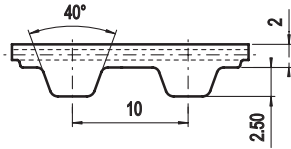


T10

TOTAL PROTECTION



Belt characteristics

- Polyurethane timing belt with steel tension cords
- Trapezoidal tooth profile according to DIN 7721 T1
- Metric pitch 10 mm
- **TP (Total Protection) belt. The absence of tooth gap makes the belt protected against corrosion**
- **Widely used in application with corrosive environment**

- Width tolerance: $\pm 0,5$ [mm]
- Length tolerance: $\pm 0,5$ [mm/m]
- Thickness tolerance: $\pm 0,2$ [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]
10	920	460	3360	230000	0,05
16	1610	805	5880	402500	0,07
25	2650	1325	9660	662500	0,11
32	3450	1725	12600	862500	0,15
50	5520	2760	20160	1380000	0,23
75	8400	4200	30660	2100000	0,34
100	11270	5635	41160	2817500	0,45

Other widths are available on request.

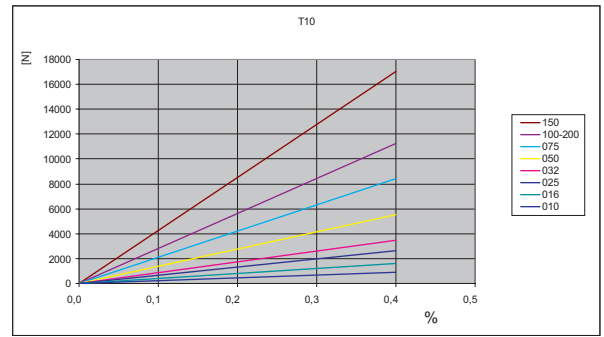
Tooth shear strength

rpm	F _{Uspez} [N/cm]	rpm	F _{Uspez} [N/cm]	rpm	F _{Uspez} [N/cm]	rpm	F _{Uspez} [N/cm]
0	51,80	800	33,34	1900	26,53	4500	19,40
20	50,32	900	32,44	2000	26,12	5000	18,51
40	49,04	1000	31,63	2200	25,34	5500	17,70
60	47,92	1100	30,89	2400	24,63	6000	16,97
80	46,95	1200	30,21	2600	23,97	6500	16,29
100	46,11	1300	29,58	2800	23,36	7000	15,66
200	42,75	1400	28,99	3000	22,78	7500	15,07
300	40,28	1440	28,76	3200	22,25	8000	14,52
400	38,36	1500	28,44	3400	21,74	8500	14,00
500	36,80	1600	27,92	3600	21,27	9000	13,51
600	35,49	1700	27,43	3800	20,81	9500	13,05
700	34,35	1800	26,97	4000	20,39	10000	12,61

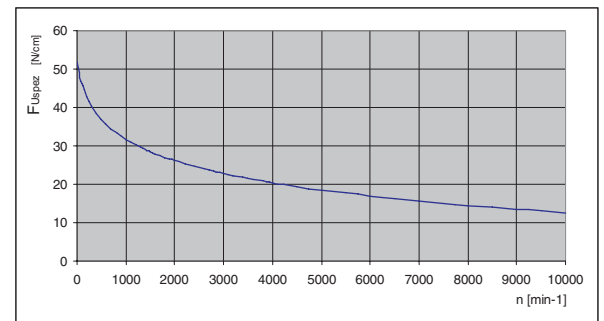
The specific load F_{Uspez} is the maximum load which one single belt tooth 1 cm wide can withstand in all operating conditions. This force is related to the drive rpm. The total load F_U transmissible by the belt in the drive is calculated by:

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

Load / Elongation [%]


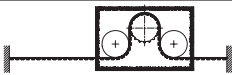


Tooth shear strength / rpm



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

Flexibility

Minimum pulley number of teeth and minimum idler diameter		
T10 TP		TYPE OF CORD
		STANDARD
Drive without reverse bending 	Timing pulley z_{min}	12
	Idler running on belt teeth d_{min}	60 mm
Drive with reverse bending 	Timing pulley z_{min}	20
	Idler running on belt back d_{min}	60 mm

Timing pulleys

z	da	dw	z	da	dw	z	da	dw	z	da	dw
10	30,05	31,84	39	122,30	124,14	68	214,60	216,44	97	306,90	308,75
11	33,25	35,02	40	125,45	127,32	69	217,75	219,63	98	310,10	311,93
12	36,35	38,20	41	128,65	130,50	70	220,95	222,81	99	313,25	315,12
13	39,50	41,38	42	131,85	133,69	71	224,15	225,99	100	316,45	318,30
14	42,70	44,56	43	135,00	136,87	72	227,30	229,18	101	319,65	321,48
15	45,90	47,75	44	138,20	140,05	73	230,50	232,36	102	322,80	324,66
16	49,05	50,93	45	141,40	143,24	74	233,70	235,54	103	326,00	327,85
17	52,25	54,11	46	144,60	146,42	75	236,90	238,72	104	329,20	331,03
18	55,45	57,29	47	147,75	149,60	76	240,05	241,94	105	332,35	334,21
19	58,65	60,48	48	150,95	152,78	77	243,25	245,09	106	335,55	337,40
20	61,80	63,66	49	154,10	155,97	78	246,40	248,27	107	338,75	340,58
21	65,00	66,84	50	157,30	159,15	79	249,60	251,46	108	341,95	343,76
22	68,15	70,03	51	160,50	162,33	80	252,80	254,64	109	345,15	346,95
23	71,35	73,20	52	163,65	165,52	81	256,00	257,82	110	348,30	350,13
24	74,55	76,39	53	166,85	168,70	82	259,15	261,00	111	351,45	353,31
25	77,70	79,58	54	170,05	171,88	83	262,30	264,19	112	354,65	356,50
26	80,90	82,76	55	173,20	175,06	84	265,50	267,37	113	357,80	359,68
27	84,10	85,95	56	176,40	178,25	85	268,70	270,55	114	361,00	362,86
28	87,25	89,12	57	179,60	181,43	86	271,90	273,74	115	364,19	366,04
29	90,45	92,21	58	182,75	184,61	87	275,05	276,92	116	367,39	369,23
30	93,65	95,49	59	185,95	187,80	88	278,25	280,10	117	370,56	372,41
31	96,85	98,67	60	189,10	190,98	89	281,45	283,28	118	373,76	375,59
32	100,00	101,86	61	192,30	194,16	90	284,60	286,47	119	376,93	378,78
33	103,20	105,04	62	195,50	197,35	91	287,80	289,65	120	380,11	381,96
34	106,40	108,22	63	198,65	200,53	92	291,00	292,84			
35	109,55	111,41	64	201,85	203,71	93	294,20	296,02			
36	112,75	114,59	65	205,05	206,90	94	297,35	299,20			
37	115,90	117,77	66	208,20	210,08	95	300,55	302,39			
38	119,10	120,95	67	211,40	213,26	96	303,75	305,57			

