Flat Belts

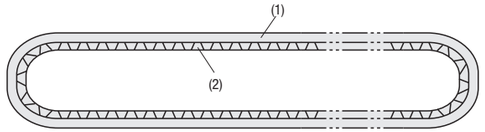
Features: Designed for transferring of various food, cardboard, metal, and plastic materials. Excels in high temperature, high moisture conditions, and is resistant to fray.

Flat Belts

Type Widths Selectable	Usage	Material (1) Front	Material (2) Back	Color Tone	Thickness mm	Weight kg/m²	Allowable Stress kg/cm	Min. Pulley Diameter Ømm	Knife Edge	Continuous Use Temperature °C	Friction Coefficient (Ref. Against Polished Steel) Front	Friction Coefficient (Ref. Against Polished Steel) Back
HBLT	General Purpose	Polyurethane	Polyester	Green	0.9	1	4	25	5R	-10–80	0.2	0.1
SHBLT	Sliding	Polyester		White	0.5	0.5	4	25	3R		0.1	0.1
LHBLT	Inclined Apps.	Soft Polyurethane		Green	1.5	1.6	4	30	—		1.7	0.1
DHBLT	Electronic Parts Conveyer	Conductive Polyurethane		Black	0.6	0.7	3	25	3R	-10–80	0.2	0.1
FHBLT	Food Conveyer	Polyurethane		White	0.8	0.9	3.5	20	3R		0.2	0.15
HHBLT	Heat-Resisting	Silicon Rubber		White	1.3	1.4	5	75	—	-40–180	1.5	0.1
OHBLT	Oil-Resisting	Oil-Resistant Chloroethene		Navy	1.0	1.1	4	25	—	5–60	0.3	0.1

*W±1 when W=30 or less
W±2 when W=30 or more

Characteristics of belts **P.1308**.



Belts Width Selectable

Part Number Type		Belt Width W (mm)	Circumference L (m) 0.01 m Increment	Available Types HBLT	SHBLT	LHBLT	DHBLT	FHBLT	HHBLT	OHBLT
DHBLT		5	0.50–3.00	•	•	•	—	•		•
HBLT SHBLT LHBLT	DHBLT FHBLT OHBLT	10	0.50–20.00		—	—	—	—		—
		15			—	—	—	—		—
		20							•	—
		25		—						—
		30			—	—		—		—
		35								—
		40								—
		50							—	—
		60		—	—	—		—	—	—
		75							—	—
HBLT SHBLT LHBLT FHBLT HHBLT OHBLT		80	0.80–20.00	—	—	—	•	—	—	—
		90		—	—	—		—	—	—
		100		—	—	—		—	—	—
		125		—	—	—		—	—	—
		150		—	—	—		—	—	—
		200		—	—	—		—	—	—
		250		—	—	—		—	—	—
		300		—	—	—		—	—	—

Flat belts are weld-joined before shipping.
Connecting section may be thicker by approx. 0.3 mm for HBLT(HBLTW), SHBLT, LHBLT, DHBLT, FHBLT, 0.4 mm for OHBLT and 0.6 mm for HHBLT.
Belt length L must be four times belt width W. (L ≥ w × 4/1000)

Part Number Example

Part Number	-	L
DHBLT 15	-	14.50
HBLTW 350	-	4.23

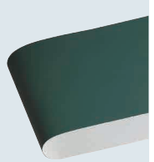
Flat Belts

With Prevention Crosspiecet

Features: Suitable for securing linearity and safety against lateral forces.

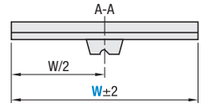
Flat Belts – With Prevention Crosspiece

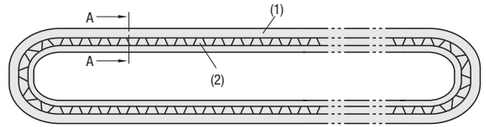
(1) Front

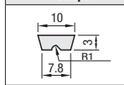
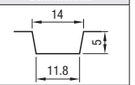


(2) Back

Type	Color	Ply Count	Surface Shape	Material Surface	Material Back	Friction Coefficient (Ref. Against Polished Steel) Front	Friction Coefficient (Ref. Against Polished Steel) Back	Thickness mm	Unit Mass kg/m²	Allowable Tension N/mm	Min. Pulley Dia. Ømm	Continuous Use Temperature °C
HBLTDS	Green	2	Flat surface	Polyurethane	Polyester Resin	0.8	0.2	1.4	1.5	8	25	-30–80
SHBLTDS	White	2	—	Polyester Resin	Polyester Resin	0.2	0.2	1.3	1.1	8	40	-30–80
OHBLTDS	Green	2	Flat surface	Oil Resistant Polyurethane	Polyester Resin	0.8	0.2	1.4	1.5	8	25	-30–80





Crosspiece Shape	Pulley / Idler Relief Dimensions
	

Characteristics of belts **P.1308**.

With Prevention Crosspiece

Part Number Type	Part Number Belt Width W 10 mm Increment	Circumference L (m) 0.01 m Increment
HBLTDS SHBLTDS OHBLTDS	50–90	1.00–20.00 (L≥Wx4)
	100–190	
	200–290	
	300–400	
	410–500	

Resistance Against Chemicals & Oils

Chemical Name	General Purpose HBLT HBLTW HBLTDS	Sliding SHBLT SHBLTDS	Inclined Apps. LHBLT	Electronic Parts Conveyer DHBLT	Food Conveyer FHBLT	Heat Resisting HHBLT	Oil Resisting OHBLT OHBLTDS
Isopropyl Alcohol	Good	Acceptable (Good)	Good	Good	Good	Good	Acceptable (Good)
Ethanol	Good	Good	Good	Good	Good	Good	Good
Potassium Chloride	Good	Good	Good	Good	Good	Good	Good
Calcium Chloride	Good	Good	Good	Good	Good	Good	Good
Hydrochloric Acid (Gas)	Poor	Poor	Poor	Poor	Poor	Good	Acceptable
Hydrochloric Acid (5% or Less)	Good	Good	Good	Good	Good	Good	Good
Hydrochloric Acid (5–36%)	Poor	Poor	Poor	Poor	Poor	Good	Good
Caustic Soda	Acceptable (Poor)	Good(Poor)	Acceptable	Acceptable	Acceptable	Good	Good (Poor)
Solution of Caustic Soda (50%)	Acceptable (Poor)	Poor	Acceptable	Acceptable	Acceptable	Poor	Good (Poor)
Volatile Oil	Good	Good	Good	Good	Good	Acceptable	Good
Strong Alkali	Acceptable (Poor)	Poor	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
Strong Acid	Poor	Poor	Poor	Poor	Poor	Good	Acceptable
Light Oil	Good	Acceptable	Good	Good	Good	Acceptable	Acceptable (Good)
Ethyl Acetate	Poor	Poor	Poor	Poor	Poor	Acceptable	Poor
Sodium Hypochlorite (Undiluted Solution)	Acceptable (Poor)	Acceptable (Poor)	Acceptable	Acceptable	Acceptable	Good	Good(Poor)
Sodium Hypochlorite (600 ppm)	Good (Poor)	Good(Poor)	Good	Good	Good	Good	Good(Poor)
Weak Alkali	Good	Good	Good	Good	Good	Good	Good
Weak Acid	Good	Good	Good	Good	Good	Good	Good
Soap	Good	Good	Good	Good	Good	Good	Good
Machining Oil	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Poor	Good
Diesel Oil	Good	Acceptable	Good	Good	Good	Poor	Good
Toluene	Acceptable	Poor	Acceptable	Acceptable	Acceptable	Poor	Poor
Naphthalene	Acceptable (Poor)	Acceptable (Poor)	Acceptable	Acceptable	Acceptable	Poor	Acceptable
Paraffin Oil	Good	Good	Good	Good	Good	Good	Good
Phenol	Acceptable (Poor)	Acceptable (Poor)	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable (Poor)
Antirust Oil	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Poor	Good
Machine Oil	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Poor	Good
Methanol	Good	Good	Good	Good	Good	Good	Good
Sulfuric Acid (10%)	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
Sulfuric Acid (50%)	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable (Poor)
Sulfuric Acid (70%)	Poor	Poor	Poor	Poor	Poor	Acceptable	Poor
Sulfuric Acid (98%)	Poor	Poor	Poor	Poor	Poor	Poor	Poor

Resistance Against Foods

Foods	General Purpose HBLT HBLTW HBLTDS	Sliding SHBLT SHBLTDS	Inclined Apps. LHBLT	Electronic Parts Conveyer DHBLT	Food Conveyer FHBLT	Heat Resisting HHBLT	Oil Resisting OHBLT OHBLTDS
Yeast	Good	Good	Good	Good	Good	Good	Good
Tea Leaves	Good	Good	Good	Good	Good	Good	Good
Olive Oil	Good	Good	Good	Good	Good	Acceptable	Good
Fruits	Good	Good	Good	Good	Good	Good	Good
Cashew Nuts	Poor	Poor	Poor	Poor	Poor	Poor	Poor
Cream	Good	Good	Good	Good	Good	Good	Good
Spices	Good	Good	Good	Good	Good	Good	Good
Grains	Good	Good	Good	Good	Good	Good	Good
Coffee Beans	Good	Good	Good	Good	Good	Good	Good
Flour	Good	Good	Good	Good	Good	Good	Good
Rice Grains	Good	Good	Good	Good	Good	Good	Good
Fish	Good	Good	Good	Good	Good	Acceptable	Good
Sugar	Good	Good	Good	Good	Good	Good	Good
Salt	Good	Good	Good	Good	Good	Good	Good
Salt Water	Good	Good	Good	Good	Good	Good	Good
Fat	Good	Good	Good	Good	Good	Poor	Good
Cooking Oil	Good	Good	Good	Good	Good	Acceptable	Good
Syrup	Good	Good	Good	Good	Good	Good	Good
Soy Sauce	Good	Good	Good	Good	Good	Acceptable	Good
Vinegar	Good	Good	Good	Good	Good	Acceptable	Good (Poor)
Sauce	Good	Good	Good	Good	Good	Acceptable	Acceptable
Molasses	Good	Good	Good	Good	Good	Good	Good
Meat	Good	Good	Good	Good	Good	Acceptable	Good
Butter	Good	Good	Good	Good	Good	Acceptable	Good
Bread	Good	Good	Good	Good	Good	Good	Good
Peanut Oil	Good	Good	Good	Good	Good	Poor	Good
Beer	Good	Good	Good	Good	Good	Good	Good
Margarine	Good	Good	Good	Good	Good	Acceptable	Good
Mayonnaise	Good	Good	Good	Good	Good	Acceptable	Good
Water	Good	Good	Good	Good	Good	Good	Good (Poor)
Lard	Good	Good	Good	Good	Good	Acceptable	Good

Note: Good – Not affected at all, Acceptable – Slightly affected, Poor – Severely affected.
The symbols in ( ) are for Crosspiece Groove Type.

The above table shows adequacy in the condition where materials including chemicals and oil are loaded on belt surface and carried in room temperature. Actual conditions may differ in cases where belts are completely submerged in materials or used in higher temperature than room temperature.

Part Number Example

Part Number Type	Part Number Belt Width	-	Circumference L (m)
HBLTDS	350	-	4.50