Polyurethane Belts

EAGLE

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 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

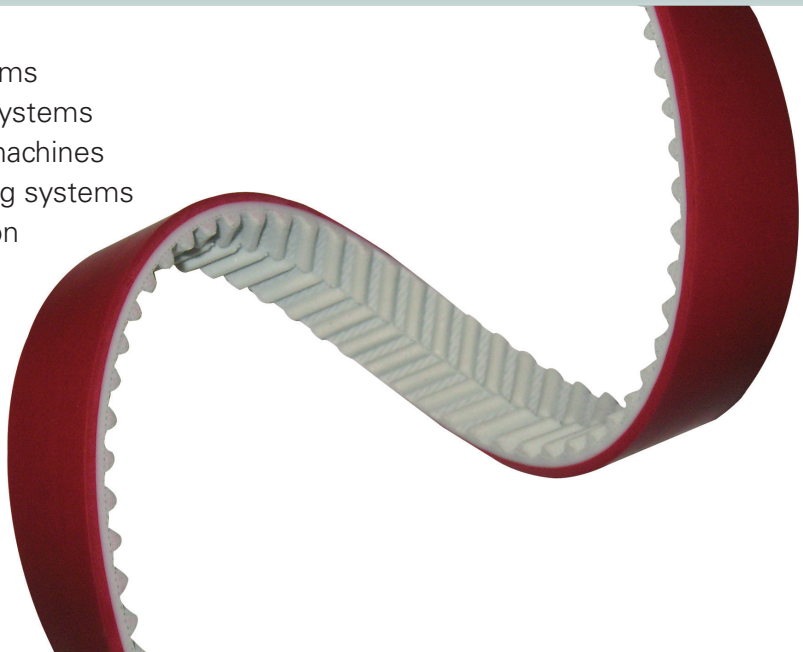
- **Reduces noise** up to 19 db compared to straight tooth timing belts
- **Less vibration** improving machine performance
- **Self tracking**
- **Eliminates flanges** on pulley reducing face width, weight and inertia
- Helical Offset Tooth profile (HOT) designed for minimal tooth interference, ideal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

Eagle polyurethane belts are energy efficient

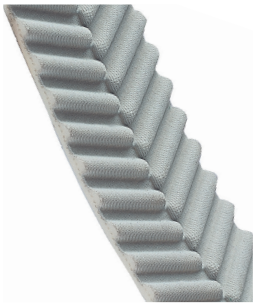
- Reducing energy losses and energy consumption
- Complementing the high efficiency ratings of today's motors
- Offsetting the escalating cost of energy
- Long term saving, reducing operating expenses

Applications

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



Open end EAGLE 5M - 8M - 10M

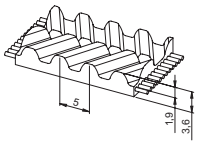


Belt characteristics

- 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

[*] Elatech® V Joined informations
Allowable tensile load of joined belts is 50% of M - Open End

EAGLE 5M

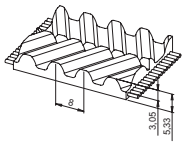


Belt width b [mm]		12,5	25
Allowable tensile load	F_{Tzul} [N]*	1150	2530
Breaking load	F_{Br} [N]	4200	9240
Specific spring rate	C_{spez} [N]	287500	632500
Weight	[kg/m]	0,06	0,12

Black color as standard

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

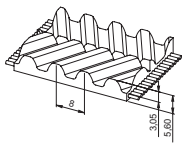
EAGLE 8M



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

- Width tolerance: ±0,8 [mm]
- Length tolerance: ±0,8 [mm/m]
- Thickness tolerance: ±0,3 [mm]

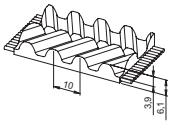
EAGLE 8M HPL



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

- Width tolerance: ±0,8 [mm]
- Length tolerance: ±0,8 [mm/m]
- Thickness tolerance: ±0,3 [mm]

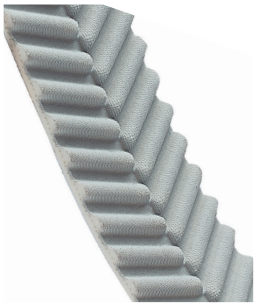
EAGLE 10M



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

- Width tolerance: ±0,8 [mm]
- Length tolerance: ±0,8 [mm/m]
- Thickness tolerance: ±0,3 [mm]

Open end EAGLE 14M

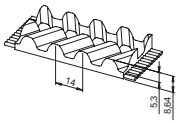


Belt characteristics

- 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

[*] Elatech® V Joined informations
Allowable tensile load of joined belts is 50% of M - Open End

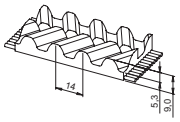
EAGLE 14M



Belt width b [mm]		35	52,5	70	105
Allowable tensile load	F_{Tzul} [N]*	11900	17000	23800	35700
Breaking load	F_{Br} [N]	44800	64000	89600	134400
Specific spring rate	C_{spez} [N]	2975000	4250000	5950000	8925000
Weight	[kg/m]	0,400	0,600	0,800	1,200

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

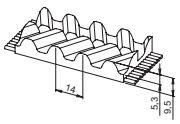
EAGLE 14M HPF



Belt width b [mm]		35	52,5	70	105
Allowable tensile load	F_{Tzul} [N]	14000	20000	28000	42000
Breaking load	F_{Br} [N]	56000	80000	112000	168000
Specific spring rate	C_{spez} [N]	3500000	5000000	7000000	10500000
Weight	[kg/m]	0,450	0,670	0,900	1,350

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

EAGLE 14M XHPL



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

- Width tolerance: ±1,2 [mm]
- Length tolerance: ±1,0 [mm/m]
- Thickness tolerance: ±0,5 [mm]

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

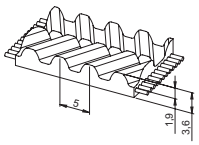
		Eagle 5M →				Eagle 8M →					Eagle 10M →							Eagle 14M →						
Number of teeth for timing pulley	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
Min. pulley diameter for outer idler pulley [mm]	-	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250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

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

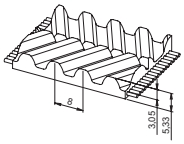
EAGLE 5M



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

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

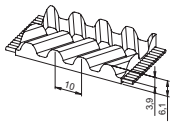
EAGLE 8M



Belt width [mm]	16	25	32	50
Allowable tensile load [N]	2695	4165	5390	8330
Weight [kg/m]	0,085	0,145	0,180	0,300

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

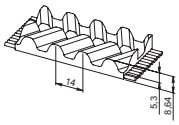
EAGLE 10M



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

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

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

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

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

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

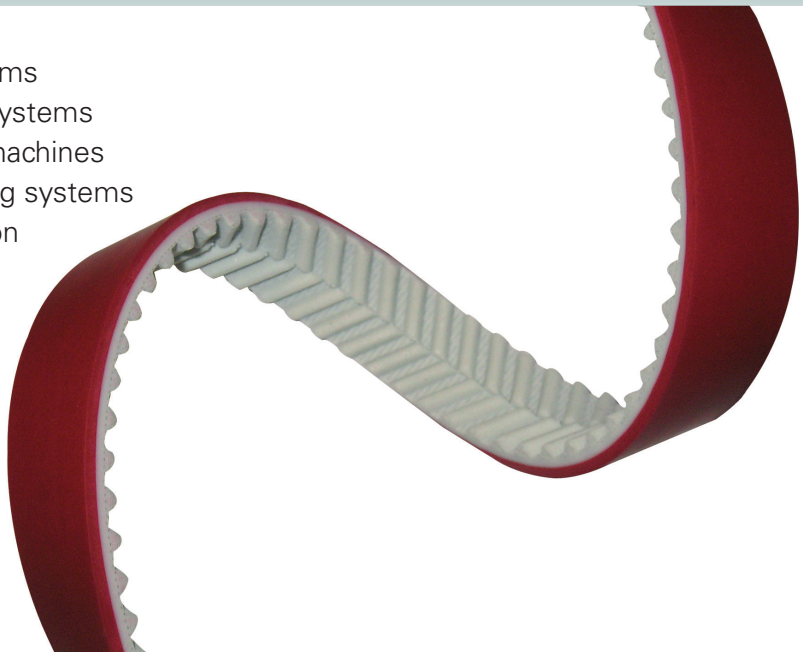
- **Reduces noise** up to 19 db compared to straight tooth timing belts
- **Less vibration** improving machine performance
- **Self tracking**
- **Eliminates flanges** on pulley reducing face width, weight and inertia
- Helical Offset Tooth profile (HOT) designed for minimal tooth interference, ideal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

Eagle polyurethane belts 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



elatech.com

IB901-02/3 - 03/23 (500 - 03/23)

Elatech S.r.l.
Via Fonte Solforosa, 1 24012 — Val Brembilla (BG) Italy
info@elatech.com +39 0345 33 03 11