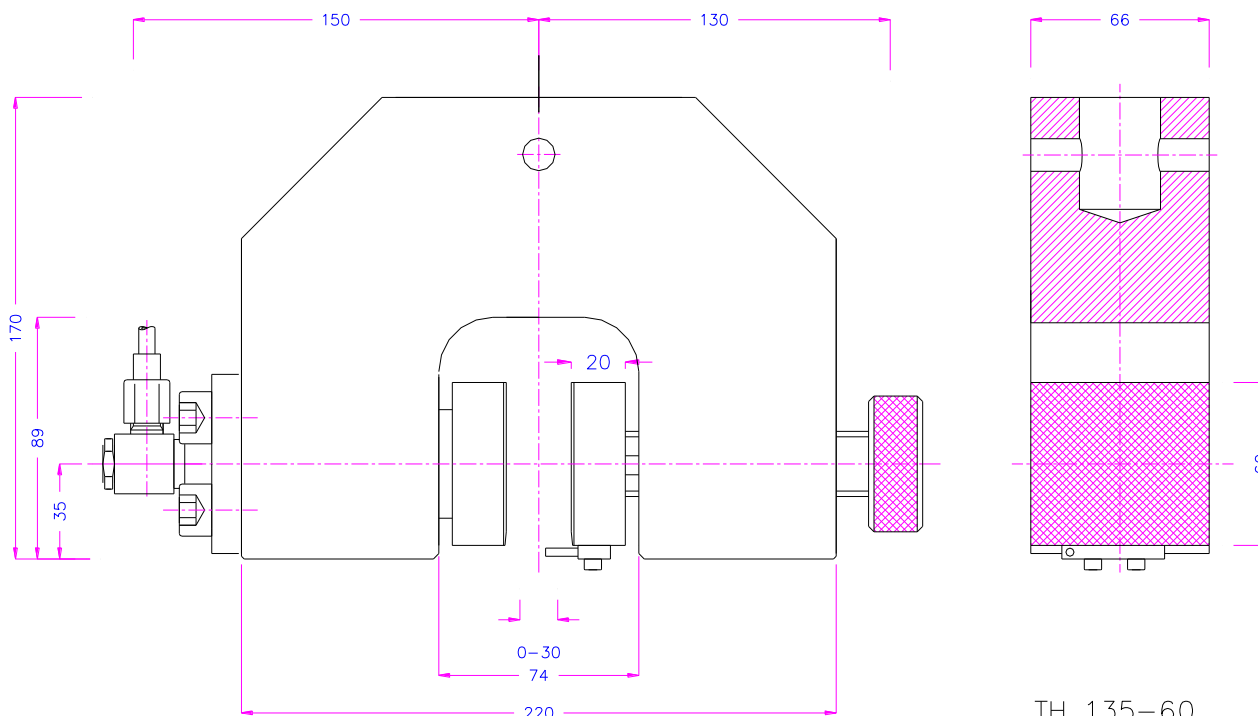


HYDRAULIC GRIP

Item no.:	TH135-60
Clamping force:	60 kN / 315 bar
Single acting cylinder:	50 mm Ø, with spring return Max. stroke 15 mm
Hydraulic connection:	1/4"
Body:	Steel, manganese phosphate coating or nickel-plated
Standard temperature range:	0 °C ... +70°C TH135-60-T100: -30° ... +100°C TH135-60-T200: -10°C ... +200°C
Weight:	Ca. 15 kg each (without jaws)
Scope of supply:	1 pair



TH 135-60

Jaw faces for TH135-60:

Scope of supply: 1 set = 4 jaw faces

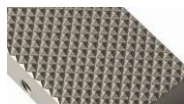
Item number	Clamping surface	Clamping surface H x W	Opening	Weight / 1 pair
TH135-60-B	Blank jaw faces	60 x 66 mm	0 – 30 mm	Ca. 1.2 kg
TH135-60-BP	Pyramid jaw faces	60 x 66 mm	0 – 30 mm	Ca. 1.2 kg
TH135-60-BV	V-jaws	Clamping height 60 mm	8 – 30 mm Ø	Ca. 1.2 kg
TH135-60-BW	Wave jaw faces	60 x 66 mm	0 – 20 mm	Ca. 1.2 kg
TH135-60-BD	Diamond-coated jaws	60 x 66 mm	0 – 30 mm	Ca. 1.2 kg
TH135-60-BDV	Diamond-coated V-jaws	Clamping height 60 mm	8 – 30 mm Ø	Ca. 1.2 kg
TH135-60-B210	Blank jaw faces	70 x 210 mm	0 – 10 mm	Ca. 6.7 kg
TH135-60-BW210	Wave jaw faces	70 x 210 mm	0 – 10 mm	Ca. 6.7 kg

Additional jaws (dimensions and surface coatings) available on request

Jaw surfaces:



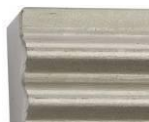
Blank (smooth) jaws
 - Suitable for own further treatments
 - Steel blanks without coating



Pyramid (serrated, cross cut) jaws
 - Hardened steel 58 HRC
 - Manganese phosphate coating
 - Pyramids 1.2x45°



V-Jaws
 - All kinds of round samples
 - Hardened steel 58 HRC
 - Manganese phosphate coating
 - Tooth pitch 1.2 mm



Wave jaws (corrugated)
 - Wave 5 mm
 - Hardened steel 58 HRC
 - Manganese phosphate coating



Diamond coated jaws
 - Nickel-plated jaw faces
 - Clamping surface coated with synthetic diamonds D91 (170/200 mesh)

Diamond coated V-jaws
 - Notch-sensitive round samples
 - Hardened steel 58 HRC, nickel-plated
 - Clamping surface coated with synthetic diamonds D91 (170/200 mesh)

Special solutions:



TH135-60-d
 symmetric design, double-action cylinder



TH135-60-A + BW210x70
 for large samples

Hydraulic sealings can be used from -30°C up to +100°C (material of sealing NBR)
In special cases we can supply -10°C up to +200°C (material of sealing FKM PTFE Bronze)
For negative values we propose to use nickel surface

Accessories:



TH135-P2

Air hydraulic pump
 Max pressure: 350 bar, pressure ratio air: hydraulic 1:61
 2 valves for separate switching of the grips (opening, closing)
 Remote control with 2 switches; ca. 220 V ; 0.1 A
 Dimensions L x W x H: 315 x 250 x 500 mm); weight ca. 25 kg



TH135-P2-G-a

Air hydraulic pump similar to TH135-P2 including:
 - Housing for noise reduction
 - Analogue pressure transducer: analogue signal 1 -10 V to adjust the clamping pressure from 40 to 400 bar
 Dimensions L x W x H: 720 x 360 x 630 mm; weight: ca. 38 kg



TH135-P2-2-G-a

Air hydraulic pump similar to TH135-P2 including:
 - 4 valves to lock the jaws at any required position
 - Housing for noise reduction
 - Analogue pressure transducer: analogue signal 1 -10 V to adjust the clamping pressure from 40 to 400 bar
 Dimensions L x W x H: 720 x 360 x 630 mm; weight: ca. 50 kg



 <http://www.youtube.com/watch?v=V63hKKIhUYA>

P Max. = 300 bar -> Fx Clamping force 56 kN

Fz = 4622 N Max. tensile force (vertical force to destroy sample)