

TSUBAKI Product Digest

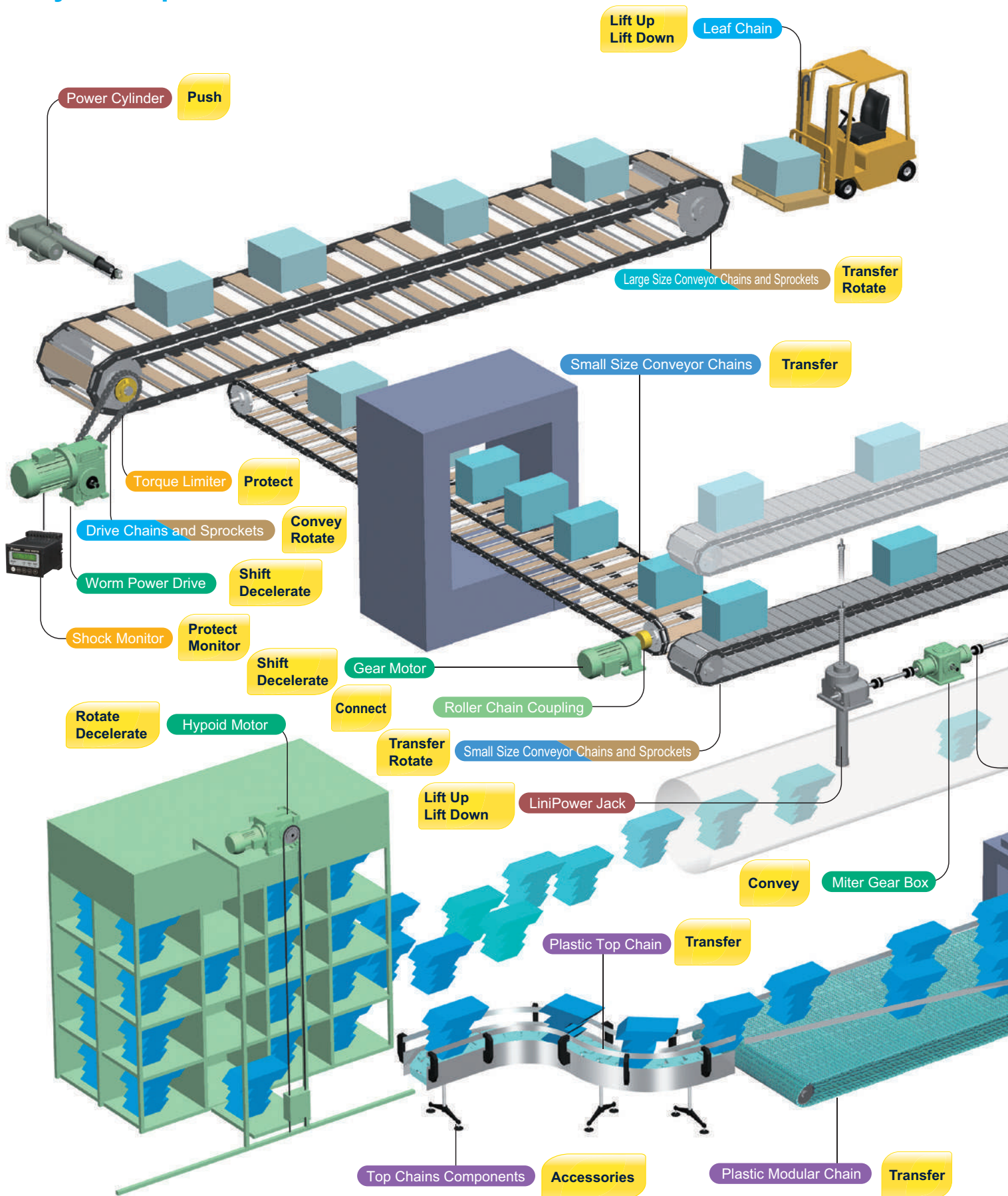
TSUBAKI Products List

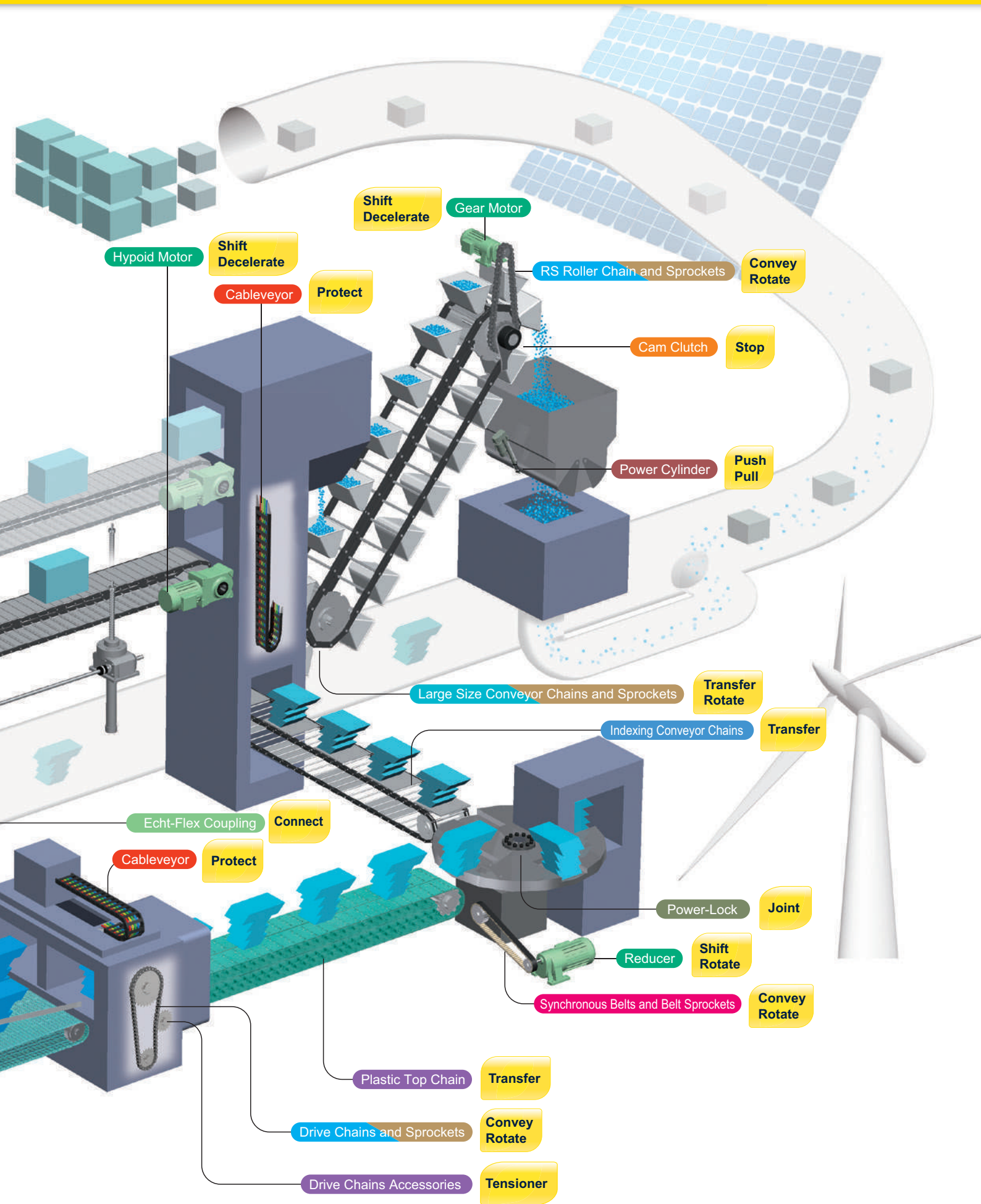
Drive Chains	General Use Drive Chains	<ul style="list-style-type: none"> ● RS Roller Chain ● BS/DIN standard RS Roller Chain
	Lube-Free Drive Chains	<ul style="list-style-type: none"> ● Lambda Chain ● Heavy Duty Lambda Chain ● Long Life Lambda Chain ● BS/DIN Lambda Chain
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	Environment Corrosion Resistant Drive Chains	<ul style="list-style-type: none"> ● Stainless Steel Roller Chain ● Cold Resistant Roller Chain ● Titanium Roller Chain ● Poly Steel Chain ● Low Noise Roller Chain ● Curved Stainless Steel Chain
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Top Chains	Plastic Top Chains	<ul style="list-style-type: none"> ● Plastic Modular Chain ● Plastic Top Chain ● Plastic Block Chain ● Snap Cover Chain
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Sprockets	Drive Chain Sprockets	<ul style="list-style-type: none"> ● RS Sprockets
	Small Size Conveyor Chain Sprockets	<ul style="list-style-type: none"> ● Double Pitch Chain Sprockets ● Free Flow Chain Sprockets
	Large Size Conveyor Chain Sprockets	<ul style="list-style-type: none"> ● Large Size Conveyor Chain Sprockets ● Water Treatment Chain Sprockets
	Top Chain Sprockets	<ul style="list-style-type: none"> ● Top Chain Sprockets
	Pin Gear Drive Units	<ul style="list-style-type: none"> ● Pin Gear Drive Units
Synchronous Belts & Belt Sprockets	Synchronous Belts	<ul style="list-style-type: none"> ● PX Belt ● Ultra PX Belt
	Belt Sprockets	<ul style="list-style-type: none"> ● Belt Sprockets ● Lock Belt Sprockets
	Accessories	<ul style="list-style-type: none"> ● Belt Tension Meter ● Belt Clamps
Carrier System	Hose and Cable Carrier System	<ul style="list-style-type: none"> ● Cableveyor

Reducer	Gear Motor	● Gear Motor ● Hypoid Motor ● Croise Motor
	Gear Box	● Worm Power Drive ● Troi Drive ● Miter Gear Box
	Servomotor Reducer	● Servomotor Reducer (TERVO)
Shaft Coupling	Flexible Coupling	● Roller Chain Coupling ● Echt-Flex ● Jaw-Flex
	Rigid Coupling	● Power Rigid Coupling
Locking Device	Friction Type Locking Device	● Power-Lock
Overload Protectors	Mechanical Overload Protectors	● Shock Guard ● Torque Limiter ● Mini Keeper ● Torque Keeper
	Electrical Overload Protectors	● Shock Monitor ● Shock Relay
Clutch	One-Way Clutch	● Cam Clutch ● Cam Clutch Box
	Single Revolution Clutch	● SR Clutch
Linear Actuator	Power Cylinders	● Power Cylinder
	Jacks	● LiniPower Jack ● LiniSpeed Jack
	Chain Meshing Type Actuators	● Zip Chain Actuator
	Electrical Lifter	● Lift Master ● Zip Master
Sorting System	Automatic Tilt Tray Sorter	● LINISORT Series
	Automatic Conveyor Sorter	● QUICKSORT
Storage and Picking System	High-Speed Vertical Automated Rack System	● POWER COLUMN
Materials Handling Systems	Monorail-Type Automated Materials Handling Systems	● AUTRAN VANGURD Mark II
	Wide Range and High Speed Conveyor	● TSUBAKI FREE CURVE
	Auto Body Paint Conveyor Systems	● SYMTRACK
	Coolant Processing Systems	● ConSep 2000II
	Short Chips Conveying	● Scraper Conveyor
	Magnetic Type In-Tank Sludge Recovery System	● Sludge Barrier
	Filtration Systems	● NW Filter
	Push Bar Conveyor	● Power-Trof
	Bulk Material Handling Conveyors	● FC Flow ● PSC Power Screw ● NB Bucket Elevator ● NAB Aprovator ● NFV Flightveyor
	Inspection Door	● One-Touch Inspection Door
Materials Handling Units	Chain Meshing Drive Type Lifter	● Zip Chain Lifter

Applications (Illustration)

Advance the "art of moving" beyond expectations





TSUBAKI Product Digest

General Use Drive Chains

JIS, ASME, and ISO compliant global standard drive chains that are most commonly used. When higher transmission capacity is required, multi-strand chains such as 2 strands/3 strands chains can be used in addition to the size increase.

	RS Roller Chain	BS/DIN Standard RS Roller Chain
Size	RS15 (Pitch : 4.7625 mm)	RF06B (Pitch : 9.525 mm)
	RS240 (Pitch : 76.20 mm)	RS56B (Pitch : 88.9 mm)



Lube-Free Drive Chains

Tsubaki Lambda chain is the first in the industry to use special oil-impregnated bush that eliminates the need for chain lubrication. It reduces replacement frequency and keeps the work environment clean. Available in a wide range of products like the following.

	Lambda Chain	Lambda Cold Resistant	Surface Treated Lambda Chain
Size	RS40 (Pitch : 12.70 mm)	RS40 (Pitch : 12.70 mm)	RS40 (Pitch : 12.70 mm)
	RS160 (Pitch : 50.80 mm)	RS100 (Pitch : 31.75 mm)	RS160 (Pitch : 50.80 mm)
	BS/DIN Lambda Chain	Long Life Lambda Chain	
Size	RF06B (Pitch : 9.525 mm)	RS40 (Pitch : 12.70 mm)	
	RS24B (Pitch : 38.10 mm)	RS120 (Pitch : 38.10 mm)	



Heavy Duty Drive Chains

Tsubaki Heavy Duty Drive Chain has increased plate thickness and shape to achieve high kilowatt ratings, allowable load, and tensile strength. It provides larger transmission capacity and higher maximum allowable load, so is suitable for compact and powerful transmission and lifting applications.

	RS Standard	RS-HT	Super	Super-H	Ultra Super
Max. Allowable Load	100	109	140	162	162
Min. Tensile Strength	100	119	109	123	144
Elastic Elongation	100	95	90	85	85

※With RS Standard Chain value as benchmark (100)

	RS-HT Roller Chain	Super Roller Chain	Super-H Roller Chain	Ultra Super
Size	RS60 (Pitch : 19.05 mm)	RS80 (Pitch : 25.40 mm)	RS80 (Pitch : 25.40 mm)	RF100 (Pitch : 31.75 mm)
	RS240 (Pitch : 76.20 mm)	RS240 (Pitch : 76.20 mm)	RS240 (Pitch : 76.20 mm)	RF240 (Pitch : 76.20 mm)



Corrosion Resistant Drive Chains

Tsubaki offers a variety of environment-resistant drive chains, including stainless steel series with excellent corrosion resistance, coating series with enhanced rust prevention while utilizing the strength of steel materials, low noise type, engineering plastic, and special materials.

	Stainless Steel Roller Chain	Cold Resistant Roller Chain	Titanium Roller Chain	Poly Steel Chain
Size	RS11 (Pitch : 3.7465 mm)	RS35 (Pitch : 9.525 mm)	RS35 (Pitch : 9.525 mm)	RS25 (Pitch : 6.35 mm)
	RS240 (Pitch : 76.20 mm)	RS160 (Pitch : 50.80 mm)	RS40 (Pitch : 12.70 mm)	RS60 (Pitch : 19.05 mm)
	Surface Treated Roller Chain	Low-Noise Roller Chain	Curved Stainless Steel Roller Chain	
Size	RS25 (Pitch : 6.35 mm)	RS40 (Pitch : 12.70 mm)	RS40 (Pitch : 12.70 mm)	
	RS240 (Pitch : 76.20 mm)	RS80 (Pitch : 25.40 mm)	RS80 (Pitch : 25.40 mm)	



Special Drive Chains

Chain for special applications used for lifting applications, curved drives, and pin gear drives.

Chain peripheral products that meet the needs of chain maintenance. Chain tensioners for adjusting chain slack, cutting/connecting tools, end fixtures, automatic lubricators, and chain wear measurement scales are available.

	Curved Chain	Leaf Chain	Pin Gear Attachment Chain
Size	RS40 (Pitch : 12.70 mm)	AL4, BL4 (Pitch : 12.70 mm)	RS40 (Pitch : 12.70 mm)
	RS80 (Pitch : 25.40 mm)	AL16, BL16 (Pitch : 50.80 mm)	RS240 (Pitch : 76.20 mm)



Drive Chain Accessories

For information on how to use the equipment, see the videos on TSUBAKI Power Transmission Products Information Site.

	Chain Tensioner	Chain Cutting and Connecting Tool	Automatic Lubricator for Roller Chain
Size	For RS40~RS80 Linear type and Swing Type	For RS15~RS240	For #40~#100
	Chain Elongation Scale	End Fixture	
Size	Available for RS40~RS240 RS08B~RS32B, etc.	For RS40~RS120	



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General Use Small Size Conveyor Chains

Standard type of chain with attachments, used for a wide range of applications. Product range includes Double pitch and RS type with attachments, and all parts are heat-treated to increase their tensile and fatigue strengths.

	RS Attachment Chain	Double Pitch Chain
Size	RS25 (Pitch : 6.35 mm)	RF2040 (Pitch : 25.40 mm)
	RS160 (Pitch : 50.80 mm)	RF2160 (Pitch : 101.60 mm)
	BS Standard RS Attachment Chain	RF Roller Chain
Size	RS08B (Pitch : 12.70 mm)	RF35 (Pitch : 9.525 mm)
	RS24B (Pitch : 38.10 mm)	RF120 (Pitch : 38.10 mm)



Lube-Free Small Size Conveyor Chains

Tsubaki Lambda Small Size Conveyor Chain is the first in the industry to use special oil-impregnated bush that eliminates the need for chain lubrication. It reduces replacement frequency and keeps the work environment clean.

It has a wide range of products for different applications and environments, such as coating series for improved corrosion resistance.

	Lambda RS Attachment Chain	Lambda Double Pitch Chain	BS Lambda RS Attachment Chain
Size	RS35 (Pitch : 9.525 mm)	RF2040 (Pitch : 25.40 mm)	RS08B (Pitch : 12.70 mm)
	RS140 (Pitch : 44.45 mm)	RF2120 (Pitch : 76.20 mm)	RS20B (Pitch : 31.75 mm)
	Lambda RF Roller Chain	Surface Treated Lambda RS Attachment Chain	Surface Treated Lambda Double Pitch Chain
Size	RF35 (Pitch : 9.525 mm)	RS35 (Pitch : 9.525 mm)	RF2040 (Pitch : 25.40 mm)
	RF100 (Pitch : 31.75 mm)	RS100 (Pitch : 31.75 mm)	RF2100 (Pitch : 63.50 mm)



Corrosion Resistant Small Size Conveyor Chains

Small size conveyor chain that can be used in various environments. Such as Stainless steel chain with attachment that can be used in a corrosive atmosphere, Coating chain with attachment that has enhanced corrosion resistant by applying surface treatment, and Double pitch chain with plastic roller.

	Stainless Steel RS Attachment Chain	Stainless Steel Double Pitch Chain
Size	RS25 (Pitch : 6.35 mm)	RF2040 (Pitch : 25.40 mm)
	RS160 (Pitch : 50.80 mm)	RF2160 (Pitch : 101.60 mm)
	Surface Treated RS Attachment Chain	Surface Treated Double Pitch Chain
Size	RS25 (Pitch : 6.35 mm)	RF2040 (Pitch : 25.40 mm)
	RS160 (Pitch : 50.80 mm)	RF2160 (Pitch : 101.60 mm)
	Poly Steel Attachment Chain	Plastic Roller Double Pitch Chain
Size	RS25 (Pitch : 6.35 mm)	RF2040 (Pitch : 25.40 mm)
	RS60 (Pitch : 19.05 mm)	RF2100 (Pitch : 63.50 mm)



Indexing Conveyor Chains

Uses needle bearings between pins and bushes to minimize pitch elongation as much as possible after initial elongation. Therefore, perfect for chain conveyors required high accurate positioning.

	Bearing Bush Chain	Bearing Cage Chain
Size	RF2040 (Pitch : 25.40 mm)	RF2040 (Pitch : 25.40 mm)
	RF2080 (Pitch : 50.80 mm)	RF2080 (Pitch : 50.80 mm)
	Mini Tact Chain	Indexing Table Chain
Size	BCM12.5-9 (Pitch : 12.50 mm)	BC050 (Pitch : 50.00 mm)
	BCM15.0-9 (Pitch : 15.00 mm)	BC150 (Pitch : 150.00 mm)



Free Flow Chains

Free Flow Chains are used for free flow conveyors that allow the chain to keep running while conveyed goods are stopped using stoppers for work.

Various types of Free Flow Chains are available. Such as Double Plus chain that enables high-speed conveyance at 2.5 times the chain speed, Center Roller chain, chains with outboard rollers, and chains with top rollers.

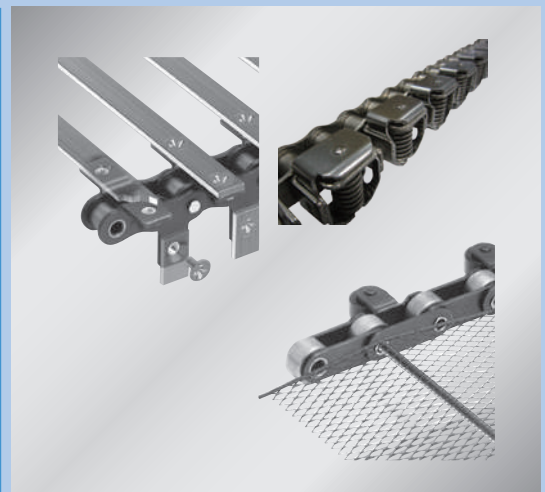
	Double Plus Chain	Center Roller Chain
Size	RF2030 (Pitch : 19.05 mm)	RF2040 (Pitch : 25.40 mm)
	RF2080 (Pitch : 50.80 mm)	RF2080 (Pitch : 50.80 mm)
	RS Chain with Outboard Rollers	Double Pitch Chain with Outboard Rollers
Size	RS40 (Pitch : 12.70 mm)	RF2040 (Pitch : 25.40 mm)
	RS100 (Pitch : 31.75 mm)	RF2100 (Pitch : 63.50 mm)
	RS Chain with Top Rollers	Double Pitch Chain with Top Rollers
Size	RS40 (Pitch : 12.70 mm)	RF2040 (Pitch : 25.40 mm)
	RS100 (Pitch : 31.75 mm)	RF2100 (Pitch : 63.50 mm)



Special Small Size Conveyor Chains

Available to manufacture and deliver chains with special attachments or shapes to meet customer needs. Such as hollow pin chains, Curved chains, customized attachments according to customer specifications, and integrated specifications with customer's parts and jigs.

	Hollow Pin RS Chain	Curved RS Attachment Chain
Size	RS40 (Pitch : 12.70 mm)	RS40 (Pitch : 12.70 mm)
	RS80 (Pitch : 25.40 mm)	RS80 (Pitch : 25.40 mm)
	Hollow Pin Double Pitch Chain	Curved Double Pitch Chain
Size	RF2040 (Pitch : 25.40 mm)	RF2040 (Pitch : 25.40 mm)
	RF2080 (Pitch : 50.80 mm)	RF2080 (Pitch : 50.80 mm)



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General Use Large Size Conveyor Chains

The most economic Large Size Conveyor Chains Metric pitch and Inch pitch are also standardized.

DT Series

Economic and general use series. Roller can be selected from the following three types.

R Roller : Roller outer diameter is larger than the plate width.

F Roller : Flanged rollers can easily prevent lateral run-out.

S Roller : Roller outer diameter is smaller than the plate width.



General Use Conveyor Chain (DT Series) (Meter Pitch)

Capability	
	RF03075 (Max. allowable load : 4.20kN {430kgf})
	~
	RF120600 (Max. allowable load : 159kN {16200kgf})

Heavy Duty Large Size Conveyor Chains

Improved allowable load, tensile strength and wear resistance when compared to General Use Large Size Conveyor Chain.

◆ DTA Series

Improved the wear life between bush and roller from DT Series.

◆ AT Series

Increased the maximum allowable load about 2 times from the DT Series, and further, the wear life of between bush and roller has also improved.

◆ ATA Series

Increased the maximum allowable load about 1.2 times from the AT specification, and further, the wear life of between pin, bush, and roller has also improved.



	DTA Series	AT Series	ATA Series
Capability	RF03075 (Max. allowable load: 4.2kN {430kgf})	RF03075 (Max. allowable load: 9.95kN {1010kgf})	RF08075 (Max. allowable load: 24.3kN {2480kgf})
	~	~	~
	RF36600 (Max. allowable load: 68.0kN {6930kgf})	RF440600 (Max. allowable load: 637kN {65000kgf})	RF36600 (Max. allowable load: 117kN {11900kgf})

Corrosion Resistant Large Size Conveyor Chains

Lineup of conveyor chains for applications that require corrosion resistant, and advanced models with improved performance.

◆ GS Series

Stainless steel chain (SUS400 series stainless steel) with better corrosion resistance than DT Series.

◆ GSA Series

Increased the maximum allowable load about 1.3 times from the GS Series, and further, the wear life of between pin, bush, and roller has also improved.

◆ SS Series

Stainless steel chain (SUS300 series stainless steel) with superior corrosion, chemical, heat, and cold resistance.

◆ SSA Series

Improved the wear life between bush and roller from SS Series.

	GS Series	GSA Series
Capability	RF03075 (Max. allowable load: 5.40kN {550kgf})	RF03075 (Max. allowable load: 7.02kN {720kgf})
	~	~
	RF26450 (Max. allowable load: 46.1kN {4700kgf})	RF26450 (Max. allowable load: 59.9kN {6100kgf})
	SS Series	SSA Series
Capability	RF03075 (Max. allowable load: 2.80kN {280kgf})	RF03075 (Max. allowable load: 5.40kN {550kgf})
	~	~
	RF26450 (Max. allowable load: 20.8kN {2120kgf})	RF26450 (Max. allowable load: 46.1kN {4700kgf})



Bearing Roller Conveyor Chains

Ecology (1/3 of the required power), high efficiency and 3 times wear life can be realized with the adoption of cylindrical bearings in the rollers.

- ◆ **Standard Specification**
Suitable for use in room temperature environment free from water and dust.
- ◆ **Anti-dust Specification**
Labyrinth construction and seals make it difficult for dust to penetrate rollers.
- ◆ **Lube-Free Specification**
Using special cylindrical bearings that provide self-lubricating functions between bushes and rollers. Rollers can be used without lubricating (between bush and roller).
- ◆ **Completely Lube-Free Specification**
It can be used without any additional lubrication.
- ◆ **Water Resistant Specification**
Using alternating stainless steel and special cylindrical bearings in a roller to provide lube-free operation in applications contacting with water.

Bearing Roller Conveyor Chain

Capability	
	RF03075 (Max. allowable load : 4.20kN {430kgf})
	~
	RF36600 (Max. allowable load : 68.0kN {6930kgf})

※The specified values are belong to Standard Series.



Special Large Size Conveyor Chains

Tsubaki offers a line-up of industry specific products that have a proven track record in conveyors in a variety of industries such as free flow, bucket elevator and etc. Contact a Tsubaki representative for the details.

- ◆ **Flow Conveyor Chain**
For conveying powders and bulk materials in a sealed case (Flow Conveyor).
- FA Series
Remarkably longer wear life by using a special hardening treatment to give bushes and rollers.
- ◆ **Bucket Elevator Conveyor Chain**
For bucket elevators that focus on wear resistance and fatigue strength.
- FB Series
Twice wear elongation life over previous products by using a solid lubricant and seal structure.
- FBX Series
Further better bush-roller wear resistance of FB series.
- ◆ **Deep Link Conveyor Chain**
Wide link plates are added to a base chain with R rollers for direct conveyance.
- ◆ **Waste Treatment Conveyor Chains**
Offer optimal conveyor chains for harsh conditions facing each process.
- ◆ **Water Treatment Conveyor Chains**
Offer conveyor chains for each process in water treatment facilities.
- ◆ **Bearing Bush Chains**
For high precision positioning.
- ◆ **Double Plus Conveyor Chain**
Enables high-speed conveyance at 2.3 times the chain speed and accumulation.
- ◆ **Outboard Roller Chains**
Features outboard rollers on a base conveyor chain with S rollers.
- ◆ **Top Roller Chains**
Top rollers attached to a base conveyor chain between pitches allow for direct support of conveyed items.
- ◆ **Shoulder Bush Conveyor Chain**
Large bush outer diameter, increasing load capacity.

Size and Capability

Various sizes, specifications, and attachment types are available.
Please contact us for further information.



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Related Products

Large Size Conveyor Chains Related Products

◆ Toughrollers

Toughrollers are consisted of a frame and endless rollers, with the endless rollers wrapped around a center plate on the frame for conveying, transferring, or moving heavy objects.

	Steel Roller Type	Plastic Roller Type
Capability	TUF-J (Basic load capability 14.7kN {1.5t})	TUF-JP (Basic load capability 2.94kN {0.3t})
	TUF200 (Basic load capability 1960kN {200t})	TUF4P (Basic load capability 34.3kN {3.5t})

◆ Axle Bearing Rollers & Bearing Rollers with Attachments

Axle bearing rollers and bearing rollers with attachments have cylindrical bearings in the rollers. Flange types and dual-axis types are also available. Good for wheels, guide rollers, etc.

	Axle Bearing Rollers	Bearing Rollers with Attachments
Capability	JBR03 (Allowable load 1.27kN {130kgf})	ABR03 (Allowable load 1.96kN {200kgf})
	JBR36 (Allowable load 15.7kN {1600kgf})	ABR36 (Allowable load 27.5kN {1900kgf})

※The specified values are belong to R Roller Type ※The specified values are belong to R Roller Type



Accessories

Maintenance Accessories for Large Size Conveyor Chains

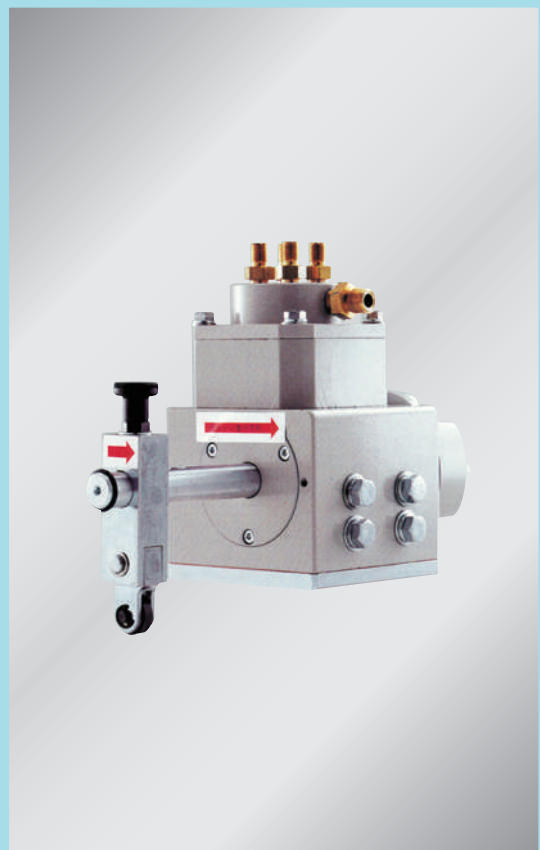
◆ Automatic Lubricator for Conveyor Chain

No electric or other power source is required, making installation easy and accurate, stable lubrication possible.

Available chain pitch and chain speed.

Chain Pitch mm	Chain Speed m/min					
	5	10	15	20	25	30
75	○	×	×	×	×	×
100	○	○	※ S	×	×	×
150	○	○	○	○	○	※ S
200	○	○	○	○	○	※ S
250 ~ 600	○	○	○	○	○	○

- (Note)
1. ※ S Roller Type can only be used for S Column.
 2. Only RF03S Roller Type chain cannot be used due to the interference between the inner width of the chain and checkers pin.
 3. The use under conditions other than those listed above, may cause inadequate chain lubrication.



Plastic Top Chain

Plastic chains that conveying items by placing them on them directly. Accumulation is also possible. A large number of chain series (materials) are available and can be selected according to the operating environment.

◆ **Plastic Modular Chain**

A type of conveyor belt that can be a wide conveying surface by interconnecting modular.

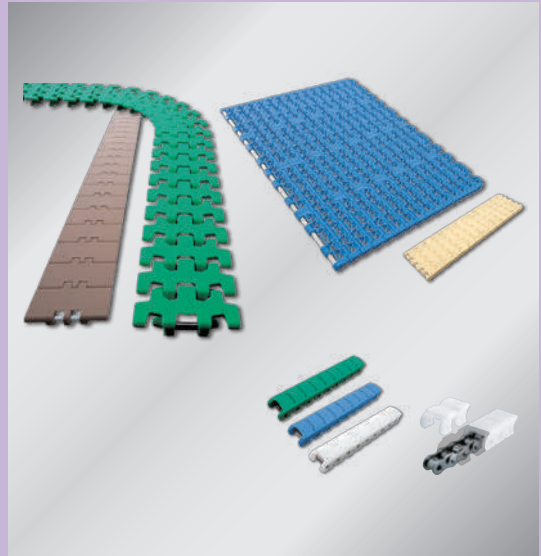
◆ **Plastic Top Chain**

Top plates and chain parts are made of engineering plastic and are connected by pins. There are also types that plastic plates combined with steel base chains.

◆ **Plastic Block Chain**

Simple structure in which block-shaped links are connected by connecting pins. The small pitch enables smaller sprockets to be used, reducing dead space between conveyors.

	Plastic Modular Chain	Plastic Top Chain	Plastic Block Chain
Pitch	4.5 - 57.15 mm	12.7 - 76.2 mm	9.525 - 31.75 mm
Width	50.0 ~ 3500 mm	48.5 ~ 304.8 mm	13.0 ~ 63.0 mm



Stainless Steel Top Chain

Uses highly corrosion-resistant stainless steel as key components. Generally have greater maximum allowable load than plastic top chain products.

Stainless Steel Top Chain	
Pitch	38.1 mm
Width	32.0 ~ 190.5 mm



Accessories

Accessories and conveyor peripheral parts provide support and to ensure smooth running of Top Chains.

- Return rollers / Idlers
- Plastic Rails
- Set Collars
- Chain Guide Parts
- Frame Support Parts
- Product Guide Parts
- Bearing Units
- Disconnecting and Connecting Tools

Size and Type

Various sizes and types are available. Please contact us for further information.



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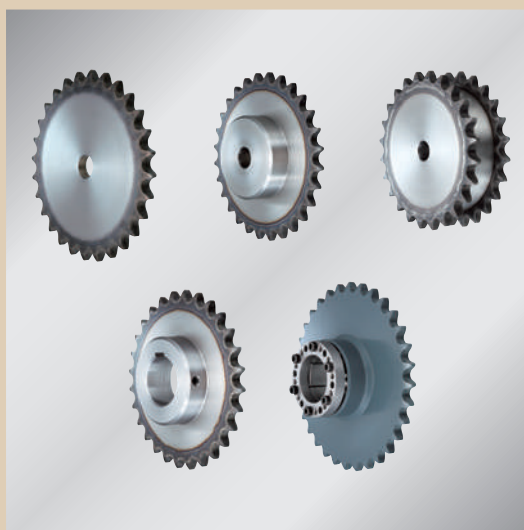
Drive Chain Sprockets

Drive sprockets are optimal for General Use Drive Chains. Wide range of lineups such as number of teeth, number of teeth, hardened teeth type, and for multi-strands chain.

- ◆ **Fit Bore Sprockets**
Ready for customer use with finished shaft bore/keyway/tapped hole.
- ◆ **Lock Sprockets**
For easy shaft locking and phase matching without keys.

RS Sprockets (Pilot Bore)

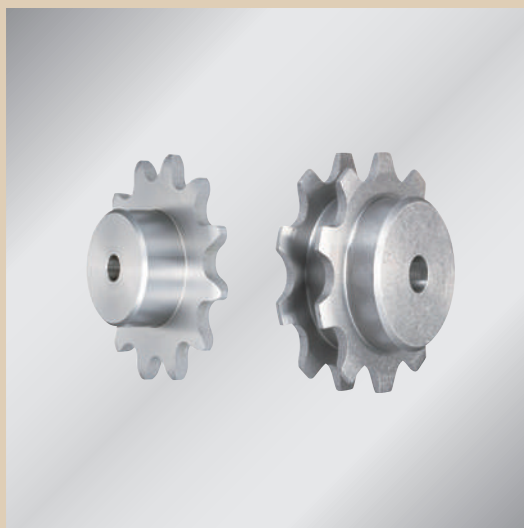
Size	RS Sprockets (Pilot Bore)	
		RS 11 12T ~ RS240 60T
Size	Fit Bore Sprockets	Lock Sprockets
	RS 35 9T ~ RS160 35T	RS 35 15T ~ RS100 21T



Small Size Conveyor Chain Sprockets

Bring out the full performance of Double Pitch Chain. RS attachment chain can be used with Drive chain sprockets. And, in the case of Double pitch chain with S roller type, Drive chain sprocket can be used as well if the sprocket teeth are more than 30. There are dedicated sprockets for Free Flow chains.

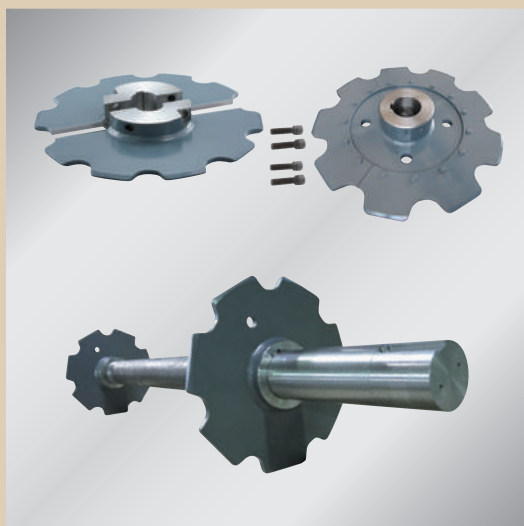
Type	Double Pitch Chain Sprockets	Free Flow Chain Sprockets
	An abundant line-up of products suitable for R Roller and S Roller of RF2040~RF2160 whether it is Steel Type, Stainless Steel Type or Plastic Type.	An abundance of line-up has the wide variety of sized and shapes of chains comply with Double Plus Chains, Double Plus Chains with Top Rollers and Double Pitch Chain with Outboard Rollers.



Large Size Conveyor Chain Sprockets

Standard series of general-use types, Smart replaceable series that reduces time and labors required for replacement, and sprockets for Water treatment chain specialized for water treatment equipment are available.

Size	Large Size Conveyor Sprockets	Water Treatment Chain Sprockets
	RF03075 (Pitch : 75 mm) ~ RF36300 (Pitch : 300 mm)	Collector, Grit Collector Dust Collector and Water Screen
Size	Smart Replaceable Series Sprockets	
	RF03075 (Pitch : 75 mm) ~ RF36300 (Pitch : 300 mm)	



Top Chain Sprockets

Sprockets are available for each top chain.

Top Chain Sprockets

Type
Plastic Top Chain and Stainless Steel Top Chain



Pin Gear Drive Units

Consisting of a pinwheel and rack, and a gear with a unique tooth profile. Easy to install because rough mounting precision is allowed. Offer a wide range of applications such as linear motion, rotational motion, and turning motion.

- ◆ **Steel Models (Standard Specification)**
Steel models are the most versatile type.
- ◆ **High Anti-Rust Steel Models**
Applied special surface treatment for improved corrosion resistance and weather resistance without changing the standard tangential load.
- ◆ **High Anti-Rust Steel Models**
Used in corrosive atmospheres and environments with low or high temperatures.
- ◆ **Flexible Type**
A dedicated tooth shapes makes high-accuracy installations unnecessary. Meandering due to the presence or absence of workpieces and variable loads can also be allowed within a certain range.

	Steel Models	Stainless Steel Models	High Anti-Rust Steel Models	Flexible Type
Size	PDU20	PDU20-S	PDU30-R	PDU050-Y
	~ PDU240	~ PDU90-S	~ PDU120-R	~ PDU090-Y
Allowable Tangential Loads	4.7 ~ 525kN	0.8 ~ 16.8kN	12.8 ~ 122.5kN	25.3 ~ 79.1kN



Synchronous Belts

Tsubaki's rubber belt adopts a rational circular tooth profile based on elaborate engagement theory.

- ◆ **PX Belt**
The adoption of a rational circular tooth profile. Dramatically improved performance of Timing Belts is realized. It has an abundant line-up of products.
- ◆ **Ultra PX Belt**
The high strength belt has been improved component materials based on PX Tooth. There are 3 series of products line-up to meet the customer demands.

	PX Belt	Ultra PX Belt
Size	P2M (Pitch : 2 mm)	UP3M (Pitch : 3 mm)
	~ P14M (Pitch : 14 mm)	~ UP14M (Pitch : 14 mm)



TSUBAKI Product Digest

Belt Sprockets

- ◆ **Standard Pulleys**
An abundant line-up of standard finished bore pulleys. Aluminum Type is also available.
- ◆ **Fit Bores**
The conventional machining processes such as shaft boring, key grooves cutting, tapping and surface treatment of pulleys are standardized. Troublesome additional machining is not needed anymore.
- ◆ **Special Pulley**
Besides described in the catalog, custom machining dimensions are also available. Various surface treatments such as plating are available as well.



PX Pulley	
Size	P2M (Pitch : 2 mm)
	P14M (Pitch : 14 mm)

Lock Belt Sprockets (Friction Type Locking Belt Sprockets)

Lock Pulleys are timing pulleys integrated with a friction type locking device. Easy positioning and phasing, with zero rattle is realized. It is easy to installation and removal without any additional machining.

- ◆ **S Type**
The most standard pulleys integrated with a friction type locking device. Bolted joint is adopted as fastener type. Aluminum Type is also available. An abundant line-up of products comply with Ultra PX Belt HC Type.
- ◆ **N Type**
Nut joint is adopted as fastener type. It is suitable for use with small diameter shaft. (Minimum bore diameter 7 mm)
- ◆ **C Type**
Clamp collar is adopted as fastener type. There is no pulleys deformation due to the external fastening type. A lightweight joint can be realized by the utilization of aluminum.



Lock Pulleys	
Size	PX Tooth P2M (Pitch : 2 mm) ~ P14M (Pitch : 14 mm)

Accessories

- ◆ **Belt Tension Meter**
A sonic belt tension meter that measures the initial tension of a belt.
- ◆ **Belt Clamps**
Attachment jigs used for fixing work on the belt or installing long belts.



Belt Tension Meter (T-ACE)		Belt Clamps	
Size	BDTM101 1 Type	PX Tooth P5M (Pitch : 5 mm)	P8M (Pitch : 8 mm)

Hose and Cable Carrier System

Cable carriers (Cableveyors) are mechanical components that protect cables/tubes from wear and breakage while securely guiding them along the moving parts of equipment.

◆ Cableveyor Plastic Series

Most commonly used cable carrier, lightweight, and easy to handle. There are a wide variety of products according to usage environment and applications such as open/closed type, and lower dust generation type.

◆ Cableveyor Steel Series

Provides high strength, high rigidity, and excellent heat resistance. An abundant line-up of products such as open/closed type, and stainless steel specification.

◆ Clean Series

Create an environment with less debris generation and reduce the risk of disconnection.

- CLEANVEYOR

Lowest debris generation (ISO Class 1 cleanliness) among Tsubaki cable carrier systems.

- FLATVEYOR

Freestanding flat cable system with Tsubaki cable carrier technology. Achieves ISO Class 2 cleanliness.

		Plastic Series	Steel Series	Clean Series
Size	Inner height	10 ~ 80 mm	Please contact us.	Please contact us.
	Inner width	6 ~ 500 mm	Please contact us.	Please contact us.
	Bending radius	17 ~ 500 mm	75 ~ 750 mm	Please contact us.

Cableveyor Related Products

◆ Cable and Hose Clamp

Secure and easy fixing. Used to prevent damages by fixing cables and hoses at both ends.

◆ Movable Cable for Cableveyor

Available custom-length, and meet various overseas standards with highly durable, flexible, excellent wear and bending resistance.

◆ Guide Channels for Gridding Arrangement

Guide channels for gliding arrangement (gliding applications). High precision and easy installation, easy to assemble, and less prone to joint misalignment.

◆ Support Roller

Extends travel length of TK, TKH, and TKS series by supporting the unsupported length section when the capacity is exceeded in the standard installation.

Also available to offer Cable Carrier systems of TSUBAKI KABEL SCHLEPP who is our group company.

For more information, check the TSUBAKI KABEL SCHLEPP website.

<https://tsubaki-kabelschlepp.com/en-int/>



TSUBAKI Product Digest

Gear Motor

Gear Motor that takes the advantage of the features of Helical Gear, Hypoid Gear and Worm Gear.

◆ Gear Motor

Parallel Shaft Helical Gear Motor. Low noise and high efficiency due to Helical gear. Small Size Lightweight and Compactness. Foot Mounting Type, Face Mounting Type and Flange Mounting Type.

Products line-up is suitable for food processing machines and equipments.

0.75kW~2.2kW, Compatible with high efficiency motors.

◆ Hypoid Gear Motor

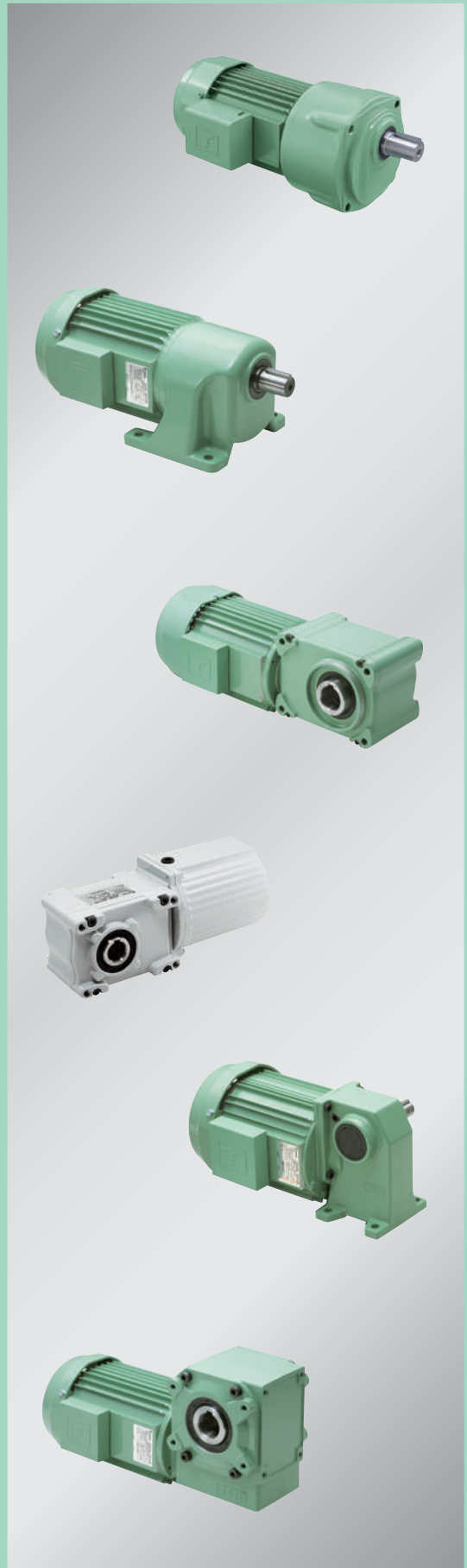
Right Angle Hypoid Gear Motor High efficiency is realized with Hypoid Gear. Compact body with decreased height. Hollowed Shaft/Solid Shaft, Face Mounting Type, and Foot Mounting Type.

Products line-up is suitable for food processing machines and equipments.

0.75kW~5.5kW, Compatible with high efficiency motors.

◆ Croise Motor

Right Angle Worm Gear Motor Self-locking properties, quiet operation and robust gear structure. High efficiency at high reduction ratio is realized by the combination with helical gears. Hollowed Shaft/Solid Shaft, Face Mounting Type and Foot Mounting Type.



	Gear Motor	Hypoid Motor
Capacity	0.1kW ~ 2.2kW	40W ~ 5.5kW
Reduction Ratio	5 ~ 200	5 ~ 1200
	Croise Motor	
Capacity	0.1kW ~ 5.5kW	
Reduction Ratio	10 ~ 300	

Gear Box

TSUBAKI has various gearboxes using two types of worm gears (cylindrical worm and troidal worm) and spiral bevel gears.

Gearboxes with many variations correspond to every scene.

◆ Worm Power Drive

There are two types of worm reducer. EW series, which is based on foot mounting, and SW series, which is based on shaft and flange mounting.

◆ Troi Drive

High performance worms using a drum-shaped troidal worm provides high transfer capacity and high efficiency.

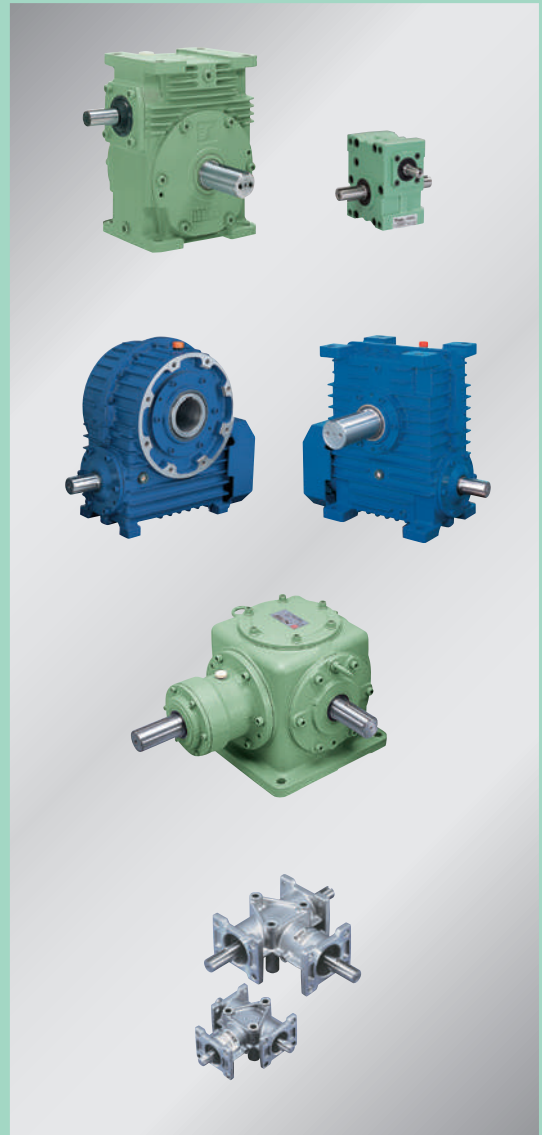
◆ Miter Gear Box

High performance and high efficiency spiral bevel gear box, wide variations from small to large capacity with smooth rotation and quiet drive.

◆ ARA Series Miter Gear Box

Small size, ultra lightweight and high performance Miter Gear Box allows silent and large transmission capability. A shaft is made of stainless steel with excellent corrosion resistance. Universal mounting type enables mounting in any direction.

	Worm Power Drive	Troi Drive
Allowable Torque	12.4 ~ 5703N · m {1.26 ~ 582kgf · m}	1112 ~ 46790N · m {113 ~ 4774kgf · m}
Reduction Ratio	10 ~ 3600	10 ~ 3600
	Miter Gear Box	ARA Series Miter Gear Box
Allowable Torque	10.6 ~ 5713N · m	1.37 ~ 17.74N · m
Reduction Ratio	1 ~ 3	1, 2



Servomotor Reducer

Gear Reducer matched with Servomotor.

◆ Servomotor Reducer (TERVO)

Wide range of gear line-up such as Gear Head, Helical and Hypoid Worm Gear for Servo Motor. High versatility. Economy Maximum input rotational speed 3000 r/min.

	Servomotor Reducer
Input Capacity	0.2kW ~ 2.2kW
Velocity Ratio	1/5 ~ 1/200



TSUBAKI Product Digest

Flexible Coupling

Flexible Coupling is used to connect two shafts and to absorb misalignments. There are a wide variety of couplings for best matching to customer needs.

◆ Roller Chain Coupling

Roller Chain Coupling is the general purpose coupling comply with JIS standards. There are a wide variety of couplings from 0.01~11400kW with economy and global maintenance.

◆ Nylon Chain Coupling

Nylon Chain Coupling is shaft coupling ideal for clean and light duty power transmission. It is clean due to lubrication free and suitable for food processing and packaging machines. It is easy to handle.

◆ Echt-Flex Coupling

Echt-Flex is shaft coupling for servomotor ideal for high precision positioning. Lubrication free, no backlash and high torsional rigidity. Electrically insulated specification is available.

◆ Jaw-Flex Coupling

Jaw-Flex Coupling is shaft coupling for direct coupling of motors. Lightweight and simple structure. It is easy to install/remove. Economy. High precision type LN Series is lined-up with the excellent vibration damping characteristics.

	Roller Chain Coupling	Nylon Chain Coupling
Allowable Torque	99.9 ~ 717000N·m {10.2 ~ 73200kgf·m}	6.9 ~ 255N·m {0.7 ~ 26kgf·m}
Bore Diameter	φ9.5 ~ φ700 mm	φ9.5 ~ φ55 mm
	Echt-Flex Coupling	Jaw-Flex Coupling
Allowable Torque	0.7 ~ 176400N·m {0.07 ~ 18000kgf·m}	0.4 ~ 711N·m {0.04 ~ 72.6kgf·m}
Bore Diameter	φ4 ~ φ289 mm	φ5 ~ φ69 mm



Rigid Coupling

Rigid Coupling is shaft coupling without flexible elements.

◆ Power Rigid Coupling

Power Rigid Coupling is shaft coupling for machine tools. High torsional rigidity due to no flexible elements. Non Backlash. Compactness. Easy mounting.

	Power Rigid Coupling
Allowable Torque	78 ~ 489N·m {8.0 ~ 49.9kgf·m}
Bore Diameter	φ16 ~ φ48 mm



Friction Type Locking Device

Friction type locking device is a machine elements used to connect shafts and hubs.

◆ Power-Lock

Power-Lock is a machine elements used to connect shafts and emboss (hubs) without using a key. Easy, powerful and secure connection with no backlash. There are a wide variety of 10 Series with individuality.

	Power-Lock		
	KE Series	AS Series	ADN Series
Transmissible Torque	7.5 ~ 9900N·m {0.77 ~ 1010kgf·m}	294 ~ 173000N·m {30 ~ 17700kgf·m}	382 ~ 429000N·m {39 ~ 43800kgf·m}
Shaft Diameter Range	φ 5 ~ φ 100 mm	φ 19 ~ φ 300 mm	φ 19 ~ φ 300 mm
	AE Series	TF Series	RE Series
Transmissible Torque	265 ~ 27000N·m {27 ~ 2760kgf·m}	11 ~ 8820N·m {1.2 ~ 900kgf·m}	5.01 ~ 1170N·m {0.51 ~ 119kgf·m}
Shaft Diameter Range	φ 19 ~ φ 150 mm	φ 6 ~ φ 90 mm	φ 5 ~ φ 50 mm
	ML Series	SL Series	EL Series
Transmissible Torque	6.76 ~ 2000N·m {0.69 ~ 204kgf·m}	167 ~ 290000N·m {17 ~ 29600kgf·m}	6.9 ~ 10500N·m {0.7 ~ 1070kgf·m}
Shaft Diameter Range	φ 5 ~ φ 75 mm	φ 19 ~ φ 245 mm	φ 10 ~ φ 150 mm
	EF Series		
Transmissible Torque	39 ~ 12600N·m {4 ~ 1290kgf·m}		
Shaft Diameter Range	φ 10 ~ φ 120 mm		



TSUBAKI Product Digest

Mechanical Overload Protectors

Friction Type and One Position Type Overload Protectors

- ◆ **Shock Guard**
Shock Guard is Ball Type One Position Type Overload Protectors. High trip torque accuracy. Shock Guard can be selected from various series according to the applications.
- ◆ **Torque Limiter**
Torque Limiter is Friction Type Overloads Protectors for general use. Easy handling. Simple Structure.
- ◆ **Mini Keeper**
Mini Keeper is Ultra Small Slipping Clutch and Brake. Lightweight. Compactness. High precision. Easy setting.
- ◆ **Torque Keeper**
Torque Keeper is Friction Type Slipping Clutch and Brake. Long life, Lightweight and Compactness. Repeatable torque accuracy.

	Torque Limiter	Shock Guard
Allowable Torque	1.0 ~ 9310N · m {0.1 ~ 950kgf · m}	0.294 ~ 7154N · m {0.03 ~ 730kgf · m}
Bore Diameter	φ 8 ~ φ 130 mm	φ 6 ~ φ 130 mm
	Mini Keeper	Torque Keeper
Allowable Torque	0.02 ~ 0.4N · m {0.002 ~ 0.04kgf · m}	0.59 ~ 650N · m {1.18 ~ 66.3kgf · m}
Bore Diameter	φ 8 ~ φ 12 mm	φ 14 ~ φ 64 mm



Electrical Overload Protectors

Electrical Overload Protectors is used to protect motor-operated machines from the failure by fracture due to overload.

- ◆ **Shock Monitor**
Shock Monitor is the motor input power monitoring type of Electric Overload Protectors Suitable for micro load and small load monitoring. It can also be used for an inverter and servomotors. It can also be used as a preventive maintenance and load sensor.
- ◆ **Shock Relay**
Shock Relay is the motor current monitoring type of Electric Overload Protectors. Fast responding an over-current detection. Easy setting while maintaining operational stability and avoiding deterioration due to long-term use.

	Shock Monitor	Shock Relay
Motor Capacity	0.1 ~ 110kW	0.1 ~ 132kW
Applicable motor AC power supply voltage	200/220, 400/440V	200/220, 400/440V



One-Way Clutch

One-Way Axis Engagement Cam Clutch

◆ Cam Clutch

This Cam Clutch is One-Way Clutch with built-in cam type provides high precision, operational reliability and excellent durability. There are a wide variety of clutches such as overrunning clutch, indexing clutch and backstopping clutch.

◆ Cam Clutch Box

Cam Clutch Box is Cam Type One-Way Clutch Unit for high-speed continuous operations. Overrunning High speed overrunning and engagement.

	Cam Clutch	Cam Clutch Box
Allowable Torque	2.45 ~ 980000N · m {0.25 ~ 100000kgf · m}	314 ~ 40180N · m {32 ~ 4100kgf · m}
Bore Diameter	φ 8 ~ φ 450 mm	—



Single Revolution Clutch

Single Revolution Engagement Roller Clutch

◆ SR Clutch

SR Clutch is built-in roller Single Revolution Stopping Clutch. Rapid response. Reliable engagement. Accurate stop position High durability.

	SR Clutch
Allowable Torque	24.5 ~ 392N · m {2.5 ~ 40kgf · m}
Bore Diameter	φ 15 ~ φ 40 mm



TSUBAKI Product Digest

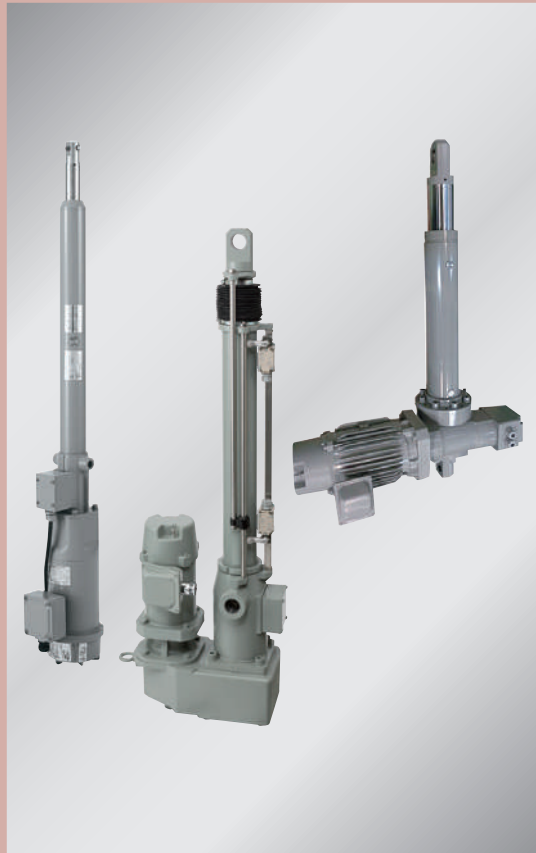
Power Cylinders

Power Cylinders is electric cylinder integrated with screws, nuts and motor that can be used with simple wiring.

◆ Power Cylinder

Troublesome piping such as hydraulics and pneumatics are not required. It is secure operation due to the mechanism of screws and nuts inside the operation portion. Power Cylinder with small thrust to large thrust are standardized and built-in with various safety devices, furthermore there are abundant optional accessories and a wide variety of products corresponding to special brake motor.

	Power Cylinder			
	U Series	T Series	Multi Series	Worm Series
Thrust Force	58.8 ~ 490kN {6000 ~ 50000kgf}	2.45 ~ 39.2kN {250 ~ 4000kgf}	4.90 ~ 313kN {500 ~ 32000kgf}	49 ~ 490kN {5000 ~ 50000kgf}
Rated Speed	6.5 ~ 52 mm/sec	9.0 ~ 120 mm/sec	~ 120 mm/sec	10 ~ 14.4 mm/sec
Stroke	500 ~ 2000 mm	200 ~ 1500 mm	200 ~ 2000 mm	200 ~ 2000 mm
	G Series	F Series	Mini Series	Eco Series
	Thrust Force	700 ~ 3000N {71.4 ~ 306kgf}	100 ~ 6000N {10.2 ~ 612kgf}	98 ~ 392N {10 ~ 40kgf}
Rated Speed	25 ~ 240 mm/sec	8 ~ 54 mm/sec	9 ~ 42 mm/sec	30 ~ 333 mm/sec
Stroke	100 ~ 1200 mm	50 ~ 600 mm	100 ~ 300 mm	100 ~ 1000 mm



Jacks

This Jack is screws and nuts type jack that can be used by motor drive or hand operate.

◆ LiniPower Jack

LiniPower Jack is screw type jack constructed with ball screw, high lead ball screw and trapezoidal screw. Not only the standard shape is available, but there are an abundant line-up of specifications such as traveling nuts and rotation stopper specifications. Furthermore, using couplings and gearbox will allow multi-units operations.

◆ LiniSpeed Jack

LiniSpeed Jack is innovative jacks that provide high-speed, high-frequency operations and low-floor specifications.

- Ultra-high speed operation at 200 mm/s
- High speed operation available in smaller sizes than LiniPower Jack
- Enables low-floor specifications thanks to its new design
- Maximum 100% ED hourly allowable load rate

	LiniPower Jack			LiniSpeed Jack
	JWB (Ball Screw Type)	JWH (High Lead Ball Screw Type)	JWM (Trapezoidal Screw Thread Type)	SJ (Trapezoidal Screw Thread Type)
Basic Capacity	4.9 ~ 980kN {0.5 ~ 100tf}	49.8 ~ 196kN {1.0 ~ 20tf}	1.96 ~ 980kN {0.2 ~ 100tf}	15 ~ 50kN {1.5 ~ 5.1tf}
Maximum Speed	80 mm/sec	120 mm/sec	50 mm/sec	208 mm/sec
Stroke	100 ~ 2000 mm	100 ~ 2000 mm	100 ~ 2000 mm	100 ~ 1500 mm



Chain Meshing Type Actuators

Chain Meshing Type Actuators is linear actuator using interlocked chain for the operation portion.

◆ Zip Chain Actuator

Zip Chain Actuator is a unique linear actuator using interlocked chain for direct thrust transmission. The most compact size when compared to hydraulics type, pneumatics type or screw type. There are a plenty of excellent features such as high speed and high frequency operation, multi-point stopping, free mounting direction and ecology. An abundance of options are also available such as motor attached type and bellows type.

Zip Chain Actuator								
Model No.	ZCA25		ZCA35			ZCA45		
Stroke	300 mm	500 mm	500 mm	750 mm	1000 mm	1000 mm	1500 mm	2000 mm
Basic Capacity	400N {40.8kgf}	330N {33.6kgf}	1000N {102kgf}		600N {61.2kgf}	2000N {204kgf}		1200N {122.5kgf}
Max. Speed	1000 mm/sec					500 mm/sec		

Zip Chain Actuator							
Model No.	ZUE063			ZUE083			
Stroke	1200 mm	1600 mm	2000 mm	1200 mm	1600 mm	2000 mm	2500 mm
Basic Capacity	10143N {1035kgf}			16170N {1650kgf}			
Max. Speed	1000 mm/sec						



Electrical Lifter

Electrical Lifter is a lifter integrated with screws, nuts and motor guide

◆ Lift Master

Lift Master is an electrical lifter allowing overhang and lateral load. The compact structure is integrated with motor, screws and guide mechanism inside a frame. High rigidity with ability to withstand cantilevered loads is realized by the built-in sliding guide.

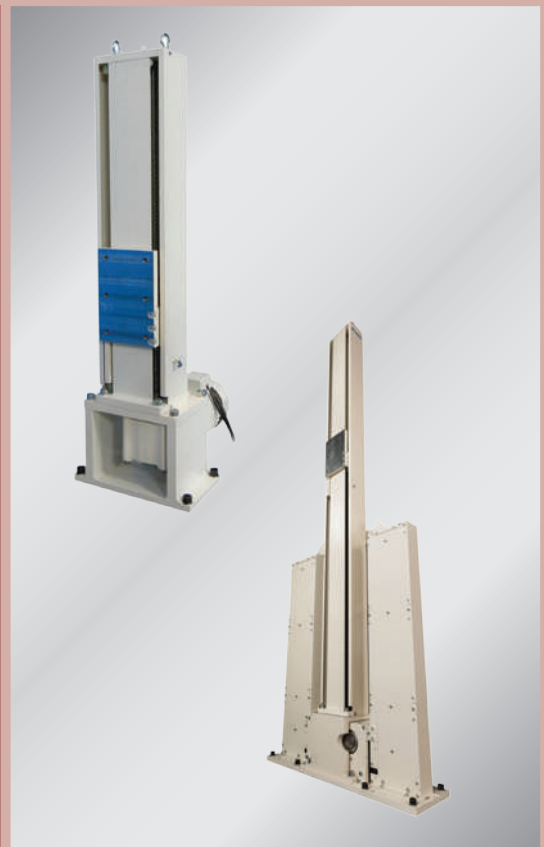
It is easier to handle an electrical lifter compared to hydraulics type and to enable clean and power save operations.

Lift Master			
Model	LMEB0200	LMEB LMEM 0500	LMEB LMEM 1000
Rated Load	1.96kN {200kgf}	4.90kN {500kgf}	9.80kN {1000kgf}
Allowable OHL	588N {60kgf}	1960N {200kgf}	4900N {500kgf}
Rated Speed	25 ~ 120 mm/sec	12 ~ 150 mm/sec	10 ~ 150 mm/sec
Stroke	400 ~ 1500 mm		

◆ Zip Master

ZIP MASTER is a cantilever-type electric high-speed lifter that combines ZIP CHAIN, linear guides, and a motor. Unlike conventional lifting mechanism requiring extensive assembly time, ZIP MASTER adopts a "plug-and-play" design that can be used simply by placing the device. In addition, the high-speed, high-frequency, high-lift capabilities mean the device can be used in a wide range of applications.

Zip Master			
Model	ZMEL0200U_G ZMEL0200U_K	ZMEL0500U_G ZMEL0500U_K	ZMEL1000U_G ZMEL1000U_K
Rated Load	1.96kN {200kgf}	4.90kN {500kgf}	9.80kN {1000kgf}
Allowable OHL	588N {60kgf}	1960N {200kgf}	4900N {500kgf}
Maximum speed	1000 mm/sec	800 mm/sec	330 mm/sec
Stroke	1500 / 2000 mm		



TSUBAKI Product Digest

Sorting System

Storage and Picking System

Automatic Tilt Tray Sorter

◆ LINISORT Series

Tilt-tray sorter system equipped with a linear motor drive

Features

- High shipping accuracy
- High sorting capability
- Quiet and clean environment through the adoption of a linear motor
- Space saving and easy installation

Applications

Transport terminals, logistics centers and piece sorting distribution centers

Advantages

- Enables reduction of workforce
- Simplifies work
- Improves management capabilities
- Improves shipping accuracy

Models and Sizes

- LINISORT R/S
- LINISORT S-C
- LINISORT VS/VSH
- LINISORT S-C[∞]
- LINISORT S-E



Automatic Conveyor Sorter

◆ QUICKSORT

QUICKSORT is a highly versatile conveyor sorter suitable for horizontal sorting

Features

- Quiet and stable sorting through the adoption of ball rollers
- Simple structure and easy to maintain
- Safe design with no visible moving parts

Applications

Newspaper folding centers, newspaper printing plants, transportation terminals and logistics centers

Specifications

Sorting capacity	MAX 7,200 pieces/hr				
Dimensions of sorted objects		Length	Width	Height	Weight
	MAX	1,000 mm	600 mm	600 mm	50 kg
	MIN	250 mm	200 mm	15 mm	0.1 kg
	Products: cases, folding advertisements, apparel, daily goods, food, cosmetics, medical products, toys/games and postal materials, etc.				
Loading method	Manual and automatic (conveyor)				
Drive method	Induction motor				
Power supply	AC200/220V, 50/60Hz				



High-Speed Vertical Automated Rack System

◆ POWER COLUMN

This high-speed vertical automated rack system effectively utilizes ceiling space and offers high storage efficiency with variable sizes by optimizing the stored goods and installation space.

Features

- Static and stable storage unaffected by unbalanced loads
- Large, wide picking window provides optimal workspace
- Customized trays can be fabricated to suit the goods to be stored
- Level pitch can be adjusted depending on the height of the goods to prevent wastage of space

Applications

- Product storage in logistics centers
- Storage of mechanical parts and work-in-progress in factories
- Storage requiring dehumidification function
- Storage requiring refrigeration and heating functions

Model and Size

- PCH906
- Allowable load capacity: 300 kg/tray, 20,000 kg/column
- Column Height: 6,400 mm/column
- Total number of storage trays: 120 trays



Monorail-Type Automated Material Handling Systems

◆ AUTRAN VANGURD Mark II

This monorail-type automated material handling systems is a compact system that utilizes ceiling space and offers a high degree of freedom in layout and hanger design according to material to be conveyed

Features

- High degree of freedom in layout design
- System configuration with a small number of carriages for high speed travel
- Applicable for clean and food applications

Applications

- Transfer line between assembly lines in a production facility
- Parts supply on a production line
- Raw materials supply lines in food processing plants
- Inter-process transfer in clean plants

Model and Size

- VGN070 (Standard load weight: MAX 70kg)
- VGN100 (Standard load weight: MAX 100kg)
- VGN200 (Standard load weight: MAX 200kg)



Wide Range and High-Speed Conveyor

◆ TSUBAKI FREE CURVE (Chain-Type Overhead Conveyor)

TSUBAKI FREE CURVE is an overhead conveyor that runs a chain with hangers on a rail stretched in a three-dimensional space and conveys the hanging objects continuously

Features

- Standardized parts, such as special rails, hangers, and drive units
- Extensive line-up including standard- and heat resistance-types (230 °C)
- Dustproof series with high-grade coating, resin coating, etc. resistant to dust and oil fallout

Applications

- General inter-process transferring on a production line
- Cleaning and drying of mechanical parts and injection molded parts
- Painting line of mechanical and injection molded parts
- Auxiliary and raw materials supplied via overhead conveyance

Models and Sizes

- TH015, TH030, TH050, TH300, TH500
- THC030, THC050
- TR348, TR458



Auto Body Paint Conveyor Systems

◆ SYMTRACK

SYMTRACK is a simple, slim and compact friction-type conveyor utilizing know-how from paint floor conveyance cultivated in traverser systems used in automobile production lines.

Features

- Rack and pinion drive as well as the friction-type drive enable reliable conveyance in special environments, such as the painting process, etc. Conveyance in the reverse direction allows for improved maintenance compared with the conventional chain system. Pitless operation in both paint and assembly lines is achieved via the low-floor conveyor (below 500 mm)
- The rail cross section is separated and cables are routed inside to reduce the number of wiring ducts despite the low-floor conveyor. Plug-and-play is made possible by incorporating the terminal box into the unit together with the use of wiring connectors

Applications

- Automobile production lines



TSUBAKI Product Digest

Coolant Processing Systems

◆ ConSep 2000 II

ConSep 2000 II is further evolution of coolants and chips treatment.

Features

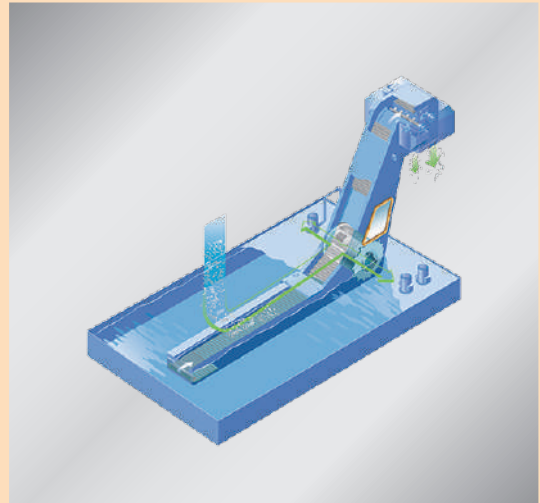
- Long and short chips conveyance by only one conveyor is realized. Furthermore, a filter is built in for primary coolants filtration.
- Easy maintenance due to automatic backwashing function inside the filter.

Applications

- Suitable for conveying chips discharged from machine tools such as machining center or multi-tasking machines and coolant treatment.

Model and Size

Various combinations are allowed. Please contact us for further information.



Short Chips Conveying

◆ Scraper Conveyor

Scraper Conveyor is a conveyor equipped with a cleat (scraper) for conveying dropped scraps at the bottom of conveyor.

Features

- Conveying while scraping the dropped objects at the bottom of conveyor trough by installed steel scraper between two rows of right/left conveyor.

Applications

- This conveyor is suitable for conveying short chips discharged from all machine tools such as milling machines and machining center etc.

Model and Size

Various size of conveyors are available, please contact us for further information.



Magnetic Type In-Tank Sludge Recovery System

◆ Sludge Barrier

Sludge Barrier is a sludge remover utilizing a magnet to adsorb accumulated sludge in coolants.

Features

- Magnetic Type In-Tank Sludge Recovery System.
- Recovery of in-tank sludge without contaminating your hands.
- Easy installation by drilling mounting hole on the existing coolant tank.

Applications

- Recovery of magnetic metal sludge floating in the coolant tank.

Model and Size

Two types of SB4012 and SB4024



Filtration Systems

◆ NW Filter

Forced suction filtration equipment.

Features

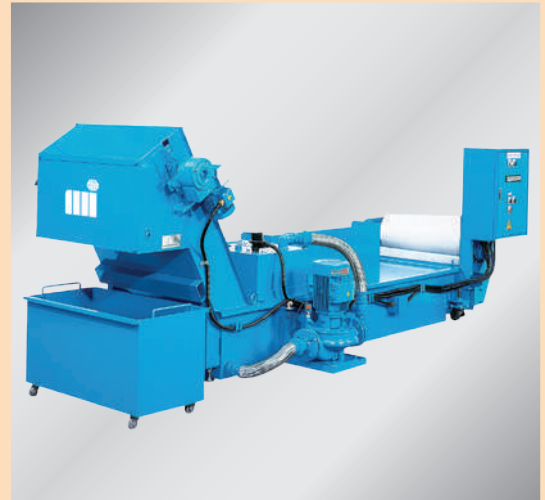
- High efficiency filtration equipment using forced suction method.

Applications

- Filtration of coolants discharged from graphite machining and grinding machine.

Model and Size

Various size of conveyors are available, please contact us for further information.



Push Bar Conveyor

◆ Power-Trof

Power-Trof is a hydraulic cylinder driven conveyor suitable for long distance conveyance of coolant mixed with metal chips.

Features

A hydraulic cylinder driven conveyor suitable for long distance conveyance (Convey distances up to 100m)
Optimal for collecting coolant mixed with short and long metal chips.

Applications

Conveyor for collecting long and short metal chips discharged from all machine tools.

Model and Size

Various size of conveyors are available, please contact us for further information.
Note) Vertical conveyance is not available.



Bulk Material Handling Conveyors

◆ FC FLOW

TSUBAKI FC FLOW is a continuous flow conveyor in horizontal, suitable for powdery or granular materials, such as cement, chemicals, and fertilizer to be conveyed smoothly with a continuous chain running motion.

Features

1. Compact and economical
2. Possible to install multiple inlets and outlets
3. Easy maintenance
4. Dust-tight and waterproof

Applications

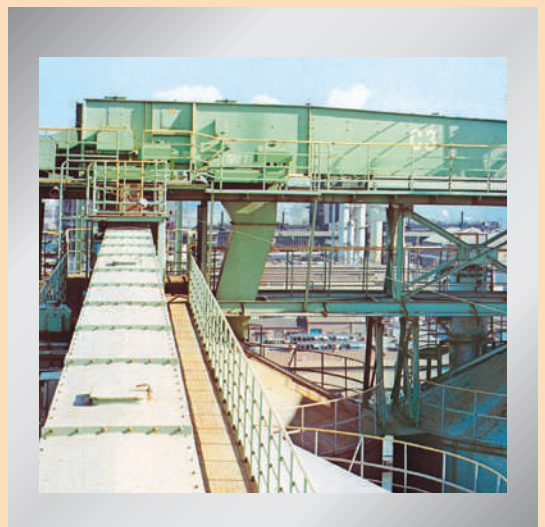
- CEMENT, CHEMICAL PRODUCTS, FERTILIZER, etc.

Model and Size

FC150 (inner width of the casing: 150 mm)
~ FC580 7 sizes

Transportation Capacity

8m³/h (FC150 S=10m/min.)
- 450m³/h (FC580 S=30m/min.)



TSUBAKI Product Digest

Bulk Material Handling Conveyors

◆ PSC POWER SCREW

PSC POWER SCREW is a screw conveyor with no axis. It has a special feature, which allows conveying of materials that are hard to handle, such as adhesive materials and materials that may become easily entwined.

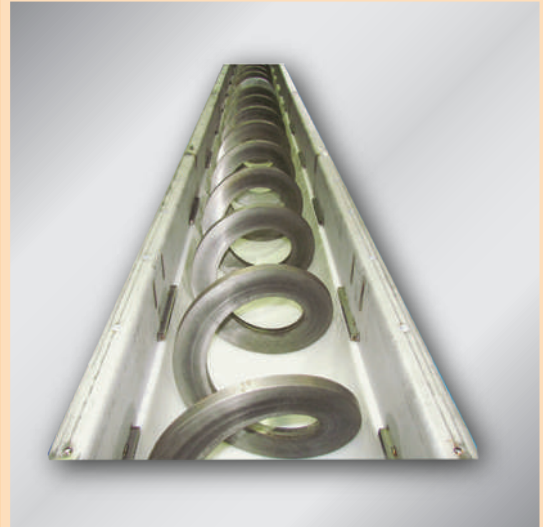
Features

1. Thick strong special steel is used for spiral screw 30 metre screw can be operated with a single motor
2. No intermediate axis, that means no chance of breakage of the intermediate bearing
3. Less mechanical wear, due to resin bores (resin liners)
4. Easy and speedy replacement of resin bores (resin liners)
5. Horizontal and vertical layouts
6. Dust-tight and waterproof, and no odor or leakage
7. Material size should be within screw interval pitch

Applications

- MUD, SLUDGE, GARBAGE, MOLTEN SLAG etc.

Model and Size	Transportation Capacity
PSC100 (screw dia. : 120 mm) - PSC400 (screw dia. : 420 mm) ... 5 sizes	1.5m ³ /h (PSC100 r=30r/m) - 41.9m ³ /h (PSC400 r=20r/m)



Bulk Material Handling Conveyors

◆ NB BUCKET ELEVATOR

TSUBAKI NB BUCKET ELEVATOR is a continuous induction discharge type elevator, which has three types NBC, NBS and NBH. The most appropriate model will be selected based on the materials to be conveyed.

Features

1. Designed without distance spacer
2. Maximum speed of 90m/min (NBH model) as induction discharge type elevator

Applications

- CEMENT, CLINKER, LIMESTONE, COAL, CHEMICAL PRODUCTS, etc.

Model and Size
<ul style="list-style-type: none"> ■ NBC model to convey lumpy materials (i.e. Limestone, Clinker) at low/medium speed NBC200 - NBC011H (width of bucket : 200 - 1400 mm) 13 sizes ■ NBS model to convey powdery or aggregated materials at low/medium speed NBS300 - NBC011H (width of bucket : 300 - 1400 mm) 10 sizes ■ NBH model to convey powdery or aggregated materials at high speed NBH300 - NBH011H (width of bucket : 300 - 1400 mm) 10 sizes



Bulk Material Handling Conveyors

◆ NAB APROVATOR

TSUBAKI NAB APROVATOR is a bucket type conveyor, suitable for handling abrasive and aggregated materials via complicated routes.

Features

1. Minimized loss of powdery materials from the overlap structure of the buckets
2. Flexible layouts
3. Sprocket-turn allows for improved wear resistance and reduced operation noise.
4. Dust-tight and waterproof structure

Applications

- CHEMICAL PRODUCTS, MOLTEN SLAG, RDF, INCINERATED RESIDUE, etc.

Model and Size	Transportation Capacity
NAB250 (width of the bucket : 250 mm) - NAB600 3 sizes	6m ³ /h (NAB250 S=10m/min.) - 53m ³ /h (NAB600 S=20m/min.)



Bulk Material Handling Conveyors

◆ NFV Flightveyor (Flight Type Chain Conveyor)

NFV Flightveyor transports the conveyed objects by the flight attached to the two chains within a sealed case based on the transportation principle of the flow conveyor in the horizontal and the bucket elevator in the vertical. General power and particle conveyance and objects with poor transportability conveyance are available as well as strong adhesive bond objects conveyance.

Features

1. Flexible layout planning.
2. Compact and easy installation.
3. Flexibility in loading and discharge.
4. Using the optimal conveyor chain.
5. Easy maintenance and inspection.
6. Dust-proof and water-proof structure.

Applications

- Biomass industries equipment.
- Environment related facilities such as garbages and sewage etc.
- Vegetable including food processing related facilities.
- Other general mineral processing related equipment.

Model and Size

NFV160 (H)
(Inner case width of flight pathway 160 mm)
~NFV580 (H) • • • Model No.5

Transportation Capacity

3m³/h (NFV160 S=5m/min.)
~120m³/h (NFV580 S=15m/min.)



Inspection Door

◆ One-Touch Inspection Door

One-Touch Inspection Door is inspection door suitable for mass production with easy to install without any tools.

Suitable for used at inspection points in various workplace facilities required inspection and cleaning such as conveyor, hopper, storage bins and chute etc.

Features

1. Easy onsite installation.
2. Dust-proof and rain-proof design.
3. Easy inspection.
4. Stable quality and economy.

Model and Size

Series	Standard (P) • Corrosion Resistant (Q) • All Corrosion Resistance (R)
Format	Standard • High Neck • • • 2 Formats
Type	All Type Standard • With transparent door • With flange • Pressure Resistance Residual Preventionh (Box Type • Inner Lid Type) With Mesh (Roller Catch • Bolt Type) Attached Mesh (T Guard)
Seal	All Type Expanded Polyethylene (White) Neoprene Rubber (Gray) Heat Resistant up to 200°C (Silicone rubber) Heat Resistant up to 400°C (Biosoluble Ceramic Cloth)

※Please use it according to the atmosphere of workplace and working environment.



Chain Meshing Drive Type Lifter

◆ Zip Chain Lifter (Revolutionary Lifter)

A revolutionary lifter that can push the top board directly is realized by "Zip Chain" which is a unique chain that can push and pull based on Tsubaki chain technology.

Thus, Lift speed is directly proportional to the rotational speed of the motor.

Features

- High speed lifting (3~10 times compare to hydraulic type).
- High frequency operation.
- High durability and decreased maintenance man hour.
- High repeat positioning accuracy (multistage stop).
- Clean and energy efficiency.
- Custom designed and custom made to the customer's specifications.

Applications

- Engine and rear suspension unit mounting process.
- High lifting and high speed lifting of the auto body in the painting line.
- Stack and destacking process at high speed and high frequency.
- Live music and concert venues.

Model and Size

- Maximum load weight : 10ton
- Maximum stroke : 10m
- Maximum lift speed : 100m/min





NOTE

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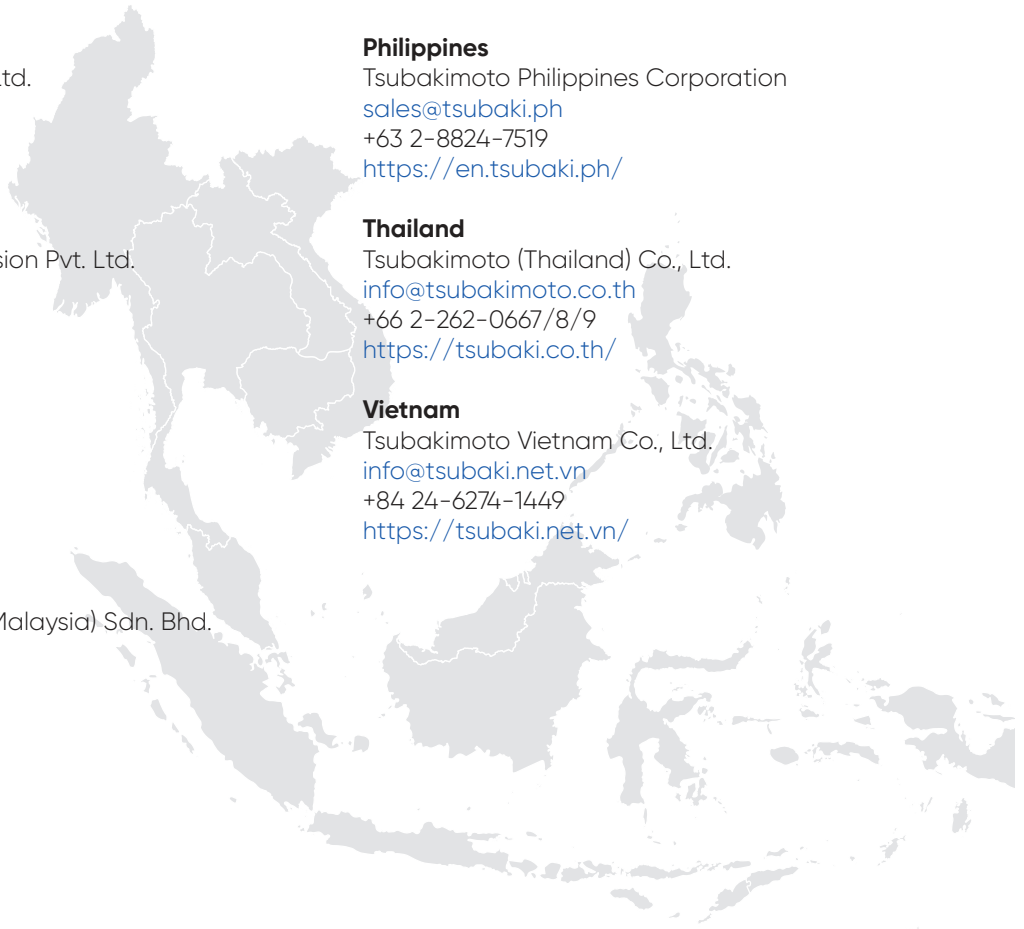
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◆ Improve your Operational Reliability and Productivity



TSUBAKI's commitment to the customer goes well beyond the product itself. TSUBAKI can provide beneficial services to support your overall activities by utilizing our technical and engineering expertise. Please kindly feel free to contact TSUBAKI in your territory.

◆ If you need further information

TSUBAKI Power Transmission Products Information Site



Available to download drawings and catalogs and refer to various contents such as selection Q&A, troubleshooting, and so on.

https://tt-net.tsubakimoto.co.jp/tecs/to_p/index.asp?lang=en

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PRODUCT DIGEST



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