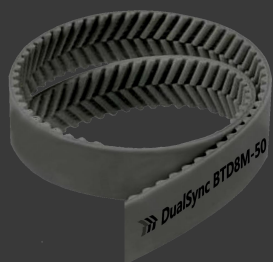




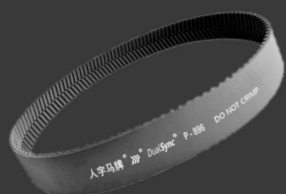
Helical Offset Tooth Pulley

Helical Offset Tooth Belt & Pulley

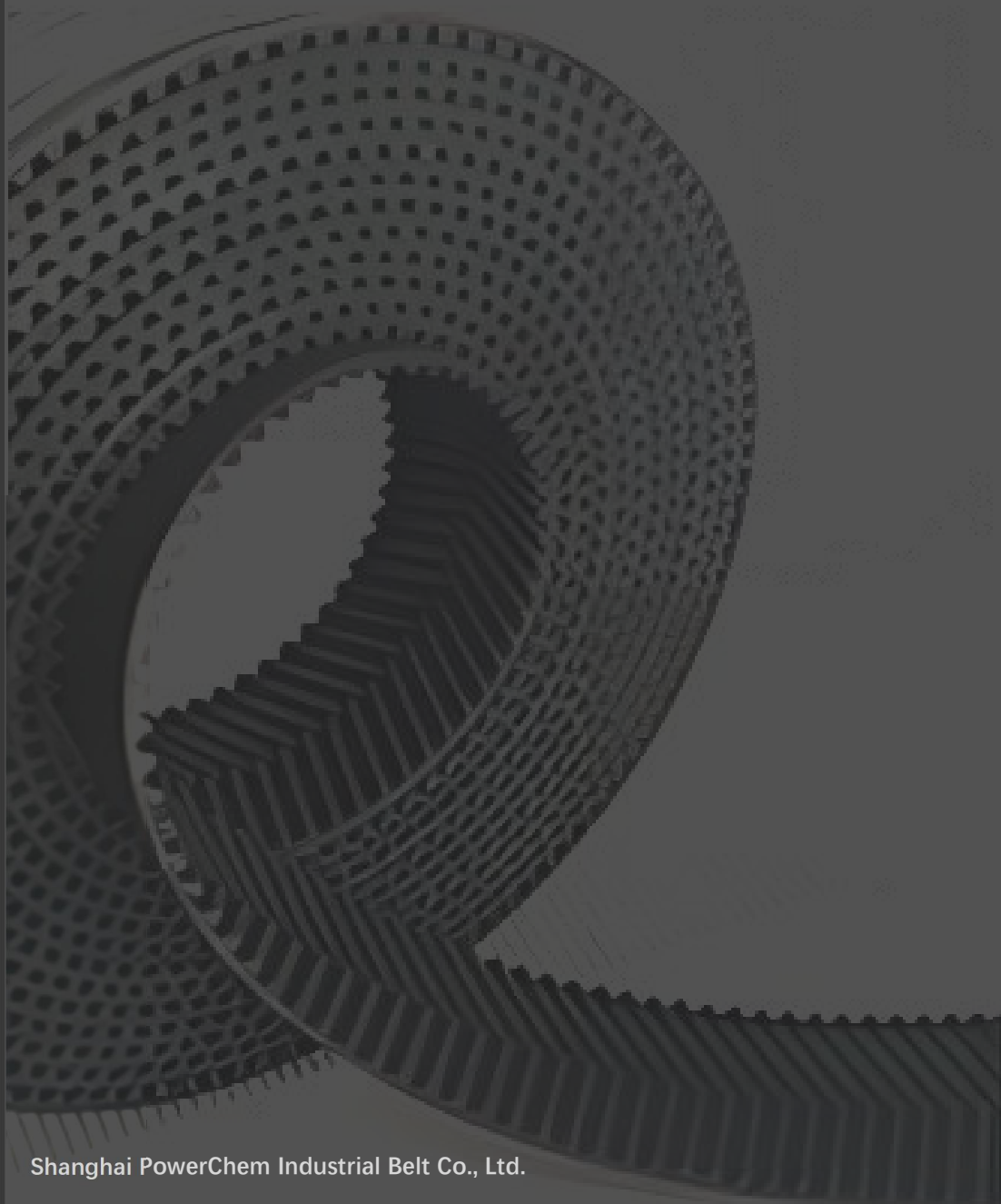
DualSync®



H.O.T. PU Timing Belt



H.O.T. Rubber Timing Belt



Shanghai PowerChem Industrial Belt Co., Ltd.

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Company

Founded in 2007, Shanghai PowerChem® Industrial Belt Co., Ltd. specializes in R&D, manufacturing and global supply of high performance polyurethane timing belts and pulleys.

Our precision engineered drive components serve cutting-edge sectors: intelligent warehousing, 3D printing, robotics, AI-powered visual inspection, solar-energy industry, semiconductor wafer handling and automated warehouse systems.

Focused on innovation and operational reliability, PowerChem® provides custom belt solutions to satisfy stringent requirements of modern automation applications.



Products

Including Open-end Belt, Welded Belt, Endless Belt, Timing Pulley



ATN

Diamond-Hole Series



BAT

Curved-Tooth Series



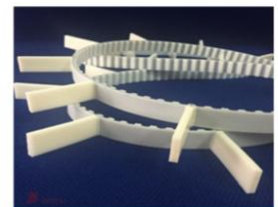
BTD

Helical Offset-Tooth Series



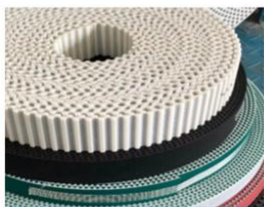
SLEEVE

PU Sleeve Belt



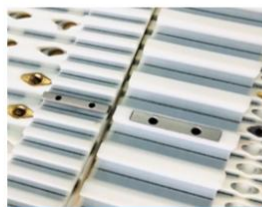
PROFILES

Cleat-Added Series



Dual Teeth

Double-Sided Tooth Series



False Teeth

False Teeth Series



SPONGE

Sponge-Laminated Series



Rubber Coat

CR Coated Series



GTR14M

Extra Power Applications

Workshop

Manufacturing Facilities



Dualsync® Timing Belts & Pulleys

Helical Offset Tooth Timing Belts & Pulleys

Dualsync® helical offset tooth (H.O.T.) timing belt drives offer low noise, minimal vibration, self-tracking performance, and maintenance-free operation. Their increased power density, combined with high-grade polyurethane and high-tensile steel cord reinforcement, enables efficient, reliable power transmission in modern automation systems.

Characteristics

- Stability » Smooth engage operation
- Alignment » Self-aligning guidance
- Silence » Up to 18dB noise reduction
- Precision » High re-position accuracy
- Torque » High output torque
- Installation » Suitable for vertical-mount
- Energy » Low energy consumption
- Vibration » Low vibration
- Heavy Load » Super strong, e.g. 14M-XHP for lifting
- Space save » No flanges, saves installation space
- Weight » Lightweight (suitable for rapid start/stop)
- High Speed » Endless belts up to 50m/s
- Maintenance » No lubrication required
- Characteristics » Resistant to most oils and greases
- Wear resistenc » Reduces friction loss
- Bidirectiona » Forward and reverse reciprocating motion
- Customize » Carbon fiber, Kevlar & Steel cord
- Tooth Fabric » Standard series with PAZ (fabric on teeth)



Dualsync® is a next-generation upgrade in power transmission drive, featuring silence, high precision, high torque, self-alignment, none-flanges, and low moment of inertia. The vertical installation capability of H.O.T. belts is unmatched by standard straight teeth.

Currently, in terms of silence, **Dualsync®** geometric curved H.O.T. series is the quietest synchronous belt product available, and it is constantly being improved (**State-of-the-art**).



H.O.T. Pulley (Alu. & Seetl)



H.O.T. PU Timing belt



EAGLE Belt

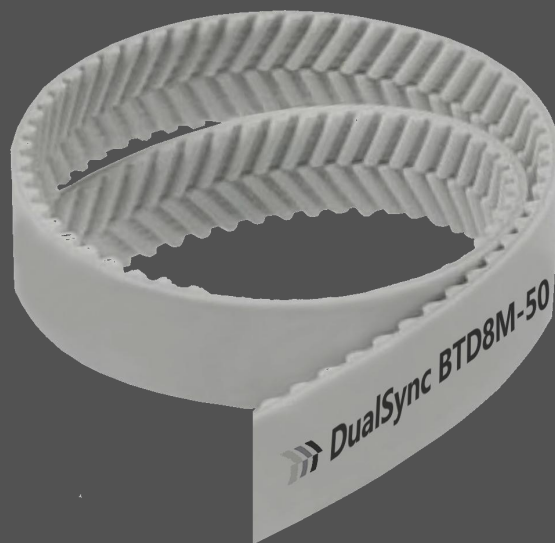
Application

- | | | | |
|-----------------------|----------------------|-----------------------|------------------------|
| · Logistics & Lifting | · Ink-jet Printing | · Textile Machinery | · Tobacco Machinery |
| · Linear Modules | · Cutting Equipment | · Packaging Machinery | · Pharmaceutical |
| · Robotic | · Food & Beverage | · Solar Manufacturing | · Electric Motorcycles |
| · Automatic Doors | · Battery Prod. Line | · Machine Tools | · 3C Appliance |

Open End | Welded Series

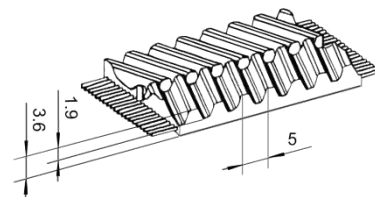
Helical Offset Tooth Polyurethane Timing Belt

BTD 5M-8M-10M-14M



BTD5M DualSync® PU Open End | Welded Timing Belt

- Profile BTD (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 5mm
- Helical offset tooth (Self-tracking design | new generation product)
- Steel cord and black color with black fiber on teeth as standard type. Kevlar cord and white color are available on request.
- Low noise. Quieter than any other straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation



Mechanical Properties

Width (Code) b [mm]	Allowable Tensile Load (Open) [N]	Allowable Tensile Load (Welded) [N]	Breaking Strength (Open) [N]	Weight [kg/100m]
12.5	1130	565	4200	6.2
15	1560	780	5520	7.5
20	1920	960	7000	10.2
25	2500	1250	9280	12.5

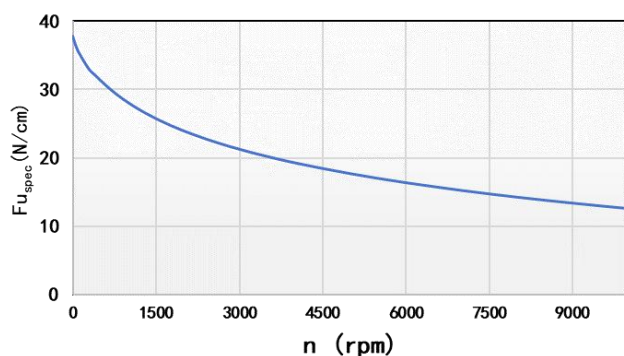
Belt Tolerance

Width: ± 0.5 mm
Length: ± 0.5 mm/m
Thickness: ± 0.2 mm

Flexibility & Minimum Pulley Diameters

Application type		Timing pulley Flat idler pulley	Steel cord
	Non-reverse bending	Pulley teeth Z_{min}	16
		Flat idler on belt teeth d_{min} [mm]	30
	Reverse bending	Pulley teeth Z_{min}	25
		Flat idler on belt back d_{min} [mm]	60

Tooth Shear Strength / rpm



Tooth shear strength $F_{u_{spec}}$

rpm	0	20	40	60	80	100	200	300	400	500
$F_{u_{spec}}$ (N/cm)	37.8	37.3	36.8	36.3	35.9	35.5	34.1	32.9	32.1	31.3
rpm	1000	1500	2000	3000	4000	5000	6000	7000	8000	9000
$F_{u_{spec}}$ (N/cm)	28.1	25.7	23.9	21.2	19.2	17.6	16.3	15.2	14.2	13.3

BELT TENSILE FORCE CALCULATION:

$$F_u = F_{uspez} \cdot Z_e \cdot b$$

Where:

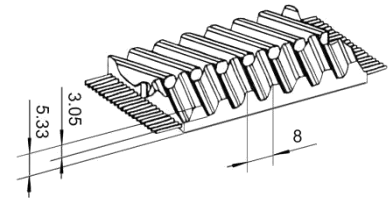
- F_u [N]: Peripheral force (Effective tension)
- F_{uspez} [N/cm]: Specific tooth load (Max. load per cm width per tooth)
- Z_e : Number of teeth in mesh on the smaller
- Z_{emax} : Maximum number of teeth in mesh considered for calculation:
 - 6 for DualSync® welded belt
 - 12 for DualSync® Open-end belt
- b [cm]: Belt width

Note: The specific load value (F_{uspez}) depends on the drive RPM.

- Operating Temperature: -20°C to $+80^{\circ}\text{C}$ (up to 110°C for short-term)
- Nylon fiber coating on teeth as standard series
- PU hardness Shore A 92

BTD8M DualSync® PU Open End | Welded Timing Belt

- Profile BTD (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 8mm
- Helical offset tooth (Self-tracking design | new generation product)
- Steel cord and black color with black fiber on teeth as standard type. Kevlar cord and white color are available on request.
- Low noise. Quieter than any other straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation



Mechanical Properties

Width (Code) b [mm]	Allowable Tensile Load (Open) [N]	Allowable Tensile Load (Welded) [N]	Breaking Strength (Open) [N]	Weight [kg/100m]
16 (Y)	2450	1225	9500	8.6
25 (M)	4170	2085	16150	15
32 (W)	5390	2695	20900	18
50 (L)	8580	4290	33250	30
64 (P)	11850	5925	42840	37

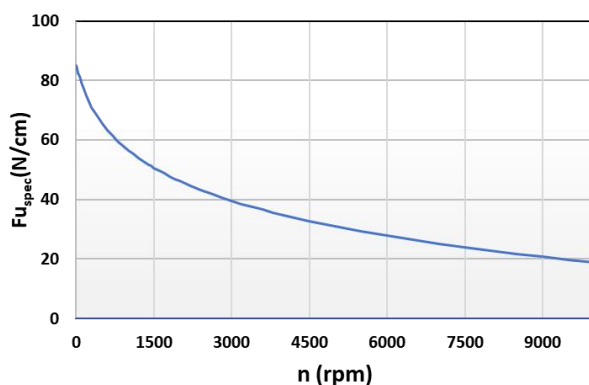
Belt Tolerance

Width : ± 0.8 mm
 Length: ± 0.8 mm/m
 Thickness: ± 0.3 mm

Flexibility & Minimum Pulley Diameters

Application type		Timing pulley Flat idler pulley	Steel cord	Kevlar cord
	Non-reverse bending	Pulley teeth Z_{min}	20	20
		Flat idler on belt teeth d_{min} [mm]	50	50
	Reverse bending	Pulley teeth Z_{min}	30	30
		Flat idler on belt back d_{min} [mm]	120	120

Tooth Shear Strength / rpm



Tooth shear strength F_{u_spec}

rpm	0	20	40	60	80	100	200	300	400	500
F_{u_spec} (N/cm)	85	83.78	82.62	81.49	80.42	79.38	74.78	71.01	67.93	65.52
rpm	1000	1500	2000	3000	4000	5000	6000	7000	8000	9000
F_{u_spec} (N/cm)	56.58	50.61	46.14	39.56	34.75	30.94	27.79	25.11	22.77	20.69

BELT TENSILE FORCE CALCULATION:

$$F_u = F_{u_spec} \cdot Z_e \cdot b$$

Where:

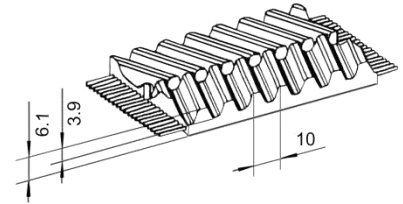
- F_u [N]: Peripheral force (Effective tension)
- F_{u_spec} [N/cm]: Specific tooth load (Max. load per cm width per tooth)
- Z_e : Number of teeth in mesh on the smaller pulley
- Z_{max} : Maximum number of teeth in mesh for calculation:
 - 6 for DualSync® welded belt
 - 12 for DualSync® Open-end belt
- b [cm]: Belt width

Note: The specific load value (F_{u_spec}) depends on the drive RPM.

- Operating Temperature: -20°C to $+80^{\circ}\text{C}$ (up to 110°C for short-term)
- Nylon fiber coating on teeth as standard series
- PU hardness Shore A 92

BTD10M DualSync® PU Open End | Welded Timing Belt

- Profile BTD (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 10mm
- Helical offset tooth (Self-tracking design | new generation product)
- Steel cord and black color with black fiber on teeth as standard type. Kevlar cord and white color are available on request.
- Low noise. Quieter than any other straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation



Mechanical Properties

Width (Code) b [mm]	Allowable Tensile Load (Open) [N]	Allowable Tensile Load (Welded) [N]	Breaking Strength (Open) [N]	Weight [kg/100m]
25	6700	3350	24500	19
32	8650	4325	31510	24
50	14420	7210	52400	38
75	21100	105650	77100	55

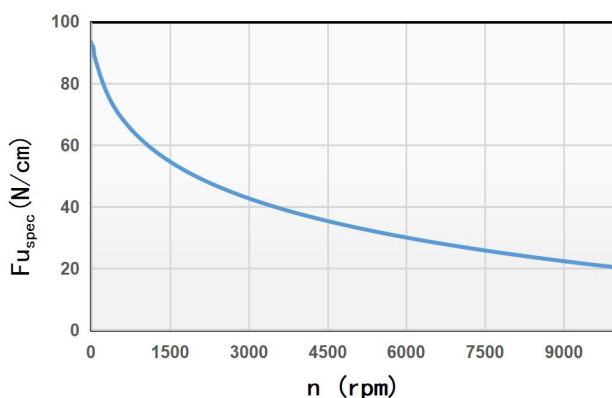
Belt Tolerance

Width : ± 0.8 mm
 Length: ± 0.8 mm/m
 Thickness: ± 0.3 mm

Flexibility & Minimum Pulley Diameters

Application type		Timing pulley Flat idler pulley	Steel cord
	Non-reverse bending	Pulley teeth Z_{min}	25
		Flat idler on belt teeth d_{min} [mm]	80
	Reverse bending	Pulley teeth Z_{min}	25
		Flat idler on belt back d_{min} [mm]	150

Tooth Shear Strength / rpm



Tooth shear strength F_{uspec}

rpm	0	20	40	60	80	100	200	300	400	500
F_{uspec} (N/cm)	93.5	92.03	92.03	89.28	88	86.77	81.36	77.02	73.54	70.76
rpm	1000	1500	2000	3000	4000	5000	6000	7000	8000	9000
F_{uspec} (N/cm)	61.11	54.66	49.83	42.73	37.53	33.42	27.12	27.12	24.59	22.34

BELT TENSILE FORCE CALCULATION:

$$F_u = F_{uspez} \cdot Z_e \cdot b$$

Where:

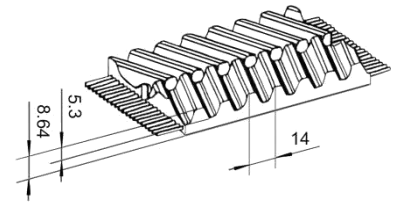
- F_u [N]: Peripheral force (Effective tension)
- F_{uspez} [N/cm]: Specific tooth load (Max. load per cm width per tooth)
- Z_e : Number of teeth in mesh on the smaller pulley
- Z_{emax} : Maximum number of teeth in mesh for calculation:
 - 6 for DualSync® welded belt
 - 12 for DualSync® Open-end belt
- b [cm]: Belt width

Note: The specific load value (F_{uspez}) depends on the drive RPM.

- Operating Temperature: -20°C to $+80^{\circ}\text{C}$ (up to 110°C for short-term)
- Nylon fiber coating on teeth as standard series
- PU hardness Shore A 92

BTD14M DualSync® PU Open End | Welded Timing Belt

- Profile BTD (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 14mm
- Helical offset tooth (Self-tracking design | new generation product)
- Steel cord and black color with black fiber on teeth as standard type. Kevlar cord and white color are available on request.
- Low noise. Quieter than any other straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation



Mechanical Properties

Width (Code) b [mm]	Allowable Tensile Load (Open) [N]	Allowable Tensile Load (Welded) [N]	Breaking Strength (Open) [N]	Weight [kg/100m]
35 (B)	11500	5750	42000	41
52.5 (G)	17500	8750	64500	60
70 (O)	23000	11500	86500	82
105 (R)	35000	17500	132000	122

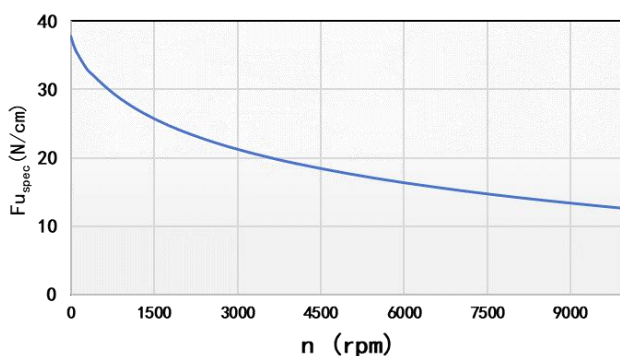
Belt Tolerance

Width: ± 1.2 mm
 Length: ± 0.8 mm/m
 Thickness: ± 0.5 mm

Flexibility & Minimum Pulley Diameters

Application type		Timing pulley Flat idler pulley	Galvanized Steel cord
	Non-reverse bending	Pulley teeth Z_{min}	32
		Flat idler on belt teeth d_{min} [mm]	140
	Reverse bending	Pulley teeth Z_{min}	32
		Flat idler on belt back d_{min} [mm]	200

Tooth Shear Strength / rpm



Tooth shear strength $F_{u_{spec}}$

rpm	0	20	50	100	200	300	400	500	600	700
$F_{u_{spec}}$ (N/cm)	160	157	153	147	138	130	123	117	112	107
rpm	800	900	1000	1500	2000	2500	3000	3500	4000	-
$F_{u_{spec}}$ (N/cm)	103	100	96	82	72	64	57	51	46	-

BELT TENSILE FORCE CALCULATION:

$$F_u = F_{uspez} \cdot Z_e \cdot b$$

Where:

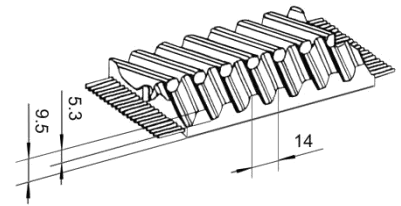
- F_u [N]: Peripheral force (Effective tension)
- F_{uspez} [N/cm]: Specific tooth load (Max. load per cm width per tooth)
- Z_e : Number of teeth in mesh on the smaller
- Z_{emax} : Maximum number of teeth in mesh considered for calculation:
 - 6 for DualSync® welded belt
 - 12 for DualSync® Open-end belt
- b [cm]: Belt width

Note: The specific load value (F_{uspez}) depends on the drive RPM.

- Operating Temperature: -20°C to $+80^{\circ}\text{C}$ (up to 110°C for short-term)
- Nylon fiber coating on teeth as standard series
- PU hardness Shore A 92

BTD14M-XHP DualSync® PU Open End

- Profile BTD-XHP (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 14mm
- Helical offset tooth (Self-tracking design | new generation product)
- Steel cord and black color with black fiber on teeth as standard type. Kevlar cord and white color are available on request.
- Low noise. Quieter than any other straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation



Mechanical Properties

Width b [mm]	Allowable Tensile Load (Open) [N]	Breaking Strength (Open) [N]	Weight [kg/100m]
35	16000	56000	50
52.5	28000	98000	70

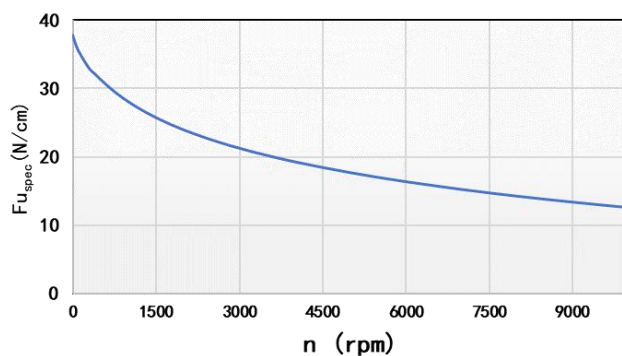
Belt Tolerance

Width: ± 1.2 mm
Length: ± 1.0 mm/m
Thickness: ± 0.5 mm

Flexibility & Minimum Pulley Diameters

Application type		Timing pulley Flat idler pulley	Galvanized Steel cord
	Non-reverse bending	Pulley teeth Z_{min}	34
		Flat idler on belt teeth d_{min} [mm]	140
	Reverse bending	Pulley teeth Z_{min}	34
		Flat idler on belt back d_{min} [mm]	200

Tooth Shear Strength / rpm



Tooth shear strength $F_{u_{spec}}$

rpm	0	20	50	100	200	300	400	500	600	700
$F_{u_{spec}}$ (N/cm)	160	157	153	147	138	130	123	117	112	107
rpm	800	900	1000	1500	2000	2500	3000	3500	4000	-
$F_{u_{spec}}$ (N/cm)	103	100	96	82	72	64	57	51	46	-

BELT TENSILE FORCE CALCULATION:

$$F_u = F_{uspez} \cdot Z_e \cdot b$$

Where:

- F_u [N]: Peripheral force (Effective tension)
- F_{uspez} [N/cm]: Specific tooth load (Max. load per cm width per tooth)
- Z_e : Number of teeth in mesh on the smaller
- Z_{emax} : Maximum number of teeth in mesh considered for calculation:
 - 6 for DualSync® welded belt
 - 12 for DualSync® Open-end belt
- b [cm]: Belt width

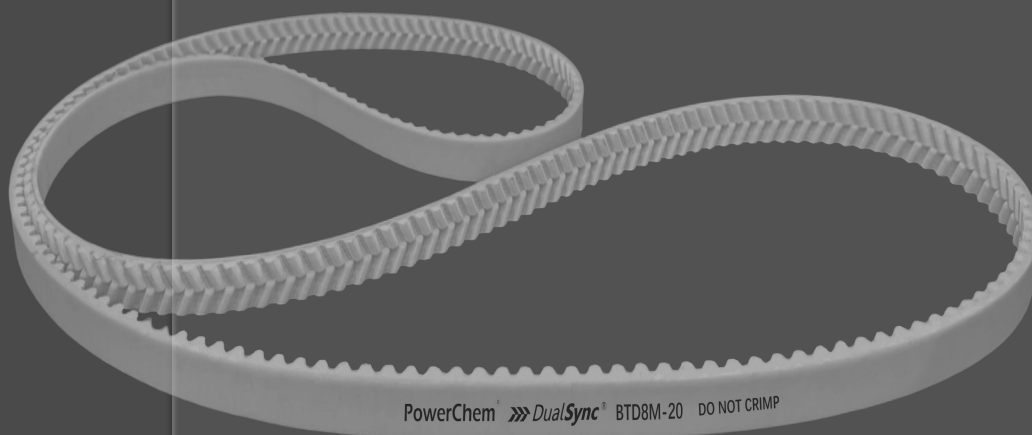
Note: The specific load value (F_{uspez}) depends on the drive RPM.

- Operating Temperature: -20°C to $+80^{\circ}\text{C}$ (up to 110°C for short-term)
- Nylon fiber coating on teeth as standard series
- PU hardness Shore A 92

Endless PU-flex

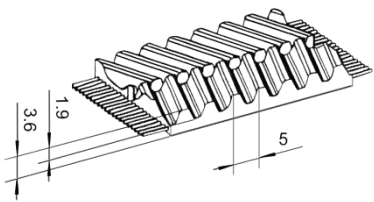
Helical Offset Tooth Polyurethane Timing Belt

BTD 5M-8M-14M



BTD5M-flex DualSync® PU Endless Timing Belt

- Profile BTD (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 5mm
- Helical offset tooth (Self-tracking design | new generation product)
- Steel cord and black color with black fiber on teeth as standard type. Kevlar cord and white color are available on request.
- Low noise. Quieter than any other straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation
- Length: 1200-5000mm



Mechanical Properties

Width b [mm]	Allowable Tensile Load [N]	Breaking Strength [N]	Weight [kg/m]
12.5	1145	4200	0.062
15	1560	5520	0.075
20	1920	7000	0.102
25	2500	9280	0.125

Belt Tolerance

Width: ± 0.5 mm
Length: ± 0.5 mm/m
Thickness: ± 0.2 mm

Flexibility & Minimum Pulley Diameters

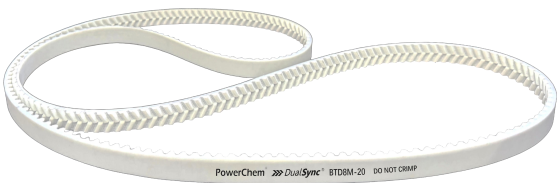
Application type		Timing pulley Flat idler pulley	Steel cord
	Non-reverse bending	Pulley teeth Z_{min}	16
		Flat idler on belt teeth d_{min} [mm]	30
	Reverse bending	Pulley teeth Z_{min}	25
		Flat idler on belt back d_{min} [mm]	60

Technical Characteristics

- Operating temperature between -20°C to +80°C (up to 110°C for short-term)
- Nylon fiber coating on teeth as standard
- Hardness Shore A 92
- Standard color is black. White color is available on request
- Galvanized carbon steel cord with S/Z twist direction
- High tensile strength; teeth deliver enhanced torque transmission
- Resistance to aging, UV and ozone; resistant to grease, weak acids and weak alkalis

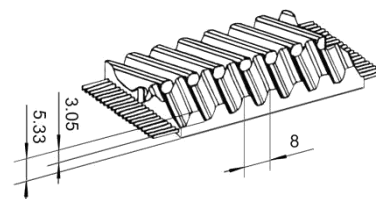
Order Code

- Type: BTD5M-25-1800-K-FLEX
- Profile BTD
- Pitch 5mm
- Width 25mm
- Length 1800mm
- Kevlar cord
- Endless belt



BTD8M-flex DualSync® PU Endless Timing Belt

- Profile BTD (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 8mm
- Helical offset tooth (Self-tracking design | new generation product)
- Steel cord and black color with black fiber on teeth as standard type. Kevlar cord and white color are available on request.
- Low noise. Quieter than any other straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation
- Length: 1600-8000mm



Mechanical Properties

Width b [mm]	Allowable Tensile Load [N]	Breaking Strength [N]	Weight [kg/m]
16	2430	9500	0.086
25	4030	16150	0.150
32	5100	20900	0.185
50	8060	33250	0.310
64	11850	42840	0.370

Belt Tolerance

Width: $\pm 0.8\text{mm}$
 Length: $\pm 0.8\text{mm/m}$
 Thickness: $\pm 0.3\text{ mm}$

Flexibility & Minimum Pulley Diameters

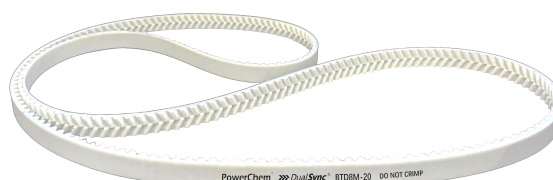
Application type		Timing pulley Flat idler pulley	Steel cord	Kevlar cord
	Non-reverse bending	Pulley teeth $Z_{\min}$	20	20
		Flat idler on belt teeth $d_{\min}$ [mm]	50	50
	Reverse bending	Pulley teeth $Z_{\min}$	30	30
		Flat idler on belt back $d_{\min}$ [mm]	120	120

Technical Characteristics

- Operating temperature between -20°C to $+80^{\circ}\text{C}$ (up to 110°C for short-term)
- Nylon fiber coating on teeth as standard
- Hardness Shore A 92
- Standard color is black. White color is available on request
- Galvanized carbon steel cord with S/Z twist direction
- High tensile strength; teeth deliver enhanced torque transmission
- Resistance to aging, UV and ozone; resistant to grease, weak acids and weak alkalis

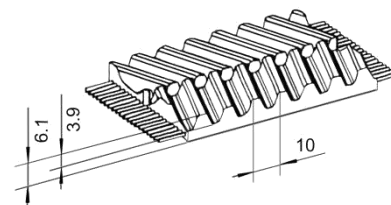
Order Code

- Type: BTD8M-32-2800-K-FLEX
- Profile BTD
- Pitch 8mm
- Width 32mm
- Length 2800mm
- Kevlar cord
- Endless belt



BTD10M-flex DualSync® PU Endless Timing Belt

- Profile BTD (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 10mm
- Helical offset tooth (Self-tracking design | new generation product)
- Steel cord and black color with black fiber on teeth as standard type. Kevlar cord and white color are available on request.
- Low noise. Quieter than any other straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation
- Length: 1600-8000mm



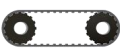
Mechanical Properties

Width b [mm]	Allowable Tensile Load [N]	Breaking Strength [N]	Weight [kg/m]
25	6700	24500	0.19
32	8650	31510	0.24
50	14420	52400	0.38
75	21100	77100	0.55

Belt Tolerance

Width: $\pm 0.8\text{mm}$
 Length: $\pm 0.8\text{mm/m}$
 Thickness: $\pm 0.3\text{ mm}$

Flexibility & Minimum Pulley Diameters

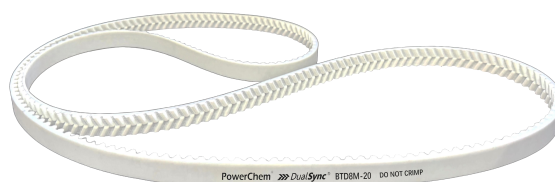
Application type		Timing pulley Flat idler pulley	Steel cord
	Non-reverse bending	Pulley teeth $Z_{\min}$	25
		Flat idler on belt teeth $d_{\min}$ [mm]	80
	Reverse bending	Pulley teeth $Z_{\min}$	25
		Flat idler on belt back $d_{\min}$ [mm]	150

Technical Characteristics

- Operating temperature between -20°C to $+80^{\circ}\text{C}$ (up to 110°C for short-term)
- Nylon fiber coating on teeth as standard
- Hardness Shore A 92
- Standard color is black. White color is available on request
- Galvanized carbon steel cord with S/Z twist direction
- High tensile strength; teeth deliver enhanced torque transmission
- Resistance to aging, UV and ozone; resistant to grease, weak acids and weak alkalis

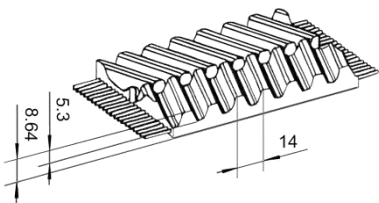
Order Code

- Type: BTD10M-50-3600-FLEX
- Profile BTD
- Pitch 10mm
- Width 50mm
- Length 3600mm
- Endless belt



BTD14M-flex DualSync® PU Endless Timing Belt

- Profile BTD (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 14mm
- Helical offset tooth (Self-tracking design | new generation product)
- Steel cord and black color with black fiber on teeth as standard type. Kevlar cord and white color are available on request.
- Low noise. Quieter than any other straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation
- Length: 1600-8000mm



Mechanical Properties

Width b [mm]	Allowable Tensile Load [N]	Breaking Strength [N]	Weight [kg/m]
35	13000	42000	0.41
52.5	18500	64500	0.60
70	26100	86500	0.82
105	39100	139000	1.20

Belt Tolerance

Width: ± 1.2mm
Length: ± 0.8mm/m
Thickness: ± 0.4 mm

Flexibility & Minimum Pulley Diameters

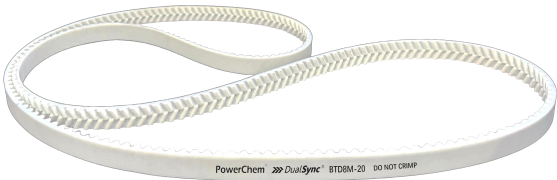
Application type		Timing pulley Flat idler pulley	Galvanized Steel cord
	Non-reverse bending	Pulley teeth Z _{min}	32
		Flat idler on belt teeth d _{min} [mm]	140
	Reverse bending	Pulley teeth Z _{min}	32
		Flat idler on belt back d _{min} [mm]	200

Technical Characteristics

- Operating temperature between -20°C to +80°C (up to 110°C for short-term)
- Nylon fiber coating on teeth as standard
- Hardness Shore A 92
- Standard color is black. White color is available on request
- Galvanized carbon steel cord with S/Z twist direction
- High tensile strength; teeth deliver enhanced torque transmission
- Resistance to aging, UV and ozone; resistant to grease, weak acids and weak alkalis

Order Code

- Type: BTD14M-52.5-1666-FLEX
- Profile BTD
- Pitch 14mm
- Width 52.5mm
- Length 1666mm
- Endless belt



EAGLE Rubber Belt

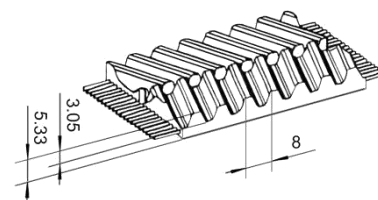
Helical Offset Tooth Rubber Timing Belt

BTD 8M-14M-MBR



BTD8M-MBR DualSync® EAGLE Rubber Timing Belt

- Profile BTD (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 8mm
- Helical offset tooth (Self-tracking design | new generation product)
- **Carbon Fiber** as standard type. Kevlar cord is available on request.
- Low noise. Quieter than any straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation



EAGLE Rubber H.O.T. BTD8M

Code	Type	Profile	Width [mm]	Length [mm]
Y-640	B8M-16-640	8M	16	640
Y-720	B8M-16-720	8M	16	720
Y-800	B8M-16-800	8M	16	800
Y-896	B8M-16-896	8M	16	896
Y-1000	B8M-16-1000	8M	16	1000
Y-1120	B8M-16-1120	8M	16	1120
Y-1200	B8M-16-1200	8M	16	1200
Y-1280	B8M-16-1280	8M	16	1280
Y-1440	B8M-16-1400	8M	16	1440
Y-1600	B8M-16-1600	8M	16	1600
Y-1792	B8M-16-1792	8M	16	1792
Y-2000	B8M-16-2000	8M	16	2000
Y-2240	B8M-16-2240	8M	16	2240
Y-2400	B8M-16-2400	8M	16	2400
W-640	B8M-32-640	8M	32	640
W-720	B8M-32-720	8M	32	720
W-800	B8M-32-800	8M	32	800
W-896	B8M-32-896	8M	32	896
W-1000	B8M-32-1000	8M	32	1000
W-1120	B8M-32-1120	8M	32	1120
W-1200	B8M-32-1200	8M	32	1200
W-1280	B8M-32-1280	8M	32	1280
W-1440	B8M-32-1400	8M	32	1440
W-1600	B8M-32-1600	8M	32	1600
W-1792	B8M-32-1792	8M	32	1792
W-2000	B8M-32-2000	8M	32	2000
W-2240	B8M-32-2240	8M	32	2240
W-2400	B8M-32-2400	8M	32	2400
P-896	B8M-64-896	8M	64	896
P-1000	B8M-64-1000	8M	64	1000
P-1120	B8M-64-1120	8M	64	1120
P-1200	B8M-64-1200	8M	64	1200

Belt Tolerance

Width: $\pm 0.8\text{mm}$
Length: $\pm 0.8\text{mm/m}$
Thickness: $\pm 0.3\text{ mm}$

Code Description

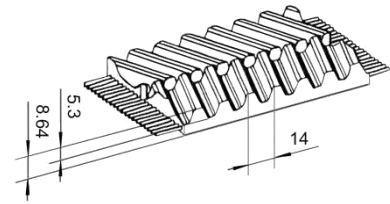
Y : 16 mm
W : 32 mm
P : 64 mm



Note: Any other lengths of H.O.T. EAGLE belts can be made upon request. Please contact us at songming@silentbelt.com

BTD14M-MBR DualSync® EAGLE Rubber Timing Belt

- Profile BTD (Helical Offset Tooth Structure | Bi-directional Torque Drive)
- Pitch 14mm
- Helical offset tooth (Self-tracking design | new generation product)
- **Carbon Fiber** as standard type. Kevlar cord is available on request.
- Low noise. Quieter than any straight teeth timing belt.
- Precise positioning, smooth operation, high torque output, low inertia, especially suitable for vertical installation

**EAGLE Rubber H.O.T. BTD14M**

Code	Type	Profile	Width [mm]	Length [mm]
B-1750	B14M-35-1750	14M	35	1750
B-2800	B14M-35-2800	14M	35	2800
G-1750	B14M-52.5-1750	14M	52.5	1750
G-2800	B14M-52.5-2800	14M	52.5	2800

Note: Mold range is continuously updated. Any other lengths of H.O.T. EAGLE belts can be made upon request. Please contact us at songming@silentbelt.com

Belt Tolerance

Width: $\pm 1.2\text{mm}$
 Length: $\pm 0.8\text{mm/m}$
 Thickness: $\pm 0.4\text{ mm}$

Code Description

B : 35 mm
 G : 52.5 mm



Helical Offset Tooth Pulleys

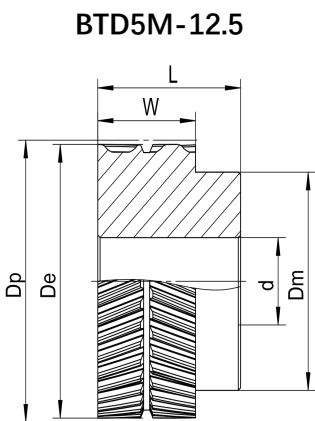
Helical Offset Tooth Timing Pulley

BTD 5M-8M-10M-14M





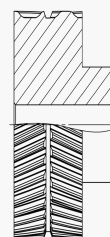
Helical Offset Tooth Pulleys



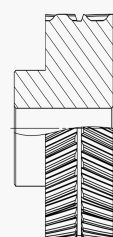
BTD5M-12.5 Belt width:12.5mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD5M-12.5-16Z	16	25.47	24.51	19	6	13.5	19.5	ALU/ Steel
BTD5M-12.5-17Z	17	27.06	26.10	20	6	13.5	19.5	
BTD5M-12.5-18Z	18	28.65	27.69	22	6	13.5	19.5	
BTD5M-12.5-19Z	19	30.23	29.27	24	6	13.5	21.5	
BTD5M-12.5-20Z	20	31.83	30.87	25	6	13.5	21.5	
BTD5M-12.5-21Z	21	33.42	32.46	26	6	13.5	21.5	
BTD5M-12.5-22Z	22	35.01	34.05	28	6	13.5	21.5	
BTD5M-12.5-23Z	23	36.61	35.65	30	6	13.5	21.5	
BTD5M-12.5-24Z	24	38.19	37.23	32	6	13.5	21.5	
BTD5M-12.5-25Z	25	39.79	38.83	33	6	13.5	21.5	
BTD5M-12.5-26Z	26	41.38	40.42	35	6	13.5	21.5	
BTD5M-12.5-27Z	27	42.97	42.01	36	6	13.5	21.5	
BTD5M-12.5-28Z	28	44.56	43.60	38	6	13.5	21.5	
BTD5M-12.5-30Z	30	47.75	46.79	41	12	13.5	21.5	
BTD5M-12.5-32Z	32	50.93	49.97	44	12	13.5	21.5	
BTD5M-12.5-36Z	36	57.30	56.34	51	12	13.5	21.5	
BTD5M-12.5-40Z	40	63.66	62.70	57	12	13.5	24.5	
BTD5M-12.5-44Z	44	70.03	69.07	63	12	13.5	24.5	
BTD5M-12.5-46Z	46	73.21	72.25	65	12	13.5	24.5	
BTD5M-12.5-48Z	48	76.39	75.43	70	12	13.5	24.5	
BTD5M-12.5-50Z	50	79.58	78.62	72	12	13.5	24.5	
BTD5M-12.5-60Z	60	95.49	94.53	89	12	13.5	24.5	
BTD5M-12.5-66Z	66	105.04	104.08	92	12	13.5	24.5	
BTD5M-12.5-72Z	72	114.59	113.63	95	20	13.5	24.5	
BTD5M-12.5-78Z	78	124.14	123.18	102	20	13.5	24.5	
BTD5M-12.5-92Z	92	146.42	145.46	102	20	13.5	24.5	

Important:

Customers must specify the hub projection orientation (left-hand or right-hand) when submitting an order.



Right-hand direction

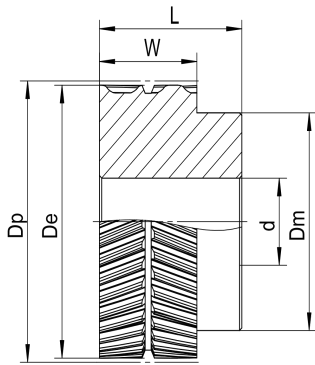


Left-hand direction



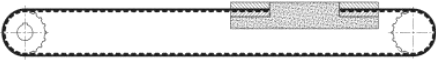
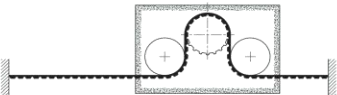
Helical Offset Tooth Pulleys

BTD5M-15



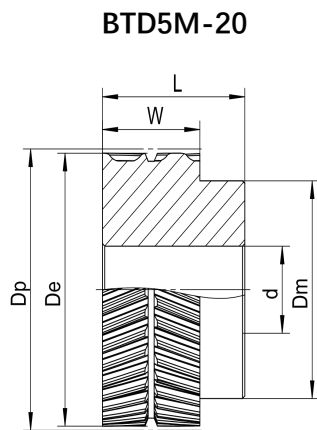
BTD5M-15 Belt width:15mm [mm]								Mat'l
Type	Teeth	Dp	De	Dm	d	W	L	
BTD5M-15-16Z	16	25.47	24.51	19	6	16	22	ALU/ Steel
BTD5M-15-17Z	17	27.06	26.10	20	6	16	22	
BTD5M-15-18Z	18	28.65	27.69	22	6	16	22	
BTD5M-15-19Z	19	30.23	29.27	24	6	16	24	
BTD5M-15-20Z	20	31.83	30.87	25	6	16	24	
BTD5M-15-21Z	21	33.42	32.46	26	6	16	24	
BTD5M-15-22Z	22	35.01	34.05	28	6	16	24	
BTD5M-15-23Z	23	36.61	35.65	30	6	16	24	
BTD5M-15-24Z	24	38.19	37.23	32	6	16	24	
BTD5M-15-25Z	25	39.79	38.83	33	6	16	24	
BTD5M-15-26Z	26	41.38	40.42	35	6	16	24	
BTD5M-15-27Z	27	42.97	42.01	36	6	16	24	
BTD5M-15-28Z	28	44.56	43.60	38	6	16	24	
BTD5M-15-30Z	30	47.75	46.79	41	12	16	24	
BTD5M-15-32Z	32	50.93	49.97	44	12	16	24	
BTD5M-15-36Z	36	57.30	56.34	51	12	16	24	
BTD5M-15-40Z	40	63.66	62.70	57	12	16	27	
BTD5M-15-44Z	44	70.03	69.07	63	12	16	27	
BTD5M-15-46Z	46	73.21	72.25	65	12	16	27	
BTD5M-15-48Z	48	76.39	75.43	70	12	16	27	
BTD5M-15-50Z	50	79.58	78.62	72	12	16	27	
BTD5M-15-60Z	60	95.49	94.53	89	12	16	27	
BTD5M-15-66Z	66	105.04	104.08	92	12	16	27	
BTD5M-15-72Z	72	114.59	113.63	95	20	16	27	
BTD5M-15-78Z	78	124.14	123.18	102	20	16	27	
BTD5M-15-92Z	92	146.42	145.46	102	20	16	27	

Flexibility

Minimum Pulley Diameters		Steel cord
Non-reverse bending 	Pulley teeth Z_{min}	16
	Flat idler on belt teeth d_{min} [mm]	30
Reverse bending 	Pulley teeth Z_{min}	25
	Flat idler on belt back d_{min} [mm]	60



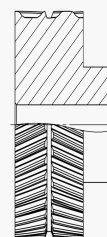
Helical Offset Tooth Pulleys



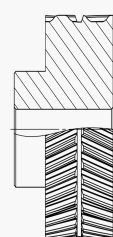
BTD5M-20 Belt width:20mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD5M-20-16Z	16	25.47	24.51	19	6	21	27	ALU/ Steel
BTD5M-20-17Z	17	27.06	26.10	20	6	21	27	
BTD5M-20-18Z	18	28.65	27.69	22	6	21	27	
BTD5M-20-19Z	19	30.23	29.27	24	6	21	29	
BTD5M-20-20Z	20	31.83	30.87	25	6	21	29	
BTD5M-20-21Z	21	33.42	32.46	26	6	21	29	
BTD5M-20-22Z	22	35.01	34.05	28	6	21	29	
BTD5M-20-23Z	23	36.61	35.65	30	6	21	29	
BTD5M-20-24Z	24	38.19	37.23	32	6	21	29	
BTD5M-20-25Z	25	39.79	38.83	33	6	21	29	
BTD5M-20-26Z	26	41.38	40.42	35	6	21	29	
BTD5M-20-27Z	27	42.97	42.01	36	6	21	29	
BTD5M-20-28Z	28	44.56	43.60	38	6	21	29	
BTD5M-20-30Z	30	47.75	46.79	41	12	21	29	
BTD5M-20-32Z	32	50.93	49.97	44	12	21	29	
BTD5M-20-36Z	36	57.30	56.34	51	12	21	29	
BTD5M-20-40Z	40	63.66	62.70	57	12	21	32	
BTD5M-20-44Z	44	70.03	69.07	63	12	21	32	
BTD5M-20-46Z	46	73.21	72.25	65	12	21	32	
BTD5M-20-48Z	48	76.39	75.43	70	12	21	32	
BTD5M-20-50Z	50	79.58	78.62	72	12	21	32	
BTD5M-20-60Z	60	95.49	94.53	89	12	21	32	
BTD5M-20-66Z	66	105.04	104.08	92	12	21	32	
BTD5M-20-72Z	72	114.59	113.63	95	20	21	32	
BTD5M-20-78Z	78	124.14	123.18	102	20	21	32	
BTD5M-20-92Z	92	146.42	145.46	102	20	21	32	

Important:

Customers must specify the hub projection orientation (left-hand or right-hand) when submitting an order.



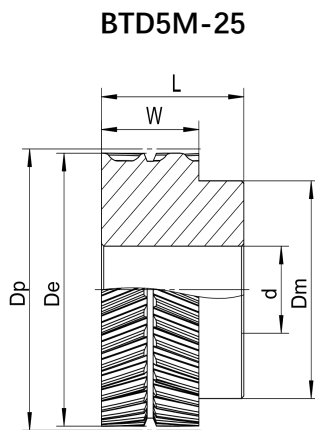
Right-hand direction



Left-hand direction

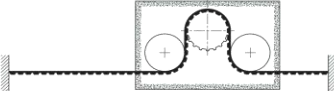


Helical Offset Tooth Pulleys



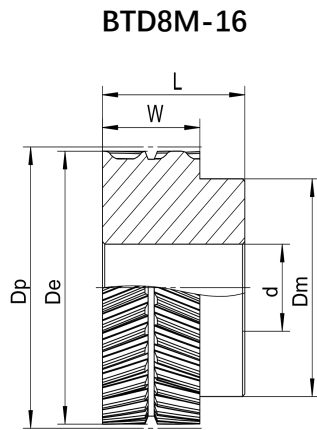
BTD5M-25 Belt width:25mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD5M-25-16Z	16	25.47	24.51	19	6	26	32	ALU/ Steel
BTD5M-25-17Z	17	27.06	26.10	20	6	26	32	
BTD5M-25-18Z	18	28.65	27.69	22	6	26	32	
BTD5M-25-19Z	19	30.23	29.27	24	6	26	34	
BTD5M-25-25Z	20	31.83	30.87	25	6	26	34	
BTD5M-25-21Z	21	33.42	32.46	26	6	26	34	
BTD5M-25-22Z	22	35.01	34.05	28	6	26	34	
BTD5M-25-23Z	23	36.61	35.65	30	6	26	34	
BTD5M-25-24Z	24	38.19	37.23	32	6	26	34	
BTD5M-25-25Z	25	39.79	38.83	33	6	26	34	
BTD5M-25-26Z	26	41.38	40.42	35	6	26	34	
BTD5M-25-27Z	27	42.97	42.01	36	6	26	34	
BTD5M-25-28Z	28	44.56	43.60	38	6	26	34	
BTD5M-25-30Z	30	47.75	46.79	41	12	26	34	
BTD5M-25-32Z	32	50.93	49.97	44	12	26	34	
BTD5M-25-36Z	36	57.30	56.34	51	12	26	34	
BTD5M-25-40Z	40	63.66	62.70	57	12	26	37	
BTD5M-25-44Z	44	70.03	69.07	63	12	26	37	
BTD5M-25-46Z	46	73.21	72.25	65	12	26	37	
BTD5M-25-48Z	48	76.39	75.43	70	12	26	37	
BTD5M-25-50Z	50	79.58	78.62	72	12	26	37	
BTD5M-25-60Z	60	95.49	94.53	89	12	26	37	
BTD5M-25-66Z	66	105.04	104.08	92	12	26	37	
BTD5M-25-72Z	72	114.59	113.63	95	20	26	37	
BTD5M-25-78Z	78	124.14	123.18	102	20	26	37	
BTD5M-25-92Z	92	146.42	145.46	102	20	26	37	

Flexibility

Minimum Pulley Diameters		Steel cord
Non-reverse bending 	Pulley teeth Z_{min}	16
	Flat idler on belt teeth d_{min} [mm]	30
Reverse bending 	Pulley teeth Z_{min}	25
	Flat idler on belt back d_{min} [mm]	60



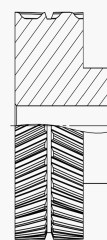
Helical Offset Tooth Pulleys



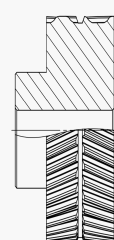
BTD8M-16 Belt width:16mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD8M-16-18Z	18	45.84	44.47	38	12	17	27	ALU/ Steel
BTD8M-16-20Z	20	50.93	49.56	41	12	17	29	
BTD8M-16-22Z	22	56.02	54.65	46	12	17	29	
BTD8M-16-24Z	24	61.12	59.74	51	12	17	33	
BTD8M-16-25Z	25	63.66	62.29	54	12	17	33	
BTD8M-16-26Z	26	66.21	64.84	58	12	17	33	
BTD8M-16-28Z	28	71.30	69.93	62	12	17	33	
BTD8M-16-30Z	30	76.39	75.02	67	12	17	33	
BTD8M-16-32Z	32	81.49	80.12	72	12	17	33	
BTD8M-16-34Z	34	86.58	85.21	77	12	17	33	
BTD8M-16-36Z	36	91.67	90.30	82	12	17	33	
BTD8M-16-38Z	38	96.77	95.39	87	12	17	33	
BTD8M-16-40Z	40	101.86	100.49	92	12	17	33	
BTD8M-16-44Z	44	112.05	110.67	102	12	17	33	
BTD8M-16-45Z	45	114.59	113.22	105	12	17	33	
BTD8M-16-48Z	48	122.23	120.86	112	12	17	33	
BTD8M-16-50Z	50	127.32	125.95	118	12	17	33	
BTD8M-16-52Z	52	132.42	131.05	123	12	17	33	
BTD8M-16-56Z	56	142.60	141.23	133	12	17	33	
BTD8M-16-60Z	60	152.79	151.42	143	12	17	33	
BTD8M-16-63Z	63	160.43	159.06	110	12	17	33	
BTD8M-16-64Z	64	162.98	161.60	110	12	17	33	
BTD8M-16-68Z	68	173.16	171.79	110	12	17	33	
BTD8M-16-72Z	72	183.35	181.97	110	20	17	33	
BTD8M-16-75Z	75	190.99	189.61	110	20	17	33	
BTD8M-16-76Z	76	193.53	192.16	110	20	17	33	

Important:

Customers must specify the hub projection orientation (left-hand or right-hand) when submitting an order.



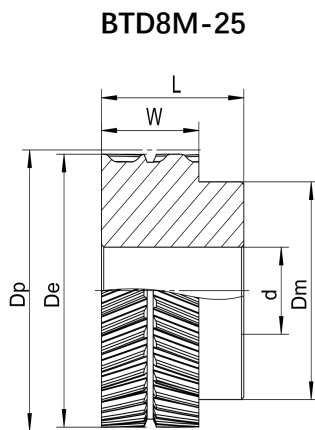
Right-hand direction



Left-hand direction



Helical Offset Tooth Pulleys



BTD8M-25 Belt width:25mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD8M-25-18Z	18	45.84	44.47	38	12	26	38	ALU/ Steel
BTD8M-25-20Z	20	50.93	49.56	41	12	26	38	
BTD8M-25-22Z	22	56.02	54.65	46	12	26	38	
BTD8M-25-24Z	24	61.12	59.74	51	12	26	42	
BTD8M-25-25Z	25	63.66	62.29	54	12	26	42	
BTD8M-25-26Z	26	66.21	64.84	58	12	26	42	
BTD8M-25-28Z	28	71.30	69.93	62	12	26	42	
BTD8M-25-30Z	30	76.39	75.02	67	12	26	42	
BTD8M-25-32Z	32	81.49	80.12	72	12	26	42	
BTD8M-25-34Z	34	86.58	85.21	77	12	26	42	
BTD8M-25-36Z	36	91.67	90.30	82	12	26	42	
BTD8M-25-38Z	38	96.77	95.39	87	12	26	42	
BTD8M-25-40Z	40	101.86	100.49	92	12	26	42	
BTD8M-25-44Z	44	112.05	110.67	102	12	26	42	
BTD8M-25-45Z	45	114.59	113.22	105	12	26	42	
BTD8M-25-48Z	48	122.23	120.86	112	12	26	42	
BTD8M-25-50Z	50	127.32	125.95	118	12	26	42	
BTD8M-25-52Z	52	132.42	131.05	123	12	26	42	
BTD8M-25-56Z	56	142.60	141.23	133	12	26	42	
BTD8M-25-60Z	60	152.79	151.42	143	12	26	42	
BTD8M-25-63Z	63	160.43	159.06	110	12	26	42	
BTD8M-25-64Z	64	162.98	161.60	110	12	26	42	
BTD8M-25-68Z	68	173.16	171.79	110	12	26	42	
BTD8M-25-72Z	72	183.35	181.97	110	20	26	42	
BTD8M-25-75Z	75	190.99	189.61	110	20	26	42	
BTD8M-25-76Z	76	193.53	192.16	110	20	26	42	
BTD8M-25-80Z	80	203.72	202.35	110	20	26	42	

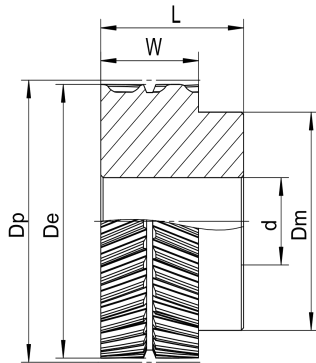
Flexibility

Minimum Pulley Diameters		Steel Cord	Kevlar Fiber	HP Cord
Non-reverse bending 	Pulley teeth Z_{min}	20	20	30
	Flat idler on belt teeth d_{min} [mm]	50	50	80
Reverse bending 	Pulley teeth Z_{min}	30	30	30
	Flat idler on belt back d_{min} [mm]	120	120	150



Helical Offset Tooth Pulleys

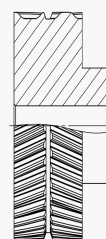
BTD8M-32



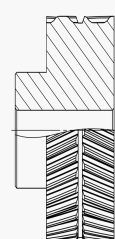
BTD8M-32 Belt width:32mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD8M-32-18Z	18	45.84	44.47	38	12	33	43	ALU/ Steel
BTD8M-32-20Z	20	50.93	49.56	41	12	33	45	
BTD8M-32-22Z	22	56.02	54.65	46	12	33	45	
BTD8M-32-24Z	24	61.12	59.74	51	12	33	49	
BTD8M-32-25Z	25	63.66	62.29	54	12	33	49	
BTD8M-32-26Z	26	66.21	64.84	58	12	33	49	
BTD8M-32-28Z	28	71.30	69.93	62	12	33	49	
BTD8M-32-30Z	30	76.39	75.02	67	12	33	49	
BTD8M-32-32Z	32	81.49	80.12	72	12	33	49	
BTD8M-32-34Z	34	86.58	85.21	77	12	33	49	
BTD8M-32-36Z	36	91.67	90.30	82	12	33	49	
BTD8M-32-38Z	38	96.77	95.39	87	12	33	49	
BTD8M-32-40Z	40	101.86	100.49	92	12	33	49	
BTD8M-32-44Z	44	112.05	110.67	102	12	33	49	
BTD8M-32-45Z	45	114.59	113.22	105	12	33	49	
BTD8M-32-48Z	48	122.23	120.86	112	12	33	49	
BTD8M-32-50Z	50	127.32	125.95	118	12	33	49	
BTD8M-32-52Z	52	132.42	131.05	123	12	33	49	
BTD8M-32-56Z	56	142.60	141.23	133	12	33	49	
BTD8M-32-60Z	60	152.79	151.42	143	12	33	49	
BTD8M-32-63Z	63	160.43	159.06	110	12	33	49	
BTD8M-32-64Z	64	162.98	161.60	110	12	33	49	
BTD8M-32-68Z	68	173.16	171.79	110	12	33	49	
BTD8M-32-72Z	72	183.35	181.97	110	20	33	49	
BTD8M-32-75Z	75	190.99	189.61	110	20	33	49	
BTD8M-32-76Z	76	193.53	192.16	110	20	33	49	

Important:

Customers must specify the hub projection orientation (left-hand or right-hand) when submitting an order.



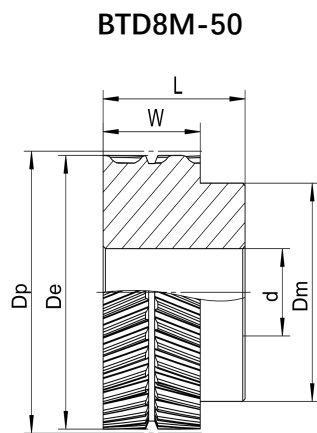
Right-hand direction



Left-hand direction



Helical Offset Tooth Pulleys



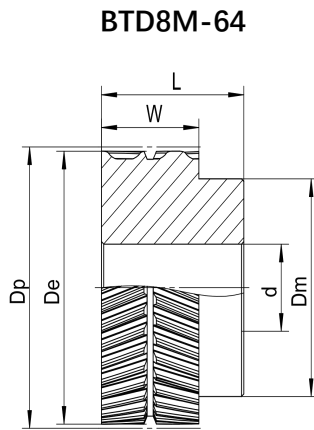
BTD8M-50 Belt width:50mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD8M-50-18Z	18	45.84	44.47	38	12	51	63	ALU/ Steel
BTD8M-50-20Z	20	50.93	49.56	41	12	51	63	
BTD8M-50-22Z	22	56.02	54.65	46	12	51	63	
BTD8M-50-24Z	24	61.12	59.74	51	12	51	67	
BTD8M-50-25Z	25	63.66	62.29	54	12	51	67	
BTD8M-50-26Z	26	66.21	64.84	58	12	51	67	
BTD8M-50-28Z	28	71.30	69.93	62	12	51	67	
BTD8M-50-30Z	30	76.39	75.02	67	12	51	67	
BTD8M-50-32Z	32	81.49	80.12	72	12	51	67	
BTD8M-50-34Z	34	86.58	85.21	77	12	51	67	
BTD8M-50-36Z	36	91.67	90.30	82	12	51	67	
BTD8M-50-38Z	38	96.77	95.39	87	12	51	67	
BTD8M-50-40Z	40	101.86	100.49	92	12	51	67	
BTD8M-50-44Z	44	112.05	110.67	102	12	51	67	
BTD8M-50-45Z	45	114.59	113.22	105	12	51	67	
BTD8M-50-48Z	48	122.23	120.86	112	12	51	67	
BTD8M-50-50Z	50	127.32	125.95	118	12	51	67	
BTD8M-50-52Z	52	132.42	131.05	123	12	51	67	
BTD8M-50-56Z	56	142.60	141.23	133	12	51	67	
BTD8M-50-60Z	60	152.79	151.42	143	12	51	67	
BTD8M-50-63Z	63	160.43	159.06	110	12	51	67	
BTD8M-50-64Z	64	162.98	161.60	110	12	51	67	
BTD8M-50-68Z	68	173.16	171.79	110	12	51	67	
BTD8M-50-72Z	72	183.35	181.97	110	20	51	67	
BTD8M-50-75Z	75	190.99	189.61	110	20	51	67	
BTD8M-50-76Z	76	193.53	192.16	110	20	51	67	

Flexibility

Minimum Pulley Diameters		Steel Cord	Kevlar Fiber	HP Cord
Non-reverse bending 	Pulley teeth Z_{min}	20	20	30
	Flat idler on belt teeth d_{min} [mm]	50	50	80
Reverse bending 	Pulley teeth Z_{min}	30	30	30
	Flat idler on belt back d_{min} [mm]	120	120	150



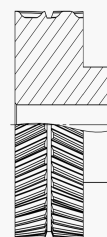
Helical Offset Tooth Pulleys



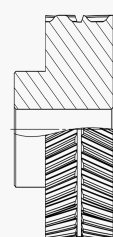
BTD8M-64 Belt width:64mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD8M-64-18Z	18	45.84	44.47	38	12	65	85	ALU/ Steel
BTD8M-64-20Z	20	50.93	49.56	41	12	65	85	
BTD8M-64-22Z	22	56.02	54.65	46	12	65	85	
BTD8M-64-24Z	24	61.12	59.74	51	12	65	85	
BTD8M-64-25Z	25	63.66	62.29	54	12	65	85	
BTD8M-64-26Z	26	66.21	64.84	58	12	65	85	
BTD8M-64-28Z	28	71.30	69.93	62	12	65	85	
BTD8M-64-30Z	30	76.39	75.02	67	12	65	85	
BTD8M-64-32Z	32	81.49	80.12	72	12	65	85	
BTD8M-64-34Z	34	86.58	85.21	77	12	65	85	
BTD8M-64-36Z	36	91.67	90.30	82	12	65	85	
BTD8M-64-38Z	38	96.77	95.39	87	12	65	85	
BTD8M-64-40Z	40	101.86	100.49	92	12	65	85	
BTD8M-64-44Z	44	112.05	110.67	102	12	65	85	
BTD8M-64-45Z	45	114.59	113.22	105	12	65	85	
BTD8M-64-48Z	48	122.23	120.86	112	25	65	85	
BTD8M-64-50Z	50	127.32	125.95	118	25	65	85	
BTD8M-64-52Z	52	132.42	131.05	123	25	65	85	
BTD8M-64-56Z	56	142.60	141.23	133	25	65	85	
BTD8M-64-60Z	60	152.79	151.42	143	25	65	85	
BTD8M-64-63Z	63	160.43	159.06	110	25	65	85	
BTD8M-64-64Z	64	162.98	161.60	110	25	65	85	
BTD8M-64-68Z	68	173.16	171.79	110	25	65	85	
BTD8M-64-72Z	72	183.35	181.97	110	25	65	85	
BTD8M-64-75Z	75	190.99	189.61	110	25	65	85	
BTD8M-64-76Z	76	193.53	192.16	110	25	65	85	

Important:

Customers must specify the hub projection orientation (left-hand or right-hand) when submitting an order.



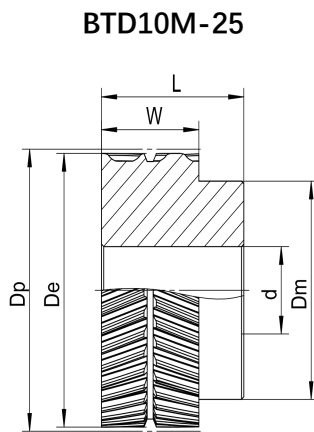
Right-hand direction



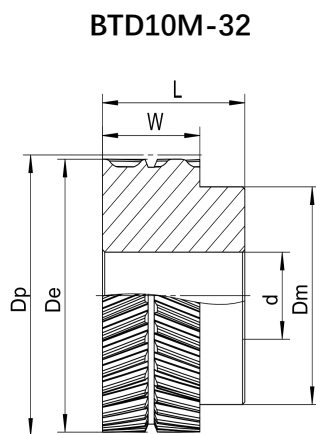
Left-hand direction



Helical Offset Tooth Pulleys



BTD10M-25 Belt width:25mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD10M-25-15Z	15	47.75	45.75	35	12	26	36	ALU
BTD10M-25-16Z	16	50.93	48.93	38	12	26	36	
BTD10M-25-18Z	18	57.30	55.30	44	12	26	36	
BTD10M-25-19Z	19	60.48	58.48	47	12	26	36	
BTD10M-25-20Z	20	63.66	61.66	51	12	26	36	
BTD10M-25-22Z	22	70.03	68.03	57	12	26	36	
BTD10M-25-24Z	24	76.39	74.39	63	12	26	36	
BTD10M-25-25Z	25	79.58	77.58	67	12	26	36	
BTD10M-25-26Z	26	82.76	80.76	70	12	26	36	
BTD10M-25-27Z	27	85.94	83.94	73	12	26	36	
BTD10M-25-28Z	28	89.13	87.13	76	12	26	36	
BTD10M-25-30Z	30	95.49	93.49	82	12	26	36	
BTD10M-25-32Z	32	101.86	99.86	89	15	26	36	
BTD10M-25-36Z	36	114.59	112.59	102	15	26	36	
BTD10M-25-40Z	40	127.32	125.32	114	15	26	36	
BTD10M-25-44Z	44	140.06	138.06	127	15	26	36	
BTD10M-25-48Z	48	152.79	150.79	140	15	26	36	
BTD10M-25-60Z	60	190.99	188.99	110	15	26	36	

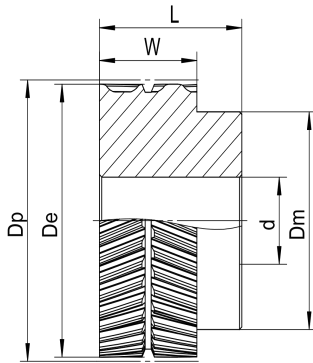


BTD10M-32 Belt width:32mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD10M-32-15Z	15	47.75	45.75	35	12	33	43	ALU
BTD10M-32-16Z	16	50.93	48.93	38	12	33	43	
BTD10M-32-18Z	18	57.30	55.30	44	12	33	43	
BTD10M-32-19Z	19	60.48	58.48	47	12	33	43	
BTD10M-32-20Z	20	63.66	61.66	51	12	33	43	
BTD10M-32-22Z	22	70.03	68.03	57	12	33	43	
BTD10M-32-24Z	24	76.39	74.39	63	12	33	43	
BTD10M-32-25Z	25	79.58	77.58	67	12	33	43	
BTD10M-32-26Z	26	82.76	80.76	70	12	33	43	
BTD10M-32-27Z	27	85.94	83.94	73	12	33	43	
BTD10M-32-28Z	28	89.13	87.13	76	12	33	43	
BTD10M-32-30Z	30	95.49	93.49	82	12	33	43	
BTD10M-32-32Z	32	101.86	99.86	89	15	33	43	
BTD10M-32-36Z	36	114.59	112.59	102	15	33	43	
BTD10M-32-40Z	40	127.32	125.32	114	15	33	43	
BTD10M-32-44Z	44	140.06	138.06	127	15	33	43	
BTD10M-32-48Z	48	152.79	150.79	140	15	33	43	
BTD10M-32-60Z	60	190.99	188.99	178	15	33	43	



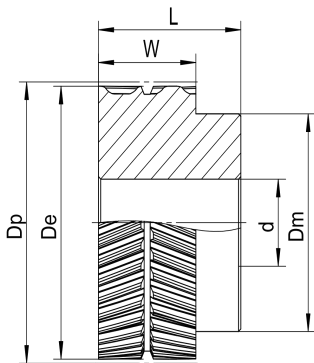
Helical Offset Tooth Pulleys

BTD10M-50



BTD10M-50 Belt width:50mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD10M-50-15Z	15	47.75	45.75	35	12	51	61	ALU
BTD10M-50-16Z	16	50.93	48.93	38	12	51	61	
BTD10M-50-18Z	18	57.30	55.30	44	12	51	61	
BTD10M-50-19Z	19	60.48	58.48	47	12	51	61	
BTD10M-50-20Z	20	63.66	61.66	51	12	51	61	
BTD10M-50-22Z	22	70.03	68.03	57	12	51	61	
BTD10M-50-24Z	24	76.39	74.39	63	12	51	61	
BTD10M-50-25Z	25	79.58	77.58	67	12	51	61	
BTD10M-50-26Z	26	82.76	80.76	70	12	51	61	
BTD10M-50-27Z	27	85.94	83.94	73	12	51	61	
BTD10M-50-28Z	28	89.13	87.13	76	12	51	61	
BTD10M-50-30Z	30	95.49	93.49	82	12	51	61	
BTD10M-50-50Z	32	101.86	99.86	89	15	51	61	
BTD10M-50-36Z	36	114.59	112.59	102	15	51	61	
BTD10M-50-40Z	40	127.32	125.32	114	15	51	61	
BTD10M-50-44Z	44	140.06	138.06	127	15	51	61	
BTD10M-50-48Z	48	152.79	150.79	140	15	51	61	
BTD10M-50-60Z	60	190.99	188.99	178	15	51	61	

BTD10M-75



BTD10M-75 Belt width:75mm [mm]								
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD10M-75-15Z	15	47.75	45.75	35	12	77	90	ALU
BTD10M-75-16Z	16	50.93	48.93	38	12	77	90	
BTD10M-75-18Z	18	57.30	55.30	44	12	77	90	
BTD10M-75-19Z	19	60.48	58.48	47	12	77	90	
BTD10M-75-20Z	20	63.66	61.66	51	12	77	90	
BTD10M-75-22Z	22	70.03	68.03	57	12	77	90	
BTD10M-75-24Z	24	76.39	74.39	63	12	77	90	
BTD10M-75-25Z	25	79.58	77.58	67	12	77	90	
BTD10M-75-26Z	26	82.76	80.76	70	12	77	90	
BTD10M-75-27Z	27	85.94	83.94	73	12	77	90	
BTD10M-75-28Z	28	89.13	87.13	76	12	77	90	
BTD10M-75-30Z	30	95.49	93.49	82	12	77	90	
BTD10M-75-75Z	32	101.86	99.86	89	15	77	90	
BTD10M-75-36Z	36	114.59	112.59	102	15	77	90	
BTD10M-75-40Z	40	127.32	125.32	114	15	77	90	
BTD10M-75-44Z	44	140.06	138.06	127	15	77	90	
BTD10M-75-48Z	48	152.79	150.79	140	15	77	90	
BTD10M-75-60Z	60	190.99	188.99	178	15	77	90	

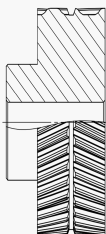
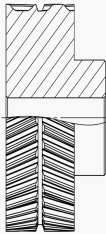
BTD10M Helical Offset Tooth Pulleys



Teeth Direction Instruction:

Important:

Customers must specify the hub projection orientation (left-hand or right-hand) when submitting an order.



Right-hand direction

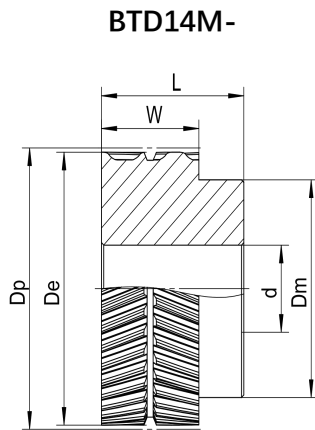
Left-hand direction

Flexibility:

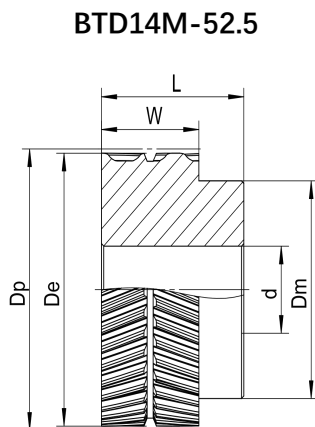
Minimum Pulley Diameters		Steel Cord	HPF Cord
Non-reverse bending 	Pulley teeth Z_{min}	25	25
	Flat idler on belt teeth d_{min} [mm]	80	80
Reverse bending 	Pulley teeth Z_{min}	25	25
	Flat idler on belt back d_{min} [mm]	150	150



Helical Offset Tooth Pulleys



BTD14M-35 Belt width:35mm								[mm]
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD14M-35-28Z	28	124.78	121.99	105	25	37	53	Steel
BTD14M-35-30Z	30	133.69	130.90	114	25	37	53	
BTD14M-35-32Z	32	142.60	139.81	123	25	37	53	
BTD14M-35-34Z	34	151.52	148.73	132	25	37	53	
BTD14M-35-36Z	36	160.43	157.64	141	25	37	53	
BTD14M-35-38Z	38	169.34	166.55	150	25	37	53	
BTD14M-35-40Z	40	178.25	175.46	159	25	37	53	
BTD14M-35-43Z	43	191.62	188.83	172	25	37	53	
BTD14M-35-45Z	45	200.54	197.75	181	25	37	53	
BTD14M-35-48Z	48	213.90	211.11	195	25	37	53	
BTD14M-35-50Z	50	222.82	220.03	150	25	37	53	
BTD14M-35-56Z	56	249.56	246.77	150	25	37	53	
BTD14M-35-60Z	60	267.38	264.59	150	25	37	53	
BTD14M-35-63Z	63	280.75	277.96	150	25	37	53	
* BTD14M-35-71Z	71	316.40	313.61	150	25	37	53	
* BTD14M-35-75Z	75	334.23	331.44	150	25	37	53	

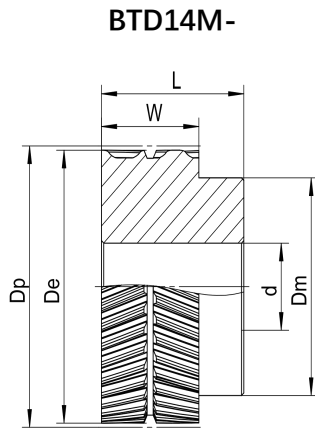


BTD14M-52.5 Belt width:52.5mm								[mm]
Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD14M-52.5-28Z	28	124.78	121.99	109	25	54.5	74.5	Steel
BTD14M-52.5-30Z	30	133.69	130.90	117.5	25	54.5	74.5	
BTD14M-52.5-32Z	32	142.60	139.81	126.5	25	54.5	74.5	
BTD14M-52.5-34Z	34	151.52	148.73	135.5	25	54.5	74.5	
BTD14M-52.5-36Z	36	160.43	157.64	141	25	54.5	70.5	
BTD14M-52.5-38Z	38	169.34	166.55	150	25	54.5	70.5	
BTD14M-52.5-40Z	40	178.25	175.46	159	25	54.5	70.5	
BTD14M-52.5-43Z	43	191.62	188.83	172	25	54.5	70.5	
BTD14M-52.5-45Z	45	200.54	197.75	181	25	54.5	70.5	
BTD14M-52.5-48Z	48	213.90	211.11	195	25	54.5	70.5	
BTD14M-52.5-50Z	50	222.82	220.03	150	25	54.5	70.5	
BTD14M-52.5-56Z	56	249.56	246.77	150	25	54.5	70.5	
BTD14M-52.5-60Z	60	267.38	264.59	150	25	54.5	70.5	
BTD14M-52.5-63Z	63	280.75	277.96	150	25	54.5	70.5	
* BTD14M-52.5-71Z	71	316.40	313.61	150	25	54.5	70.5	
* BTD14M-52.5-75Z	75	334.23	331.44	150	25	54.5	70.5	

* On demand



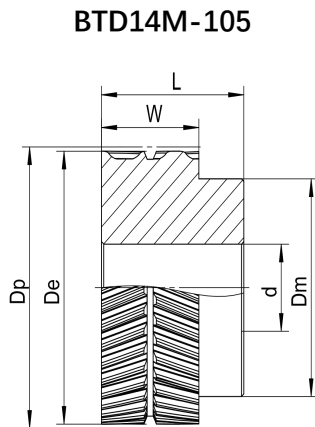
Helical Offset Tooth Pulleys



BTD14M-

BTD14M-1050 Belt width:105mm

Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD14M-70-28Z	28	124.78	121.99	109	25	72	92	Steel
BTD14M-70-30Z	30	133.69	130.90	117.5	25	72	92	
BTD14M-70-32Z	32	142.60	139.81	126.5	25	72	98	
BTD14M-70-34Z	34	151.52	148.73	135.5	25	72	98	
BTD14M-70-36Z	36	160.43	157.64	144	25	72	98	
BTD14M-70-38Z	38	169.34	166.55	153	25	72	98	
BTD14M-70-40Z	40	178.25	175.46	162	25	72	98	
BTD14M-70-43Z	43	191.62	188.83	174	25	72	88	
BTD14M-70-45Z	45	200.54	197.75	183	25	72	88	
BTD14M-70-48Z	48	213.90	211.11	197	25	72	88	
BTD14M-70-50Z	50	222.82	220.03	205	25	72	88	
BTD14M-70-56Z	56	249.56	246.77	230	25	72	88	
BTD14M-70-60Z	60	267.38	264.59	250	25	72	88	
BTD14M-70-63Z	63	280.75	277.96	265	25	72	88	
* BTD14M-70-71Z	71	316.40	313.61	280	25	72	88	
* BTD14M-70-75Z	75	334.23	331.44	300	25	72	88	



BTD14M-105

BTD14M-70 Belt width:70mm

[mm]

Type	Teeth	Dp	De	Dm	d	W	L	Mat'l
BTD14M-105-28Z	28	124.78	121.99	109	25	107	133	Steel
BTD14M-105-30Z	30	133.69	130.90	117.5	25	107	133	
BTD14M-105-32Z	32	142.60	139.81	126.5	25	107	133	
BTD14M-105-34Z	34	151.52	148.73	135.5	25	107	133	
BTD14M-105-36Z	36	160.43	157.64	144	25	107	133	
BTD14M-105-38Z	38	169.34	166.55	153	25	107	133	
BTD14M-105-40Z	40	178.25	175.46	162	25	107	133	
BTD14M-105-43Z	43	191.62	188.83	174	25	107	133	
BTD14M-105-45Z	45	200.54	197.75	183	25	107	123	
BTD14M-105-48Z	48	213.90	211.11	197	25	107	123	
BTD14M-105-50Z	50	222.82	220.03	205	25	107	123	
BTD14M-105-56Z	56	249.56	246.77	230	25	107	123	
BTD14M-105-60Z	60	267.38	264.59	250	25	107	123	
BTD14M-105-63Z	63	280.75	277.96	265	25	107	123	
* BTD14M-105-71Z	71	316.40	313.61	280	25	107	123	

* On demand

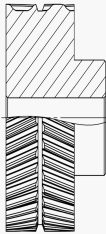
BTD14M Helical Offset Tooth Pulleys



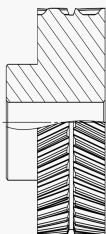
Teeth Direction Instruction:

Important:

Customers must specify the hub projection orientation (left-hand or right-hand) when submitting an order.



Right-hand direction



Left-hand direction

Flexibility:

Minimum Pulley Diameters		Steel Cord	HPF Cord
Non-reverse bending 	Pulley teeth Z_{min}	32	30
	Flat idler on belt teeth d_{min} [mm]	140	130
Reverse bending 	Pulley teeth Z_{min}	32	30
	Flat idler on belt back d_{min} [mm]	200	180



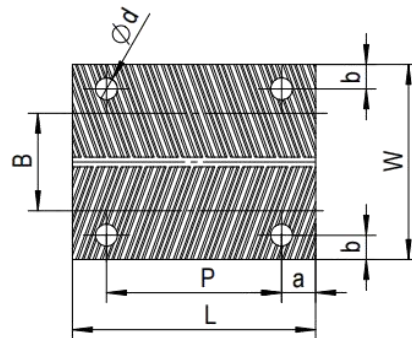
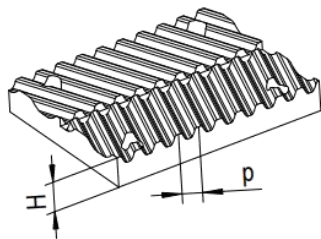
Clamp Plates

Clamp plates offer positive mechanical fastening for timing belt ends in linear drive applications. They require precise Belt profile matching, uniform contact surface clamping pressure and high rigidity.

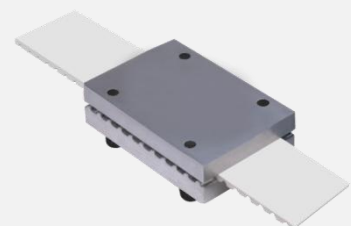
[mm]

Type	Teeth Plates	Cover Plates	Belt Width	Dimension						
			B	Ød	H	L	P	a	b	W
BTD 5M	PT B5M- 12.5	PL B5M- 12.5	12.5	5.5	8	47	30	8.5	6	30
	PT B5M- 15	PL B5M- 15	15						6	35
	PT B5M- 20	PL B5M- 20	20						6	40
	PT B5M- 25	PL B5M- 25	25						7	45
BTD 8M	PT B8M- 16	PL B8M- 16	16	9	15	74	48	13	7.5	40
	PT B8M- 25	PL B8M- 25	25						8	50
	PT B8M- 32	PL B8M- 32	32						8	57
	PT B8M- 50	PL B8M- 50	50						8	75
	PT B8M- 64	PL B8M- 64	64						8	90
BTD 10M	PT B10M- 25	PL B10M- 25	25	9	16	94	60	17	8	50
	PT B10M- 32	PL B10M- 32	32						8	57
	PT B10M- 50	PL B10M- 50	50						8	75
	PT B10M- 75	PL B10M- 75	75						8	100
BTD 14M	PT B14M- 35	PL B14M- 35	35	11	22	130	84	23	9.5	65
	PT B14M- 52.5	PL B14M- 52.5	52.5						9.5	82.5
	PT B14M- 70	PL B14M- 70	70						9.5	100
	PT B14M- 105	PL B14M- 105	105						10	136

1. Standard clamping plates are made of aluminium.
2. Min. 7 engaged teeth for standard clamps; Min. 12 engaged teeth for HP- reinforced belts.



Order Code

PT- B5M - 25 - ALU



Reference table

Company	Series	Profile	Material	Remarks
PowerChem	DualSync	BTD	PU/Rubber	BTD Bi-dir. Torque Drive
CONTITECH	SilentSync	SilentSync	Rubber	H.O.T. Helical Offset Tooth
ELATECH	Eagle	Eagle	PU/Rubber	Eagle Synchronous belts
MEGADYNE	QST	QST	PU/Rubber	QST Quiet Self Tracking

Note: This cross- reference table is for genuine model comparison only. All trademarks belong to their respective owners.

WE CREATE THE DIFFERENCE!

Troubleshooting

DAMAGE	CAUSE	REMEDIAL ACTIONS
Abnormal noise	- Pulley mounting offset - Poor tooth- mesh engagement - Belt wider than pulley flange - Excessive belt tension - Overload - Over- wide belt causes high- speed squealing	- Correct pulley misalignment - Replace pulley - Revise design - Adjust initial tension - Revise design - Revise design
Belt tooth jumping	- Overload & equipment vibration - Machine jam- induced overload - Too few engaged teeth - Insufficient initial tension - Pulley diameter too small - Ignored start- stop inertia	- Optimize belt tooth profile / size - Avoid unexpected machine overload - Add diameter of the idler pulley to increase the number of meshing teeth - Set proper initial tension - Revise design - Revise design
Belt breakage	- Overload - Foreign particles between belt & pulley - Tension member corrosion - Belt rubbing against pulley flange - Insufficient teeth on clamp plate - Over- tightened clamp- plate screws	- Change belt size / model - Add protective guard - Use aramid / stainless- steel cords - Realign pulley, replace flanges - Use multi- tooth clamp plate - Use torque wrench or limit spacer
Belt side- face abrasion	- Improper pulley position - Defective flange shape - Rough flange surface	- Fix pulley mounting offset - Replace pulley flange - Fit suitable flange
Belt tooth wear	- Foreign particles in mesh - Overload - Excessive tension - Tooth jumping from low initial tension	- Install protective housing - Revise design (increase belt size) - Reset initial tension - Apply sufficient initial tension
Belt tooth- root wear	- Poor pulley tooth profile - Excessive installation tension	- Use high- quality pulley - Adjust belt initial tension
Belt back- surface abrasion	- Unwanted contact with machine frame	- Remove interfering contact
Belt back- side cracking	- Extremely low operating temperature - Pulley diameter below minimum spec	- Raise temperature or select special belt - Follow minimum pulley- diameter requirement
Partial tension- member rupture	- Foreign particles at meshing zone - Incorrect assembly - Belt distorted in storage - One- sided fatigue from misalignment	- Fit protective shield - Maintain belt- pulley alignment - Avoid deformation during handling - Ensure accurate installation alignment
Abnormal back- coating wear	- Corrosive working environment	- Modify back- coating or improve environment
Pulley tooth wear	- Foreign particles in mesh - Transmission overload - Excessive belt tension - Soft pulley material	- Add protective cover - Revise mechanical design - Calibrate initial tension - Change pulley material or apply surface treatment



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