

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.



Manual versions:

Item no.:	TH76-1	TH76-5	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
Specimen Ø:	0-2 mm Ø	0-5 mm Ø	0-9 mm Ø
Min. sample length:	240 mm	400 mm	800 mm
Capstan (bollard) Ø:	20 mm Ø	40 mm Ø	93 mm Ø
Body:	Aluminum, anodized	Aluminum, anodized	Steel, nickel-plated
Temperature range:*	0 ... +70°C*	0 ... +180°C*	0 ... +180°C*
Weight:	0.22 kg each grip without jaws	0.76 kg each grip without jaws	2.72 kg each grip without jaws
Scope of supply:	1 pair without jaws	1 pair without jaws	1 pair without jaws

Item no.:	TH76-1-D100
Applicable for:	Yarn, filament, narrow ribbons, etc.
Tensile force:	1 kN
Specimen Ø:	0-2.5 mm Ø
Min. sample length:	1700 mm
Capstan (bollard) Ø:	100 mm Ø
Body:	Steel, nickel-plated
Temperature range:*	0 ... +70°C*
Weight:	0.68 kg each grip without jaws
Scope of supply:	1 pair without jaws



Pneumatic versions:

Item no.:	TH76-1+Ko	TH76-5+Ko	TH76-20+Ko
Tensile force:	1 kN	5 kN	20 kN
Specimen Ø:	0-2 mm Ø	0-5 mm Ø	0-9 mm Ø
Min. sample length:	240 mm	400 mm	800 mm
Capstan Ø:	20 mm Ø	40 mm Ø	93 mm Ø
Pneumatic connection:	Internal thread M5	Internal thread 1/8"	Internal thread 1/8"
Body:	Aluminum, anodized	Aluminum, anodized	Steel, nickel-plated
Temperature range:*	0 ... +70°C*	0 ... +180°C*	0 ... +180°C*
Weight:	0.63 kg (grip + counter weight without jaws); 0.43 kg (grip without counter weight without jaws)	1.24 kg each grip without jaws	3.04 kg each grip without jaws
Scope of supply:	1 pair without jaws. The grips are supplied as a pair incl. 1 grip without and 1 grip with counter weight (upper grip)	1 pair without jaws	1 pair without jaws

*Other temperature ranges on request

Jaws for TH76

Scope of supply:

TH76-1 and TH76-1-Ko: 1 set = 2 jaws

TH76-5, TH76-20 and TH76-5-Ko, TH76-20-Ko: 1 set = 4 jaws

Item no.	Surface	Clamping surface H x W	Weight 1 pair
Manual versions:			
TH76-1-B	Blank jaws	20 x 10 mm	96 g
TH76-1-BP	Pyramid (serrated) jaws	20 x 10 mm	96 g
TH76-1-BG	Rubber-coated jaws	20 x 10 mm	98 g
TH76-1-BD	Diamond-coated jaws	20 x 10 mm	98 g
TH76-5-B	Blank jaws	30 x 12 mm	70 g
TH76-5-BP	Pyramid (serrated) jaws	30 x 12 mm	70 g
TH76-5-BG	Rubber-coated jaws	30 x 12 mm	74 g
TH76-5-BD	Diamond-coated jaws	30 x 12 mm	71 g
TH76-20-B	Blank jaws	30 x 15 mm	65 g
TH76-20-BP	Pyramid (serrated) jaws	30 x 15 mm	63 g
TH76-20-BG	Rubber-coated jaws	30 x 15 mm	67 g
TH76-20-BD	Diamond-coated jaws	30 x 15 mm	67 g
Pneumatic versions:			
TH76-1-Ko-B	Blank jaws	20 x 10 mm	48 g
TH76-1-Ko-BP	Pyramid (serrated) jaws	20 x 10 mm	52 g
TH76-1-Ko-BG	Rubber-coated jaws	20 x 10 mm	56 g
TH76-1-Ko-BD	Diamond-coated jaws	20 x 10 mm	52 g
TH76-5-Ko-B	Blank jaws	30 x 12 mm	71 g
TH76-5-Ko-BP	Pyramid (serrated) jaws	30 x 12 mm	71 g
TH76-5-Ko-BG	Rubber-coated jaws	30 x 12 mm	75 g
TH76-5-Ko-BD	Diamond-coated jaws	30 x 12 mm	73 g
TH76-20-Ko-B	Blank jaws	30 x 15 mm	65 g
TH76-20-Ko-BP	Pyramid (serrated) jaws	30 x 15 mm	63 g
TH76-20-Ko-BG	Rubber-coated jaws	30 x 15 mm	67 g
TH76-20-Ko-BD	Diamond-coated jaws	30 x 15 mm	67 g

Jaw coatings:



Blank jaws



Pyramids 1x45°



Rubber jaws



Diamond jaws

*Further jaw sizes and coatings on request



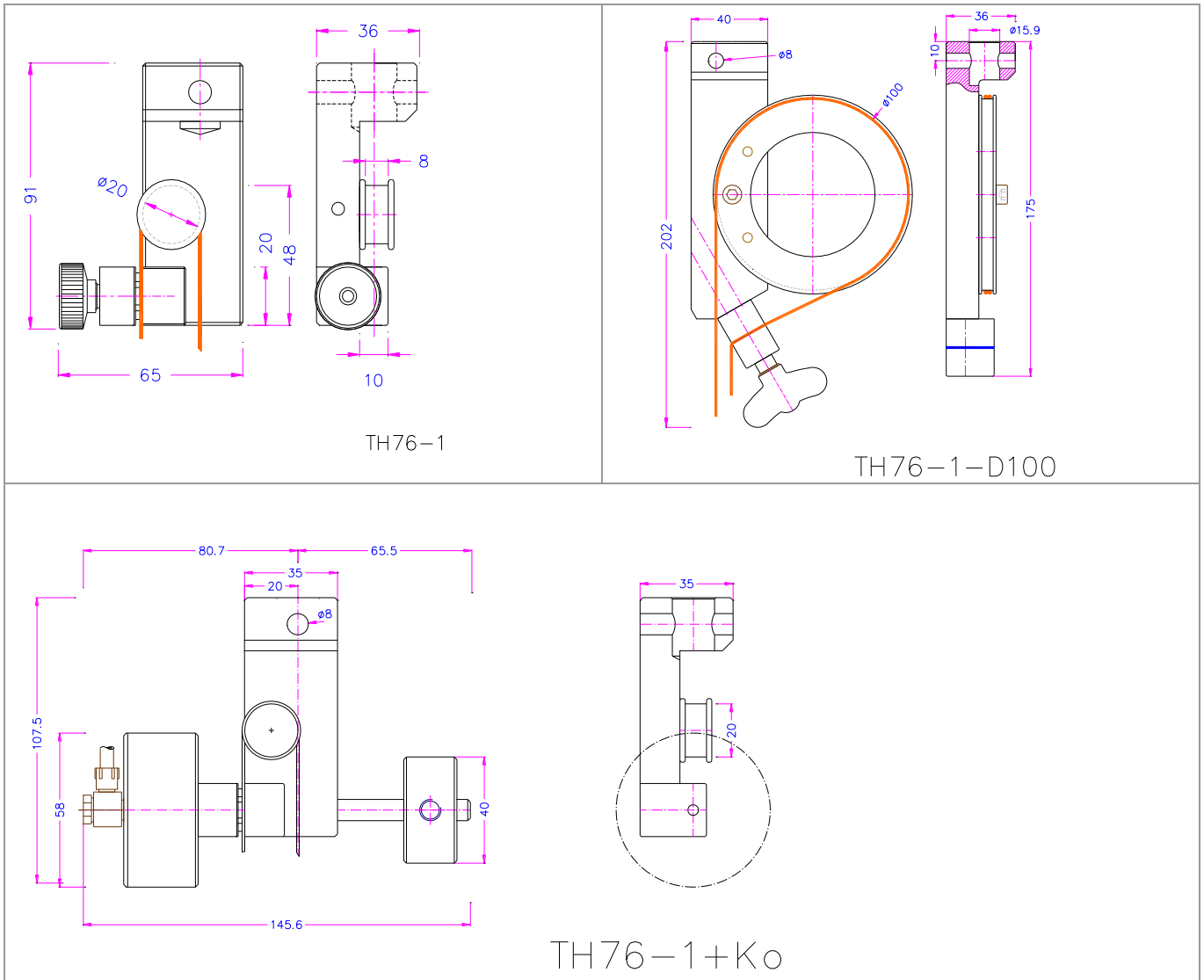
TH76-1+Ko

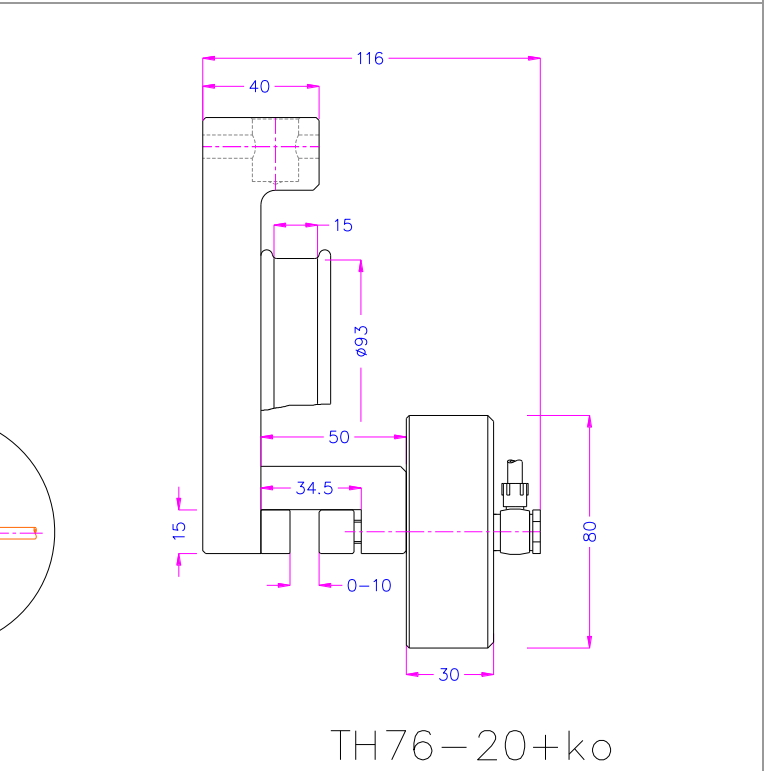
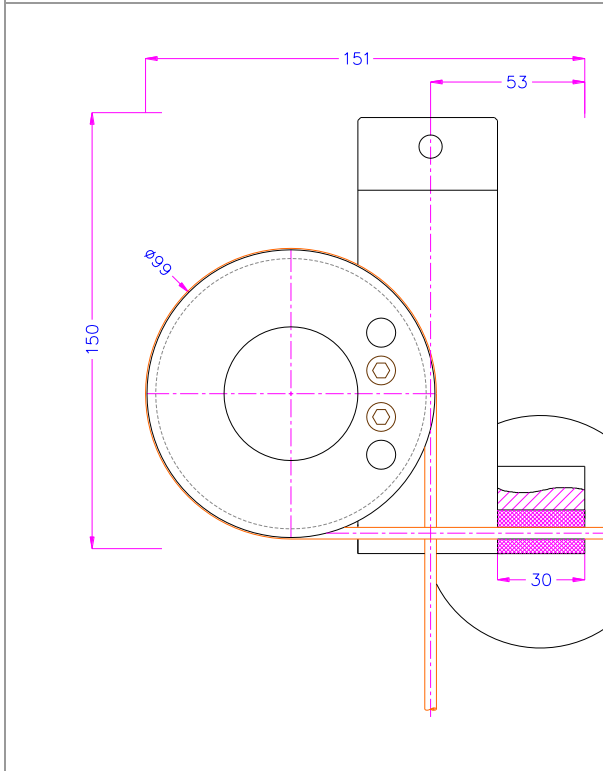
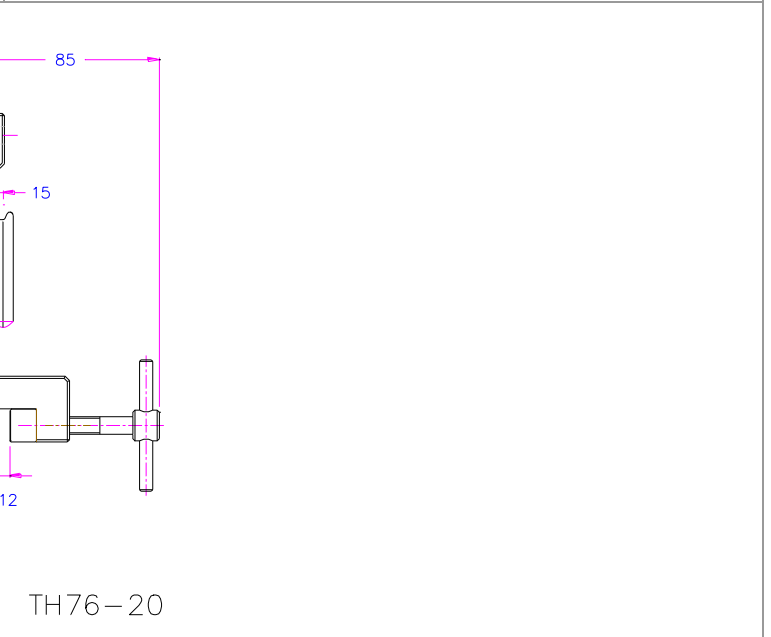
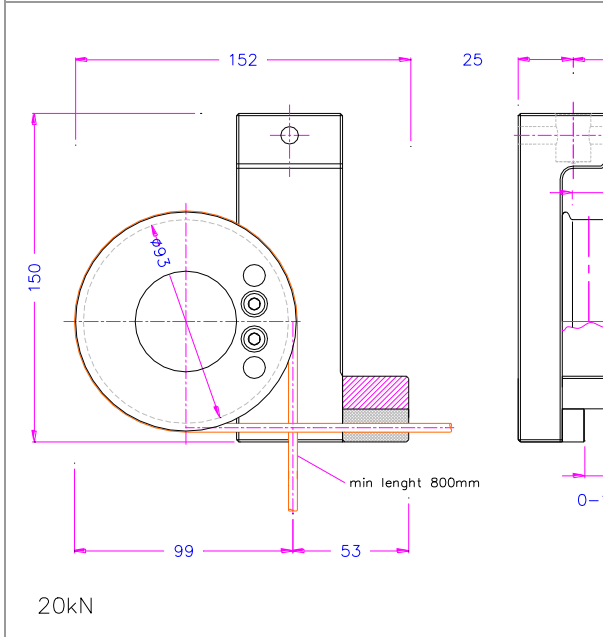
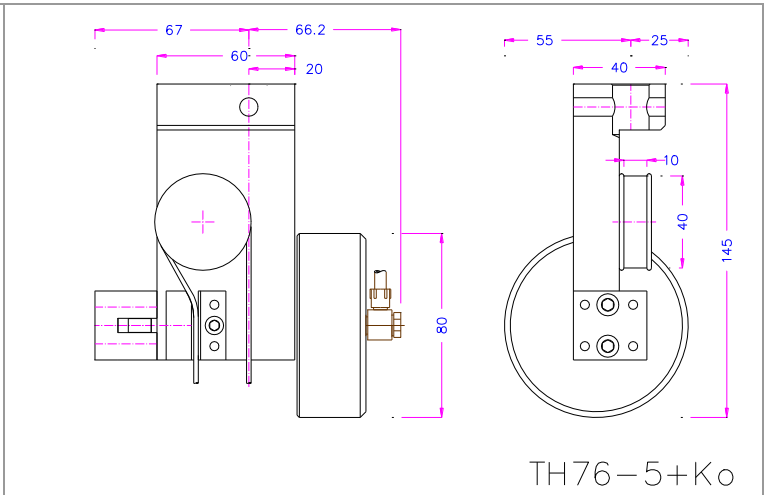
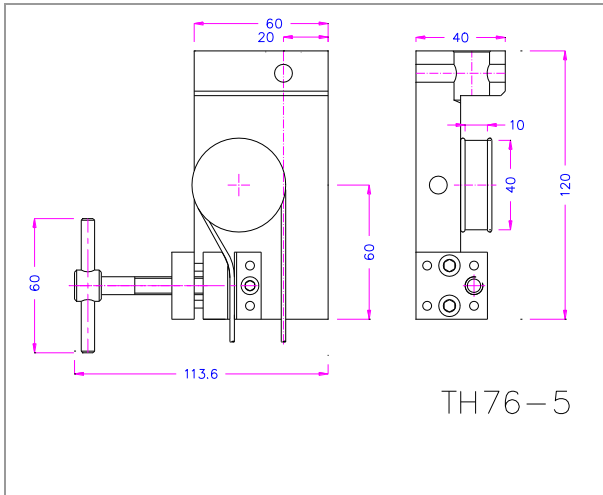


TH76-5+Ko



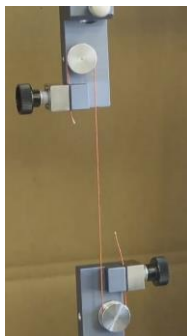
TH76-20+Ko





Examples for customized solutions:

		
<p>TH76-1-D100+Ko+TH205-4 Pneumatic version with 100 mm Ø capstan. With pneumatic micro hand switch TH205-4</p>	<p>TH76-1+150+BD For thin hard fibers like glass fiber, Bollard 150 mm Ø. Diamond-coated jaws (BD)</p>	<p>TH76-5+Ko-2A TH76-5+Ko with 2 couplings and rubber jaws (BG)</p>
		
<p>TH76-5-V1+BD+D40 Jaw angle and distance from bollard to centerline adjustable</p>		<p>TH76-20+Gu+BG-Af20 Version with rubber-coated capstan and jaws for fiber glass testing</p>
		
<p>TH76-10-D50+D90+BP-Af20 Special rope test grip to determine breaking force and breaking elongation of textile glass yarns according to ISO3341 Incl. interchangeable bollards of 50 mm and 90 mm diameter Max. load 10 kN Steel, nickel coated Coupling Af20</p>		

Test videos:

TH76-1
Testing 1 mm Ø cord
<http://youtu.be/EIUSk54q2o>



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:

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-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

See also THS13 THS255 TH170-50 special THS95 THS887-50 THS463 THS689 THS1147 THS1161 THS1239