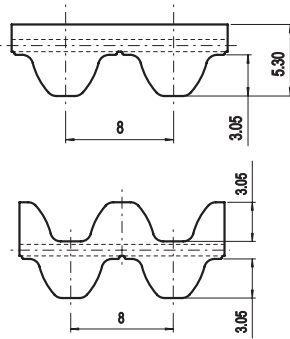
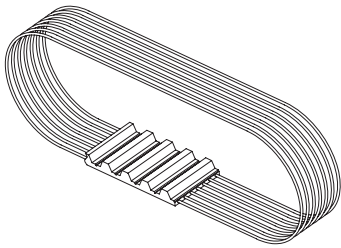


STD8M ELA-flex SD™



Belt characteristics

- Truly endless polyurethane timing belt with high tensile load steel cords and high torque capacity - produced according to ISO 13050
 - Metric pitch 8 mm
 - Low noise generation in high speed drives
 - Offer excellent operational reliability
 - The special profile allows smooth running properties
 - Transmissible power up to 80 Kw
 - Rpm up to 6.000 [1/min]
- Maximum width: 150 mm
 - Width tolerance: $\pm 0,5$ [mm]
 - Thickness tolerance: $\pm 0,2$ [mm]

Technical data

Belt width [mm]	10	15	20	30	50	85	100	150
Allowable tensile load [N]	1470	2210	3190	4660	8580	14700	17400	26000
Weight [kg/m]	0,07	0,10	0,13	0,20	0,33	0,56	0,66	1,00

Other widths are available on request

Tooth shear strength

rpm [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]	rpm [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]	rpm [min ⁻¹]	M _{spez} [Ncm/cm]	P _{spez} [W/cm]
0	9,435	0,000	1200	5,885	7,394	3400	3,960	14,098
20	9,301	0,195	1300	5,745	7,821	3600	3,849	14,508
40	9,176	0,384	1400	5,615	8,231	3800	3,743	14,894
60	9,057	0,569	1440	5,565	8,391	4000	3,643	15,257
80	8,946	0,749	1500	5,492	8,626	4500	3,410	16,070
100	8,841	0,926	1600	5,376	9,007	5000	3,201	16,762
200	8,401	1,759	1700	5,266	9,374	5500	3,011	17,343
300	7,908	2,484	1800	5,162	9,729	6000	2,837	17,824
400	7,567	3,169	1900	5,063	10,072	6500		
500	7,268	3,805	2000	4,968	10,404	7000		
600	7,005	4,401	2200	4,790	11,035	7500		
700	6,772	4,963	2400	4,627	11,628	8000		
800	6,561	5,496	2600	4,475	12,184	8500		
900	6,370	6,003	2800	4,334	12,707	9000		
1000	6,195	6,487	3000	4,202	13,199	9500		
1100	6,034	6,950	3200	4,077	13,662	10000		

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

$$P \text{ [Kw]} = P_{\text{spez}} \cdot Z_e \cdot Z_k \cdot b / 1000$$

$$M \text{ [Nm]} = M_{\text{spez}} \cdot Z_e \cdot Z_k \cdot b / 100$$

$$Z_e = \frac{Z_k}{180} \cdot \arccos \left[\frac{t \cdot (Z_g - Z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in Kw

M = torque in Nm

P_{spez} = specific power

M_{spez} = specific torque

Z_e = number of teeth in mesh of the small pulley

Z_{emax} = 12

Z_k = number of teeth of the small pulley

b = belt width in cm

A = centre distance [mm]

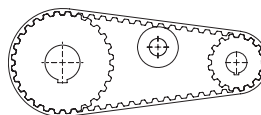
t = pitch

Flexibility

Minimum number of teeth and minimum diameter

Drive without reverse bending

- Timing pulley $Z_{\min} = 18$
- Idler running on belt teeth $d_{\min} = 50$ mm



Drive with reverse bending and double sided belt

- Timing pulley $Z_{\min} = 18$
- Idler running on belt back $d_{\min} = 120$ mm

