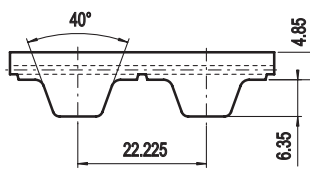
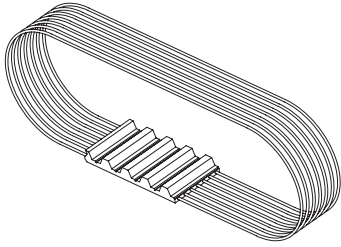


XH ELA-flex SD™



Belt characteristics

- Truly endless polyurethane timing belt with steel tension cords and trapezoidal tooth profile according to DIN/ISO 5296.
- Imperial pitch 7/8" = 22,225 mm
- Mainly used in applications where inch pitch is an advantage
- Transmissible power up to 100 kW
- Rpm up to 4.500 [1/min]
- Maximum width: 150 mm
- Width tolerance: ±1,0 [mm]
- Thickness tolerance: ±0,2 [mm]

Technical data

Belt width [inch]	1,00	2,00	3,00	4,00	6,00
Allowable tensile load [N]	4010	8010	12010	16010	24010
Weight [kg/m]	0,27	0,53	0,80	1,06	1,59

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	33,957	0,000	1200	17,802	22,369	3400	12,904	43,237
20	32,889	0,689	1300	17,405	23,692	3600	12,599	44,855
40	31,932	1,337	1400	17,037	24,975	3800	12,312	46,411
60	31,074	1,952	1440	16,897	25,477	4000	12,040	47,907
80	30,306	2,539	1500	16,693	26,220	4500	11,782	49,347
100	29,618	3,101	1600	16,372	27,430	5000		
200	26,460	5,541	1700	16,070	28,606	5500		
300	24,554	7,713	1800	15,785	29,752	6000		
400	23,178	9,708	1900	15,515	30,867	6500		
500	22,100	11,571	2000	15,259	31,955	7000		
600	21,213	13,327	2200	14,782	34,053	7500		
700	20,459	14,996	2400	14,347	36,054	8000		
800	19,804	16,590	2600	13,946	37,967	8500		
900	19,224	18,117	2800	13,574	39,798	9000		
1000	18,704	19,586	3000	13,433	40,509	9500		
1100	18,233	21,001	3200	13,228	41,553	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]

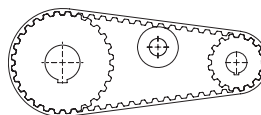
t = pitch

Flexibility

Minimum number of teeth and minimum diameter

Drive without reverse bending

- Timing pulley $z_{\min} = 18$
- Idler running on belt teeth $d_{\min} = 150 \text{ mm}$



Drive with reverse bending and double sided belt

- Timing pulley $z_{\min} = 20$
- Idler running on belt back $d_{\min} = 180 \text{ mm}$

