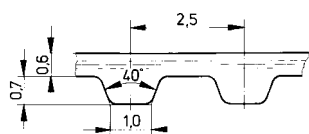
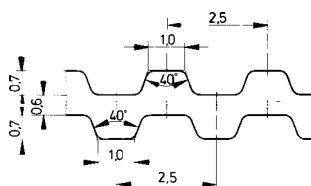


T2.5 BELTS

SS SINGLE SIDED



DL DOUBLE SIDED



TECHNICAL DATA SUMMARY

Potential capacity	0.5 kW
Maximum speed	40000 rpm
Maximum linear speed	80 m/s
Allowable tensile load F_{zul}	117N / 10mm of belt width
Weight per metre	0.015 kg / 10mm of belt width
Full technical data	see page 112

AVAILABILITY



STANDARD BELT AND PULLEY WIDTHS

Standard belt widths b	4	6	8	10	12	16	20	25
Pulley face width B	8	10	12	14	16	20	24	29
Stock pulley width B _s		16						

TYPE	No. of	SYNCHROFLEX		BRECO M / V		BRECOFLEX	
profile/length	teeth Z	SS	DL	SS	DL	SS	DL
T2.5 / 55 ¹	22	●					
T2.5 / 120	48	●					
T2.5 / 145	58	●					
T2.5 / 160	64	●					
T2.5 / 177.5	71	●					
T2.5 / 180	72	●					
T2.5 / 182.5	73	●					
T2.5 / 200	80	●					
T2.5 / 210 ¹	84	●					
T2.5 / 225	90	●					
T2.5 / 230	92	●					
T2.5 / 245	98	●					
T2.5 / 265	106	●					
T2.5 / 285	114	●					
T2.5 / 290	116	●					
T2.5 / 305	122	●					
T2.5 / 317.5	127	●	●				
T2.5 / 330	132	●					
T2.5 / 380	152	●					
T2.5 / 415	166		●				
T2.5 / 420	168	●					
T2.5 / 457.5	183		●				
T2.5 / 480	192	●					
T2.5 / 500	200	●					
T2.5 / 540 ¹	216	●					
T2.5 / 600	240	●		Any joined length available in pitch multiples from 600mm. Maximum width 20mm Minimum quantities apply to belts of 6, 8 or 10mm width			
T2.5 / 620	248	●					
T2.5 / 650	260	●					
T2.5 / 780	312	●					
T2.5 / 950	380	●					
T2.5 /1300	520	●					
T2.5 /1475 ¹	590	●					

TYPE profile/length	No. of teeth Z	SYNCHROFLEX		BRECO M / V		BRECOFLEX	
		SS	DL	SS	DL	SS	DL

FLEX=endless, M=open length, V=joined

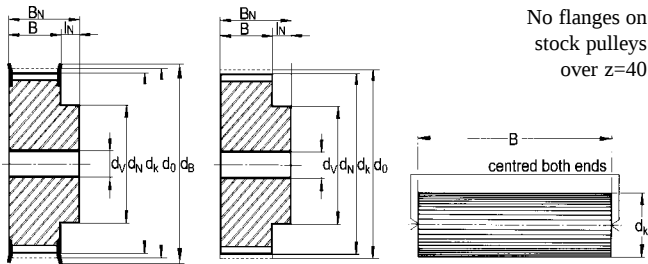
BELT ORDER CODE EXAMPLE

Width	Profile / length	Specification
10	T2.5 / 317.5	Synchroflex
6	T2.5 / 632.5	Breco V

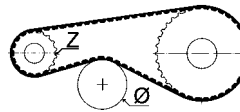
¹ With thicker backing

- Standard belt length, normally held in stock.

PULLEY & BAR DIMENSIONS

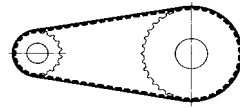


REVERSE BENDING



Minimum pulley and roller Ø:	Z min	Ø min
Standard cord	18	15
E tension cord	-	-
Reinforced cord	-	-
PAR backing	-	-

NORMAL USE



Minimum pulley and roller Ø:	Z min	Ø min
Standard cord	10	15
E tension cord	-	-
Reinforced cord	-	-
PAR backing	-	-

Pulley width B _N	Z, no. teeth	d _O (mm)	d _k (mm)	d _R * (mm)	d _N (mm)	bore size d _v d _{max}
16	Bar					
●	50	10	7.96	7.45	10	10 3 3
		11	8.75	8.25	11	3
●	50	12	9.55	9.00	12	12 3 3
		13	10.35	9.80	13	3.5
●	50	14	11.14	10.60	14	14 3 4
●	50	15	11.94	11.40	15	15 3 5
●	50	16	12.73	12.20	16	16 4 6
	50	17	13.53	13.00	16	7
●	50	18	14.32	13.80	17	10 4 7
●	90	19	15.12	14.60	18	10 4 8
●	90	20	15.92	15.40	19	12 [†] 4 9
	90	21	16.71	16.20	20	10
●	125	22	17.51	17.00	20	14 [†] 4 10
		23	18.30	17.80	21	11
●	125	24	19.10	18.55	22	14 4 11
●		25	19.89	19.35	23	14 [†] 4 12
●	125	26	20.69	20.15	23	14 4 13
	125	27	21.49	20.95	24	13
●	125	28	22.28	21.75	25	14 4 13
	125	29	23.08	22.55	26	14
●	125	30	23.87	23.35	27	16 6 15
		31	24.67	24.15	27	16
●	125	32	25.46	24.95	28	16 6 16
		33	26.26	25.75	29	17
	125	34	27.06	26.55	30	17
●	132	35	27.85	27.35	31	20 6 20
	132	36	28.65	28.15	31	20
		37	29.44	28.94	32	21
	132	38	30.24	29.74	33	21
		39	31.04	30.54	34	22
●	132	40	31.83	31.33	35	22 6 23
		41	32.63	32.13	35	24
	140	42	33.42	32.92	35	24
		43	34.22	33.72	37	24
●	140	44	35.01	34.51	38	24 6 25
		45	35.81	35.31	39	26
		46	36.61	36.11	39	27
		47	37.40	36.90	40	27
●	140	48	38.20	37.70	41	26 6 27
		49	38.99	38.49	42	28
	160	50	39.79	39.29	43	29
		51	40.58	40.08	43	30
		52	41.38	40.88	44	30
		53	42.18	41.68	45	30
		54	42.97	42.47	46	31
		55	43.77	43.27	47	32
		56	44.56	44.06	47	32
		57	45.36	44.86	48	32
		58	46.15	45.65	49	33

Pulley width B _N	Z, no. teeth	d _O (mm)	d _k (mm)	d _R * (mm)	d _N (mm)	bore size d _v d _{max}
16	Bar					
●	160	59	46.95	46.45	50	34
		60	47.75	47.25	51	34 8 35
		61	48.54	48.04	51	36
		62	49.34	48.84	52	37
		63	50.13	49.63	53	37
		64	50.93	50.43	54	37
160	65	51.73	51.23	55		38
		66	52.52	52.02	55	38
		67	53.32	52.82	56	39
		68	54.11	53.61	57	39
		69	54.91	54.41	58	40
160	70	55.70	55.20	59		41
		71	56.50	56.00	59	42
160	72	57.30	56.80	60		42
		73	58.09	57.59	61	43
		74	58.89	58.39	61	44
		75	59.68	59.18	62	45
		76	60.48	59.98	63	45
		77	61.27	60.77	64	46
		78	62.07	61.57	65	47
		79	62.87	62.37	66	47
		80	63.66	63.16	67	47
		81	64.46	63.96	67	47
		82	65.25	64.75	68	48
		83	66.05	65.55	69	49
		84	66.85	66.35	70	50
		85	67.64	67.14	71	50
		86	68.44	67.94	71	51
		87	69.23	68.73	72	51
		88	70.03	69.53	73	52
		89	70.82	70.32	74	52
160	90	71.62	71.12	75		53
		91	72.42	71.92	75	53
		92	73.21	72.71	76	54
		93	74.01	73.51	77	55
		94	74.80	74.30	78	55
		95	75.60	75.10	79	56
		96	76.39	75.89	79	57
		97	77.19	76.69	80	57
		98	77.99	77.49	81	58
		99	78.78	78.28	82	58
160	100	79.58	79.08	83		59
		101	80.37	79.87	83	59
		102	81.17	80.67	84	60
		103	81.96	81.46	85	61
		104	82.76	82.26	86	62
		105	83.56	83.06	87	63
		106	84.35	83.85	87	63
		107	85.15	84.65	88	64

● 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	16	T2.5 / 40	-2	

d_O = 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)

T2.5 TECHNICAL DATA

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	9.03	0.359	0.000	1100	5.61	0.223	0.257	3200	4.36	0.173	0.581
20	8.72	0.347	0.007	1200	5.51	0.219	0.275	3400	4.28	0.170	0.607
40	8.48	0.337	0.014	1300	5.41	0.215	0.293	3600	4.22	0.168	0.632
60	8.28	0.329	0.021	1400	5.33	0.212	0.311	3800	4.15	0.165	0.657
80	8.10	0.322	0.027	1500	5.25	0.209	0.328	4000	4.09	0.163	0.682
100	7.95	0.316	0.033	1600	5.17	0.206	0.345	5000	3.82	0.152	0.796
200	7.39	0.294	0.062	1700	5.10	0.203	0.361	6000	3.60	0.143	0.901
300	7.01	0.279	0.088	1800	5.04	0.200	0.378	7000	3.42	0.136	0.997
400	6.71	0.267	0.112	1900	4.97	0.198	0.394	8000	3.26	0.130	1.086
500	6.48	0.258	0.135	2000	4.91	0.195	0.409	9000	3.11	0.124	1.168
600	6.28	0.250	0.157	2200	4.80	0.191	0.440	10000	2.99	0.119	1.245
700	6.11	0.243	0.178	2400	4.70	0.187	0.470	12000	2.77	0.110	1.384
800	5.97	0.237	0.199	2600	4.60	0.183	0.499	15000	2.50	0.099	1.561
900	5.83	0.232	0.219	2800	4.51	0.180	0.527	18000	2.28	0.091	1.708
1000	5.71	0.227	0.238	3000	4.43	0.176	0.554	20000	2.15	0.086	1.791

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)	3	4	6	8	10	16	25	32
Synchroflex	25	39	65	92	117	195	312	403
Breco M	-	-	-	77	98	162	250	320
Breco V	-	-	-	38	49	81	125	160
Brecoflex	-	-	-	-	-	-	-	-