Specify “P” only when pins are to be plastic.
Do not leave spaces between letters and symbols.

● Connecting Pin

1. 304 stainless steel D-pin
   Model no. TTUP-SUS-JPD
2. Special engineering plastic D-pin, orange
   Model no. TTUP-PLA-JPD

Dimensions in mm

Material

<table>
<tr><th rowspan="3"></th><th rowspan="3">Material</th><th rowspan="3">Material mark</th><th rowspan="3">Link color</th><th colspan="2" rowspan="2">Max. allowable load kN {kgf}</th><th colspan="2" rowspan="2">Max. allowable speed m/min</th><th rowspan="3">Operating temperature range °C</th><th colspan="3">Stainless steel pin</th><th colspan="2">Plastic pin</th></tr>
<tr><th rowspan="2">TTUP 826</th><th rowspan="2">TTUP 1143</th><th rowspan="2">TTUP 1905</th><th rowspan="2">TTUP 826P</th><th rowspan="2">TTUP 1143P</th></tr>
<tr><th>Stainless steel pin</th><th>Plastic pin</th><th>With lube</th><th>No lube</th></tr>
<tr><td rowspan="6">Standard chain</td><td>Standard</td><td>–</td><td>Gray</td><td rowspan="6">1.08 {110}</td><td rowspan="6">0.88 { 90}</td><td rowspan="6">100</td><td rowspan="6">50</td><td rowspan="6">-20 to 80 (60)</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr>
<tr><td rowspan="3">Low Friction/Anti-Wear</td><td>LFW</td><td>White</td><td>○</td><td>○</td><td>○</td><td>○</td><td>○</td></tr>
<tr><td>LFG</td><td>Green</td><td rowspan="3">●</td><td rowspan="3">●</td><td rowspan="2">●</td><td rowspan="3">●</td><td rowspan="3">●</td></tr>
<tr><td>LFB</td><td>Brown</td></tr>
<tr><td>Ultra Low Friction</td><td>ULF</td><td>Blue</td><td rowspan="2">○</td></tr>
<tr><td>Low Friction</td><td>WR</td><td>Green</td><td>●</td><td>●</td><td>●</td><td>●</td></tr>
<tr><td rowspan="11">High-function chain</td><td rowspan="3">Heat Resistant/ High Speed</td><td>KV150</td><td rowspan="3">Black</td><td rowspan="2">0.98 {100}</td><td rowspan="4">–</td><td>–</td><td rowspan="2">200</td><td>-20 to 150</td><td rowspan="2">○</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td><td rowspan="4">–</td></tr>
<tr><td>KV180</td><td>200</td><td>-20 to 180</td></tr>
<tr><td>KV250</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td></tr>
<tr><td>High Speed</td><td>HS</td><td>Cream</td></tr>
<tr><td>Chemical Resistant</td><td>Y</td><td>Matte white</td><td>0.54 { 55}</td><td>0.44 { 45}</td><td rowspan="2">100</td><td rowspan="7">50</td><td rowspan="6">-20 to 80 (60)</td><td rowspan="6">○</td><td rowspan="6">○</td><td rowspan="5">○</td><td>▲</td><td>▲</td></tr>
<tr><td>Electroconductive</td><td>E</td><td>Black</td><td>0.76 { 77}</td><td>0.62 { 63}</td><td>○</td><td>○</td></tr>
<tr><td rowspan="2">Impact Resistant</td><td>DIA</td><td>Cream</td><td rowspan="2">0.83 { 85}</td><td>–</td><td>–</td><td>–</td><td>–</td></tr>
<tr><td>DIY</td><td>Green</td><td>0.69 { 70}</td><td rowspan="2">100</td><td rowspan="2">○</td><td rowspan="2">○</td></tr>
<tr><td>Antibacterial/Mold Resistant</td><td>MWS</td><td>Cream</td><td>1.08 {110}</td><td>0.88 { 90}</td></tr>
<tr><td rowspan="2">Metal Detectable</td><td>MPD</td><td rowspan="2">Black</td><td>0.83 { 85}</td><td>–</td><td>–</td><td rowspan="2">–</td><td>–</td><td>–</td></tr>
<tr><td>MPW</td><td>–</td><td>0.34 { 35}</td><td>50</td><td>-20 to 60</td><td>▲</td><td>▲</td><td>○</td><td>○</td></tr>
</table>

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. ● : Standard product ○ : Made-to-order product – : Not available
▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
3. Operating temperature of (60) is for using plastic-pin chain in wet conditions.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction/Anti-Wear			Low Friction	Top plate width *XW* mm	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	WR		
Tsubaki model no.	TTUP826	TTUP826-LFW	TTUP826-LFG	TTUP826-LFB	TTUP826-WR	82.6	1.0
	TTUP1143	TTUP1143-LFW	TTUP1143-LFG	TTUP1143-LFB	TTUP1143-WR	114.3	1.1
	TTUP1905	TTUP1905-LFW	TTUP1905-LFG	TTUP1905-LFB	TTUP1905-WR	190.5	1.6

Material	Ultra Low Friction	Impact Resistant		Heat Resistant/High Speed	Top plate width *XW* mm	Approx. mass kg/m
Material mark	ULF	DIA	DIY	KV150、KV180		
Tsubaki model no.	TTUP826-ULF	TTUP826-DIA	TTUP826-DIY	TTUP826-KV150 TTUP826-KV180	82.6	1.0 DIA: 0.85 DIY: 1.20
	TTUP1143-ULF	TTUP1143-DIA	TTUP1143-DIY	–	114.3	1.1 DIA: 0.95 DIY: 1.35
	TTUP1905-ULF	TTUP1905-DIA	TTUP1905-DIY	–	190.5	1.6 DIA: 1.35 DIY: 1.95

Chain (Plastic Pins)

Material	Low Friction/Anti-Wear			Low Friction	Ultra Low Friction	Impact Resistant	Top plate width *XW* mm	Approx. mass kg/m
Material mark	LFW	LFG	LFB	WR	ULF	DIY		
Tsubaki model no.	TTUP826P-LFW	TTUP826P-LFG	TTUP826P-LFB	TTUP826P-WR	TTUP826P-ULF	TTUP826P-DIY	82.6	0.7 DIY: 0.9
	TTUP1143P-LFW	TTUP1143P-LFG	TTUP1143P-LFB	TTUP1143P-WR	TTUP1143P-ULF	TTUP1143P-DIY	114.3	0.8 DIY: 1.05

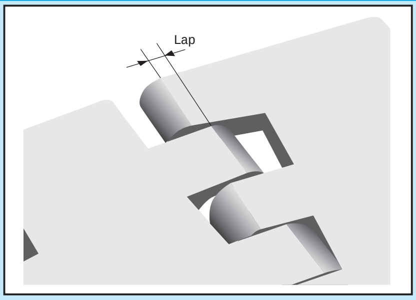
Note: 1. The plastic connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).
2. As of October 2008, the shape of the TTUP826 links was changed (except for MWS [Antibacterial/Mold Resistant] series and DIA/DIY [Impact Resistant] series).
3. New chain cannot be connected to an old chain model. When replacing an old chain model, always replace the entire chain.

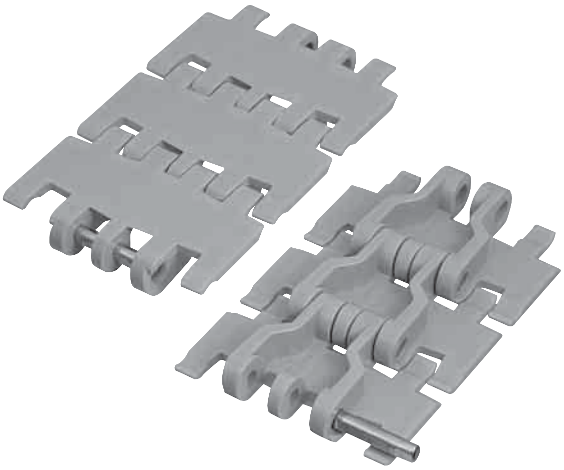
Sprockets …See page 97/98 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

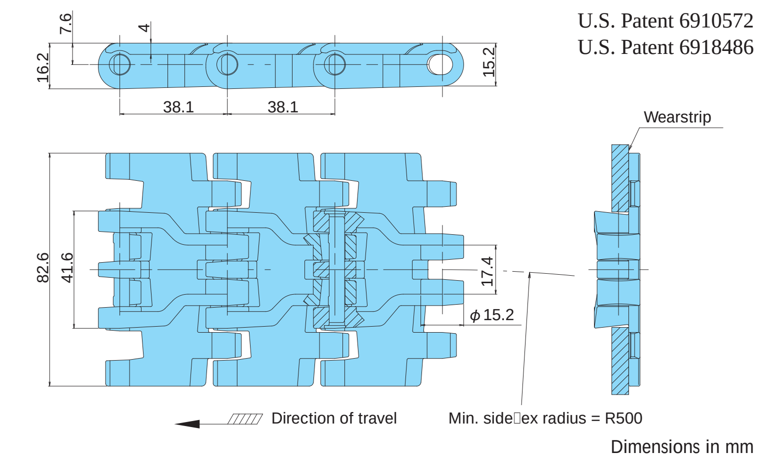
Plastic Top Chain TTUPH

Features

- Comb-toothed plates minimize gaps between links. Ideal for conveying unstable containers such as plastic bottles and dessert cups.
- Surface of top plate is flatter and smoother. Effective in preventing container wobbling and tip-over during conveyance.
- Same basic dimensions as TTUP plastic top chain. Can provide stable container conveyance simply by replacing the chain.
- Both ends of the plate are slightly chamfered, ensuring smooth lateral plate-to-plate transfers between adjacent chains.







Model Numbering

Chain type	Plate width		Chain material
TTUPH	**826**	—	**ULF**

Note: Do not leave spaces between letters and symbols.

Connecting Pin

1. 304 stainless steel D-pin
   Model no. TTUP-SUS-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TTUPH
Standard chain	Standard	–	Gray	1.08 {110}	100	50	-20 to 80	○
	Low Friction/Anti-Wear	LFW	White	1.08 {110}	100	50	-20 to 80	○
		LFG	Green	1.08 {110}	100	50	-20 to 80	●
		LFB	Brown	1.08 {110}	100	50	-20 to 80	●
	Ultra Low Friction	ULF	Blue	1.08 {110}	100	50	-20 to 80	●
	Low Friction	WR	Green	–	–	–	–	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180	Black	–	–	–	–	–
		KV250	Black	–	–	–	–	–
	High Speed	HS	Cream	–	–	–	–	–
	Chemical Resistant	Y	Matte white	0.54 { 55}	100	50	-20 to 80	○
	Electroconductive	E	Black	0.76 { 77}	100	50	-20 to 80	○
	Impact Resistant	DIA	Cream	0.83 { 85}	–	50	-20 to 80	○
		DIY	Green	0.83 { 85}	100	50	-20 to 80	○
	Antibacterial/Mold Resistant	MWS	Cream	1.08 {110}	100	50	-20 to 80	○
	Metal Detectable	MPD	Black	–	–	–	–	▲
		MPW	Black	–	–	–	–	▲

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. ● : Standard product ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.

Chain (Stainless Steel Pins)

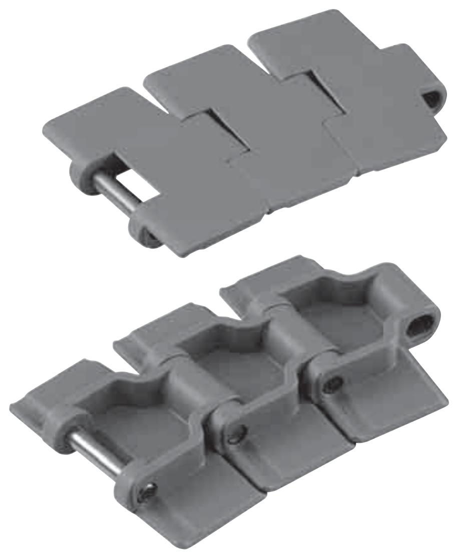
Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant		Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIA	DIY	
Tsubaki model no.	TTUPH826	TTUPH826-LFW	TTUPH826-LFG	TTUPH826-LFB	TTUPH826-ULF	TTUPH826-DIA	TTUPH826-DIY	1.0 DIA: 0.85 DIY: 1.20

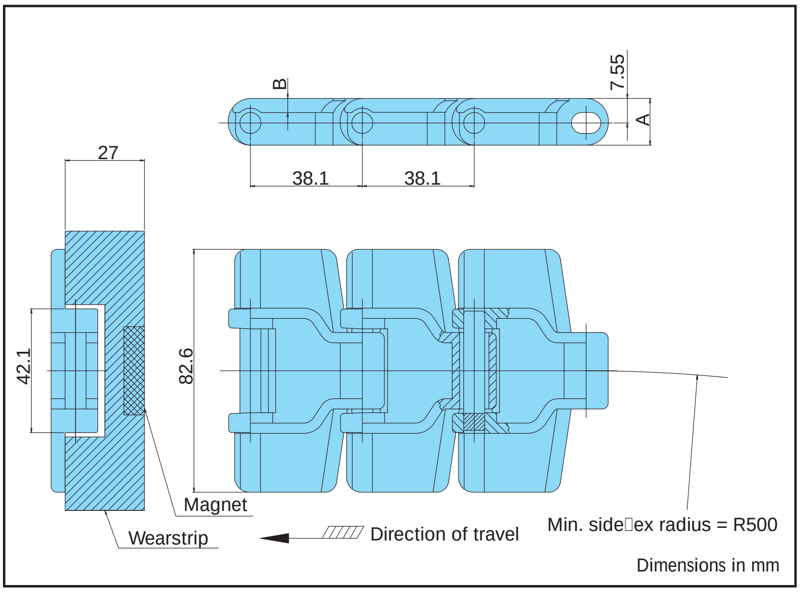
Note: Plastic pins are not available.

Sprockets ···See page 97/98
Wearstrips ···See page 191/193
Return-Way Parts ···See page 203–205

Features

● Combining a magnetic wearstrip prevents the chain from floating in curved sections.





● Model Numbering

Chain type	Plate width	Chain type		Chain material
TTUP	**826**	**M**	**—**	**LFB**

Note: Do not leave spaces between letters and symbols.

Chain (Stainless Steel Pins)

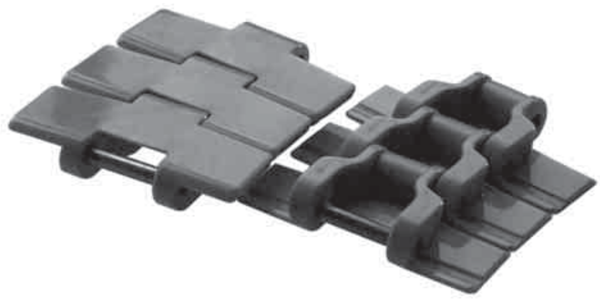
Tsubaki model no.	Link height *A* mm	Plate thickness *B* mm	Top plate		Max. allowable load kN {kgf}	Approx. mass kg/m	Operating temperature range °C	Max. allowable speed m/min	
			Material	Link color				With lube	No lube
TTUP826M-LFB	15.1	4.0	Low friction	Brown	0.98 {100}	1.05	-20 to 80 (65)	100	50
TTUPT826M-LFB	15.9	4.8				1.15			

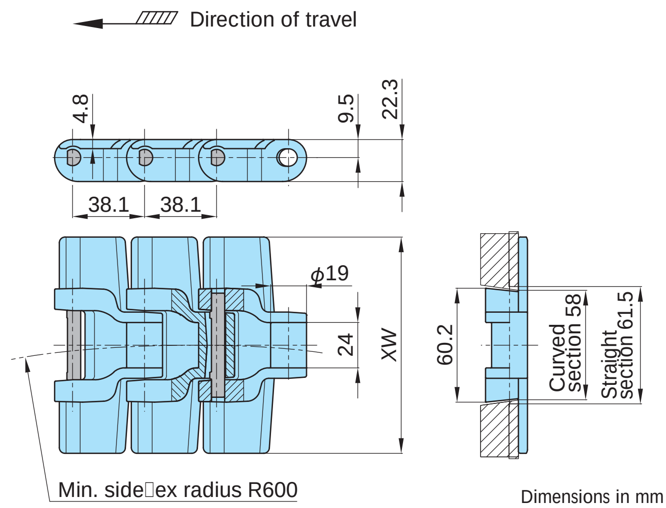
Note: 1. Standard product.
2. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
3. Available only in LFB (Low Friction/Anti-Wear) material.
4. Plastic pins are not available.
5. Contact a Tsubaki representative regarding magnetic corner rails.
6. Operating temperature of (65) is for wet conditions.

Sprockets …See page 97/98 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

Features

- Chain is 1.8 times stronger than TTUP chains. Suitable for higher load applications.
- Can handle larger and heavier products.





Dimensions in mm

Model Numbering

Chain type	Plate width		Chain material
TTUPS	**1143**	–	**LFG**

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TTUPS 1143	TTUPS 1270	TTUPS 1524	TTUPS 1905
Standard chain	Standard	–	Gray	1.96 {200}	90	40	-20 to 80	▲	▲	▲	▲
	Low Friction/Anti-Wear	LFW	White	–	–	–	–	–	–	–	–
		LFG	Green	1.96 {200}	90	40	-20 to 80 (65)	○	○	○	○
		LFB	Brown	–	–	–	–	–	–	–	–
	Ultra Low Friction	ULF	Blue	1.96 {200}	90	40	-20 to 80 (65)	▲	▲	▲	▲
	Low Friction	WR	Green	1.96 {200}	90	40	-20 to 80				
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–	–	–	–
		KV180									
		KV250									
	High Speed	HS	Cream								
	Chemical Resistant	Y	Matte white	1.57 {160}	90	40	-20 to 80	▲	▲	▲	▲
	Electroconductive	E	Black	1.76 {180}	90	40	-20 to 80				
	Impact Resistant	DIA	Cream	–	–	–	–	–	–	–	–
		DIY	Green								
	Antibacterial/Mold Resistant	MWS	Cream								
	Metal Detectable	MPD	Black								
		MPW									

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (65) is for wet conditions.

Chain (Stainless Steel Pins)

Material	Low Friction/Anti-Wear	Plate width *XW* mm	Approx. mass kg/m
Material mark	LFG		
Tsubaki model no.	TTUPS1143-LFG	114.3	1.9
	TTUPS1270-LFG	127.0	2.0
	TTUPS1524-LFG	152.4	2.1
	TTUPS1905-LFG	190.5	2.3

Note: 1. TTUPS plastic top chain cannot be connected to UTD-S slatband chain with knurled connecting pins sold prior to June 2005.
2. Plastic pins are not available.

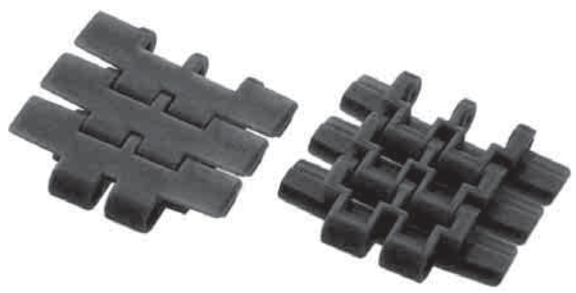
Sprockets ···See page 102 Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

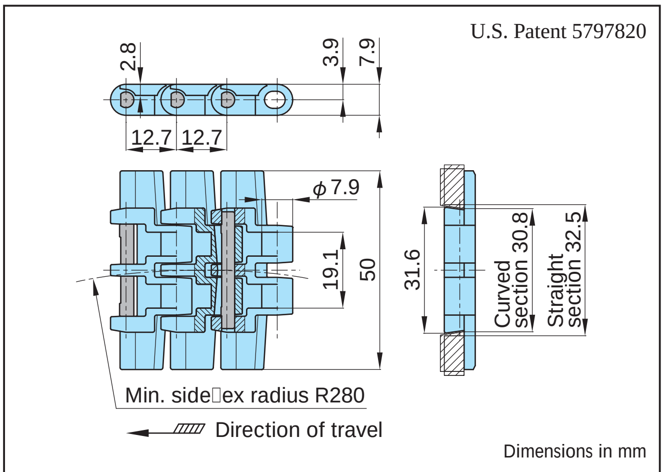
Plastic Top Chain TTUPM-P

Sideflexing

Features

- Small chain pitch of 12.7mm is effective in lowering conveyor noise level and reducing the gap between the end of one conveyor and the start of the next conveyor.
- With a plate width of 50mm, this plastic top chain is ideal for conveying small objects.





Model Numbering

Chain type	Plate width	Plastic pin		Chain material
TTUPM	**500**	**P**	**—**	**LFB**

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min: With lube	Max. allowable speed m/min: No lube	Operating temperature range °C	TTUPM500P
Standard chain	Standard	–	Gray	0.25 {25}	60	40	-20 to 80 (60)	▲
	Low Friction / Anti-Wear	LFW	White					○
		LFG	Green	–	–	–	–	–
		LFB	Brown	0.25 {25}	60	40	-20 to 80 (60)	●
	Ultra Low Friction	ULF	Blue					▲
	Low Friction	WR	Green					
High-function chain	Heat Resistant / High Speed	KV150	Black	–	–	–	–	–
		KV180						
	High Temperature / Chemical Resistant	HTW	White					
	High Speed	HS	Cream					
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	0.20 {20}	60	40	-20 to 80 (60)	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial / Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						

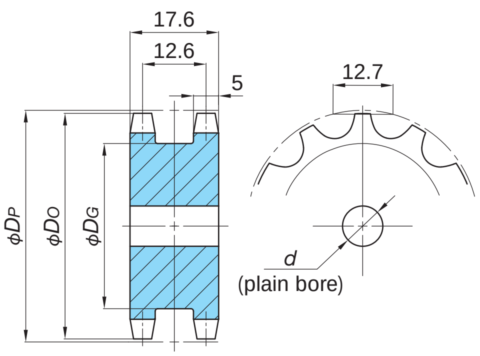
Note: 1. ● : Standard product ○ : Made-to-order product – : Not available
▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (60) is for wet conditions.

Chain (Plastic Pins)

Material	Low Friction / Anti-Wear	Plate width mm	Approx. mass kg/m
Material mark	LFB		
Tsubaki model no.	TTUPM500P-LFB	50	0.3

Note: 1. Standard product.
2. The plastic connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).

Sprockets



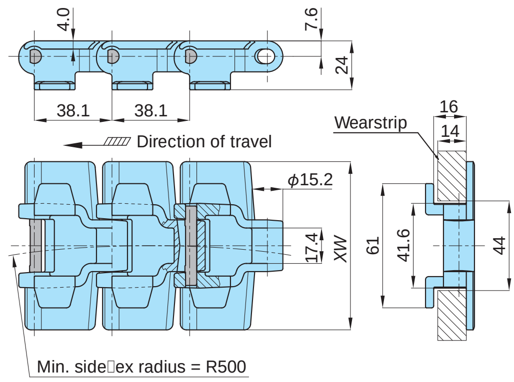
Tsubaki model no.	Teeth	Pitch diameter D_P mm	Outside diameter D_O mm	Groove diameter D_G mm	Bore diameter d mm: Plain bore	Bore diameter d mm: Max.	Approx. mass kg	Material
TTUPM1100T	11	45.1	45.0	32	8	20	0.03	UHMW-PE
TTUPM1300T	13	53.1	53.3	40		25	0.04	
TTUPM1500T	15	61.1	61.4	48		30	0.05	

Note: 1. Made-to-order product.
2. Operating temperature range is –20°C to 60°C. Use stainless steel sprockets (made-to-order product) when operating temperatures exceed 60°C.

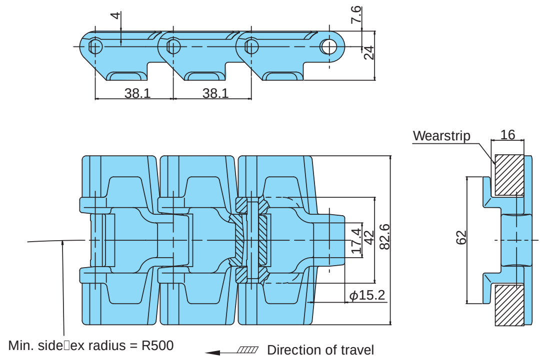
Features

- Equipped with float-preventive tabs. Keeps the chain securely in position on corner turns and in incline/decline sections, as well as preventing damage (scratches, etc.) to the top surface of the plates on the return way.
- Uses the same sprockets as TPS and TTUP sideflexing plastic top chains. Designed to allow common sprockets to be used.
- Models with plastic pins also available. All-plastic construction means light weight and easy handling. Longer service life under water lubrication than stainless steel pins.

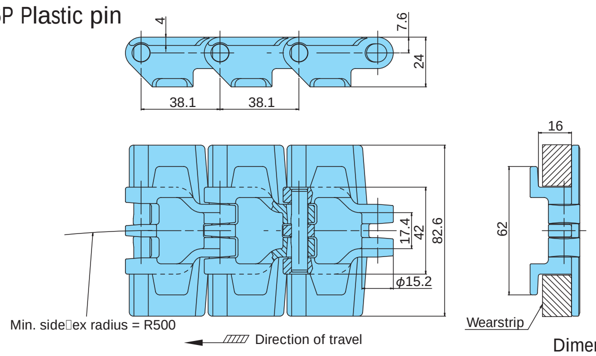
TPU826 (materials other than those below), TPU1143



TPU826-MWS, DIA, DIY, KV150, KV180, KV250, MPD, MPW



TPU826P Plastic pin



Dimensions in mm

● Model Numbering

Chain type	Plate width	Plastic pin		Tab		Chain material
TPU	**826**	**P**	—	**T**	—	**LFB**

Note: Specify “P” only when pins are to be plastic.
Do not leave spaces between letters and symbols.

● Connecting Pin

1. 304 stainless steel D-pin
   Model no. TTUP-SUS-JPD
2. Special engineering plastic D-pin, orange
   Model no. TPS-PLA-JPD

Material

<table>
<tr><th rowspan="2"></th><th rowspan="2">Material</th><th rowspan="2">Material mark</th><th rowspan="2">Link color</th><th colspan="2">Max. allowable load kN {kgf}</th><th colspan="2">Max. allowable speed m/min</th><th rowspan="2">Operating temperature range °C</th><th rowspan="2">TPU 826-T</th><th rowspan="2">TPU 1143-T</th><th rowspan="2">TPU 826P-T</th></tr>
<tr><th>Stainless steel pin</th><th>Plastic pin</th><th>With lube</th><th>No lube</th></tr>
<tr><td rowspan="6">Standard chain</td><td>Standard</td><td>–</td><td>Gray</td><td rowspan="9">0.98 {100}</td><td rowspan="6">0.88 {90}</td><td rowspan="6">100</td><td rowspan="6">50</td><td rowspan="6">-20 to 80 (60)</td><td>●</td><td>●</td><td rowspan="5">○</td></tr>
<tr><td rowspan="3">Low Friction/Anti-Wear</td><td>LFW</td><td>White</td><td>○</td><td>▲</td></tr>
<tr><td>LFG</td><td>Green</td><td rowspan="2">●</td><td rowspan="4">○</td></tr>
<tr><td>LFB</td><td>Brown</td></tr>
<tr><td>Ultra Low Friction</td><td>ULF</td><td>Blue</td><td rowspan="5">○</td></tr>
<tr><td>Low Friction</td><td>WR</td><td>Green</td><td>▲</td></tr>
<tr><td rowspan="11">High-function chain</td><td rowspan="3">Heat Resistant/ High Speed</td><td>KV150</td><td rowspan="3">Black</td><td rowspan="4">–</td><td rowspan="3">200</td><td>–</td><td>-20 to 150</td><td rowspan="4">–</td><td rowspan="4">–</td></tr>
<tr><td>KV180</td><td rowspan="2">200</td><td>-20 to 180</td></tr>
<tr><td>KV250</td><td>-20 to 250</td></tr>
<tr><td>High Speed</td><td>HS</td><td>Cream</td><td>–</td><td>–</td><td>–</td><td>–</td><td>–</td></tr>
<tr><td>Chemical Resistant</td><td>Y</td><td>Matte white</td><td>0.49 { 50}</td><td>0.44 {45}</td><td rowspan="2">100</td><td rowspan="5">50</td><td rowspan="5">-20 to 80 (60)</td><td rowspan="5">○</td><td rowspan="2">▲</td><td rowspan="2">○</td></tr>
<tr><td>Electroconductive</td><td>E</td><td>Black</td><td>0.69 { 70}</td><td>0.62 {63}</td></tr>
<tr><td rowspan="2">Impact Resistant</td><td>DIA</td><td>Cream</td><td rowspan="2">0.78 { 80}</td><td>–</td><td>–</td><td rowspan="5">–</td><td rowspan="4">–</td></tr>
<tr><td>DIY</td><td>Green</td><td>0.69 {70}</td><td rowspan="2">100</td></tr>
<tr><td>Antibacterial/Mold Resistant</td><td>MWS</td><td>Cream</td><td>0.98 {100}</td><td>0.88 {90}</td></tr>
<tr><td rowspan="2">Metal Detectable</td><td>MPD</td><td rowspan="2">Black</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">▲</td></tr>
<tr><td>MPW</td><td>▲</td></tr>
</table>

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. ● : Standard product ○ : Made-to-order product – : Not available
▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
3. The connecting pin is colored orange so as to distinguish it from base-chain pins (colored white).
4. Operating temperature of (60) is for using plastic-pin chain in wet conditions.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Low Friction	Impact Resistant		Heat Resistant/ High Speed	Top plate width	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	WR	DIA	DIY	KV150/180/250	*XW* mm	
Tsubaki model no.	TPU826-T	TPU826-T-LFW	TPU826-T-LFG	TPU826-T-LFB	TPU826-T-ULF	TPU826-T-WR	TPU826-T-DIA	TPU826-T-DIY	TPU826-T-KV150 TPU826-T-KV180 TPU826-T-KV250	82.6	1.0 DIA: 0.85 DIY: 1.20
	TPU1143-T	TPU1143-T-LFW	TPU1143-T-LFG	TPU1143-T-LFB	TPU1143-T-ULF	TPU1143-T-WR	–	–	–	114.3	1.2

Chain (Plastic Pins)

Material	Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant	Approx. mass kg/m
Material mark	LFW	LFG	LFB	ULF	DIY	
Tsubaki model no.	TPU826P-T-LFW	TPU826P-T-LFG	TPU826P-T-LFB	TPU826P-T-ULF	TPU826P-T-DIY	0.8 DIY: 1.0

Note: 1. As of October 2008, the shape of the float-preventive tabs for stainless steel pin chains changed. Float-preventive tabs for plastic pin chains remain unchanged.
2. New chain can be connected to an old chain model.

Sprockets …See page 97/98 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

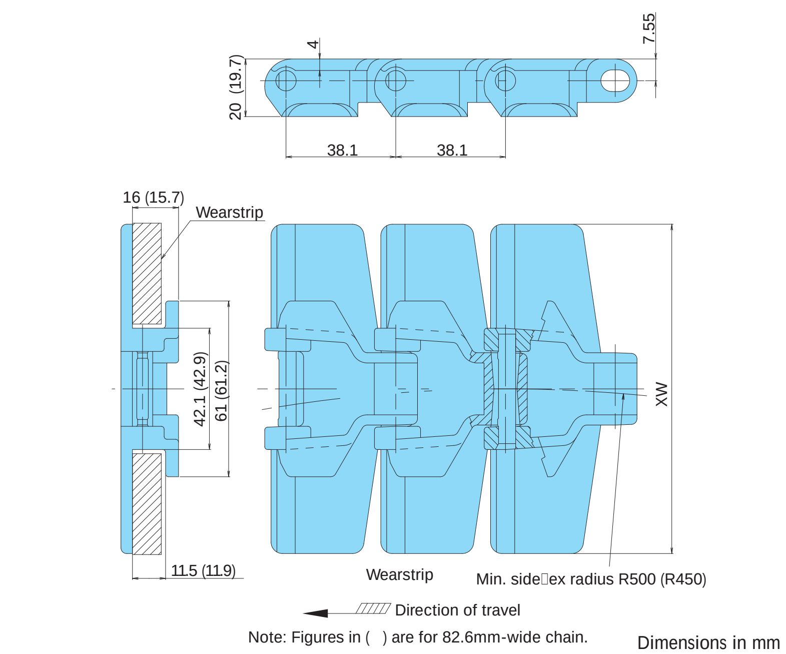
Plastic Modular Chain
Plastic Top Chain
Plastic Block Chain
Stainless Steel Top Chain
Accessories

Plastic Top Chain TPU-LH

Sideflexing

Features

- Link height is lower than TPU chain, enabling more compact conveyor layouts.
- The 114.3mm plate width is wider than TPU chain, allowing it to be used to convey larger objects.



Model Numbering

(XW=82.6)

Chain type	Tab		Plate width		Chain material
TP-880	**TAB**	—	**K325**	—	**LFB**

325 = 3.25 inches
= 82.6mm

Note: Do not leave spaces between letters and symbols.

(XW=114.3)

Chain type	Plate width		Chain type		Tab		Chain material
TPU	**1143**	—	**LH**	—	**T**	—	**LFB**

Note: Do not leave spaces between letters and symbols.

Chain (Stainless Steel Pins)

Tsubaki model no.	Top plate			Max. allowable load kN {kgf}	Approx. mass kg/m	Operating temperature range ℃	Max. allowable speed m/min	
	Width XW mm	Material	Link color				With lube	No lube
TPU1143-LH-T-LFB	114.3	Low friction	Brown	0.98 {100}	0.94	-20 to 80 (65)	100	50
TP-880TAB-K325-LFB	82.6	Low friction	Brown	1.08 {110}	1.0	-20 to 80 (65)	100	50
TP-880TAB-K325-LFG	82.6	Low friction	Green	1.08 {110}	1.0	-20 to 80 (65)	100	50
TP-880TAB-K325-ULF	82.6	Ultra low friction	Blue	1.08 {110}	1.0	-20 to 80 (65)	100	50

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. Available only in LFB (Low Friction/Anti-Wear) material (114.3mm-wide chain only).
3. Operating temperature of (65) is for wet conditions.

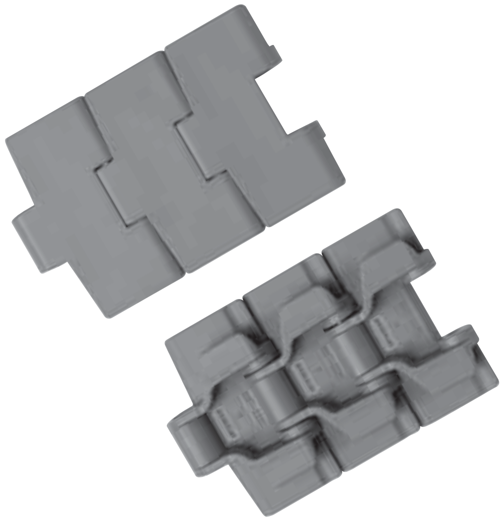
Sprockets ···See page 97/98 Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

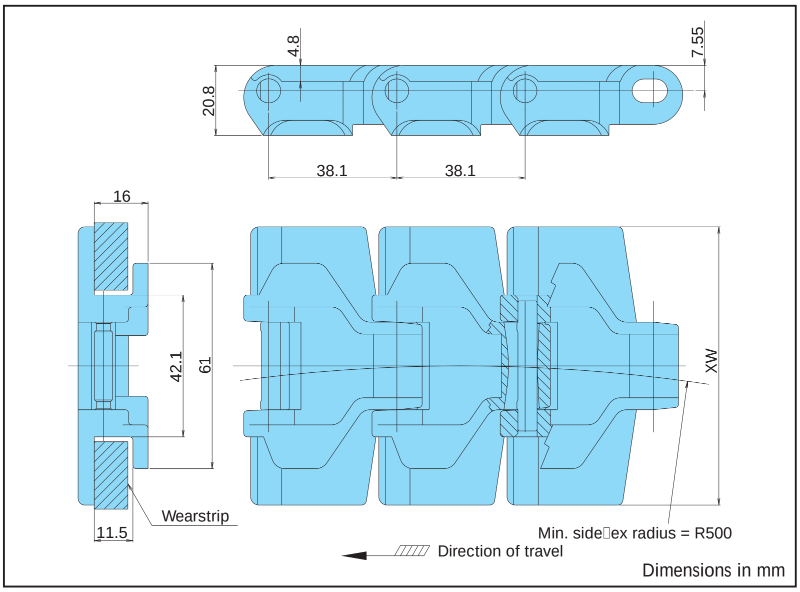
Plastic Top Chain TPUT-LH

Sideflexing

Features

- Link height is lower than TPU chain, enabling more compact conveyor layouts.
- Plate thickness (4.8mm) is thicker than TPU chain. Ideal for applications where the plates would be susceptible to wear.





Model Numbering

Chain type	Plate width		Chain type		Tab		Chain material
TPUT	**826**	—	**LH**	—	**T**	—	**LFB**

Note: Do not leave spaces between letters and symbols.

Chain (Stainless Steel Pins)

Tsubaki model no.	Plate width *XW* mm	Top plate		Max. allowable load kN {kgf}	Approx. mass kg/m	Operating temperature range °C	Max. allowable speed m/min	
		Material	Link color				With lube	No lube
TPUT826-LH-T-LFB	82.6	Low friction	Brown	0.98 {100}	0.98	-20 to 80 (65)	100	50
TPUT1143-LH-T-LFB	114.3				1.14			

Note: 1. Standard product.
2. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
3. Available only in LFB (Low Friction / Anti-Wear) material.
4. Plastic pins are not available.
5. Operating temperature of (65) is for wet conditions.

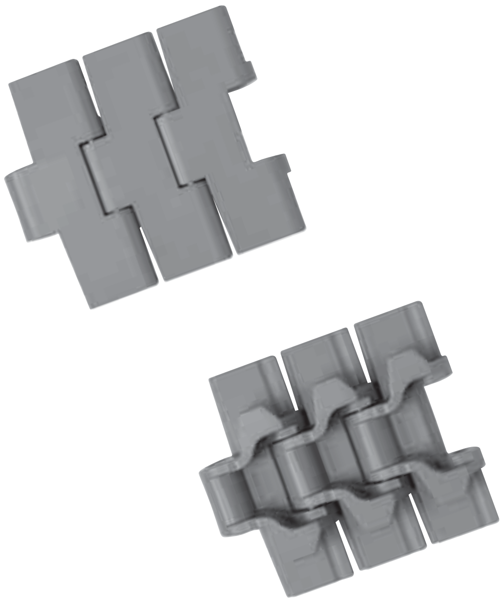
Sprockets ···See page 97/98
Wearstrips ···See page 191/193
Return-Way Parts ···See page 203–205

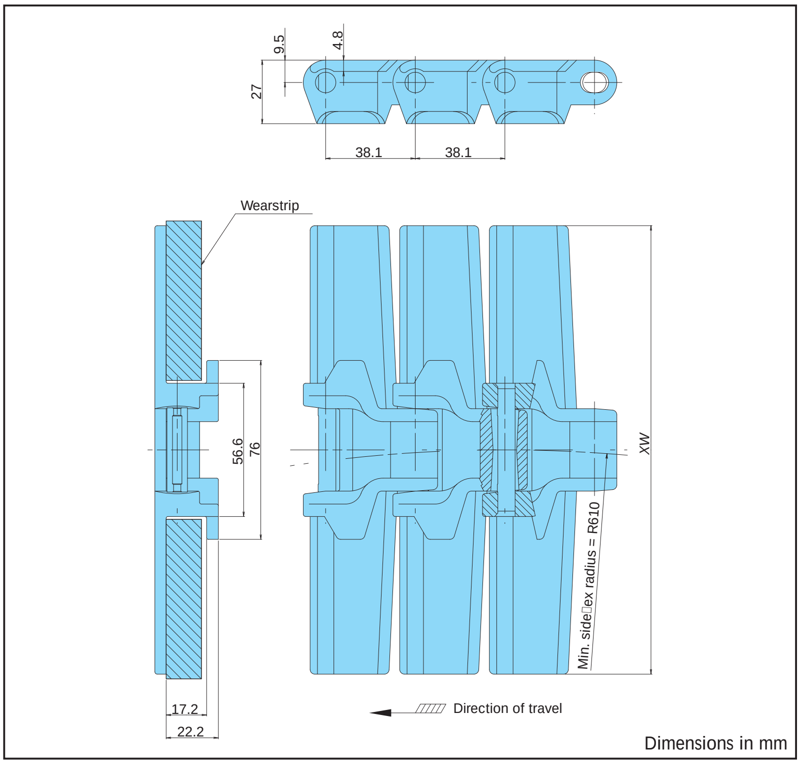
Plastic Top Chain TPUS

Sideflexing

Features

- Approx. 2.2 times higher maximum allowable load than TPU chain. Ideal for higher load applications.
- Plates are wider, and thus can be used to convey larger objects.





Dimensions in mm

Model Numbering

Chain type	Plate width	Tab	Chain material
TPUS	**1905** —	**T** —	**LFB**

Note: Do not leave spaces between letters and symbols.

Chain (Stainless Steel Pins)

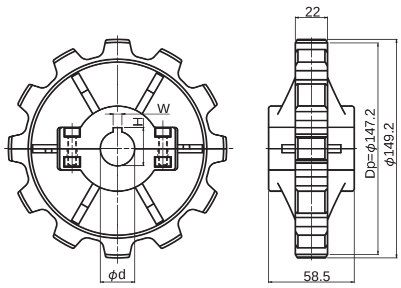
Tsubaki model no.	Plate width *XW* mm	Top plate		Max. allowable load kN {kgf}	Approx. mass kg/m	Operating temperature range °C	Max. allowable speed m/min	
		Material	Link color				With lube	No lube
TPUS1143-T-LFB	114.3	Low friction	Brown	2.16 {220}	2.03	-20 to 80 (65)	80	50
TPUS1905-T-LFB	190.5				2.46			
TPUS2540-T-LFB	254.0				2.87			
TPUS3048-T-LFB	304.8				3.41			

Note: 1. Standard product.
2. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
3. Available only in LFB (Low Friction/Anti-Wear) material.
4. Plastic pins are not available.
5. Operating temperature of (65) is for wet conditions.

Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

Applicable chain TPUS, TPUS-LBP

● Sprockets

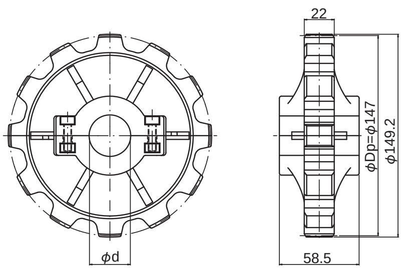


Type: Split
Material: Bolt: Stainless steel
Nut: Brass + nickel plating
Body: Reinforced polyamide
Color: Black
Keyway: DIN 6885 key seat

Tsubaki model no.	Teeth	Shaft diameter d	Keyway W	Keyway H	Approx. mass kg
TP-C12115T-SPR	12	30	8	33.3	0.37
TP-C12117T-SPR		40	12	43.3	0.34

Note: 1. Standard product.
2. Operating temperature range: –20°C to 80°C
3. Bolt tightening torque: 6 N·m {0.61 kgf·m}
4. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

● Idler Wheels



Type: Split
Material: Bolt: Stainless steel
Nut: Brass + nickel plating
Body: Polyamide
Color: Black

Tsubaki model no.	Teeth	Shaft diameter d	Approx. mass kg
TP-C12120T-IW	12	30	0.33
TP-C12122T-IW		40	0.30

Note: 1. Standard product.
2. Operating temperature range: –20°C to 80°C
3. Bolt tightening torque: 6 N·m {0.61 kgf·m}
4. When assembling the halves of the sprocket, do not mix the halves with halves from other sprockets.

● Model Numbering

Top chain component	Code		Sprocket or idler wheel
TP–C	**12115T**	**–**	**SPR**

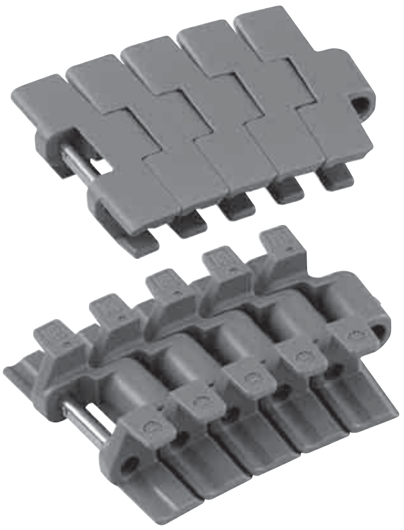
SPR: Sprocket
IW: Idler wheel

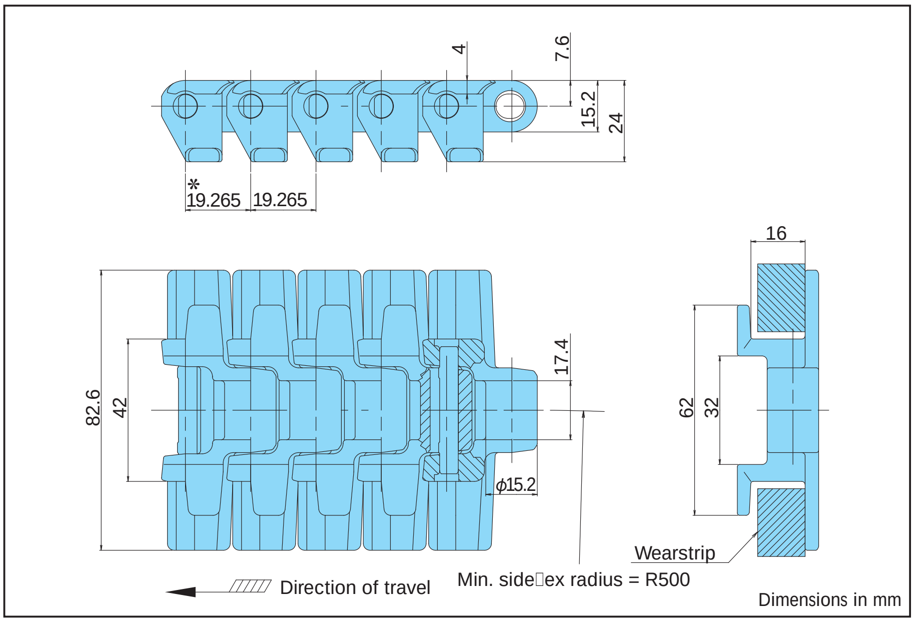
Note: Do not leave spaces between letters and symbols.

Dimensions in mm

Features

- TPUM chain series designed for use in side exing conveyors. Chain pitch is approximately one-half of conventional conveyor chains, effectively lowering conveyor noise level and reducing the gap between the end of one conveyor and the start of the next conveyor.
- Type TPS sprockets (odd number of teeth) can be used. Designed to allow common sprockets to be used.
- Equipped with oat-preventive tabs. Keeps the chain securely in position in incline/decline sections, as well as preventing damage (scratches, etc.) to the top surface of the plates on the return way.





*Pitch (p = 19.265) has been designed for engagement with TPS sprockets (TTUP1012T; number of actual teeth is 21).

Model Numbering

Chain type	Plate width		Tab		Chain material
TPUM	**826**	**—**	**T**	**—**	**LFB**

Note: Do not leave spaces between letters and symbols.

Connecting Pin

1. 304 stainless steel D-pin
   Model no. TTUP-SUS-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TPUM
Standard chain	Standard	–	Gray	0.98 {100}	100	50	-20 to 80	○
	Low Friction / Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	▲
High-function chain	Heat Resistant / High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Speed	HS	Cream					
	Chemical Resistant	Y	Matte white	0.49 { 50}	100	50	-20 to 80	○
	Electroconductive	E	Black	0.69 { 70}				
	Impact Resistant	DIA	Cream	0.78 { 80}	–			
		DIY	Green		100			
	Antibacterial / Mold Resistant	MWS	Cream	0.98 {100}				
	Metal Detectable	MPD	Black	–	–	–	–	▲
		MPW						

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 160 links.
2. ○ : Made-to-order product –: Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction / Anti-Wear			Antibacterial / Mold Resistant	Ultra Low Friction	Impact Resistant		Approx. mass kg / m
Material mark	–	LFW	LFG	LFB	MWS	ULF	DIA	DIY	
Tsubaki model no.	TPUM826-T	TPUM826-T-LFW	TPUM826-T-LFG	TPUM826-T-LFB	TPUM826-T-MWS	TPUM826-T-ULF	TPUM826-T-DIA	TPUM826-T-DIY	1.4 DIA: 1.2 DIY: 1.7

Note: Plastic pins are not available.

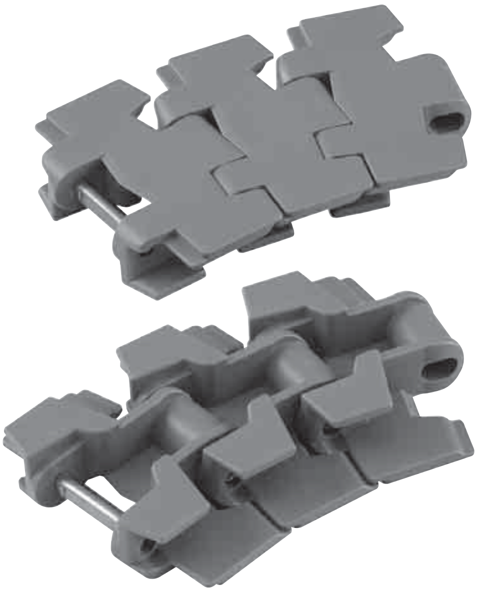
Sprockets …See page 97
Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

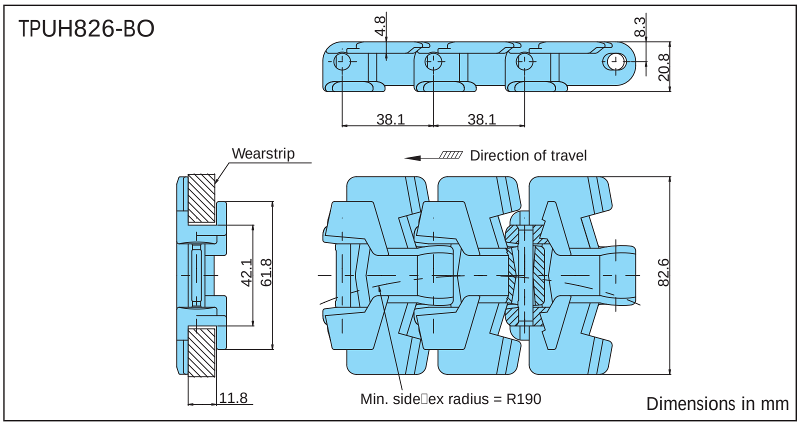
Plastic Top Chain TPUH-BO

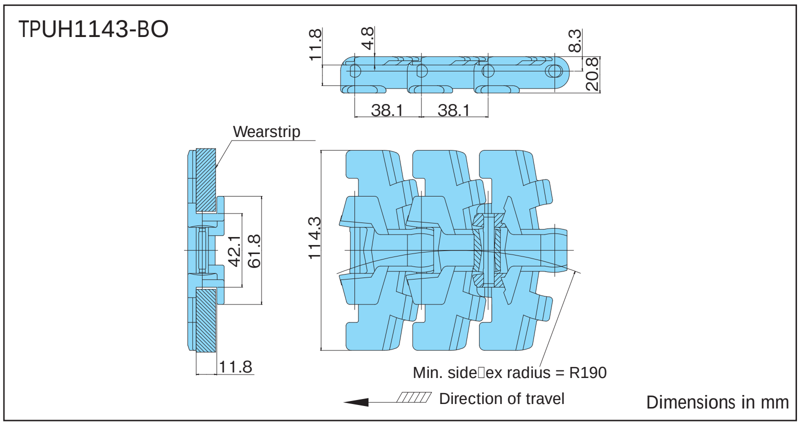
Sideflexing

Features

- Sideflex radius is smaller (190mm) than TTUP or TPU chain, enabling more compact conveyor layouts.
- Comb-toothed plates minimize gaps between links. Ideal for conveying unstable containers such as dessert cups.







Model Numbering

Chain type	Plate width		Chain type		Tab		Chain material
TPUH	**826**	—	**BO**	—	**T**	—	**LFB**

Note: Do not leave spaces between letters and symbols.

Chain (Stainless Steel Pins)

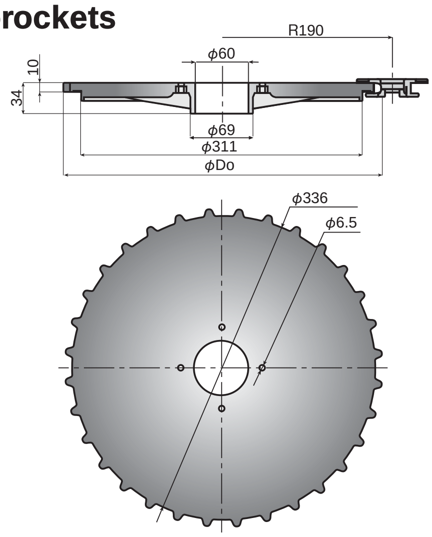
Tsubaki model no.	Plate width *XW* mm	Top plate		Max. allowable load kN {kgf}	Approx. mass kg/m	Operating temperature range °C	Max. allowable speed m/min	
		Material	Link color				With lube	No lube
TPUH826-BO-T-LFB	82.6	Low friction	Brown	0.98 {100}	1.08	-20 to 80 (65)	100	50
TPUH1143-BO-T-LFB	114.3				1.20			

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 80 links.
2. Available only in LFB (Low Friction/Anti-Wear) material.
3. Plastic pins are not available.
4. Operating temperature of (65) is for wet conditions.

Sprockets ···See page 97/98
Wearstrips ···See page 191/193
Return-Way Parts ···See page 203–205

Applicable chain	TPUH-BO

● Horizontal Sprockets



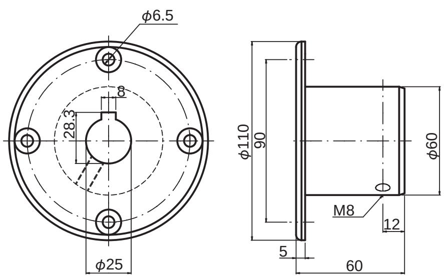
Tsubaki model no.	Teeth	Outside diameter Do
TP-C12781LT-SPR	32	352

Note: 1. For applications other than horizontal conveyance, use sprockets for TPS chains. See page 97.98
2. Do not use to convey unstable containers. They may wobble and tip over during conveyance.
3. Must be used together with TP-C12773T-HB hub.

Specifications
Sprocket
Material: Polyamide (black)
Hub
Material: Aluminum

Note: Hub and sprocket must be used together.

● Hubs



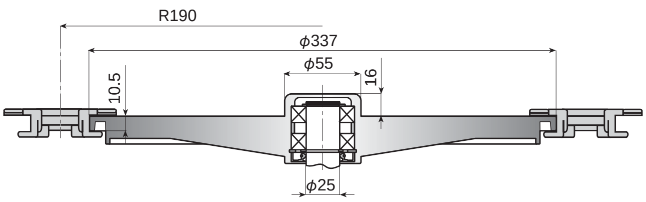
Tsubaki model no.
TP-C12773T-HB

Note: 1. Must be used together with TP-C12781LT-SPR sprocket.
2. Four sets of M6 mounting bolts and nuts (stainless steel) are included.
3. Contact a Tsubaki representative if different shaft diameters are required.

● Corner Discs

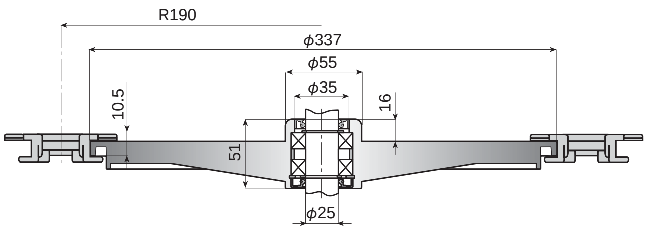
○ Carry Way

Tsubaki model no. : TP-C12779T-CD



○ Return Way

Tsubaki model no. : TP-C12777T-CD



● Model Numbering

Top chain component	Code	Corner disc
TP–C	**12779T –**	**CD**

Note: Do not leave spaces between letters and symbols.

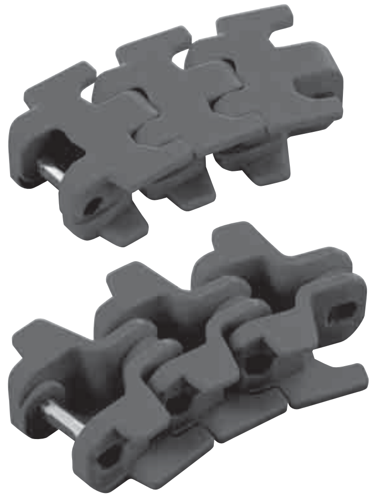
- Main body material : Polyamide (black)
- Bearing : Type 6005-2RS (25 x 47 x 12)
- O-ring seal : NBR
- Retaining ring : 25mm diameter (DIN 471)
- Approx. mass : 0.98 kg/disc
- Chain side flex radius : 190mm
- Operating temperature range : –20°C to 60°C
- Not recommended for conveying unstable containers.
- Carry-way and return-way corner discs differ only in whether the shaft extends through the disc.
- Bearings and O-ring seals are packaged separately and shipped in the same container as the disc unit.

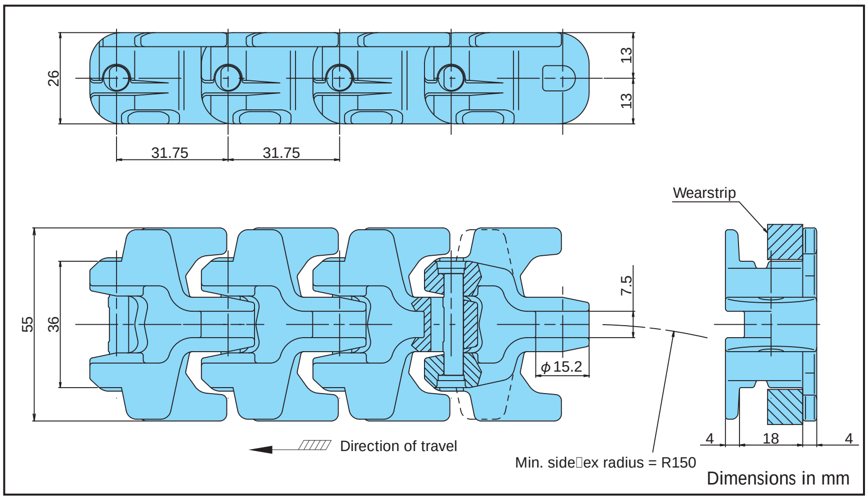
Dimensions in mm

Plastic Top Chain TPUSR550 Sideflexing

Features

- Small sideflex radius (150mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
- Uses comb-toothed plates. Ideal for conveying unstable containers such as plastic bottles, dessert cups, and paper packs.
- Curved sections use corner discs, suppressing the occurrence of wear dust and creaking/squealing noises.
- Equipped with float-preventive tabs. Keeps the chain securely in position on corner turns and in incline/decline sections, as well as preventing damage (scratches, etc.) to the top surface of the plates on the return way.





Connecting Pin

1. 304 stainless steel D-pin
   Model no. TPUSR-SUS-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TPUSR550-T
Standard chain	Standard	–	Gray	0.98 {100}	100	50	-20 to 80	○
	Low Friction/Anti-Wear	LFW	White					
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Speed	HS	Cream					
	Chemical Resistant	Y	Matte white	0.49 { 50}	100	50	-20 to 80	○
	Electroconductive	E	Black	0.69 { 70}				
	Impact Resistant	DIA	Cream	0.64 { 65}	–			
		DIY	Green		100			
	Antibacterial/Mold Resistant	MWS	Cream	0.98 {100}				
	Metal Detectable	MPD	Black	–	–	–	–	–
		MPW						

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 96 links.
2. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.

Chain (Stainless Steel Pins)

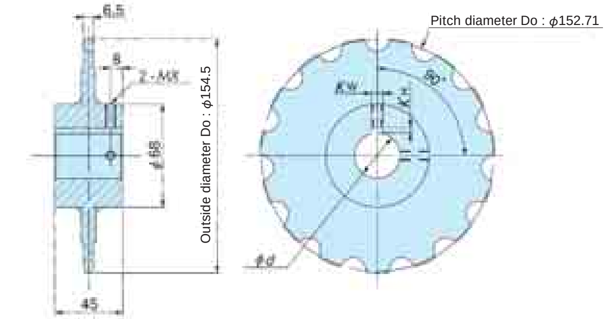
Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant		Approx.mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIA	DIY	
Tsubaki model no.	TPUSR550-T	TPUSR550-T-LFW	TPUSR550-T-LFG	TPUSR550-T-LFB	TPUSR550-T-ULF	TPUSR550-T-DIA	TPUSR550-T-DIY	1.0 DIA: 0.85 DIY: 1.20

Note: Plastic pins are not available.

Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

Sprockets and Corner Discs for TPUSR550 Chain

● Sprockets (with Plain Bore) for TPUSR550-T & TPUSR826-T

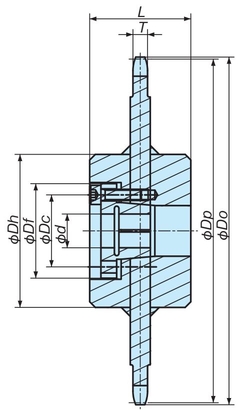


Note: For sprockets made from different materials or having numbers of teeth other than those described above, contact a Tsubaki representative.

Tsubaki model no.	Material	Teeth	Bore diameter Plain bore	Bore diameter Max.	Finished bore diameter (tolerance H7)	Approx. mass kg
TPUSR1500T	Carbon steel (teeth) SS400 (hub)	15	15.9	45	20 · 25 · 30 35 · 40 · 45	2.0
TPUSR1500T-SS	Stainless steel					

Applicable bore diameter	Keyway width *Kw*	Keyway height *KH*	Set screw *MX*
Greater than 17 to 22	6	2.8	M6
Greater than 22 to 30	8	3.3	
Greater than 30 to 38	10		M8
Greater than 38 to 42	12		
Greater than 42 to 50	14	3.8	

● Lock Sprockets



■ Lock Sleeve Dimensions

Sleeve no.	*Df* diameter mm	*Dc* diameter mm	Bolt size M x L	Bolt tightening torque N·m
S2	42	32	M5×18	8.3
S3	48.5	38.5	M5×20	8.3
S4	56	46	M5×20	8.3

Tsubaki model no.	Actual teeth	Pitch diameter *Dp* mm	Outside diameter *Do* mm	Facewidth *T* mm	Hub diameter *Dh* mm	Length *L* mm
TPUSR1500T	15	152.71	154.5	6.5	68	45

■ Sleeve Combinations and Transfer Torque Values

Sleeve no.	S2							S3			S4		
Bore diameter *d* mm	15	16	17	18	19	20	22	24	25	28	30	32	35
Tsubaki model no.	Max. allowable transfer torque N·m												
TPUSR1500T	139	149	158	167	177	186	205	167	174	195	279	298	325

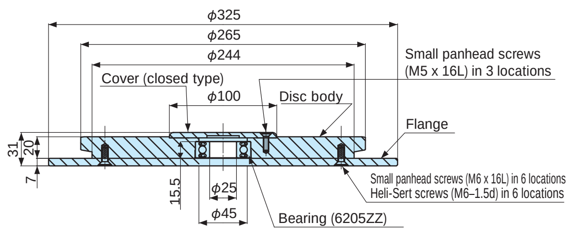
Note: Available only in steel.

● Corner Discs

PAT No. JP3398110

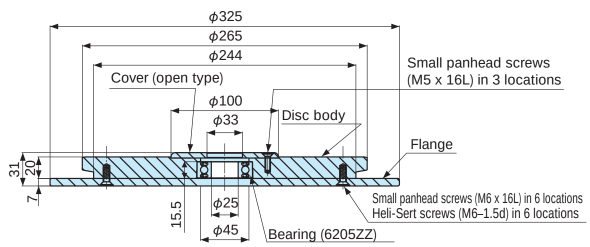
○ Carry Way

Tsubaki model no. : TPUSR550-CD-R150C



○ Return Way

Tsubaki model no. : TPUSR550-CD-R150R



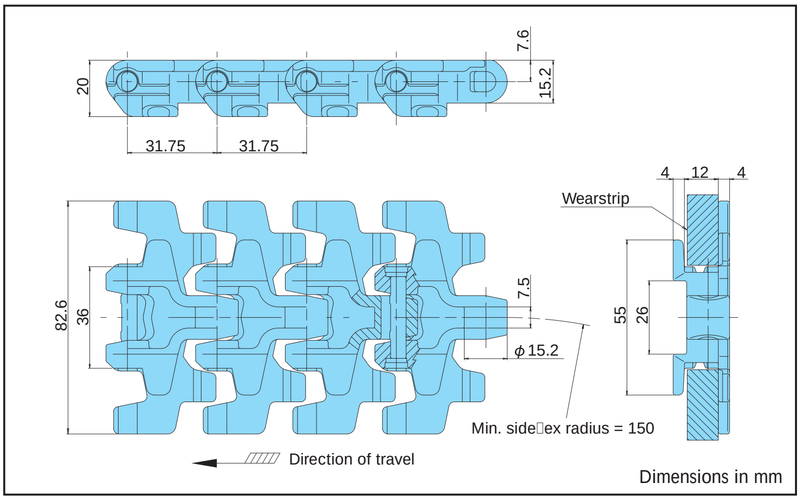
- Disc body : Ultra-high molecular weight polyethylene (white)
- Flange : Ultra-high molecular weight polyethylene (white)
- Cover : Ultra-high molecular weight polyethylene (white)
- Panhead screw : Stainless steel
- Approx. mass : 1.0 kg/disc
- Chain sideflex radius R = 150mm
- Contact a Tsubaki representative if dimensions, bearings, or materials other than those shown in the drawing are required.
- Operating temperature range : –20°C to 60°C
- Recommended for use in dry environments. Stainless steel bearings are also available for use in wet environments where there is exposure to water.

Dimensions in mm

Plastic Top Chain TPUSR826 Sideflexing

Features

- Small sideflex radius (150mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
- Uses comb-toothed plates. Ideal for conveying unstable containers such as plastic bottles, dessert cups, and paper packs.
- Curved sections use corner discs, suppressing the occurrence of wear dust and creaking/squealing noises.
- Equipped with float-preventive tabs. Keeps the chain securely in position on corner turns and in incline/decline sections, as well as preventing damage (scratches, etc.) to the top surface of the plates on the return way.



- **Connecting Pin**
  1. 304 stainless steel D-pin
     Model no. TPUSR-SUS-JPD

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TPUSR826-T
Standard chain	Standard	–	Gray	0.98 {100}	100	50	-20 to 80	○
	Low Friction/Anti-Wear	LFW	White					●
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	–	–	–	–	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Speed	HS	Cream					
	Chemical Resistant	Y	Matte white	0.49 { 50}	100	50	-20 to 80	○
	Electroconductive	E	Black	0.69 { 70}				
	Impact Resistant	DIA	Cream	0.64 { 65}	–			
		DIY	Green		100			
	Antibacterial/Mold Resistant	MWS	Cream	0.98 {100}				
	Metal Detectable	MPD	Black	–	–	–	–	–
		MPW						

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 96 links.
2. ● : Standard product ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.

Chain (Stainless Steel Pins)

Material	Standard	Low Friction/Anti-Wear			Ultra Low Friction	Impact Resistant		Top plate width	Approx. mass kg/m
Material mark	–	LFW	LFG	LFB	ULF	DIA	DIY		
Tsubaki model no.	TPUSR826-T	TPUSR826-T-LFW	TPUSR826-T-LFG	TPUSR826-T-LFB	TPUSR826-T-ULF	TPUSR826-T-DIA	TPUSR826-T-DIY	82.6	0.9 DIA: 0.75 DIY: 1.10

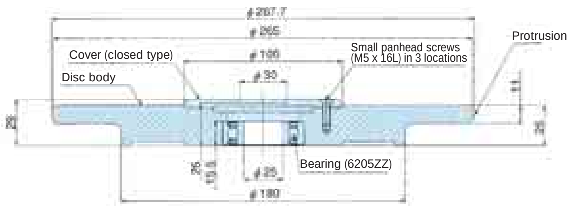
Note: Plastic pins are not available.

Sprockets …See page 126 Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

● Corner Discs

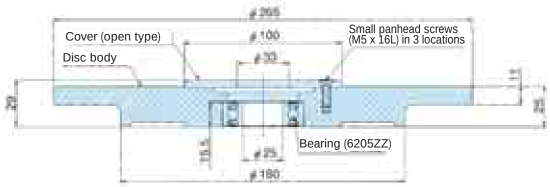
○ Carry Way

Tsubaki model no. : TPUSR826-CD-R150C

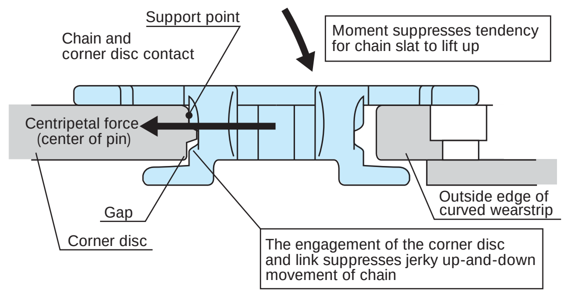


○ Return Way

Tsubaki model no. : TPUSR826-CD-R150R



Mechanism to Prevent Chain Lifting while Cornering



PAT No. JP3398110

Contact a Tsubaki representative for further information.

- Disc body : Ultra-high molecular weight polyethylene (green)
- Cover : Ultra-high molecular weight polyethylene (green)
- Panhead screw : Stainless steel
- Approx. mass : 1.0 kg/disc
- Chain sideflex radius R = 150mm
- Contact a Tsubaki representative if dimensions, bearings, or materials other than those shown in the drawing are required.
- Operating temperature range : –20°C to 60°C
- Recommended for use in dry environments. Stainless steel bearings are also available for use in wet environments where there is exposure to water.

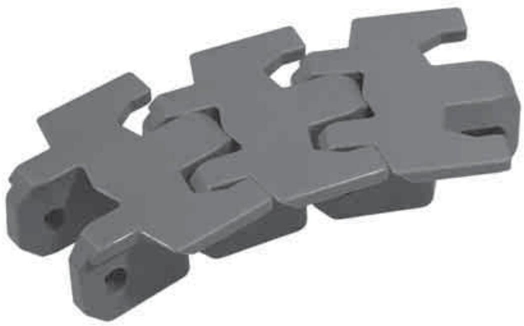
Dimensions in mm

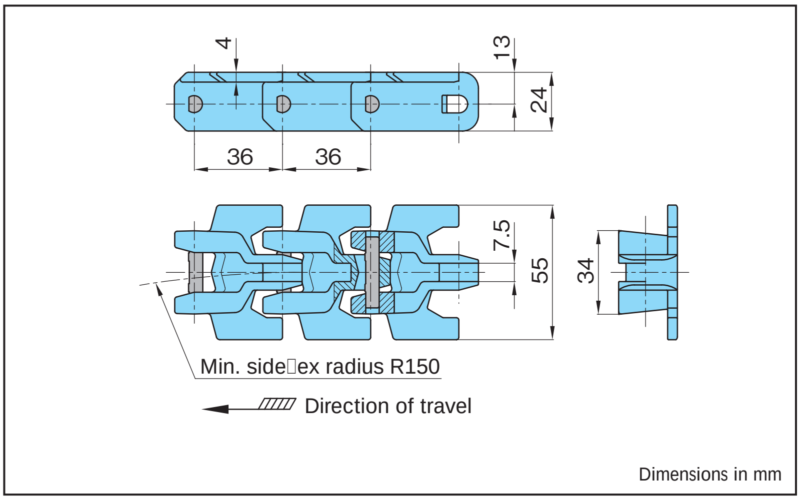
Plastic Top Chain TP-UB36

Sideflexing

Features

- Small sideflex radius (150mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
- Comb-toothed plates minimize gaps between links.
- Curved sections use turn discs, suppressing the occurrence of wear dust and creaking/squealing noises.





Model Numbering

Chain type		Chain material
TP–UB36	—	**ULF**

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TP-UB36
Standard chain	Standard	–	Gray	0.9 {91}	100	50	-20 to 80	▲
	Low Friction / Anti-Wear	LFW	White				-20 to 80 (65)	
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					●
	Low Friction	WR	Green	–	–	–	-20 to 80	▲
High-function chain	Heat Resistant / High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Temperature / Chemical Resistant	HTW	White					
	High Speed	HS	Cream					
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	0.7 {71}	100	50	-20 to 80	▲
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial / Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						

Note: 1. ● : Standard product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (65) is for wet conditions.

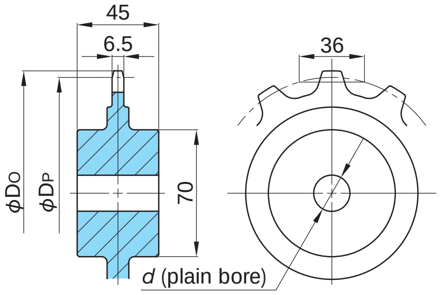
Chain (Stainless Steel Pins)

Material	Ultra Low Friction	Approx. mass kg/m	Pin material
Material mark	ULF		
Tsubaki model no.	TP-UB36-ULF	1.0	Stainless steel

Note: Plastic pins are not available.

Sprockets, Idler Wheels, and Turn Discs for TP-UB36 Chain

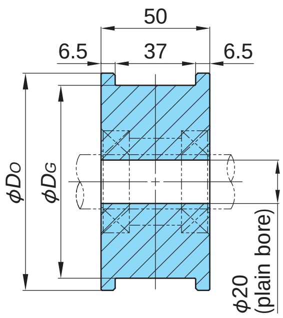
● Steel Sprockets



Tsubaki model no.	Teeth	Pitch diameter DP	Outside diameter DO	Bore diameter d		Approx. mass kg	Material
				Plain bore	Max.		
TP-UB1100T	11	127.8	135	20	40	1.8	Carbon steel
TP-UB1200T	12	139.1	147			2.0	
TP-UB1300T	13	150.4	159			2.5	

Note: Made-to-order product.

● Engineering Plastic Idler Wheels

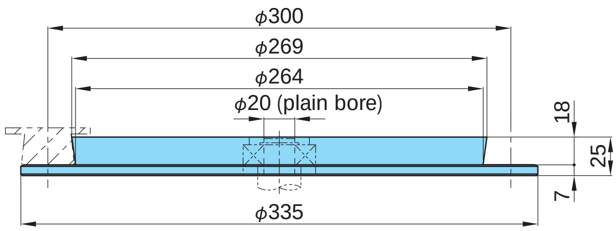


Tsubaki model no.	Equivalent no. of teeth	*DO*	*DG*	Approx. mass kg	Material
TP-IW36UB1100T	11	112	100	0.4	UHMW-PE
TP-IW36UB1200T	12	124	112	0.5	
TP-IW36UB1300T	13	136	124	0.6	

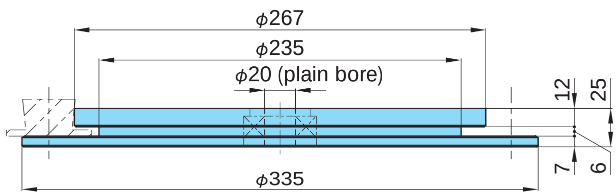
Note: 1. Made-to-order product.
2. Operating temperature range is –20°C to 60°C.

● Turn Discs for TP-UB36 Chain (Machined)

TP-UB36TW-D (carry way)



TP-UB36TW-R (return way)



Tsubaki model no.	Material	Material grade	Color	Remarks
TP-UB36TW-D	UHMW-PE	10-100	White	Carry way
TP-UB36TW-R				Return way

Note: 1. Made-to-order product.
2. Discs with integral bearings can also be manufactured upon request.

Dimensions in mm

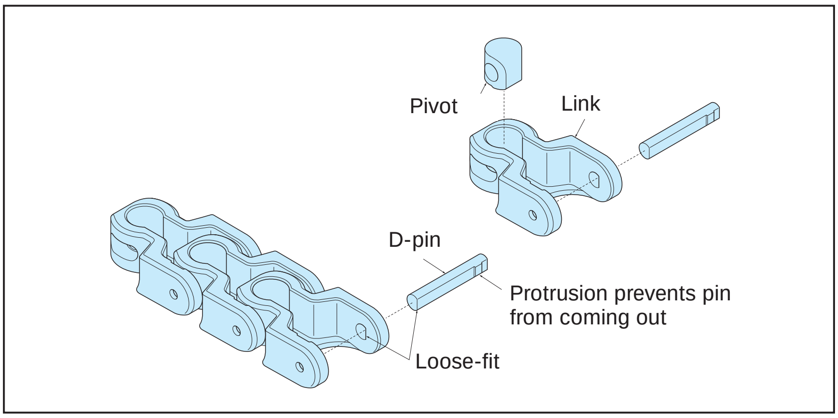
Plastic Modular Chain
Plastic Top Chain
Plastic Block Chain
Stainless Steel Top Chain
Accessories

Plastic Universal Chain TPUN

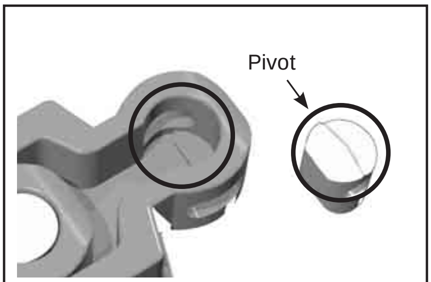
Sideflexing

Features

- Small sideflex radius (140mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
- Approx. 1.8 times higher maximum allowable load than TTUP chain. Ideal for higher load applications.
- Uses D-pins that protrude from one side only, preventing poor articulation.
- Pivot misassembly prevention system prevents faulty engagement of the chain and sprocket by eliminating mistakes in the direction of pivot insertion.
- Gap between links is minimized, ensuring smooth conveyance around horizontal curves. Provides stable transport of conveyed goods.

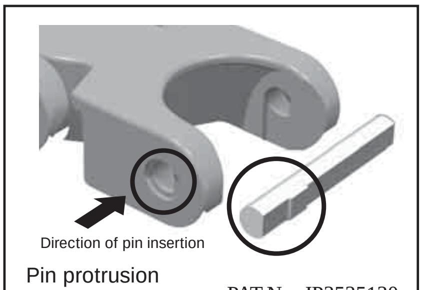


Misassembly Prevention System

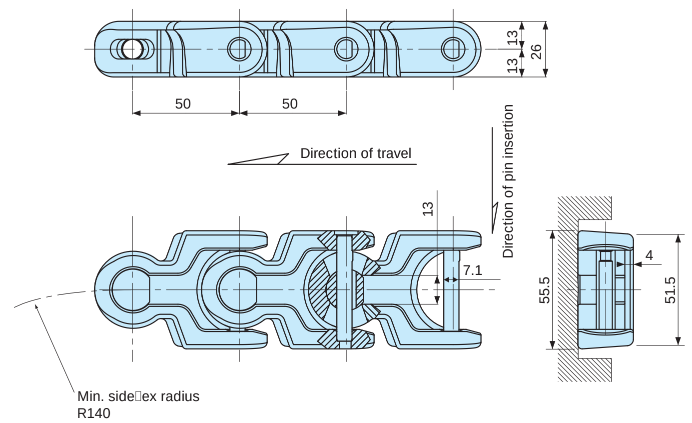


PAT.No. JP3535129

Pin Shape



PAT.No. JP3535130



Dimensions in mm

● Model Numbering

Chain type	Plate width		Chain material
TPUN	**555**	**—**	**LFB**

Note: Do not leave spaces between letters and symbols.

● Connecting Pin

Only special D-pins for TPUN chain can be used.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TPUN555
Standard chain	Standard	–	Green	1.96 {200}	35		-20 to 80	●
		W	White					
	Low Friction/Anti-Wear	LFW	White					○
		LFG	Green					●
		LFB	Brown					○
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green					▲
High-function chain	Heat Resistant/ High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	High Speed	HS	Cream					
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black	1.37 {140}	35		-20 to 80	○
	Impact Resistant	DIA	Cream	–	–	–	–	–
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream	1.96 {200}	35		-20 to 80	○
	Metal Detectable	MPD	Black	–	–	–	–	–
		MPW						

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 60 links.
2. ● : Standard product ○ : Made-to-order product – : Not available
▲ : Special configurations may be available. Contact a Tsubaki representative for further information.

Chain (Stainless Steel Pins)

Material	Standard		Low Friction/Anti-Wear			Ultra Low Friction	Approx. mass kg/m
Material mark	–	W	LFW	LFG	LFB	ULF	
Tsubaki model no.	TPUN555	TPUN555-W	TPUN555-LFW	TPUN555-LFG	TPUN555-LFB	TPUN555-ULF	1.45

Note: Plastic pins are not available.

Sprockets …See page 133/134
Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

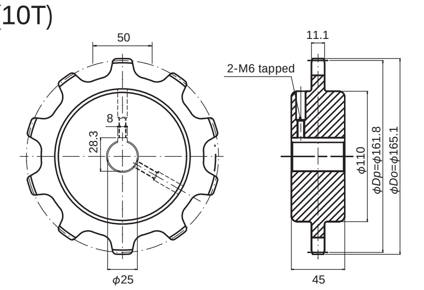
Sprockets and Idler Wheels for TPUN Chain

Engineering Plastic

Applicable chain TPUN555, TPUN550-LH, TPUN535-LH, TP-50UNS, TP-50UNS-D76

● Sprockets

(10T)

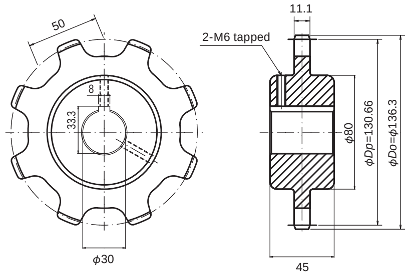


Tsubaki model no.	Teeth	Type	Approx. mass kg
TP-C213961T-SPR	10	Solid	0.44

Note: Standard product.

(8T)

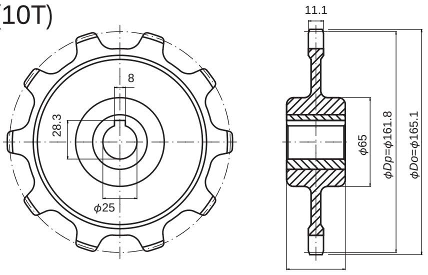
Material:
Body: Polyamide (white)



Tsubaki model no.	Teeth	Type	Approx. mass kg
TP-C213959T-SPR	8	Solid	0.29

Note: Standard product.

(10T)



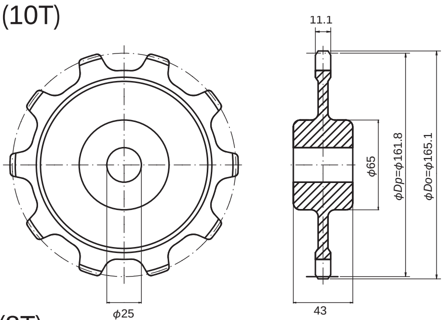
Tsubaki model no.	Teeth	Type	Approx. mass kg
TP-C12721T-SPR	10	Solid	0.5

Note: Standard product.

Material:
Body: Reinforced polyamide
Follow shaft: Brass

● Idler Wheels

(10T)

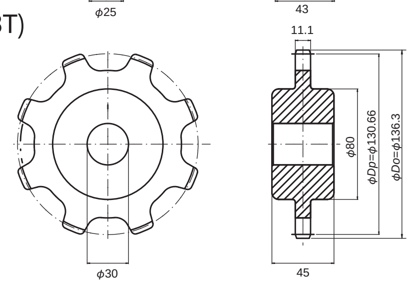


Material: Polyamide (black)

Tsubaki model no.	Teeth	Type	Approx. mass kg
TP-C12724T-IW	10	Solid	0.24

Note: Standard product.

(8T)



Material: Polyamide (white)

Tsubaki model no.	Teeth	Type	Approx. mass kg
TP-C12737T-IW	8	Solid	0.29

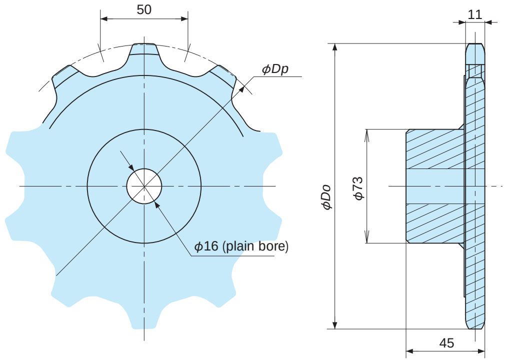
Note: Standard product.

Dimensions in mm

Sprockets and Corner Discs for TPUN Chain

Applicable chain	TPUN555, TPUN550-LH, TPUN535-LH, TP-50UNS, TP-50UNS-D76

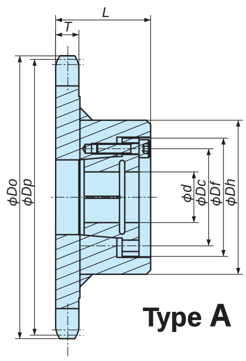
● Steel Sprockets (with Plain Bore)



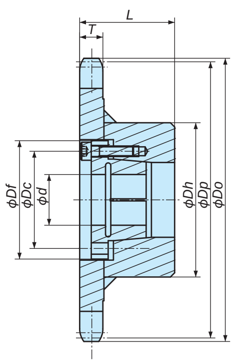
Tsubaki model no.	Material	Construction	Effective teeth	Pitch diameter *Dp* mm	Outside diameter *Do* mm	Approx. mass kg
TPUN555-800T	Carbon steel	Machined	8	130.7	134	1.9
TPUN555-1000T			10	161.8	163	2.7
TPUN555-1200T	Carbon steel (teeth), SS400 (hub)	Welded	12	193.2	198	3.1

Note: For sprockets made from different materials or having numbers of teeth other than those described above, contact a Tsubaki representative.

● Steel Lock Sprockets



Type A



Type B

■ Lock Sleeve Dimensions

Sleeve no.	*Df* diameter mm	*Dc* diameter mm	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	Pitch diameter *Dp* mm	Outside diameter *Do* mm	Facewidth *T* mm	Hub diameter *Dh* mm	Length *L* mm
TPUN555-800T	8	130.7	134	8.8	73	45
TPUN555-1000T	10	161.8	163			
TPUN555-1200T	12	193.2	198			

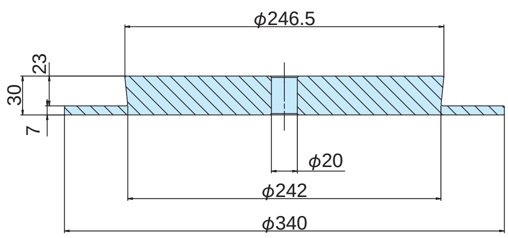
■ Sleeve Combinations and Transfer Torque Values

Sleeve no.	S2							S3			S4			S5			
Bore diameter *d* mm	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45
Tsubaki model no.	Max. allowable transfer torque N·m																
TPUN555-800T	139	149	158	167	177	186	205	167	174	195	279	298	325	442	465	586	628
TPUN555-1000T	174	186	198	209	221	232	256										
TPUN555-1200T																	

● Corner Discs (for TPUN555 only)

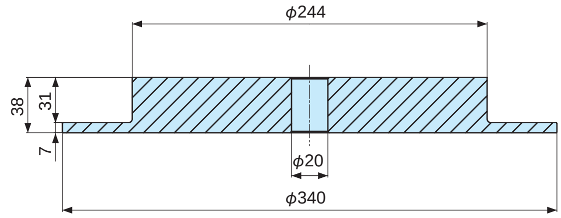
○ Carry Way

Tsubaki model no. : TPUN555-CD-R150C



○ Return Way

Tsubaki model no. : TPUN555-CD-R150R



- Disc body: Ultra-high molecular weight polyethylene (white)
- Approx. mass: 2.1 kg/disc
- Chain side ex radius R = 150mm
- Contact a Tsubaki representative if dimensions, bearings, or materials other than those shown in the drawing above are required.
- Made-to-order product
- Operating temperature range: –20°C to 60°C
- As of September 2010, the thickness of carry-way corner discs was changed to 30mm (previously 38mm).

Dimensions in mm

Plastic Universal Chain TPUN-LH

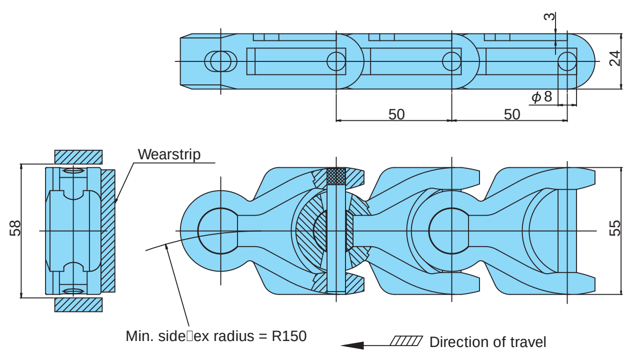
Sideflexing

Features

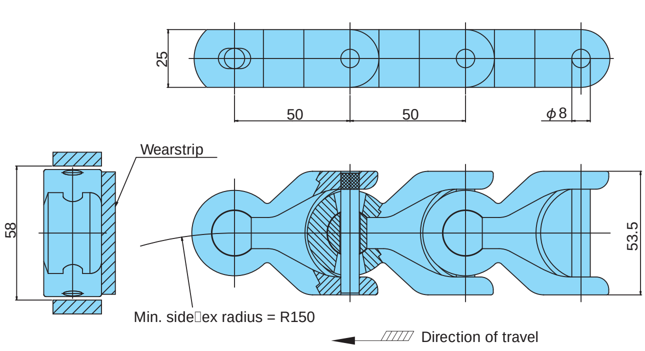
- Small sideflex radius (150mm) enables more compact conveyor layouts.
- This series features the link height often seen in overseas markets. Link height is slightly lower than TPUN chain.

TPUN550-LH

TPUN535-LH



Dimensions in mm



Dimensions in mm

Model Numbering

Chain type	Plate width		Chain type
TPUN	**550**	—	**LH**

Note: 1. Do not leave spaces between letters and symbols.
2. TPUN550-LFB and TPUN535-LFW are also available. Contact a Tsubaki representative for further information.

Chain (Stainless Steel Pins)

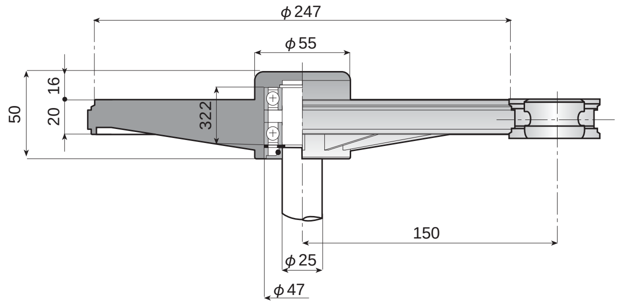
Material	Tsubaki model no.	Link height mm	Top plate		Max. allowable load kN {kgf}	Approx. mass kg/m	Operating temperature range °C	Max. allowable speed m/min	
			Material	Link color				With lube	No lube
Standard	TPUN550-LH	24.0	Polyacetal	Gray	1.96 {200}	1.25	-20 to 80 (65)	35	35
	TPUN535-LH	25.0				1.40			

Note: 1. Standard product.
2. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 61 links.
3. Plastic pins are not available.
4. Operating temperature of (65) is for wet conditions.

Sprockets …See page 133/134
Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

Corner Discs

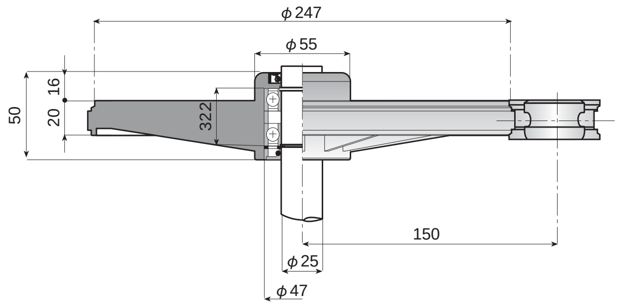
Carry Way



Tsubaki model no.	Material		Chain sideflex radius	Color
	Body	Shaft bearing		
TP-C12723T-CD	Reinforced polyamide	Steel	R150	Black

Note: Bearings and O-ring seals are packaged separately and shipped in the same container as the disc unit.

Return Way



Tsubaki model no.	Material		Chain sideflex radius	Color
	Body	Shaft bearing		
TP-C12725T-CD	Reinforced polyamide	Steel	R150	Black

Note: 1. Carry-way and return-way corner discs differ only in whether the shaft extends through the disc.
2. Bearings and O-ring seals are packaged separately and shipped in the same container as the disc unit.

Model Numbering

Top chain component	Code		Corner disc
TP–C	**12723T**	**–**	**CD**

Note: Do not leave spaces between letters and symbols.

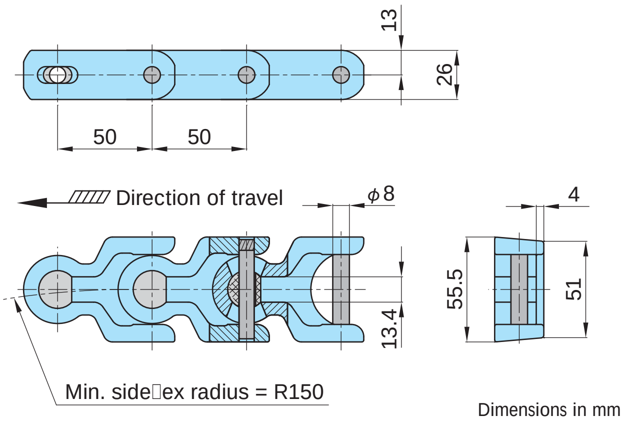
Dimensions in mm

Plastic Universal Chain TP-50UNS

Sideflexing

Features

- Small sideflex radius (150mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
- Chain has a higher strength, which makes it suitable for high load applications.



Model Numbering

Chain type	Chain material
TP−50UNS —	

For Standard chain, leave "Chain material" blank.

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TP-50UNS
Standard chain	Standard	–	Green	1.96 {200}	35	35	-20 to 80 (65)	●
	Low Friction/Anti-Wear	LFW	White					▲
		LFG	Green					
		LFB	Brown					
	Ultra Low Friction	ULF	Blue	–	–	–	–	–
	Low Friction	WR	Green	1.96 {200}	35	35	-20 to 80 (65)	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black					
	Impact Resistant	DIA	Cream					
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						

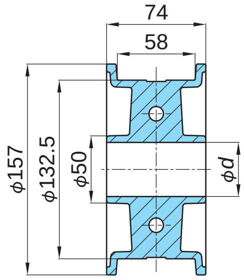
Note: 1. ● : Standard product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (65) is for wet conditions.

Chain (Stainless Steel Pins)

Material	Standard	Top plate width mm	Approx. mass kg/m	Pin material
Material mark	–			
Tsubaki model no.	TP-50UNS	55.5	1.5	Stainless steel

Note: 1. TPUN sprockets can be used.
2. Plastic pins are not available.

Engineering Plastic Idler Wheels

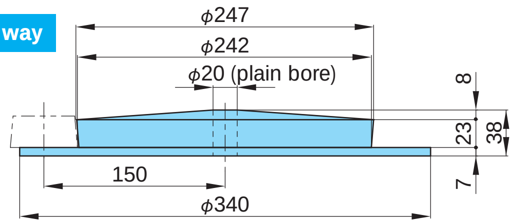


Tsubaki model no.	Equivalent no. of teeth	Bore diameter *d*	Approx. mass kg	Material	
				Body	Bolt & nut
TP-IW50UNS10-30	10	30.5	0.6	Polyacetal (color: green)	Stainless steel
TP-IW50UNS10-40		40.5			

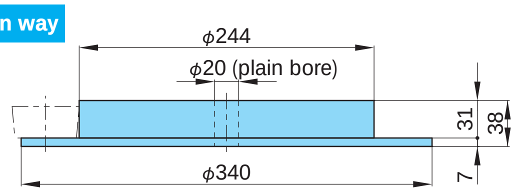
Note: 1. Operating temperature range: –20°C to 80°C
2. Bolt tightening torque: 9.8 N·m {1 kgf·m}
3. When assembling the idler wheel, do not mix the halves with halves from other idler wheels.
4. Should not be used under abrasive conditions.
5. Shaft metal must be polished.

Turn Discs for 50UNS Chain (Machined)

Carry way



Return way

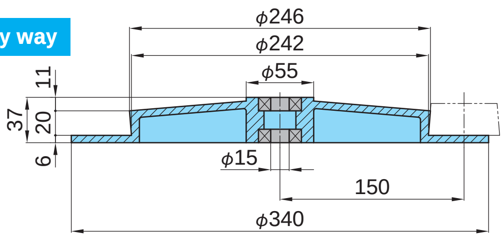


Tsubaki model no.	Material	Material grade	Color	Remarks
TP-50UNST1	High-density polyethylene	84-100	White	Carry way
TP-50UNST2				Return way

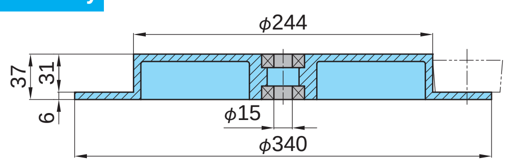
Note: 1. Made-to-order product.
2. Discs with integral bearings can also be manufactured upon request.

Turn Discs for 50UNS Chain (Molded)

Carry way



Return way



Tsubaki model no.	Material			Color	Remarks
	Body	Bearing	Spacer		
TP-TWD	Polyamide	Stainless steel (6202ZZ)	Stainless steel	White	Carry way
TP-TWR					Return way

Note: Made-to-order product.

Sprockets …See page 133/134
Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

Dimensions in mm

Plastic Modular Chain
Plastic Top Chain
Plastic Block Chain
Stainless Steel Top Chain
Accessories

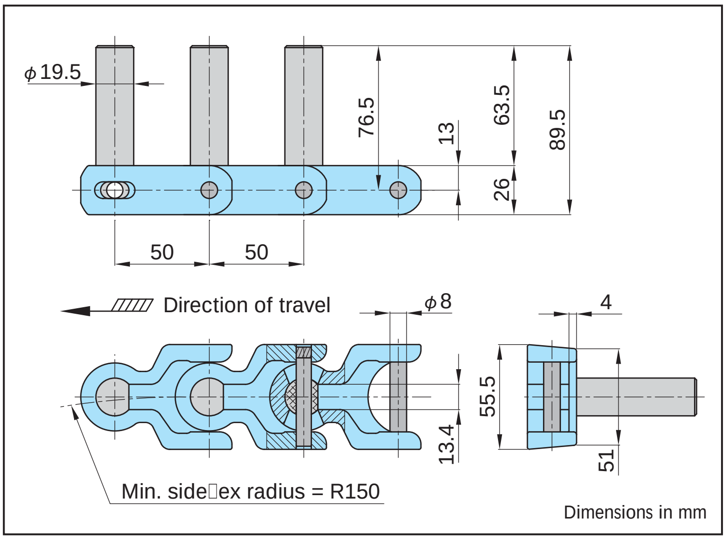
Plastic Universal Chain TP-50UNS-D76

Sideflexing

Plastic Modular Chain
Plastic Top Chain
Plastic Block Chain
Stainless Steel Top Chain
Accessories

Features

- Small sideflex radius (150mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
- Chain has a higher strength, which makes it suitable for high load applications.
- Constructed with pushers to move products up or down inclines.



Model Numbering

Chain type
TP-50UNS-D76

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TP-50UNS-D76 (body)
Standard chain	Standard	–	Green	1.96 {200}	35	35	-20 to 80 (65)	○
	Low Friction/Anti-Wear	LFW	White	–	–	–	–	–
		LFG	Green					
		LFB	Brown	1.96 {200}	35	35	-20 to 80 (65)	▲
	Ultra Low Friction	ULF	Blue	–	–	–	–	–
	Low Friction	WR	Green	1.96 {200}	35	35	-20 to 80 (65)	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black					
	Impact Resistant	DIA	Cream					
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (65) is for wet conditions.

Chain (Stainless Steel Pins)

Material / Material mark	Standard / –	Top plate width mm	Approx. mass kg/m	Pin material
Tsubaki model no.	TP-50UNS-D76	55.5	2.0	Stainless steel

Note: 1. Made-to-order product.
2. TPUN sprockets can be used.
3. Plastic pins are not available.

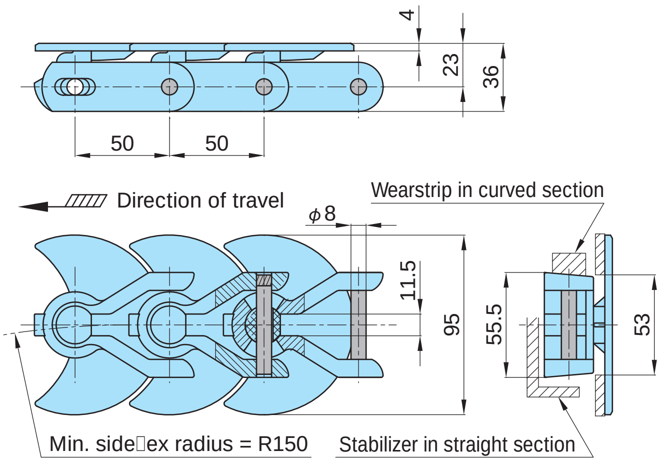
Sprockets ···See page 133/134 Wearstrips ···See page 191/193 Return-Way Parts ···See page 203–205

Plastic Universal Chain TP-50UN-T95

Sideflexing

Features

- Small sideflex radius (150mm) provides more flexibility in the layout of conveyor lines. Ideal for conveyance in tight spaces.
- Constructed with crescent-shaped top plates to minimize the gap in straight and curved sections for better product handling.



● Model Numbering

Chain type

TP-50UN-T95

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}	Max. allowable speed m/min With lube	Max. allowable speed m/min No lube	Operating temperature range °C	TP-50UN-T95
Standard chain	Standard	–	Green	1.96 {200}	35	35	-20 to 80 (65)	○
	Low Friction/Anti-Wear	LFW	White					▲
		LFG	Green	–	–	–	–	–
		LFB	Brown					
	Ultra Low Friction	ULF	Blue					
	Low Friction	WR	Green	1.96 {200}	35	35	-20 to 80 (65)	▲
High-function chain	Heat Resistant/ High Speed	KV150	Black	–	–	–	–	–
		KV180						
		KV250						
	Chemical Resistant	Y	Matte white					
	Electroconductive	E	Black					
	Impact Resistant	DIA	Cream					
		DIY	Green					
	Antibacterial/Mold Resistant	MWS	Cream					
	Metal Detectable	MPD	Black					
		MPW						

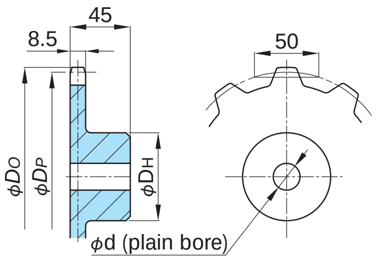
Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Operating temperature of (65) is for wet conditions.

Chain (Stainless Steel Pins)

Material	Standard	Top plate width mm	Approx. mass kg/m	Pin material
Material mark	–			
Tsubaki model no.	TP-50UN-T95	95	1.9	Stainless steel

Note: 1. Made-to-order product. 2. TPUN sprockets can be used. 3. Plastic pins are not available.

● Steel Sprockets for 50UN-T95 Chain



Tsubaki model no.	Teeth	Pitch diameter D_P	Outside diameter D_O	Hub diameter D_H	Bore diameter d Plain bore	Bore diameter d Max.	Approx. mass kg	Material
TP-50UNT-8T	8	130.6	129	65	15	40	1.6	Carbon steel
TP-50UNT-10T	10	161.8	163	65	20	40	2.3	
TP-50UNT-12T	12	193.2	198	65	20	40	2.8	

Note: 1. Made-to-order product.
2. Sprockets can also be manufactured with other number of teeth than noted above.

Wearstrips …See page 191/193 Return-Way Parts …See page 203–205

Dimensions in mm

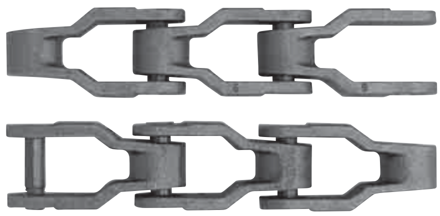
Curved-Movement Plastic Chain TPCC

Sideflexing

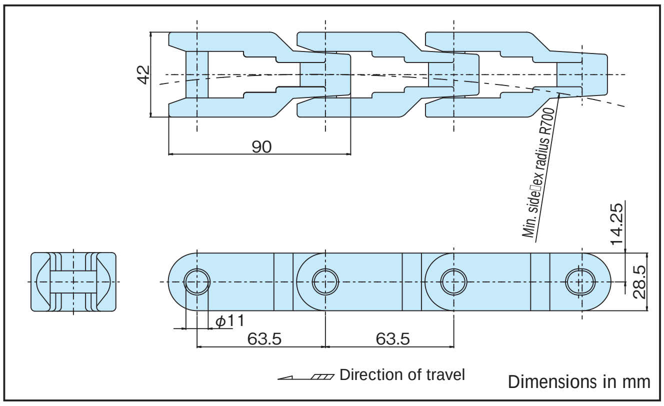
Features

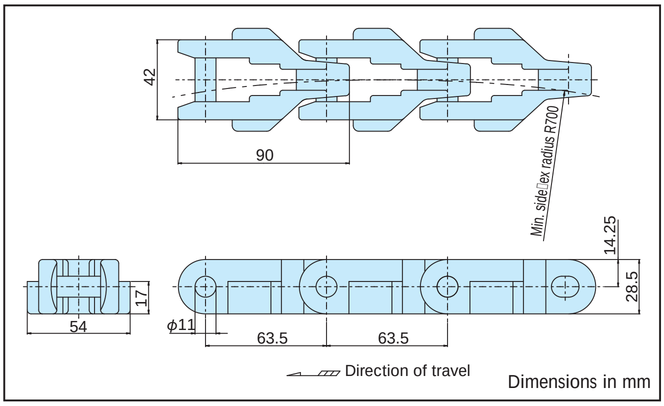
Simple plastic chain with offset link design. For conveying crates, boxes, and the like.

● TPCC420



● TPCC420-T





● Model Numbering

Chain type	Width		Tab
TPCC	**420**	**—**	**T**

Note: Do not leave spaces between letters and symbols.

Chain (Stainless Steel Pins)

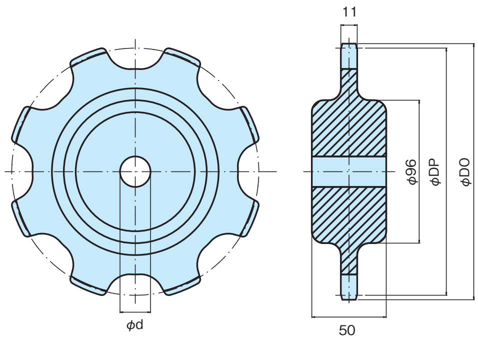
Material	Tsubaki model no.	Top plate		Max. allowable load kN {kgf}	Approx. mass kg/m	Operating temperature range °C	Max. allowable speed m/min	
		Material	Link color				With lube	No lube
Standard	TPCC420	Polyacetal	White	1.96 {200}	1.33	-20 to 80 (65)	35	35
	TPCC420-T				1.49			

Note: 1. Standard product.
2. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 48 links.
3. Available only in Standard material.
4. Plastic pins are not available.
5. Operating temperature of (65) is for wet conditions.

Applicable chain	TPCC420, TPCC420-T

● Sprockets

Material: Polyamide (white)
Type: Solid



Tsubaki model no.	Teeth	Pitch diameter *Dp*	Outside diameter *Do*	Shaft diameter *d*
TP-C12326T-SPR	8	165.9	172	20 (plain bore)
TP-C12327T-SPR	10	205.5	215	
TP-C12328T-SPR	12	245.3	256	

Note: These sprockets have a plain bore.

Dimensions in mm

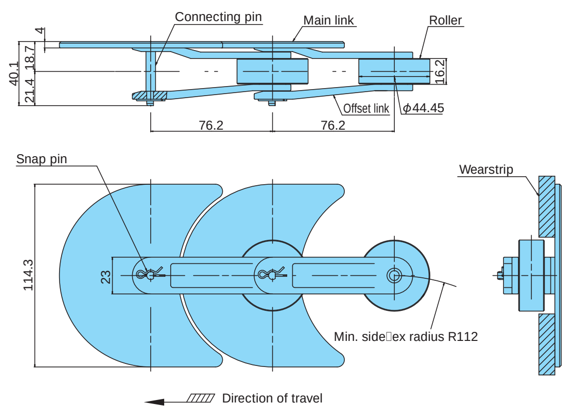
Plastic Crescent Chain TORP/TOSP

Sideflexing

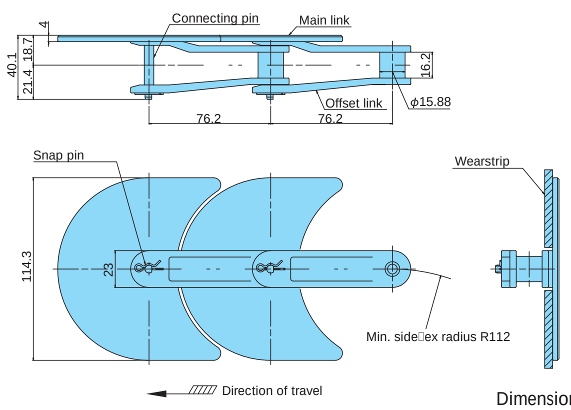
Features

- For horizontal circular conveyance. Designed so the entire surface can be used to convey objects.
- No return-way chain, so the height of the conveyer can be reduced.
- Crescent-shaped top plates. Space between links remains constant in curved sections, minimizing conveyed objects becoming pinched or caught in the gap.

TORP1143



TOSP1143



Dimensions in mm

Model Numbering

Chain type | Plate width

TORP 1143

Note: Do not leave spaces between letters and symbols.

Chain (Stainless Steel Pins)

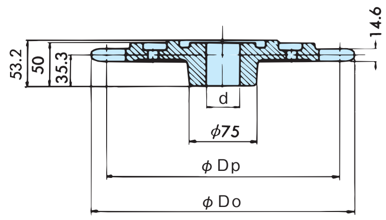
Tsubaki model no.	Max. allowable load kN {kgf}	Operating temperature range °C	Max. allowable speed m/min	Approx. mass kg/m	Top plate main link	Offset link	Roller	Connecting pin/snap pin	Link color
TORP1143	0.69 {70}	0 to 60	20 m/min and under	1.40	Reinforced polycarbonate	Reinforced polycarbonate	Polyacetal	Stainless steel	White
TOSP1143				1.36					

Note: 1. Made-to-order product.
2. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer. Standard chain length is 40 links.
3. Values for maximum allowable load are at ambient temperature.
4. Bearing areas between the pins and bushings are pre-lubricated.
5. For TOSP chain, the sprockets should be installed in the curved sections.
6. Connecting pins not sold separately.

Wearstrips …See page 191/193

Applicable chain TORP1143 & TOSP1143

● Sprockets for TO Chain (with Plain Bore)



Applicable chain	Tsubaki model no.	Actual teeth	Effective teeth	Pitch diameter Dp	Outside diameter Do	Bore diameter d		Approx. mass kg	Material
						Plain bore	Max.		
TORP1143	TOR1100T	11	11	270.47	305	23	45	7.6	FC250
TOSP1143	TOS1013T	31	10⅓	254.59	269			7.2	

Note: Made-to-order product.

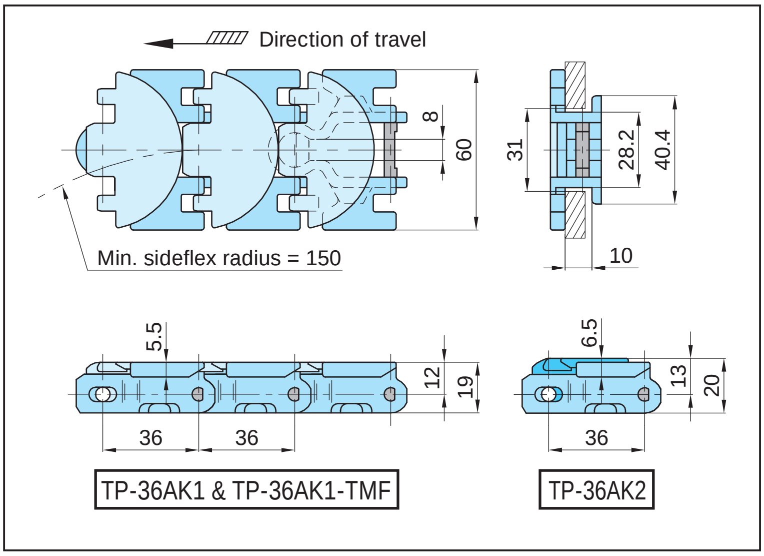
Dimensions in mm

Plastic Top Chain TP-36AK

Sideflexing

Features

- Chain is uniquely designed to keep the gaps at a minimum in straight and curved sections for better product handling.
- High-friction top plates can be assembled with standard link materials, making this chain suitable for incline or decline conveyors.



Model Numbering

Chain type
TP-36AK2

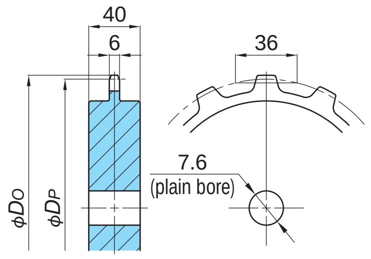
Note: Do not leave spaces between letters and symbols.

Chain (Stainless Steel Pins)

Tsubaki model no.	Material		Color		Top plate width	Max. allowable load kN {kgf}	Operating temperature range °C	Max. allowable speed m/min		Approx. mass kg/m	Pin material
	Link	Top plate	Link	Top plate				With lube	No lube		
TP-36AK1	Standard	Standard	White	White	60	0.5 {51}	-20 to 80	100	50	0.75	Stainless steel
TP-36AK1-TMF	Standard	Middle Friction	White	Yellow		0.5 {51}	-20 to 80 (dry only)	–			
TP-36AK2	Standard	Polyurethane	White	Yellowish brown		0.07 {7.1}	-20 to 80 (dry only)	–			

Note: 1. Made-to-order product.
2. Plastic pins are not available.

Engineering Plastic Sprockets

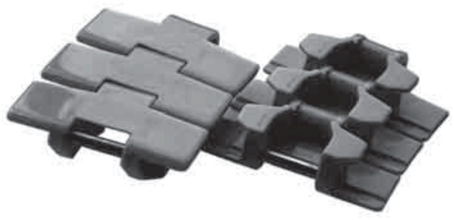


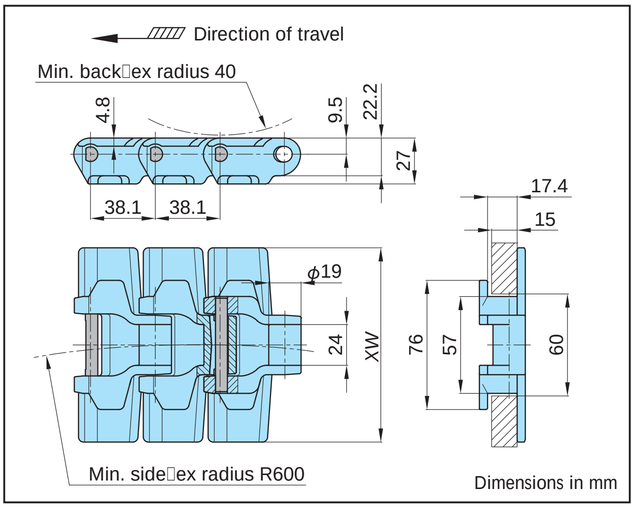
Tsubaki model no.	Teeth	Pitch diameter *Dp*	Outside diameter *Do*	Bore diameter *d*		Approx. mass kg	Material
				Plain bore	Max.		
TP-36AK1100T	11	127.7	131	20	60	0.3	UHMW-PE
TP-36AK1300T	13	150.4	155			0.5	
TP-36AK1500T	15	173.1	178			0.7	

Note: 1. Made-to-order product.
2. Operating temperature range is –20°C to 60°C. Use stainless steel sprockets (made-to-order product) when operating temperatures exceed 60°C.

Dimensions in mm

●TPUS-Y-T





Material	Low Friction / Anti-Wear	Top plate width *XW* mm	Max. allowable load kN{kgf}	Approx. mass kg / m
Material mark	LFG			
Link color	Green			
Connecting pin	D-pins			
Tsubaki model no.	TPUS1143-Y-T-LFG	114.3	1.96 {200}	2.1
	TPUS1905-Y-T-LFG	190.5		2.4

Note: 1. TPUS-Y-T plastic top chain cannot be connected to UTDT-S slatband chain with knurled connecting pins sold prior to December 2004.
2. Plastic pins are not available.

Snap Top Chain TN

Features

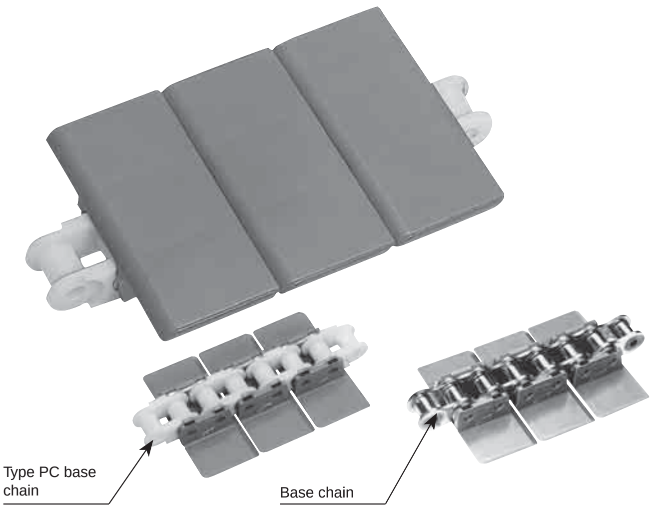
- Suitable for heavy loads and long conveyor applications because of high allowable chain load (except for SS and PC types).
- Replacing top plates is simple and easy.
- Base chain types available for operating environments where corrosion could be a problem.

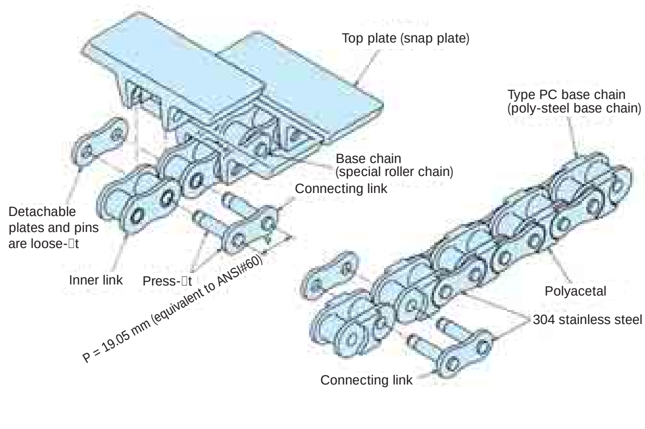
Chain Construction

TN top chains consist of snap top plates and ANSI #60 base chain. The “legs” of the top plates are used to snap the plates onto the outer links of the base chain and to hold down the detachable plates and prevent them from coming loose.

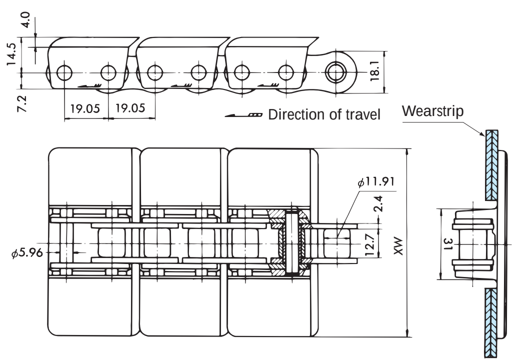
Chain Types

1. Standard Type
   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. Base chain requires lubrication.
2. NP Type
   Base chain is nickel-plated standard chain. The nickel plating makes for a better appearance, as well as providing corrosion resistance. Lubrication is required.
3. LMC-NP Type
   Base chain is lube-free Lambda roller chain using oil-impregnated sintered bushes. Components other than bushes are nickel-plated for corrosion resistance.
4. SS Type
   All base chain components are made of 304 stainless steel, and designed for use in environments where high corrosion resistance is required. Lubrication is required.
5. PC Type
   Base chain is constructed from TN-C-PC poly-steel chain. Connecting 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.



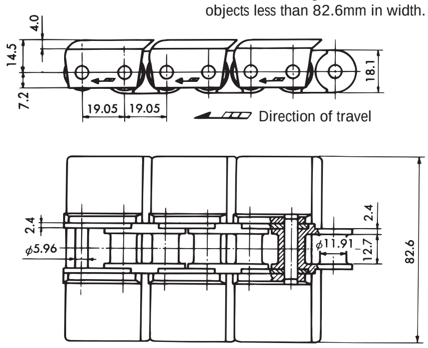


TN, TN-NP, TN-LMC-NP, TN-SS



TN826-PC

(Top plate made specifically for TN826PC)
Plate width: Designed to accommodate only objects less than 82.6mm in width.



Dimensions in mm

● Model Numbering (Base Chain and Connecting Link)

Chain type		Base chain		Base chain material		※1
TN	—	**C**	—	**LMC—NP**	—	**CL**
				[blank]: Standard NP, LMC-NP, SS, PC		※1 : Specify CL only when connecting link is required.

(Top Plate)

Chain type	Plate width	Top plate material		Base chain material
TN	**826**	**P**	—	**PC** ※2
	(826 = 82.6mm)	P: Standard		※2 : Specify PC only when base chain material is to be type PC.

Note: Do not leave spaces between letters and symbols.

Top Plate

Top plates for Poly-Steel Attachment Chain (PC) are made specifically for that chain. Top plates for all other types (Standard, NP, LMC-NP, and SS) are identical. Color of top plates for all five types is gray.

Base Chain

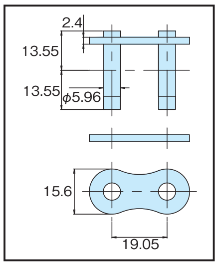
Base chain is identical in size to ANSI #60 chain (pin ends are different for general drive chain). Connecting links are intended for TN chain only. However, for Poly-Steel Attachment Chain (PC), parts other than connecting links are identical to those for drive chain.

Sprockets

Standard ANSI #60 sprockets can be used. Type B sprockets can be used provided they have at least 12 teeth.

Connecting Link

Cotter pins and spring clips are not used on roller chain or Poly-Steel Attachment Chain. The "legs" of the top plates serve to hold the connecting link plate in place and keep it from coming loose.



Caution!

Be sure to specify chain length using the number of links in the base chain. TN top plates are attached only to the outer links of the base chain, which means that the number of links in the chain is twice the number of top plates. Also, note that the number of links for standard base chain length is 160. In other words, with a chain pitch of 19.05mm, standard length is 3,048mm.

Base Chain and Connecting Links

		Standard	NP	LMC-NP	SS	PC
Base chain	Tsubaki model no.	TN-C	TN-C-NP	TN-C-LMC-NP	TN-C-SS	TN-C-PC
Connecting link	Tsubaki model no.	TN-C-CL	TN-C-NP-CL	TN-C-LMC-NP-CL	TN-C-SS-CL	TN-C-PC-CL
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	

Snap Top Plates

Top plate width *XW* mm	82.6		101.6	114.3	127.0	190.5
Tsubaki model no.	TN826P	TN826P-PC	TN1016P	TN1143P	TN1270P	TN1905P
Approx. mass (top plate + base chain) kg/m	2.1	1.5	2.2	2.3	2.4	2.8
Top plate material	Polyacetal (Standard, color: gray)					

Note: The top plate model number is different when base chain is PC. (TN826P-PC).

Snap Top Plate Material

	Material	Material mark	Link color	TN826P	TN826P-PC	TN1016P	TN1143P	TN1270P	TN1905P
Standard chain	Standard	–	Gray	●	●	●	●	●	●
	Low Friction/Anti-Wear	LFW	White	○	○	○	○	○	○
		LFG	Green						
		LFB	Brown						
	Ultra Low Friction	ULF	Blue	–	–	–	–	–	–
	Low Friction	WR	Green	▲	▲	▲	▲	▲	▲
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–	–
		KV180							
		KV250							
	High Speed	HS	Cream						
	Chemical Resistant	Y	Matte white	※	※	※	※	※	※
	Electroconductive	E	Black	–	–	–	–	–	–
	Impact Resistant	DIA	Cream						
		DIY	Green						
	Antibacterial/Mold Resistant	MWS	Cream	▲	▲	▲	▲	▲	▲
	Metal Detectable	MPD	Black	–	–	–	–	–	–
		MPW							

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer.
2. ● : Standard product ○ : Made-to-order product – : Not available ▲ : Special configurations may be available.
※ : May be available only when base chain is SS or PC. Contact a Tsubaki representative for further information.

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Dimensions in mm

Snap Top Chain TNU

Sideflexing

Features

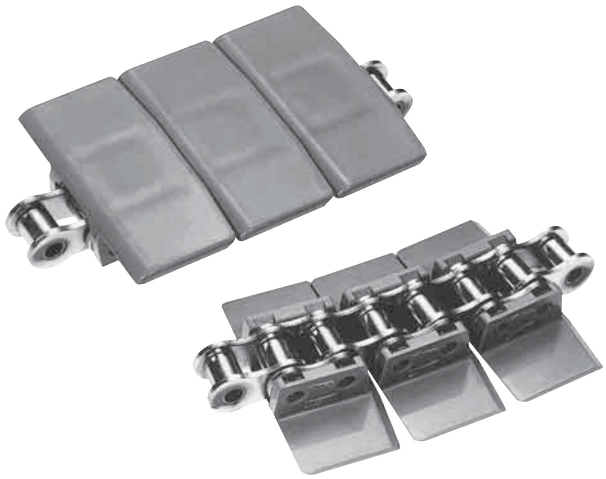
- Curved conveyance chain with high allowable load (double the allowable load of TTUP chain). The sideflexing version of TN Snap Top Chain.
- Replacing top plates is simple and easy.
- Base chain types available for operating environments where corrosion could be a problem.

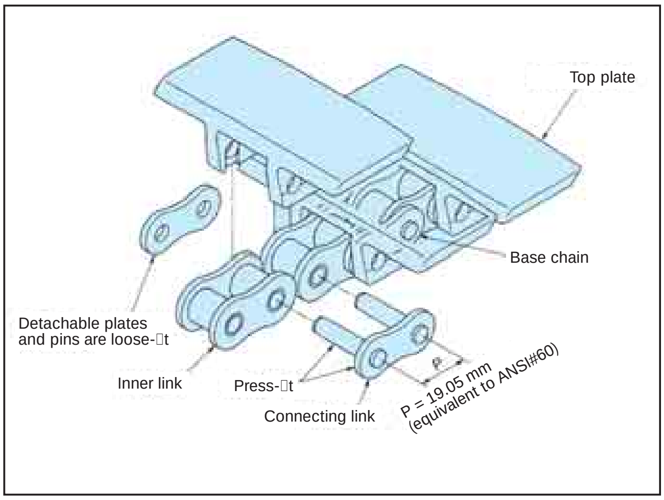
Chain Construction

TNU top chains consist of snap top plates and ANSI #60 base chain. The “legs” of the top plates are used to snap the plates onto the outer links of the base chain and to hold down the detachable plates and prevent them from coming loose.

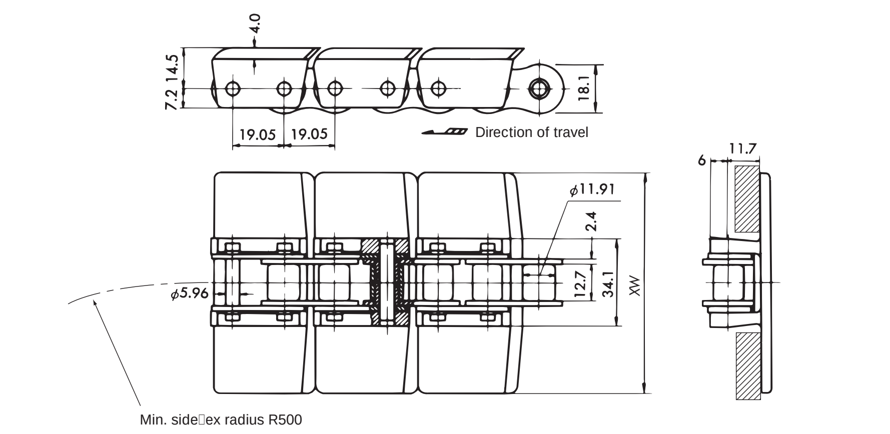
Chain Types

1. Standard Type
   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. Base chain requires lubrication.
2. NP Type
   Base chain is nickel-plated standard chain. The nickel plating makes for a better appearance, as well as providing corrosion resistance. Lubrication is required.
3. AS Type
   Pins, bushes, and rollers are made of precipitation-hardened stainless steel. Plates are made of 304 stainless steel. Suitable for corrosive environments. Lubrication is required.



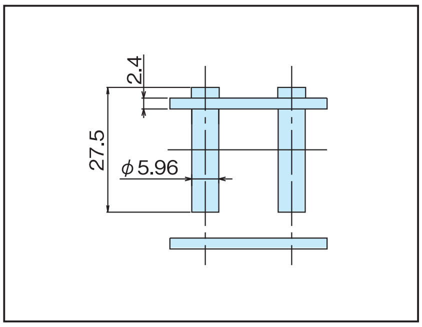


(Base chain, top plates)



Connecting Link

Cotter pins and spring clips are not used on TNU chain. The “legs” of the top plates serve to hold the connecting link plate in place and keep it from coming loose.



Dimensions in mm

Plastic Modular Chain
Plastic Top Chain
Plastic Block Chain
Stainless Steel Top Chain
Accessories

● Model Numbering (Base Chain and Connecting Link)

Chain type		Base chain		Base chain material		※
TNU	—	C	—	NP	—	CL
				[blank] : Standard NP : NP AS : AS		※Specify CL only when connecting link is required.

(Top Plate)

Chain type	Plate width	Top plate material
TNU	826	P
	(826=82.6mm)	P: Standard

Note: Do not leave spaces between letters and symbols.
When ordering, specify the base chain, connecting links, and top plates separately.

Base Chain and Connecting Links

		Standard	NP	AS
Base chain	Tsubaki model no.	TNU-C	TNU-C-NP	TNU-C-AS
Connecting link	Tsubaki model no.	TNU-C-CL	TNU-C-NP-CL	TNU-C-AS-CL
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

Snap Top Plates

Top plate width *XW* mm	82.6	114.3	127.0
Tsubaki model no.	TNU826P	TNU1143P	TNU1270P
Approx. mass (top plate + base chain) kg/m	2.2	2.3	2.5
Top plate material	Polyacetal (Standard, color: gray)		

Note: Made-to-order product.

Snap Top Plate Material

	Material	Material mark	Link color	TNU826P	TNU1143P	TNU1270P
Standard chain	Standard	–	Gray	○	○	○
	Low Friction/Anti-Wear	LFW	White			
		LFG	Green			
		LFB	Brown			
	Ultra Low Friction	ULF	Blue	–	–	–
	Low Friction	WR	Green	▲	▲	▲
High-function chain	Heat Resistant/ High Speed	KV150	Black	–	–	–
		KV180				
		KV250				
	High Speed	HS	Cream			
	Chemical Resistant	Y	Matte white	※	※	※
	Electroconductive	E	Black	–	–	–
	Impact Resistant	DIA	Cream			
		DIY	Green			
	Antibacterial/Mold Resistant	MWS	Cream	▲	▲	▲
	Metal Detectable	MPD	Black	–	–	–
		MPW				

Note: 1. Shipped chain will consist of a number of standard chain lengths plus (if necessary) one fractional length having the number of links needed to make up the total chain length as ordered by the customer.
2. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available.
※ : May be available only when base chain is AS. Contact a Tsubaki representative for further information.

Sprockets

Standard ANSI #60 sprockets can be used. Type B sprockets can be used provided they have at least 12 teeth.

Caution!

Be sure to specify chain length using the number of links in the base chain. TNU top plates are attached only to the outer links of the base chain, which means that the number of links in the chain is twice the number of top plates. Also, note that the number of links for standard base chain length is 160, in other words, with a chain pitch of 19.05mm, standard length is 3,048mm.

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Wearstrips ···See page 191/193
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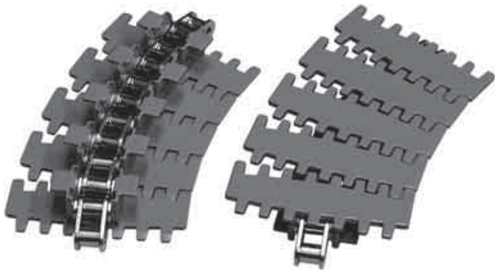
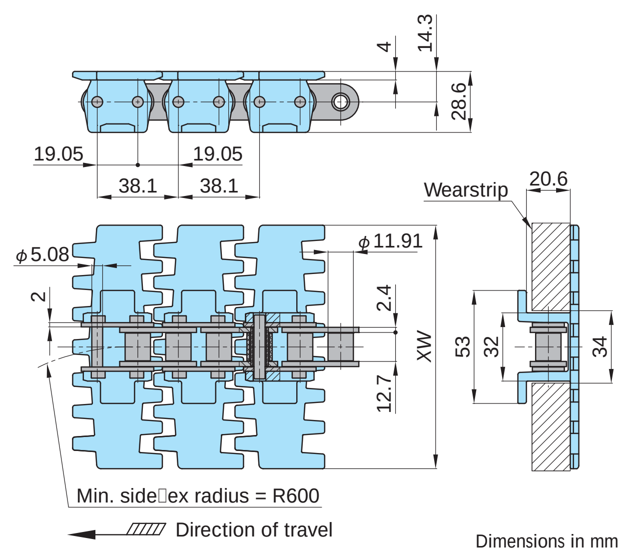
Snap Top Chain TP-PT

Sideflexing

Features

- Curved conveyance chain for heavier loads (high allowable chain load).
- Comb-toothed plates minimize gaps between links.
- Top plates snap on to a sideflexing roller chain. The top plates can be replaced, if desired.





Model Numbering

Chain type	Top plate width		Base chain material		Top plate material
TP-PT	44	—	SS	—	LFG
	44 = 4 1/2 inches = 114.3mm		[blank]: Steel (leave blank after hyphen) SS: Stainless steel		

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}		Max. allowable speed m/min		Operating temperature range °C	TP-PT (top plate)
				Steel	Stainless steel	With lube	No lube		
Standard chain	Standard	–	Gray	2.16 {220}	0.88 {90}	100 (60)	40 (30)	-20 to 80	▲
	Low Friction/Anti-Wear	LFW	White	–	–	–	–	–	–
		LFG	Green	2.16 {220}	0.88 {90}	100 (60)	40 (30)	-20 to 80 (65)	○
		LFB	Brown	–	–	–	–	–	–
	Ultra Low Friction	ULF	Blue	2.16 {220}	0.88 {90}	100 (60)	40 (30)	-20 to 80 (65)	▲
	Low Friction	WR	Green					-20 to 80	
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–	–
		KV180							
		KV250							
	High Speed	HS	Cream						
	Chemical Resistant	Y	Matte white						
	Electroconductive	E	Black						
	Impact Resistant	DIA	Cream						
		DIY	Green						
	Antibacterial/Mold Resistant	MWS	Cream						
	Metal Detectable	MPD	Black						
		MPW							

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Max. allowable speed in ( ) is for when the base chain is stainless steel.
3. Operating temperature of (65) is for wet conditions.

Chain

Material	Low Friction/Anti-Wear	Top plate width *XW* mm	Approx. mass kg/m	Base chain material
Material mark	LFG			
Tsubaki model no.	TP-PT32-LFG	82.6	2.2	Steel
	TP-PT32-SS-LFG			Stainless steel
	TP-PT44-LFG	114.3	2.3	Steel
	TP-PT44-SS-LFG			Stainless steel

Note: 1. Top plate width of 82.6mm is made by trimming a 114.3mm-wide plate.
2. When ordering, count the number of top plates for necessary chain length. (Ordering is different for TN and TNU chains.)
3. Sprockets having at least 20 teeth intended for ANSI #60 standard roller chain can be used. There may be interference with the sprocket hub depending on the type and shape of the sprocket. The hub diameter (HD) should be machined so that it is less than the sprocket pitch diameter (Dp) minus 38.1mm (HD ≤ Dp–38.1).

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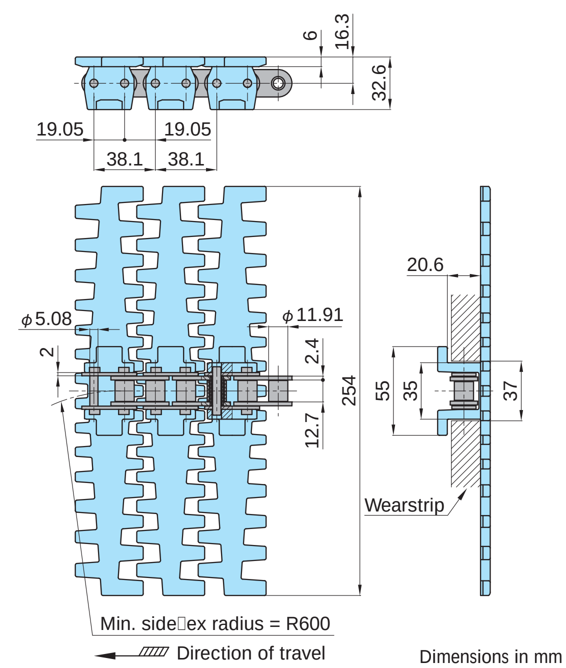
Wearstrips …See page 191/193
Return-Way Parts …See page 203–205

Snap Top Chain TP-PTS

Sideflexing

Features

- Wide top plate width in a curved conveyance chain with high allowable load. Also useful for transporting large objects.
- Comb-toothed plates minimize gaps between links.
- Top plates snap on to a sideflexing roller chain. The top plates can be replaced, if desired.



Model Numbering

Chain type	Top plate width		Base chain material		Top plate material
TP-PTS	**100**	—	**SS**	—	**LFG**
	100 = 10 inches		[blank]: Steel (leave blank after hyphen) SS: Stainless steel		

Note: Do not leave spaces between letters and symbols.

Material

	Material	Material mark	Link color	Max. allowable load kN {kgf}		Max. allowable speed m/min		Operating temperature range °C	TP-PTS (top plate)
				Steel	Stainless steel	With lube	No lube		
Standard chain	Standard	–	Gray	2.16 {220}	0.88 {90}	100 (60)	40 (30)	-20 to 80	▲
	Low Friction/Anti-Wear	LFW	White	–	–	–	–	–	–
		LFG	Green	2.16 {220}	0.88 {90}	100 (60)	40 (30)	-20 to 80 (65)	○
		LFB	Brown	–	–	–	–	–	–
	Ultra Low Friction	ULF	Blue	2.16 {220}	0.88 {90}	100 (60)	40 (30)	-20 to 80 (65)	▲
	Low Friction	WR	Green					-20 to 80	
High-function chain	Heat Resistant/High Speed	KV150	Black	–	–	–	–	–	–
		KV180							
		KV250							
	High Speed	HS	Cream						
	Chemical Resistant	Y	Matte white						
	Electroconductive	E	Black						
	Impact Resistant	DIA	Cream						
		DIY	Green						
	Antibacterial/Mold Resistant	MWS	Cream						
	Metal Detectable	MPD	Black						
		MPW							

Note: 1. ○ : Made-to-order product – : Not available ▲ : Special configurations may be available. Contact a Tsubaki representative for further information.
2. Max. allowable speed in ( ) is for when the base chain is stainless steel.
3. Operating temperature of (65) is for wet conditions.

Chain

Material	Low Friction/Anti-Wear	Top plate width mm	Approx. mass kg/m	Base chain material
Material mark	LFG			
Tsubaki model no.	TP-PTS100-LFG	254	3.5	Steel
	TP-PTS100-SS-LFG			Stainless steel

Note: 1. Top plate width of 82.6mm is made by trimming a 114.3mm-wide plate.
2. When ordering, count the number of top plates for necessary chain length. (Ordering is different for TN and TNU chains.)
3. Sprockets having at least 20 teeth intended for ANSI #60 standard roller chain can be used. There may be interference with the sprocket hub depending on the type and shape of the sprocket. The hub diameter (HD) should be machined so that it is less than the sprocket pitch diameter (Dp) minus 38.1mm (HD ≤ Dp–38.1).

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Wearstrips ···See page 191/193
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