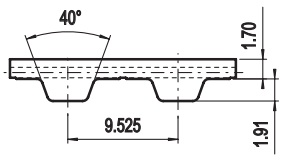
L



Belt characteristics

- Polyurethane timing belt with trapezoidal tooth profile according to DIN/ISO 5296 with steel tension cords
- Imperial pitch 3/8" = 9,525 mm
- Allow to use small diameter pulley
- Mainly used in applications where inch pitch is an advantage (USA / UK)

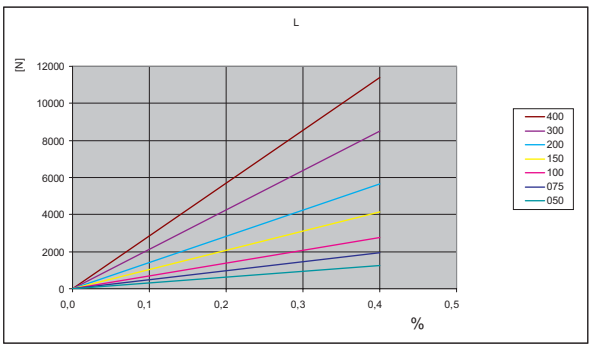
- Width tolerance: ±0,5 [mm]
- Length tolerance: ±0,5 [mm/m]
- Thickness tolerance: ±0,2 [mm]

Technical data

Belt width b Code /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 Cspez [N]	Weight [kg/m]
050 / 12,7	1270	635	4620	317500	0,049
075 / 19,1	1960	980	7140	490000	0,073
100 / 25,4	2760	1380	10080	690000	0,098
150 / 38,1	4140	2070	15120	1035000	0,146
200 / 50,8	5640	2820	20580	1410000	0,195
300 / 76,2	8510	4255	31080	2127500	0,293
400 / 101,6	11390	5695	41580	2847500	0,390

Other widths are available on request.

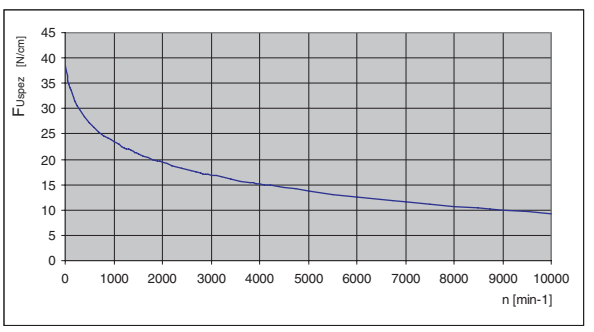
Load / Elongation [%]



Tooth shear strength

rpm	F_{Uspez} [N/cm]	rpm	F_{Uspez} [N/cm]	rpm	F_{Uspez} [N/cm]	rpm	F_{Uspez} [N/cm]
0	38,60	800	24,70	1900	19,66	4500	14,36
20	37,42	900	24,04	2000	19,35	5000	13,70
40	36,40	1000	23,44	2200	18,77	5500	13,10
60	35,51	1100	22,89	2400	18,24	6000	12,55
80	34,74	1200	22,38	2600	17,76	6500	12,05
100	34,07	1300	21,91	2800	17,30	7000	11,58
200	31,59	1400	21,48	3000	16,88	7500	11,14
300	29,79	1440	21,31	3200	16,48	8000	10,73
400	28,39	1500	21,07	3400	16,10	8500	10,35
500	27,25	1600	20,69	3600	15,75	9000	9,98
600	26,28	1700	20,33	3800	15,41	9500	9,64
700	25,44	1800	19,98	4000	15,09	10000	9,31

Tooth shear strenght / 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:

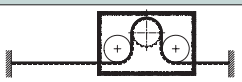
F_U [N] = F_{Uspez} • z_e • b

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

Specialties

PROFILE	Belt width b Code /mm	ARAMID CORD		STAINLESS STEEL	
		F_{Tzul} [N] M type	F_{Br} [N]	F_{Tzul} [N] M type	F_{Br} [N]
L	050 / 12,7	1210	4950	830	3300
	075 / 19,1	1870	7650	1280	5100
	100 / 25,4	2640	10800	1800	7200
	150 / 38,1	3960	16200	2700	10800
	200 / 50,8	5390	22050	3680	14700
	300 / 76,2	8140	33300		
	400 / 101,6	10890	44550		

Flexibility

Minimum pulley number of teeth and minimum idler diameter				
L		TYPE OF CORD		
		STANDARD	ARAMID	STAINLESS
Drive without reverse bending	Timing pulley z_{min}	15	15	18
	Idler running on belt teeth d_{min}	60 mm	60 mm	65 mm
Drive with reverse bending	Timing pulley z_{min}	20	20	20
	Idler running on belt back d_{min}	60 mm	60 mm	65 mm

Timing pulleys

z	da	dw	z	da	dw	z	da	dw	z	da	dw
10	29,56	30,32	**39**	117,47	118,24	**68**	205,41	206,17	**97**	293,33	294,09
11	32,59	33,35	**40**	120,52	121,27	**69**	208,44	209,20	**98**	296,36	297,12
12	35,62	36,38	**41**	123,55	124,30	**70**	211,47	212,23	**99**	299,40	300,15
13	38,65	39,41	**42**	126,58	127,33	**71**	214,50	215,26	**100**	302,43	303,18
14	41,68	42,44	**43**	129,61	130,36	**72**	217,53	218,29	**101**	305,46	306,21
15	44,71	45,47	**44**	132,64	133,39	**73**	220,56	221,32	**102**	308,49	309,24
16	47,74	48,50	**45**	135,67	136,44	**74**	223,59	224,35	**103**	311,52	312,29
17	50,77	51,53	**46**	138,70	139,47	**75**	226,62	227,38	**104**	314,55	315,32
18	53,80	54,56	**47**	141,73	142,50	**76**	229,65	230,41	**105**	317,58	318,35
19	56,83	57,61	**48**	144,76	145,53	**77**	232,70	233,46	**106**	320,61	321,38
20	59,88	60,64	**49**	147,80	148,56	**78**	235,73	236,49	**107**	323,64	324,41
21	62,91	63,67	**50**	150,83	151,59	**79**	238,76	239,52	**108**	326,69	327,44
22	65,94	66,70	**51**	153,86	154,62	**80**	241,79	242,55	**109**	329,72	330,47
23	68,97	69,73	**52**	156,89	157,65	**81**	244,82	245,58	**110**	332,75	333,50
24	72,00	72,76	**53**	159,92	160,68	**82**	247,85	248,61	**111**	335,78	336,53
25	75,03	75,80	**54**	162,95	163,71	**83**	250,88	251,64	**112**	338,81	339,56
26	78,06	78,83	**55**	166,00	166,76	**84**	253,91	254,67	**113**	341,84	342,61
27	81,09	81,86	**56**	169,03	169,79	**85**	256,94	257,70	**114**	344,87	345,64
28	84,12	84,89	**57**	172,06	172,82	**86**	259,97	260,73	**115**	347,90	348,67
29	87,15	87,92	**58**	175,09	175,85	**87**	263,02	263,78	**116**	350,93	351,70
30	90,20	90,95	**59**	178,12	178,88	**88**	266,05	266,81	**117**	353,96	354,73
31	93,23	93,98	**60**	181,15	181,91	**89**	269,08	269,84	**118**	357,00	357,76
32	96,26	97,01	**61**	184,18	184,94	**90**	272,11	272,87	**119**	360,03	360,79
33	99,29	100,04	**62**	187,21	187,97	**91**	275,14	275,90	**120**	363,07	363,82
34	102,32	103,07	**63**	190,24	191,00	**92**	278,17	278,93			
35	105,35	106,12	**64**	193,27	194,03	**93**	281,20	281,96			
36	108,38	109,15	**65**	196,30	197,06	**94**	284,23	285,00			
37	111,41	112,18	**66**	199,33	200,11	**95**	287,26	288,03			
38	114,44	115,21	**67**	202,38	203,14	**96**	290,30	291,06