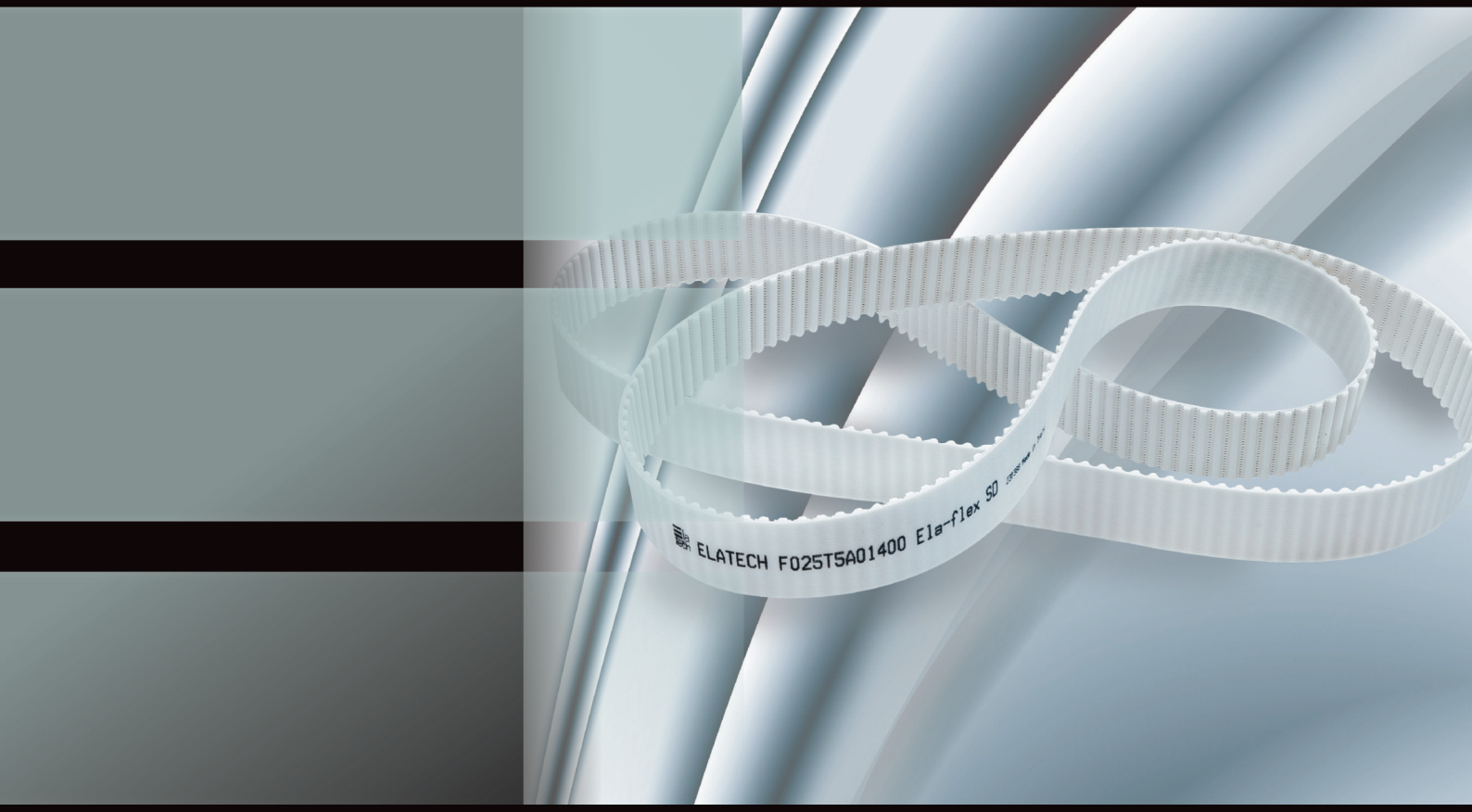
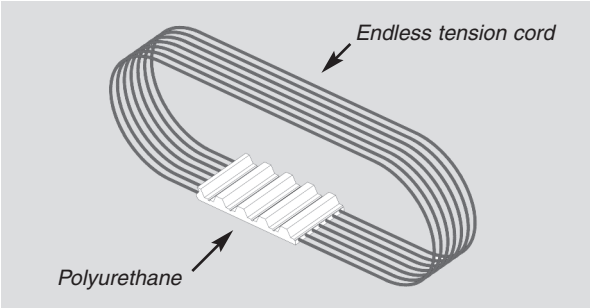
ELA-flex SD® **timing belts**



Elatech
Technology in Motion.

ELA-flex SD® Synchro Drive timing belts

ELA-flex SD® timing belts are manufactured with truly endless high tension strength steel tension cords and high wear, abrasion and tear resistant polyurethane.



Having no splice or welding, the belts have no weak cross sections. ELA-flex SD® timing belts are therefore ideal for high speed power transmission and high load conveying applications.

The unique high tech manufacturing process designed by our research and development allows the production of every belt length, tooth by tooth from a **minimum of 800 mm** to a maximum of 24.000 mm to permit the best flexibility in application.

Length tolerances

Belt length [mm]	Length tolerance (+/-) [mm]	**Belt length [mm]**	Length tolerance (+/-) [mm]
900	0,75	4000	2,11
1100	0,85	4250	2,24
1300	0,95	4500	2,32
1500	1,04	4750	2,40
1700	1,13	5000	2,52
1900	1,22	5300	2,64
2120	1,30	5600	2,72
2240	1,35	6000	2,92
2360	1,44	6300	3,04
2500	1,49	6700	3,19
2650	1,57	7100	3,35
2800	1,61	7500	3,51
3000	1,70	8000	3,70
3550	1,91	9000	4,09
3750	2,03	more	on request

Double sided timing belts

On demand it is possible to supply ELA-flex SD® as double sided belts. Please ask for the minimum quantity.

Product certification

- ELATECH® belts are certified according to RoHS 2011/65/UE
- On request, it is possible to deliver belts with antistatic properties.

Special cords

In order to solve any design needs, ELA-flex SD® belts may be produced with special cords:

HPL	high performance
HFE	high Flexibility
INOX	stainless steel for high aggressive environments
ARAMID	low weight, non magnetic

Antistatic belts

On request it is possible to deliver ELA-flex SD® belts with antistatic properties by using a specific electrically conductive coating or a special compound. A minimum quantity is applied.

Thickness and width tolerance

Standard ELA-flex SD® belts are ground on the back and are manufactured at precise width (see technical tables).
For special application needs, special thickness and width tolerances can be produced.

Belt designation

Ordering example “AT” metric pitch :

ELA-flex SD® metric pitch **F 075 AT20 A 11200 / Z**

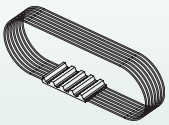
- ELA-flex SD® Belt
- Width mm (3 digits)
- Profile “AT” pitch 20 mm
- A= steel cords
  S= stainless steel cords
  K= Kevlar® cords
  F= high flexiblity cords
  P= high power cords
- Length 11200 mm (5 digits)
- Z= fabric on teeth (PAZ)
  R= fabric on back (PAR)
  D= fabric on PAZ + PAR

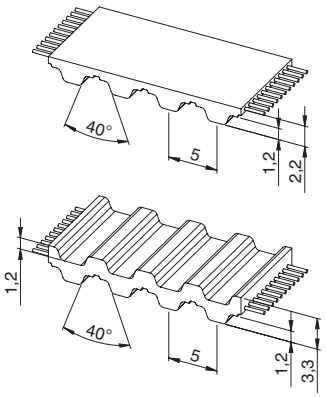
Ordering example “H” inch pitch:

ELA-flex SD® Inch pitch **F 200 H A 01702 / Z**

- ELA-flex SD® Belt
- Width (x 0,254 = mm) - 3 digits
- Profile “H”
- A= steel cords
  S= stainless steel cords
  K= Kevlar® cords
  F= high flexiblity cords
  P= high power cords
- Length 1702 mm (5 digits)
- Z= fabric on teeth (PAZ)
  R= fabric on back (PAR)
  D= fabric on PAZ + PAR

T 5





Belt characteristics

- Truly endless 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 required
- Allows the use of small diameter pulleys
- Transmissible power up to 5 kW
- Rpm up to 10.000 [1/min]
- **Dual toothing available from 1500 mm**

• Maximum width:	150 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	10	16	25	32	50	75	100	150
Allowable tensile load [N]	384	610	930	1215	1890	2815	3775	5665
Weight [kg/m]	0,02	0,03	0,05	0,07	0,11	0,16	0,21	0,32

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	1,966	0,000	**1200**	1,252	1,573	**3400**	0,972	3,462
20	1,915	0,040	**1300**	1,231	1,676	**3600**	0,957	3,609
40	1,872	0,078	**1400**	1,211	1,776	**3800**	0,942	3,749
60	1,834	0,115	**1440**	1,204	1,815	**4000**	0,928	3,886
80	1,802	0,151	**1500**	1,194	1,875	**4500**	0,895	4,218
100	1,773	0,186	**1600**	1,176	1,971	**5000**	0,866	4,533
200	1,663	0,348	**1700**	1,160	2,065	**5500**	0,840	4,835
300	1,583	0,497	**1800**	1,145	2,158	**6000**	0,815	5,120
400	1,520	0,637	**1900**	1,131	2,250	**6500**	0,793	5,395
500	1,468	0,769	**2000**	1,116	2,338	**7000**	0,772	5,658
600	1,425	0,895	**2200**	1,091	2,513	**7500**	0,753	5,912
700	1,388	1,017	**2400**	1,068	2,684	**8000**	0,735	6,153
800	1,354	1,135	**2600**	1,046	2,847	**8500**	0,717	6,382
900	1,325	1,249	**2800**	1,026	3,007	**9000**	0,701	6,607
1000	1,299	1,360	**3000**	1,007	3,162	**9500**	0,686	6,824
1100	1,274	1,467	**3200**	0,989	3,314	**10000**	0,672	7,033

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

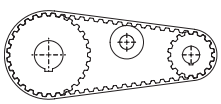
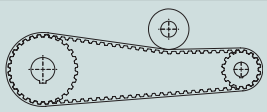
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

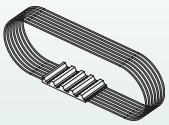
Flexibility

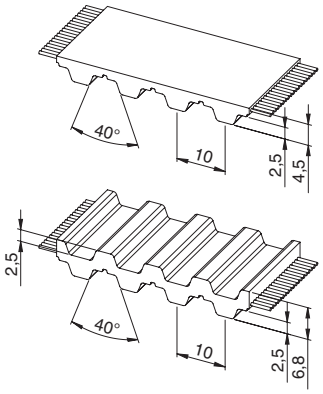
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	10
		Flat idler running on belt teeth d_{min}	30 mm
Drive with reverse bending		Timing pulley z_{min}	15
		Flat idler running on belt back d_{min}	30 mm

Minimum available length

Execution	Max width	
	100 mm	150 mm
Standard	≥ 800 mm	≥ 1500 mm
PAZ	≥ 800 mm	≥ 1800 mm

T 10





Belt characteristics

- Truly endless 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 required
- Allows the use of small diameter pulleys
- Transmissible power up to 30 kW
- Rpm up to 10.000 [1/min]
- **Dual toothing available from 1500 mm**

• Maximum width:	150 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	**10**	**16**	**25**	**32**	**50**	**75**	**100**	**150**
Allowable tensile load [N]	1150	1840	2760	3570	5640	8400	11160	16790
Weight [kg/m]	0,05	0,07	0,12	0,15	0,23	0,35	0,46	0,69

Other widths are available on request.

Tooth shear strength

rpm [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	8,244	0,000	**1200**	4,808	6,042	**3400**	3,460	12,318
20	8,009	0,168	**1300**	4,708	6,409	**3600**	3,385	12,761
40	7,805	0,327	**1400**	4,614	6,764	**3800**	3,312	13,179
60	7,627	0,479	**1440**	4,577	6,902	**4000**	3,245	13,592
80	7,472	0,626	**1500**	4,526	7,109	**4500**	3,088	14,549
100	7,339	0,768	**1600**	4,444	7,445	**5000**	2,946	15,424
200	6,804	1,425	**1700**	4,366	7,771	**5500**	2,817	16,224
300	6,411	2,014	**1800**	4,292	8,090	**6000**	2,701	16,969
400	6,105	2,557	**1900**	4,222	8,401	**6500**	2,593	17,646
500	5,857	3,066	**2000**	4,157	8,706	**7000**	2,492	18,269
600	5,648	3,549	**2200**	4,033	9,291	**7500**	2,398	18,836
700	5,467	4,007	**2400**	3,920	9,851	**8000**	2,311	19,359
800	5,306	4,445	**2600**	3,815	10,386	**8500**	2,228	19,832
900	5,163	4,866	**2800**	3,718	10,901	**9000**	2,150	20,264
1000	5,034	5,271	**3000**	3,626	11,389	**9500**	2,077	20,661
1100	4,916	5,663	**3200**	3,541	11,866	**10000**	2,007	21,015

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

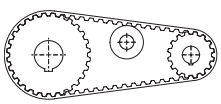
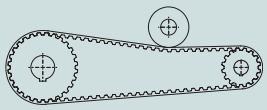
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

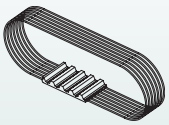
Flexibility

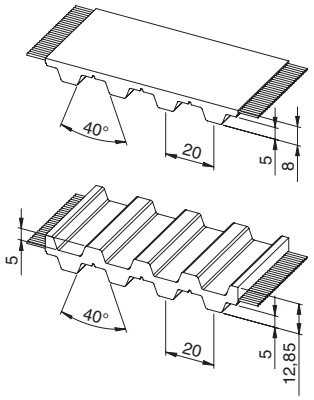
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	12
		Flat idler running on belt teeth d_{min}	60 mm
Drive with reverse bending		Timing pulley z_{min}	20
		Flat idler running on belt back d_{min}	60 mm

Minimum available length

Execution	**Max width**	
	100 mm	**150 mm**
Standard	≥ 800 mm	≥ 1500 mm
PAZ	≥ 800 mm	≥ 1800 mm

T 20





Belt characteristics

- Truly endless 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 required
- Transmissible power up to 100 kW
- Rpm up to 6.000 [1/min]
- **Dual toothing available from 1500 mm**
- **HPL cord execution available**

- Maximum width: 150 [mm]
- Width tolerance: ±1,0 [mm]
- Thickness tolerance: ±0,2 [mm]

Technical Data

Belt width [mm]	25	32	50	75	100	150
Allowable tensile load [N]	4040	5120	8090	12400	16440	24790
Weight [kg/m]	0,18	0,23	0,37	0,55	0,73	1,10

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	33,263	0,000	**1200**	17,542	22,042	**3400**	11,510	40,978
20	32,181	0,674	**1300**	17,093	23,268	**3600**	11,173	42,117
40	31,242	1,309	**1400**	16,673	24,442	**3800**	10,851	43,178
60	30,424	1,911	**1440**	16,511	24,896	**4000**	10,546	44,170
80	29,714	2,489	**1500**	16,278	25,568	**4500**	9,842	46,377
100	29,097	3,047	**1600**	15,909	26,654	**5000**	9,209	48,213
200	26,579	5,566	**1700**	15,562	27,702	**5500**	8,639	49,753
300	24,777	7,783	**1800**	15,234	28,714	**6000**	8,114	50,976
400	23,393	9,798	**1900**	14,922	29,689	**6500**	7,630	51,931
500	22,269	11,659	**2000**	14,623	30,624	-	-	-
600	21,320	13,395	**2200**	14,069	32,411	-	-	-
700	20,502	15,028	**2400**	13,563	34,086	-	-	-
800	19,783	16,572	**2600**	13,092	35,643	-	-	-
900	19,140	18,038	**2800**	12,659	37,116	-	-	-
1000	18,561	19,435	**3000**	12,252	38,487	-	-	-
1100	18,029	20,766	**3200**	11,870	39,773	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

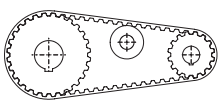
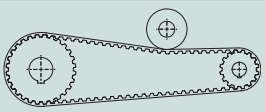
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

Flexibility

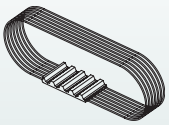
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	15
		Flat idler running on belt teeth d_{min}	120 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	120 mm

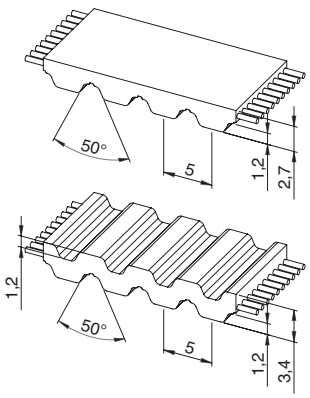
Minimum available length

Execution	**Max width**	
	100 mm	**150 mm**
Standard	≥ 900 mm	≥ 1500 mm
PAZ	≥ 900 mm	≥ 1800 mm

ELA-flex SD®

AT 5





Belt characteristics

- Truly endless 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 and noise
- Transmissible power up to 15 kW
- Rpm up to 10.000 [1/min]
- **Dual toothing available from 1500 mm**

• Maximum width:	150 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	10	16	25	32	50	75	100	150
Allowable tensile load [N]	1150	1840	2760	3570	5640	8400	11160	16790
Weight [kg/m]	0,03	0,05	0,08	0,11	0,17	0,25	0,33	0,50

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	2,897	0,000	**1200**	2,027	2,547	**3400**	1,514	5,391
20	2,855	0,060	**1300**	1,990	2,709	**3600**	1,485	5,598
40	2,817	0,118	**1400**	1,955	2,866	**3800**	1,456	5,795
60	2,783	0,175	**1440**	1,942	2,929	**4000**	1,429	5,986
80	2,753	0,231	**1500**	1,923	3,020	**4500**	1,367	6,442
100	2,725	0,285	**1600**	1,892	3,170	**5000**	1,311	6,862
200	2,620	0,549	**1700**	1,863	3,316	**5500**	1,260	7,255
300	2,540	0,798	**1800**	1,836	3,460	**6000**	1,213	7,619
400	2,458	1,030	**1900**	1,809	3,599	**6500**	1,169	7,957
500	2,383	1,248	**2000**	1,784	3,736	**7000**	1,128	8,271
600	2,317	1,456	**2200**	1,736	4,000	**7500**	1,091	8,568
700	2,258	1,655	**2400**	1,693	4,256	**8000**	1,055	8,839
800	2,204	1,846	**2600**	1,653	4,500	**8500**	1,023	9,101
900	2,153	2,029	**2800**	1,615	4,734	**9000**	0,991	9,337
1000	2,108	2,207	**3000**	1,580	4,962	**9500**	0,961	9,555
1100	2,066	2,379	**3200**	1,546	5,181	**10000**	0,933	9,766

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

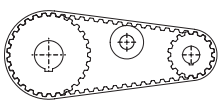
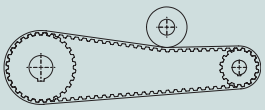
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

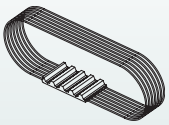
Flexibility

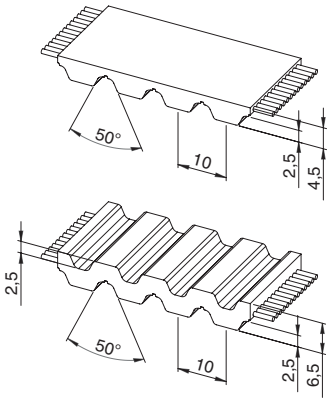
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	15
		Flat idler running on belt teeth d_{min}	30 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	60 mm

Minimum available length

Execution	Max width	
	100 mm	150 mm
Standard	≥ 800 mm	≥ 1500 mm
PAZ	≥ 800 mm	≥ 1800 mm

AT 10





Belt characteristics

- Truly endless 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 and noise
- Transmissible power up to 70 kW
- Rpm up to 10.000 [1/min]
- **Dual toothing available from 1500 mm**
- **HPL cord execution available**

• Maximum width:	150 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	16	25	32	50	75	100	150
Allowable tensile load [N]	2430	4040	5120	8090	12400	16440	24790
Weight [kg/m]	0,09	0,14	0,18	0,29	0,43	0,57	0,86

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	14,096	0,000	**1200**	9,018	11,331	**3400**	6,222	22,152
20	13,856	0,290	**1300**	8,815	12,000	**3600**	6,060	22,846
40	13,633	0,571	**1400**	8,626	12,645	**3800**	5,907	23,504
60	13,424	0,843	**1440**	8,553	12,897	**4000**	5,761	24,130
80	13,230	1,108	**1500**	8,447	13,268	**4500**	5,424	25,557
100	13,049	1,366	**1600**	8,279	13,871	**5000**	5,120	26,807
200	12,312	2,578	**1700**	8,119	14,454	**5500**	4,844	27,897
300	11,951	3,754	**1800**	7,968	15,018	**6000**	4,591	28,841
400	11,457	4,799	**1900**	7,824	15,566	**6500**	4,357	29,652
500	11,025	5,772	**2000**	7,686	16,097	**7000**	4,139	30,339
600	10,644	6,687	**2200**	7,429	17,113	**7500**	3,936	30,912
700	10,305	7,553	**2400**	7,191	18,072	**8000**	3,746	31,377
800	10,000	8,377	**2600**	6,971	18,978	**8500**	3,566	31,742
900	9,723	9,163	**2800**	6,766	19,836	**9000**	3,397	32,012
1000	9,469	9,915	**3000**	6,573	20,649	**9500**	3,236	32,193
1100	9,235	10,637	**3200**	6,393	21,420	**10000**	3,084	32,289

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

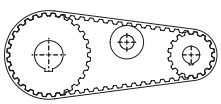
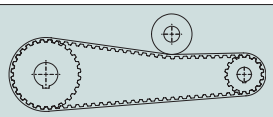
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

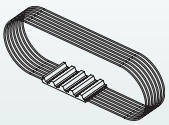
Flexibility

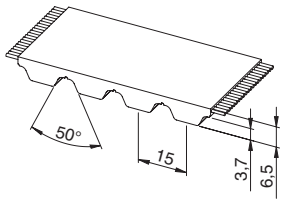
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	15
		Flat idler running on belt teeth d_{min}	50 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	120 mm

Minimum available length

Execution	Max width	
	100 mm	150 mm
Standard	≥ 800 mm	≥ 1500 mm
PAZ	≥ 800 mm	≥ 1800 mm

AT 15





Belt characteristics

- Truly endless polyurethane timing belt with steel tension cords.
- Metric pitch 15 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 and noise
- Transmissible power up to 200 kW
- Rpm up to 6.000 [1/min]

- Maximum width: 150 [mm]
- Width tolerance: ±1,0 [mm]
- Thickness tolerance: ±0,2 [mm]

Technical Data

Belt width [mm]	25	32	50	75	100	150
Allowable tensile load [N]	8500	10200	16150	24650	33150	49300
Weight [kg/m]	0,22	0,28	0,44	0,66	0,88	1,33

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	34,330	0,000	**1200**	19,103	24,004	**3400**	10,688	38,052
20	33,874	0,709	**1300**	18,495	25,176	**3600**	10,203	38,463
40	33,435	1,400	**1400**	17,922	26,273	**3800**	9,740	38,757
60	33,012	2,074	**1440**	17,704	26,696	**4000**	9,301	38,957
80	32,606	2,731	**1500**	17,385	27,306	**4500**	8,289	39,057
100	32,217	3,374	**1600**	16,878	28,278	**5000**	7,377	38,622
200	30,489	6,385	**1700**	16,399	29,191	**5500**	6,546	37,700
300	27,999	8,795	**1800**	15,940	30,044	**6000**	5,784	36,342
400	26,490	11,095	**1900**	15,508	30,854	**-**	-	-
500	25,174	13,180	**2000**	15,093	31,608	**-**	-	-
600	24,019	15,090	**2200**	14,317	32,981	**-**	-	-
700	22,992	16,853	**2400**	13,603	34,186	**-**	-	-
800	22,068	18,487	**2600**	12,939	35,227	**-**	-	-
900	21,230	20,008	**2800**	12,323	36,131	**-**	-	-
1000	20,467	21,431	**3000**	11,746	36,897	**-**	-	-
1100	19,760	22,760	**3200**	11,201	37,533	**-**	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

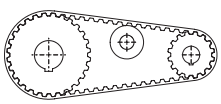
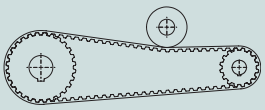
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

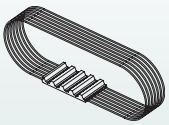
Flexibility

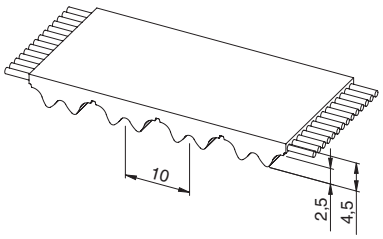
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt teeth d_{min}	120 mm
Drive with reverse bending		Timing pulley z_{min}	40
		Flat idler running on belt back d_{min}	250 mm

Minimum available length

Execution	Max width 150 mm
Standard	≥ 1500 mm
PAZ	≥ 1800 mm

ATM 10





Belt characteristics

- Truly endless 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 and noise
- Transmissible power up to 70 kW
- Rpm up to 10.000 [1/min]
- **Max. length 2400 mm**

• Maximum width:	100 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	16	25	32	50	75	100
Allowable tensile load [N]	2430	4040	5120	8090	12400	16440
Weight [kg/m]	0,09	0,14	0,18	0,29	0,43	0,57

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	15,51	0,00	**1200**	9,92	12,46	**3400**	6,84	24,37
20	15,22	0,32	**1300**	9,70	13,20	**3600**	6,67	25,13
40	14,95	0,63	**1400**	9,49	13,91	**3800**	6,50	25,85
60	14,70	0,92	**1440**	9,41	14,19	**4000**	6,34	26,54
80	14,47	1,21	**1500**	9,29	14,59	**4500**	5,97	28,11
100	14,26	1,49	**1600**	9,11	15,26	**5000**	5,63	29,49
200	13,41	2,81	**1700**	8,93	15,90	**5500**	5,33	30,69
300	13,15	4,13	**1800**	8,76	16,52	**6000**	5,05	31,73
400	12,60	5,28	**1900**	8,61	17,12	**6500**	4,79	32,62
500	12,13	6,35	**2000**	8,45	17,71	**7000**	4,55	33,37
600	11,71	7,36	**2200**	8,17	18,82	**7500**	4,33	34,00
700	11,34	8,31	**2400**	7,91	19,88	**8000**	4,12	34,51
800	11,00	9,21	**2600**	7,67	20,88	**8500**	3,92	34,92
900	10,69	10,08	**2800**	7,44	21,82	**9000**	3,74	35,21
1000	10,42	10,91	**3000**	7,23	22,71	**9500**	3,56	35,41
1100	10,16	11,70	**3200**	7,03	23,56	**10000**	3,39	35,52

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

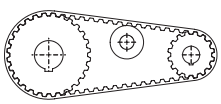
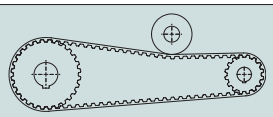
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

Flexibility

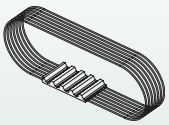
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	15
		Flat idler running on belt teeth d_{min}	50 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	120 mm

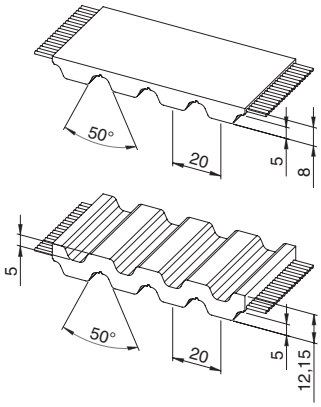
Minimum available length

Execution	Max width 100 mm
Standard	≥ 800 mm
PAZ	≥ 800 mm

ELA-flex SD®

AT 20





Belt characteristics

- Truly endless 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 minmum deformation under load
- High resistance and low stretch steel cords to guarantee high stability and low elongation
- Reduced polygonal effect with reduced drive vibration and noise
- Transmissible power up to 200 kW
- Rpm up to 6.000 [1/min]
- **Dual toothing available from 1500 mm**
- **HPL cord execution available**

• Maximum width:	150 [mm]
• Width tolerance:	±1,0 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	25	32	50	75	100	150
Allowable tensile load [N]	5760	7200	11520	17280	23040	34560
Weight [kg/m]	0,24	0,31	0,48	0,73	0,97	1,45

Other widths are available on request.

Tooth shear strength

rpm [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	48,192	0,000	**1200**	27,063	34,006	**3400**	15,842	56,402
20	47,288	0,990	**1300**	26,251	35,734	**3600**	15,196	57,284
40	46,438	1,945	**1400**	25,487	37,363	**3800**	14,579	58,009
60	45,639	2,867	**1440**	25,197	37,994	**4000**	13,993	58,609
80	44,885	3,760	**1500**	24,771	38,907	**4500**	12,643	59,576
100	44,175	4,626	**1600**	24,096	40,370	**5000**	11,427	59,829
200	41,199	8,628	**1700**	23,456	41,755	**5500**	10,320	59,432
300	38,923	12,227	**1800**	22,845	43,059	**6000**	9,304	58,456
400	36,911	15,460	**1900**	22,269	44,305	-	-	-
500	35,157	18,407	**2000**	21,715	45,477	-	-	-
600	33,617	21,120	**2200**	20,681	47,641	-	-	-
700	32,248	23,637	**2400**	19,729	49,580	-	-	-
800	31,016	25,982	**2600**	18,844	51,303	-	-	-
900	29,899	28,177	**2800**	18,023	52,841	-	-	-
1000	28,880	30,241	**3000**	17,252	54,196	-	-	-
1100	27,938	32,180	**3200**	16,527	55,377	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

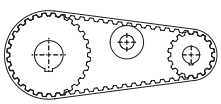
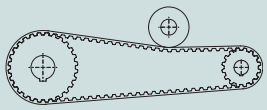
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

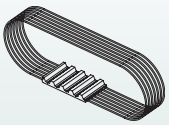
Flexibility

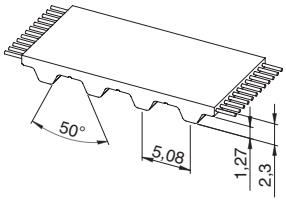
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	18
		Flat idler running on belt teeth d_{min}	120 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	180 mm

Minimum available length

Execution	Max width	
	100 mm	150 mm
Standard	≥ 900 mm	≥ 1500 mm
PAZ	≥ 900 mm	≥ 1800 mm

XL





Belt characteristics

- Truly endless polyurethane timing belt with steel tension cords
- Tooth profile according to UNI/ISO 5296
- Imperial pitch 1/5" = 5,08 mm
- Allow to use small diameter pulley
- Mainly used in applications where inch pitch is an advantage
- Transmissible power up to 5 kW
- Rpm up to 10.000 [1/min]

• Maximum width:	101,6 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [inch] / [mm]	0,25 / 6,35	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 [N]	224	352	480	704	960	1440	1920	3840
Weight [kg/m]	0,016	0,024	0,033	0,049	0,065	0,098	0,130	0,260

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	2,029	0,000	**1200**	1,294	1,626	**3400**	1,006	3,581
20	1,978	0,041	**1300**	1,273	1,732	**3600**	0,990	3,730
40	1,932	0,081	**1400**	1,252	1,836	**3800**	0,974	3,877
60	1,894	0,119	**1440**	1,245	1,877	**4000**	0,960	4,020
80	1,860	0,156	**1500**	1,234	1,938	**4500**	0,926	4,362
100	1,830	0,192	**1600**	1,216	2,037	**5000**	0,896	4,690
200	1,717	0,360	**1700**	1,200	2,136	**5500**	0,868	5,001
300	1,635	0,514	**1800**	1,184	2,231	**6000**	0,843	5,298
400	1,570	0,658	**1900**	1,169	2,326	**6500**	0,820	5,580
500	1,518	0,795	**2000**	1,155	2,418	**7000**	0,798	5,849
600	1,473	0,926	**2200**	1,129	2,600	**7500**	0,779	6,115
700	1,434	1,051	**2400**	1,104	2,776	**8000**	0,759	6,360
800	1,400	1,173	**2600**	1,082	2,945	**8500**	0,741	6,599
900	1,370	1,291	**2800**	1,061	3,110	**9000**	0,725	6,835
1000	1,342	1,405	**3000**	1,041	3,271	**9500**	0,709	7,053
1100	1,317	1,517	**3200**	1,023	3,427	**10000**	0,695	7,272

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

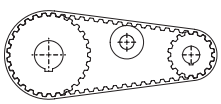
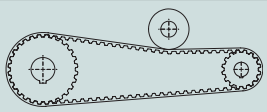
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

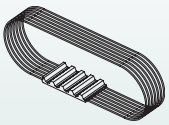
Flexibility

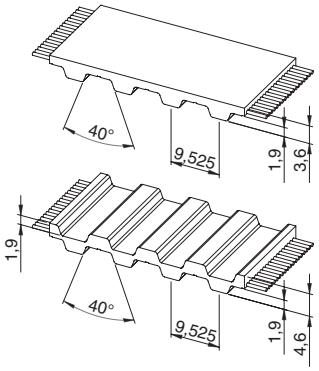
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	10
		Flat idler running on belt teeth d_{min}	30 mm
Drive with reverse bending		Timing pulley z_{min}	15
		Flat idler running on belt back d_{min}	30 mm

Minimum available length

Execution	Max width 4"
Standard	≥ 800 mm
PAZ	≥ 800 mm

L





Belt characteristics

- Truly endless polyurethane timing belt with steel tension cords
- Tooth profile according to UNI/ISO 5296
- Imperial pitch 3/8" = 9,525 mm
- Mainly used in applications where inch pitch is an advantage
- Transmissible power up to 20 kW
- Rpm up to 10.000 [1/min]
- **Dual toothing available from 1500 mm**

• Maximum width:	101,6 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [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 [N]	1380	2185	2875	4255	5635	8510	11385
Weight [kg/m]	0,05	0,08	0,10	0,15	0,20	0,30	0,40

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	5,852	0,000	**1200**	3,393	4,263	**3400**	2,441	8,689
20	5,673	0,119	**1300**	3,321	4,521	**3600**	2,388	9,000
40	5,518	0,231	**1400**	3,256	4,774	**3800**	2,336	9,295
60	5,383	0,338	**1440**	3,230	4,871	**4000**	2,288	9,581
80	5,266	0,441	**1500**	3,194	5,017	**4500**	2,177	10,258
100	5,165	0,541	**1600**	3,137	5,255	**5000**	2,077	10,874
200	4,789	1,003	**1700**	3,082	5,486	**5500**	1,986	11,437
300	4,516	1,419	**1800**	3,029	5,709	**6000**	1,903	11,953
400	4,304	1,803	**1900**	2,980	5,930	**6500**	1,827	12,433
500	4,131	2,163	**2000**	2,933	6,143	**7000**	1,755	12,867
600	3,984	2,503	**2200**	2,845	6,555	**7500**	1,689	13,263
700	3,857	2,827	**2400**	2,765	6,949	**8000**	1,627	13,626
800	3,744	3,137	**2600**	2,692	7,330	**8500**	1,569	13,965
900	3,644	3,434	**2800**	2,623	7,689	**9000**	1,513	14,258
1000	3,553	3,721	**3000**	2,559	8,039	**9500**	1,461	14,537
1100	3,470	3,997	**3200**	2,498	8,371	**10000**	1,411	14,779

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

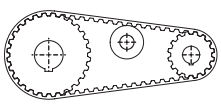
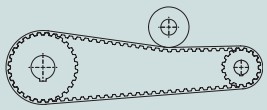
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

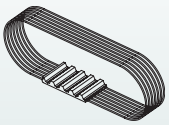
Flexibility

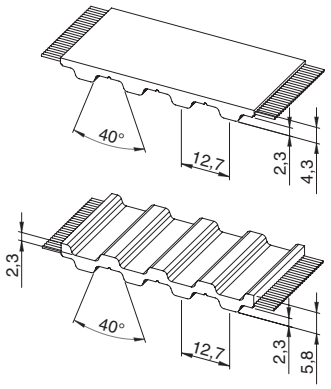
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	15
		Flat idler running on belt teeth d_{min}	60 mm
Drive with reverse bending		Timing pulley z_{min}	20
		Flat idler running on belt back d_{min}	60 mm

Minimum available length

Execution	Max width 4"
Standard	≥ 800 mm
PAZ	≥ 800 mm

H





Belt characteristics

- Truly endless polyurethane timing belt with steel tension cords
- Tooth profile according to UNI/ISO 5296
- Imperial pitch 1/2" = 12,7 mm
- Allow to use small diameter pulley
- Mainly used in applications where inch pitch is an advantage
- Transmissible power up to 30 kW
- Rpm up to 10.000 [1/min]
- **Dual toothing available from 1500 mm**

• Maximum width:	101,6 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [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 [N]	1380	2185	2875	4255	5635	8510	11385
Weight [kg/m]	0,056	0,084	0,113	0,169	0,225	0,338	0,450

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	9,156	0,000	**1200**	5,318	6,682	**3400**	3,826	13,622
20	8,883	0,186	**1300**	5,207	7,088	**3600**	3,741	14,104
40	8,647	0,362	**1400**	5,104	7,482	**3800**	3,663	14,573
60	8,443	0,530	**1440**	5,063	7,635	**4000**	3,588	15,027
80	8,263	0,692	**1500**	5,007	7,864	**4500**	3,412	16,077
100	8,107	0,849	**1600**	4,916	8,236	**5000**	3,256	17,049
200	7,523	1,576	**1700**	4,829	8,596	**5500**	3,115	17,939
300	7,089	2,227	**1800**	4,748	8,949	**6000**	2,983	18,744
400	6,753	2,829	**1900**	4,671	9,293	**6500**	2,864	19,494
500	6,478	3,392	**2000**	4,596	9,626	**7000**	2,753	20,179
600	6,246	3,924	**2200**	4,461	10,277	**7500**	2,650	20,811
700	6,046	4,431	**2400**	4,334	10,891	**8000**	2,553	21,385
800	5,870	4,917	**2600**	4,218	11,485	**8500**	2,462	21,912
900	5,712	5,383	**2800**	4,111	12,054	**9000**	2,375	22,382
1000	5,569	5,831	**3000**	4,010	12,597	**9500**	2,294	22,821
1100	5,437	6,263	**3200**	3,915	13,119	**10000**	2,215	23,197

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

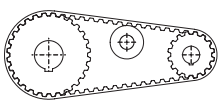
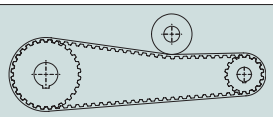
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

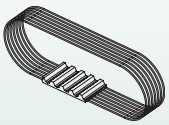
Flexibility

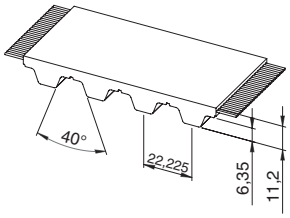
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	14
		Flat idler running on belt teeth d_{min}	60 mm
Drive with reverse bending		Timing pulley z_{min}	20
		Flat idler running on belt back d_{min}	80 mm

Minimum available length

Execution	Max width 4"
Standard	≥ 800 mm
PAZ	≥ 800 mm

XH





Belt characteristics

- Truly endless polyurethane timing belt with steel tension cords
- Tooth profile according to UNI/ISO 5296
- Imperial pitch 7/8" = 22,225 mm
- Mainly used in applications where inch pitch is an advantage
- Transmissible power up to 100 kW
- Rpm up to 4.000 [1/min]

- Maximum width: 152,4 [mm]
- Width tolerance: ±1,0 [mm]
- Thickness tolerance: ±0,2 [mm]

Technical Data

Belt width [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 [N]	3675	7350	11270	14945	22295
Weight [kg/m]	0,27	0,53	0,80	1,06	1,59

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	33,957	0,000	**1200**	17,802	22,369	**3200**	12,904	43,237
20	32,889	0,689	**1300**	17,405	23,692	**3400**	12,599	44,855
40	31,932	1,337	**1400**	17,037	24,975	**3600**	12,312	46,411
60	31,074	1,952	**1440**	16,897	25,477	**3800**	12,040	47,907
80	30,306	2,539	**1500**	16,693	26,220	**4000**	11,782	49,347
100	29,618	3,101	**1600**	16,372	27,430	-	-	-
200	26,460	5,541	**1700**	16,070	28,606	-	-	-
300	24,554	7,713	**1800**	15,785	29,752	-	-	-
400	23,178	9,708	**1900**	15,515	30,867	-	-	-
500	22,100	11,571	**2000**	15,259	31,955	-	-	-
600	21,213	13,327	**2200**	14,782	34,053	-	-	-
700	20,459	14,996	**2400**	14,347	36,054	-	-	-
800	19,804	16,590	**2600**	13,946	37,967	-	-	-
900	19,224	18,117	**2800**	13,574	39,798	-	-	-
1000	18,704	19,586	**2880**	13,433	40,509	-	-	-
1100	18,233	21,001	**3000**	13,228	41,553	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

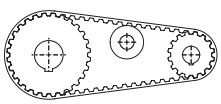
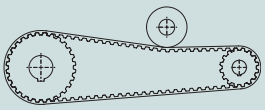
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

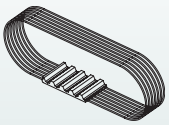
Flexibility

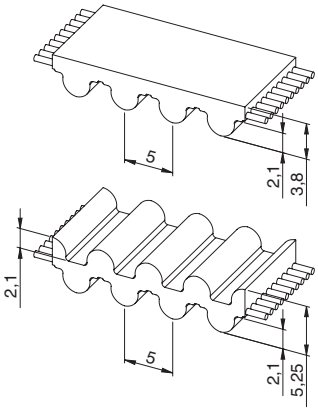
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	18
		Flat idler running on belt teeth d_{min}	150 mm
Drive with reverse bending		Timing pulley z_{min}	20
		Flat idler running on belt back d_{min}	180 mm

Minimum available length

Execution	Max width 6"
Standard	≥ 1500 mm
PAZ	≥ 1800 mm

HTD 5M





Belt characteristics

- Truly endless polyurethane timing belt with round tooth profile and steel tension cords
- Tooth profile according to ISO 13050
- Metric pitch 5 mm
- The round tooth profile allows a uniform load distribution that guarantees high performance, high transmissible torque and precise tooth engagement
- Transmissible power up to 6 kW
- Rpm up to 10.000 [1/min]
- **Dual toothing available from 1500 mm**

- Maximum width: 150 [mm]
- Width tolerance: ±0,5 [mm]
- Thickness tolerance: ±0,2 [mm]

Technical Data

Belt width [mm]	10	15	25	50	100	150
Allowable tensile load [N]	1150	1725	2760	5635	11155	16790
Weight [kg/m]	0,05	0,07	0,11	0,23	0,46	0,68

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	2,928	0,000	**1200**	1,992	2,503	**3400**	1,461	5,203
20	2,885	0,060	**1300**	1,955	2,661	**3600**	1,430	5,390
40	2,845	0,119	**1400**	1,920	2,814	**3800**	1,400	5,570
60	2,809	0,176	**1440**	1,906	2,875	**4000**	1,371	5,743
80	2,776	0,233	**1500**	1,887	2,964	**4500**	1,305	6,148
100	2,747	0,288	**1600**	1,855	3,109	**5000**	1,245	6,517
200	2,637	0,552	**1700**	1,826	3,250	**5500**	1,190	6,854
300	2,457	0,772	**1800**	1,797	3,387	**6000**	1,140	7,161
400	2,395	1,003	**1900**	1,770	3,521	**6500**	1,093	7,440
500	2,333	1,221	**2000**	1,744	3,652	**7000**	1,050	7,695
600	2,273	1,428	**2200**	1,695	3,904	**7500**	1,009	7,926
700	2,217	1,625	**2400**	1,649	4,145	**8000**	0,971	8,135
800	2,166	1,814	**2600**	1,607	4,375	**8500**	0,935	8,324
900	2,118	1,996	**2800**	1,567	4,595	**9000**	0,901	8,493
1000	2,073	2,170	**3000**	1,530	4,806	**9500**	0,869	8,644
1100	2,031	2,339	**3200**	1,495	5,009	**10000**	0,838	8,778

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

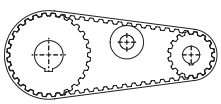
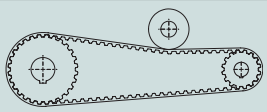
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

Flexibility

Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	16
		Flat idler running on belt teeth d_{min}	30 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	60 mm

Minimum available length

Execution	Max width	
	100 mm	150 mm
Standard	≥ 800 mm	≥ 1500 mm
PAZ	≥ 800 mm	≥ 1800 mm

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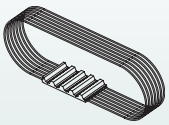
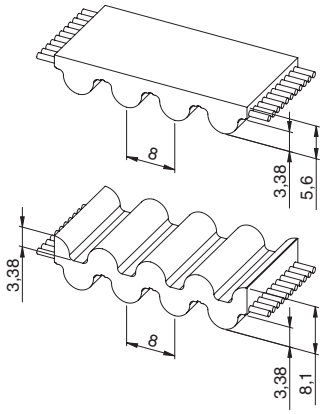




Belt characteristics

- Truly endless polyurethane timing belt with round tooth profile and steel tension cords
- Tooth profile according to ISO 13050
- Metric pitch 8 mm
- The round tooth profile allows a uniform load distribution that guarantees high performance, high transmissible torque and precise tooth engagement
- Transmissible power up to 80 kW
- Rpm up to 6.000 [1/min]
- **Dual toothing available from 1500 mm**

• Maximum width:	150 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	10	15	20	30	50	85	100	150
Allowable tensile load [N]	1470	2205	2940	4410	7350	12495	14700	22050
Weight [kg/m]	0,07	0,10	0,13	0,20	0,33	0,56	0,66	1,00

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	9,422	0,000	**1200**	5,848	7,348	**3400**	3,936	14,013
20	9,246	0,194	**1300**	5,709	7,772	**3600**	3,826	14,421
40	9,083	0,380	**1400**	5,580	8,180	**3800**	3,721	14,805
60	8,933	0,561	**1440**	5,530	8,338	**4000**	3,621	15,166
80	8,794	0,737	**1500**	5,458	8,572	**4500**	3,390	15,975
100	8,666	0,907	**1600**	5,343	8,951	**5000**	3,183	16,663
200	8,160	1,709	**1700**	5,233	9,316	**5500**	2,994	17,241
300	7,853	2,467	**1800**	5,130	9,669	**6000**	2,821	17,720
400	7,516	3,148	**1900**	5,031	10,010	-	-	-
500	7,220	3,780	**2000**	4,937	10,340	-	-	-
600	6,959	4,372	**2200**	4,761	10,968	-	-	-
700	6,728	4,931	**2400**	4,599	11,557	-	-	-
800	6,519	5,461	**2600**	4,448	12,110	-	-	-
900	6,330	5,965	**2800**	4,308	12,630	-	-	-
1000	6,156	6,446	**3000**	4,176	13,119	-	-	-
1100	5,996	6,907	**3200**	4,053	13,580	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

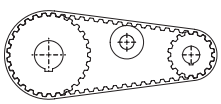
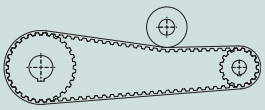
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

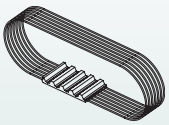
Flexibility

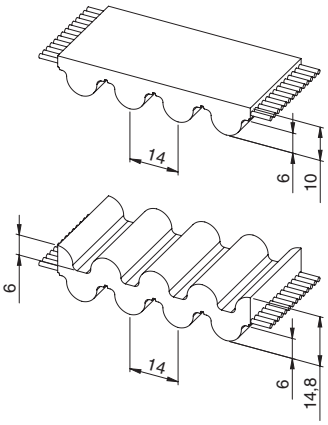
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	18
		Flat idler running on belt teeth d_{min}	50 mm
Drive with reverse bending		Timing pulley z_{min}	30
		Flat idler running on belt back d_{min}	120 mm

Minimum available length

Execution	Max width	
	100 mm	150 mm
Standard	≥ 800 mm	≥ 1500 mm
PAZ	≥ 800 mm	≥ 1800 mm

HTD 14M





Belt characteristics

- Truly endless polyurethane timing belt with round tooth profile and steel tension cords
- Tooth profile according to ISO 13050
- Metric pitch 14 mm
- The round tooth profile allows a uniform load distribution that guarantees high performance, high transmissible torque and precise tooth engagement
- Transmissible power up to 200 kW
- Rpm up to 4.000 [1/min]
- **Dual toothing available from 1500 mm**

• Maximum width:	150 [mm]
• Width tolerance:	±1,0 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	40	55	85	115	150
Allowable tensile load [N]	9120	12480	19680	26400	34560
Weight [kg/m]	0,42	0,57	0,89	1,24	1,70

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	28,966	0,000	**1200**	16,335	20,526	**3400**	9,630	34,286
20	28,452	0,596	**1300**	15,852	21,578	**3600**	9,242	34,837
40	27,978	1,172	**1400**	15,398	22,573	**3800**	8,872	35,303
60	27,540	1,730	**1440**	15,225	22,957	**4000**	8,521	35,688
80	27,136	2,273	**1500**	14,972	23,516	-	-	-
100	26,762	2,802	**1600**	14,569	24,408	-	-	-
200	24,458	5,122	**1700**	14,187	25,254	-	-	-
300	23,239	7,300	**1800**	13,824	26,056	-	-	-
400	22,100	9,257	**1900**	13,478	26,816	-	-	-
500	21,091	11,042	**2000**	13,148	27,536	-	-	-
600	20,195	12,688	**2200**	12,530	28,865	-	-	-
700	19,394	14,216	**2400**	11,960	30,056	-	-	-
800	18,672	15,641	**2600**	11,431	31,121	-	-	-
900	18,014	16,976	**2800**	10,938	32,069	-	-	-
1000	17,410	18,230	**3000**	10,476	32,908	-	-	-
1100	16,853	19,411	**3200**	10,041	33,645	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

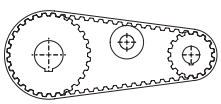
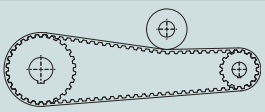
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

Flexibility

Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	28
		Flat idler running on belt teeth d_{min}	120 mm
Drive with reverse bending		Timing pulley z_{min}	28
		Flat idler running on belt back d_{min}	180 mm

Minimum available length

Execution	Max width 150 mm
Standard	≥ 1500 mm
PAZ	≥ 1800 mm

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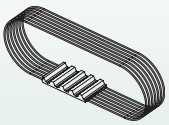
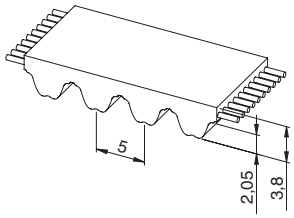
RTD 5M





Belt characteristics

- Truly endless polyurethane timing belt with round tooth profile and steel tension cords
- Tooth profile according to ISO 13050
- Metric pitch 5 mm
- PAZ fabric on tooth delivered as standard decreases noise in high speed drives
- Transmissible power up to 6 kW
- Rpm up to 10.000 [1/min]

• Maximum width:	150 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	10	15	25	50	100	150
Allowable tensile load [N]	1150	1725	2760	5635	11155	16790
Weight [kg/m]	0,05	0,07	0,11	0,23	0,46	0,69

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	3,01	0,000	**1200**	2,15	2,703	**3400**	1,62	5,770
20	2,96	0,062	**1300**	2,11	2,878	**3600**	1,59	5,990
40	2,92	0,122	**1400**	2,08	3,048	**3800**	1,56	6,203
60	2,89	0,181	**1440**	2,07	3,115	**4000**	1,53	6,410
80	2,86	0,239	**1500**	2,05	3,214	**4500**	1,46	6,898
100	2,83	0,296	**1600**	2,01	3,375	**5000**	1,40	7,351
200	2,72	0,569	**1700**	1,98	3,533	**5500**	1,35	7,770
300	2,62	0,822	**1800**	1,96	3,687	**6000**	1,30	8,161
400	2,55	1,070	**1900**	1,93	3,838	**6500**	1,25	8,524
500	2,49	1,305	**2000**	1,90	3,985	**7000**	1,21	8,861
600	2,43	1,528	**2200**	1,85	4,271	**7500**	1,17	9,176
700	2,38	1,742	**2400**	1,81	4,545	**8000**	1,13	9,468
800	2,32	1,947	**2600**	1,77	4,808	**8500**	1,09	9,740
900	2,28	2,146	**2800**	1,73	5,062	**9000**	1,06	9,993
1000	2,23	2,337	**3000**	1,69	5,306	**9500**	1,03	10,228
1100	2,19	2,523	**3200**	1,65	5,542	**10000**	1,00	10,445

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

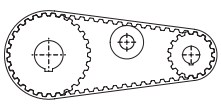
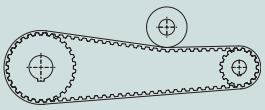
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

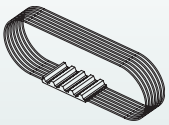
Flexibility

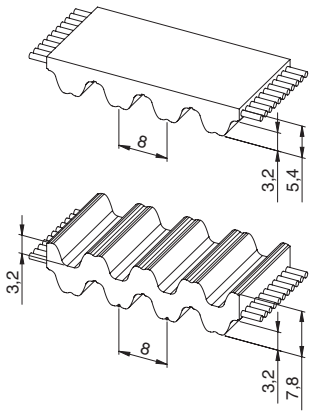
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	16
		Flat idler running on belt teeth d_{min}	30 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	60 mm

Minimum available length

Execution	Max width
	100 mm
Standard	≥ 1500 mm
PAZ	≥ 1800 mm

RTD 8M





Belt characteristics

- Truly endless polyurethane timing belt with round tooth profile and steel tension cords
- Tooth profile according to ISO 13050
- Metric pitch 8 mm
- PAZ fabric on tooth delivered as standard decreases noise in high speed drives
- Transmissible power up to 80 kW
- Rpm up to 6.000 [1/min]
- **Dual toothing available from 1500 mm**

• Maximum width:	150 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	10	15	20	30	50	85	100	150
Allowable tensile load [N]	1470	2205	2940	4410	7350	12495	14700	22050
Weight [kg/m]	0,07	0,10	0,13	0,20	0,33	0,56	0,66	1,00

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	9,68	0,000	**1200**	6,10	7,668	**3400**	4,19	14,920
20	9,50	0,199	**1300**	5,96	8,118	**3600**	4,08	15,381
40	9,34	0,391	**1400**	5,83	8,553	**3800**	3,98	15,818
60	9,19	0,577	**1440**	5,78	8,722	**4000**	3,88	16,232
80	9,05	0,758	**1500**	5,71	8,972	**4500**	3,64	17,175
100	8,92	0,934	**1600**	5,60	9,377	**5000**	3,44	17,996
200	8,41	1,762	**1700**	5,49	9,769	**5500**	3,25	18,708
300	8,11	2,547	**1800**	5,38	10,149	**6000**	3,08	19,320
400	7,77	3,255	**1900**	5,29	10,517	-	-	-
500	7,47	3,913	**2000**	5,19	10,873	-	-	-
600	7,21	4,532	**2200**	5,02	11,554	-	-	-
700	6,98	5,118	**2400**	4,85	12,197	-	-	-
800	6,77	5,674	**2600**	4,70	12,803	-	-	-
900	6,58	6,205	**2800**	4,56	13,377	-	-	-
1000	6,41	6,713	**3000**	4,43	13,919	-	-	-
1100	6,25	7,200	**3200**	4,31	14,433	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

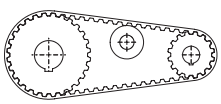
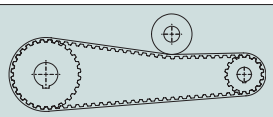
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

Flexibility

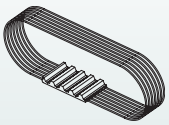
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	18
		Flat idler running on belt teeth d_{min}	50 mm
Drive with reverse bending		Timing pulley z_{min}	30
		Flat idler running on belt back d_{min}	120 mm

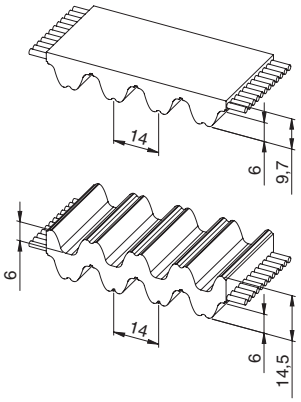
Minimum available length

Execution	Max width	
	100 mm	150 mm
Standard	≥ 800 mm	≥ 1500 mm
PAZ	≥ 800 mm	≥ 1800 mm

ELA-flex SD®

RTD 14M





Belt characteristics

- Truly endless polyurethane timing belt with round tooth profile and steel tension cords
- Tooth profile according to ISO 13050
- Metric pitch 14 mm
- PAZ fabric on tooth delivered as standard decreases noise in high speed drives
- Transmissible power up to 200 kW
- Rpm up to 4.000 [1/min]
- **Dual toothing available from 1500 mm**

• Maximum width:	150 [mm]
• Width tolerance:	±1,0 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	**40**	**55**	**85**	**115**	**150**
Allowable tensile load [N]	13600	17850	28050	38250	49300
Weight [kg/m]	0,48	0,63	1,0	1,40	1,85

Other widths are available on request.

Tooth shear strength

rpm [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	31,19	0,000	**1200**	18,56	23,325	**3400**	11,86	42,219
20	30,59	0,641	**1300**	18,08	24,611	**3600**	11,47	43,237
40	30,04	1,258	**1400**	17,63	25,840	**3800**	11,10	44,169
60	29,53	1,855	**1440**	17,45	26,316	**4000**	10,75	45,021
80	29,06	2,434	**1500**	17,20	27,016	-	-	-
100	28,62	2,997	**1600**	16,80	28,141	-	-	-
200	26,69	5,589	**1700**	16,42	29,220	-	-	-
300	25,47	8,000	**1800**	16,05	30,255	-	-	-
400	24,33	10,190	**1900**	15,71	31,249	-	-	-
500	23,32	12,209	**2000**	15,38	32,202	-	-	-
600	22,42	14,088	**2200**	14,76	33,998	-	-	-
700	21,62	15,849	**2400**	14,19	35,656	-	-	-
800	20,90	17,508	**2600**	13,66	37,187	-	-	-
900	20,24	19,076	**2800**	13,17	38,602	-	-	-
1000	19,64	20,564	**3000**	12,70	39,907	-	-	-
1100	19,08	21,978	**3200**	12,27	41,111	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

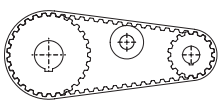
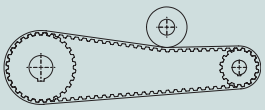
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

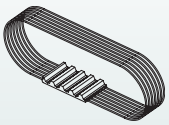
Flexibility

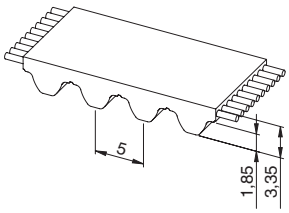
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	32
		Flat idler running on belt teeth d_{min}	140 mm
Drive with reverse bending		Timing pulley z_{min}	32
		Flat idler running on belt back d_{min}	200 mm

Minimum available length

Execution	**Max width**
	150 mm
Standard	≥ 1500 mm
PAZ	≥ 1800 mm

STD 5M





Belt characteristics

- Truly endless polyurethane timing belt with 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
- Offer excellent operational reliability
- The special profile allows smooth running properties
- Transmissible power up to 6 Kw
- Rpm up to 10.000 [1/min]

• Maximum width:	150 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	10	15	25	50	100	150
Allowable tensile load [N]	1150	1725	2760	5635	11155	16790
Weight [kg/m]	0,046	0,068	0,114	0,228	0,456	1,368

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	2,936	0,000	**1200**	2,031	2,553	**3400**	1,501	5,345
20	2,892	0,061	**1300**	1,995	2,715	**3600**	1,470	5,540
40	2,853	0,119	**1400**	1,960	2,873	**3800**	1,440	5,728
60	2,817	0,177	**1440**	1,946	2,935	**4000**	1,411	5,910
80	2,784	0,233	**1500**	1,927	3,026	**4500**	1,345	6,336
100	2,755	0,288	**1600**	1,895	3,175	**5000**	1,285	6,726
200	2,645	0,554	**1700**	1,865	3,321	**5500**	1,230	7,083
300	2,497	0,784	**1800**	1,837	3,462	**6000**	1,180	7,411
400	2,435	1,020	**1900**	1,810	3,600	**6500**	1,133	7,711
500	2,372	1,242	**2000**	1,784	3,735	**7000**	1,090	7,987
600	2,313	1,453	**2200**	1,734	3,996	**7500**	1,049	8,238
700	2,257	1,654	**2400**	1,689	4,245	**8000**	1,011	8,469
800	2,205	1,847	**2600**	1,647	4,483	**8500**	0,975	8,678
900	2,157	2,033	**2800**	1,607	4,712	**9000**	0,941	8,868
1000	2,113	2,212	**3000**	1,570	4,931	**9500**	0,909	9,040
1100	2,071	2,385	**3200**	1,535	5,142	**10000**	0,878	9,195

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

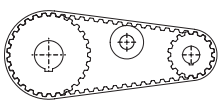
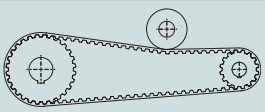
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

Flexibility

Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	16
		Flat idler running on belt teeth d_{min}	30 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	60 mm

Minimum available length

Execution	Max width	
	100 mm	150 mm
Standard	≥ 800 mm	≥ 1500 mm
PAZ	≥ 800 mm	≥ 1800 mm

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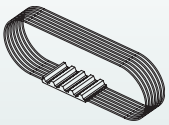
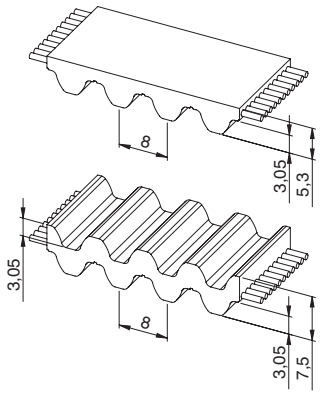
STD 8M





Belt characteristics

- Truly endless polyurethane timing belt with 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
- Offer excellent operational reliability
- The special profile allows smooth running properties
- Transmissible power up to 80 Kw
- Rpm up to 6.000 [1/min]
- **Dual toothing available from 1500 mm**

• Maximum width:	150 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	10	15	20	30	50	85	100	150
Allowable tensile load [N]	1470	2205	2940	4410	7350	12495	14700	22050
Weight [kg/m]	0,07	0,10	0,13	0,20	0,33	0,56	0,66	1,00

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	9,435	0,000	**1200**	5,885	7,394	**3400**	3,960	14,098
20	9,301	0,195	**1300**	5,745	7,821	**3600**	3,849	14,508
40	9,176	0,384	**1400**	5,615	8,231	**3800**	3,743	14,894
60	9,057	0,569	**1440**	5,565	8,391	**4000**	3,643	15,257
80	8,946	0,749	**1500**	5,492	8,626	**4500**	3,410	16,070
100	8,841	0,926	**1600**	5,376	9,007	**5000**	3,201	16,762
200	8,401	1,759	**1700**	5,266	9,374	**5500**	3,011	17,343
300	7,908	2,484	**1800**	5,162	9,729	**6000**	2,837	17,824
400	7,567	3,169	**1900**	5,063	10,072	-	-	-
500	7,268	3,805	**2000**	4,968	10,404	-	-	-
600	7,005	4,401	**2200**	4,790	11,035	-	-	-
700	6,772	4,963	**2400**	4,627	11,628	-	-	-
800	6,561	5,496	**2600**	4,475	12,184	-	-	-
900	6,370	6,003	**2800**	4,334	12,707	-	-	-
1000	6,195	6,487	**3000**	4,202	13,199	-	-	-
1100	6,034	6,950	**3200**	4,077	13,662	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

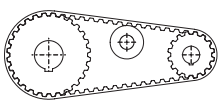
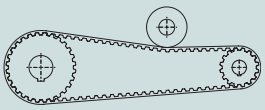
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

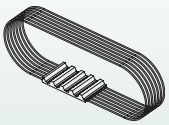
Flexibility

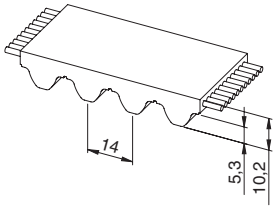
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	18
		Flat idler running on belt teeth d_{min}	50 mm
Drive with reverse bending		Timing pulley z_{min}	30
		Flat idler running on belt back d_{min}	120 mm

Minimum available length

Execution	Max width 150 mm
Standard	≥ 1500 mm
PAZ	≥ 1800 mm

STD 14M





Belt characteristics

- Truly endless polyurethane timing belt with 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
- Offer excellent operational reliability
- The special profile allows smooth running properties
- Transmissible power up to 200 Kw
- Rpm up to 4.000 [1/min]

• Maximum width:	100 [mm]
• Width tolerance:	±1,0 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	40	55	85	100
Allowable tensile load [N]	13600	17850	28050	33150
Weight [kg/m]	0,48	0,85	1,10	1,54

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	29,86	0,000	**1200**	17,45	21,925	**3400**	10,74	38,252
20	29,26	0,613	**1300**	16,97	23,095	**3600**	10,36	39,037
40	28,70	1,202	**1400**	16,51	24,207	**3800**	9,99	39,736
60	28,19	1,771	**1440**	16,34	24,636	**4000**	9,63	40,354
80	27,72	2,322	**1500**	16,09	25,266	-	-	-
100	27,29	2,857	**1600**	15,68	26,275	-	-	-
200	25,57	5,355	**1700**	15,30	27,237	-	-	-
300	24,35	7,650	**1800**	14,94	28,156	-	-	-
400	23,21	9,723	**1900**	14,59	29,032	-	-	-
500	22,20	11,626	**2000**	14,26	29,869	-	-	-
600	21,31	13,388	**2200**	13,64	31,431	-	-	-
700	20,51	15,032	**2400**	13,07	32,856	-	-	-
800	19,79	16,575	**2600**	12,55	34,154	-	-	-
900	19,13	18,026	**2800**	12,05	35,335	-	-	-
1000	18,52	19,397	**3000**	11,59	36,408	-	-	-
1100	17,97	20,695	**3200**	11,15	37,378	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

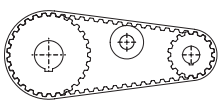
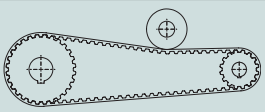
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

Flexibility

Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	32
		Flat idler running on belt teeth d_{min}	140 mm
Drive with reverse bending		Timing pulley z_{min}	32
		Flat idler running on belt back d_{min}	250 mm

Minimum available length

Execution	Max width
	100 mm
Standard	≥ 1500 mm
PAZ	≥ 1800 mm

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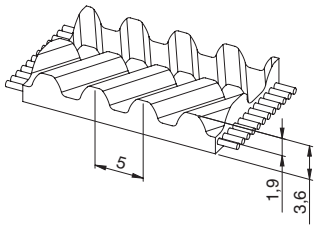


Belt characteristics

- Truly endless 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**
- The special profile allows most compact drive
- **Max. length 2400 mm**

- Maximum width: 25 [mm]
- Width tolerance: ±0,8 [mm]
- Thickness tolerance: ±0,2 [mm]

Technical Data

Belt width [mm]	**12,5**	**25**
Allowable tensile load [N]	1380	2760
Weight [kg/m]	0,06	0,12

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	3,01	0,000	**1200**	2,15	2,702	**3400**	1,62	5,768
20	2,96	0,062	**1300**	2,11	2,872	**3600**	1,59	5,994
40	2,92	0,122	**1400**	2,08	3,049	**3800**	1,56	6,208
60	2,89	0,182	**1440**	2,07	3,121	**4000**	1,53	6,409
80	2,86	0,240	**1500**	2,05	3,220	**4500**	1,46	6,880
100	2,83	0,296	**1600**	2,01	3,368	**5000**	1,40	7,330
200	2,72	0,570	**1700**	1,98	3,525	**5500**	1,35	7,775
300	2,62	0,823	**1800**	1,96	3,695	**6000**	1,30	8,168
400	2,55	1,068	**1900**	1,93	3,840	**6500**	1,25	8,508
500	2,49	1,304	**2000**	1,90	3,979	**-**	-	-
600	2,43	1,527	**2200**	1,85	4,262	**-**	-	-
700	2,38	1,745	**2400**	1,81	4,549	**-**	-	-
800	2,32	1,944	**2600**	1,77	4,819	**-**	-	-
900	2,28	2,149	**2800**	1,73	5,073	**-**	-	-
1000	2,23	2,335	**3000**	1,69	5,306	**-**	-	-
1100	2,19	2,523	**3200**	1,65	5,542	**-**	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

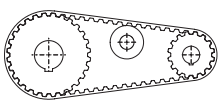
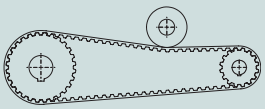
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

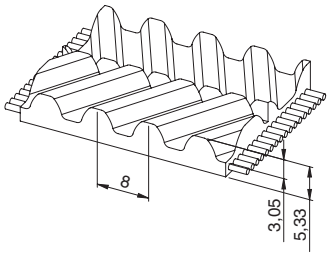
Flexibility

Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	16
		Flat idler running on belt teeth d_{min}	30 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	60 mm

Minimum available length

Execution	**Max width**
	25 mm
Standard	≥ 800 mm
PAZ	≥ 800 mm

EAGLE 8M



Belt characteristics

- Truly endless 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**
- The special profile allows most compact drive

- Maximum width: 50 [mm]
- Width tolerance: ±0,8 [mm]
- Thickness tolerance: ±0,3 [mm]

Technical Data

Belt width [mm]	16	25	32	50
Allowable tensile load [N]	2430	4040	5120	8090
Weight [kg/m]	0,085	0,145	0,180	0,300

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	10,82	0,000	**1200**	6,87	8,631	**3200**	4,90	16,422
20	10,67	0,223	**1300**	6,72	9,146	**3400**	4,77	16,991
40	10,52	0,441	**1400**	6,58	9,642	**3600**	4,65	17,531
60	10,38	0,652	**1440**	6,52	9,836	**3800**	4,53	18,044
80	10,24	0,858	**1500**	6,44	10,122	**4000**	4,42	18,531
100	10,11	1,058	**1600**	6,32	10,585	**4500**	4,17	19,647
200	9,52	1,994	**1700**	6,20	11,035	**5000**	3,94	20,627
300	9,04	2,840	**1800**	6,09	11,470	**5500**	3,73	21,486
400	8,65	3,623	**1900**	5,98	11,892	**6000**	3,54	22,234
500	8,34	4,368	**2000**	5,87	12,302	**6500**	3,36	22,880
600	8,07	5,068	**2200**	5,68	13,087	-	-	-
700	7,82	5,732	**2400**	5,50	13,828	-	-	-
800	7,60	6,363	**2600**	5,34	14,529	-	-	-
900	7,39	6,966	**2800**	5,18	15,194	-	-	-
1000	7,20	7,543	**2880**	5,12	15,450	-	-	-
1100	7,03	8,098	**3000**	5,04	15,824	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

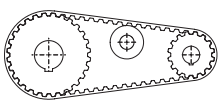
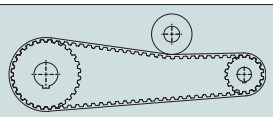
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

Flexibility

Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	20
		Flat idler running on belt teeth d_{min}	50 mm
Drive with reverse bending		Timing pulley z_{min}	30
		Flat idler running on belt back d_{min}	120 mm

Minimum available length

Execution	Max width 50 mm
Standard	≥ 900 mm
PAZ	≥ 900 mm

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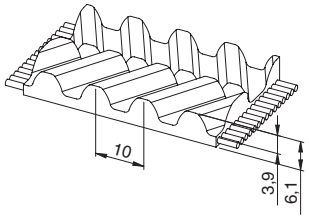


Belt characteristics

- Truly endless 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**
- The special profile allows most compact drive

- Maximum width: 50 [mm]
- Width tolerance: ±0,8 [mm]
- Thickness tolerance: ±0,3 [mm]

Technical Data

Belt width [mm]	25	32	50
Allowable tensile load [N]	5810	7920	12140
Weight [kg/m]	0,18	0,23	0,37

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	14,881	0,000	**1200**	9,273	11,653	**3400**	6,443	22,937
20	14,647	0,307	**1300**	9,070	12,347	**3600**	6,278	23,666
40	14,424	0,604	**1400**	8,879	13,017	**3800**	6,122	24,359
60	14,210	0,893	**1440**	8,806	13,278	**4000**	5,973	25,017
80	14,005	1,173	**1500**	8,699	13,664	**4500**	5,629	26,523
100	13,809	1,446	**1600**	8,530	14,290	**5000**	5,319	27,847
200	12,949	2,712	**1700**	8,369	14,897	**5500**	5,036	29,006
300	12,259	3,851	**1800**	8,215	15,485	**6000**	4,778	30,016
400	11,705	4,903	**1900**	8,070	16,055	**6500**	4,540	30,890
500	11,263	5,897	**2000**	7,930	16,608	**7000**	4,320	31,630
600	10,890	6,842	**2200**	7,669	17,667	**7500**	4,110	32,260
700	10,556	7,738	**2400**	7,428	18,668	**8000**	3,910	32,780
800	10,254	8,590	**2600**	7,205	19,615	**8500**	3,730	33,190
900	9,979	9,404	**2800**	6,996	20,512	**9000**	3,560	33,510
1000	9,725	10,184	**3000**	6,800	21,363	**9500**	3,390	33,740
1100	9,491	10,932	**3200**	6,616	22,170	**10000**	3,230	33,870

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

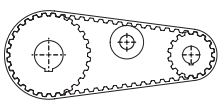
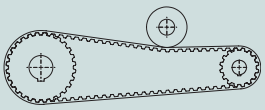
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

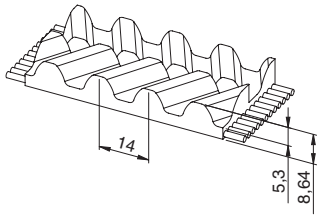
Flexibility

Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt teeth d_{min}	80 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	150 mm

Minimum available length

Execution	Max width
	50 mm
Standard	≥ 900 mm
PAZ	≥ 900 mm

EAGLE 14M



Belt characteristics

- Truly endless 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**
- The special profile allows most compact drive

- Maximum width: 105 [mm]
- Width tolerance: ±1,2 [mm]
- Thickness tolerance: ±0,4 [mm]

Technical Data

Belt width [mm]	**35**	**52,5**	**70**	**105**
Allowable tensile load [N]	13090	18700	26180	39270
Weight [kg/m]	0,4	0,6	0,8	1,2

Other widths are available on request.

Tooth shear strength

rpm [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min^{-1}]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	35,65	0,000	**1200**	20,07	25,222	**3200**	12,19	40,849
20	34,98	0,733	**1300**	19,46	26,495	**3400**	11,68	41,581
40	34,36	1,439	**1400**	18,89	27,698	**3600**	11,19	42,201
60	33,79	2,123	**1440**	18,68	28,160	**3800**	10,73	42,715
80	33,25	2,786	**1500**	18,36	28,834	**4000**	10,30	43,129
100	32,76	3,430	**1600**	17,85	29,909	-	-	-
200	30,76	6,441	**1700**	17,37	30,926	-	-	-
300	28,94	9,090	**1800**	16,92	31,888	-	-	-
400	27,43	11,491	**1900**	16,49	32,798	-	-	-
500	26,12	13,677	**2000**	16,07	33,659	-	-	-
600	24,97	15,689	**2200**	15,30	35,243	-	-	-
700	23,95	17,553	**2400**	14,59	36,656	-	-	-
800	23,03	19,290	**2600**	13,93	37,912	-	-	-
900	22,19	20,915	**2800**	13,31	39,023	-	-	-
1000	21,43	22,439	**2880**	13,07	39,429	-	-	-
1100	20,73	23,872	**3000**	12,73	39,999	-	-	-

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

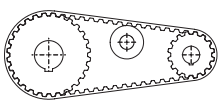
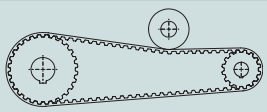
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

Flexibility

Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	32
		Flat idler running on belt teeth d_{min}	140 mm
Drive with reverse bending		Timing pulley z_{min}	32
		Flat idler running on belt back d_{min}	200 mm

Minimum available length

Execution	**Max width**
	105 mm
Standard	≥ 1800 mm
PAZ	≥ 1800 mm

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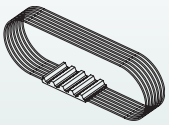
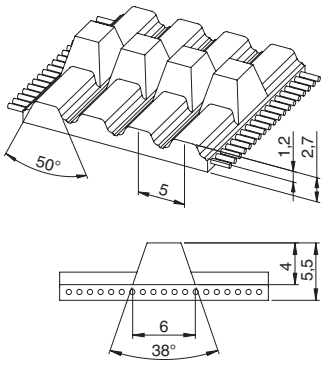
AT K5 - K6





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
- Central guide height 4,0 mm
- 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
- **Max length 2500 mm**
- **Dual toothing available from1500 mm**

• Maximum width:	50 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	25	32	50
Allowable tensile load [N]	2760	3565	5635
Weight [kg/m]	0,08	0,11	0,17

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	2,897	0,000	**1200**	2,027	2,547	**3400**	1,514	5,391
20	2,855	0,060	**1300**	1,990	2,709	**3600**	1,485	5,598
40	2,817	0,118	**1400**	1,955	2,866	**3800**	1,456	5,795
60	2,783	0,175	**1440**	1,942	2,929	**4000**	1,429	5,986
80	2,753	0,231	**1500**	1,923	3,020	**4500**	1,367	6,442
100	2,725	0,285	**1600**	1,892	3,170	**5000**	1,311	6,862
200	2,620	0,549	**1700**	1,863	3,316	**5500**	1,260	7,255
300	2,540	0,798	**1800**	1,836	3,460	**6000**	1,213	7,619
400	2,458	1,030	**1900**	1,809	3,599	**6500**	1,169	7,957
500	2,383	1,248	**2000**	1,784	3,736	**7000**	1,128	8,271
600	2,317	1,456	**2200**	1,736	4,000	**7500**	1,091	8,568
700	2,258	1,655	**2400**	1,693	4,256	**8000**	1,055	8,839
800	2,204	1,846	**2600**	1,653	4,500	**8500**	1,023	9,101
900	2,153	2,029	**2800**	1,615	4,734	**9000**	0,991	9,337
1000	2,108	2,207	**3000**	1,580	4,962	**9500**	0,961	9,555
1100	2,066	2,379	**3200**	1,546	5,181	**10000**	0,933	9,766

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

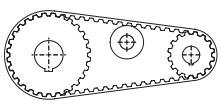
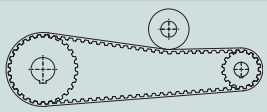
P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

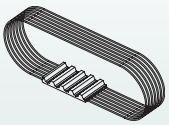
Flexibility

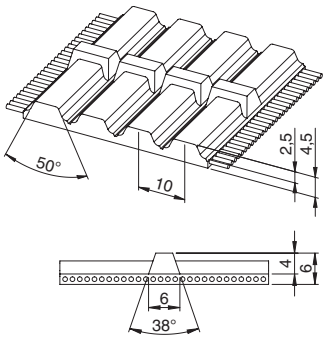
Minimum pulley number of teeth and minimum idler diameter			
Drive without reverse bending		Timing pulley z_{min}	15
		Flat idler running on belt teeth d_{min}	30 mm
Drive with reverse bending		Timing pulley z_{min}	25
		Flat idler running on belt back d_{min}	60 mm

Minimum available length

Execution	Max width 50 mm
Standard	≥ 800 mm
PAZ	≥ 800 mm

AT K10 - K6





Belt characteristics

- Polyurethane self tracking timing belt with steel tension cords
- Profile AT10 with central guide
- Central guide height 4 mm
- Allows 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 or transferring a product
- **Dual toothing available from1500 mm**

• Maximum width:	75 [mm]
• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	**32**	**50**	**75**
Allowable tensile load type V [N]	5120	8090	12400
Weight [kg/m]	0,27	0,36	0,54

Other widths are available on request.

Tooth shear strength

rpm [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]	**rpm** [min⁻¹]	M_{spez} [Ncm/cm]	P_{spez} [W/cm]
0	12,048	0,000	**1200**	7,708	9,685	**3400**	5,317	18,931
20	11,871	0,249	**1300**	7,534	10,256	**3600**	5,180	19,529
40	11,706	0,490	**1400**	7,372	10,807	**3800**	5,048	20,088
60	11,550	0,726	**1440**	7,310	11,022	**4000**	4,924	20,625
80	11,403	0,955	**1500**	7,219	11,339	**4500**	4,636	21,846
100	11,265	1,180	**1600**	7,076	11,855	**5000**	4,377	22,915
200	10,684	2,238	**1700**	6,939	12,352	**5500**	4,140	23,841
300	10,215	3,209	**1800**	6,810	12,836	**6000**	3,923	24,648
400	9,793	4,102	**1900**	6,688	13,305	**6500**	3,724	25,348
500	9,424	4,934	**2000**	6,570	13,759	**7000**	3,538	25,933
600	9,097	5,716	**2200**	6,349	14,625	**7500**	3,365	26,423
700	8,808	6,456	**2400**	6,147	15,447	**8000**	3,202	26,825
800	8,547	7,159	**2600**	5,959	16,223	**8500**	3,048	27,127
900	8,309	7,831	**2800**	5,782	16,953	**9000**	2,903	27,358
1000	8,093	8,474	**3000**	5,618	17,649	**9500**	2,766	27,516
1100	7,893	9,091	**3200**	5,464	18,308	**10000**	2,636	27,598

The total power "P" and the total torque "M" transmitted by the belt, are calculated with the following formulas:

P [kW] = P_{spez} • z_e • z_k • b / 1000

M [Nm] = M_{spez} • z_e • z_k • b / 100

$$z_e = \frac{Z_k}{180} \cdot \arccos \cdot \left[\frac{t \cdot (z_g - z_k)}{2 \cdot \pi \cdot A} \right]$$

P = power in kW
M = torque in Nm
P_{spez} = specific power
M_{spez} = specific torque
z_e = number of teeth in mesh of the small pulley
z_{emax} = 12
z_k = number of teeth of the small pulley
b = belt width in cm
A = centre distance [mm]
t = pitch

Flexibility

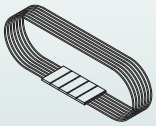
Minimum pulley number of teeth and minimum idler diameter		
Drive without reverse bending	Timing pulley z_{min}	15
	Flat idler running on belt teeth d_{min}	50 mm
Drive with reverse bending	Timing pulley z_{min}	25
	Flat idler running on belt back d_{min}	120 mm

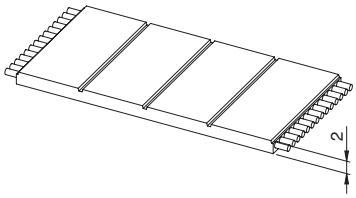
Minimum available length

Execution	**Max width**
	75 mm
Standard	≥ 1500 mm
PAZ	≥ 1800 mm

ELA-flex SD®

F2





Belt characteristics

- Polyurethane flat belt with steel tension cords
- It is mainly used in drive applications where there is no need for synchronization
- Allows the use of small diameter pulleys

• Width tolerance:	±0,5 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	25	32	50	75	100
Allowable tensile load [N]	4040	4850	8090	12400	16440
Weight [kg/m]	0,07	0,1	0,16	0,24	0,3

Other widths are available on request.

Flexibility

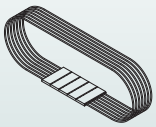
Minimum pulley diameter	Drive without reverse bending [mm]	Drive with reverse bending [mm]
	50	100

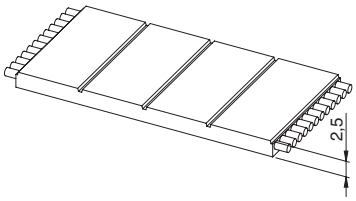
Minimum available length

Execution	Max width 100 mm
Standard	≥ 1500 mm
PAZ	≥ 1800 mm

ELA-flex SD®

F2,5





Belt characteristics

- Polyurethane flat belt with steel tension cords
- It is mainly used in drive applications where there is no need for synchronization
- Allows the use of small diameter pulleys

• Width tolerance:	±0,8 [mm]
• Thickness tolerance:	±0,2 [mm]

Technical Data

Belt width [mm]	20	25	50	75	100
Allowable tensile load [N]	4800	5760	11520	17280	23040
Weight [kg/m]	0,08	0,09	0,18	0,27	0,36

Other widths are available on request.

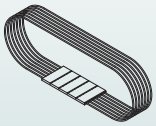
Flexibility

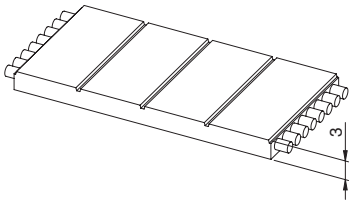
Minimum pulley diameter	Drive without reverse bending [mm]	Drive with reverse bending [mm]
	80	150

Minimum available length

Execution	Max width 100 mm
Standard	≥ 1500 mm
PAZ	≥ 1800 mm

F3





Belt characteristics

- Polyurethane flat belt with steel tension cords
- It is mainly used in drive applications where there is no need for synchronization
- Allows the use of small diameter pulleys

- Width tolerance: ±1,0 [mm]
- Thickness tolerance: ±0,2 [mm]

Technical Data

Belt width [mm]	**25**	**30**	**60**	**100**
Allowable tensile load [N]	9350	11220	22440	37400
Weight [kg/m]	0,20	0,25	0,50	1,00

Other widths are available on request.

Flexibility

Minimum pulley diameter	Drive without reverse bending [mm]	Drive with reverse bending [mm]
	120	180

Minimum available length

Execution	**Max width 100 mm**
Standard	≥ 1500 mm
PAZ	≥ 1800 mm