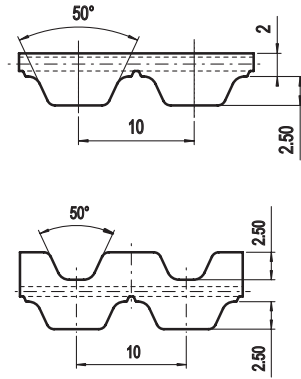


AT10



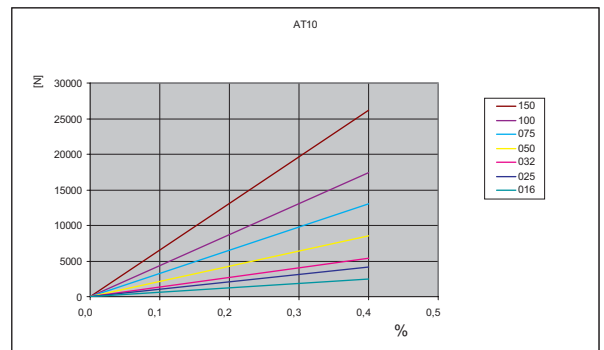
Belt characteristics

- Polyurethane timing belt with steel tension cords.
 - Metric pitch 10 mm
 - Tooth profile and dimension are optimised to guarantee uniform load distribution and minimum deformation under load.
 - High resistance and low stretch steel cords to guarantee high stability and low elongation
 - Reduced polygonal effect with reduced drive vibration.
 - Particularly suitable for linear drives and medium power transmission applications with high axial and angular positioning accuracy.
 - Double sided tooth construction available
 - Negative length tolerance available on request
- Width tolerance: $\pm 0,5$ [mm]
 - Length tolerance: $\pm 0,5$ [mm/m]
 - Thickness tolerance: $\pm 0,3$ [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]
16	2450	1225	9500	612500	0,09
25	4170	2085	16150	1042500	0,15
32	5390	2695	20900	1347500	0,19
50	8580	4290	33250	2145000	0,30
75	12990	6495	50350	3247500	0,44
100	17400	8700	67450	4350000	0,59
150	26220	13110	101650	6555000	0,74

Load / Elongation [%]

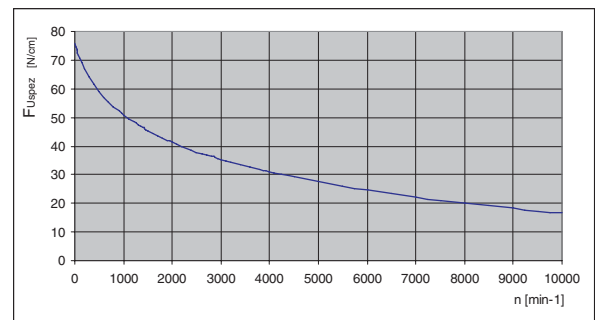


Other widths are available on request.

Tooth shear strength

rpm	F_{Uspez} [N/cm]	rpm	F_{Uspez} [N/cm]	rpm	F_{Uspez} [N/cm]	rpm	F_{Uspez} [N/cm]
0	75,70	800	53,70	1900	42,02	4500	29,13
20	74,59	900	52,21	2000	41,28	5000	27,50
40	73,55	1000	50,85	2200	39,89	5500	26,01
60	72,57	1100	49,59	2400	38,62	6000	24,65
80	71,65	1200	48,43	2600	37,44	6500	23,40
100	70,78	1300	47,34	2800	36,33	7000	22,23
200	67,13	1400	46,32	3000	35,30	7500	21,14
300	64,18	1440	45,93	3200	34,33	8000	20,12
400	61,53	1500	45,36	3400	33,41	8500	19,15
500	59,21	1600	44,46	3600	32,55	9000	18,24
600	57,16	1700	43,60	3800	31,72	9500	17,38
700	55,34	1800	42,79	4000	30,94	10000	16,56

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]

F_{Uspez} [N/cm]

z_e

z_{emax}

z_{emax}

z_{emax}

b [cm]

= peripheral force

= specific load

= number of teeth in mesh in the small pulley

= max. no of teeth in mesh to be considered

for the calculation of the drive

= 12 for ELATECH® M



= 6 for ELATECH® V

= belt width in cm

Specialties

PROFILE	Belt width b [mm]	ARAMID CORD		STAINLESS STEEL		HFE High flexibility	
		F _{Tzul} [N] M type	F _{Br} [N]	F _{Tzul} [N] M type	F _{Br} [N]	F _{Tzul} [N] M type	F _{Br} [N]
AT10	016	1900	7900	1800	7500	2000	8500
	025	3230	13430	3060	12750	3400	14450
	032	4180	17380	3960	16500	4400	18700
	050	6650	27650	6300	26250	7000	29750
	075	10070	41870			10600	45050
	100	13490	56090			14200	60350
	150	20330	84530				

Flexibility

Minimum pulley number of teeth and minimum idler diameter					
AT10		TYPE OF CORD			
		STANDARD	ARAMID	STAINLESS	HFE
Drive without reverse bending 	Timing pulley z _{min}	15	15	18	15
	Idler running on belt teeth d _{min}	50 mm	50 mm	100 mm	50 mm
Drive with reverse bending 	Timing pulley z _{min}	25	20	25	15
	Idler running on belt back d _{min}	120 mm	120 mm	100 mm	80 mm

Timing pulleys

z	da	dw	z	da	dw	z	da	dw	z	da	dw
18	55,45	57,29	47	147,75	149,60	76	240,05	241,94	105	332,35	334,21
19	58,60	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	248,24	107	338,75	340,58
21	65,00	66,84	50	157,30	159,15	79	249,60	251,46	108	341,90	343,76
22	68,15	70,03	51	160,50	162,33	80	252,80	254,64	109	345,10	346,95
23	71,35	73,20	52	163,65	165,52	81	255,95	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	270,52	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	96,80	98,67	60	189,10	190,98	89	281,45	283,28	118	373,74	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	108,19	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	303,70	305,57			
39	122,30	124,14	68	214,60	216,44	97	306,90	308,75			
40	125,45	127,32	69	217,75	219,63	98	310,10	311,93			
41	128,65	130,50	70	220,95	222,81	99	313,25	315,12			
42	131,85	133,69	71	224,15	225,99	100	316,45	318,30			
43	135,00	136,87	72	227,30	229,18	101	319,65	321,48			
44	138,20	140,05	73	230,50	232,33	102	322,80	324,66			
45	141,40	143,24	74	233,70	235,54	103	326,00	327,85			
46	144,55	146,42	75	236,90	238,72	104	329,20	331,03			

