

# TSUBAKI O-CARRY MODULAR UNIT

PAT.

**Easily Modify Layouts**  
**Multi-Directional Sorting**  
**Innovative Compact Design**





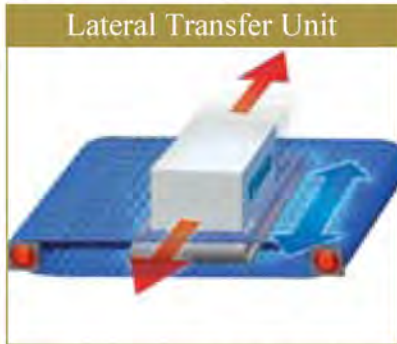
# Introducing 3 Simple and

## Features

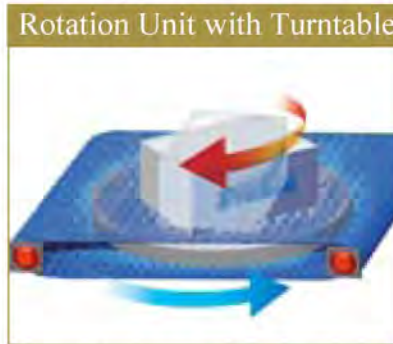
Announcing the launch of three innovative standardized conveyor modular units with diverse handling functions!

By installing auxiliary drive units such as turn tables and/or belt conveyors underneath the BTB8 Beltop Chain, not only simple conveyance, but rotation and lateral transfer of goods are possible without additional equipment. These diverse units open a new world of conveyance possibilities.

 Direction of travel of goods  
 Direction of travel of auxiliary drive unit



A belt drive unit is installed perpendicular to the direction of chain travel. Through movement generated from the belt drive unit, goods can be transferred left or right.



A turntable is installed below the chain so that when the chain is stopped goods can be freely rotated.

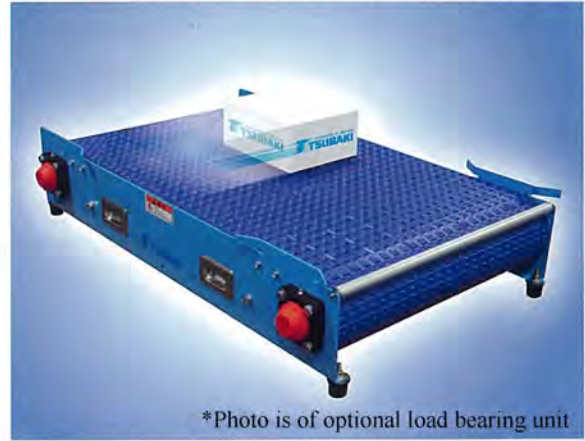


Two belt drive units are installed below the chain so that goods can be rotated without having to be stopped.

### Point 1 「Faster Design」

Can be easily incorporated into conveyor layouts.

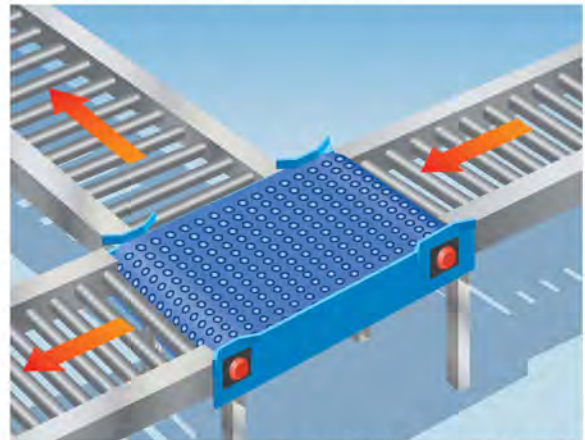
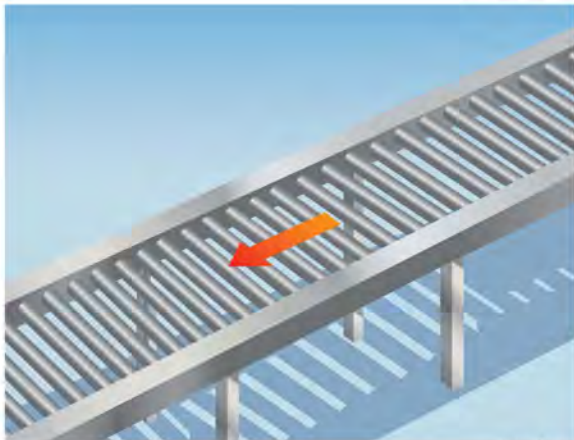
Greatly reduces required man-hours for conveyor system designers.



\*Photo is of optional load bearing unit

### Point 2 「Easily Modify Layouts」

Units are compact, allowing them to be installed virtually anywhere needed. Modifying existent conveyor layouts is a snap.

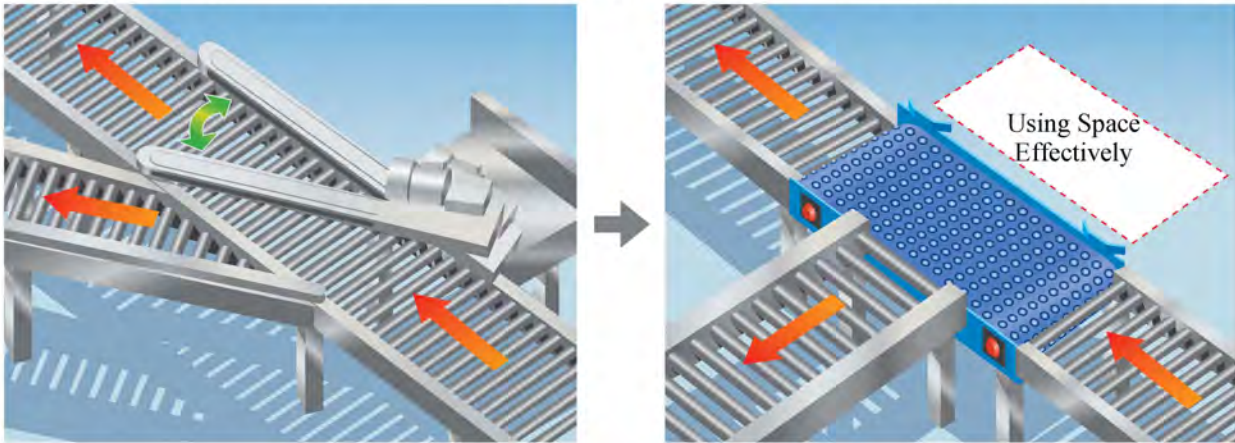


Before

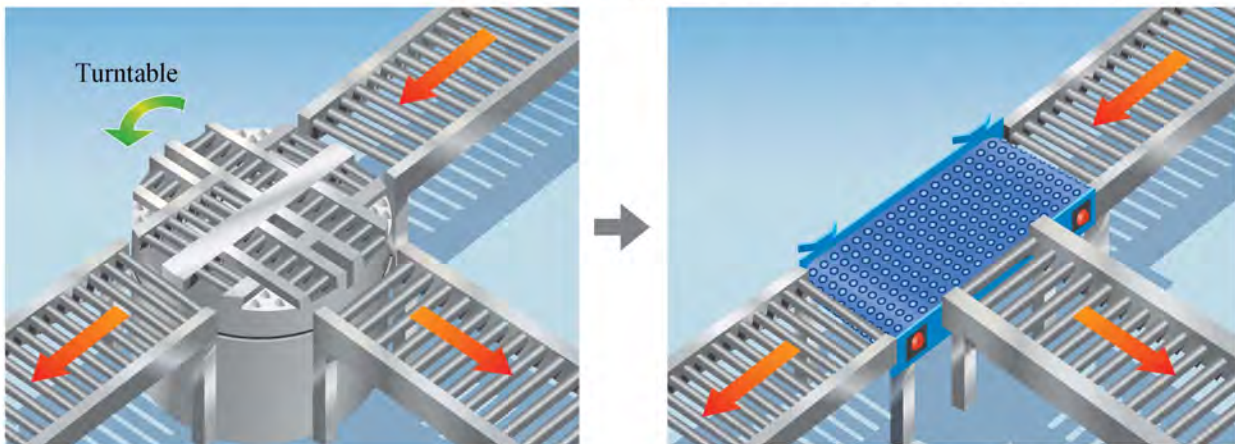
After introduction of O-Carry modular unit

# Compact Conveyor Units!

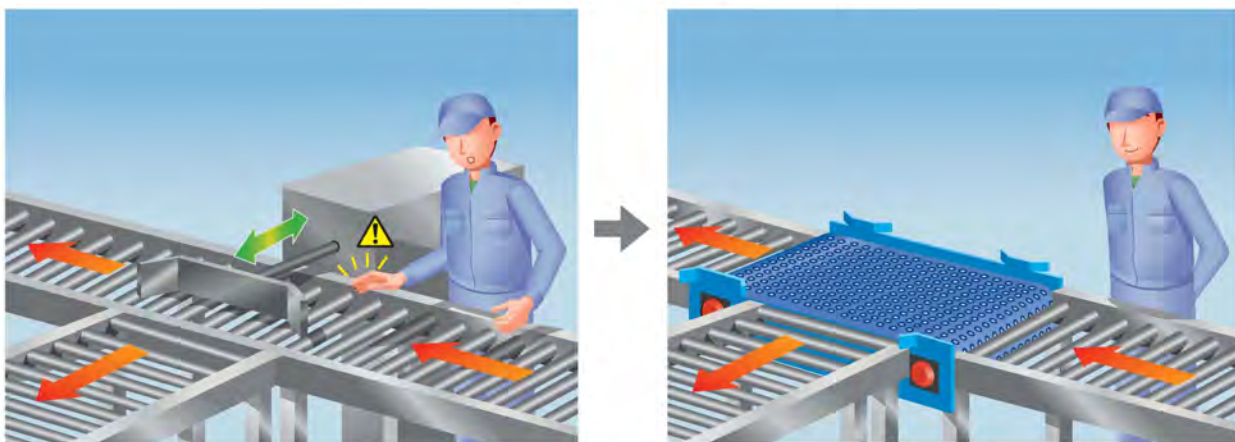
*Point 3* 「External Equipment is Unnecessary, Saving Valuable Space」 Pushers, dividers and other external equipment become unnecessary, allowing limited factory space to be use more effectively.



*Point 4* 「Speedy Sorting」 Directional change of goods with turntables or lifting devices is time consuming. This time loss is averted thanks to the O-Carry unit's ability to smoothly sort goods.



*Point 5* 「Highly Safe」 There is no chance of fingers getting pinched by pushers, or workers getting caught up in lifting devices.



# O-Carry is a Problem Solving Unit

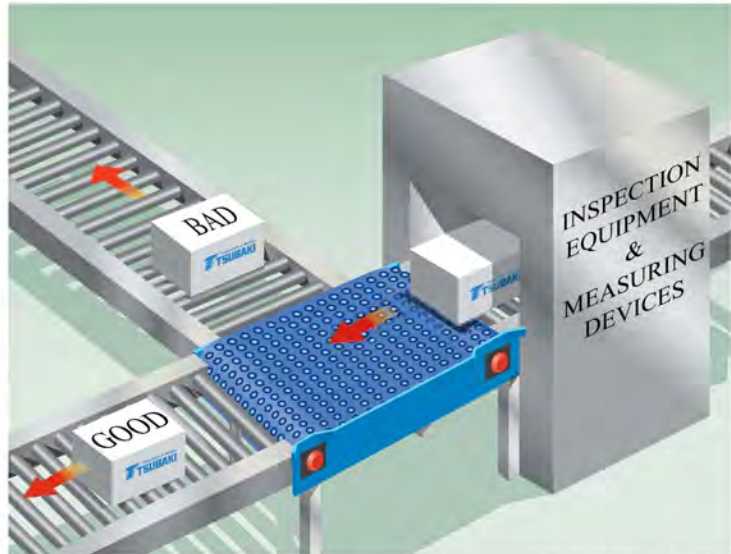
## Applications

### [ Sorting Out Defective Goods ]

By pairing O-Carry units with metal detectors, weighing devices, etc., they are highly suitable for sorting out defects such as cases containing foreign objects or not enough goods.

Inspection Equipment

Measuring Devices



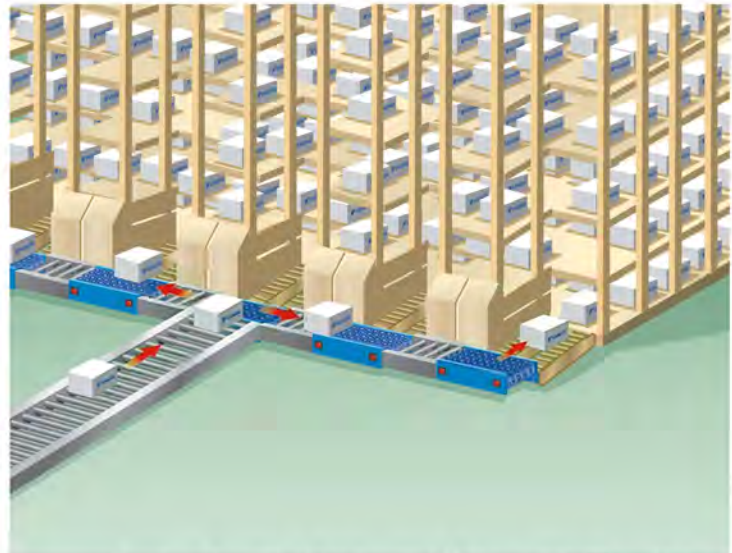
Sorting out defects

### [ Dividing / Sorting ]

Can be used to divide and sort goods in free standing automatic storage units widely utilized in distribution centers.

Distribution Center

Automatic Storage Systems



Sorting of goods at the entrance to the automatic storage system

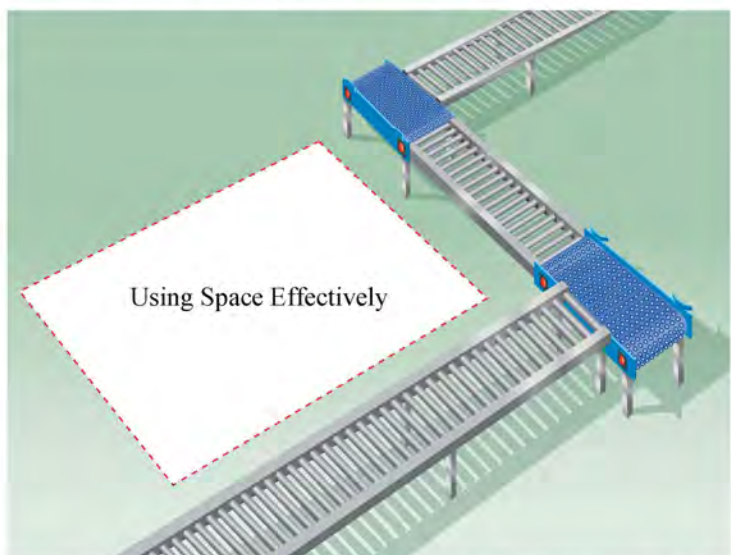
### [ Space Saving ]

Perfect for when the effective utilization of spaces monopolized by curved conveyors is desired.

Curved Conveyor



Curved Conveyor



Using Space Effectively  
After introducing the O-Carry conveyor unit

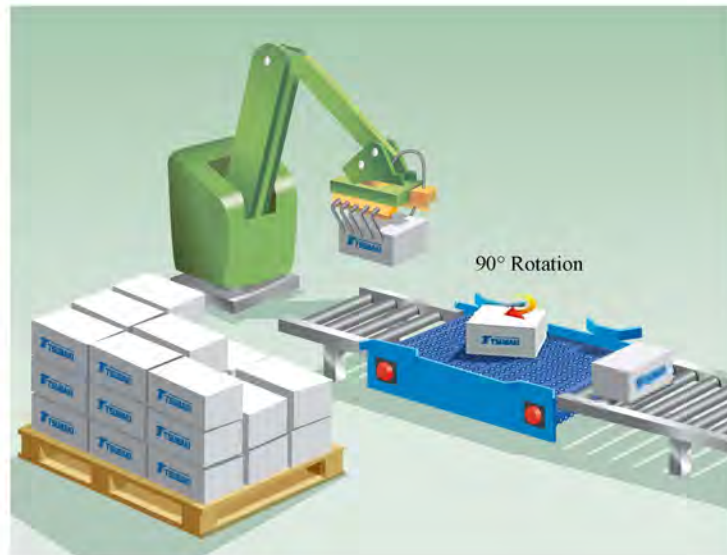
# for a Wide Variety of Applications

## Directional Rotation

Perfect for when goods need to be rotated into a position that allows for easy transfer to pallets, etc. by robotic arms.

Palletizers

Casing Machines



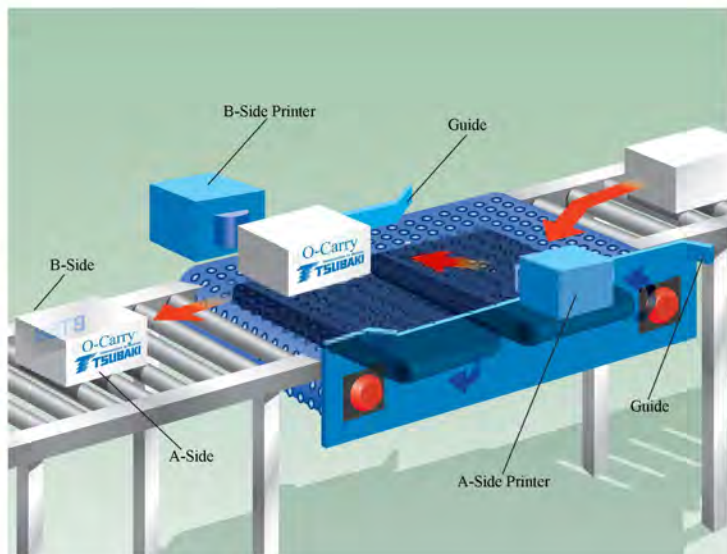
## Side Positioning

Side positioning of goods is possible for applications such as printing on the side of boxes, labeling, barcode reading, etc. (Please note that the installation of guides is required.)

Printing

Labeling

Reading Barcodes

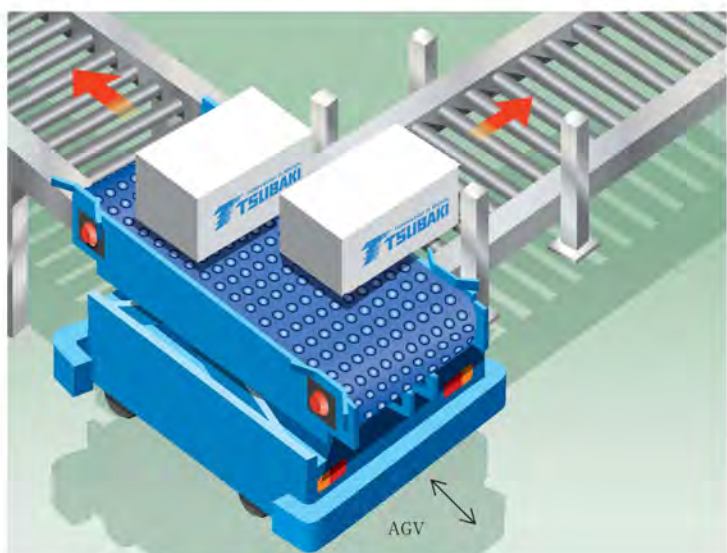


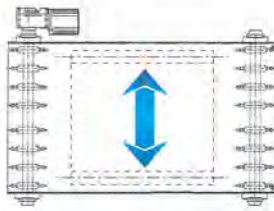
## Mounting on AGVs

By mounting an O-Carry unit onto a lifter mounted AVG it is possible to sort goods onto several conveyors of different heights, and by mounting to raising and lowering equipment, sorting a variety of stages is also possible. Horizontal movement by AVG becomes unnecessary.

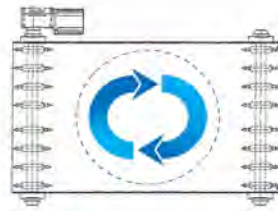
Lifter / Raising and Lowering Equipment

AGV

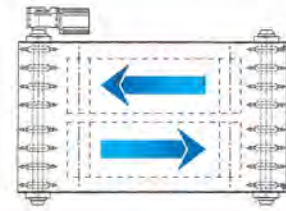




A: Lateral Transfer Unit

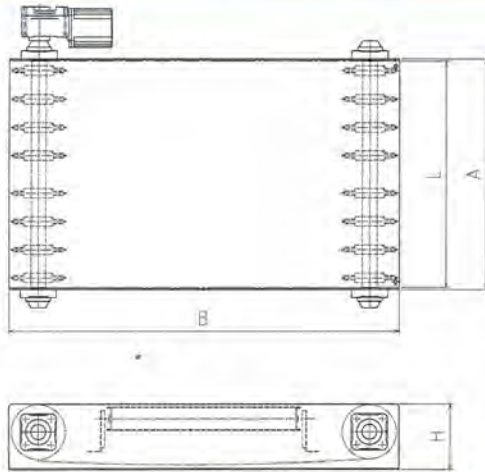


B: Rotation Unit with Turntable



C: Rotation Unit with Dual Belts

### Standard Dimensions



### A Lateral Transfer Unit

Unit:mm

Unit Width A	Chain Width L	Unit Length B	Unit Height H	Base Size of Goods (reference)
315	304.8	850	200	~250×200
390	381.0			~330×250
470	457.2	1050		~400×300
545	533.4			~480×350
620	609.6		~560×450	

### B Rotation Unit (stopped)

Unit:mm

Unit Width A	Chain Width L	Unit Length B	Unit Height H	Base Size of Goods (reference)
390	381.0	850	250	~240×190
470	457.2			~310×220
545	533.4	1050		~370×270
620	609.6			~450×310

### C Rotation Unit (continuous)

Unit:mm

Unit Width A	Chain Width L	Unit Length B	Unit Height H	Base Size of Goods (reference)
470	457.2	1050	200	~270×185
620	609.6			~390×290

### Model Identification

CVA - 545 - 1050 - A (- TK)

O-Carry Unit Number    Unit Width 545mm    Unit Length 1050mm    Option  
 A:Lateral Transfer Unit  
 B:Rotation Unit (stopped)  
 C:Rotation Unit (continuous)

- Standard unit dose not include support legs.
- Controllers and inverters are also not included.
- Options: Support legs, casters, different colors, frame materials, etc.
- Widths and lengths other than those indicated above are possible.
- Adding brakes and support for 100v single phase motors is also possible.

### Specifications

	A: Lateral Transfer Unit	B: Rotation Unit (stopped)	C: Rotation Unit (continuous)
Weight of Conveyed Goods	Maximum 30kg/item		
Speed of Conveyed Goods	30m/min (60HZ 200V) *Chain speed is 15m/min		
Unit Performance	Transfer Speed: 30m/min	Rotation Speed: 16rpm	4m/min ≤ Belt Speed ≤ 30m/min
Motor Power Source	Three phase 200V with no brake *With plastic terminal box		
Frame Material	Painted Carbon Steel *Paint Color: DIC640 (blue)		



O-Carry Conveyors, utilizing BTB8 Beltop Chain with Ball-Transfer System, are also available. Please refer to the "TSUBAKI, O-CARRY CONVEYOR catalog for more details.

\*Video of the O-Carry Conveyor in action is available at Tsubaki's website. (link below)

[http://www.tsubakimoto.jp/product/detail.html?code=340\\_3\\_1\\_1\\_1](http://www.tsubakimoto.jp/product/detail.html?code=340_3_1_1_1)

## For your safety when using the conveyor



### **Warning** To avoid danger, observe the following rules.

- Do not use chain or chain accessories for any purpose other than their originally intended use.
- Never perform additional work on chain.
  - Do not anneal any chain parts.
  - Do not clean chain with acids or alkalis. These may cause cracking.
  - Never attempt to electroplate chain or chain parts. This may cause hydrogen embrittlement.
  - Do not weld chain. Heating effects will cause weakening and cracking.
  - When a torch is used to heat or cut chain, remove the links on each side and do not reuse them.
- When replacing a worn or damaged part, do not replace just the worn or damaged part. Replace all parts with new parts.
- If a material that causes hydrogen embrittlement (acid, strong alkali, battery fluid, etc.) comes in contact with the chain, immediately stop using the chain and replace it with new chain.
- When using chain in a lifting device, set up a safety barrier and do not allow anyone to go under the equipment.
- Always install safety equipment (safety covers, etc.) on chain and sprockets.
- Strictly observe the general guidelines listed in Section 1, Chapter 1, 2nd Edition of the Japanese Occupational Safety and Health Regulations as well as rules and regulations concerning occupational safety and health in your region/country.
- When installing, removing, inspecting, maintaining and oiling chain,
  - Perform the work as instructed in the manual, catalog or other documentation that was provided with the product.
  - Before starting work, turn off the power switch and take measures to prevent it from being turned on accidentally.
  - Secure the chain and parts to prevent them from moving freely.
  - Use a press tool or other special tools to separate or connect chain, and follow the correct procedures.
  - Remove and insert pins and rivets in the correct direction.
  - Wear clothing and protective gear (safety glasses, gloves, safety shoes, etc.) that are appropriate for the work.
  - Only experienced personnel should perform chain replacement.



### **Caution** To prevent accidents, observe the following rules.

- Understand the structure and specifications of the chain that you are handling.
- Before installing chain, inspect it to make sure no damage occurred during delivery.
- Inspect and maintain chain and sprockets at regular intervals.
- Start and stop the chain gradually, and do not subject it to sudden impact.
- Do not apply initial tension to the chain.
- When using chains with engineering plastic pins under wet conditions, make sure that the temperature does not exceed 60°C (140°F).
- This conveyor is specifically for use in dry environments (no lubricants or water). Do not use the conveyor under wet conditions (environments where it will come into contact with water, soapy water or other liquids), since this may cause the conveyor to malfunction.
- Do not use the conveyor in environments where it will come into contact with water or any other liquids.

## Warranty

### 1. LIMITED WARRANTY

Products manufactured by Seller: (a) conform to the design and specifications, if any, expressly agreed to in writing by Seller; and (b) are free of defects in workmanship and materials at the time of shipment. The warranties set forth in the preceding sentence are exclusive of all other warranties, express or implied, and extend only to Buyer and to no other person. ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXCLUDED.

### 2. NON-RELIANCE

Buyer is not relying upon any advice, representations or warranties (except the warranties expressly set forth above) of Seller, or upon Seller's skill or judgment regarding the Seller's products.

Buyer is solely responsible for the design and specifications of the products, including without limitation, the determination of suitability for Buyer's application of the products.

### 3. CLAIMS

- (a) Any claim relating to quantity or type shall be made to Seller in writing within 7 days after receipt of the products; any such claim made thereafter shall be barred.
- (b) Any claim under the above-stated Limited Warranty shall be made to Seller in writing within three (3) months after receipt of the products; any such claim made thereafter shall be barred.
- (c) Seller's liability for breach of warranty or otherwise is limited to repair or replacement, at Seller's option, of non-conforming or defective products. Buyer waives all other remedies, including, but not limited to, all rights to

consequential, special or incidental damages, including, but not limited to, damages resulting from personal injury, death or damage to or loss of use of property.

- (d) Repair, alteration, neglect or misuse of the products shall void all applicable warranties.

### 4. INDEMNIFICATION

Buyer will indemnify, defend and hold Seller harmless from all loss, liability, damage and expense, including attorneys' fees, arising out of any claim (a) for infringement of any patent, trademark, copyright, misappropriation of trade secrets, unfair competition or similar charge by any products supplied by Seller in accordance with the design or specifications furnished by Buyer, or (b) arising out of or connected with the products or any items into which the products are incorporated, including, but not limited to, any claim for product liability (whether or not based on negligence or strict liability of Seller), breach of warranty, breach of contract or otherwise.

### 5. ENTIRE AGREEMENT

These terms and conditions constitute the entire agreement between Buyer and Seller and supersede any inconsistent terms and conditions, whether contained in Buyer's purchase order or otherwise, and whether made heretofore or hereafter.

No statement or writing subsequent to the date hereof which purports to modify or add to the terms and conditions hereof shall be binding unless consented to in writing, which makes specific reference hereto, and which has been signed by the party against which enforcement thereof is sought. Seller reserves the right to change these terms and conditions without prior notice.



## TSUBAKIMOTO CHAIN CO.

### Headquarters

Nakanoshima Mitsui Building  
3-3-3 Nakanoshima, Kita-ku  
Osaka 530-0005, Japan  
Phone : +81-6-6441-0011  
Facsimile : +81-6-6441-0489  
Internet:  
<http://tsubakimoto.com/>

### Chain Division

**Chain Sales Department**  
1-3 Kannabidai 1-chome  
Kyotanabe, Kyoto 610-0380, Japan  
Phone : +81-774-64-5023/4  
Facsimile : +81-774-64-5212

For further information please  
contact the Chain Division.



Kyotanabe Plant

### Global Associated Partners:

#### NORTH and SOUTH AMERICA

##### U.S. TSUBAKI, INC.

301 E. Marquardt Drive  
Wheeling, IL 60090-6497  
U.S.A.  
Phone : +1-847-459-9500  
Facsimile : +1-847-459-9515

##### TSUBAKI of CANADA LIMITED

1630 Drew Road  
Mississauga, Ontario, L5S 1J6  
Canada  
Phone : +1-905-676-0400  
Facsimile : +1-905-676-0904

##### TSUBAKI BRASIL

##### REPRESENTAÇÃO COMERCIAL LTDA.

R. Pamplona, 1018 - C.J. 73/74  
Jd. Paulista - 01405-001  
São Paulo - S.P. Brazil  
Phone : +55-11-3253-5656  
Facsimile : +55-11-3253-3384

#### EUROPE

##### TSUBAKIMOTO EUROPE B.V.

Aventurijn 1200, 3316 LB Dordrecht  
The Netherlands  
Phone : +31-78-6204000  
Facsimile : +31-78-6204001

##### TSUBAKIMOTO U.K. LTD.

Osier Drive, Sherwood Park  
Annesley, Nottingham  
NG15 0DX U.K.  
Phone : +44-1623-688-700  
Facsimile : +44-1623-688-789

#### ASIA and OCEANIA

##### TSUBAKIMOTO SINGAPORE PTE. LTD.

25 Gul Lane  
Jurong  
Singapore 629419  
Phone : +65-6861-0422/3/4  
Facsimile : +65-6861-7035

##### TSUBAKIMOTO SINGAPORE PTE. LTD.

**INDIA LIAISON OFFICE**  
Suite No. 312, 39/12, Haddows Road  
Nungambakkam  
Chennai - 600006, India  
Phone : +91-44-28303112  
Facsimile : +91-44-28303102

##### TSUBAKIMOTO (THAILAND) CO., LTD.

999/9 The Offices at Centralworld  
10th Floor, No. 1001, Rama 1 Road  
Pathumwan, Bangkok 10330 Thailand  
Phone : +66-2-264-5354/5/6  
Facsimile : +66-2-251-3912

##### TSUBAKI AUSTRALIA PTY. LTD.

Unit E, 95-101 Silverwater Road  
Silverwater, N.S.W. 2128  
Australia  
Phone : +61-2-9704-2500  
Facsimile : +61-2-9704-2550

##### TAIWAN TSUBAKIMOTO CO.

No. 33, Lane 17, Zihciang North Road  
Gueishan Township, Taoyuan County  
Taiwan  
Phone : +886-33-293827/8/9  
Facsimile : +886-33-293065

##### TSUBAKIMOTO CHAIN TRADING

##### (SHANGHAI) CO., LTD.

Room 1703, Aetna Tower,  
107 Zunyi Road, Changning Dist.,  
Shanghai 200051, China  
Phone : +86-21-5396-6651/2  
Facsimile : +86-21-5396-6628

##### KOREA CONVEYOR IND. CO., LTD.

72-5 Onsoo-Dong  
Kuro-Ku, Seoul  
Korea  
Phone : +82-2-2619-4711  
Facsimile : +82-2-2619-0819

Distributed by: