HYDRAULIC GRIP

Single-actuator version: item no. TH135-60
Double-actuator version: item no. TH135-60-2Ko

Standard temperature range: 0…+70°C

Hydraulic sealings can be used from -30°C to +100°C
(material of sealing NBR): item no. TH135-60-T100

In special cases we can supply -10°C to +200°C
(material of sealing FKM PTFE Bronze): item no. TH135-60-T200

For negative values we recommend using nickel surface:
item no. TH135-60-Ni

<table>
<thead>
<tr>
<th>Item no.</th>
<th>TH135-60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping force:</td>
<td>60 kN at 315 bar</td>
</tr>
<tr>
<td>Coupling:</td>
<td>Af318. Further couplings on request.</td>
</tr>
<tr>
<td>Single acting cylinder:</td>
<td>50 mm Ø, with spring return Max. stroke 15 mm</td>
</tr>
<tr>
<td>Hydraulic connection:</td>
<td>¼”</td>
</tr>
<tr>
<td>Body:</td>
<td>Steel, nickel-plated</td>
</tr>
<tr>
<td>Jaws:</td>
<td>Steel, nickel-plated, hardened</td>
</tr>
<tr>
<td>Weight:</td>
<td>Ca. 15 kg each grip without jaws</td>
</tr>
<tr>
<td>Scope of supply:</td>
<td>1 pair of grips without jaws</td>
</tr>
</tbody>
</table>
**Item no.: TH135-60-2Ko**

- **Clamping force:** 60 kN at 315 bar
- **Coupling:** Af318 or Af60  
  Further couplings on request
- **Double acting cylinder:** 50 mm Ø, with spring return  
  Max. stroke 15 mm
- **Hydraulic connection:** ¼”
- **Body:** Steel, nickel-plated
- **Jaws:** Steel, nickel-plated, hardened
- **Scope of supply:** 1 pair of grips without jaws
### Jaw faces for TH135-60:

Scope of supply: 1 set = 4 jaw faces

<table>
<thead>
<tr>
<th>Item number</th>
<th>Clamping surface</th>
<th>Clamping surface H x W</th>
<th>Opening</th>
<th>Weight / 1 pair</th>
</tr>
</thead>
<tbody>
<tr>
<td>TH135-60-B</td>
<td>Blank jaws</td>
<td>60 x 66 mm</td>
<td>0 – 30 mm</td>
<td>1.2 kg</td>
</tr>
<tr>
<td>TH135-60-BP</td>
<td>Pyramid jaws</td>
<td>60 x 66 mm</td>
<td>0 – 30 mm</td>
<td>1.1 kg</td>
</tr>
<tr>
<td>TH135-60-BV</td>
<td>V-jaws</td>
<td>Clamping height 60 mm</td>
<td>6 – 30 mm Ø</td>
<td>1.2 kg</td>
</tr>
<tr>
<td>TH135-60-BW</td>
<td>Wave jaws</td>
<td>60 x 66 mm</td>
<td>0 – 20 mm</td>
<td>1.1 kg</td>
</tr>
<tr>
<td>TH135-60-BDV</td>
<td>Diamond-coated V-jaws</td>
<td>Clamping height 60 mm</td>
<td>6 – 30 mm Ø</td>
<td>1.2 kg</td>
</tr>
<tr>
<td>TH135-60-BG</td>
<td>Rubber jaws</td>
<td>60 x 66 mm</td>
<td>0 – 28 mm</td>
<td>1.2 kg</td>
</tr>
<tr>
<td>TH135-60-BP120</td>
<td>Pyramid jaws</td>
<td>70 x 120 mm</td>
<td>0 – 20 mm</td>
<td>5.4 kg</td>
</tr>
<tr>
<td>TH135-60-B210</td>
<td>Blank jaws</td>
<td>70 x 210 mm</td>
<td>0 – 20 mm</td>
<td>6.6 kg</td>
</tr>
<tr>
<td>TH135-60-BP210</td>
<td>Pyramid jaws</td>
<td>70 x 210 mm</td>
<td>0 – 20 mm</td>
<td>6.6 kg</td>
</tr>
<tr>
<td>TH135-60-BV210</td>
<td>V-jaws</td>
<td>Clamping height 70 mm</td>
<td>8 – 20 mm</td>
<td>6.6 kg</td>
</tr>
<tr>
<td>TH135-60-BW210</td>
<td>Wave jaw faces</td>
<td>70 x 210 mm</td>
<td>0 – 20 mm</td>
<td>6.4 kg</td>
</tr>
<tr>
<td>TH135-60-BWG210</td>
<td>Rubber-coated wave jaws</td>
<td>70 x 210 mm</td>
<td>0 – 16 mm</td>
<td>6.7 kg</td>
</tr>
</tbody>
</table>

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)
Accessories:

**TH135-P2-2-350**
Air hydraulic pump with 2 valves for independent switching of the grips (open – close);
Remote control with ON / OFF switches;
Capacity: 2.75 l/min, 350 bar, 1:61 air pressure : oil pressure
Dimensions: 350 x 250 x 400 mm. Weight 27.5 kg; 220 V 0.1 A. Noise level 60 dBA.
Max. temperature range 125°C.
Incl. 2 tubes 3 m and 5 m long

**TH135-P2-2-G-a-400**
Same as TH135-P2-2-350, but
- incl. housing for noise reduction, noise level closed in the box 50 dBA
- with analogue pressure transducer:
clamping pressure can be adjusted through analogue signal 1-10 Volt -> 40-400 bar
Dimensions (LxWxH): 723 x 350 x 617 mm; weight: 70 kg

**TH135-P4-2-G-a-400**
Air hydraulic pump similar to TH135-P2-2-G-a-400 but with
4 hydraulic valves to lock the jaws at any required position (open – stop – close)
Weight: 70 kg

http://www.youtube.com/watch?v=V63hKKlhUYA

- P Max. = 300 bar -> Fx  Clamping force 56 kN
- Fz = 4622 N  Max. tensile force (vertical force to destroy sample)