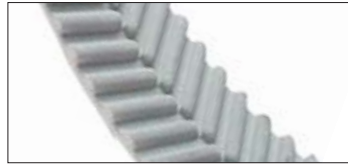
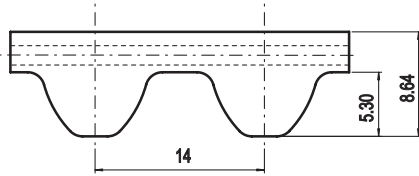


EAGLE 14M



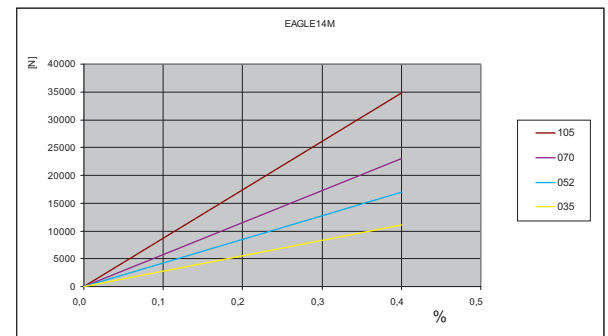
Belt characteristics

- Polyurethane timing belt with helical offset tooth, high tensile load steel cords and high torque capacity.
 - **Self tracking no need of pulley flanges**
 - Metric pitch 14 mm
 - **Extremely reduced noise generation**
 - Offers excellent operational reliability in linear positioning, heavy power transmission and lifting applications
 - The special profile allows most compact drive
- Width tolerance: $\pm 1,2$ [mm]
 - Length tolerance: $\pm 0,8$ [mm/m]
 - Thickness tolerance: $\pm 0,4$ [mm]

Technical data

Belt width b [mm]	Allowable tensile load Type M F_{Tzul} [N]	Allowable tensile load Type V F_{Tzul} [N]	Breaking load Type M F_{Br} [N]	Specific spring rate C_{spez} [N]	Weight [kg/m]
35	9300	4650	37800	2762500	0,400
52	14700	7350	55800	4250000	0,600
70	19600	9800	74400	5737500	0,800
105	32600	16300	114000	8712500	1,200

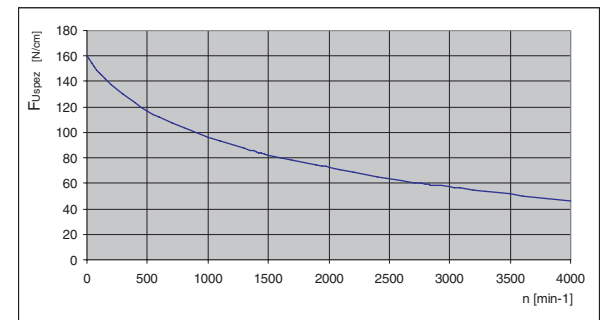
Load / Elongation [%]



Tooth shear strength

rpm	F_{Uspez} [N/cm]	rpm	F_{Uspez} [N/cm]	rpm	F_{Uspez} [N/cm]	rpm	F_{Uspez} [N/cm]
0	160,00	800	103,35	1900	73,99	4000	46,21
20	157,00	900	99,60	2000	72,13		
40	154,22	1000	96,17	2200	68,66		
60	151,64	1100	93,01	2400	65,46		
80	149,24	1200	90,08	2600	62,50		
100	147,01	1300	87,35	2800	59,73		
200	138,04	1400	84,80	2880	58,68		
300	129,87	1440	83,82	3000	57,15		
400	123,12	1500	82,39	3200	54,71		
500	117,24	1600	80,12	3400	52,42		
600	112,07	1700	77,97	3600	50,24		
700	107,48	1800	75,93	3800	48,18		

Tooth shear strength / rpm



The specific load F_{Uspez} is the maximum load which one single belt tooth 1 cm wide can withstand in all operating conditions. This force is related to the drive rpm. The total load F_U transmissible by the belt in the drive is calculated by:

$$F_U [N] = F_{Uspez} \cdot Z_e \cdot b$$

- $F_U [N]$ = peripheral force
- $F_{Uspez} [N/cm]$ = specific load
- Z_e = number of teeth in mesh in the small pulley
- Z_{emax} = max. no of teeth in mesh to be considered for the calculation of the drive
- $Z_{emax} = 12$ for ELATECH® M
- $Z_{emax} = 6$ for ELATECH® V
- $b [cm]$ = belt width in cm