

CAPSTAN ROPE AND YARN GRIPS

1 kN, 5 kN and 20 kN

TH76 capstan rope grips are applicable for filaments, cords, yarn, fine wires, narrow ribbons and ropes, etc.

Depending on the coefficient of friction, specimen will be twisted one or more times around the capstan, before being fixed with clamping jaws.

The capstan rollers generate a slow notch free stress relief to prevent the breakage of the specimen in the clamping area.

Also as pneumatic version available.

Standard couplings: Af159 or Af20.
Further coupling sizes on request.



| | TH76-1 and TH76-1+BD | TH76-5 and TH76-5+BD | TH76-20 |
|-----------------------|--|---|---|
| Applicable for: | Yarn, filament, narrow ribbons, etc. | Cord, fine wires, narrow ribbons, etc. | Ropes, fine wires, narrow ribbons, etc. |
| Tensile force: | 1 kN | 5 kN | 20 kN |
| Max. sample Ø: | 2 mm Ø | 5 mm Ø | 9 mm Ø |
| Min. sample length: | 240 mm | 400 mm | 800 mm |
| Jaw surfaces: | Rubber-faced jaws Diamond jaws (BD) Other surfaces on request | Pyramid jaws (1x45°), 58HRC Diamond jaws (BD) Other surfaces on request | Pyramid jaws (1x45°), 58 HRC Other surfaces on request |
| Clamping surface HxW: | 20x10 mm | 30x12 mm | 30x15 mm |
| Capstan Ø: | 20 mm Ø | 40 mm Ø | 94 mm Ø |
| Body: | Aluminum, anodized | Aluminum, anodized | Steel, nickel-plated |
| Temperature range:* | 0 ... +70°C* | 0 ... +180°C* | 0 ... +180°C* |
| Weight: | 0.28 kg each grip | 0.82 kg each grip | 2.73 kg each grip |
| Ordering information: | Item no.TH76-1: 1 pair incl. rubber jaws Item no.TH76-1+BD: 1 pair inclusive diamond jaws | Item no.TH76-5: 1 pair incl. pyramid jaws Item no.TH76-5+BD: 1 pair inclusive diamond jaws | Item no. TH76-20: 1 pair incl. pyramid jaws |

Pneumatic versions of TH76

| | TH76-1+Ko and TH76-1+Ko+BD | TH76-5+Ko and TH76-5+Ko+BD | TH76-20+Ko |
|-----------------------|--|--|---|
| Tensile force: | 1 kN | 5 kN | 20 kN |
| Max. sample Ø: | 2 mm Ø | 5 mm Ø | 9 mm Ø |
| Min. sample length: | 240 mm | 400 mm | 800 mm |
| Jaw surfaces: | Rubber-faced jaws Diamond jaws Other surfaces on request | Pyramid jaws (1x45°), 58 HRC Diamond jaws Other surfaces on request | Pyramid jaws (1x45°), 58 HRC Other surfaces on request |
| Clamping surface HxW: | 20x10 mm | 30x12 mm | 30x15 mm |
| Capstan Ø: | 20 mm Ø | 40 mm Ø | 94 mm Ø |
| Pneumatic connection: | Internal thread M5 | Internal thread M5 | Internal thread M5 |
| Body: | Aluminum, anodized | Aluminum, anodized | Steel, nickel-plated |
| Temperature range:* | 0 ... +70°C* | 0 ... +180°C* | 0 ... +180°C* |
| Weight: | 0.7 kg each (grip with counter weight) | 1.34 kg each grip | 3.06 kg each grip |
| Ordering information: | Item no.TH76-1+Ko: 1 pair incl. rubber jaws Item no.TH76-1+Ko+BD: 1 pair incl. diamond jaws The grips are supplied as a pair incl. 1 grip without and 1 grip with counter weight (upper grip) | Item no.TH76-5+Ko 1 pair incl. pyramid jaws Item no.TH76-5+Ko+BD: 1 pair incl. diamond jaws | Item no.TH76-20+Ko 1 pair incl. pyramid jaws |

*Other temperature ranges on request



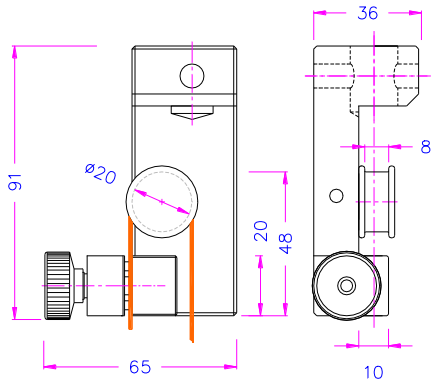
TH76-1+Ko



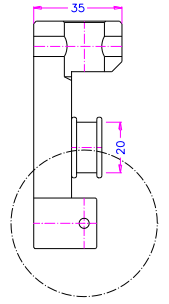
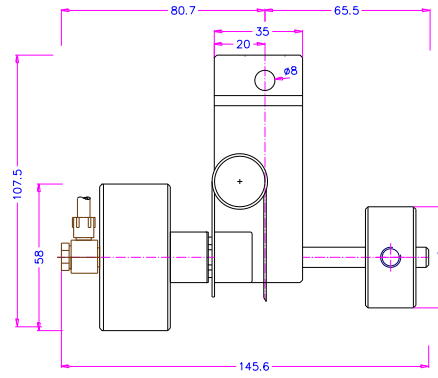
TH76-5+Ko



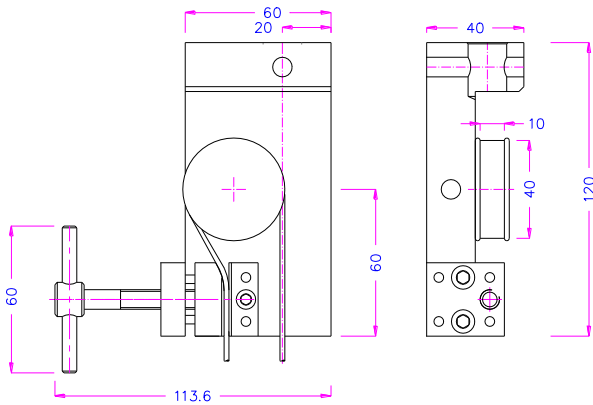
TH76-20+Ko



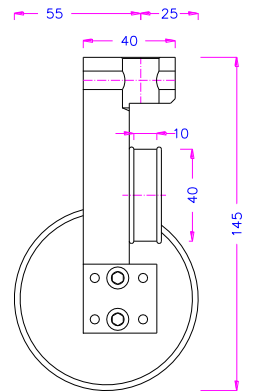
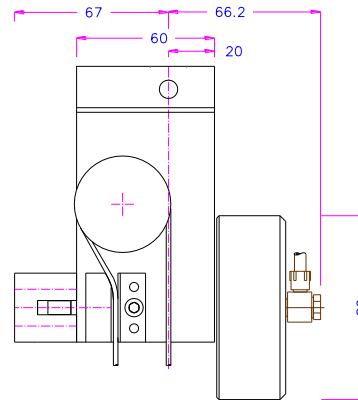
TH76-1



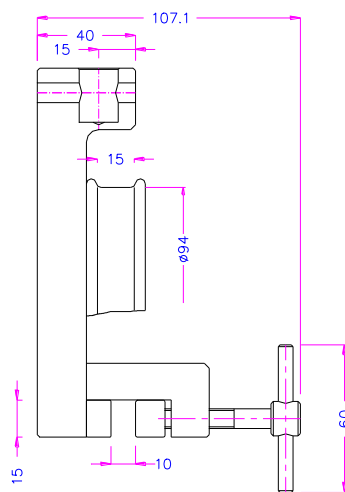
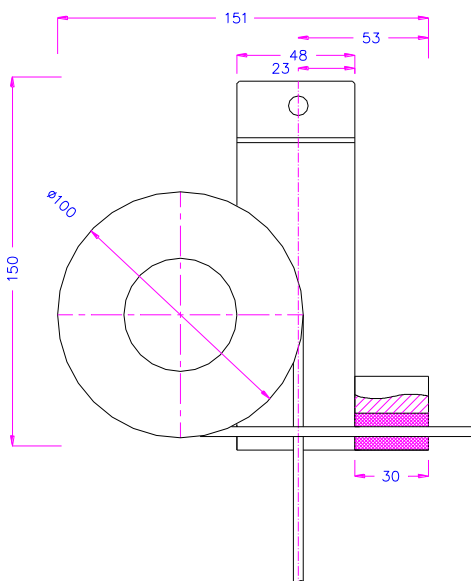
TH76-1+Ko



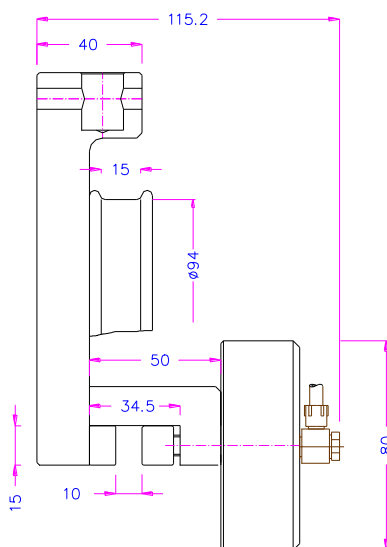
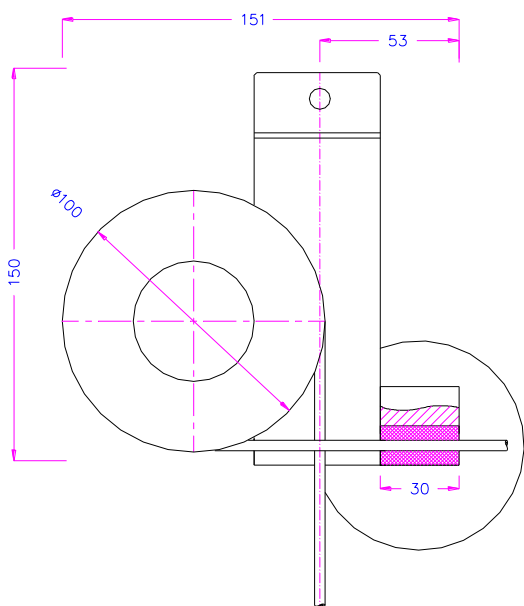
TH76-5



TH76-5+Ko



TH76-20



TH76-20+K_o

Examples for customized solutions:



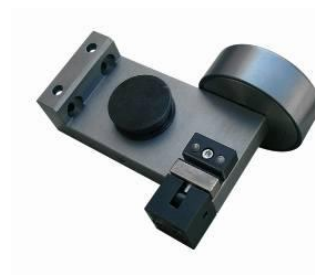
TH76-1-D100+K_o+TH205-4

Pneumatic version with 100 mm Ø capstan
With pneumatic micro hand switch TH205-4



TH76-1+150+BD

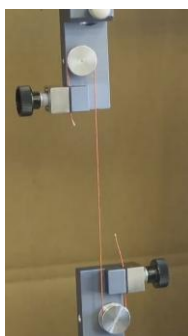
For thin hard fibers like glasfiber bollard 150 mm Ø
Diamond surface jaws (BD)



TH76-5+K_o-2A

TH76-5+K_o with 2 couplings
and rubber jaws (BG)

Test videos:



TH76-1

Testing 1 mm Ø cord

<http://youtu.be/EIU5k54q2o>



TH76-5

Glass fiber testing

<http://y2u.be/xUuzFEemRaw>



TH76-20

Rope testing

<https://youtu.be/YSKIb4mSa2M>

Similar grips see also www.grip.de/G11

Accessories for the pneumatic versions of TH76:



TH205-1 Foot pedals

None locking: The jaws of the grip open by pressing the foot pedal and close after removing the foot from the pedal.

Scope of delivery: 1 pair of foot switches including tubes and fittings



TH205-2 Foot pedals

With locking function: The jaws of the grip open by pressing the foot pedal and remain opened after removing the foot from the pedal. The jaws close by pressing the pedal one more time.

Scope of delivery: 1 pair of foot switches including tubes and fittings



TH205-PR10bar Pressure regulator

Optional for TH205-1 or TH205-2

To adjust air pressure: 1-10 bar

TH205-PR16bar Pressure regulator

Optional for TH205-1 or TH205-2

To adjust air pressure: 1-16 bar



TH205-3 Hand switches

With locking function: The jaws of the grip close by pulling the handle and remain closed. The jaws open by pushing the handle back.

Scope of delivery: 1 unit of hand switches including tubes and fittings



TH205-4-M5 Hand switches

Pneumatic micro – hand switches, tubes and fittings, M5 connection

With locking function: The hand switches are directly installed at the grips, 3/2 directional valve. Only for single action rods with spring inside.

Scope of supply: 2 hand switches including tubes and fittings



TH216 Silent compressor for laboratories, oil-lubricated, with pressure reducer

Max pressure 16 bar; 230 V/50 HZ; noise level: 38 dB(A)

Motor: 0.13 kW; displacement: 17 l/min; tank size 3.5 l

Dimensions: 340x290x340 mm (L x W x H); weight 18 kg