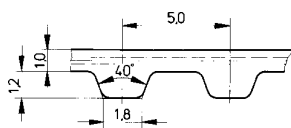
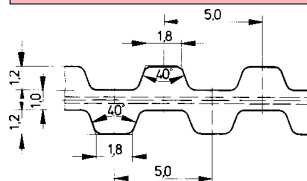


T5 BELTS
SS SINGLE SIDED

DL DOUBLE SIDED

TECHNICAL DATA SUMMARY

Potential capacity 5 kW
 Maximum speed 40000 rpm
 Maximum linear speed 80 m/s
 Allowable tensile load F_{zul} 350N / 10mm of belt width
 Weight per metre 0.024 kg / 10mm of belt width
 Full technical data see page 113

AVAILABILITY


TYPE profile/length	No. of teeth Z	SYNCHROFLEX		BRECOCOFLEX		BRECOCOFLEX	
		SS	DL	SS	DL	SS	DL
T5 / 100	20	●					
T5 / 150	30	●	●				
T5 / 165	33	●					
T5 / 180	36	●					
T5 / 185	37	●					
T5 / 200	40	●				■	
T5 / 210	42	●				■	
T5 / 215	43	●				■	
T5 / 220	44	●				■	
T5 / 225	45	●				■	
T5 / 240	48	●				■	
T5 / 245	49	●				■	
T5 / 250	50	●				■	
T5 / 255	51	●				■	
T5 / 260	52	●	●			■	
T5 / 270	54	●				■	
T5 / 280	56	●				■	
T5 / 295	59	●				■	
T5 / 300	60	●	●			■	
T5 / 305	61	●				■	
T5 / 330	66	●				■	
T5 / 340	68	●				■	
T5 / 355	71	●				■	
T5 / 365	73	●				■	
T5 / 370	74	●				■	
T5 / 390	78	●				■	
T5 / 400	80	●				■	
T5 / 410	82	●	●			■	
T5 / 420	84	●				■	
T5 / 435	87	●				■	
T5 / 455	91	●				■	
T5 / 460	92	●	●			■	
T5 / 480	96	●				■	
T5 / 500	100	●				■	
T5 / 505	101	●				■	
T5 / 510	102	●				■	
T5 / 515	103	●	●			■	
T5 / 525	105	●	●			■	
T5 / 545	109	●				■	
T5 / 550	110	●				■	
T5 / 560	112	●				■	
T5 / 575	115	●				■	
T5 / 590	118	●	●			■	
T5 / 610	122	●				■	
T5 / 620	124	●	●			■	
T5 / 625	125	●	●			■	
T5 / 630	126	●				■	
T5 / 650	130	●				■	
T5 / 660	132	●				■	
T5 / 690	138	●				■	
T5 / 700	140	●				■	
T5 / 720	144	●				■	
T5 / 725	145	●				■	

Any joined length available in pitch multiples from 500mm.
 Minimum quantities apply to belts of 6, 8, 10, 12 or 16mm width

Min. length 650mm
 Min. qty. as per SS

STANDARD BELT AND PULLEY WIDTHS

Standard belt widths b	6	10	12	16	20	25	32	50	75
Pulley face width B	11	15	17	21	25	30	37	55	80
Stock pulley width B _N		21		27		36			

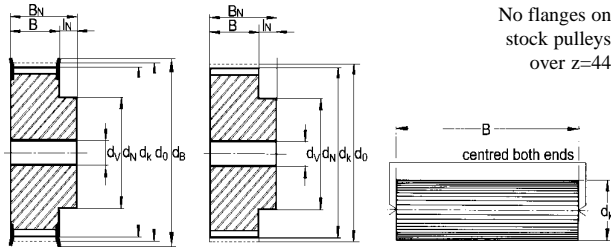
TYPE profile/length	No. of teeth Z	SYNCHROFLEX		BRECOCOFLEX		BRECOCOFLEX	
		SS	DL	SS	DL	SS	DL
T5 / 750	150	●	●				
T5 / 755	151					■	
T5 / 765	153	●					
T5 / 780	156	●				■	
T5 / 800	160	●					
T5 / 815	163	●	●			■	
T5 / 840	168	●				■	
T5 / 860	172		●				
T5 / 900	180	●				■	
T5 / 920	184	●					
T5 / 925	185	●					
T5 / 940	188	●	●				
T5 / 945	189					■	
T5 / 990	198	●				■	
T5 / 1040	208					■	
T5 / 1075	215	●				■	■*
T5 / 1100	220	●	●			■	■*
T5 / 1160	232	●				■	■*
T5 / 1215	243	●				■	■*
T5 / 1315	263	●				■	■*
T5 / 1325	265		●				
T5 / 1380	276	●				■	■*
T5 / 1400	280					■	■*
T5 / 1500	300	●				■	■*
T5 / 1600	320					■	■*
T5 / 1700	340					■	■*
T5 / 1800	360					■	■*
T5 / 1900	380					■	■*
T5 / 2000	400					■	■*
T5 / 2120	424					■	■*
T5 / 2240	448					■	■*
T5 / 2360	472					■	■*
T5 / 2500	500					■	■*
T5 / 2650	530					■	■*
T5 / 2800	560					■	■*
T5 / 3000	600					■	■*
T5 / 3150	630					■	■*
T5 / 3350	670					■	■*
T5 / 3550	710					■	■*
T5 / 3750	750					■	■*
T5 / 4000	800					■	■*
T5 / 4250	850					■	■*
T5 / 4500	900					■	■*
T5 / 4750	950					■	■*
T5 / 5000	1000					■	■*
T5 / 5300	1060					■	■*
T5 / 5600	1120					■	■*
T5 / 6000	1200					■	■*
T5 / 6300	1260					■	■*
T5 / 6700	1340					■	■*
T5 / 7100	1420					■	■*
T5 / 7500	1500					■	■*

BELT ORDER CODE EXAMPLE

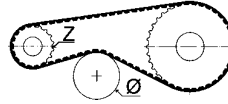
Width	Profile / length	Specification
10	T5 / 455	Synchroflex
25	T5 / 1600	Brecocoflex

- FLEX=endless, M=open length, V=joined**
- Standard belt length, normally held in stock
 - Standard belt length, only available to special order.
 - * Intermediate lengths available between 1050-15000mm, only available to special order. Min. quantity will apply.

PULLEY & BAR DIMENSIONS



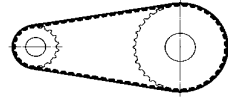
REVERSE BENDING



Minimum pulley and roller Ø:	Z min	Ø min
Standard cord	15	30
E tension cord	12	18
Reinforced cord	*	*
PAR backing	25	40

*please consult our technical department

NORMAL USE



Minimum pulley and roller Ø:	Z min	Ø min
Standard cord	10	30
E tension cord	10	18
Reinforced cord	*	*
PAR backing	25	40

*please consult our technical department

Pulley width B _N	Z no.	d ₀	d _k	d _B *	d _N	bore size		
						d _v	d _{max}	
21 27 36 Bar	teeth	(mm)	(mm)	(mm)	(mm)			
● ● ●	125	10	15.92	15.05	20	8	—	6
● ● ●	125	11	17.51	16.65	22	—	—	6
● ● ●	125	12	19.10	18.25	23	12†	—	6
● ● ●	125	13	20.69	19.85	25	—	—	8
● ● ●	132	14	22.28	21.45	26	14	—	8
● ● ●	132	15	23.87	23.05	28	16	6	10
● ● ●	140	16	25.46	24.60	30	18	6	12
● ● ●	140	17	27.06	26.20	31	—	—	14
● ● ●	140	18	28.65	27.80	33	20	6	16
● ● ●	140	19	30.24	29.40	34	22	6	16
● ● ●	140	20	31.83	31.00	36	24†	6	18
● ● ●	160	21	33.42	32.60	37	—	—	20
● ● ●	160	22	35.01	34.15	39	24	6	22
● ● ●	160	23	36.61	35.75	40	—	—	24
● ● ●	160	24	38.20	37.35	42	26	6	24
● ● ●	160	25	39.79	38.95	43	26	6	25
● ● ●	160	26	41.38	40.55	45	26	6	25
● ● ●	160	27	42.97	42.15	47	30	8	27
● ● ●	160	28	44.56	43.75	48	32	8	29
● ● ●	160	29	46.15	45.30	50	—	—	31
● ● ●	160	30	47.75	46.90	51	34	8	33
● ● ●	160	31	49.34	48.50	53	—	—	35
● ● ●	160	32	50.93	50.10	55	38	8	37
● ● ●	160	33	52.52	51.70	56	—	—	39
● ● ●	160	34	54.11	53.30	58	—	—	39
● ● ●	160	35	55.70	54.85	59	—	—	40
● ● ●	160	36	57.30	56.45	61	38	8	42
● ● ●	160	37	58.89	58.05	62	—	—	43
● ● ●	160	38	60.48	59.65	64	—	—	45
● ● ●	160	39	62.07	61.25	66	—	—	45
● ● ●	160	40	63.66	62.85	67	40	8	47
● ● ●	160	41	65.25	64.40	69	—	—	48
● ● ●	160	42	66.85	66.00	70	40	8	50
● ● ●	160	43	68.44	67.60	72	—	—	52
● ● ●	160	44	70.03	69.20	74	45	8	52
● ● ●	160	45	71.62	70.80	75	—	—	54
● ● ●	160	46	73.21	72.40	77	—	—	56
● ● ●	160	47	74.80	73.95	78	—	—	58
● ● ●	160	48	76.39	75.55	80	50	8	60
● ● ●	160	49	77.99	77.15	82	—	—	60
● ● ●	160	50	79.58	78.75	83	—	—	60
● ● ●	160	51	81.17	80.35	85	—	—	62
● ● ●	160	52	82.76	81.95	86	—	—	64
● ● ●	160	53	84.35	83.55	88	—	—	66
● ● ●	160	54	85.94	85.10	90	—	—	66
● ● ●	160	55	87.54	86.70	91	—	—	68
● ● ●	160	56	89.13	88.30	93	—	—	70
● ● ●	160	57	90.72	89.90	94	—	—	72
● ● ●	160	58	92.31	91.50	96	—	—	74

● Available from stock in Aluminium. Preferred sizes shaded red.
 Non stock sizes available to order (see page 86)

STOCK PULLEY ORDER CODE EXAMPLE

Mat'l	Width B _N	Type / no. teeth	No. of. flanges	Special instructions
AL	27	T5 / 48	-0	

Pulley width B _N	Z no.	d ₀	d _k	d _B *	d _N	bore size		
						d _v	d _{max}	
21 27 36 Bar	teeth	(mm)	(mm)	(mm)	(mm)			
● ● ●	160	59	93.90	93.10	97	—	—	74
● ● ●	160	60	95.49	94.65	99	65	8	76
● ● ●	160	61	97.08	96.25	101	—	—	79
● ● ●	160	62	98.68	97.85	102	—	—	80
● ● ●	160	63	100.27	99.45	104	—	—	82
● ● ●	160	64	101.86	101.05	105	—	—	82
● ● ●	160	65	103.45	102.65	107	—	—	84
● ● ●	160	66	105.04	104.20	109	—	—	86
● ● ●	160	67	106.63	105.80	110	—	—	88
● ● ●	160	68	108.23	107.40	112	—	—	90
● ● ●	160	69	109.82	109.00	113	—	—	90
● ● ●	160	70	111.41	110.60	115	—	—	90
● ● ●	160	71	113.00	112.20	117	—	—	92
● ● ●	160	72	114.59	113.75	118	—	—	94
● ● ●	160	73	116.18	115.35	120	—	—	96
● ● ●	160	74	117.77	116.95	121	—	—	96
● ● ●	160	75	119.37	118.55	123	—	—	98
● ● ●	160	76	120.96	120.15	125	—	—	100
● ● ●	160	77	122.55	121.75	126	—	—	102
● ● ●	160	78	124.14	123.35	128	—	—	104
● ● ●	160	79	125.73	124.90	129	—	—	104
● ● ●	160	80	127.32	126.50	131	—	—	106
● ● ●	160	81	128.92	128.10	133	—	—	108
● ● ●	160	82	130.51	129.70	134	—	—	110
● ● ●	160	83	132.10	131.30	136	—	—	110
● ● ●	160	84	133.69	132.90	137	—	—	112
● ● ●	160	85	135.28	134.45	139	—	—	114
● ● ●	160	86	136.87	136.05	140	—	—	116
● ● ●	160	87	138.46	137.65	142	—	—	119
● ● ●	160	88	140.06	139.25	144	—	—	119
● ● ●	160	89	141.65	140.85	145	—	—	120
● ● ●	160	90	143.24	142.45	147	—	—	120
● ● ●	160	91	144.83	144.00	148	—	—	122
● ● ●	160	92	146.42	145.60	150	—	—	124
● ● ●	160	93	148.01	147.20	152	—	—	126
● ● ●	160	94	149.61	148.80	153	—	—	126
● ● ●	160	95	151.20	150.40	155	—	—	129
● ● ●	160	96	152.79	152.00	156	—	—	130
● ● ●	160	97	154.38	153.55	158	—	—	130
● ● ●	160	98	155.97	155.15	160	—	—	132
● ● ●	160	99	157.56	156.75	161	—	—	132
● ● ●	160	100	159.15	158.35	163	—	—	134
● ● ●	160	101	160.75	159.95	164	—	—	136
● ● ●	160	102	162.34	161.55	166	—	—	139
● ● ●	160	103	163.93	163.15	168	—	—	140
● ● ●	160	104	165.52	164.70	169	—	—	140
● ● ●	160	105	167.11	166.30	171	—	—	140
● ● ●	160	106	168.70	167.90	172	—	—	142
● ● ●	160	107	170.30	169.50	174	—	—	146

d₀ = Pitch circle diameter
 d_k = Outside diameter
 d_N = Hub diameter († variable)
 d_v / d_{max} = Stock pulley bore diameter / max. bore
 d_B = Flange diameter (*approximate)

Tooth shear strength, tension member tensile strength and flexibility determine belt dimensions. See p.102.

1) Tooth Shear Strength

The belt width (in cm) required to transmit known peripheral force F_U , torque M or power P without exceeding the maximum allowable tooth shear strength is calculated using any of the following formulae and the values from the table:

$$b = \frac{F_U}{z_e \cdot F_{U\text{spez}}}$$

$$b = \frac{100 \cdot M}{z_1 \cdot z_e \cdot M_{\text{spez}}}$$

$$b = \frac{1000 \cdot P}{z_1 \cdot z_e \cdot P_{\text{spez}}}$$

b = belt width (in cm)

$F_{U\text{spez}}$ = specific peripheral force(N/cm)

M_{spez} = specific torque (Ncm/cm)

P_{spez} = specific power (W/cm)

z_1 = No. of teeth on the small pulley

z_2 = No. of teeth in the large pulley

t = pitch in mm

a = centre distance in mm

z_e = No. of teeth in mesh (see below)

$z_{e\text{max}} = 12$ for Brecoflex®, Synchroflex® or Breco® M

$z_{e\text{max}} = 6$ for Breco® V timing belts

To calculate the number of teeth in mesh, z_e :

$$z_e = \frac{z_1}{180} \cdot \arccos \frac{(z_2 - z_1) \cdot t}{2\pi a}$$

Specific Tooth Shear Strength Tables

Rpm, n (min ⁻¹)	$F_{U\text{spez}}$ (N/cm)	M_{spez} (Ncm/cm)	P_{spez} (W/cm)	Rpm, n (min ⁻¹)	$F_{U\text{spez}}$ (N/cm)	M_{spez} (Ncm/cm)	P_{spez} (W/cm)	Rpm, n (min ⁻¹)	$F_{U\text{spez}}$ (N/cm)	M_{spez} (Ncm/cm)	P_{spez} (W/cm)
0	24.00	1.910	0.000	1100	15.58	1.240	1.428	3200	12.16	0.967	3.241
20	23.38	1.861	0.039	1200	15.31	1.218	1.531	3400	11.96	0.951	3.338
40	22.86	1.819	0.076	1300	15.06	1.198	1.632	3600	11.77	0.936	3.530
60	22.41	1.783	0.112	1400	14.83	1.180	1.730	3800	11.59	0.922	3.670
80	22.01	1.751	0.147	1500	14.61	1.162	1.826	4000	11.42	0.909	3.807
100	21.65	1.723	0.180	1600	14.40	1.146	1.920	4500	11.03	0.878	4.136
200	20.28	1.614	0.338	1700	14.21	1.131	2.013	5000	10.68	0.850	4.450
300	19.30	1.536	0.483	1800	14.03	1.116	2.104	5500	10.36	0.825	4.750
400	18.55	1.476	0.618	1900	13.85	1.102	2.193	6000	10.07	0.802	5.037
500	17.93	1.427	0.747	2000	13.69	1.089	2.281	6500	9.81	0.780	5.312
600	17.41	1.385	0.870	2200	13.38	1.065	2.453	7000	9.56	0.761	5.577
700	16.96	1.349	0.989	2400	13.10	1.042	2.619	7500	9.33	0.742	5.831
800	16.56	1.318	1.104	2600	12.84	1.021	2.781	8000	9.11	0.725	6.076
900	16.20	1.289	1.215	2800	12.59	1.002	2.938	9000	8.72	0.694	6.540
1000	15.88	1.263	1.323	3000	12.37	0.984	3.092	10000	8.37	0.666	6.970

For designs over the quoted speed, please contact our Technical Department

2) Tensile Strength of Tension Member

Allowable tensile load F_{zul} on belt cross section in Newtons

BELT WIDTH (in mm)	6	10	16	25	32	50	75	100
Synchroflex	180	330	570	930	1200	1920	2940	3930
Breco M	180	300	540	840	1080	1680	2250	—
Breco V	90	150	270	420	540	840	1125	—
Brecoflex	180	330	570	930	1200	1920	2940	3930