

ELATECH® polyurethane belts with profiles

It is possible to attach profiles on all ELATECH®, ELA-flex SD® and iSync® polyurethane belts for conveying, handling and positioning applications. The cleats are produced in the same material of the belts in order to guarantee the maximum strength. The belts with profiles allow a synchronised translation of the products at very high speeds and low noise. A very wide range of profiles is available. If the required profile is not shown in the following pages, please contact our technical office.

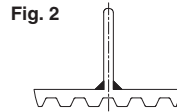
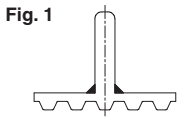


Pitch

It is recommended to choose the pitch of the profile corresponding to the belt profile or multiple. This allows to minimize the effects of the belt overall length tolerance on profile spacing.

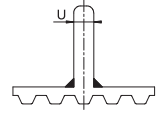
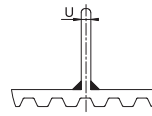
Position

Profile position may be over the tooth or not over the tooth. Belt Flexibility is maximized when the profiles are applied over the tooth.



Arc of contact

It is to be noted that the belt's arc of contact may be restricted by the jointed profile. It is therefore recommended to select profiles with the minimum allowable thickness "U".



Tolerances

The tolerance of position of the profiles is +/- 0,5 mm. If required it is possible to reduce the tolerance down to +/- 0,2 mm with an extra machining. During the welding process a bead of polyurethane of about 0,5-1 mm develops at the meeting point between the profile and the belt. Should it be necessary for the application, it is possible to remove the bead with mechanical machining.

| Belt type | Profile thickness "U" [mm] | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------------|----|----|----|----|----|----|----|----|----|----|-----|----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| | 2 | 3 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 25 | 30 | 2 | 3 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 25 | 30 | |
| Recommended minimum pulley number of teeth z | | | | | | | | | | | | | | | | | | | | | | | | | |
| T5 | 14 | 20 | 14 | 30 | 20 | 45 | 25 | 50 | 40 | 60 | 60 | 100 | 80 | - | 100 | - | - | - | - | - | - | - | - | - | - |
| T10 | 16 | 20 | 16 | 20 | 16 | 30 | 16 | 40 | 20 | 50 | 25 | 50 | 35 | 60 | 50 | 70 | 80 | 80 | 100 | 100 | 120 | 120 | - | - | - |
| T20 | 20 | 20 | 18 | 20 | 18 | 25 | 18 | 40 | 18 | 50 | 20 | 50 | 25 | 50 | 30 | 60 | 40 | 60 | 50 | 60 | 70 | 80 | - | - | - |
| AT5 | 12 | 20 | 12 | 30 | 20 | 45 | 25 | 50 | 40 | 60 | 60 | 100 | - | - | 100 | - | - | - | - | - | - | - | - | - | - |
| AT10 | 18 | 20 | 18 | 20 | 18 | 30 | 18 | 40 | 20 | 50 | 25 | 50 | 35 | 60 | 50 | 70 | 80 | 80 | 100 | 100 | 120 | 120 | - | - | - |
| AT20 | 20 | 20 | 20 | 20 | 20 | 25 | 20 | 40 | 20 | 50 | 20 | 50 | 25 | 50 | 40 | 40 | 50 | 50 | 50 | 60 | 70 | 80 | 100 | 100 | - |
| XL | 10 | 20 | 10 | 30 | 20 | 45 | 25 | 50 | 40 | 60 | 50 | 100 | 60 | 100 | - | - | - | - | - | - | - | - | - | - | - |
| L | 12 | 16 | 12 | 20 | 12 | 40 | 20 | 50 | 30 | 60 | 40 | 60 | 50 | 70 | 60 | 80 | 100 | 100 | - | - | - | - | - | - | - |
| H | 14 | 16 | 14 | 16 | 14 | 25 | 14 | 30 | 20 | 50 | 25 | 50 | 40 | 60 | 50 | 70 | 80 | 80 | 100 | 100 | 120 | 120 | - | - | - |
| XH | 18 | 18 | 18 | 20 | 18 | 20 | 18 | 30 | 18 | 40 | 20 | 50 | 20 | 50 | 25 | 55 | 35 | 60 | 50 | 60 | 70 | 80 | - | - | - |
| HTD5M | 12 | 20 | 12 | 30 | 20 | 45 | 25 | 50 | 40 | 60 | 60 | 100 | 80 | - | 100 | - | - | - | - | - | - | - | - | - | - |
| HTD8M | 18 | 18 | 18 | 18 | 18 | 24 | 18 | 32 | 18 | 40 | 20 | 40 | 28 | 48 | 40 | 56 | 64 | 64 | 80 | 80 | 100 | 100 | - | - | - |
| HTD14M | 28 | 28 | 28 | 28 | 28 | 28 | 28 | 40 | 28 | 50 | 28 | 50 | 28 | 50 | 30 | 60 | 40 | 50 | 50 | 60 | 100 | 100 | 110 | 110 | - |
| STD5M | 12 | 20 | 12 | 30 | 20 | 45 | 25 | 50 | 40 | 60 | 60 | 100 | 80 | - | 100 | - | - | - | - | - | - | - | - | - | - |
| STD8M | 18 | 18 | 18 | 18 | 18 | 24 | 18 | 32 | 18 | 40 | 20 | 40 | 28 | 48 | 40 | 56 | 64 | 64 | 80 | 80 | 100 | 100 | - | - | - |

Minimum number of teeth when the profile is welded on tooth gap (fig. 2)
 Minimum number of teeth when the profile is welded on tooth (fig. 1)

Ordering

When ordering it is necessary to indicate: type of belt (width, profile, pitch, length), the belt length in number of teeth, the belt and profile drawing with the number and the pitch of the requested profiles

ElaCleats

download in CAD or PDF format the most suitable cleat

ELATECH® offers a wide variety of custom-made and standard cleats specially designed for different applications in many industries. ElaCleats is a web-based tool for quickly selecting among ELATECH® standard cleats by shape, size and features. 2D and 3D drawings can be easily downloaded for the selected cleats.

Elatech online cleat selection support at:
www.elatech.com



ELA Cleats

Always up to date
 ElaCleats online version is always up to date with new types and sizes.

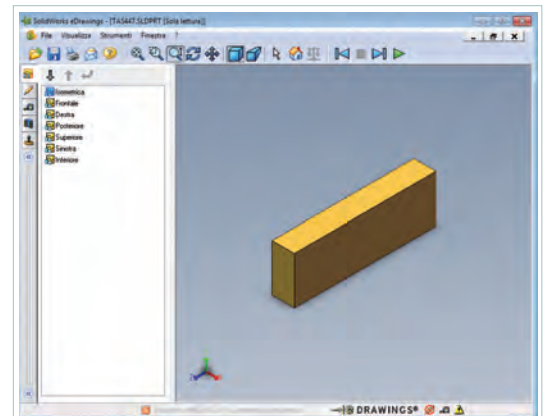
RELIABLE SOLUTIONS!

Fast and easy
 ElaCleats offers an intelligent search for a quick selection of most suitable cleat with an easy to follow menu for fastest navigation.

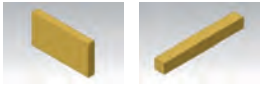
SAVE YOUR TIME!

Comprehensive range
 ElaCleats offers widest range of cleats to optimize your conveying application.

IMPROVE EFFICIENCY!



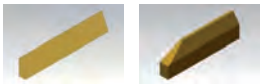
Hundreds of cleats available for all applications!



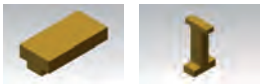
ST = Square Top: flat faces at right angles to each other



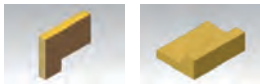
RT = Round Top: the upper part of the cleat has a rounded shape



TR = Triangular or Trapezoidal: flat faces, some of which are not at right angles to other faces; cross-sections can be triangular, trapezoidal, pentagonal, etc.



TT = "T" Shaped: a portion of the cleat (usually the upper one) is wider than the rest, so that a cross-section resembles the shape of a capital "T"



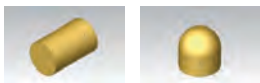
AN = Angular Shape: two portions of the cleat are set at an angle to each other



GB = Gusset Back: having a fin on one side that is not attached to the belt but rests on it and increases rigidity when the cleat is pushed in one direction



CR = Cradle Shape: "U" or "V" shaped so that an object can rest in the seat created by the sides of the cleat



CY = Cylindrical Shape: a cylinder with vertical or horizontal axis



SP = Special Shape: any other shape, usually a structure especially designed for a specific use