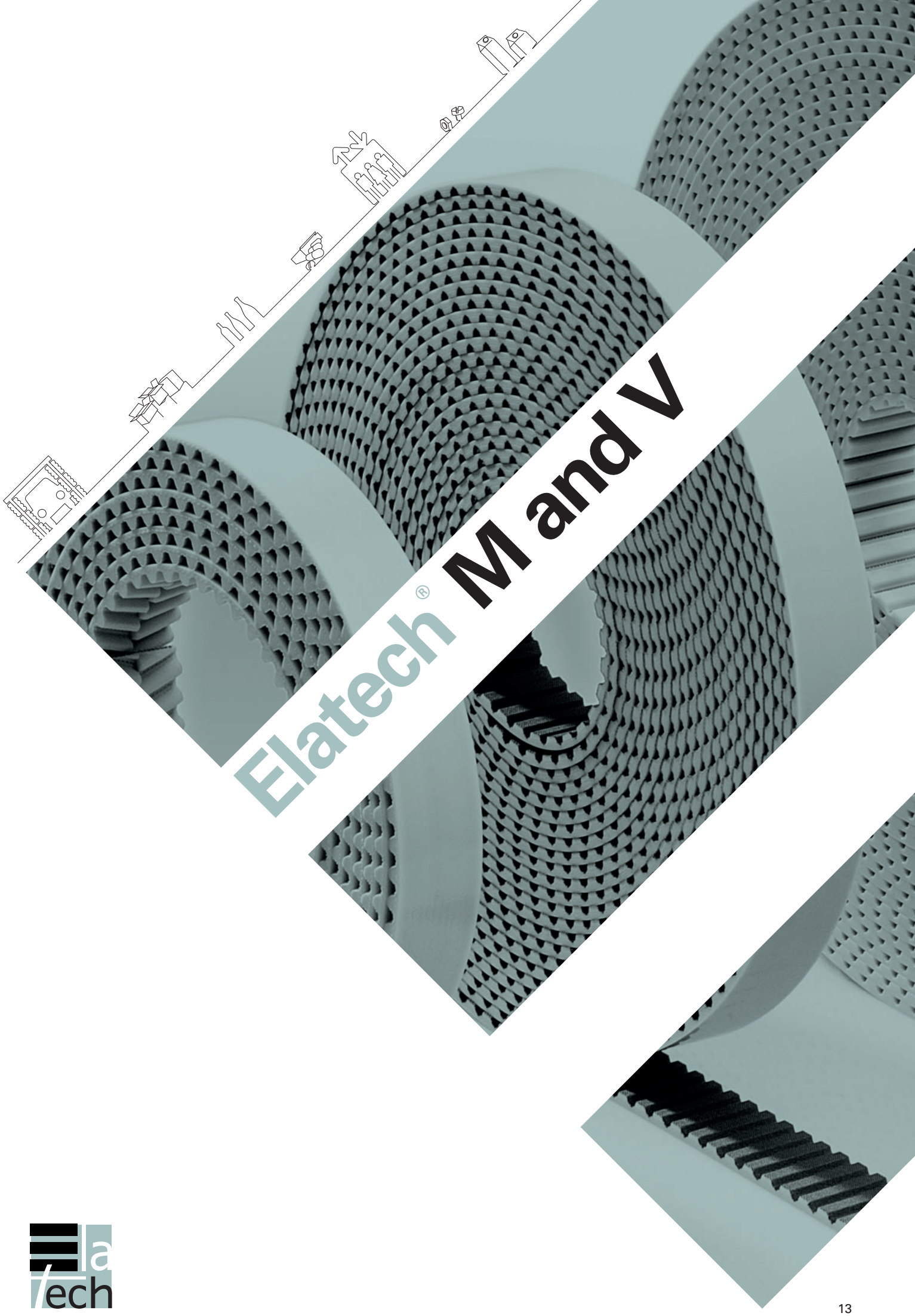
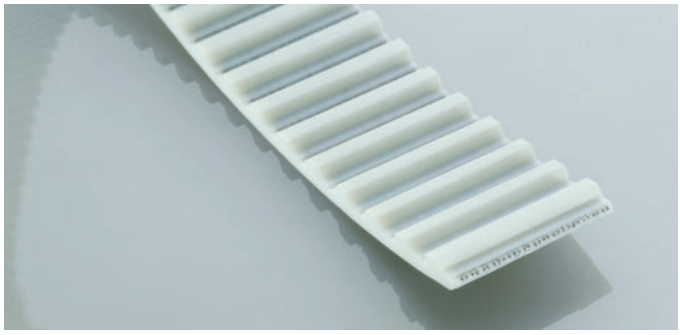


Elatech® M and V

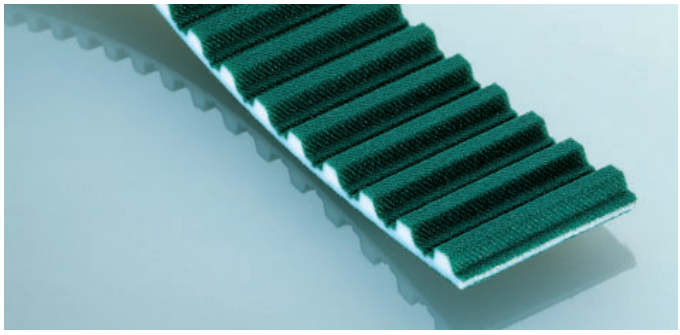
ELATECH® Open End - M and V

The timing belts manufactured by ELATECH® have been designed to comply with every need of the design engineer in linear motion, power transmission and in conveying applications where precise synchronisation is needed. ELATECH® timing belts are manufactured with the body in thermoplastic polyurethane with excellent wear resistance and with high tensile strength steel cords. A special polyamide fabric on the tooth (on request) reduces the coefficient of friction, improves the tooth engagement and reduces noise.

STANDARD BELT



BELT WITH POLYAMIDE FABRIC ON TEETH PAZ



Product declaration

- ELATECH® belts are certified to be according RoHS 2011/65/UE
- On request, it is possible to deliver belts:
- with antistatic properties according to ISO9563
- other special certifications available on request

Colour

The standard colour ELATECH® timing belt is white. On demand it is possible to deliver belts in different colours.

Tension Cords

In order to maximize the application of ELATECH® timing belts, construction with special cords is available on request:

STANDARD CORD

HFE CORD

HPL CORD

- **HPL** high performance cords: the cord cross section is increased compared with standard. This results in a lower belt elongation and more precise positioning accuracy.
- **HFE** high flexibility cords: the cord cross section is spread on a higher number of single filaments. This results in a lower bending stress and therefore in a higher resistance at reverse bending of the cords. They allow using pulleys and idlers up to 30% smaller in diameter compared to standard.
- **STAINLESS STEEL (INOX)** cords are suitable for application in aggressive environments. They have lower tensile strength than standard cords.
- **ARAMID**: increases belt flexibility and decreases belt weight.

It is to be noted that steel cords offer the best technical performances and dimensional stability of the belts.

Belt length tolerances are valid for steel cord reinforcement. In case of other material (aramid) length tolerance may change.

For application with special cords ask our engineering department.

Mechanical properties:

- Excellent dimensional stability
- High abrasion resistance
- Low pretension and shaft load
- Maintenance free
- High linear and angular positioning precision
- High efficiency

Chemical properties:

High resistance to:

- Hydrolysis
- Ozone
- UVA
- Ageing
- Oils, greases and fats
- Gasoline
- Good resistance to acids
- Working temperatures range for standard material -10°C +80°C (peaks up to 110°C).

For very low temperature special compound material is available on request (see dedicated table)

- Silicon free production (on request)

Executions

ELATECH® M

They are manufactured in rolls with standard length of 100 m. On request longer or shorter lengths are available. Main applications are linear drives.

Ordering example roll 100 m profile T:

ELATECH® "R"- Roll 100 m **R 025 T 10 A / Z**

- ELATECH® timing belt type "R"
- Width 25 mm (3 digits)
- Profile "T"
- Pitch 10 mm
- A= steel cords
S= stainless steel cords
K= aramid cords
F= high flexibility cords
H= high flexibility and performance cords
P= high performance cords
- Z= fabric on teeth (PAZ)
R= fabric on back (PAR)
D= fabric PAZ + PAR

Ordering example profile H cut to length:

ELATECH® "M" cut to length **M 100 H A 01270 / Z**

- ELATECH timing belt type "M"
- Width (x 0,254 = mm) - 3 digits
- Profile "H"
- A= steel cords
S= stainless steel cords
K= aramid cords
F= high flexibility cords
H= high flexibility and performance cords
P= high performance cords
- Length 1270 mm (5 digits)
- Z= fabric on teeth (PAZ)
R= fabric on back (PAR)
D= fabric PAZ + PAR

ELATECH® V

They are joined belts manufactured from open-end ELATECH® belts. Thanks to the specific manufacturing process, any length may be obtained tooth by tooth. Free combinations with special backing materials and welded profiles, make ELATECH® V belts ideal in synchronized conveying and highly specialised applications.

Ordering example profile AT:

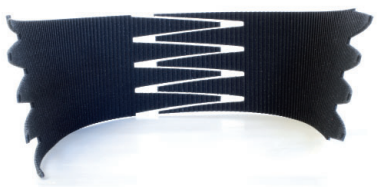
ELATECH® "V" joined **V 020 AT5 A 03410 / Z**

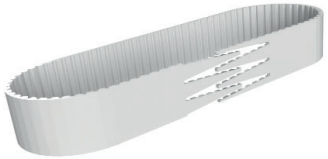
- ELATECH timing belt type "V" joined
- Width 20 mm (3 digits)
- Profile "AT" - Pitch 5 mm
- A= steel cords
S= stainless steel cords
K= aramid cords
F= high flexibility cords
H= high flexibility and performance cords
P= high performance cords
- Length 3410 mm (5 digits)
- Z= fabric on teeth (PAZ)
R= fabric on back (PAR)
D= fabric PAZ + PAR

Ordering example profile XL:

ELATECH® "V" joined **V 150 XL A 00762 / Z**

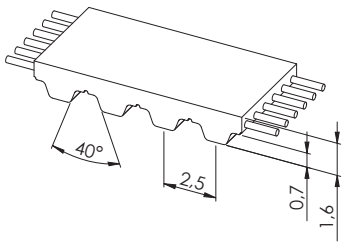
- ELATECH timing belt type "V" joined
- Width (x 0,254 = mm) - 3 digits
- Profile "XL"
- A= steel cords
S= stainless steel cords
K= aramid cords
F= high flexibility cords
H= high flexibility and performance cords
P= high performance cords
- Length 762 mm (5 digits)
- Z= fabric on teeth (PAZ)
R= fabric on back (PAR)
D= fabric PAZ + PAR





T2,5

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 2.5 mm
- Ideal for drives where high belt flexibility is requested
- Widely used for conveying, linear drive and light power transmission applications

STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,3 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,15 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		4	6	10	20	50	100
Allowable tensile load	F_{Tzul} [N]*	100	190	320	700	1860	3780
Breaking load	F_{Br} [N]	375	750	1250	2750	7250	14750
Specific spring rate	C_{spez} [N]	24000	47500	80000	175000	465000	945000
Weight	[kg/m]	0,004	0,007	0,011	0,022	0,055	0,110

Other widths are available on request

Specialties

Belt width b [mm]		4	6	10	20	50	100
HFE High Flexibility	F_{Tzul} [N]*	110	215	360	790	2090	4250
	F_{Br} [N]	450	900	1500	3300	8700	17700

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	9,10	8,77	8,51	8,30	8,13	8,00	7,39	7,00	6,71	6,48	6,29	6,13	5,99	5,86	5,75	5,64

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	5,55	5,46	5,38	5,35	5,31	5,24	5,17	5,11	5,05	4,99	4,88	4,79	4,70	4,62	4,54	4,47

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	4,40	4,34	4,28	4,22	4,09	3,97	3,86	3,76	3,67	3,59	3,51	3,44	3,37	3,30	3,24	3,18

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	15	15 mm	18	18 mm
HFE	10	15 mm	18	15 mm

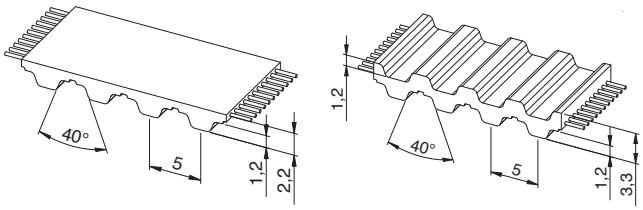
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 158

BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 5 mm
- Ideal for drives where high belt flexibility is requested
- Widely used for conveying, linear drive and light power transmission applications
- Double sided tooth available (on request for special cords)



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,15 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	16	25	32	50	75	100
Allowable tensile load	F_{Tzul} [N]*	320	540	900	1150	1860	2820	3780
Breaking load	F_{Br} [N]	1250	2125	3500	4500	7250	11000	14750
Specific spring rate	C_{spez} [N]	80000	135000	225000	287500	465000	705000	945000
Weight	[kg/m]	0,021	0,034	0,053	0,067	0,105	0,158	0,210

Other widths are available on request

Specialties

Belt width b [mm]		10	16	25	32	50	75	100	150
ARAMID CORD	F_{Tzul} [N]*	700	1190	1960	2520	4060	6160	8260	-
	F_{Br} [N]	2800	4760	7840	10080	16240	24640	33040	-
HFE High Flexibility	F_{Tzul} [N]*	360	610	1010	1295	2090	3170	4250	-
	F_{Br} [N]	1500	2550	4200	5400	8700	13200	17700	-
HPL High Performance	F_{Tzul} [N]	920	1610	2645	3450	5520	8395	11270	16905
	F_{Br} [N]	3360	5880	9660	12600	20160	30660	41160	61740

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	24,70	24,07	23,53	23,05	22,64	22,28	20,90	19,89	19,10	18,45	17,91	17,44	17,02	16,65	16,32	16,01

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	15,73	15,47	15,22	15,13	15,00	14,78	14,58	14,39	14,21	14,03	13,71	13,42	13,14	12,89	12,65	12,43

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	12,22	12,03	11,84	11,66	11,25	10,88	10,55	10,24	9,96	9,70	9,46	9,23	9,01	8,81	8,62	8,44

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	10	30 mm	15	30 mm
ARAMID	10	30 mm	15	30 mm
HFE	10	30 mm	12	30 mm
HPL	24	60 mm	38	60 mm

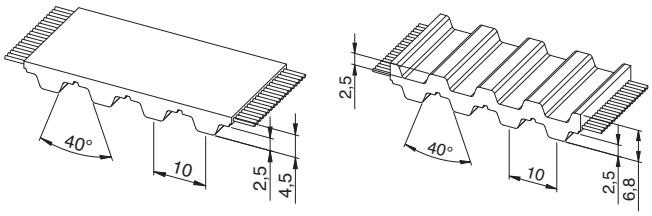
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 159

T10

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 10 mm
- Ideal for drives where high belt flexibility is requested
- Widely used for conveying, linear drive and medium power transmission applications
- Double sided tooth available (on request for special cords)

STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	16	25	32	50	75	100	150	200**
Allowable tensile load	F_{Tzul} [N]*	920	1610	2650	3450	5520	8400	11270	17020	11270
Breaking load	F_{Br} [N]	3360	5880	9660	12600	20160	30660	41160	62160	41160
Specific spring rate	C_{spez} [N]	230000	402500	662500	862500	1380000	2100000	2817500	4255000	2817500
Weight	[kg/m]	0,05	0,07	0,11	0,15	0,23	0,34	0,45	0,68	0,60

Other widths are available on request

** = double cords spacing

Specialties

Belt width b [mm]		10	16	25	32	50	75	100	150	200**
ARAMID CORD	F_{Tzul} [N]*	880	1540	2530	3300	5280	8030	10780	16280	10780
	F_{Br} [N]	3600	6300	10350	13500	21600	32850	44100	66600	44100
STAINLESS STEEL	F_{Tzul} [N]*	600	1050	1730	2250	3600	-	-	-	-
	F_{Br} [N]	2400	4200	6900	9000	14400	-	-	-	-
HFE High Flexibility	F_{Tzul} [N]*	960	1680	2760	3600	5760	-	-	-	-
	F_{Br} [N]	3440	6020	9890	12900	20640	-	-	-	-
HPL High Performance	F_{Tzul} [N]	-	2450	4165	5390	8575	12990	17400	-	-
	F_{Br} [N]	-	9500	16150	20900	33250	50350	67450	-	-

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	51,80	50,32	49,04	47,92	46,95	46,11	42,75	40,28	38,36	36,80	35,49	34,35	33,34	32,44	31,63	30,89

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	30,21	29,58	28,99	28,76	28,44	27,92	27,43	26,97	26,53	26,12	25,34	24,63	23,97	23,36	22,78	22,25

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	21,74	21,27	20,81	20,39	19,40	18,51	17,70	16,97	16,29	15,66	15,07	14,52	14,00	13,51	13,05	12,61

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	12	60 mm	20	60 mm
ARAMID	15	60 mm	20	60 mm
STAINLESS	15	60 mm	25	70 mm
HFE	10	50 mm	15	50 mm
HPL	15	100 mm	30	100 mm

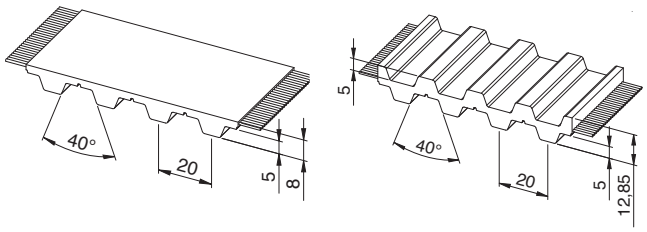
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 160

BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 20 mm
- Ideal for drives where high belt flexibility is requested
- Widely used for conveying, linear drive and heavy power transmission applications
- Double sided tooth available (on request for special cords)



STANDARD TOLERANCES

WIDTH TOLERANCE:	±1,0 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		25	32	50	75	100	150
Allowable tensile load	F_{Tzul} [N]*	4170	5390	8580	12990	17400	26220
Breaking load	F_{Br} [N]	16150	20900	33250	50350	67450	101650
Specific spring rate	C_{spez} [N]	1042500	1347500	2145000	3247500	4350000	6555000
Weight	[kg/m]	0,20	0,26	0,41	0,61	0,82	1,23

Other widths are available on request

Specialties

Belt width b [mm]		25	32	50	75	100	150
ARAMID CORD	F_{Tzul} [N]*	3740	4840	7700	11660	15620	23540
	F_{Br} [N]	17000	22000	35000	53000	71000	107000
STAINLESS STEEL	F_{Tzul} [N]*	3060	3960	6300	-	-	-
	F_{Br} [N]	12750	16500	26250	-	-	-
HFE High Flexibility	F_{Tzul} [N]*	3400	4400	7000	-	-	-
	F_{Br} [N]	14450	18700	29750	-	-	-

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	104,50	101,10	98,15	95,58	93,35	91,41	83,50	77,84	73,49	69,96	66,98	64,41	62,15	60,13	58,31	56,64

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	55,11	53,7	52,38	51,87	51,14	49,98	48,89	47,86	46,88	45,94	44,2	42,61	41,13	39,77	38,49	37,29

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	36,16	35,10	34,09	33,13	30,92	28,93	27,14	25,49	23,97	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	15	120 mm	25	120 mm
ARAMID	15	120 mm	25	120 mm
STAINLESS	20	130 mm	30	150 mm
HFE	12	100 mm	22	120 mm

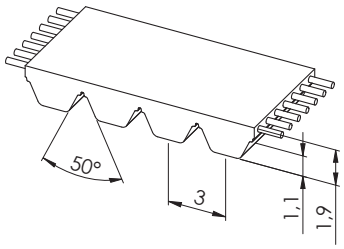
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 161

AT3

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 3 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 light power transmission applications with high axial and angular positioning accuracy
- Negative length tolerance available on request

STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		8	10	12	16	20	25	50	100
Allowable tensile load	F_{Tzul} [N]*	260	320	416	540	700	900	1860	3780
Breaking load	F_{Br} [N]	1000	1250	1625	2125	2750	3500	7250	14750
Specific spring rate	C_{spez} [N]	65000	80000	104000	135000	175000	225000	465000	945000
Weight	[kg/m]	0,018	0,022	0,026	0,035	0,044	0,054	0,110	0,220

Other widths are available on request

Specialties

Belt width b [mm]		8	10	12	16	20	25	50	100
HFE High Flexibility	F_{Tzul} [N]*	290	360	470	610	790	1010	2090	4250
	F_{Br} [N]	1200	1500	1950	2550	3300	4200	8700	17700

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	32,50	32,13	31,79	31,48	31,19	30,92	29,86	29,15	28,47	27,66	26,92	26,25	25,62	25,05	24,52	24,02

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	23,56	23,13	22,72	22,57	22,34	21,97	21,63	21,29	20,98	20,68	20,11	19,59	19,1	18,64	18,22	17,81

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	17,43	17,07	16,73	16,40	15,64	14,96	14,33	13,76	13,23	12,74	12,28	11,84	11,43	11,05	10,68	10,34

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	15	20 mm	20	20 mm
HFE	12	15 mm	15	18 mm

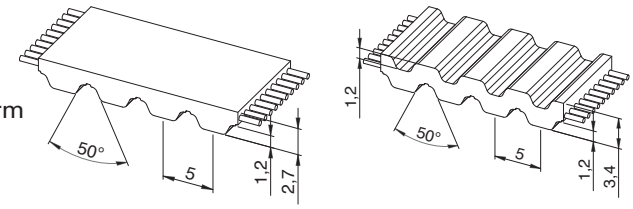
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 162

BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 5 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 light power transmission applications with high axial and angular positioning accuracy
- Double sided tooth available (on request for special cords)
- Negative length tolerance available on request



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	16	25	32	50	75	100	150
Allowable tensile load	F_{Tzul} [N]*	640	1120	1840	2400	3840	5840	7840	11840
Breaking load	F_{Br} [N]	2160	3780	6210	8100	12960	19710	26460	39960
Specific spring rate	C_{spez} [N]	160000	280000	460000	600000	960000	1460000	1960000	2960000
Weight	[kg/m]	0,03	0,05	0,09	0,11	0,17	0,26	0,34	0,57

Other widths are available on request

Specialties

Belt width b [mm]		10	16	25	32	50	75	100	150
ARAMID CORD	F_{Tzul} [N]*	880	1540	2530	3300	5280	8030	10780	16280
	F_{Br} [N]	3600	6300	10350	13500	21600	32850	44100	66600
STAINLESS STEEL	F_{Tzul} [N]*	600	1050	1725	2250	3600	5475	7350	-
	F_{Br} [N]	2400	4200	6900	9000	14400	21900	29400	-
HFE High Flexibility	F_{Tzul} [N]*	960	1680	2760	3600	5760	8760	11760	-
	F_{Br} [N]	3440	6020	9890	12900	20640	31390	42140	-

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	36,40	35,88	35,40	34,97	34,59	34,24	32,92	31,92	30,89	29,95	29,12	28,37	27,69	27,06	26,49	25,96

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	25,47	25,01	24,57	24,41	24,16	23,78	23,41	23,07	22,73	22,42	21,82	21,28	20,77	20,29	19,85	19,43

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	19,03	18,66	18,30	17,96	17,18	16,47	15,83	15,24	14,69	14,18	13,71	13,26	12,85	12,45	12,07	11,72

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	15	30 mm	25	60 mm
ARAMID	15	30 mm	25	60 mm
STAINLESS	18	40 mm	25	65 mm
HFE	15	25 mm	20	50 mm

Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

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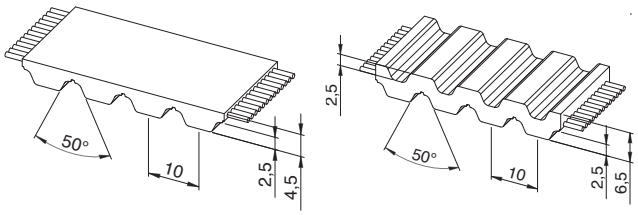
AT10

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- 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 available (on request for special cords)
- Negative length tolerance available on request

STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		16	25	32	50	75	100	150
Allowable tensile load	F_{Tzul} [N]*	2450	4170	5390	8580	12990	17400	26220
Breaking load	F_{Br} [N]	9500	16150	20900	33250	50350	67450	101650
Specific spring rate	C_{spez} [N]	612500	1042500	1347500	2145000	3247500	4350000	6555000
Weight	[kg/m]	0,09	0,15	0,19	0,30	0,44	0,59	0,90

Other widths are available on request

Specialties

Belt width b [mm]		16	25	32	50	75	100	150
ARAMID CORD	F_{Tzul} [N]*	2200	3740	4840	7700	11660	15620	23540
	F_{Br} [N]	10000	17000	22000	35000	53000	71000	107000
STAINLESS STEEL	F_{Tzul} [N]*	1800	3060	3960	6300	9540	12780	-
	F_{Br} [N]	7500	12750	16500	26250	39750	53250	-
HFE High Flexibility	F_{Tzul} [N]*	2000	3400	4400	7000	-	-	-
	F_{Br} [N]	8500	14450	18700	29750	-	-	-

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	88,57	87,06	85,66	84,35	83,13	81,99	77,36	75,09	71,99	69,27	66,88	64,75	62,83	61,09	59,49	58,02

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	56,66	55,39	54,20	53,74	53,08	52,02	51,02	50,06	49,16	48,29	46,67	45,18	43,80	42,51	41,30	40,17

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	39,09	38,08	37,11	36,20	34,08	32,17	30,43	28,84	27,37	26,01	24,73	23,53	22,41	21,34	20,33	19,37

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	15	50 mm	25	120 mm
ARAMID	15	50 mm	20	120 mm
STAINLESS	20	70 mm	40	120 mm
HFE	12	50 mm	20	80 mm

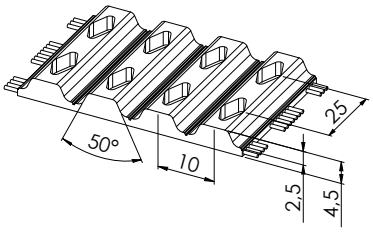
Elatech® V Joined informations

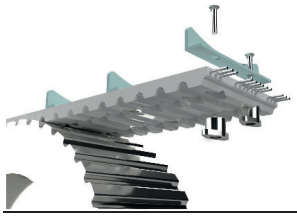
Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 164

BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 10 mm
- Particularly suitable for linear drives
- Rapid and easy configuration of cleat attachment with simple hand tool
- Stainless steel insert M4 available





STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

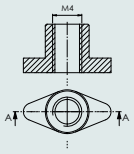
TECHNICAL DATA

Standard steel cord

Belt width b [mm]		25	50	75	100
Allowable tensile load	F_{Tzul} [N]*	2940	5880	8820	11760
Breaking load	F_{Br} [N]	11400	22800	34200	45600
Specific spring rate	C_{spez} [N]	735000	1470000	2205000	2940000
Weight	[kg/m]	0,15	0,30	0,44	0,59

Other widths are available on request

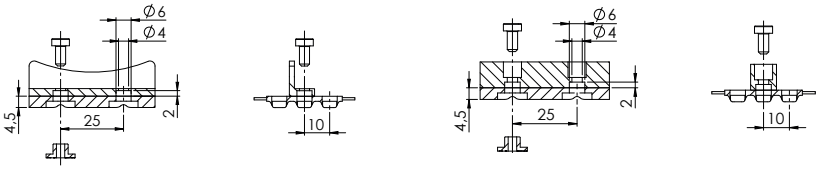
Insert Types

Insert Profile	Dimensions	Thread size	Material	Applications
		M4	Stainless Steel	- Small loads - Low dynamic loads

ATF Advantages:

- Variable cleat pitch
- Different cleat materials can be used
- Standard timing belt pulleys can be used
- High shear strength
- Quick and easy cleat change
- Cleats spacing is extremely precise
- No cleat welding beads
- Reduced downtime

Example of cleat configurations



Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	-
F_{Uspez} [N/cm]	61,00	59,96	58,99	58,09	57,25	56,47	53,28	51,72	49,58	47,71	46,06	44,59	43,27	42,07	40,97	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending	
	z_{min}	idler d_{min}
STANDARD	25	80 mm

Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

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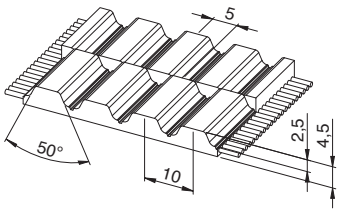
SAT10

Elatech® M and V



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 thanks to the teeth offset
- Particularly suitable for linear drives and medium power transmission applications with high axial and angular positioning accuracy
- Negative length tolerance available on request

STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		50	75	100
Allowable tensile load	F_{Tzul} [N]*	8330	12740	17150
Breaking load	F_{Br} [N]	32300	49400	66500
Specific spring rate	C_{spez} [N]	2082500	3185000	4287500
Weight	[kg/m]	0,29	0,43	0,57

Other widths are available on request

Specialties

Belt width b [mm]		50
STAINLESS STEEL	F_{Tzul} [N]*	6120
	F_{Br} [N]	25500
HFE High Flexibility	F_{Tzul} [N]*	6800
	F_{Br} [N]	28900

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	88,57	87,06	85,66	84,35	83,13	81,99	77,36	75,09	71,99	69,27	66,88	64,75	62,83	61,09	59,49	58,02

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	56,66	55,39	54,20	53,74	53,08	52,02	51,02	50,06	49,16	48,29	46,67	45,18	43,80	42,51	41,30	40,17

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	39,09	38,08	37,11	36,20	34,08	32,17	30,43	28,84	27,37	26,01	24,73	23,53	22,41	21,34	20,33	19,37

Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	15	50 mm	25	120 mm
STAINLESS	20	70 mm	40	120 mm
HFE	12	50 mm	20	80 mm

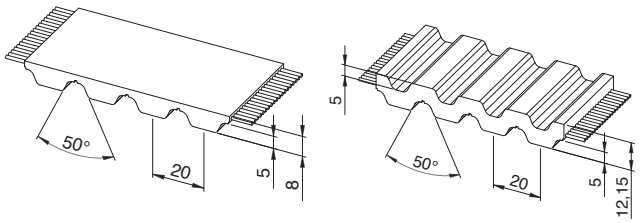
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 166

BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 20 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 heavy power transmission applications with high axial and angular positioning accuracy
- Double sided tooth available (on request for special cords)



STANDARD TOLERANCES

WIDTH TOLERANCE:	±1,0 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		25	32	50	75	100	150
Allowable tensile load	F_{Tzul} [N]*	5280	7200	11520	17280	23520	35520
Breaking load	F_{Br} [N]	19250	26250	42000	63000	85750	129500
Specific spring rate	C_{spez} [N]	1320000	1800000	2880000	4320000	5880000	8880000
Weight	[kg/m]	0,24	0,31	0,48	0,73	0,97	1,45

Other widths are available on request

Specialties

Belt width b [mm]		25	32	50	75	100
ARAMID CORD	F_{Tzul} [N]*	2420	3300	5280	7920	10780
	F_{Br} [N]	11000	15000	24000	36000	49000
STAINLESS STEEL	F_{Tzul} [N]*	3300	4500	7200	10800	14700
	F_{Br} [N]	15400	21000	33600	50400	68600
HFE High Flexibility	F_{Tzul} [N]*	5060	6900	11040	16560	22540
	F_{Br} [N]	21175	28875	46200	69300	94325

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	151,40	148,56	145,89	143,38	141,01	138,78	129,43	122,28	115,96	110,45	105,61	101,31	97,44	93,93	90,73	87,77

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	85,02	82,47	80,07	79,16	77,82	75,70	73,69	71,77	69,96	68,22	64,97	61,98	59,20	56,62	54,20	51,92

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	49,77	47,74	45,80	43,96	39,72	35,90	32,42	29,23	26,29	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	18	120 mm	25	180 mm
ARAMID	18	120 mm	25	160 mm
STAINLESS	20	125 mm	30	200 mm
HFE	18	120 mm	25	150 mm

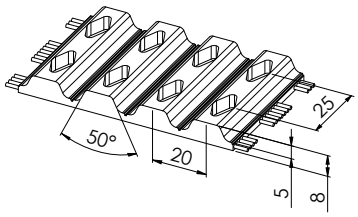
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 167

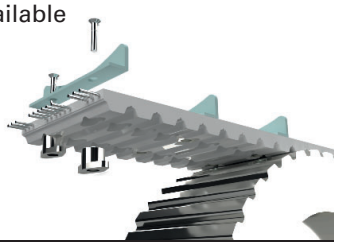
ATF20

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 20 mm
- Particularly suitable for linear drives
- Rapid and easy configuration of cleat attachment with simple hand tool
- Stainless steel insert M5 available



STANDARD TOLERANCES

WIDTH TOLERANCE: ±1,0 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,4 [mm]

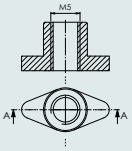
TECHNICAL DATA

Standard steel cord

Belt width b [mm]		50	75	100
Allowable tensile load	F_{Tzul} [N]*	9600	14400	19200
Breaking load	F_{Br} [N]	35000	52500	70000
Specific spring rate	C_{spez} [N]	2400000	3600000	4800000
Weight	[kg/m]	0,48	0,73	0,97

Other widths are available on request

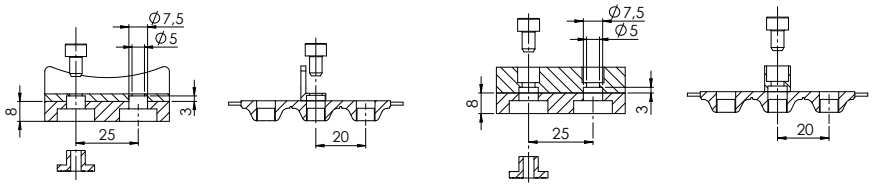
Insert Types

Insert Profile	Dimensions	Thread size	Material	Applications
		M5	Stainless Steel	- Medium and large loads - High dynamic loads

ATF Advantages:

- Variable cleat pitch
- Different cleat materials can be used
- Standard timing belt pulleys can be used
- High shear strength
- Quick and easy cleat change
- Cleats spacing is extremely precise
- No cleat welding beads
- Reduced downtime

Example of cleat configurations



Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	-
F_{Uspez} [N/cm]	100,00	98,13	96,36	94,70	93,14	91,66	85,49	80,77	76,59	72,95	69,75	66,91	64,36	62,04	59,92	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending	
	z_{min}	idler d_{min}
STANDARD	20	130 mm

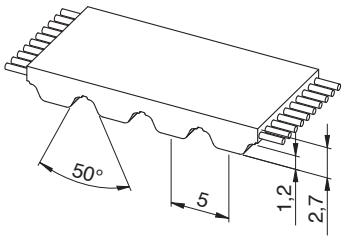
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 168

BELT CHARACTERISTICS

- High performance polyurethane timing belt with HPL steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 5 mm
- Specially designed for linear drives
- Tension cords with increased allowable tensile load compared to standard for lower elongation
- Produced with special pretension and pitch tolerance to guarantee high positioning precision in linear drives
- Negative length tolerance available on request



STANDARD TOLERANCES
WIDTH TOLERANCE: ±0,5 [mm]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	16	25	32	50	75	100	150
Allowable tensile load	F_{Tzul} [N]	920	1610	2650	3450	5520	8400	11270	17020
Breaking load	F_{Br} [N]	3360	5880	9660	12600	20160	30660	41160	62160
Specific spring rate	C_{spez} [N]	230000	402500	662500	862500	1380000	2100000	2817500	4255000
Weight	[kg/m]	0,04	0,06	0,1	0,12	0,19	0,29	0,38	0,57

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	36,40	35,88	35,40	34,97	34,59	34,24	32,92	31,92	30,89	29,95	29,12	28,37	27,69	27,06	26,49	25,96

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	25,47	25,01	24,57	24,41	24,16	23,78	23,41	23,07	22,73	22,42	21,82	21,28	20,77	20,29	19,85	19,43

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	19,03	18,66	18,30	17,96	17,18	16,47	15,83	15,24	14,69	14,18	13,71	13,26	12,85	12,45	12,07	11,72

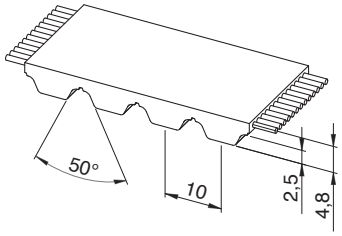
Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	25	40 mm	25	60 mm

Timing pulleys → page 169

ATL10

Elatech® M and V



BELT CHARACTERISTICS

- High performance polyurethane timing belt with HPL steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 10 mm
- Specially designed for linear drives
- Tension cords with increased allowable tensile load compared to standard for lower elongation
- Produced with special pretension and pitch tolerance to guarantee high positioning precision in linear drives
- Negative length tolerance available on request

STANDARD TOLERANCES
WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLLERANCE: ±0,1 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		16	25	32	50	75	100	150
Allowable tensile load	F_{Tzul} [N]	3840	6720	8640	14400	21600	29280	44160
Breaking load	F_{Br} [N]	14000	24500	31500	52500	78750	106750	161000
Specific spring rate	C_{spez} [N]	960000	1680000	2160000	3600000	5400000	7320000	11040000
Weight	[kg/m]	0,11	0,17	0,22	0,35	0,52	0,69	1,04

Other widths are available on request

Specialties

Belt width b [mm]		16	25	32	50	75	100	150
STAINLESS STEEL	F_{Tzul} [N]	2400	4200	5400	9000	13500	18300	27600
	F_{Br} [N]	11200	19600	25200	42000	63000	85400	128800
HFE High Flexibility	F_{Tzul} [N]	3680	6440	8280	13800	20700	28060	42320
	F_{Br} [N]	15400	26950	34650	57750	86625	117425	177100

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	88,57	87,06	85,66	84,35	83,13	81,99	77,36	75,09	71,99	69,27	66,88	64,75	62,83	61,09	59,49	58,02

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	56,66	55,39	54,20	53,74	53,08	52,02	51,02	50,06	49,16	48,29	46,67	45,18	43,80	42,51	41,30	40,17

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	39,09	38,08	37,11	36,20	34,08	32,17	30,43	28,84	27,37	26,01	24,73	23,53	22,41	21,34	20,33	19,37

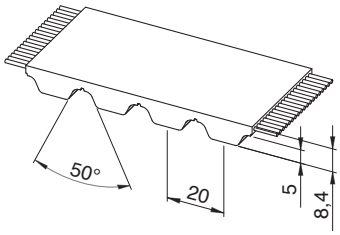
Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	25	80 mm	25	150 mm
STAINLESS	32	100 mm	40	250 mm
HFE	20	60 mm	20	100 mm

Timing pulleys → page 170

BELT CHARACTERISTICS

- High performance polyurethane timing belt with HPL steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 20 mm
- Specially designed for linear drives
- Tension cords with increased allowable tensile load compared to standard for lower elongation
- Produced with special pretension and pitch tolerance to guarantee high positioning precision in linear drives



STANDARD TOLERANCES

WIDTH TOLERANCE:	±1,0 [mm]
LENGTH TOLLERANCE:	±0,1 [mm/m]
THICKNESS TOLERANCE:	±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		25	32	50	75	100	150	200
Allowable tensile load	F_{Tzul} [N]	7650	10200	16150	24650	33150	51000	68000
Breaking load	F_{Br} [N]	28800	38400	60800	92800	124800	192000	256000
Specific spring rate	C_{spez} [N]	1912500	2550000	4037500	6162500	8287500	12750000	17000000
Weight	[kg/m]	0,28	0,36	0,56	0,84	1,12	1,68	2,25

Other widths are available on request

Specialties

Belt width b [mm]		25	32	50	75	100
STAINLESS STEEL	F_{Tzul} [N]	5220	6960	11020	16820	22620
	F_{Br} [N]	20700	27600	43700	66700	89700

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	151,40	148,56	145,89	143,38	141,01	138,78	129,43	122,28	115,96	110,45	105,61	101,31	97,44	93,93	90,73	87,77

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	85,02	82,47	80,07	79,16	77,82	75,70	73,69	71,77	69,96	68,22	64,97	61,98	59,20	56,62	54,20	51,92

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	49,77	47,74	45,8	43,96	39,72	35,90	32,42	29,23	26,29	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	25	160 mm	25	250 mm
STAINLESS	32	200 mm	40	250 mm

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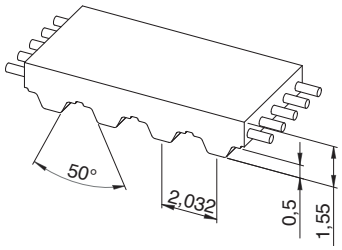
MXL

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with tooth profile according to UNI/ISO 5296 with steel tension cords
- Imperial pitch 2/25" = 2,032 mm
- Allow to use small diameter pulley
- Mainly used in applications where inch pitch is an advantage (USA / UK)
- Trasparent (natural) PU colour

STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,8 [mm/m]
THICKNESS TOLERANCE: ±0,1 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [inch]/[mm]		0,25 / 6,35	0,50 / 12,7	1,00 / 25,4	2,00 / 50,8	4,00 / 101,6
Allowable tensile load	F_{Tzul} [N]*	220	450	900	1790	3580
Breaking load	F_{Br} [N]	875	1750	3500	7000	14000
Specific spring rate	C_{spez} [N]	55000	112500	225000	447500	895000
Weight	[kg/m]	0,014	0,025	0,05	0,095	0,19

Other widths are available on request

Specialties

Belt width b [mm]		0,25 / 6,35	0,50 / 12,7	1,00 / 25,4	2,00 / 50,8	4,00 / 101,6
HFE High Flexibility	F_{Tzul} [N]*	250	505	1010	2015	4030
	F_{Br} [N]	1050	2100	4200	8400	16800

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	7,58	7,31	7,09	6,92	6,78	6,67	6,15	5,83	5,59	5,40	5,24	5,11	4,99	4,88	4,79	4,70

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	4,62	4,55	4,48	4,46	4,42	4,36	4,31	4,25	4,21	4,16	4,07	3,99	3,92	3,85	3,78	3,72

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	3,67	3,61	3,56	3,52	3,41	3,31	3,22	3,14	3,06	2,99	2,93	2,86	2,81	2,75	2,70	2,65

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	12	20 mm	15	25 mm
HFE	12	15 mm	15	20 mm

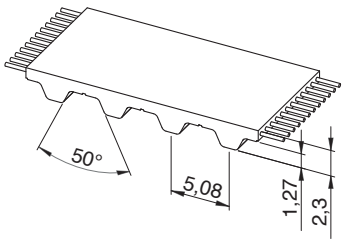
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 172

BELT CHARACTERISTICS

- Polyurethane timing belt with tooth profile according to UNI/ISO 5296 with steel tension cords
- Imperial pitch 1/5" = 5,08 mm
- Allow to use small diameter pulley
- Mainly used in applications where inch pitch is an advantage (USA / UK)



STANDARD CORDS TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [inch]/[mm]		0,25 / 6,35	0,31 / 7,94	0,37 / 9,53	0,50 / 12,7	0,75 / 19,1	1,00 / 25,4	1,50 / 38,1	2,00 / 50,8	4,00 / 101,6
Allowable tensile load	F_{Tzul} [N]*	190	220	290	420	670	900	1410	1890	3840
Breaking load	F_{Br} [N]	750	875	1125	1625	2625	3500	5500	7375	15000
Specific spring rate	C_{spez} [N]	47500	55000	72500	105000	167500	225000	352500	472500	960000
Weight	[kg/m]	0,015	0,019	0,023	0,031	0,046	0,061	0,092	0,122	0,244

Other widths are available on request

Specialties

Belt width b [inch]/[mm]		0,25 / 6,35	0,31 / 7,94	0,37 / 9,53	0,50 / 12,7	0,75 / 19,1	1,00 / 25,4	1,50 / 38,1	2,00 / 50,8	4,00 / 101,6
ARAMID CORD	F_{Tzul} [N]*	420	490	630	910	1470	1960	3080	4130	8400
	F_{Br} [N]	1680	1960	2520	3640	5880	7840	12320	16520	33600
HFE High Flexibility	F_{Tzul} [N]*	215	250	325	470	755	1010	1585	2125	4320
	F_{Br} [N]	900	1050	1350	1950	3150	4200	6600	8850	18000

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	25,10	24,46	23,90	23,42	23,00	22,63	21,24	20,22	19,42	18,77	18,22	17,74	17,32	16,94	16,60	16,29

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	16,01	15,74	15,49	15,40	15,26	15,04	14,84	14,64	14,46	14,28	13,96	13,66	13,38	13,12	12,88	12,65

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	12,44	12,24	12,05	11,87	11,45	11,08	10,74	10,43	10,14	9,87	9,63	9,39	9,17	8,97	8,77	8,59

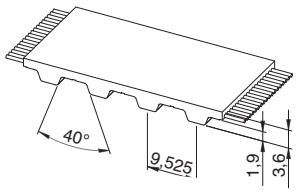
Flexibility

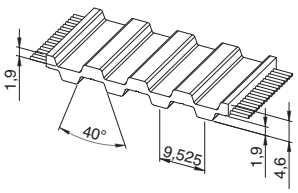
Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	10	30 mm	15	30 mm
ARAMID	10	30 mm	15	30 mm
HFE	10	30 mm	12	30 mm

Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 173





BELT CHARACTERISTICS

- Polyurethane timing belt with tooth profile according to UNI/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)
- Double sided tooth available (on request for special cords)

STANDARD TOLERANCES
WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [inch]/[mm]		0,50 / 12,7	0,75 / 19,1	1,00 / 25,4	1,50 / 38,1	2,00 / 50,8	3,00 / 76,2	4,00 / 101,6
Allowable tensile load	F_{Tzul} [N]*	1270	1960	2760	4260	5640	8510	11390
Breaking load	F_{Br} [N]	4620	7140	10080	15540	20580	31080	41580
Specific spring rate	C_{spez} [N]	317500	490000	690000	1065000	1410000	2127500	2847500
Weight	[kg/m]	0,049	0,073	0,098	0,146	0,195	0,293	0,39

Other widths are available on request

Specialties

Belt width b [inch]/[mm]		0,50 / 12,7	0,75 / 19,1	1,00 / 25,4	1,50 / 38,1	2,00 / 50,8	3,00 / 76,2	4,00 / 101,6
ARAMID CORD	F_{Tzul} [N]*	1210	1870	2640	4070	5390	8140	10890
	F_{Br} [N]	4950	7650	10800	16650	22050	33300	44550
STAINLESS STEEL	F_{Tzul} [N]*	830	1280	1800	2780	3680	-	-
	F_{Br} [N]	3300	5100	7200	11100	14700	-	-

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	38,60	37,42	36,40	35,51	34,74	34,07	31,59	29,79	28,39	27,25	26,28	25,44	24,70	24,04	23,44	22,89

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	22,38	21,91	21,48	21,31	21,07	20,69	20,33	19,98	19,66	19,35	18,77	18,24	17,76	17,30	16,88	16,48

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	16,10	15,75	15,41	15,09	14,36	13,70	13,10	12,55	12,05	11,58	11,14	10,73	10,35	9,98	9,64	9,31

Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	15	60 mm	20	60 mm
ARAMID	15	60 mm	20	60 mm
STAINLESS	18	65 mm	20	65 mm

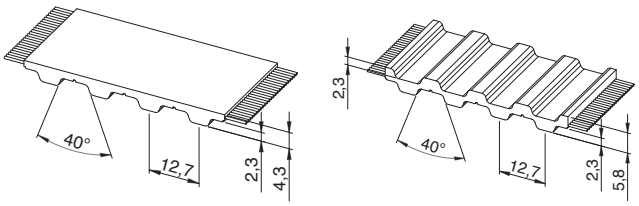
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 174

BELT CHARACTERISTICS

- Polyurethane timing belt with tooth profile according to UNI/ISO 5296 with steel tension cords
- Imperial pitch 1/2" = 12,7 mm
- Allow to use small diameter pulley
- Mainly used in applications where inch pitch is an advantage (USA / UK)
- Double sided tooth available (on request for special cords)



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [inch]/[mm]		0,50 / 12,7	0,75 / 19,1	1,00 / 25,4	1,50 / 38,1	2,00 / 50,8	3,00 / 76,2	4,00 / 101,6	6,00 / 152,4	8,00/203,2**
Allowable tensile load	F_{Tzul} [N]*	1270	1960	2760	4260	5640	8510	11390	17370	11390
Breaking load	F_{Br} [N]	4620	7140	10080	15540	20580	31080	41580	63420	41580
Specific spring rate	C_{spez} [N]	317500	490000	690000	1065000	1410000	2127500	2847500	4342500	2847500
Weight	[kg/m]	0,05	0,08	0,11	0,16	0,22	0,32	0,43	0,56	0,65

Other widths are available on request

** = double cords spacing

Specialties

Belt width b [inch]/[mm]		0,50 / 12,7	0,75 / 19,1	1,00 / 25,4	1,50 / 38,1	2,00 / 50,8	3,00 / 76,2	4,00 / 101,6	6,00 / 152,4	8,00/203,2**
ARAMID CORD	F_{Tzul} [N]*	1210	1870	2640	4070	5390	8140	10890	16610	10890
	F_{Br} [N]	4950	7650	10800	16650	22050	33300	44550	67950	44500
STAINLESS STEEL	F_{Tzul} [N]*	830	1280	1800	2780	3680	-	-	-	-
	F_{Br} [N]	3300	5100	7200	11100	14700	-	-	-	-

** = double cords spacing

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	45,30	43,95	42,78	41,77	40,88	40,11	37,22	35,07	33,41	32,05	30,90	29,91	29,04	28,26	27,55	26,90

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	26,31	25,76	25,25	25,05	24,77	24,32	23,89	23,49	23,11	22,74	22,07	21,44	20,87	20,34	19,84	19,37

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	18,93	18,51	18,12	17,75	16,88	16,11	15,41	14,76	14,17	13,62	13,11	12,63	12,18	11,75	11,35	10,96

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	14	60 mm	20	80 mm
ARAMID	14	60 mm	20	80 mm
STAINLESS	20	80 mm	40	100 mm

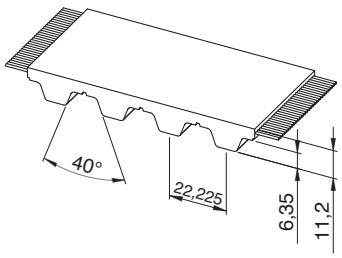
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 175

XH

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with tooth profile according to UNI/ISO 5296 with steel tension cords
- Imperial pitch 7/8" = 22,225 mm
- Mainly used in applications where inch pitch is an advantage (USA / UK)

STANDARD TOLERANCES

WIDTH TOLERANCE: ±1,0 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [inch]/[mm]		1,00 / 25,4	2,00 / 50,8	3,00 / 76,2	4,00 / 101,6	6,00 / 152,4
Allowable tensile load	F_{Tzul} [N]*	3920	8330	12740	17150	25970
Breaking load	F_{Br} [N]	15200	32300	49400	66500	100700
Specific spring rate	C_{spez} [N]	980000	2082500	3185000	4287500	6492500
Weight	[kg/m]	0,37	0,66	0,99	1,33	1,99

Other widths are available on request

Specialties

Belt width b [inch]/[mm]		1,00 / 25,4	2,00 / 50,8	3,00 / 76,2	4,00 / 101,6	6,00 / 152,4
ARAMID CORD	F_{Tzul} [N]*	3520	7480	11440	15400	23320
	F_{Br} [N]	16000	34000	52000	70000	106000
STAINLESS STEEL	F_{Tzul} [N]*	2880	6120	9360	12600	-
	F_{Br} [N]	12000	25500	39000	52500	-

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	96,00	92,98	90,27	87,85	85,68	83,73	74,80	69,42	65,53	62,48	59,97	57,84	55,99	54,35	52,88	51,55

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	50,33	49,20	48,16	47,77	47,19	46,29	45,43	44,62	43,86	43,14	41,79	40,56	39,43	38,37	37,40	36,48

rpm	3400	3600	3800	4000	-	-	-	-	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	35,62	34,81	34,04	33,31	-	-	-	-	-	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	18	150 mm	20	180 mm
ARAMID	18	150 mm	20	180 mm
STAINLESS	24	160 mm	30	200 mm

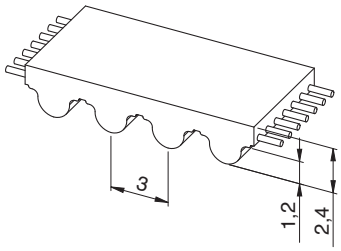
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 176

BELT CHARACTERISTICS

- Polyurethane timing belt with round tooth profile and high tensile load tension cords.
- Tooth profile according to ISO 13050
- Metric pitch 3 mm
- The round tooth profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- Widely used in linear positioning, light power transmission applications



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	15	25	50	100
Allowable tensile load	F_{Tzul} [N]*	320	510	900	1860	3780
Breaking load	F_{Br} [N]	1250	2000	3500	7250	14750
Specific spring rate	C_{spez} [N]	80000	127500	225000	465000	945000
Weight	[kg/m]	0,02	0,03	0,06	0,12	0,24

Other widths are available on request

Specialties

Belt width b [mm]		10	15	25	50	100
HFE High Flexibility	F_{Tzul} [N]*	360	575	1010	2090	4250
	F_{Br} [N]	1500	2400	4200	8700	17700

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	25,20	24,60	24,06	23,57	23,12	22,72	21,22	20,31	19,75	19,14	18,50	17,88	17,30	16,75	16,24	15,75

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	15,29	14,86	14,45	14,29	14,06	13,69	13,33	12,99	12,67	12,36	11,77	11,22	10,71	10,24	9,79	9,36

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	8,96	8,57	8,21	7,86	7,05	6,32	5,66	5,04	4,47	3,94	3,44	2,98	2,54	2,12	1,72	1,35

Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	20	30 mm	20	30 mm
HFE	15	20 mm	20	20 mm

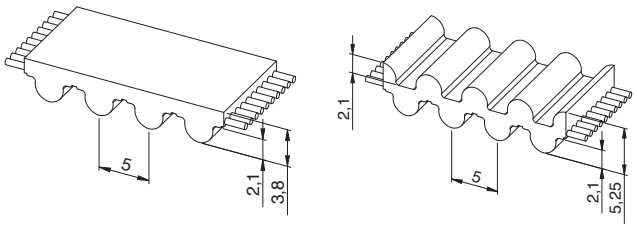
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 177

HTD5M

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with round tooth profile and high tensile load tension cords.
- Tooth profile according to ISO 13050
- Metric pitch 5 mm
- The round tooth profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- Widely used in linear positioning, light power transmission applications
- Double sided tooth available (on request for special cords)

STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	15	25	50	75	100
Allowable tensile load	F_{Tzul} [N]*	920	1500	2650	5520	8400	11270
Breaking load	F_{Br} [N]	3360	5460	9660	20160	30660	41160
Specific spring rate	C_{spez} [N]	230000	375000	662500	1380000	2100000	2817500
Weight	[kg/m]	0,05	0,07	0,12	0,24	0,36	0,48

Other widths are available on request

Specialties

Belt width b [mm]		10	15	25	50	75	100
ARAMID CORD	F_{Tzul} [N]*	880	1430	2530	5280	8030	10780
	F_{Br} [N]	3600	5850	10350	21600	32850	44100
STAINLESS STEEL	F_{Tzul} [N]*	600	980	1730	3600	5475	7350
	F_{Br} [N]	2400	3900	6900	14400	21900	29400

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	36,80	36,25	35,75	35,30	34,89	34,52	33,13	30,87	30,10	29,31	28,56	27,86	27,21	26,61	26,05	25,52

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	25,03	24,56	24,13	23,96	23,71	23,32	22,94	22,58	22,24	21,91	21,30	20,72	20,19	19,69	19,23	18,78

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	18,37	17,97	17,59	17,23	16,40	15,64	14,95	14,32	13,74	13,19	12,68	12,20	11,75	11,33	10,92	10,53

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	16	30 mm	25	60 mm
ARAMID	16	30 mm	25	60 mm
STAINLESS	18	40 mm	25	65 mm

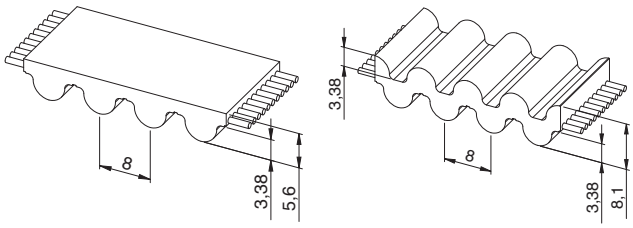
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 178

BELT CHARACTERISTICS

- Polyurethane timing belt with round tooth profile and high tensile load tension cords.
- Tooth profile according to ISO 13050
- Metric pitch 8 mm
- The round tooth profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- Widely used in linear positioning, medium power transmission applications
- Double sided tooth available (on request for special cords)



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	15	20	30	50	85	100	150
Allowable tensile load	F_{Tzul} [N]*	1470	2210	3190	4660	8580	14700	17400	26220
Breaking load	F_{Br} [N]	5700	8550	12350	18050	33250	57000	67450	101650
Specific spring rate	C_{spez} [N]	367500	552500	797500	1165000	2145000	3675000	4350000	6555000
Weight	[kg/m]	0,07	0,10	0,14	0,21	0,35	0,59	0,69	0,95

Other widths are available on request

Specialties

Belt width b [mm]		10	15	20	30	50	85	100	150
ARAMID CORD	F_{Tzul} [N]*	1320	1980	2860	4180	7700	13200	15620	23540
	F_{Br} [N]	6000	9000	13000	19000	35000	60000	71000	107000
STAINLESS STEEL	F_{Tzul} [N]*	1080	1620	2340	3420	6300	10800	12780	-
	F_{Br} [N]	4500	6750	9750	14250	26250	45000	53250	-
HPL High performance	F_{Tzul} [N]	-	-	5280	8160	14400	24480	29280	44160
	F_{Br} [N]	-	-	19250	29750	52500	89250	106750	161000

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	74,00	72,62	71,34	70,16	69,07	68,07	64,09	61,68	59,03	56,71	54,66	52,84	51,20	49,71	48,35	47,09

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	45,93	44,84	43,82	43,43	42,86	41,96	41,10	40,29	39,52	38,78	37,39	36,12	34,94	33,83	32,80	31,83

rpm	3400	3600	3800	4000	4500	5000	5500	6000	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	30,91	30,05	29,22	28,44	26,63	25,00	23,51	22,15	-	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	18	50 mm	30	120 mm
ARAMID	18	50 mm	30	120 mm
STAINLESS	24	70 mm	40	120 mm
HPL	30	80 mm	30	150 mm

Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

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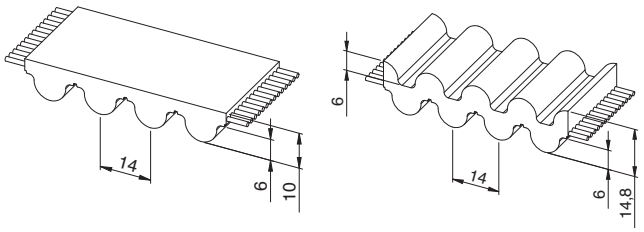
HTD14M

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with round tooth profile and high tensile load tension cords.
- Tooth profile according to ISO 13050
- Metric pitch 14 mm
- The round tooth profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- Widely used in linear positioning, heavy power transmission applications
- Double sided tooth available (on request for special cords)

STANDARD TOLERANCES

WIDTH TOLERANCE: ±1,0 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		25	40	55	85	115	150
Allowable tensile load	F_{Tzul} [N]*	5280	9120	12480	19680	26880	35520
Breaking load	F_{Br} [N]	19250	33250	45500	71750	98000	129500
Specific spring rate	C_{spez} [N]	1320000	2280000	3120000	4920000	6720000	8880000
Weight	[kg/m]	0,28	0,44	0,61	0,94	1,25	1,68

Other widths are available on request

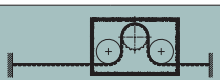
Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	130,00	127,69	125,56	123,60	121,78	120,11	109,77	104,29	99,19	94,65	90,64	87,04	83,80	80,85	78,14	75,63

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	73,31	71,14	69,11	68,33	67,19	65,38	63,67	62,04	60,49	59,01	56,23	53,68	51,30	49,09	47,01	45,06

rpm	3400	3600	3800	4000	-	-	-	-	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	43,22	41,48	39,82	38,24	-	-	-	-	-	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	28	120 mm	28	180 mm

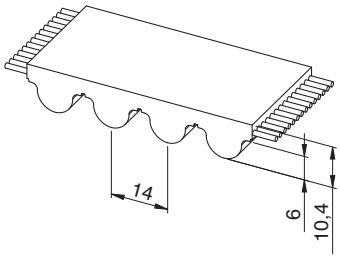
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 180

BELT CHARACTERISTICS

- Polyurethane timing belt with round tooth profile and high tensile load tension cords.
- Tooth profile according to ISO 13050
- Metric pitch 14 mm
- The round tooth profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- HTD14M - XHPL is the ideal belt for heavy duty synchronous lifting applications
- Black color and PAZ fabric as standard for XHPL execution



STANDARD TOLERANCES

WIDTH TOLERANCE:	±1,0 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,5 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		40	55	85	115	150
Allowable tensile load	F_{Tzul} [N]	22000	32000	50000	68000	90000
Breaking load	F_{Br} [N]	77000	112000	175000	238000	315000
Specific spring rate	C_{spez} [N]	5500000	8000000	12500000	17000000	22500000
Weight	[kg/m]	0,59	0,75	1,29	1,75	2,21

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	130,00	127,69	125,56	123,60	121,78	120,11	109,77	104,29	99,19	94,65	90,64	87,04	83,80	80,85	78,14	75,63

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	73,31	71,14	69,11	68,33	67,19	65,38	63,67	62,04	60,49	59,01	56,23	53,68	51,30	49,09	47,01	45,06

rpm	3400	3600	3800	4000	-	-	-	-	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	43,22	41,48	39,82	38,24	-	-	-	-	-	-	-	-	-	-	-	-

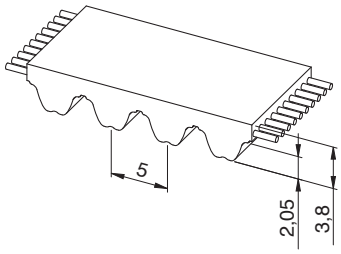
Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	34	140 mm	34	200 mm

Timing pulleys → page 181

RPD5M

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with round tooth profile and high tensile load tension cords.
- Tooth profile according to ISO 13050
- Metric pitch 5 mm
- The round tooth profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- PAZ fabric on tooth side delivered as standard reduces noise in the drive
- Widely used in linear positioning, light power transmission applications

STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	15	25	30	50	100
Allowable tensile load	F_{Tzul} [N]*	920	1500	2650	3220	5520	11270
Breaking load	F_{Br} [N]	3360	5460	9660	11760	20160	41160
Specific spring rate	C_{spez} [N]	230000	375000	662500	805000	1380000	2817500
Weight	[kg/m]	0,05	0,07	0,12	0,15	0,23	0,46

Other widths are available on request

Specialties

Belt width b [mm]		10	15	25	30	50	100
ARAMID CORD	F_{Tzul} [N]*	880	1430	2530	3080	5280	10780
	F_{Br} [N]	3600	5850	10350	12600	21600	44100
STAINLESS STEEL	F_{Tzul} [N]*	600	980	1730	2100	3600	-
	F_{Br} [N]	2400	3900	6900	8400	14400	-
HFE High Flexibility	F_{Tzul} [N]*	960	1560	2760	3360	5760	-
	F_{Br} [N]	3440	5590	9890	12040	20640	-

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	37,80	37,25	36,75	36,30	35,89	35,52	34,13	32,87	32,10	31,31	30,56	29,86	29,21	28,61	28,05	27,52

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	27,03	26,56	26,13	25,96	25,71	25,32	24,94	24,58	24,24	23,91	23,30	22,72	22,19	21,69	21,23	20,78

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	20,37	19,97	19,59	19,23	18,40	17,64	16,95	16,32	15,74	15,19	14,68	14,20	13,75	13,33	12,92	12,53

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	16	30 mm	25	60 mm
ARAMID	16	30 mm	25	60 mm
STAINLESS	18	40 mm	25	65 mm
HFE	15	25 mm	20	40 mm

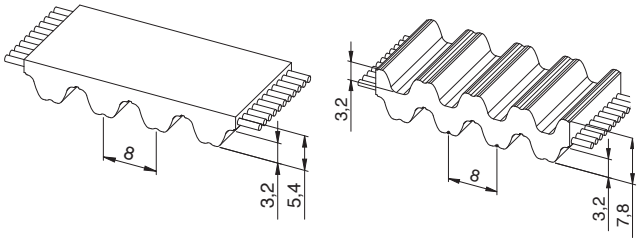
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 182

BELT CHARACTERISTICS

- Polyurethane timing belt with round tooth profile and high tensile load tension cords.
- Tooth profile according to ISO 13050
- Metric pitch 8 mm
- The round tooth profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- PAZ fabric on tooth side delivered as standard reduces noise in the drive
- Widely used in linear positioning, medium power transmission applications
- Double sided tooth available (on request for special cords)



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	15	20	30	50	85	100
Allowable tensile load	F_{Tzul} [N]*	1470	2210	3190	4660	8580	14700	17400
Breaking load	F_{Br} [N]	5700	8550	12350	18050	33250	57000	67450
Specific spring rate	C_{spez} [N]	367500	552500	797500	1165000	2145000	3675000	4350000
Weight	[kg/m]	0,07	0,10	0,14	0,20	0,35	0,60	0,75

Other widths are available on request

Specialties

Belt width b [mm]		10	15	20	30	50	85	100
ARAMID CORD	F_{Tzul} [N]*	1320	1980	2860	4180	7700	13200	15620
	F_{Br} [N]	6000	9000	13000	19000	35000	60000	71000
STAINLESS STEEL	F_{Tzul} [N]*	1080	1620	2340	3420	6300	10800	12780
	F_{Br} [N]	4500	6750	9750	14250	26250	45000	53250
HPL High Performance	F_{Tzul} [N]	-	-	5280	8160	14400	24480	29280
	F_{Br} [N]	-	-	19250	29750	52500	89250	106750

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	76,00	74,62	73,34	72,16	71,07	70,07	66,09	63,68	61,03	58,71	56,66	54,84	53,20	51,71	50,35	49,09

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	47,93	46,84	45,82	45,43	44,86	43,96	43,10	42,29	41,52	40,78	39,39	38,12	36,94	35,83	34,80	33,83

rpm	3400	3600	3800	4000	4500	5000	5500	6000	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	32,91	32,05	31,22	30,44	28,63	27,00	25,51	24,15	-	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	18	50 mm	30	120 mm
ARAMID	18	50 mm	30	120 mm
STAINLESS	24	70 mm	40	120 mm
HPL	30	80 mm	30	150 mm

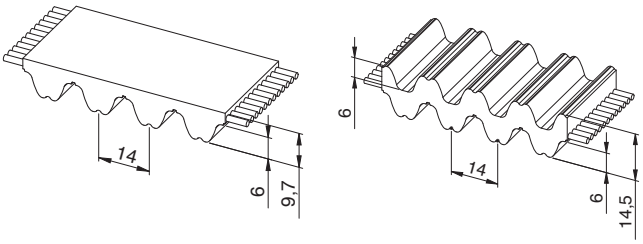
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 183

RPD14M

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with round tooth profile and high tensile load tension cords.
- Tooth profile according to ISO 13050
- Metric pitch 14 mm
- The round tooth profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- PAZ fabric on tooth side delivered as standard reduces noise in the drive
- Widely used in linear positioning, heavy power transmission applications
- Double sided tooth available (on request for special cords)

STANDARD TOLERANCES

WIDTH TOLERANCE: ±1,0 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		40	55	85	115
Allowable tensile load	F_{Tzul} [N]*	12750	17850	28050	39100
Breaking load	F_{Br} [N]	48000	67200	105600	147200
Specific spring rate	C_{spez} [N]	3187500	4462500	7012500	9775000
Weight	[kg/m]	0,48	0,68	1,00	1,40

Other widths are available on request

Specialties

Belt width b [mm]		40	55	85	115
HPF High flexibility and performance	F_{Tzul} [N]	15000	21000	33000	46000
	F_{Br} [N]	60000	84000	132000	184000

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	140,00	137,31	134,83	132,53	130,42	128,46	119,77	114,29	109,19	104,65	100,64	97,04	93,80	90,85	88,14	85,63

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	83,31	81,14	79,11	78,33	77,19	75,38	73,67	72,04	70,49	69,01	66,23	63,68	61,30	59,09	57,01	55,06

rpm	3400	3600	3800	4000	-	-	-	-	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	53,22	51,48	49,82	48,24	-	-	-	-	-	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	32	140 mm	32	200 mm
HPF	30	130 mm	30	180 mm

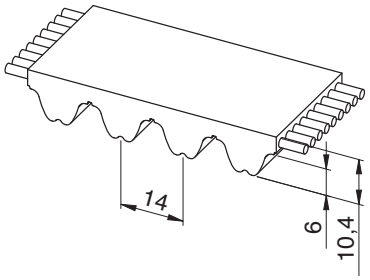
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 184

BELT CHARACTERISTICS

- Polyurethane timing belt with round tooth profile and high tensile load tension cords.
- Tooth profile according to ISO 13050
- Metric pitch 14 mm
- The round tooth profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- PAZ fabric on tooth side delivered as standard reduces noise in the drive
- RTD14M - XHPL is the ideal belt for heavy duty synchronous lifting applications. Black colour as standard.



STANDARD TOLERANCES

WIDTH TOLERANCE:	±1,0 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		40	55	85	115	150
Allowable tensile load	F_{Tzul} [N]	22000	32000	50000	68000	90000
Breaking load	F_{Br} [N]	77000	112000	175000	238000	315000
Specific spring rate	C_{spez} [N]	5500000	8000000	12500000	17000000	22500000
Weight	[kg/m]	0,59	0,75	1,29	1,75	2,21

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	140,00	137,31	134,83	132,53	130,42	128,46	119,77	114,29	109,19	104,65	100,64	97,04	93,80	90,85	88,14	85,63

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	83,31	81,14	79,11	78,33	77,19	75,38	73,67	72,04	70,49	69,01	66,23	63,68	61,30	59,09	57,01	55,06

rpm	3400	3600	3800	4000	-	-	-	-	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	53,22	51,48	49,82	48,24	-	-	-	-	-	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	34	140 mm	34	250 mm

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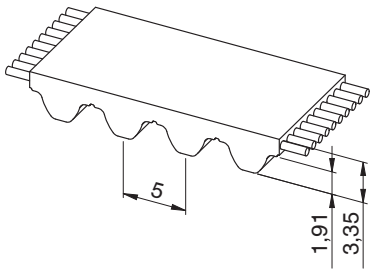
STD5M

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with involute tooth, high tensile load steel cords and high torque capacity
- Tooth profile according to ISO 13050
- Metric pitch 5 mm
- Low noise generation in high speed drives
- Offers excellent operational reliability in linear positioning and light power transmission applications
- The special profile allows smooth running properties

STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	15	25	50	100	150
Allowable tensile load	F_{Tzul} [N]*	920	1500	2650	5520	11270	17020
Breaking load	F_{Br} [N]	3360	5460	9660	20160	41160	62160
Specific spring rate	C_{spez} [N]	230000	375000	662500	1380000	2817500	4255000
Weight	[kg/m]	0,05	0,07	0,12	0,23	0,46	0,69

Other widths are available on request

Specialties

Belt width b [mm]		10	15	25	50	100	150
ARAMID CORD	F_{Tzul} [N]*	880	1430	2530	5280	10780	16280
	F_{Br} [N]	3600	5850	10350	21600	44100	66600
STAINLESS STEEL	F_{Tzul} [N]*	600	980	1730	3600	-	-
	F_{Br} [N]	2400	3900	6900	14400	-	-
HFE High Flexibility	F_{Tzul} [N]*	960	1560	2760	5760	-	-
	F_{Br} [N]	3440	5590	9890	20640	-	-

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	36,90	36,35	35,85	35,40	34,99	34,62	33,23	31,37	30,60	29,81	29,06	28,36	27,71	27,11	26,55	26,02

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	25,53	25,06	24,63	24,46	24,21	23,82	23,44	23,08	22,74	22,41	21,80	21,22	20,69	20,19	19,73	19,28

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	18,87	18,47	18,09	17,73	16,90	16,14	15,45	14,82	14,24	13,69	13,18	12,70	12,25	11,83	11,42	11,03

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	16	30 mm	25	60 mm
ARAMID	16	30 mm	25	60 mm
STAINLESS	18	40 mm	25	65 mm
HFE	15	25 mm	20	40 mm

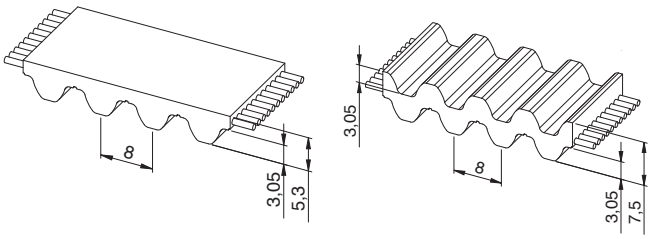
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 186

BELT CHARACTERISTICS

- Polyurethane timing belt with involute tooth, high tensile load steel cords and high torque capacity
- Tooth profile according to ISO 13050
- Metric pitch 8 mm
- Low noise generation in high speed drives
- Offers excellent operational reliability in linear positioning and medium power transmission applications
- Widely used in automatic doors
- The special profile allows smooth running properties
- Double sided tooth available (on request for special cords)



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	15	20	30	50	85	100
Allowable tensile load	F_{Tzul} [N]*	1470	2210	3190	4660	8580	14700	17400
Breaking load	F_{Br} [N]	5700	8550	12350	18050	33250	57000	67450
Specific spring rate	C_{spez} [N]	367500	552500	797500	1165000	2145000	3675000	4350000
Weight	[kg/m]	0,07	0,10	0,13	0,20	0,33	0,56	0,66

Other widths are available on request

Specialties

Belt width b [mm]		10	15	20	30	50	85	100
ARAMID CORD	F_{Tzul} [N]*	1320	1980	2860	4180	7700	13200	15620
	F_{Br} [N]	6000	9000	13000	19000	35000	60000	71000
STAINLESS STEEL	F_{Tzul} [N]*	1080	1620	2340	3420	6300	10800	12780
	F_{Br} [N]	4500	6750	9750	14250	26250	45000	53250
HPL High Performance	F_{Tzul} [N]	-	-	5280	8160	14400	24480	29280
	F_{Br} [N]	-	-	19250	29750	52500	89250	106750

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	74,10	73,05	72,06	71,13	70,26	69,43	65,98	62,11	59,43	57,08	55,02	53,18	51,53	50,03	48,66	47,39

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	46,22	45,12	44,10	43,70	43,13	42,22	41,36	40,54	39,76	39,02	37,62	36,34	35,15	34,04	33,00	32,02

rpm	3400	3600	3800	4000	4500	5000	5500	6000	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	31,10	30,23	29,40	28,61	26,79	25,14	23,65	22,28	-	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	18	50 mm	30	120 mm
ARAMID	18	50 mm	30	120 mm
STAINLESS	24	70 mm	40	120 mm
HPL	30	80 mm	30	150 mm

Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

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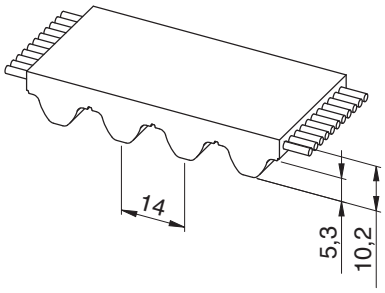
STD14M

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with involute tooth, high tensile load steel cords and high torque capacity
- Tooth profile according to ISO 13050
- Metric pitch 14 mm
- Low noise generation in high speed drives
- Tension cords with increased tensile load for lower elongation
- Superior performance in lifting applications
- The special profile allows smooth running properties

STANDARD TOLERANCES

WIDTH TOLERANCE: ±1,0 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		40	55	85	115
Allowable tensile load	F_{Tzul} [N]*	12750	17850	28050	39100
Breaking load	F_{Br} [N]	48000	67200	105600	147200
Specific spring rate	C_{spez} [N]	3187500	4462500	7012500	9775000
Weight	[kg/m]	0,50	0,70	1,08	1,48

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	134,00	131,31	128,83	126,53	124,42	122,46	114,77	109,29	104,19	99,65	95,64	92,04	88,80	85,85	83,14	80,63

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	78,31	76,14	74,11	73,33	72,19	70,38	68,67	67,04	65,49	64,01	61,23	58,68	56,30	54,09	52,01	50,06

rpm	3400	3600	3800	4000	-	-	-	-	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	48,22	46,48	44,82	43,24	-	-	-	-	-	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	32	140 mm	32	250 mm

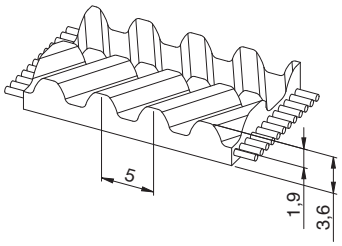
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 188

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 5 mm
- **Extremely reduced noise generation**
- Offers excellent operational reliability in linear positioning and medium power transmission applications
- The special profile allows most compact drive
- Black colour and black fabric on tooth side (PAZ) as standard



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		12,5	25
Allowable tensile load	F_{Tzul} [N]*	1150	2530
Breaking load	F_{Br} [N]	4200	9240
Specific spring rate	C_{spez} [N]	287500	632500
Weight	[kg/m]	0,06	0,12

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	37,80	37,25	36,75	36,30	35,89	35,52	34,13	32,87	32,10	31,31	30,56	29,86	29,21	28,61	28,05	27,52

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	27,03	26,56	26,13	25,96	25,71	25,32	24,94	24,58	24,24	23,91	23,30	22,72	22,19	21,69	21,23	20,78

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	20,37	19,97	19,59	19,23	18,40	17,64	16,95	16,32	15,74	15,19	14,68	14,20	13,75	13,33	12,92	12,53

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	16	30 mm	25	60 mm

Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

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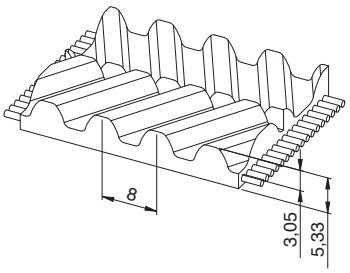
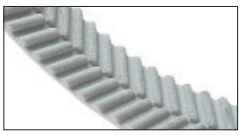
EAGLE8M

Elatech® M and V





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 8 mm
- **Extremely reduced noise generation**
- Offers excellent operational reliability in linear positioning and medium power transmission applications
- The special profile allows most compact drive
- White colour and grey fabric on tooth side (PAZ) as standard

STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,8 [mm]
LENGTH TOLERANCE:	±0,8 [mm/m]
THICKNESS TOLERANCE:	±0,3 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		16	25	32	50
Allowable tensile load	F_{Tzul} [N]*	2450	4170	5390	8580
Breaking load	F_{Br} [N]	9500	16150	20900	33250
Specific spring rate	C_{spez} [N]	612500	1042500	1347500	2145000
Weight	[kg/m]	0,085	0,145	0,180	0,300

Other widths are available on request

Specialties

Belt width b [mm]		16	25	32	50
ARAMID CORD	F_{Tzul} [N]*	2200	3740	4840	7700
	F_{Br} [N]	10000	17000	22000	35000
STAINLESS STEEL	F_{Tzul} [N]*	1800	3060	3960	6300
	F_{Br} [N]	7500	12750	16500	26250
HPL High Performance	F_{Tzul} [N]	3840	6720	8640	14400
	F_{Br} [N]	14000	24500	31500	52500

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	85,00	83,78	82,62	81,49	80,42	79,38	74,78	71,01	67,93	65,52	63,36	61,42	59,66	58,05	56,58	55,22

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	53,95	52,77	51,66	51,23	50,61	49,62	48,69	47,80	46,95	46,14	44,62	43,22	41,91	40,70	39,56	38,49

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	37,48	36,52	35,61	34,75	32,75	30,94	29,30	27,79	26,40	25,11	23,90	22,77	21,70	20,69	19,73	18,82

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	20	50 mm	30	120 mm
ARAMID	20	50 mm	30	120 mm
STAINLESS	24	70 mm	40	120 mm
HPL	30	80 mm	30	150 mm

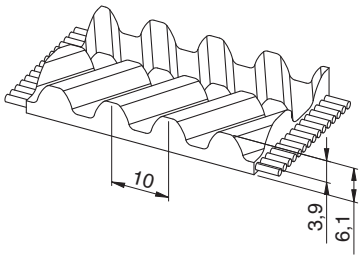
Elatech® V Joined informations

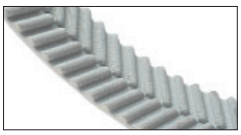
Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 190

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 10 mm
- **Extremely reduced noise generation**
- Offers excellent operational reliability in linear positioning and medium power transmission applications
- The special profile allows most compact drive
- White colour and grey fabric on tooth side (PAZ) as standard





STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,8 [mm]
LENGTH TOLERANCE:	±0,8 [mm/m]
THICKNESS TOLERANCE:	±0,3 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		25	32	50	75	100
Allowable tensile load	F_{Tzul} [N]*	6720	8640	14400	21120	28800
Breaking load	F_{Br} [N]	24500	31500	52500	77000	105000
Specific spring rate	C_{spez} [N]	1680000	2160000	3600000	5280000	7200000
Weight	[kg/m]	0,18	0,23	0,37	0,54	0,74

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	93,50	92,03	90,63	89,28	88,00	86,77	81,36	77,02	73,54	70,76	68,43	66,33	64,43	62,70	61,11	59,63

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	58,27	56,99	55,79	55,33	54,66	53,59	52,58	51,62	50,70	49,83	48,19	46,67	45,27	43,96	42,73	41,57

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	40,48	39,45	38,46	37,53	35,37	33,42	31,65	30,02	28,51	27,12	25,81	24,59	23,43	22,34	21,31	20,33

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	25	80 mm	25	150 mm

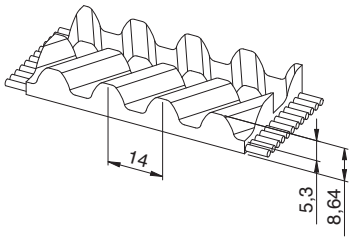
Elatech® V Joined informations

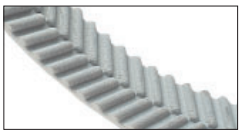
Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 191

EAGLE14M

Elatech® M and V





STANDARD TOLERANCES

WIDTH TOLERANCE:	±1,2 [mm]
LENGTH TOLERANCE:	±0,8 [mm/m]
THICKNESS TOLERANCE:	±0,4 [mm]

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
- White colour and grey fabric on tooth side (PAZ) as standard

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		35	52,5	70	105
Allowable tensile load	F_{Tzul} [N]*	11900	17000	23800	35700
Breaking load	F_{Br} [N]	44800	64000	89600	134400
Specific spring rate	C_{spez} [N]	2975000	4250000	5950000	8925000
Weight	[kg/m]	0,40	0,60	0,80	1,20

Other widths are available on request

Specialties

Belt width b [mm]		35	52,5	70	105
HPF High flexibility and performance	F_{Tzul} [N]	14000	20000	28000	42000
	F_{Br} [N]	56000	80000	112000	168000

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	160,00	157,00	154,22	151,64	149,24	147,01	138,04	129,87	123,12	117,24	112,07	107,48	103,35	99,60	96,17	93,01

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	90,08	87,35	84,80	83,82	82,39	80,12	77,97	75,93	73,99	72,13	68,66	65,46	62,50	59,73	57,15	54,71

rpm	3400	3600	3800	4000	-	-	-	-	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	52,42	50,24	48,18	46,21	-	-	-	-	-	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	32	140 mm	32	200 mm
HPF	30	130 mm	30	180 mm

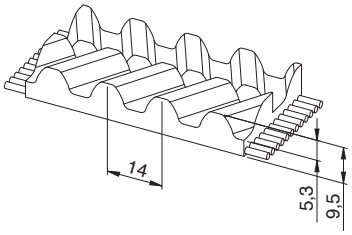
Elatech® V Joined informations

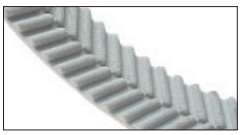
Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 192

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**
- **E14M - XHPL is the ideal belt for heavy duty synchronous lifting applications.**
- The special profile allows most compact drive
- White colour and grey fabric on tooth side (PAZ) as standard





STANDARD TOLERANCES

WIDTH TOLERANCE:	±1,2 [mm]
LENGTH TOLERANCE:	±1,0 [mm/m]
THICKNESS TOLERANCE:	±0,5 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		35	52,5
Allowable tensile load	F_{Tzul} [N]	16000	28000
Breaking load	F_{Br} [N]	56000	98000
Specific spring rate	C_{spez} [N]	4000000	7000000
Weight	[kg/m]	0,50	0,70

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	160,00	157,00	154,22	151,64	149,24	147,01	138,04	129,87	123,12	117,24	112,07	107,48	103,35	99,60	96,17	93,01

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	90,08	87,35	84,80	83,82	82,39	80,12	77,97	75,93	73,99	72,13	68,66	65,46	62,50	59,73	57,15	54,71

rpm	3400	3600	3800	4000	-	-	-	-	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	52,42	50,24	48,18	46,21	-	-	-	-	-	-	-	-	-	-	-	-

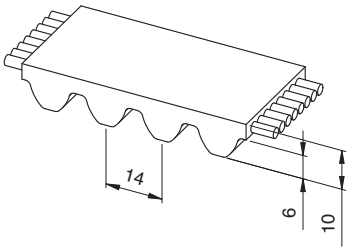
Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	34	140 mm	34	200 mm

Note
Special pulley profile required.
Contact Elatech® technical dept. for details.

PG14M

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with curvilinear tooth profile and high tensile load steel cords
- Tooth profile according to ISO 13050
- Metric pitch 14 mm
- Offers excellent operational reliability heavy lifting applications
- The special profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- Black colour and black fabric on tooth side (PAZ) as standard

STANDARD TOLERANCES

WIDTH TOLERANCE: ±1,0 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		50	100	150	180
Allowable tensile load	F_{Tzul} [N]	32000	64000	96000	114000
Breaking load	F_{Br} [N]	112000	224000	336000	399000
Specific spring rate	C_{spez} [N]	8000000	16000000	24000000	28500000
Weight	[kg/m]	0,74	1,50	2,25	2,70

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	156,00	153,23	150,68	148,32	146,14	144,13	131,72	125,15	119,02	113,59	108,76	104,45	100,56	97,01	93,76	90,76

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	87,97	85,37	82,93	81,99	80,63	78,46	76,40	74,45	72,59	70,81	67,48	64,41	61,56	58,91	56,42	54,08

rpm	3400	3600	3800	4000	-	-	-	-	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	51,86	49,77	47,78	45,89	-	-	-	-	-	-	-	-	-	-	-	-

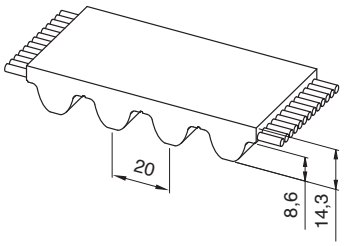
Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	34	140 mm	34	250 mm

Note
Special pulley profile required.
Contact Elatech® technical dept. for details.

BELT CHARACTERISTICS

- Polyurethane timing belt with curvilinear tooth profile and high tensile load steel cords
- Metric pitch 20 mm
- Offers excellent operational reliability heavy lifting applications
- The special profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- Black colour and black fabric on tooth side (PAZ) as standard



STANDARD TOLERANCES

WIDTH TOLERANCE:	±1,0 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		50	100	150	180
Allowable tensile load	F_{Tzul} [N]	40000	80000	120000	142500
Breaking load	F_{Br} [N]	152000	304000	456000	541500
Specific spring rate	C_{spez} [N]	10000000	20000000	30000000	35625000
Weight	[kg/m]	1,05	2,03	3,04	3,65

Other widths are available on request

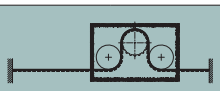
Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	212,00	208,03	204,29	200,76	197,45	194,32	181,23	171,22	162,37	154,65	147,88	141,85	136,44	131,53	127,04	122,90

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	119,06	115,48	112,12	110,84	108,97	106,00	103,18	100,50	97,96	95,53	90,98	86,79	82,9	79,28	75,89	72,70

rpm	3400	3600	3800	4000	-	-	-	-	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	69,69	66,84	64,14	61,56	-	-	-	-	-	-	-	-	-	-	-	-

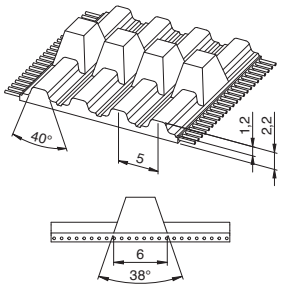
Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	30	190 mm	34	280 mm

Note
Special pulley profile required.
Contact Elatech® technical dept. for details.

TK5 K6

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane self tracking timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Profile T5 with central guide - K6 x 4 mm (+0/-1)
- Allow to use pulleys without flanges
- The central guide is notched in order to maximize belt flexibility
- Ideal for conveying applications where a side load is generated by loading/unloading transferring a product

STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		32	50	75	100
Allowable tensile load	F_{Tzul} [N]*	1150	1860	2820	3780
Breaking load	F_{Br} [N]	4500	7250	11000	14750
Specific spring rate	C_{spez} [N]	287500	465000	705000	945000
Weight	[kg/m]	0,080	0,130	0,200	0,260

Other widths are available on request

Specialties

Belt width b [mm]		32	50	75	100
ARAMID CORD	F_{Tzul} [N]*	2520	4060	6160	8260
	F_{Br} [N]	10080	16240	24640	33040

Flexibility

Minimum pulley number of teeth and minimum idler diameter		Drive without reverse bending		Drive with reverse bending	
		z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	Guide K6	14	40 mm	15	50 mm
ARAMID	Guide K6	14	40 mm	15	50 mm

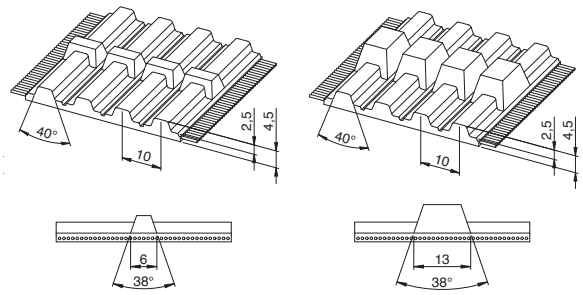
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 193

BELT CHARACTERISTICS

- Polyurethane self tracking timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Profile T10 with central guide - K13 x 6,5 mm (+0/-1)
- Profile T10 with central guide - K6 x 4,0 mm (+0/-1)
- Allow to use pulleys without flanges
- The central guide is notched in order to maximize belt flexibility
- Ideal for conveying applications where a side load is generated by loading/unloading transferring a product



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	± 0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		32	50	75	100	150
Allowable tensile load	F_{Tzul} [N]*	3450	5520	8400	11270	17020
Breaking load	F_{Br} [N]	12600	20160	30660	41160	62160
Specific spring rate	C_{spez} [N]	862500	1380000	2100000	2817500	4255000
Weight	[kg/m]	0,220	0,300	0,410	0,530	0,850

Other widths are available on request

Specialties

Belt width b [mm]		32	50	75	100	150
ARAMID CORD	F_{Tzul} [N]*	3300	5280	8030	10780	16280
	F_{Br} [N]	13500	21600	32850	44100	66600

Flexibility

Minimum pulley number of teeth and minimum idler diameter		Drive without reverse bending		Drive with reverse bending	
		z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	Guide K6	14	60 mm	20	60 mm
	Guide K13	16	80 mm	20	60 mm
ARAMID	Guide K6	14	60 mm	20	60 mm
	Guide K13	16	80 mm	20	60 mm

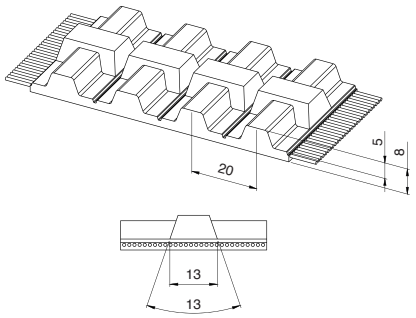
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 194

TK20 K13

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Profile T20 with central guide K13 x 6,5 mm (+0/-1)
- Ideal for drives where high belt flexibility is requested
- Widely used for conveying, linear drive and heavy power transmission applications
- Double sided tooth construction available

STANDARD TOLERANCES

WIDTH TOLERANCE: ±1,0 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		32	50
Allowable tensile load	F_{Tzul} [N]	5390	8580
Breaking load	F_{Br} [N]	20900	33250
Specific spring rate	C_{spez} [N]	1347500	2145000
Weight	[kg/m]	0,29	0,45

Other widths are available on request

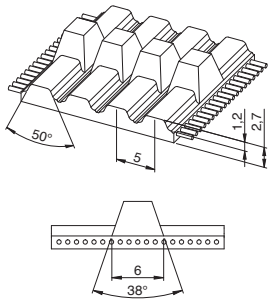
Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	20	120 mm	25	180 mm

Timing pulleys → page 195

BELT CHARACTERISTICS

- Polyurethane self tracking timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Profile AT5 with central guide - K6 x 4 mm (+0/-1)
- Allow to use pulleys without flanges
- The central guide is notched in order to maximize belt flexibility
- Ideal for conveying applications where a side load is generated by loading/unloading transferring a product



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		32	50	75	100
Allowable tensile load	F_{Tzul} [N]*	3450	5520	8400	11270
Breaking load	F_{Br} [N]	12600	20160	30660	41160
Specific spring rate	C_{spez} [N]	862500	1380000	2100000	2817500
Weight	[kg/m]	0,11	0,19	0,29	0,38

Other widths are available on request

Specialties

Belt width b [mm]		32	50	75	100
ARAMID CORD	F_{Tzul} [N]*	3300	5280	8030	10780
	F_{Br} [N]	13500	21600	32850	44100

Flexibility

Minimum pulley number of teeth and minimum idler diameter		Drive without reverse bending		Drive with reverse bending	
		z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	Guide K6	15	60 mm	25	80 mm
ARAMID	Guide K6	15	60 mm	25	80 mm

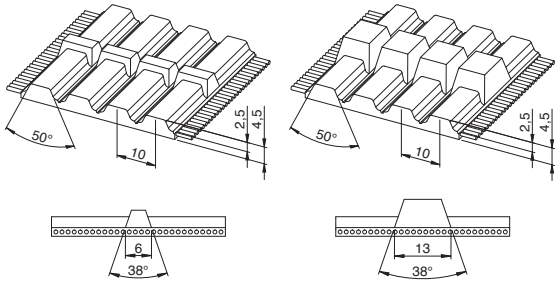
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 196

ATK10 K6 - K13

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane self tracking timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Profile AT10 with central guide - K13 x 6,5 mm (+0/-1)
- Profile AT10 with central guide - K6 x 4 mm (+0/-1)
- Allow to use pulleys without flanges
- The central guide is notched in order to maximize belt flexibility
- Ideal for conveying applications where a side load is generated by loading/unloading transferring a product

STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		32	50	75	100	150
Allowable tensile load	F_{Tzul} [N]*	5390	8580	12990	17400	26220
Breaking load	F_{Br} [N]	20900	33250	50350	67450	101650
Specific spring rate	C_{spez} [N]	1347500	2145000	3247500	4350000	6555000
Weight	[kg/m]	0,27	0,36	0,50	0,72	1,08

Other widths are available on request

Specialties

Belt width b [mm]		32	50	75	100	150
ARAMID CORD	F_{Tzul} [N]*	4840	7700	11660	15620	23540
	F_{Br} [N]	22000	35000	53000	71000	107000

Flexibility

Minimum pulley number of teeth and minimum idler diameter		Drive without reverse bending		Drive with reverse bending	
		z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	Guide K6	15	50 mm	25	120 mm
	Guide K13	20	50 mm	25	120 mm
ARAMID	Guide K6	15	50 mm	20	120 mm
	Guide K13	20	50 mm	20	120 mm

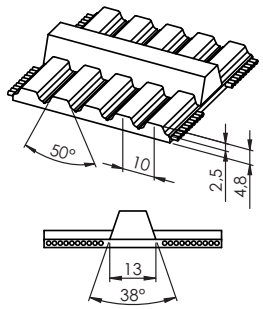
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 197

BELT CHARACTERISTICS

- Polyurethane self tracking timing belt with HPL steel tension cords
- Tooth profile according to ISO 17396
- Profile AT10 with central guide - K13 x 8 mm (+0/-1)
- Self tracking no need of pulley flanges
- Metric pitch 10 mm



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,2 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		**50**
Allowable tensile load	F_{Tzul} [N]*	9600
Breaking load	F_{Br} [N]	35000
Specific spring rate	C_{spez} [N]	2400000
Weight	[kg/m]	0,40

Other widths are available on request

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	**idler d_{min}**	**z_{min}**	**idler d_{min}**
STANDARD	30	95 mm	30	180 mm

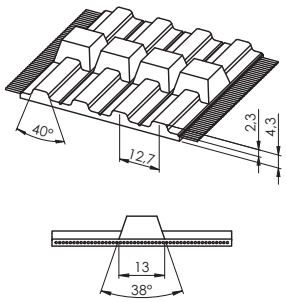
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 198

H K13

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane self tracking timing belt with steel tension cords
- Tooth profile according to UNI/ISO 5296
- Profile H with central guide - K13 x 6,5 mm (+0/-1)
- Self tracking no need of pulley flanges
- Imperial pitch 1/2" = 12,7 mm
- Allow to use small diameter pulley
- Mainly used in applications where inch pitch is an advantage (USA / UK)

STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,5 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [inch]/[mm]		1,00 / 25,4	2,00 / 50,8	3,00 / 76,2	4,00 / 101,6	6,00 / 152,4
Allowable tensile load	F_{Tzul} [N]*	2760	5640	8510	11390	17370
Breaking load	F_{Br} [N]	10080	20580	31080	41580	63420
Specific spring rate	C_{spez} [N]	690000	1410000	2127500	2847500	4342500
Weight	[kg/m]	0,16	0,30	0,38	0,51	0,70

Other widths are available on request

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	20	80 mm	22	160 mm

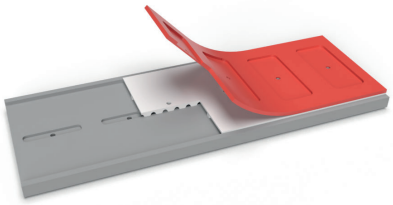
Elatech® V Joined informations

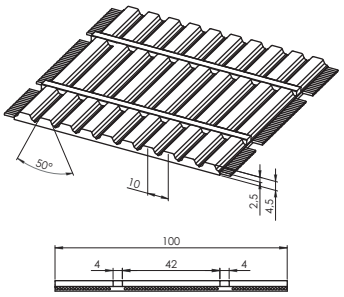
Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 199

BELT CHARACTERISTICS

- Polyurethane self tracking timing belt available only with aramid tension cords
- Tooth profile according to ISO 17396
- Self tracking no need of pulley flanges
- Metric pitch 10 mm
- Allow to use small diameter pulley
- Grey fabric on tooth side (PAZ) as standard





STANDARD TOLERANCES

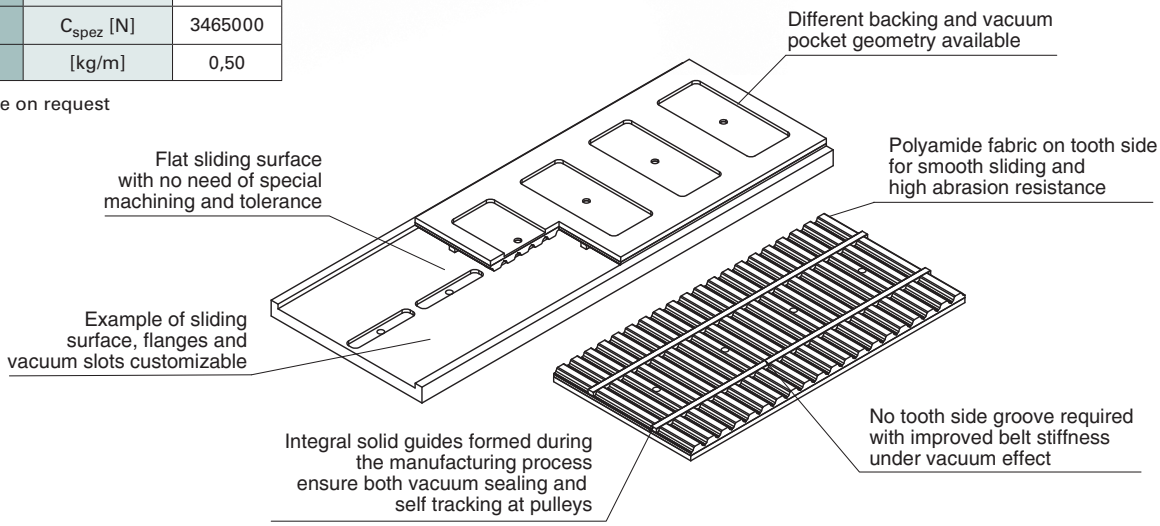
WIDTH TOLERANCE:	±0,5 [mm]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard aramid cord

Belt width b [mm]		100
Allowable tensile load	F_{Tzul} [N]*	13860
Breaking load	F_{Br} [N]	63000
Specific spring rate	C_{spez} [N]	3465000
Weight	[kg/m]	0,50

Other widths are available on request



Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	81,48	80,10	78,80	77,60	76,48	75,43	71,17	69,09	66,23	63,73	61,53	59,57	57,80	56,20	54,73	53,38

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	52,12	50,95	49,86	49,44	48,83	47,85	46,93	46,06	45,22	44,43	42,94	41,56	40,29	39,10	37,99	36,95

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	35,96	35,03	34,14	33,29	31,34	29,59	27,99	26,53	25,17	23,92	22,74	21,64	20,60	19,63	18,70	17,81

Flexibility

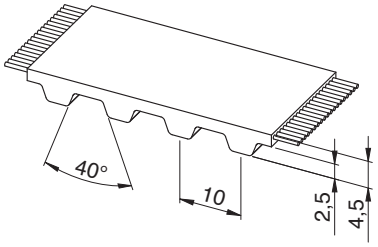
Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
ARAMID	17	50 mm	25	120 mm

Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Note
Special pulley profile required.
Contact Elatech® technical dept. for details.

T10
TOTAL PROTECTION - Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 10 mm
- **TP (Total Protection) belt. The absence of tooth gap makes the belt cords protected against corrosion**
- **Widely used in applications with corrosive environment, high humidity**
- Light blue colour available on request

STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	16	25	32	50	75	100
Allowable tensile load	F_{Tzul} [N]*	920	1610	2650	3450	5520	8400	11270
Breaking load	F_{Br} [N]	3360	5880	9660	12600	20160	30660	41160
Specific spring rate	C_{spez} [N]	230000	402500	662500	862500	1380000	2100000	2817500
Weight	[kg/m]	0,05	0,07	0,11	0,15	0,23	0,34	0,45

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	51,80	50,32	49,04	47,92	46,95	46,11	42,75	40,28	38,36	36,80	35,49	34,35	33,34	32,44	31,63	30,89

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	30,21	29,58	28,99	28,76	28,44	27,92	27,43	26,97	26,53	26,12	25,34	24,63	23,97	23,36	22,78	22,25

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	21,74	21,27	20,81	20,39	19,40	18,51	17,70	16,97	16,29	15,66	15,07	14,52	14,00	13,51	13,05	12,61

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	12	60 mm	20	60 mm

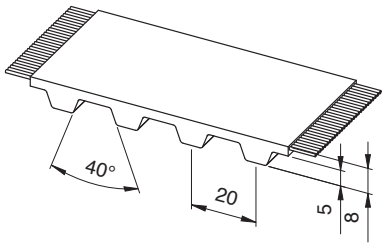
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 200

BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- Metric pitch 20 mm
- **TP (Total Protection) belt. The absence of tooth gap makes the belt cords protected against corrosion**
- **Widely used in applications with corrosive environment, high humidity**



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,85 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		50	100
Allowable tensile load	F_{Tzul} [N]*	8580	17400
Breaking load	F_{Br} [N]	33250	67450
Specific spring rate	C_{spez} [N]	2145000	4350000
Weight	[kg/m]	0,41	0,82

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	104,50	101,10	98,15	95,58	93,35	91,41	83,50	77,84	73,49	69,96	66,98	64,41	62,15	60,13	58,31	56,64

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	55,11	53,70	52,38	51,87	51,14	49,98	48,89	47,86	46,88	45,94	44,20	42,61	41,13	39,77	38,49	37,29

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	36,16	35,10	34,09	33,13	30,92	28,93	27,14	25,49	23,97	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	 Drive without reverse bending		 Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	15	120 mm	25	120 mm

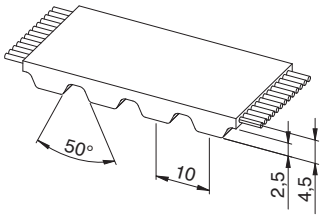
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 201

AT10

TOTAL PROTECTION - Elatech® M and V



STANDARD TOLERANCES

WIDTH TOLERANCE: ±0,5 [mm]
LENGTH TOLERANCE: ±0,8 [mm/m]
THICKNESS TOLERANCE: ±0,2 [mm]

BELT CHARACTERISTICS

- Polyurethane timing belt with steel tension cords
- Tooth profile according to ISO 17396
- 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
- **TP (Total Protection) belt. The absence of tooth gap makes the belt cords protected against corrosion**
- **Widely used in applications with corrosive environment, high humidity**
- Light blue colour available on request

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		16	25	32	50	75	100	120
Allowable tensile load	F_{Tzul} [N]*	2450	4170	5390	8580	12990	17400	20830
Breaking load	F_{Br} [N]	9500	16150	20900	33250	50350	67450	80750
Specific spring rate	C_{spez} [N]	612500	1042500	1347500	2145000	3247500	4350000	5207500
Weight	[kg/m]	0,09	0,15	0,19	0,30	0,44	0,59	0,71

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	88,57	87,06	85,66	84,35	83,13	81,99	77,36	75,09	71,99	69,27	66,88	64,75	62,83	61,09	59,49	58,02

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	56,66	55,39	54,20	53,74	53,08	52,02	51,02	50,06	49,16	48,29	46,67	45,18	43,80	42,51	41,30	40,17

rpm	3400	3600	3800	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
F_{Uspez} [N/cm]	39,09	38,08	37,11	36,20	34,08	32,17	30,43	28,84	27,37	26,01	24,73	23,53	22,41	21,34	20,33	19,37

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	15	50 mm	25	120 mm

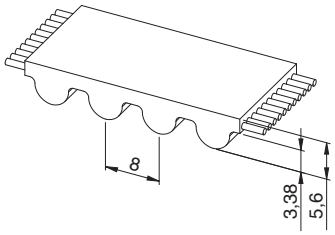
Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 202

BELT CHARACTERISTICS

- Polyurethane timing belt with round tooth profile and high tensile load tension cords.
- Tooth profile according to ISO 13050
- Metric pitch 8 mm
- The round tooth profile allows a uniform load distribution that guarantees high performances, high transmissible torque and precise tooth engagement
- **TP (Total Protection) belt. The absence of tooth gap makes the belt protected against corrosion**
- **Widely used in applications with corrosive environment**
- Light blue colour available on request



STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	15	20	30	50	85	100
Allowable tensile load	F_{Tzul} [N]*	1470	2210	3190	4660	8580	14700	17400
Breaking load	F_{Br} [N]	5700	8550	12350	18050	33250	57000	67450
Specific spring rate	C_{spez} [N]	367500	552500	797500	1165000	2145000	3675000	4350000
Weight	[kg/m]	0,07	0,11	0,14	0,21	0,35	0,60	0,70

Other widths are available on request

Tooth shear strength

rpm	0	20	40	60	80	100	200	300	400	500	600	700	800	900	1000	1100
F_{Uspez} [N/cm]	74,00	72,62	71,34	70,16	69,07	68,07	64,09	61,68	59,03	56,71	54,66	52,84	51,20	49,71	48,35	47,09

rpm	1200	1300	1400	1440	1500	1600	1700	1800	1900	2000	2200	2400	2600	2800	3000	3200
F_{Uspez} [N/cm]	45,93	44,84	43,82	43,43	42,86	41,96	41,10	40,29	39,52	38,78	37,39	36,12	34,94	33,83	32,80	31,83

rpm	3400	3600	3800	4000	4500	5000	5500	6000	-	-	-	-	-	-	-	-
F_{Uspez} [N/cm]	30,91	30,05	29,22	28,44	26,63	25,00	23,51	22,15	-	-	-	-	-	-	-	-

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	18	50 mm	18	120 mm

Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

Timing pulleys → page 203

ELATECH® flat belts®

ELATECH® flat belt's superior construction makes them the best solution in a wide range of lifting applications. Compared to steel rope they offer proven reliability, highly compact drives, maintenance-free operation and excellent dynamic properties. Compact size and maintenance-free operation allow:

- low inertia, space savings and therefore lower manufacturing cost solutions
- lower power consumption in operation and therefore reduced running costs

In order to optimize the application in load and flexibility, ELATECH® flat belts are produced in a range of different thicknesses and steel cord diameters.

Pulleys

In some cases it is also possible to use guiding pulleys with a convex barrel shape. In this case we recommend following the specifications of the ISO R22 - DIN 111 norms. The use of the convex barrel pulleys, will result in an uneven force distribution in the belt. Therefore the allowable forces in the belt need to be revised.

Belt storage

Belts must be stored in a dry environment (max 60% relative humidity) with a temperature from 5 to 35 °C.

Belt installation

For a correct belt installation it is important that the belt's ends are securely and firmly fastened by the use of the correct belt end attachments. It is also recommended to use a very rigid and accurate assembly with perfectly parallel and rigid shafts. Belts and pulleys must be free from oil and grease and any dust or residual material which may affect the belt integrity during operation.
Pulley diameter depends on the type of belt and on the design load required by the application. Our catalogue suggests minimum diameters for use with the maximum allowable load. For an accurate pulley diameter calculation under different load conditions please contact our technical department.
The recommended pulley geometry is cylindrical with side flanges.
Proper design of belt ends is recommended to ensure application safety. Some possible design solutions for belt end clamping are shown here as examples.
ELATECH® flat belts are produced with a polyurethane body ensuring very high wear resistance. Steel tension cords of opposite construction (Z and S) are laid out in pairs to maximize dynamic properties. They provide excellent operational performance with low noise and vibrations and long lifetime.
In applications with more belts acting in parallel it is suggested to use belts from the same manufacturing batch with minimum belt thickness tolerance. The belt drive must be started up only when the entire machine or assembly has the necessary protective systems which meet the machine's safety guidelines. Belts are maintenance free, however, an accurate visual inspection of the belts and end attachments must be taken at least once per year.

TP (Total Protection) Belts

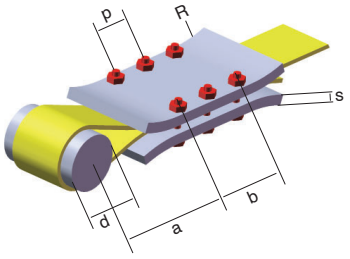
TP flat belts (without tooth gap) are available on demand. Ask our technical department for product specifications.

Belt life

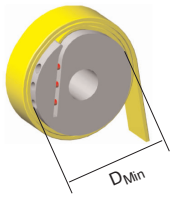
Due to the wide application range and considering the fact that belts are one component of complex equipment, the loads in the belt itself are very seldom precisely predictable. This fact makes it impossible to confirm a precise belt service life. In order to optimize the belt life, it is important to follow the catalogue technical specifications related to pulley geometry and belt storage and installation. When all the catalogues of specifications are followed, a belt life of 3 million reverse bending cycles occurring over 10 years can be expected. This value was measured in tests under laboratory conditions.

ELATECH® FLAT belt heavy series

These belts have been developed for the need in the automotive industry. They are used to lift car bodies in production lines or to convey car bodies or finished cars (skid supporting belt). They are made with 85 Sh.A polyurethane body to ensure high grip on the motor pulley and with high performance steel tension member.



Picture is not representative of real number of minimum required bolts.



Belt fastening guidelines

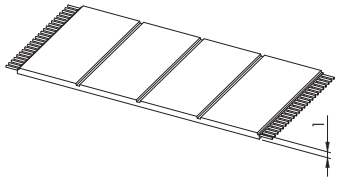
Belt width b [mm]	F1	F2	F2,5	F3
a	25	45	50	75
b	40	60	80	125
p	20	20	20	25
s	3	5	5	5
d	15	30	30	50
Bolt	M5	M6	M8	M8
R (Radius)	12	12	12	20

Pulley [mm]	F1	F2	F2,5	F3
Dmin	50	60	80	120

It's recommended to have at least 2 turns on pulley.

BELT CHARACTERISTICS

- Polyurethane flat belt with steel tension cords
- It is mainly used in lifting application where there is no need for synchronization
- Allows the use of small diameter pulleys
- Black colour as standard
- Maintenance free
- Reduced thickness tolerance available on request



STANDARD TOLERANCES
WIDTH TOLERANCE: ±0,5 [mm]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	20	30	40	50	100
Allowable tensile load	F_{Tzul} [N]*	320	700	1090	1470	1860	3780
Breaking load	F_{Br} [N]	1250	2750	4250	5750	7250	14750
Specific spring rate	C_{spez} [N]	80000	175000	272500	367500	465000	945000
Weight	[kg/m]	0,02	0,04	0,05	0,08	0,09	0,21

Other widths are available on request

Specialties

Belt width b [mm]		10	20	30	40	50	100
ARAMID CORD	F_{Tzul} [N]*	700	1540	2380	3220	4060	8260
	F_{Br} [N]	2800	6160	9520	12880	16240	33040
HFE High Flexibility	F_{Tzul} [N]*	360	790	1225	1655	2090	4250
	F_{Br} [N]	1500	3300	5100	6900	8700	17700

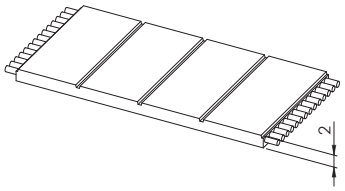
Flexibility

Minimum pulley diameter	Drive without reserve bending	Drive with reserve bending
	idler d_{min}	idler d_{min}
STANDARD	16 mm	30 mm
ARAMID	16 mm	30 mm
HFE	15 mm	15 mm

Elatech® V Joined informations
Allowable tensile load of joined belt is 50% of M - open end [*]

F2

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane flat belt with steel tension cords
- It is mainly used in lifting application where there is no need for synchronization
- Allows the use of small diameter pulleys
- Black colour as standard
- Maintenance free
- Reduced thickness tolerance available on request

STANDARD TOLERANCES
WIDTH TOLERANCE: ±0,5 [mm]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		10	15	25	30	50	75	100
Allowable tensile load	F_{Tzul} [N]*	1470	2210	4170	4660	8580	12990	17400
Breaking load	F_{Br} [N]	5700	8550	16150	18050	33250	50350	67450
Specific spring rate	C_{spez} [N]	367500	552500	1042500	1165000	2145000	3247500	4350000
Weight	[kg/m]	0,03	0,05	0,08	0,10	0,17	0,25	0,34

Other widths are available on request

Specialties

Belt width b [mm]		10	15	25	30	50	75	100
ARAMID CORD	F_{Tzul} [N]*	1320	1980	3740	4180	7700	11660	15620
	F_{Br} [N]	6000	9000	17000	19000	35000	53000	71000
STAINLESS STEEL	F_{Tzul} [N]*	1080	1620	3060	3420	6300	9540	12780
	F_{Br} [N]	4500	6750	12750	14250	26250	39750	53250

Flexibility

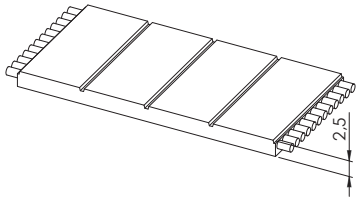
Minimum pulley diameter	Drive without reserve bending	Drive with reserve bending
	idler d_{min}	idler d_{min}
STANDARD	50 mm	100 mm
ARAMID	50 mm	100 mm
STAINLESS	70 mm	120 mm

Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

BELT CHARACTERISTICS

- Polyurethane flat belt with steel tension cords
- It is mainly used in lifting application where there is no need for synchronization
- Allows the use of small diameter pulleys
- Black colour as standard
- Maintenance free
- Reduced thickness tolerance available on request



STANDARD TOLERANCES
WIDTH TOLERANCE: ±0,5 [mm]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		20	25	50	75	100	120
Allowable tensile load	F_{Tzul} [N]*	5280	6720	14400	21600	29280	35040
Breaking load	F_{Br} [N]	19250	24500	52500	78750	106750	127750
Specific spring rate	C_{spez} [N]	1320000	1680000	3600000	5400000	7320000	8760000
Weight	[kg/m]	0,08	0,09	0,18	0,27	0,36	0,42

Other widths are available on request

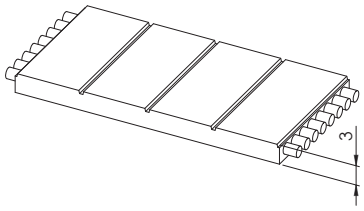
Flexibility

Minimum pulley diameter	Drive without reserve bending	Drive with reserve bending
	idler d_{min}	idler d_{min}
STANDARD	80 mm	150 mm

Elatech® V Joined informations
Allowable tensile load of joined belt is 50% of M - open end [*]

F3

Elatech® M and V



BELT CHARACTERISTICS

- Polyurethane flat belt with HPL steel tension cords
- It is mainly used in lifting application where there is no need for synchronization
- Allows the use of small diameter pulleys
- Black colour as standard
- Maintenance free
- Reduced thickness tolerance available on request

STANDARD TOLERANCES
WIDTH TOLERANCE: ±0,5 [mm]
THICKNESS TOLERANCE: ±0,2 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		25	30	60	120	150
Allowable tensile load	F_{Tzul} [N]*	8500	10200	21250	43350	53550
Breaking load	F_{Br} [N]	32000	38400	80000	163200	201600
Specific spring rate	C_{spez} [N]	2125000	2550000	5312500	10837500	13387500
Weight	[kg/m]	0,11	0,12	0,24	0,48	0,60

Other widths are available on request

Specialties

Belt width b [mm]		25	30	60	120	150
ARAMID CORD	F_{Tzul} [N]*	10000	12000	25000	51000	63000
	F_{Br} [N]	40000	48000	100000	204000	252000

Flexibility

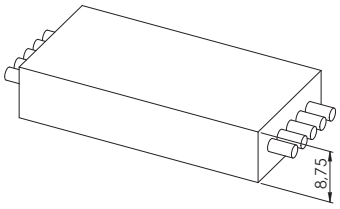
Minimum pulley diameter	Drive without reserve bending	Drive with reserve bending
	idler d_{min}	idler d_{min}
STANDARD	120 mm	180 mm
ARAMID	120 mm	180 m

Elatech® V Joined informations

Allowable tensile load of joined belt is 50% of M - open end [*]

BELT CHARACTERISTICS

- Polyurethane flat belt with steel tension cords
- Long service life
- Maintenance free
- No cord exposed
- Black colour as standard



STANDARD TOLERANCES
WIDTH TOLERANCE: ±1,0 [mm]
THICKNESS TOLERANCE: ±0,5 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		75	150
Allowable tensile load	F_{Tzul} [N]	27500	55000
Breaking load	F_{Br} [N]	112500	225000
Specific spring rate	C_{spez} [N]	6875000	13750000
Weight	[kg/m]	0,93	1,85

Other widths are available on request

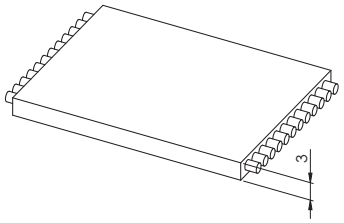
Specialties

Belt width b [mm]		75	90	150	180
HPL High Performance	F_{Tzul} [N]	34000	42000	72000	88000
	F_{Br} [N]	119000	147000	252000	308000
	C_{spez} [N]	8500000	10500000	18000000	22000000
	[kg/m]	1,10	1,60	2,30	2,80

Other widths are available on request

Flexibility

Minimum pulley diameter	Drive without reserve bending [mm]	Drive with reserve bending [mm]
	idler d_{min}	idler d_{min}
STANDARD	200	260
HPL	250	300



BELT CHARACTERISTICS

- Polyurethane flat belt with steel tension cords certified according to 2014/33EU
- Long service life
- Black colour as standard
- Maintenance free
- No cord exposed

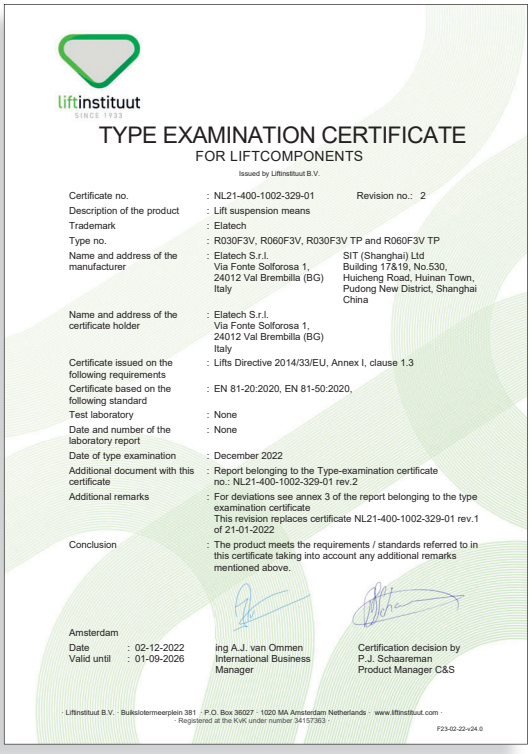
STANDARD TOLERANCES
WIDTH TOLERANCE: ±1,0 [mm]
THICKNESS TOLERANCE: ±0,5 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		30	60
Breaking load	F_{Br} [N]	45000	90000
Weight	[kg/m]	0,24	0,48

Other widths are available on request



liftinstituut
SINCE 1930

TYPE EXAMINATION CERTIFICATE
FOR LIFTCOMPONENTS

Issued by Liftinstituut B.V.

Certificate no.	: NL21-400-1002-329-01	Revision no.: 2
Description of the product	: Lift suspension means	
Trademark	: Elatech	
Type no.	: R030F3V, R060F3V, R030F3V TP and R060F3V TP	
Name and address of the manufacturer	: Elatech S.r.l. Via Fonte Solforosa 1, 24012 Val Brembilla (BG) Italy	SIT (Shanghai) Ltd Building 17&19, No.530, Huicheng Road, Huinan Town, Pudong New District, Shanghai China
Name and address of the certificate holder	: Elatech S.r.l. Via Fonte Solforosa 1, 24012 Val Brembilla (BG) Italy	
Certificate issued on the following requirements	: Lifts Directive 2014/33/EU, Annex I, clause 1.3	
Certificate based on the following standard	: EN 81-20:2020, EN 81-50:2020,	
Test laboratory	: None	
Date and number of the laboratory report	: None	
Date of type examination	: December 2022	
Additional document with this certificate	: Report belonging to the Type-examination certificate no.: NL21-400-1002-329-01 rev.2	
Additional remarks	: For deviations see annex 3 of the report belonging to the type examination certificate This revision replaces certificate NL21-400-1002-329-01 rev.1 of 21-01-2022	
Conclusion	: The product meets the requirements / standards referred to in this certificate taking into account any additional remarks mentioned above.	

Amsterdam
Date : 02-12-2022
Valid until : 01-09-2026

ing A.J. van Ommen
International Business Manager

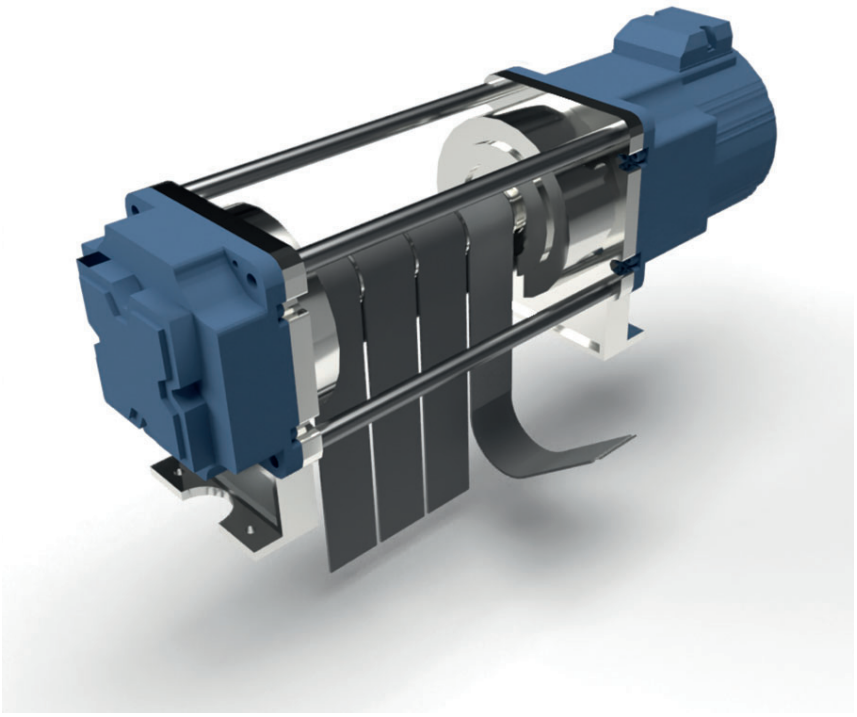
Certification decision by
P.J. Schaareman
Product Manager C&S

· Liftinstituut B.V. · Buiksloterweerplein 381 · P.O. Box 36027 · 1020 MA Amsterdam Netherlands · www.liftinstituut.com ·
· Registered at the KvK under number 34157363 ·

F23-02-22-v24.0

BELTS ADVANTAGES

- Reduced pulley diameter
- Reduced encumbrance in the machine room
- No lubrication
- Low energy consumption
- Low noise level
- Abrasion resistance
- Long life service

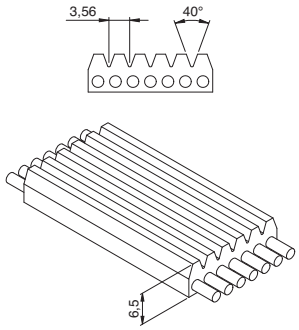


Flexibility

Minimum pulley diameter	Drive without reserve bending [mm]
	idler d_{min}
STANDARD	75

BELT CHARACTERISTICS

- Polyurethane Poly-V belt with K profile and high tensile load steel cords for high performance and increased flexibility
- The Poly-V profile allows torque high transmission, small pulley diameter
- Low noise generation
- Widely used in lifting applications
- Special cords available on request



STANDARD TOLERANCES

WIDTH TOLERANCE:	±1,0 [mm]
THICKNESS TOLERANCE:	±0,4 [mm]

TECHNICAL DATA

Standard steel cord

Belt width b [mm]		25	30	75	100	150
Allowable tensile load	F_{Tzul} [N]	7700	9900	27500	35200	55000
Breaking load	F_{Br} [N]	31500	40500	112500	144000	225000
Specific spring rate	C_{spez} [N]	1925000	2475000	6875000	8800000	13750000
Weight	[kg/m]	0,28	0,34	0,89	1,11	1,67

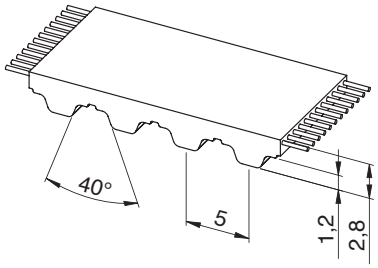
Other widths are available on request

Flexibility

Minimum pulley diameter	Drive without reserve bending [mm]	Drive with reserve bending [mm]
	idler d_{min}	idler d_{min}
STANDARD	150	250

TT5

Elatech® M and V



BELT CHARACTERISTICS

- Trapezoidal tooth profile according to ISO 17396
- Metric pitch 5 mm
- Standard colour: blue with Aramid cords, white with steel cords, other colours available on request
- Polyurethane 88 Sh A

STANDARD TOLERANCES

WIDTH TOLERANCE:	±0,5 [mm]
LENGTH TOLERANCE:	±0,5 [mm/m]
THICKNESS TOLERANCE:	±0,2 [mm]

TECHNICAL DATA

ELATECH® manufactures special TT5 belts which have been expressly designed for application in circular knitting machines drives.

ELATECH® belts TT5 are available in the following executions:

ELATECH® - V

- A special splicing and welding process offers superior traction load resistance
- They are available both with steel and aramid cords
- Special colours available on demand
- Available in any length tooth by tooth

ELA-FLEX SD® TRULY ENDLESS

- ELA-flex SD® TT5 have no splice and welding and therefore offer best traction resistance load
- They are available both with steel and aramid cords
- Special colours available on demand
- Available in all lengths tooth by tooth up to a length of 17900 mm

Cords		ARAMID	STEEL
Belt width b [mm]		**10**	**10**
Allowable tensile load	F_{Tzul} [N]*	840	320
Breaking load	F_{Br} [N]	3360	1250
Weight	[kg/m]	0,019	0,021

Type	Belt length [mm]
10TT5/4800K	4800
10TT5/5000K	5000
10TT5/5200K	5200
10TT5/5600K	5600
10TT5/5800K	5800
10TT5/6000K	6000
10TT5/6200K	6200
10TT5/6400K	6400
10TT5/6600K	6600
10TT5/6800K	6800
10TT5/7000K	7000
10TT5/7200K	7200
10TT5/7400K	7400
10TT5/7500K	7500
10TT5/7600K	7600
10TT5/7800K	7800
10TT5/8000K	8000
10TT5/8200K	8200
10TT5/8300K	8300
10TT5/8400K	8400
10TT5/8600K	8600
10TT5/8800K	8800
10TT5/8900K	8900
10TT5/9000K	9000

Type	Belt length [mm]
10TT5/9200K	9200
10TT5/9400K	9400
10TT5/9600K	9600
10TT5/9800K	9800
10TT5/10000K	10000
10TT5/10200K	10200
10TT5/10300K	10300
10TT5/10400K	10400
10TT5/10600K	10600
10TT5/10800K	10800
10TT5/11200K	11200
10TT5/11300K	11300
10TT5/11800K	11800
10TT5/12000K	12000
10TT5/12300K	12300
10TT5/12700K	12700
10TT5/12800K	12800
10TT5/13000K	13000
10TT5/13200K	13200
10TT5/13400K	13400
10TT5/13600K	13600
10TT5/15400K	15400
10TT5/17900K	17900

Note: Steel tensile cord member available upon request

Flexibility

Minimum pulley number of teeth and minimum idler diameter	Drive without reverse bending		Drive with reverse bending	
	z_{min}	idler d_{min}	z_{min}	idler d_{min}
STANDARD	12	30 mm	15	30 mm
ARAMID	12	30 mm	15	30 mm

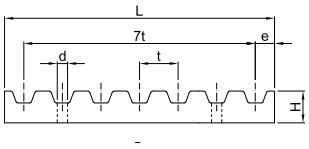
Elatech® V Joined informations

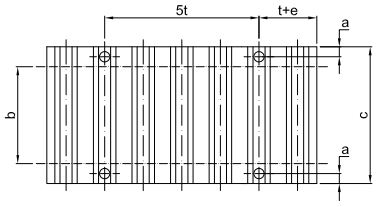
Allowable tensile load of joined belt is 50% of M - open end [*]

Clamp plates

Clamp plates may be used as positive attachment of the belt ends in numerous applications in linear drives. Clamp plates must have the correct belt profile, guarantee a uniform clamping force on all the clamped belt surface and must be rigid.

For **standard applications** a minimum of **7 teeth** in clamp is recommended.
For use with timing belts with **HPL cords**, a minimum of **12 teeth** in clamp is recommended.
EAGLE clamp plates are available as semi finished product.
Standard material for clamp plates is aluminium.





Type	a [mm]	d [mm]	e [mm]	L [mm]	H [mm]	Belt width - b [mm]							
						6	10	16	25	32	50	75	100
						Clamp plate width - c [mm]							
T5	6	5,5	3,2	41,8	8	-	29	35	44	-	-	-	-
AT5	6	5,5	3,2	41,8	8	-	29	35	44	-	-	-	-
T10	8	9	5	80	15	-	-	41	50	57	75	100	125
AT10	8	9	5	80	15	-	-	41	50	57	75	100	125
T20	10	11	10	160	20	-	-	-	56	63	81	106	132
AT20	10	11	10	160	20	-	-	-	56	63	81	106	132

Type	a [mm]	d [mm]	e [mm]	L [mm]	H [mm]	Belt width - b [inch/100]							
						25	32	37	50	75	100	150	200
						Clamp plate width - c [mm]							
XL	6	5,5	3,5	42,5	8	25,5	27	28,5	-	-	-	-	-
L	8	9	6	76,6	15	-	-	36	39	45	51,5	64	77
H	10	11	9	106,9	22	-	-	-	45	51	57,5	70	83

Type	a [mm]	d [mm]	e [mm]	L [mm]	H [mm]	Belt width - b [mm]								
						15	20	25	30	40	50	55	85	115
						Clamp plate width - c [mm]								
3M	5	4,5	2	25	5	21	24	30	-	-	-	-	-	-
5M	6	5,5	3,4	41,8	8	34	-	44	-	-	-	-	-	-
8M	8	9	5	66	15	40	45	-	55	-	75	-	110	-
14M	10	11	9	116	22	-	-	56	-	71	-	86	116	146

EAGLE Belts	Clamp plates					Belt width b [mm]								
Pitch	a	d	f	Length [mm]	H	12,5	16	25	32	35	50	52,5	70	105
						Clamp plate width - c [mm]								
EAGLE 5	6	5,5	8,5	47	7,5	30	-	-	-	-	-	-	-	-
	7					-	-	45	-	-	-	-	-	-
EAGLE 8	7,5	9	13	74	14,5	-	40	-	-	-	-	-	-	-
	8					-	-	50	57	-	75	-	-	-
EAGLE 10	8	9	17	94	14,5	-	-	50	57	-	75	-	-	-
EAGLE 14	9,5	11	23	130	22	-	-	-	-	65	-	82,5	100	-
	10					-	-	-	-	-	-	-	-	136