



POLYURETHANE BELT PRODUCTS



SYNCHRO-POWER®

Endless/open-end polyurethane synchronous belt

Gates Synchro-Power® polyurethane belts are designed for long lasting and energy-efficient performance on both power transmission and linear applications. They are built in endless and open-end versions in various sizes, constructions and tooth designs handling a wide range of loads, speeds and applications. Polyurethane is extremely wear and fatigue resistant and at the same time highly flexible. Product quality is visible through numerous details. Tolerances are tight and accurate, perfect tooth meshing is achieved. Gates Synchro-Power® blue sleeves are the most recent addition to the polyurethane belt product range. They are available up to 200 mm width and can easily be recognised by their blue colour.



Identification

Three part number on the back of the belt indicating tooth pitch, pitch length and belt width in millimeters.

Construction

- The polyurethane body offers excellent abrasion resistance and therefore a very clean running system without accumulations of debris.
- The polyurethane teeth offer exceptional rigidity, which reduces tooth flexing and ensures more stability in your overall system.
- Synchro-Power® sleeves
 - are truly endless and have no joint;
 - are supplied with steel tensile cords.
- Synchro-Power® Long Length belts
 - are manufactured as open-end extruded belts;
 - are supplied with steel, stainless steel or aramid tensile cords, depending on the belt construction;
 - the tensile cords are located parallel to the belt edges and exactly perpendicular to the belt teeth, and exert little or no side force;
 - the optional nylon tooth and/or back facing reinforce the surface and protect it against wear.

Advantages

- Wide range of tooth profiles to meet all application requirements.
- Clean, quiet and smooth-running operation.
- No lubrication required.
- Standard product suited for -5°C up to +70°C. For applications outside this range, please consult your Gates representative.
- Suited for use in harsh environments.
- Broad application range: automatic assembly operations, horizontal and vertical doors, printing applications, conveying equipment, textile industry, packaging machinery ... and many more.
- First class performance on both power transmission (endless) and linear applications (open-end).



Sections and nominal dimensions



	Pitch mm	T mm	B mm
T2.5	2.5	0.7	1.3
T5	5	1.2	2.2
T10	10	2.5	4.5
T20	20	5	8



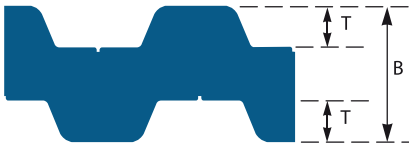
	Pitch mm	T mm	B mm
HTD5M	5	2.1	3.6
HTD8M	8	3.4	5.6
HTD14M	14	6	10



	Pitch mm	T mm	B mm
AT5	5	1.2	2.7
AT10	10	2.5	4.5
AT20	20	5	8



	Pitch mm	T mm	B mm
STD5M	5	1.9	3.3
STD8M	8	3.0	5.1



	Pitch mm	T mm	B mm
DL-T5	5	1.2	3.3
DL-T10	10	2.5	6.8



	Pitch mm	T mm	B mm
XL	5.08	1.27	2.29
L	9.525	1.90	3.56
H	12.7	2.29	4.06
XH	22.225	6.35	11.18



	Pitch mm	T mm	B mm
ATL5	5	1.2	2.7
ATL10	10	2.5	4.8
ATL20	20	5	8



	B mm
F8	2
F12	3.2

Endless belts

T2.5

Pitch: 2.5 mm

Description	Pitch length mm	Number of teeth
PU-T2.5	120	48
PU-T2.5	145	58
PU-T2.5	160	64
PU-T2.5	177.5	71
PU-T2.5	200	80
PU-T2.5	230	92
PU-T2.5	245	98
PU-T2.5	265	106
PU-T2.5	285	114
PU-T2.5	305	122
PU-T2.5	317.5	127
PU-T2.5	330	132
PU-T2.5	380	152
PU-T2.5	420	168
PU-T2.5	480	192
PU-T2.5	500	200
PU-T2.5	600	240
PU-T2.5	620	248
PU-T2.5	650	260
PU-T2.5	780	312
PU-T2.5	915	366
PU-T2.5	950	380

Available in widths of 4 mm, 6 mm, 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 32 mm and 50 mm.



T5		
Pitch: 5 mm		
Description	Pitch length mm	Number of teeth
PU-T5	150	30
PU-T5	165	33
PU-T5	180	36
PU-T5	185	37
PU-T5	200	40
PU-T5	215	43
PU-T5	220	44
PU-T5	225	45
PU-T5	245	49
PU-T5	250	50
PU-T5	255	51
PU-T5	260	52
PU-T5	270	54
PU-T5	275	55
PU-T5	280	56
PU-T5	295	59
PU-T5	305	61
PU-T5	315	63
PU-T5	330	66
PU-T5	340	68
PU-T5	350	70
PU-T5	355	71
PU-T5	365	73
PU-T5	390	78
PU-T5	400	80
PU-T5	410	82
PU-T5	420	84
PU-T5	445	89
PU-T5	450	90
PU-T5	455	91
PU-T5	475	95
PU-T5	480	96
PU-T5	500	100
PU-T5	510	102
PU-T5	525	105
PU-T5	545	109
PU-T5	550	110
PU-T5	560	112
PU-T5	575	115
PU-T5	590	118
PU-T5	600	120
PU-T5	610	122
PU-T5	620	124
PU-T5	630	126
PU-T5	640	128
PU-T5	650	130
PU-T5	660	132
PU-T5	675	135
PU-T5	690	138
PU-T5	700	140
PU-T5	720	144
PU-T5	725	145
PU-T5	750	150
PU-T5	780	156
PU-T5	800	160
PU-T5	815	163
PU-T5	840	168
PU-T5	850	170
PU-T5	900	180
PU-T5	940	188
PU-T5	990	198
PU-T5	1075	215
PU-T5	1100	220
PU-T5	1215	243
PU-T5	1315	263
PU-T5	1380	276

Available in widths of 4 mm, 6 mm, 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 50 mm and 75 mm.

T10		
Pitch: 10 mm		
Description	Pitch length mm	Number of teeth
PU-T10	260	26
PU-T10	370	37
PU-T10	400	40
PU-T10	410	41
PU-T10	440	44
PU-T10	450	45
PU-T10	500	50
PU-T10	530	53
PU-T10	560	56
PU-T10	600	60
PU-T10	610	61
PU-T10	630	63
PU-T10	660	66
PU-T10	690	69
PU-T10	700	70
PU-T10	720	72
PU-T10	730	73
PU-T10	750	75
PU-T10	780	78
PU-T10	800	80
PU-T10	810	81
PU-T10	840	84
PU-T10	850	85
PU-T10	880	88
PU-T10	890	89
PU-T10	900	90
PU-T10	910	91
PU-T10	920	92
PU-T10	950	95
PU-T10	960	96
PU-T10	970	97
PU-T10	980	98
PU-T10	1000	100
PU-T10	1010	101
PU-T10	1080	108
PU-T10	1100	110
PU-T10	1110	111
PU-T10	1140	114
PU-T10	1150	115
PU-T10	1210	121
PU-T10	1240	124
PU-T10	1250	125
PU-T10	1300	130
PU-T10	1320	132
PU-T10	1350	135
PU-T10	1390	139
PU-T10	1400	140
PU-T10	1420	142
PU-T10	1450	145
PU-T10	1460	146
PU-T10	1500	150
PU-T10	1560	156
PU-T10	1600	160
PU-T10	1610	161
PU-T10	1700	170
PU-T10	1750	175
PU-T10	1780	178
PU-T10	1880	188
PU-T10	1960	196
PU-T10	2250	225

Available in widths of 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 50 mm and 75 mm.

AT5		
Pitch: 5 mm		
Description	Pitch length mm	Number of teeth
PU-AT5	225	45
PU-AT5	255	51
PU-AT5	275	55
PU-AT5	280	56
PU-AT5	300	60
PU-AT5	340	68
PU-AT5	375	75
PU-AT5	390	78
PU-AT5	420	84
PU-AT5	455	91
PU-AT5	500	100
PU-AT5	545	109
PU-AT5	600	120
PU-AT5	610	122
PU-AT5	620	124
PU-AT5	630	126
PU-AT5	660	132
PU-AT5	720	144
PU-AT5	750	150
PU-AT5	780	156
PU-AT5	825	165
PU-AT5	975	195
PU-AT5	1050	210
PU-AT5	1125	225
PU-AT5	1500	300

Available in widths of 4 mm, 6 mm, 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 50 mm and 75 mm.

AT10		
Pitch: 10 mm		
Description	Pitch length mm	Number of teeth
PU-AT10	500	50
PU-AT10	560	56
PU-AT10	610	61
PU-AT10	660	66
PU-AT10	700	70
PU-AT10	730	73
PU-AT10	780	78
PU-AT10	800	80
PU-AT10	810	81
PU-AT10	840	84
PU-AT10	890	89
PU-AT10	920	92
PU-AT10	960	96
PU-AT10	980	98
PU-AT10	1010	101
PU-AT10	1050	105
PU-AT10	1080	108
PU-AT10	1150	115
PU-AT10	1210	121
PU-AT10	1250	125
PU-AT10	1320	132
PU-AT10	1400	140
PU-AT10	1500	150
PU-AT10	1600	160
PU-AT10	1700	170
PU-AT10	1800	180

Available in widths of 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 50 mm and 75 mm.

DL-T5		
Pitch: 5 mm		
Description	Pitch length mm	Number of teeth
DL-PU-T5	410	82
DL-PU-T5	460	92
DL-PU-T5	480	96
DL-PU-T5	515	103
DL-PU-T5	590	118
DL-PU-T5	620	124
DL-PU-T5	750	150
DL-PU-T5	815	163
DL-PU-T5	860	172
DL-PU-T5	940	188
DL-PU-T5	1100	220

Available in widths of 6 mm, 8 mm, 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 32 mm, 50 mm and 75 mm.

DL-T10		
Pitch: 10 mm		
Description	Pitch length mm	Number of teeth
DL-PU-T10	260	26
DL-PU-T10	530	53
DL-PU-T10	630	63
DL-PU-T10	660	66
DL-PU-T10	720	72
DL-PU-T10	840	84
DL-PU-T10	980	98
DL-PU-T10	1210	121
DL-PU-T10	1240	124
DL-PU-T10	1250	125
DL-PU-T10	1320	132
DL-PU-T10	1350	135
DL-PU-T10	1420	142
DL-PU-T10	1610	161
DL-PU-T10	1880	188

Available in widths of 10 mm, 12 mm, 16 mm, 20 mm, 25 mm, 32 mm and 50 mm.

Endless Synchro-Power®
ordering code is composed as follows:

T10-440-50
T10 - Pitch T10 (10 mm)
440 - Pitch length (mm)
50 - Belt width (mm)

All dimensions are available from stock.



Open-end belts

Pitch	Widths	Roll length (m)	Steel cords				Aramid cords				Stainless steel cords
			STAND.	NB	NT	NTB	STAND.	NB	NT	NTB	NIRO
T5	10, 16, 25, 32, 50, 75, 100 mm	100	X	X	X	X	X	X	X	X	
T10	12, 16, 25, 32, 40, 50, 75, 100, 150 mm	100	X	X	X	X	X	X	X	X	
T10HB	12, 16, 25, 32, 40, 50, 75, 100, 150 mm	100	X		X		X		X		
T10HF	12, 16, 25, 32, 40, 50, 75, 100, 150 mm	100	X	X	X	X					
T20	25, 32, 50, 75, 100, 150 mm	50	X	X	X	X	X				
AT5	10, 16, 25, 32, 50, 75, 100 mm	100	X	X	X	X	X		X		
AT10	16, 25, 32, 50, 75, 100, 150 mm	100	X	X	X	X	X	X	X	X	X
AT10HB	16, 25, 32, 50, 75, 100, 150 mm	100	X	X	X	X					
AT20	25, 32, 50, 75, 100, 150 mm	50	X	X	X	X					
ATL5	10, 16, 25, 32, 50 mm	100	X	X	X	X					
ATL10	16, 25, 32, 50, 75, 100, 150 mm	100	X	X	X	X					
ATL10HF	16, 25, 32, 50, 75, 100, 150 mm	100	X	X	X	X					
ATL20	32, 50, 75, 100, 150 mm	50	X	X	X	X					
HTD5M	10, 15, 20, 25, 50, 85, 100, 150 mm	100	X	X	X	X	X	X	X	X	
HTD8M	10, 15, 20, 25, 30, 50, 85, 100, 150 mm	100	X	X	X	X	X	X	X	X	X
HTD14M	25, 40, 55, 85, 115, 170 mm	50	X		X	X					
HTDL14M	55, 85, 115, 170 mm	50	X		X	X					
HPL14M	55, 85, 115, 170 mm	50			X	X					
STD5M	5, 10, 15, 20, 25, 30, 50 mm	100	X	X	X	X					
STD8M	10, 15, 20, 25, 30, 50, 85, 100 mm	100	X	X	X	X					
XL	025, 031, 037, 050, 075, 100, 200	61	X	X	X	X	X	X	X	X	
L	037, 050, 075, 100, 150, 200, 400	61	X	X	X	X	X	X	X	X	
H	050, 075, 100, 150, 200, 300, 400, 600	61	X	X	X	X	X	X	X	X	
XH	100, 150, 200, 300, 400, 600	61	X	X	X	X					
F8	100, 150, 200, 300, 400	61	X	X	X	X					
F12	100, 150, 200, 300, 400	61	X	X	X	X					

Abbreviations:	
STAND.	Standard
NB	Nylon back
NT	Nylon teeth
NTB	Nylon teeth and back
NIRO	Stainless steel
HB	Heavy backing PU
HF	High flexible steel cords
TL	Profile with reinforced steel cords

Open-end Synchro-Power®
ordering code is composed as follows:

PU-T10-50-100M-AR-NB
PU - Polyurethane
T10 - Pitch T10 (10 mm)
50 - Belt width (mm)
100M - Roll length (m)
AR - Aramid tensile cords
NB - Nylon back

Please refer to the Gates Price List for specifics on stock availability.

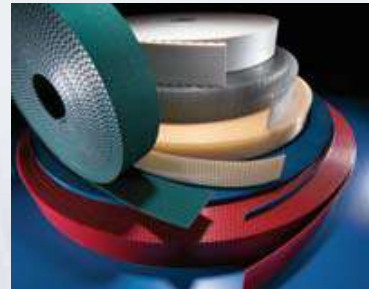


CUSTOMIZED POLYURETHANE BELT PRODUCTS

Gates' standard Synchro-Power® product range covers a multitude of applications. If your process requires a belt design that meets very specific application needs, Gates also offers you a variety of customized polyurethane belt products. These polyurethane belt products, tailor-made to fulfil your most challenging requirements, meet the same quality levels as their standard counterparts. This makes them the perfect supplement to the Gates' standard Synchro-Power® product offering.

LINEAR BELTS (LONG LENGTH)

Linear belts provide the greatest degree of flexibility for synchronous conveying and linear positioning applications. They come in a vast variety of cord types, PU resins and coatings. This variety of material combinations ensures a wide range of possible configurations for your application. A special category is the self tracking belt. It has all the capabilities of a regular polyurethane belt but utilizes guides to eliminate any lateral movement. Linear belts can be supplied in open-end rolls or welded endless. Endless welded belts of virtually any length can be produced utilizing a thermal welding process which joins together the ends of the belts. Authorized fabricators throughout the whole of Europe have been appointed to stock and weld Gates polyurethane belts on customer demand. They deliver endless welded belts with the specifications required by the customer within a short delivery time.



WIDE BELTS

Gates produces polyurethane belts in widths up to 450 mm. These belts are specifically designed for synchronous conveying applications. Wide belts are primarily used as process conveyor belts. Process or conversion steps usually occur on the belt.

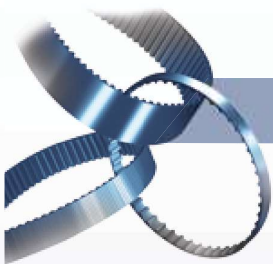
FLEX BELTS

Flex belts are extruded to custom lengths ranging from approximately 1.5 to 24 m. They are made of high quality thermoplastic polyurethane and have helically wound cords that ensure high strength and truly endless power transmission capabilities.





POLYURETHANE BELT PRODUCTS



Specific characteristics

Additionally, Gates offers a wide range of belt modifications and a full range of secondary fabrication possibilities: all linear, wide and flex belts can come with special backings, profiles and machining on request. Equipment designers and system integrators rely on Gates' ability to solve the most challenging design issues.

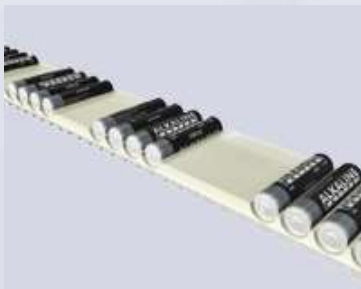


BACKINGS

Most belt types can be modified by adding a backing to achieve a desired coefficient of friction, abrasion resistance or cushion. Over 20 different backings are available to solve your toughest application requirements, from polyurethane over rubber to foam, PVC and 'specialty' backings.

PROFILES

Linear, wide and flex belts can be customized with welded-on profiles to meet your application's specific holding, pushing, lifting, or actuating requirements. These profiles are made in polyurethane and become an integral part of the belt through thermal bonding. They can be molded into almost any shape making profiled belts ideal for your assembly, packaging, inserting and other automation equipment requirements. Over 2000 profile designs are available from Gates' extensive mould inventory.



MACHINING

Gates offers you the combination of primary tooling and secondary machining to achieve any design potential. Whether grinding edges and surfaces to tight tolerances, punching and machining holes and slots or CNC machining of three dimensional contours, Gates can provide a complete and precise solution.