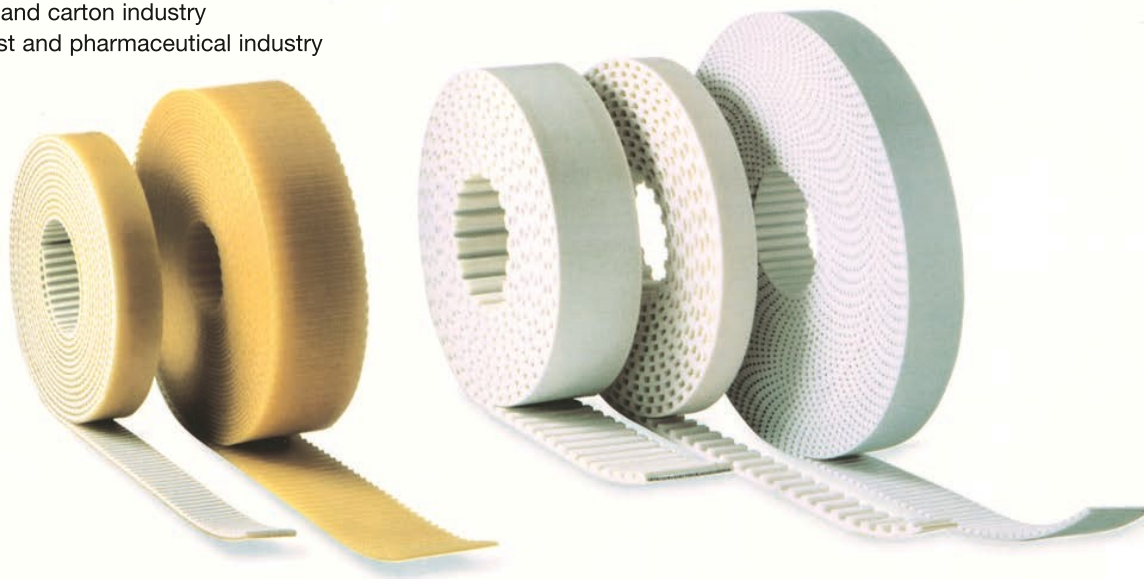
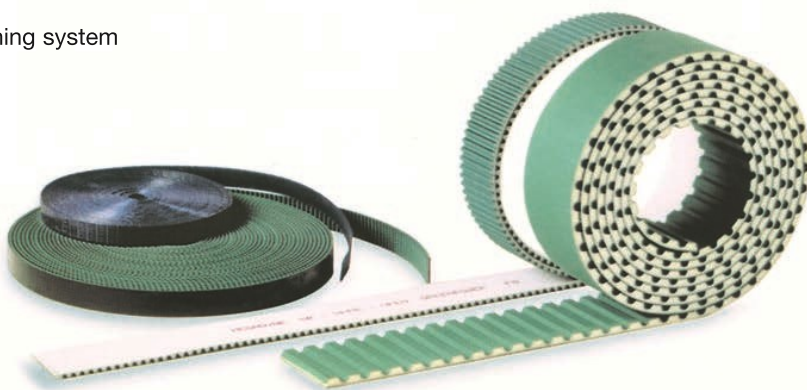


INTRODUCTION TO OPEN-END BELTS

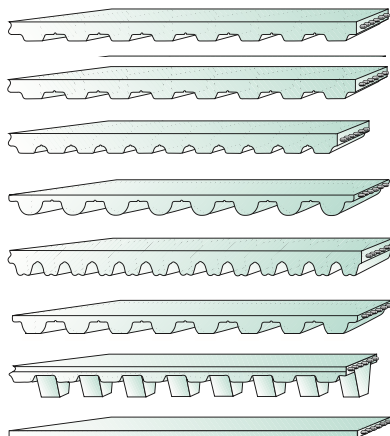
Thanks to their features, Megalinear belts can be successfully used in a wide range of application such as:

- conveyors
- automatic sliding doors and garage opening system
- elevators
- automated handling devices
- linear drivers
- positioning system
- wood industry
- textile machine
- serigraphic industry
- glass industry
- stone and marble industry
- packaging industry
- robot systems
- tobacco industry
- paper and carton industry
- chemist and pharmaceutical industry



Megadyne has developed a very wide range of solutions with numerous tooth designs, tensile members and compound, suitable for all applications.

STANDARD RANGE



MXL • XL • L • H • XH

T2,5 • T5 • TT5 • T10 • T20

AT3 • AT5 • AT10 • AT20

MTD3 • MTD5 • MTD8 • MTD14

RPP5 • RPP8 • RPP14 • RPP14XP

STD5 • STD8

HG • TG5 • TG10_{K6} • TG10_{K13} • TG20 • ATG5 • ATG10 • ATG20

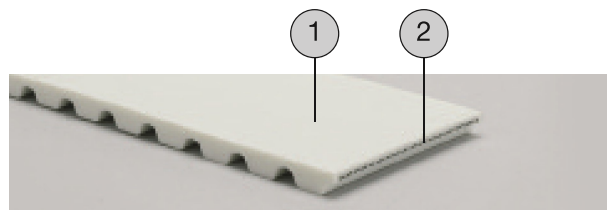
P1 • P2 • P4

CLASSIFICATIONS

CLASSIFICATIONS

Megalinear Timing Belts are manufactured in thermoplastic polyurethane, with single parallel steel cords. This type of belts, developed by our Research & Development, offers good running characteristics and high traction loads. They are especially suited for power transmission and conveying with high loads and speeds. The addition of a nylon coating on the teeth during production enhances the running properties for specific applications and reduces the noise due to a lower frictional coefficient. An extra thickness of special coating is also possible on the back of the belt offering extra protection against aggressive or heavy products.

- 1) The body of the belts is white thermoplastic polyurethane 92 ShA, characterized by high levels of wear resistance even in the presence of shock and surge loading.
- 2) High strength S and Z parallel zinked steel tension members allow high breaking load and extremely low elongation. The combination of these high grade materials improves belt performances which can be summarised as follows:
 - exceptional resistance to abrasion and tooth shear
 - low coefficient of friction
 - high flexibility
 - ozone and temperature resistance (-25 °C / +80 °C)
 - oil, grease and gasoline resistance



MECHANICAL AND CHEMICAL CHARACTERISTICS

- Constant dimensions
- Noiseless
- Free maintenance
- High flexibility
- High resistance steel traction cords, with little stretching and top flexibility
- Linear speeds up to 70 m/s
- Low pretension
- Constant length
- High abrasion resistance
- Ageing, Hydrolysis, Ozone resistant
- Working temperature -25 °C / +80 °C
- High resistance to Oils, Greases and Gasoline
- Fairly Acid-proof and Alkali-proof

BODY

Megalinear belts are manufactured with white thermoplastic Polyurethane 92 ShA as standard.

Special compounds (different hardnesses, special properties) are available on request. Special compound and cords have to be tested and homologated on the application. Megadyne is not responsible for wrong functioning of special products. Here under some PU characteristics:

| | |
|-----------------|--|
| Water | No problem in normal or sea clean water, at room temperature. Over 60 °C there is a fast decrement of breaking strength. |
| Acids | In acid diluted proportions, at room temperature, this PU is moderately attacked. In high concentration acid solutions, this PU has a very short lifespan. Over 50 °C, acids are always dangerous for Thermoplastic PU. |
| Alkalis | In alkalis diluted proportions, at room temperature, this PU is moderately attacked. In high concentration alkaline solutions, this PU has a very short lifespan. Over 50 °C, alkalis are always dangerous for Thermoplastic PU. |
| Solvents | Thermoplastic PU is insoluble in the greater part of solvents. Only the very polar solvents (same as tetrahydrofuran, dimethylformamide, n-methylpyrrolidone) can dissolve or tight damage PU. The Esters or the Ketons (same as ethyl acetate or methylethylketene) can usually produce a bulge, decreasing mechanical characteristics. The Hydrocarbons aromatic and the Hydrocarbons aliphatic produce very high bulge. All the effects increase by increasing temperature. |
| Oils | PU has a high resistance to mineral pure oils (lubrificants, engine oils, combustible oils). Usually, high performance syntetic oils, due to special additives contained, can be incompatible with Thermoplastic PU, especially at high temperature. |

| | |
|-----------------------|--|
| Greases | PU has a high resistance to mineral pure greases (lubricants greases). Usually, high performance syntetic greases, due to special additives contained, can be incompatible with Thermoplastic PU, especially at high temperature. |
| Fuels | Good resistance to petrols without Alcohols. In presence of Alcohols, Thermoplastic PU can suffer deterioration. Fuels including Aromatiche stuffs can produce reversible bulges. |
| Microorganisms | In presence of grime, containing humidity, Microorganisms can develop. In case that Microbic attack can produce danger, you have to use a special kind of PU. |
| Weather agents | Good resistance to atmospheric agents. White colour can change to light yellow under long UV exposure. In any case this hasn't influence on mechanical resistance. |

CORDS

| | |
|------------------------|---|
| Standard cord | Megalinear is manufactured with S and Z parallel zinked steel cords as standard. |
| Kevlar | Kevlar tension cords are suggested for: <ul style="list-style-type: none"> • Non magnetic, for use in drives with metal detectors • Widely used in the food industry |
| HP | High Performance cords have 25% more strength capacity than standard cords. They are recommended for high repeatability applications. |
| HF | High Flexibility cords can accept smaller pulley and idler diameters than standard cords. They are suitable for multi-shaft drives with severe reverse bending. |
| HPF | High Performance and Flexibility cords have 25% more strength capacity like the HP cords, but they are more flexible than the HP cords. They are suggested for high performance and multi-shaft drives. |
| Stainless steel | Stainless steel cords have 25% less strength capacity than standard cords. They are recommended for water applications. |

COATING

Megalinear can be manufactured with special coating on the teeth or on the back. Please check on page 94 and 95.

IDENTIFICATION CODE

Using the information in the table below, it is possible to identify the correct belt for every application. The code is composed of letters and numbers as the following example:

| 1 | 2 | 3 | 4 | 5 | 6 | | | | | |
|---|---|----|---|----|---|----|---|-------|---|----------------------|
| J | + | 50 | + | AT | + | 10 | + | 10000 | + | SPECIAL MANUFACTURES |

- 1) **J** joined belt.
- 2) **ML** Megalinear belt open-end.
- 3) **50** this number indicates the width of requested belt. The value is in mm for a belt with a pitch in mm, and in inches for a belt with a pitch in inches.
- 4) **AT** this code composed by letters indicates the selection of profile.
- 5) **10** this number indicates the standard pitch of the belt. It is expressed in mm.
- 6) **10000** the last number indicates the length of the belt always in mm regardless of pitch.
- 6) **SPECIAL MANUFACTURES:**
 - special cords as Kevlar or HP or HF or HPF or stainless steel
 - special compound as different hardness 85 ShA or different colours (black - red - yellow - blue)
 - extra coating NFT or NFB or AVAFC or Tenax or Linatex or Honey comb or PU black cellulose or PU yellow or Neoprene rubber.