Timing Belts Guides

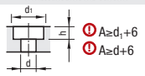
Feature: A guide to prevent belts from flexure and wandering during conveying.

Timing Belts Guides

RoHS 10

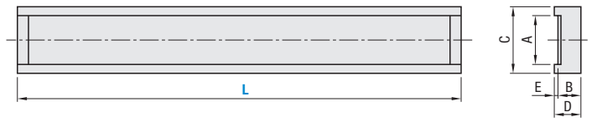
Details of Hole Dimensions

Counterbored Holes

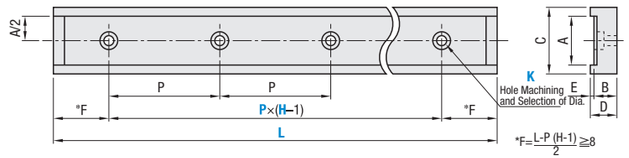


Screw Nominal Diameter	4	5	6
d	4.5	5.5	6.5
d_1	8	9.5	11
h	5	6	7

BTG No Hole Type



BTGZ 1 row of counterbored holes type



Accuracy Standards

Dimensions	Tolerance
A / B / C / D / E	±0.2
L	±1.0

ⓘ Thermal Expansion Coefficient: 1.7 x 10^{-4}/°C

ⓘ Machining conditions: 3 mm thickness from a hole to the end face is required.

Material: UHMW

Part Number Type	Part Number Nominal	L 10 mm Increment	P (Hole pitch) 5 mm Increment	H No. of Holes	K Hole Machining & Selection of Dia.	Applicable Belt Type	A	B	C	D	E
BTG No Hole / BTGZ 1 Row of Counterbored Holes	100	200–1800	—	—	—	T5100 AT5100	12	8.6	20	10	1.4
	150		50–500	2–10	4, 5, 6	T5150 AT5150	17		23		
	150A					T10150 AT10150		9		12	3
	200					T5200	22	8.6	30	10	1.4
	200A					T10200 AT10200		9		12	3
	250					T10250 AT10250	27		35		
	250B					T5250		8.6		10	1.4
	300					T10300	32	9	42	12	3
	400					T10400	43		53		
	500					T10500	53		63		

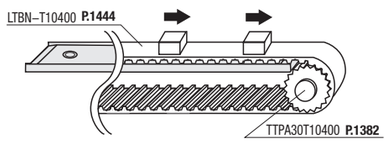
ⓘ Applicable to belts not listed in "Applicable Belt Type." Make sure of the width and no. of teeth before use.

⊗ Belt Nominal Width 100 is not available for BTGZ.

Part Number Example

Tolerance Selection: Type	Tolerance Selection: Normal	L	P	H	K Hole Machining Nominal Dia.
BTG	150	300			
BTGZ	200A	1200	P160	H8	K5

Application Example



Long Timing Belts

Material Properties & Usage Examples

Long Timing Belts (P.1444) Material Properties

Chemical Resistance (Long Timing Belts Iron Rubber® P.1444)

○: With Resistibility △: With Limited Resistibility ×: Non-resistant

Chemicals	Resistibility
Acetic Acid 5%	×
Glacial Acetic Acid (38°C)	×
Non-Glacial Acetic Acid	×
Hydrochloric Acid 5%	×
Nitric Acid 10%	×
Sulfuric Acid 20%	×
Fuming Sulfuric Acid 20%	×
Sulfurous Acid	×
Formic Acid	×
Hydro Cyanic Acid	×
Hydrofluoric Acid 10%	×
Hydrogen Sulfide	×
Chlorine Gas	×
Aqueous Trisodium Phosphate Solution	○
Aqueous Citric Acid Solution	○
Anhydrous Bromine (Solution)	×
Aqueous Acidum Boricum Solution	○
Aqueous Ammonium Chloride Solution	△
Aqueous Calcium Chloride Solution	○
Aqueous Calcium Hypochlorite Solution	○
Aqueous Sodium Chloride Solution	○
Aqueous Ammonium Sulphate Solution	△
Aqueous Ammonium Hydroxide Solution	×
Aqueous Sodium Hydroxide Solution 5%	×
Aqueous Sodium Hydroxide Solution 10%	×
Aqueous Potassium Hydroxide Solution 5%	×
Sodium Dichromate 20%	△
Seawater	△
Acetone	×
Methyl Ethyl Ketone	×
Ethyl Alcohol	×
Methyl Alcohol	×
Ethyl Acetate	×
Carbon Tetrachloride	×
Benzene	×
Carbon Bisulfide	×
Dioctyl Phthalate	○
Chloroethane	×
Ethylene Glycol	△
Ethylene Oxide	△
Fluosilicic Acid	△
Formaldehyde 40%	×
Chlorobenzene	×
Cyclohexane	△
Dibutyl Phthalate	○
Glycerin	○
n-Hexane	△
Hydrazine	×
N-Methylpyrrolidone	×
Isooctane	△
Isopropyl Alcohol	△
Kerosene	△
Gasoline	△
Jet Fuel	△
Linseed Oil	○
Ricinus	○
Naphthalene	△
Soybean Oil	○
Beer	○
Phenol	×
Ethylene Tetrachloride	×
Xylene	×
Fuel Oil A	△
Fuel Oil B	×
Fuel Oil C	×
Dimethylformamide	×
Tetrahydrofuran	×
Toluene	×
Hydrogen Peroxide Solution	×

Chemical Resistance (Long Timing Belts Polyurethane P.1445)

○: With Resistibility △: With Limited Resistibility ×: Non-resistant

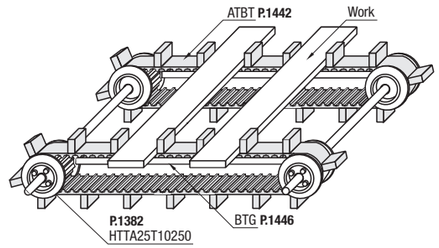
Chemicals	Resistibility
Acetic Acid	△
Acetone	△
Aluminum Chloride (5% Moisture)	○
Ammonia Water (10%)	○
Aniline	×
Astm No.1 Oil	○
Astm No.2 Oil	○
Astm No.3 Oil	△
Benzene	△
Butyl Alcohol	△
Butyl Acetate	×
Carbon Tetrachloride	×
Cyclohexanol	△
Diesel Oil	○
Dimethylformamide	×
Ethanol	△
Ethyl Acetate	×
Ethylether	○
n-Heptane	○
20% Hydrochloric Acid	△
Iron Chloride (Moisture 5%)	△
Isopropanol	△
Kerosene	○
Grease	○
Methanol	△
Methanol / Gasoline (15 / 85)	△
Methyl Ethyl Ketone	△
Chloromethane	△
Mineral Oil	○
Nitric Acid 20%	×
Regular Gasoline	△
Super Gasoline	△
Saline Solution	○
Seawater	○
Aqueous Sodium Chloride Solution	○
Sodium Hydroxide	△
Tetraphydrafuran	×
Toluene	×
Trichloethylene	×
Water	○

ⓘ Not applicable when temperature is above 40°C or belts are immersed in solution / liquid.

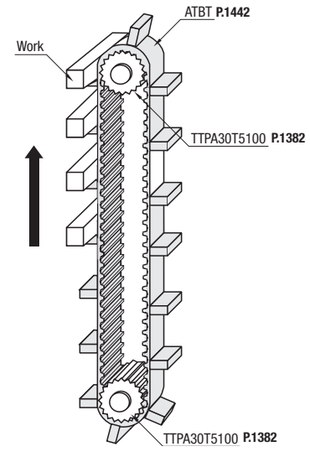
ⓘ The effects are just for reference and tests are required before use. Check compatibility before using as belts.

Long Timing Belts / Open End Belts (P.1444) Example of Use

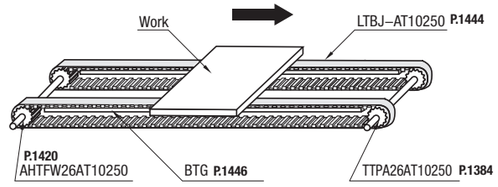
Simultaneous Conveyance (Conveying work pieces at regular intervals using attachments)



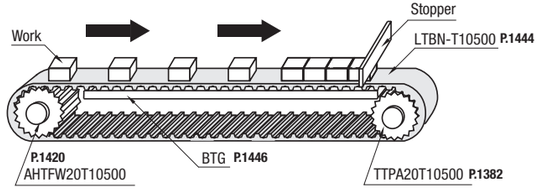
Vertical Conveyance (Conveying with light work pieces on attachments)



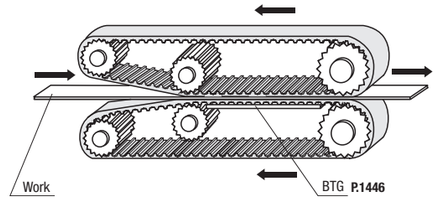
Circuit Board Conveyance (Conveying boards on two timing belts)



Accumulation Conveyance (Using the Cloth Lined type to reduce friction coefficient.)



Tractor Conveyance (Sandwiching work pieces between belts)



Linear Drive (Reciprocating motion with open end belts)