

EAGLE

Polyurethane

BELTS



Technology in Motion.



A unique concept in synchronous polyurethane belts

Eagle belts answer the market need for a synchronous drive product providing noise reduction, reduced vibration, reduced maintenance, energy efficiency, increased horsepower and reduced drive width. Its concept of HOT (Helical Offset Tooth) design and a continuous rolling tooth engagement, allows it to run quieter than any other synchronous belt. Eagle belts provide a solution to current belt applications where noise, an inherent characteristic of straight tooth synchronous belting, must be limited.

Main Features

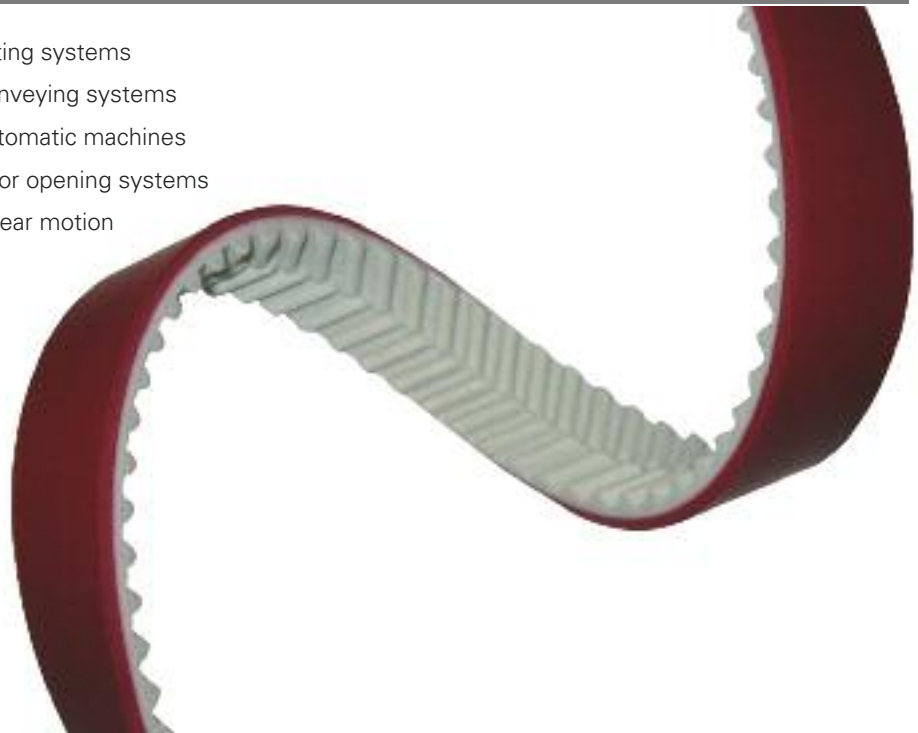
- **Reduces noise** up to 19 db compared to straight tooth timing belts
- **Less vibration** improving machine performance
- **Self tracking**
- **Eliminates flanges** on pulley reducing face width, weight and inertia
- Helical Offset Tooth profile (HOT) designed for minimal tooth interference, ideal for applications requiring **precise movement**.
- **Bi-Directional** for reciprocating drives
- No slippage

Eagle Synchronous Polyurethane are energy efficient

- Reducing energy losses and energy consumption
- Complementing the high efficiency ratings of today's motors
- Offsetting the escalating cost of energy
- Long term saving, reducing operating expenses

Applications

- Lifting systems
- Conveying systems
- Automatic machines
- Door opening systems
- Linear motion



Open end 5M - 8M - 10M

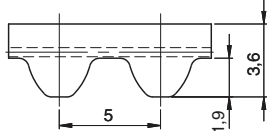


Belt characteristics

- Polyurethane timing belt with helical offset tooth, high tensile load steel cords and high torque capacity.
- **Self tracking no need of pulley flanges**
- Metric pitch 5 mm, 8 mm and 10 mm
- **Extremely reduced noise generation**
- Offers excellent operational reliability in linear positioning and medium power transmission applications
- The special profile allows most compact drive
- PAZ fabric as standard

- Width tolerance: **E5** $\pm 0,5$ [mm] **E8** $\pm 0,8$ [mm] **E10** $\pm 0,8$ [mm]
- Length tolerance: **E5** $\pm 0,5$ [mm/m] **E8** $\pm 0,8$ [mm/m] **E10** $\pm 0,8$ [mm/m]
- Thickness tolerance: **E5** $\pm 0,2$ [mm] **E8** $\pm 0,3$ [mm] **E10** $\pm 0,3$ [mm]

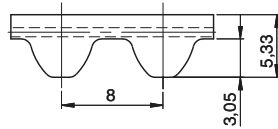
EAGLE 5M*



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

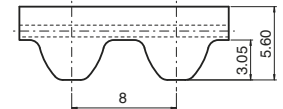
* = black color as standard

EAGLE 8M



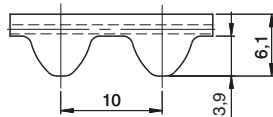
Belt width b [mm]	Allowable tensile load Type M F_{Tzul} [N]	Breaking load Type M F_{Br} [N]	Specific spring rate C_{spez} [N]	Weight [kg/m]
16	2450	9500	612500	0,085
25	4170	16150	1042500	0,145
32	5390	20900	1347500	0,180
50	8580	33250	2145000	0,300

EAGLE 8M HP



Belt width b [mm]	Allowable tensile load Type M F_{Tzul} [N]	Breaking load Type M F_{Br} [N]	Specific spring rate C_{spez} [N]	Weight [kg/m]
16	3840	14000	960000	0,110
25	6720	24500	1680000	0,170
32	8640	31500	2160000	0,220
50	14400	52500	3600000	0,350

EAGLE 10M



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

Open end 14M

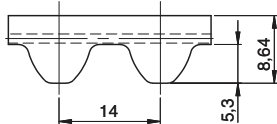


Belt characteristics

- Polyurethane timing belt with helical offset tooth, high tensile load steel cords and high torque capacity.
- **Self tracking no need of pulley flanges**
- Metric pitch 14 mm
- **Extremely reduced noise generation**
- Offers excellent operational reliability in linear positioning and medium power transmission applications
- The special profile allows most compact drive
- PAZ fabric as standard

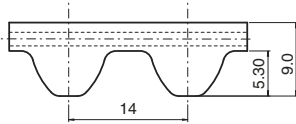
- Width tolerance: **E14** $\pm 1,2$ [mm] **E14XHPL** $\pm 1,2$ [mm]
- Length tolerance: **E14** $\pm 0,8$ [mm/m] **E14XHPL** $\pm 1,0$ [mm/m]
- Thickness tolerance: **E14** $\pm 0,4$ [mm] **E14XHPL** $\pm 0,5$ [mm]

EAGLE 14M



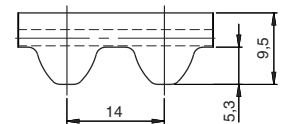
Belt width b [mm]	Allowable tensile load Type M F_{Tzul} [N]	Breaking load Type M F_{Br} [N]	Specific spring rate C_{spez} [N]	Weight [kg/m]
35	11050	41600	2762500	0,400
52,2	17000	64000	4250000	0,600
70	22950	86400	5737500	0,800
105	34850	131200	8712500	1,200

EAGLE 14M HP



Belt width b [mm]	Allowable tensile load Type M F_{Tzul} [N]	Breaking load Type M F_{Br} [N]	Specific spring rate C_{spez} [N]	Weight [kg/m]
35	12100	49500	3025000	0,400
52	17600	72000	4400000	0,600
70	24200	99000	6050000	0,800
105	37400	153000	9350000	1,200

EAGLE 14M XHPL

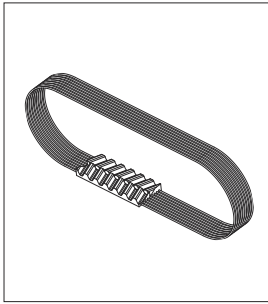


Belt width b [mm]	Allowable tensile load Type M F_{Tzul} [N]	Breaking load Type M F_{Br} [N]	Specific spring rate C_{spez} [N]	Weight [kg/m]
35	16000	56000	4000000	0,50
52,2	28000	98000	7000000	0,70

Other widths are available on request.

	Eagle 5M					Eagle 8M					Eagle 10M					Eagle 14M								
Number of teeth for timing pulley	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Min. pulley diameter for outer idler pulley [mm]		50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270

ELA-flex SD® 5M - 8M - 10M - 14M

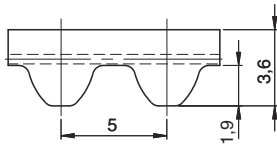


Belt characteristics

- 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 5 mm, 8 mm, 10 mm and 14 mm
- **Extremely reduced noise generation**
- The special profile allows most compact drive
- PAZ fabric as standard

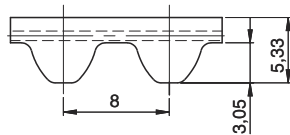
- Width tolerance: **E5** ±0,8 [mm] **E8** ±0,8 [mm] **E10** ±0,8 [mm] **E14** ±1,2 [mm]
- Thickness tolerance: **E5** ±0,2 [mm] **E8** ±0,3 [mm] **E10** ±0,3 [mm] **E14** ±0,4 [mm]

EAGLE 5M



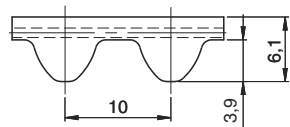
Belt width [mm]	12,5	25
Allowable tensile load [N]	1150	2530
Weight [kg/m]	0,06	0,12

EAGLE 8M



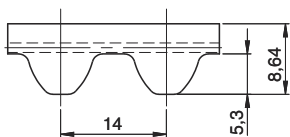
Belt width [mm]	16	25	32	50
Allowable tensile load [N]	2430	4040	5120	8090
Weight [kg/m]	0,085	0,145	0,180	0,300

EAGLE 10M



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

EAGLE 14M



Belt width [mm]	35	52,5	70	105
Allowable tensile load [N]	13090	18700	26180	39270
Weight [kg/m]	0,40	0,60	0,80	1,20

	Eagle 5M					Eagle 8M					Eagle 10M					Eagle 14M								
Number of teeth for timing pulley	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Min. pulley diameter for outer idler pulley [mm]	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	
	Eagle 5M					Eagle 8M					Eagle 10M					Eagle 14M								



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