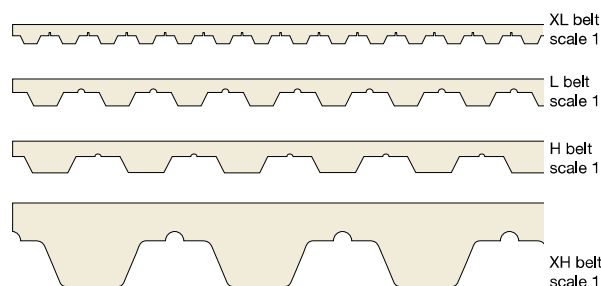
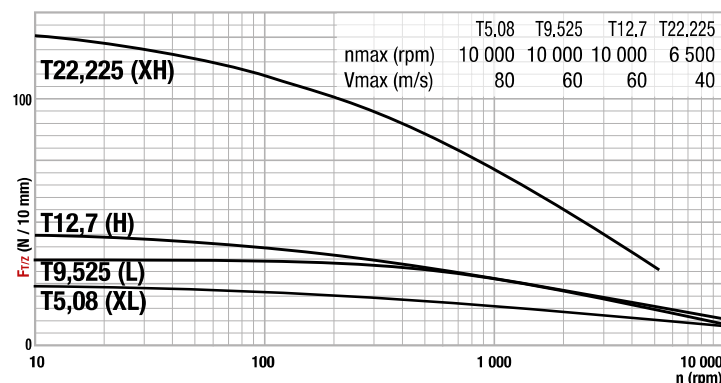


TIMING BELTS

Tangential force transmittable by the teeth



Tangential force transmittable by the tension members

Profile/pitch	Belt width (mm)	Weight (kg/m)	Linear belts (M)							Welded belts (V)	
			Tension members: standard steel - polyurethane: TPU ST1 ²				Tension members: stainless steel - polyurethane: TPU AU1 ²			Permissible force at the join F _N (N) standard tens. members	Permissible force at the join F _N (N) stainless st. tens. members
			Permissible force F _N (N)	Specific elasticity of tension members Cspe (N)	Stock		Permissible force F _N (N)	Specific elasticity of tension members Cspe (N)	Stock		
Standard	PAZ ¹	Standard			PAZ ¹						
T5.08 (XL) T1/5"	6.35	0,015	210	5·25 · 10 ⁴							
	7.94	0,019	240	6·00 · 10 ⁴						120	
	9.53	0,023	330	8·25 · 10 ⁴						165	
	12.7	0,03	390	9·75 · 10 ⁴						195	
	19.1	0,046	660	16·50 · 10 ⁴						330	
	25.4	0,061	840	21·00 · 10 ⁴						420	
T9.525 (L) T3/8"	9.53	0,033	630	15·80 · 10 ⁴						315	
	12.7	0,044	840	21·00 · 10 ⁴						420	
	19.1	0,066	1 260	31·50 · 10 ⁴						630	
	25.4	0,08	1 680	42·00 · 10 ⁴						840	
	38.1	0,133	2 520	63·00 · 10 ⁴						1 260	
	50.8	0,178	3 500	87·00 · 10 ⁴						1 750	
	76.2	0,266	5 040	126·00 · 10 ⁴						2 520	
T12.7 (H) T1/2"	12.7	0..53	1 000	0·25 · 10 ⁶			800	0·25 · 10 ⁶		500	400
	19.1	0,081	1 600	0·40 · 10 ⁶			1280	0·40 · 10 ⁶		800	640
	25.4	0,108	2 200	0·55 · 10 ⁶			1760	0·55 · 10 ⁶		1 100	880
	38.1	0,161	3 200	0·80 · 10 ⁶			2560	0·80 · 10 ⁶		1 600	1 280
	50.8	0,216	4 400	1·10 · 10 ⁶			3520	1·10 · 10 ⁶		2 200	1 760
	76.2	0,324	6 600	1·65 · 10 ⁶			5280	1·65 · 10 ⁶		3 300	2 640
	101.6	0,432	8 800	2·20 · 10 ⁶			7040	2·20 · 10 ⁶		4 400	3 520
	152.4	0,648	13 200	3·30 · 10 ⁶			10560	3·30 · 10 ⁶		6 600	5 280
T12.7 K13 (HK) TK1/2"	38.1	0,222	3 200	0·80 · 10 ⁶			2560	0·80 · 10 ⁶		1 600	1 280
	50.8	0,338	4 400	1·10 · 10 ⁶			3360	1·10 · 10 ⁶		2 100	1 680
	76.2	0,507	4 800	1·65 · 10 ⁶			3840	1·65 · 10 ⁶		2 400	1 920
	101.6	0,469	6 200	2·20 · 10 ⁶			4960	2·20 · 10 ⁶		3 100	2 480
T22.225 (XH) T7/8"	25.4	0.265	3 500	0·87 · 10 ⁶						1 750	
	38.1	0.398	5 250	1·31 · 10 ⁶						2 625	
	50.8	0.530	7 000	1·75 · 10 ⁶						3 500	
	76.2	0.795	10 500	2·63 · 10 ⁶						5 250	
	101.6	1.059	14 000	3·50 · 10 ⁶						7 000	

Tolerances

Profile	Width (mm)	Length (mm/m)	Total thickness (mm)	Thickness of tooth (mm)
T5.08 (XL)	+/- 0.5	+/- 0.8	- 0.1 / + 0.3	0 / - 0.05
T9.525 (L)	+/- 0.5	+/- 0.8	- 0.1 / + 0.3	0 / - 0.1
T12.7 (H)	+/- 0.5	+/- 0.8	- 0.1 / + 0.3	0 / - 0.1
T22.225 (XH)	+/- 1.0	+/- 0.8	- 0.1 / + 0.3	0 / - 0.15

Our belt machining options

Water jet machining, see [page 60](#)



Standard lengths and widths available

Linear belts (M)

- Every length tooth by tooth possible
- In stock: rolls of 50 or 100 m
- Lengths greater than 100 m on request

Options

- Stainless steel or aramide tension members, according to pitches, see [page 6](#) (on request)
- Polyurethane, see [page 5](#) (on request)
- Coatings, see [pages 56 to 63](#)

Welded belts (V)

- Minimum length: 880 mm

BELT ORDERING EXAMPLES

Designation	Width	Profile / length	Particular specifications
Open linear BRECO belt	12,7	T12.7/2000 M	PAZ ¹
Welded linear BRECO belt	25,4	T22.225/3600 V	

DELIVERY TIMES

Standard belts	4 to 6 weeks
Special belts	Consult us

Recommended pre-tension: see [page 4](#)

2. Polyurethane: see characteristics [page 5](#)

General information: see [page 4](#)

1. Backing (PAZ) see [page 56](#)

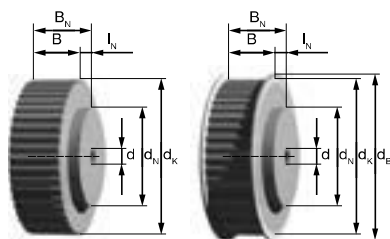
TOOTHED PULLEYS

■ Pulleys acc. to drawing see page 8

Standard pulleys

Version 2 (with flanges):
stock up to Z = 44

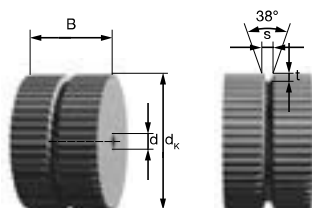
Version 0 (without flanges):
stock from Z = 45



Self-guiding pulleys

Pulleys on request and only
from Z = 20

K13	
s	t
13,5	7,5



Pulley widths	Belt widths		Pas											
	b	(mm)												
	Code (1/100 inch)			6,35	7,9	9,5	12,7	19,1	25,4	38,1	50,8	76,2	101,6	
Pulley without hub	B	(mm)	XL et L	11,3	12,8	14,3	19	25,4	31,8	44,5	57,3	83,5	108,9	
	H et XH				16	19	25	32	44	59	84	111		

Kinematics	Tension members type		XL		L		H		XH	
			STANDARD	STANDARD	STANDARD	HK	STANDARD			
 Monoflexure	Steel tension members	Z min, dia. min. (mm)	10 (25)	15 (20)	14	20	18			
	E tension members	Z min, dia. min. (mm)	30 (60)	60	60	80	150			
	Stainless steel tension members*	Z min, dia. min. (mm)				25	25			
						100	100			
 Contraflexure	Steel tension members	Z min, dia. min. (mm)	15 (25)	20 (25)	20	20	20 (25)			
	E tension members	Z min, dia. min. (mm)	30 (60)	60 (80)	80	80	180			
	Stainless steel tension members*	Z min, dia. min. (mm)				40	40			
						160	160			

The numbers in brackets indicate the values to be used for welded belts.
*Special manufacture: minimum quantity.

Comments

- Larger number of teeth possible
- Standard material: 6026 conforming to RoHS, see page 8
- Standard flanges: galvanised steel, see page 8
- d_{max}: maximum bore without keyway for flanged pulley

Options

- The different materials such as steel and stainless steel and the possible surface treatments are shown on page 8
- Special flanges on request
- Special toothforms (zero or reduced backlash), see page 8

PULLEY ORDERING EXAMPLES

Designation	Material	Width	Type/no. of teeth	Flanges	Hub	Dia. d
Aratron tooth pulley	AL	32	T12.7/20-	2	none	12H7

DELIVERY TIMES

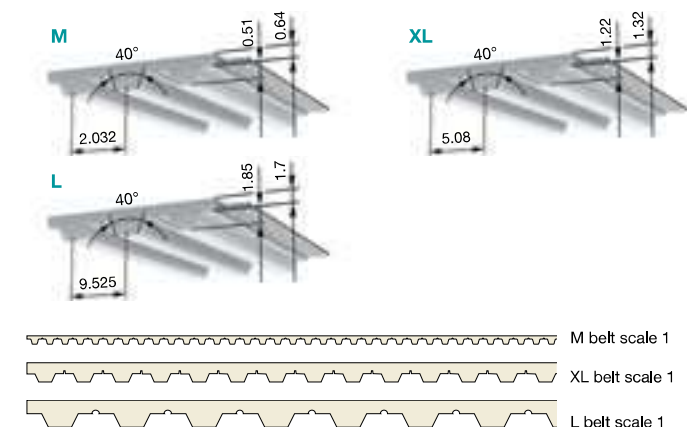
Pulleys acc. to drawing	4 weeks
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Type T5,08 (XL) 1/5"				Type T9,525 (L) 3/8"			
Z	d _k	d _b	d _{max}	Z	d _k	d _b	d _{max}
10	15,66	23	6	10	29,56	36	
11	17,28	23	6	11	32,60	38	
12	18,90	25	6	12	35,62	42	24
13	20,52	25	8	13	38,65	44	26
14	22,13	28	8	14	41,70	48	30
15	23,75	28	10	15	44,75	51	34
16	25,36	32	12	16	47,75	54	36
17	26,98	32	14	17	50,78	57	40
18	28,60	36	16	18	53,81	60	44
19	30,22	36	16	19	56,84	63	46
20	31,83	38	18	20	59,88	66	50
21	33,45	38	20	21	62,91	71	52
22	35,07	42	22	22	65,94	75	56
24	38,30	44	24	23	68,97	79	60
26	41,53	48	25	24	72,00	79	62
27	43,15	48	27	25	75,04	83	66
28	44,77	51	29	26	78,07	87	68
30	48,00	54	33	27	81,10	87	72
32	51,24	57	37	28	84,13	91	76
34	54,47	60	39	30	90,20	97	82
35	56,09	63	40	32	96,26	103	88
36	57,70		42	33	99,29	106	88
38	60,94		45	34	102,32	111	92
40	64,17		47	35	105,35	111	96
42	67,41		50	36	108,39	115	98
44	70,64		52	40	120,51	127	110
48	77,11		60	42	126,58	135	112
52	83,57		64	44	132,64	140	118
60	96,51		76	45	135,67	143	120
72	115,92		94	48	144,77	152	124
				50	150,83		130
				52	156,90		136
				56	169,02		150
				57	172,06		152
				60	181,15		162
				72	217,53		193
				84	253,92		231
				96	290,30		269

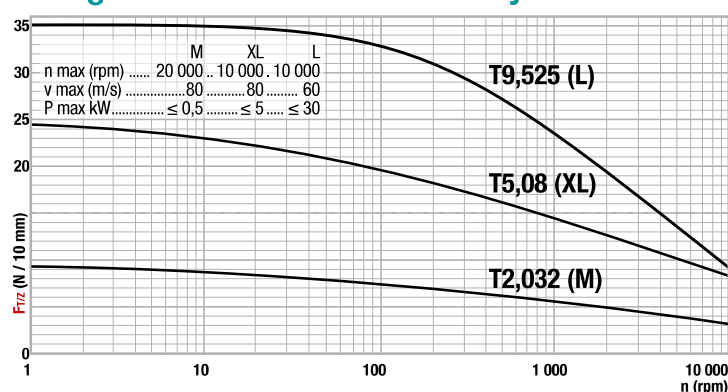
Type T12,7 (H) 1/2"				Type T22,225 (XH) 7/8"			
Z	d _k	d _b	d _{max}	Z	d _k	d _b	d _{max}
14	55,22	63	30	18	124,55	138	86
15	59,27	66	34	19	131,62	146	93
16	63,31	71	36	20	138,69	154	100
17	67,35	75	40	21	145,77	160	105
18	71,39	79	44	22	152,84	168	112
19	75,44	83	46	24	166,99	183	125
20	79,48	87	50	25	174,07	188	131
21	83,52	91	52	26	181,14	198	137
22	87,56	93	56	27	188,22	200	144
23	91,61	97	60	28	195,29	211	150
24	95,65	103	62	30	209,44	226	163
25	99,69	106	66	32	223,59	240	175
26	103,73	111	68	34	237,74	256	188
27	107,78	115	72	38	266,03	-	214
28	111,82	119	76	40	280,18	-	226
29	115,86	123	78	48	336,78	-	278
30	119,90	127	82	60	421,67	-	354
32	127,99	135	88	72	506,56	-	425
33	132,03	140	88	84	591,46	-	501
34	136,07	143	92	96	676,35	-	573
35	140,12	148	96				
36	144,16	152	98				
38	152,24	158	104				
40	160,33	168	110				
42	168,41	180	112				
44	176,50	184	118				
45	180,54	192	120				
48	192,67	200	124				
50	200,75		130				
52	208,84		136				
58	233,09		156				
60	241,18		162				
70	281,61		187				
72	289,69		193				
84	338,20		231				
96	386,71		269				

Z: number of teeth. Intermediate and larger number of teeth possible.

TIMING BELTS



Tangential force transmittable by the teeth



Available widths (mm)

M	4	6	10	16	25	32			
XL	6.35	7.94	9.53	12.7	19.1	25.4			
L			9.53	12.7	19.1	25.4	50.8	76.2	101.6
CODE	025	031	037	050	075	100	200	300	400

Manufacturing capacities

	SYNCHROFLEX®	BRECOFLEX® M - M PAZ	BRECOFLEX® L - L PAZ
Standard lengths	Length acc. to standard table only	Length acc. to standard table only, Width max. 101.6 mm	Length from 314.33 to 685.80 mm = one sleeve minimum All intermediate lengths can be produced from 723.9 mm to 14 992.35 mm ¹ Lengths smaller than 685.8 TPU ST3 Lengths greater than 723.9 TPU ST1
Polyurethanes ²	DEDU 8600	TPU ST3	
Winding	Monofilar	Bifilar	
Tension member ³	Steel	Steel	Steel

1. Minimum order
2. Other polyurethanes (see table "Characteristics of materials" page 5)
3. Other tension members (Kevlar, high-flexibility tension members, stainless steel)
4. See "Coatings" page 56



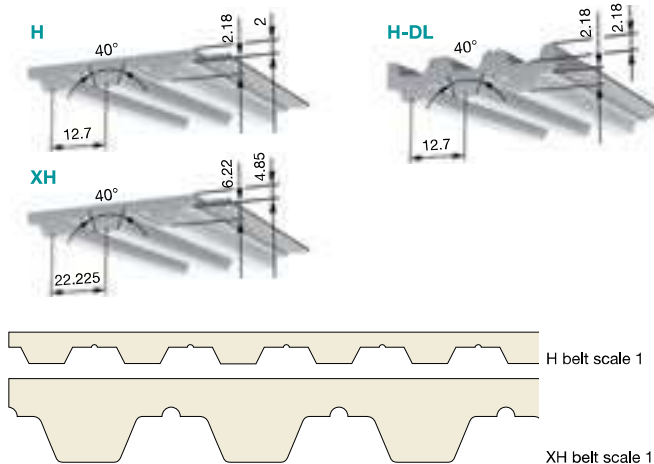
Pulleys: see page 8

DELIVERY TIMES		
Standard belts	○	4 weeks

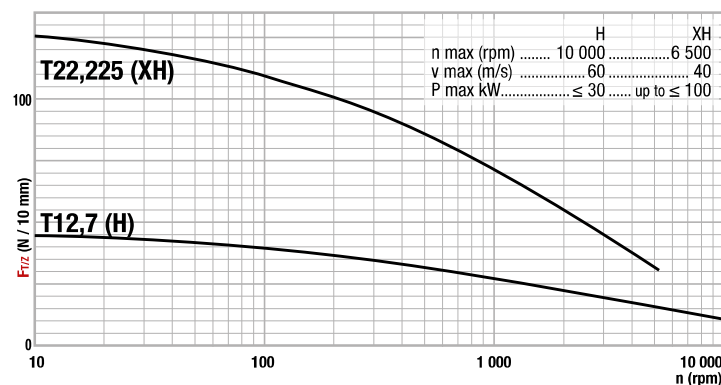
Standard lengths profile / mm	No. of teeth	SYNCHROFLEX® SD	BRECOFLEX® SD
M T2.032			
111 M / 111.76	55	○	
113 M / 113.79	56	○	
121 M / 121.92	60	○	
132 M / 132.08	65	○	
142 M / 142.24	70	○	
144 M / 144.27	71	○	
162 M / 162.56	80	○	
182 M / 182.88	90	○	
197 M / 197.10	97	○	
203 M / 203.20	100	○	
209 M / 209.30	103	○	
213 M / 213.36	105	○	
243 M / 243.84	120	○	
256 M / 256.03	126	○	
264 M / 264.16	130	○	
284 M / 284.48	140	○	
304 M / 304.80	150	○	
355 M / 355.60	175	○	
373 M / 373.89	184	○	
449 M / 449.07	221	○	
520 M / 520.19	256	○	
599 M / 599.44	295	○	
1178 M / 1178.56	580	○	
XL T5.08			
60 XL / 152.40	30		○
70 XL / 177.80	35	○	○
80 XL / 203.20	40	○	○
90 XL / 228.60	45	○	○
92 XL / 233.68	46	○	
100 XL / 254.00	50		○
110 XL / 279.40	55		○
112 XL / 284.50	56		
120 XL / 304.80	60	○	○
130 XL / 330.20	65		○
140 XL / 355.60	70		○
150 XL / 381.00	75	○	○
160 XL / 406.40	80	○	○
170 XL / 431.80	85		○
180 XL / 457.20	90		○
190 XL / 482.60	95		○
200 XL / 508.00	100	○	○
210 XL / 533.40	105		○
220 XL / 558.80	110		○
230 XL / 584.20	115		○
240 XL / 609.60	120	○	○
250 XL / 635.00	125		○
260 XL / 660.40	130		○
278 XL / 707.40	139		○
287 XL / 728.40	144		○
322 XL / 819.15	160	○	
345 XL / 876.30	172		
367 XL / 933.45	184		
382 XL / 971.55	192		
390 XL / 990.60	195		
394 XL / 1000.13	197		
405 XL / 1028.70	202		
420 XL / 1066.80	210		
435 XL / 1104.90	218		
450 XL / 1143.00	225		
454 XL / 1152.50	227		
480 XL / 1219.20	240		
495 XL / 1257.30	247		
540 XL / 1371.60	270		
547 XL / 1390.65	273		
570 XL / 1447.80	285		
600 XL / 1524.00	300		
630 XL / 1600.20	315		
660 XL / 1676.40	330		
705 XL / 1790.70	352		
750 XL / 1905.00	375		
803 XL / 2038.35	401		
855 XL / 2171.70	428		
900 XL / 2286.00	450		
997 XL / 2533.65	498		
1102 XL / 2800.35	550		
1252 XL / 3181.35	626		
1402 XL / 3562.35	701		
1702 XL / 4324.35	846		
2002 XL / 5086.35	991		
2302 XL / 5848.35	1136		
2602 XL / 6610.35	1281		
3000 XL / 7620.00	1500		
L T9.525			
124 L / 314.33	33		○
150 L / 381.00	40		○
172 L / 438.00	46	○	○
187 L / 476.25	50		○
202 L / 514.35	54		○
210 L / 533.40	56		○
225 L / 571.50	60	○	○
240 L / 609.60	64		○
255 L / 647.70	68		○
270 L / 685.80	72		○
285 L / 723.90	76		○
300 L / 762.00	80		○
322 L / 819.15	86		○
345 L / 876.30	92		○
367 L / 933.45	98		○
382 L / 971.55	102	○	○
390 L / 990.60	104		○
394 L / 1000.13	105		○
405 L / 1028.70	108		○
420 L / 1066.80	112		○
435 L / 1104.90	116	○	○
450 L / 1143.00	120		○
454 L / 1152.50	121	○	○
480 L / 1219.20	128		○
495 L / 1257.30	132	○	○
540 L / 1371.60	144		○
547 L / 1390.65	146	○	○
570 L / 1447.80	152		○
600 L / 1524.00	160		○
630 L / 1600.20	168		○
660 L / 1676.40	176		○
705 L / 1790.70	188		○
750 L / 1905.00	200		○
803 L / 2038.35	214		○
855 L / 2171.70	228		○
900 L / 2286.00	240		○
997 L / 2533.65	266		○
1102 L / 2800.35	294		○
1252 L / 3181.35	334		○
1402 L / 3562.35	374		○
1702 L / 4324.35	454		○
2002 L / 5086.35	534		○
2302 L / 5848.35	614		○
2602 L / 6610.35	694		○
3000 L / 7620.00	800		○

BELT ORDERING EXAMPLES				
Designation	Width	Profile / Length	Type	Particular specification
SYNCHROFLEX timing belt	6	M/182	SYN	
BRECOFLEX timing belt	25.4	T5.08/ 889	BFX	PAZ

TIMING BELTS



Tangential force transmittable by the teeth



Available widths (mm)

H	12.7	19.1	25.4	38.1	50.8	76.2	101.4
XH		19.1	25.4	38.1	50.8	76.2	101.4
CODE	050	075	100	150	200	300	400

Manufacturing capacities

	SYNCHROFLEX®	BRECOFLEX® H - H PAZ	BRECOFLEX® XH - XH PAZ
Standard lengths	Length acc. to standard table only	All intermediate lengths can be produced from 723.9 mm to 16 002 mm ¹	Length from 314.33 to 685.80 mm = one sleeve minimum All intermediate lengths can be produced from 1 422.4 mm to 16 002 mm ¹
Types DL and DL/PAZ ⁴		All intermediate lengths possible from 901.7 mm ¹	
Polyurethanes ²	DEDU 8600	TPU ST1	TPU ST1
Winding	Monofilar	Bifilar	Bifilar
Tension member ³	Steel	Steel	Steel

1. Minimum order
2. Other polyurethanes (see table "Characteristics of materials" page 5)
3. Other tension members (Kevlar, high-flexibility tension members, stainless steel)
4. See "Coatings" page 56



Pulleys: see page 8

Standard lengths profile / mm	No. of teeth	SYNCHROFLEX® SD	BRECOFLEX® SD	DL
H T12,7				
285 H / 723.90	57			
300 H / 762.00	60			
315 H / 800.10	63			
330 H / 838.20	66			
345 H / 876.30	69			
360 H / 914.40	72			
375 H / 952.50	75			
390 H / 990.60	78			
405 H / 1028.70	81			
420 H / 1066.80	84			
450 H / 1143.00	90			
480 H / 1219.20	96			
500 H / 1270.00	100			
510 H / 1295.40	102			
540 H / 1371.60	108			
570 H / 1447.80	114			
600 H / 1524.00	120			
630 H / 1600.20	126			
660 H / 1676.40	132			
700 H / 1778.00	140			
750 H / 1905.00	150			
800 H / 2032.00	160			
850 H / 2159.00	170			
900 H / 2286.00	180			
1000 H / 2540.00	200			
1100 H / 2794.00	220			
1250 H / 3175.00	250			
1400 H / 3556.00	280			
1700 H / 4318.00	340			
2000 H / 5080.00	400			
2300 H / 5842.00	460			
2600 H / 6604.00	520			
3000 H / 7620.00	600			
XH T22,225				
560 XH / 1422.40	64			
630 XH / 1600.20	72			
700 XH / 1778.00	80			
770 XH / 1955.80	88			
840 XH / 2133.60	96			
980 XH / 2489.20	112			
1120 XH / 2844.80	128			
1260 XH / 3200.40	144			
1400 XH / 3556.00	160			
1540 XH / 3911.60	176			
1750 XH / 4445.00	200			
1960 XH / 4978.40	224			
2275 XH / 5778.50	260			
2450 XH / 6223.00	280			
3500 XH / 8890.00	400			

DELIVERY TIMES		
Standard belts	○	4 weeks

BELT ORDERING EXAMPLES				
Designation	Type	Width	Profile / Length	Particular specifications
BRECOFLEX timing belt	BFX	25.4	T12.7/ 1778	PAZ