Product Information
Type 8801 hydraulic grips, Fmax 50 kN

Applications
- Specimen material
  Metals, wood
- Specimen shape
  Round and flat specimens
- Type of loading
  Tensile, compression, alternating load

Function description
Hydraulic grips are single-sided closing and can be used for symmetrical and asymmetrical gripping. The opposing jaw can be steplessly adjusted.

The closing and gripping pressure of the specimen grip can be set steplessly and reproducibly via a hydraulic power pack. The specimen is held securely and jaw breaks are prevented during the test.

Two horizontal T-slot pairs are found in the specimen grip. The larger slot is for insertion of the T-slotted system to accommodate smaller load cells and specimen grips. The smaller slot is for inserting/guiding additional accessories.

You can insert the specimen vertically and in the center using the specimen gripper. The slot of the specimen grips is used as a guide. Using a specimen gripper helps minimize the risk of injury when inserting and removing specimens from the specimen grips. Such risks are the pinching of body parts between the jaws or the burning of body parts on hot specimens.

Advantages and features
- If the application changes, the jaws can be easily switched.
- Accurate test results along with a high cycle rate that is made possible by central insertion of the sample with the aid of an easily adjustable centering stop.
- The constant gripping force allows for repeatable test results.
- Short specimen can also be gripped due to the special design of the specimen grip.
- Reliable testing results are guaranteed with the optimal interaction between the hydraulic power pack, the electronics, and the testing software. The force-zero control prevents unwanted forces on the specimen during the gripping process.
- The prism jaws ensure flexibility. They can be rotated and have two-fold use:
  - Round and flat specimens
  - Round specimens with varying diameters
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Technical data

<table>
<thead>
<tr>
<th>Item No. Type</th>
<th>317176</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 8801</td>
<td></td>
</tr>
</tbody>
</table>

**Test load Fmax**
- 50 kN

**Adjustment of opposing jaw**
- Stepless

**Pressure, min.**
- 12 bar

**Pressure, max.**
- 300 bar

**Closing force at max. pressure**
- 100 kN

**Dimensions**
- **Height**: 205 mm
- **Width**: 365 mm
- **Width with screw unit, open all the way**: 395 mm
- **Depth**: 132 mm
- **Gripping travel**: 35 mm

**Opening width, max./specimen thickness**
See table of jaws (specimen thickness)

**Connection, stud**
- Ø 36/60 mm

**Ambient temperature**
- +10 to +35 °C

**Weight per specimen grip, approx.**
- 37 kg

**Scope of delivery**
- 2 pieces

1) Recommended and approved for strain rate control in accordance with standards DIN EN ISO 6892-1:2009 and ASTM E8 – 09.

2) These specimen grips can be offered with a 36 mm or 60 mm connection (selection made using parts list alternatives).

Accessories required

Hydraulic power pack

Flat jaws
Scope of delivery: 2 pieces

<table>
<thead>
<tr>
<th>Applications</th>
<th>Version</th>
<th>Specimen thickness [mm]</th>
<th>Gripping surface (H x W) [mm]</th>
<th>Ambient temperature [°C]</th>
<th>Hardness</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric strips, fabric-elastomer composite</td>
<td>Steel, concentric grooves</td>
<td>0 to 40</td>
<td>80 x 110</td>
<td>+0 to +100</td>
<td>56 HRC</td>
<td>313644</td>
</tr>
<tr>
<td></td>
<td>Steel, concentric grooves</td>
<td>0 to 59</td>
<td>Ø 50</td>
<td>+10 to +100</td>
<td>56 HRC</td>
<td>314128</td>
</tr>
<tr>
<td>Metal, reinforced plastics</td>
<td>Steel, concentric grooves</td>
<td>0 to 59</td>
<td>Ø 50</td>
<td>0 to +100</td>
<td>56 HRC</td>
<td>313638</td>
</tr>
</tbody>
</table>

1) Concentric grooves = circular grooves in ripple pattern at 1 mm spacing

All data at ambient temperature. We reserve the right to make technical changes in the course of ongoing development.
**Product Information**
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**Prism jaws**
Scope of delivery: 2 pieces

<table>
<thead>
<tr>
<th>Applications</th>
<th>Version</th>
<th>Specimen diameter [mm]</th>
<th>Gripping surface (H x W) [mm]</th>
<th>Ambient temperature [°C]</th>
<th>Hardness</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round specimens made of metal/plastic</td>
<td>Steel, concentric grooves(^1) With two V-slots(^2)</td>
<td>Ø 3 ... 15, Ø 6 to 15(^3)</td>
<td>Ø 50</td>
<td>+0 to +100</td>
<td>56 HRC</td>
<td>313640</td>
</tr>
</tbody>
</table>

\(^1\) Concentric grooves = circular grooves in ripple pattern at 1 mm spacing
\(^2\) These prism jaws have V-slots that are arranged crosswise for various specimen diameters.
\(^3\) The specimen diameter for Type 8801 is 3 to 15 mm, and for Type 8494, 6 to 15 mm

**Optional accessories**

<table>
<thead>
<tr>
<th>Description</th>
<th>Item number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specimen gripper</td>
<td>325118</td>
</tr>
<tr>
<td>T-slotted shoe-connector with</td>
<td>314054</td>
</tr>
<tr>
<td>• M28 x 1.5 thread for connecting Ø8, 20, 36 mm mounting studs or load cells</td>
<td></td>
</tr>
<tr>
<td>• centering spigot, Ø 30 H7, for connecting mounting unit, mounting flange or Ø 60 mm mounting stud</td>
<td></td>
</tr>
<tr>
<td>Scope of delivery: 2 pieces</td>
<td></td>
</tr>
<tr>
<td>T-slotted shoe connector for load cell calibration, Fmax 250 kN, with hole Ø 64/48 mm, Scope of delivery: 2 pieces</td>
<td>314056</td>
</tr>
<tr>
<td>Mounting stud, Ø 60 mm, Fmax 250 kN</td>
<td>314062</td>
</tr>
<tr>
<td>Scope of delivery: 1 piece</td>
<td></td>
</tr>
<tr>
<td>Mounting unit for attaching compression test kits (Fmax 250 kN(^1)), rigid upper anvil holder (Fmax 250 kN(^1)), rocking upper anvil holder (Fmax 20 kN(^3)), Type A/B flexure table (20 kN(^3))</td>
<td>314058</td>
</tr>
<tr>
<td>Scope of delivery: 1 piece</td>
<td></td>
</tr>
<tr>
<td>Mounting flange for attaching flexure tables, Fmax 250 kN(^1), preferably for installation in lower grip</td>
<td>314060</td>
</tr>
<tr>
<td>Scope of delivery: 1 piece</td>
<td></td>
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</tbody>
</table>

\(^1\) Fmax may be restricted due to a lower test kit/device Fmax

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