

Belting Solutions for
Distribution Centers

Product Usage Safety Guidelines

※Before use, carefully read and follow the safety precautions below.

For safe use, this documentation and Nitta's products utilize various symbols and signal words. After reviewing the "Severity of Risk" section below to understand the meanings of those symbols and signal words, read the safety precautions and follow the instructions listed.

■Improper use (ignoring the symbols and signal words) may result in the following risks:

Symbol and Signal Word		Severity of Risk
	DANGER	Indicates situation that may result in imminent risk of death or serious injury if ignored or incorrectly handled.
	WARNING	Indicates situation that may lead to high risk of death or serious injury if ignored or incorrectly handled.
	CAUTION	Indicates situation that may lead to injury and physical damage if ignored or incorrectly handled.
Signs		Meaning of Signs
	Prohibited Action	Indicates actions that must never be taken under any circumstances when handling products.
	Mandatory Action	Indicates actions that must always be taken when handling products, without exception.

1.Function and Performance

-  **DANGER** ● Do not use belts as hoisting or towing equipment.
-  Prohibited Action
-  **WARNING** ● Do not use belts beyond the acceptable ranges specified in this catalogue.
- In situations where static electricity generating in the transmission or conveying device could risk causing a fire or causing the control device to malfunction, use an antistatic belt. Install a neutralization apparatus in the device.
 - If belt encounters friction against frame or table, temperature range may be exceeded due to frictional heat, potentially causing premature belt wear.
 - If water, oil, chemicals, dust, etc. adhere to belts or pulley, it may decrease transmission efficiency or cause premature belt wear.
 - Do not use belts for conveying unpackaged food.

2.Storage and Shipping

-  **WARNING** ● Keep belts away from fire.
- Belts are combustible; do not store or use them near fire or a high-temperature heat source.
 - When storing heavy belts, fix them in place using appropriate jigs or stoppers to prevent falling or rolling.
-  **CAUTION** ● When storing and shipping belts, do not distort them excessively. Bending deformation may occur, potentially causing belts to become damaged or break prematurely.
- When storing belts, keep them under a textile covering such as a sheet and put them in a well-ventilated, low-humidity place free from direct sunlight.
 - Store belts in their original packaging until needed.

3.Installation and Daily Use

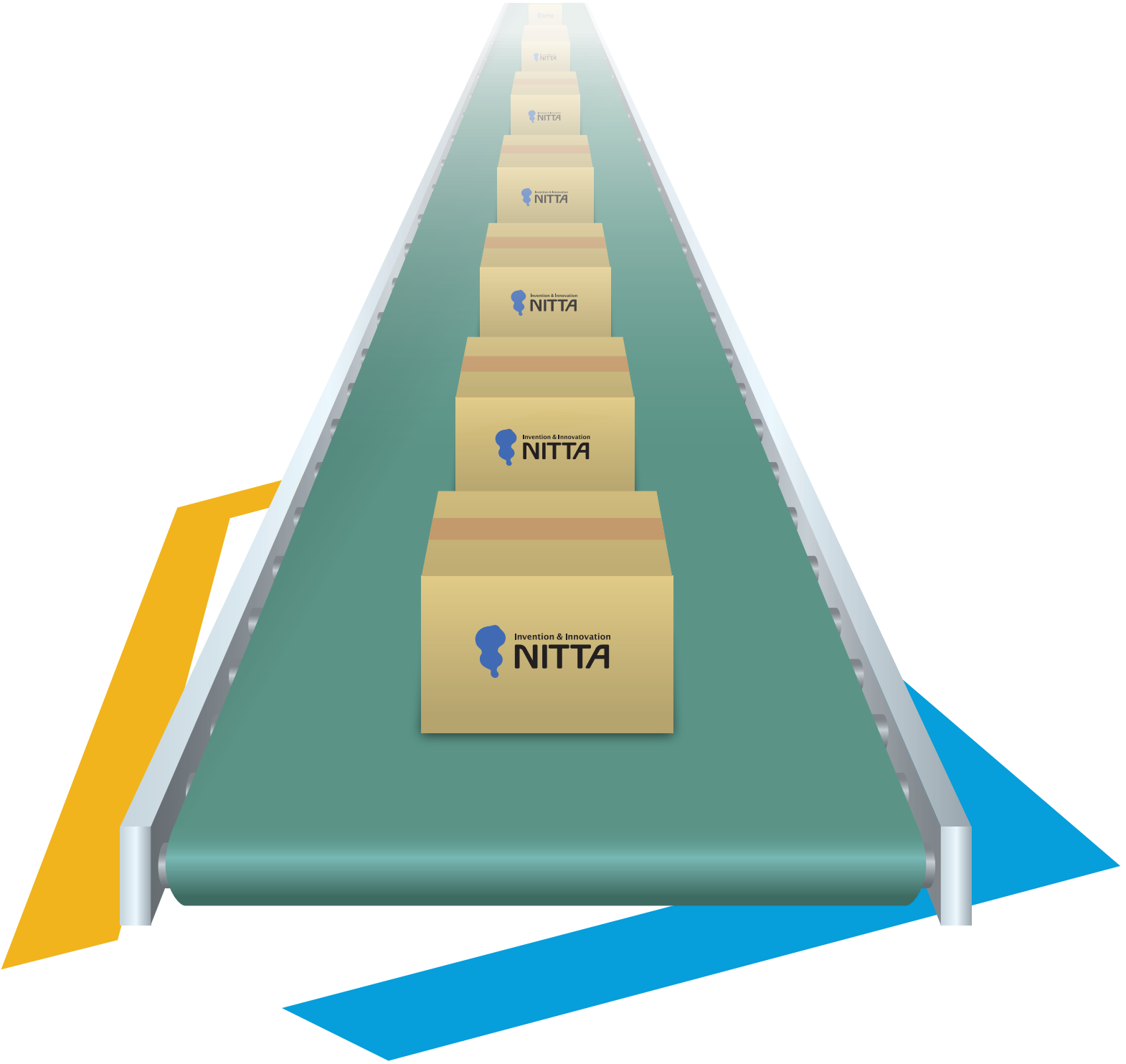
-  **DANGER** ● Be sure to put a safety cover over the rotating part of the machine including the belt; hair, gloves or clothes may get caught in the belt pulley.
-  Mandatory Action
- Before maintenance, inspection or replacement, be sure to turn off the switch and confirm that the machine has stopped.
-  **WARNING** ● When cleaning belts, do not use chemicals harmful to humans.
-  **CAUTION** ● After replacing a belt with a new one, perform a test operation to adjust tension, elongation rate and operation.
- Do not attach belts forcibly; use a motor slide, a tension pulley or a special pulling device.
 - If abnormal noise, snaking, deviation, slipping, etc. occur, stop the belt immediately for inspection.

4.Installation, Endless Processing, etc.

-  **WARNING** ● When using solvent or adhesive, fully ventilate the workspace and keep away from fire.
- Do not leave solvent or adhesive on site. Return them to storage immediately after finishing use.
-  **CAUTION** ● Perform endless joining of belts by using the materials, methods and procedures specified by Nitta.

5.Handling Used Belts

-  **WARNING** ● Do not leave belts near fire.
-  **CAUTION** ● Do not burn used belts; harmful gases may be generated.
- Lawfully dispose of used belts as industrial waste.



For information on Nitta's overseas offices, please check here to access the QR code.



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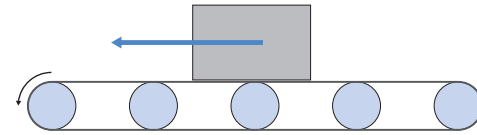
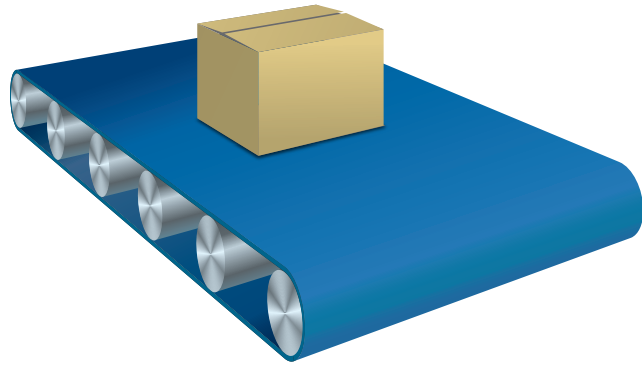
The specification is subject to change for improvement without notice.

B-DC-02E 2604500U

NITTA CORPORATION

PolySprint™

Conveyor Belts for Belt on Roller (BOR) Applications



Short Conveyor Units using Motorized Drive Rollers (MDR). This style uses multiple units in succession, so there is very little space for tensioning. Elastic belts are used in order to eliminate the need for tensioning mechanisms. Belt surfaces do not damage conveyed goods and are high grip.

High Grip

High COF, Ideal for incline & decline, acceleration and deceleration parts.

Fixed Pulley Layouts

No need for tensioning mechanisms with elastic belts.

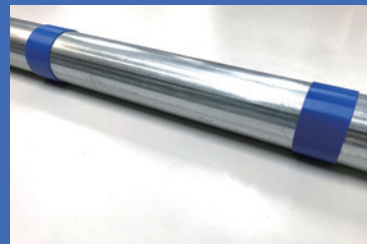
Low Noise

Ideal for reducing noise during operation compared to other conveyor types (e.g. chains).

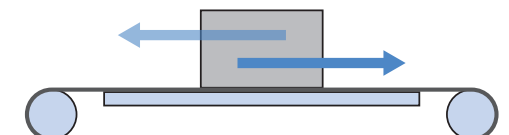
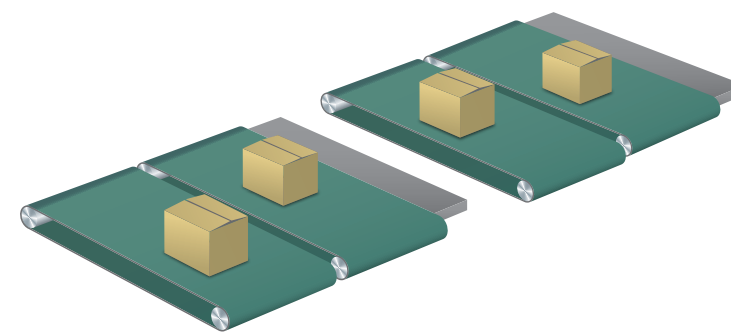
Product Group	Type	Thickness [mm]	Top Surface			Coefficient of Friction (Top/Bottom)	Minimum Pulley Diameter [mm]	Standard Elongation [%]	Tension at Standard Elongation [N/mm]	Maximum Width [mm]	Applications & Features
			Color	Material	Structure						
PolySprint™ (Elastic Type)	TC	1.4	Green	TPU	Taffeta pattern	0.5~0.6 (Paper) 0.3~0.4 (Steel)	40	2.0	0.3	1000	Horizontal Conveyor
	TA12-BK	1.2	Black	TPU	Taffeta pattern	0.5~0.6 (Paper) 0.3~0.4 (Steel)	25	2.0	0.2	1000	Horizontal Conveyor Clean conveying due to transparent top cover
	NTA14	1.4	Blue	—	Knit	0.2~0.3 (Paper) 0.3~0.4 (Steel)	25	2.0	0.25	1000	Low COF Skew Conveyor Accumulation part
	TA12-LT	1.2	Black	TPU	Taffeta pattern	0.7~0.8 (Paper) 0.3~0.4 (Steel)	25	2.0	0.16	1000	Available in low temperatures (-30°C~) Horizontal Conveyor Clean conveying
	SNTC-RB20B	2.0	Green	Soft TPU	RB pattern	1.0+ (Paper) 0.4~0.5 (Steel)	25	2.0	0.3	1030	Incline/Decline Conveyor High grip ensures accurate conveying even with sudden stop/start scenarios
	SNTC-RB22A	2.25	Green	Soft TPU	RB pattern	1.0+ (Paper) 0.1~0.2 (Steel)	25	2.0	0.3	1030	

PU Sleeves and Installation Tool

Nitta PU sleeves are easily installed using our patented installation tool to ensure perfect tracking of our elastic belts.

**Conveyor Belt**

Conveyor Belts for Cross Belt Sorter(CBS)Applications



Cross belt sorters are made up of a number of conveyor units called "cells". These cells can carry a range of different parcel weights and sizes. Accordingly, belts with a high grip surface are used. Due to the high width to length ratio, proper tracking of the belt is very important.

Flame Retardant

Fulfills the requirements of the ISO 340 for flammability characteristics of conveyor belts.

Excellent Tracking

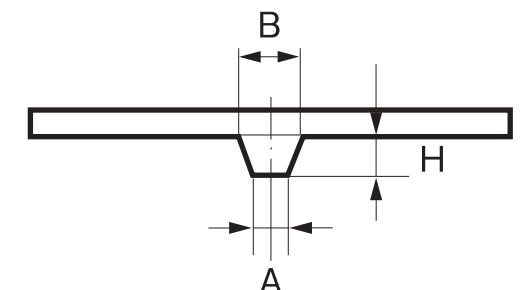
Eliminates thrusting through the use of V-guides on small pulley layouts.

High Grip

Due to high coefficient of friction of the top cover, holding force of the conveyed goods is excellent.

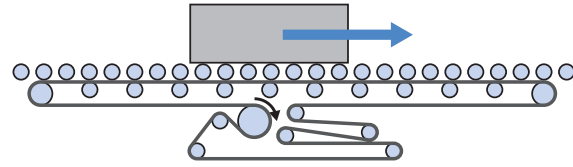
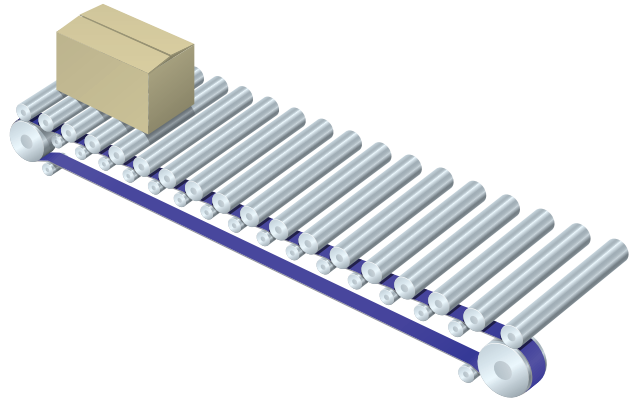
Product Group	Type	Thickness [mm]	Top Surface			Coefficient of Friction (Top/Bottom)	Minimum Pulley Diameter [mm]	Standard Elongation [%]	Tension at Standard Elongation [N/mm]	Maximum Width [mm]	Applications & Features
			Color	Material	Structure						
Conveyor Belt	2 LRAF 905 GP FR3 BLC-14AFR3	2.3	Black	PVC	Gauze Profile	0.7~0.8 (Paper) 0.2~0.3 (Steel)	40	0.5	2.0	2000	High Friction for accurate conveying
	2 LRAF 906 RB FR3 BLRB-14AFR3	2.3	Black	PVC	RB pattern	1.0+ (Paper) 0.2~0.3 (Steel)	40	0.5	2.0	2000	Possible to use with V-Guides Flame Retardant

Product	Material	Shape	Color	Dimensions [mm]		
				A	B	H
K6	PVC		Black	4	6	4
K10 x 4	PVC		Black	7	10	4



PolySprint™ CFTG

Conveyor Belts for Live Roller Conveyors



Goods are transported on driven rollers. There are several types of drives, including tangential flat belts. Flat belt driven roller conveyors are most common for long conveyor units. Belts used in this application require high bending resistance and a high, constant coefficient of friction. As different sections of the conveyor can easily misalign, an abrasion resistant cover material is required.

Short Take-up

Low creep so the adjustment room for tensioning can be reduced.

Compact Design

High grip, tension and wear resistance allow for shorter belt width and more compact designs.

Small Pulley Diameters

Due to high bend resistance of the belt small pulley layouts for the carrier and pressure rollers are possible.

Product Group	Type	Thickness [mm]	Top Surface			Coefficient of Friction (Top/Bottom)	Minimum Pulley Diameter [mm]	Standard Elongation [%]	Tension at Standard Elongation [N/mm]	Applications & Features
			Color	Material	Structure					
PolySprint™	TL-22E30	3.0	Dark Blue	NBR	Textured pattern	0.5~0.6 (Steel)	70	1.0	22	Short Take-up High Bend Resistance High Flange Resistance
	TLA-30E30-2	3.0	Dark Blue	NBR	Textured pattern	0.5~0.6 (Steel)	70	1.0	30	
CFTG	CFTG-60N-4.0	4.0	Blue	TPU	Taffeta pattern	0.5~0.6 (Steel)	80	0.5	60	Short Take-up High Bend Resistance High Flange Resistance
	LVR-60	4,4.5	Blue	TPU	Rough pattern	0.5~0.6 (Steel) 0.2~0.25 (Steel)	110	0.5	60	
	CFT-40-4.5TN	4.5	Orange	TPU	Rough pattern	0.5~0.6 (Steel) 0.2~0.25 (Steel)	110	0.5	40	
	CFTG-60SGNF	4(body) 9.5(total)	Blue	TPU	Flat	0.5~0.6 (Steel) Guide: 0.2~0.25 (Steel) Body: 0.5~0.6 (Steel)	90	0.5	60	Live roller conveyor Short Take-up High Bend Resistance High Flange Resistance

PolySprint™ Tooling

Nitta belts from the PolySprint™ line can be made endless without adhesive and without experience using our specialized tooling.



FP120-10-50N
Finger Puncher

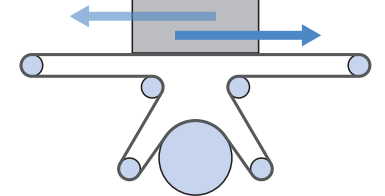
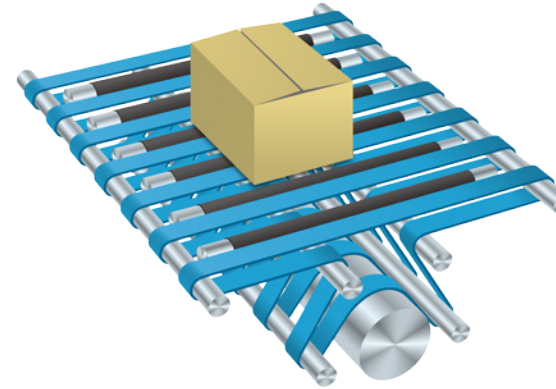


NPS-1210A
Heating Press



PolySprint™ PolyBelt™

Conveyor Belts for Right Angle Transfer (RAT)



A conveyor unit that can either transport the conveyed goods straight ahead or change the direction by 90° left or right by narrow belts that run in parallel or belt-driven roller units that pop up when required. High grip is required in order to provide proper acceleration.

Dimensional Stability

Perfect synchronization of the individual belts because of minimal elongation.

Small Pulley Diameter

Due to the small pulley designs, belts need to have very high bend resistance.

Short Take-up

Low creep so the adjustment room for tensioning can be reduced.

Product Group	Type	Thickness [mm]	Top Surface			Coefficient of Friction (Top/Bottom)	Minimum Pulley Diameter [mm]	Standard Elongation [%]	Tension at Standard Elongation [N/mm]	Applications & Features
			Color	Material	Structure					
PolySprint™	LA-4E14	1.4	Blue	NBR	Textured pattern	0.6~0.7 (Paper) 0.5~0.6 (Steel)	25	1.0	4	High Breaking Strength High Abrasion Resistance High Grip
	SLA-8E14	1.4	Blue	NBR	Taffeta pattern	0.6~0.7 (Paper) 0.5~0.6 (Steel)	25	1.0	8	
	DG-8E25	2.5	Green	TPU	Taffeta pattern	0.5~0.6 (Paper) 0.4~0.5 (Steel)	25	1.0	8	Available in low temperatures (-20°C~) High Breaking Strength High Abrasion Resistance High Grip
	TFL-15E25	2.5	Dark blue	NBR	Taffeta pattern	0.6~0.7 (Paper) 0.5~0.6 (Steel)	30	1.0	15	High Breaking Strength High Abrasion Resistance
	SNTC-RB22A	2.25	Green	Soft TPU	RB pattern	approx. 1.0 (Paper) 0.1~0.2 (Steel)	25	2.0	0.3	High Grip No tensioning device required
PolyBelt™	L-350	1.4	Blue	NBR	Textured pattern	0.5~0.6 (Steel)	35*	2.0	5.2	High Breaking Strength High Abrasion Resistance High Grip

*Skived Joint



FP30-10-50N
Finger Puncher



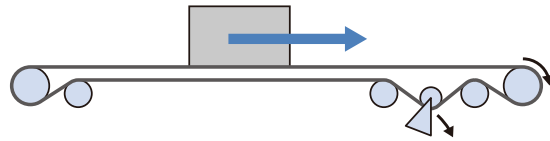
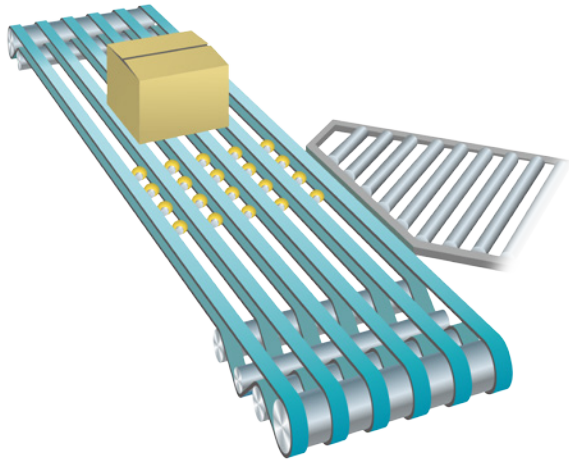
NPS-3050
Heating Press



NPS-3050C
Cooling Press

CFTG

Belts for
Narrow Belt Sorters(NBS)



Six to eight belts run in parallel with pop up units ejecting goods at a 30 to 90° angle. Often the individual belts are automatically tensioned using air cylinders to reduce the need for maintenance. Highly dimensional stable belts with aramid core tension member are used in order to minimize elongation.

Flange Resistance

High wear resistance on the belt edges.

Excellent Tracking

Low running noise, possible to use with guide rails.

Small Take-up

High breaking strength and excellent dimensional stability allow for small take-up.

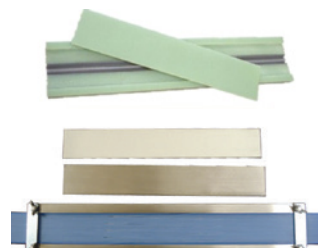
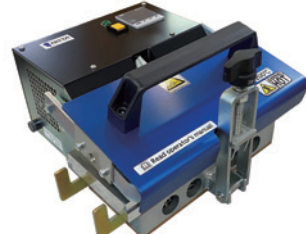
Product Group	Type	Thickness [mm]	Top Surface			Tension Member	Coefficient of Friction (Both Sides)	Minimum Pulley Diameter [mm]	Standard Elongation [%]	Tension at Standard Elongation [N/mm]	Applications & Features
			Color	Material	Structure						
CFTG	CFTG-40FS-5.0	5.0	Blue	NBR	Textured pattern	Aramid Cord	0.5~0.6 (Steel)	150	0.5	40	Flange Resistance Excellent Tracking High Breaking Strength
	CFTG-60SG	2.4(Body) 7.5(Total)	Blue	TPU	Flat	Aramid Cord	0.5~0.6 (Steel)	90	0.5	60	Available in 30 and 40mm width Integrated V-Guide

Finger Puncher
FP-200T
(For CFTG-40FS-5.0)

Finger Puncher
FP-120G-60
(For CFTG-60SG)

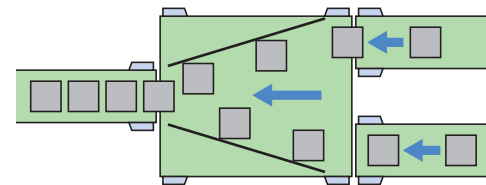
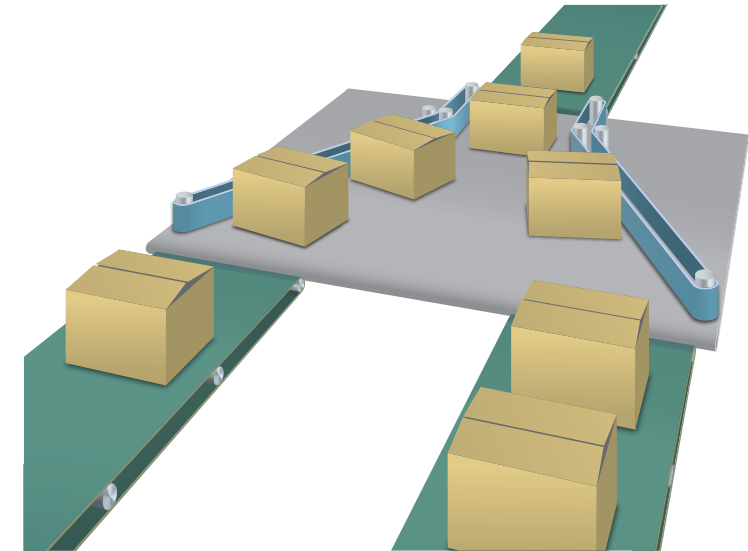
Automated Heating &
Cooling Press
NPS-2005A

Presetter



Conveyor Belt

Belts for
Merge Conveyors



This conveyor unit merges the flow of goods from more than one conveyor line into a single line. The belt cover needs to have low friction in order to allow the goods to flow without causing scratches.

Product Group	Type	Thickness [mm]	Top Surface			Coefficient of Friction (Top/Bottom)	Minimum Pulley Diameter [mm]	Standard Elongation [%]	Tension at Standard Elongation [N/mm]	Maximum Width [mm]	Applications & Features
			Color	Material	Structure						
Conveyor Belt	2 LRWAF 2701	1.8	Green	Polyester Fabric	Fabric	0.3~0.4 (Paper) 0.2~0.3 (Steel)	30	0.5	2.0	3000	Accumulation Belt Low Coefficient of Friction
	2 LRWAF 901 FR3	1.75	Black	Polyester Fabric	Fabric	0.3~0.4 (Paper) 0.2~0.3 (Steel)	30	0.5	2.0	3000	Accumulation Belt Low Coefficient of Friction Flame Retardant
	3 LRWAF 901	2.7	Black	Polyester Fabric	Fabric	0.3~0.4 (Paper) 0.2~0.3 (Steel)	100	0.5	3.0	3000	Accumulation Belt Low Coefficient of Friction
	3 LRLRANFP IM	2.4	White	Polyester Fabric	Fabric	0.3~0.4 (Paper) 0.2~0.3 (Steel)	100	0.5	3.0	3000	Merge Conveyor Low Coefficient of Friction