

EAGLE

Polyurethane

BELTS

la
tech
Elatech

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 novel 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

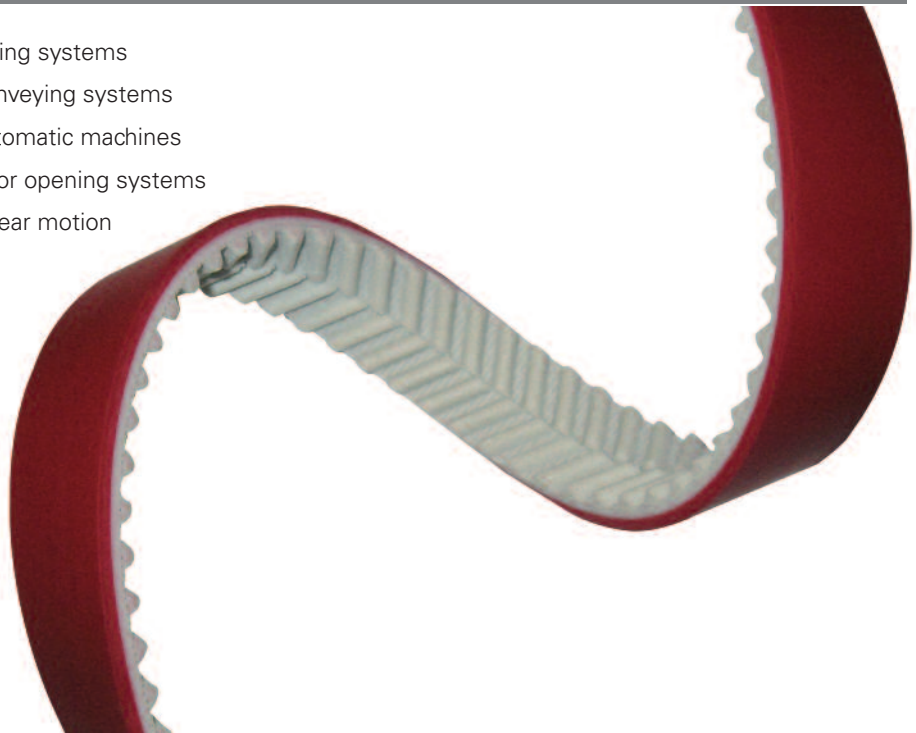
- **Reduces noise** up to 19 db compared to straight tooth timing belts
- **Lessen vibration** improving machine performance
- **Self tracking**
- **Eliminates flanges** on pulley reducing face width, weight and inertia
- NOVA™ tooth profile designed for minimal tooth interference ideal for applications requiring **precise movement**.
- **Bi-Directional** for reciprocating drives

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
- Savings are long-term, reducing operating expenses

Applications

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



Open end 5M - 8M - 10M

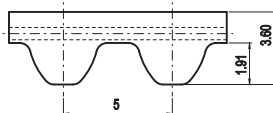


Belt characteristics

- 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

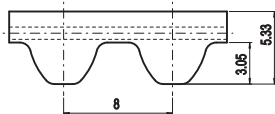
- Width tolerance: **E5** ±0,5 [mm] **E8** ±0,8 [mm] **E10** ±0,8 [mm]
- Length tolerance: **E5** ±0,5 [mm/m] **E8** ±0,8 [mm/m] **E10** ±0,8 [mm/m]
- Thickness tolerance: **E5** ±0,2 [mm] **E8** ±0,3 [mm] **E10** ±0,3 [mm]

EAGLE 5M



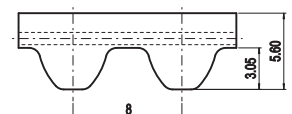
Belt width b [mm]	Allowable tensile load Type M F_{Tzul} [N]	Breaking load Type M F_{Br} [N]	Specific spring rate C_{spez} [N]	Weight [kg/m]
12,5	1150	4200	287500	0,06
25	2530	9240	632500	0,12

EAGLE 8M



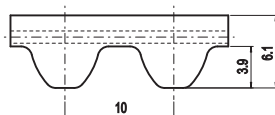
Belt width b [mm]	Allowable tensile load Type M F_{Tzul} [N]	Breaking load Type M F_{Br} [N]	Specific spring rate C_{spez} [N]	Weight [kg/m]
16	2450	9500	612500	0,085
25	4170	16150	1042500	0,145
32	5390	20900	1347500	0,180
50	8580	33250	2145000	0,300

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	21600	78750	5400000	0,54
100	29280	106750	7320000	0,74

Open end 14M

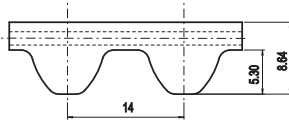


Belt characteristics

- 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

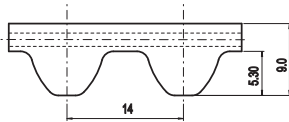
- Width tolerance: **E14 ±1,2 [mm]**
- Length tolerance: **E14 ±0,8 [mm/m]**
- Thickness tolerance: **E14 ±0,4 [mm]**

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	17000	64000	4250000	0,600
70	22950	86400	5737500	0,800
105	34850	131200	8712500	1,200

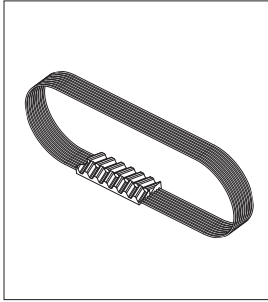
EAGLE 14M HP



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	13420	50600	3355000	0,450
52	19520	73600	4880000	0,650
70	26840	101200	6710000	0,880
105	41480	156400	10370000	1,350

	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	

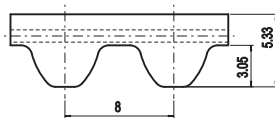
ELA-flex SD™ 8M - 10M - 14M



Belt characteristics

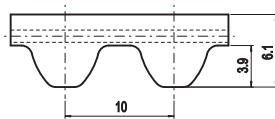
- Truly endless polyurethane timing belt with helical offset tooth, high tensile load steel cords and high torque capacity.
 - **Self tracking no need of pulley flanges**
 - Metric pitch 8 mm, 10 mm and 14 mm
 - **Extremely reduced noise generation**
 - The special profile allows most compact drive
 - PAZ fabric as standard
 - Available in any length tooth by tooth from 904 mm (8M), 1806 mm (14M) to 16800 mm
- Width tolerance: **E8** ±0,8 [mm] **E10** ±0,8 [mm] **E14** ±1,2 [mm]
 • Thickness tolerance: **E8** ±0,3 [mm] **E10** ±0,3 [mm] **E14** ±0,4 [mm]

EAGLE 8M



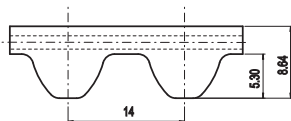
Belt width [mm]	16	25	32	50
Allowable tensile load [N]	2430	4040	5120	8090
Weight [kg/m]	0,085	0,145	0,180	0,300

EAGLE 10M



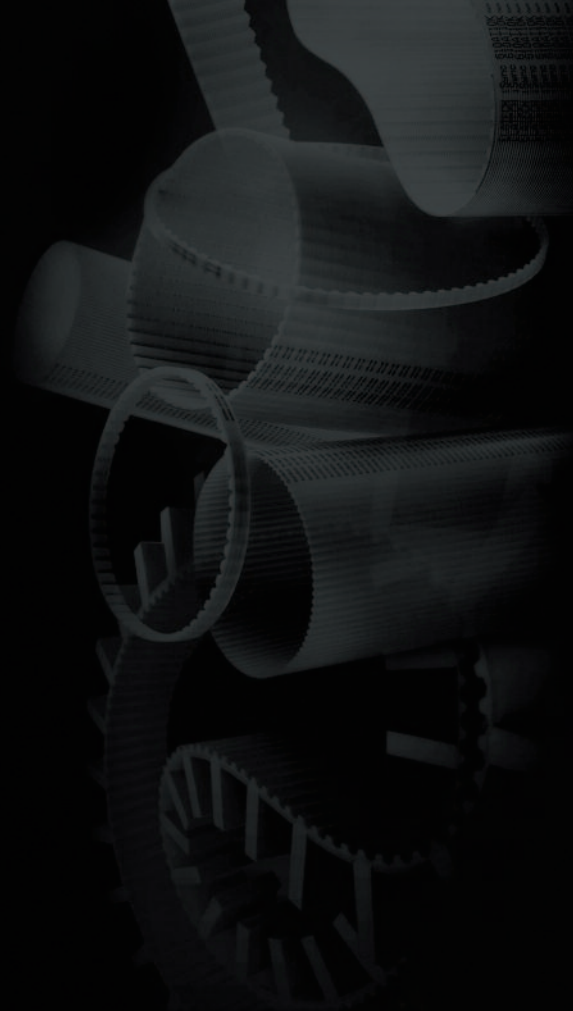
Belt width [mm]	25	32	50
Allowable tensile load [N]	5810	7920	12140
Weight [kg/m]	0,18	0,23	0,37

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 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



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