Applications
- Specimen material: metals, plastics, wood
- Specimen shape: round and flat specimens
- Type of loading: tensile

Function description
Wedge grips are symmetrically closing specimen grips. Opening and closing plus application of closing force prior to the test is via a lever.

To generate the closing force the wedge grips are equipped with a pre-loaded spring. The gripping force is generated via wedge action and is proportional to the tensile force. The ratio is determined by the wedge angle.

Both upper and lower grips are equipped with a locking device which holds the grips in an open position to allow insertion of the specimen.

In tests with these grips extensometers are used for accurate strain measurement.

Advantages and features
- These wedge grips represent a quick, cost-effective solution, for example for quality assurance.
- The grips always close symmetrically to the tensile axis regardless of specimen thickness.
- Large clamping length allows sensitive specimens to be gripped gently at all times, thereby avoiding jaw breaks.
- The lever is locked when the grips are open, enabling rapid specimen changes.
- Markings on the jaws allow easy specimen centering.
- Centering stops in conjunction with jaw mountings enable fast, accurate specimen centering.
- Ergonomic, open design for fast, easy specimen insertion and clamping
- Reliable specimen gripping guaranteed even with varying applications. Large range of jaws allows optimum matching of the grips to your application.
# Product Information
Wedge Grips type 8302, Fmax 10 / 20 kN

## Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Item No.</th>
<th>Test load $F_{\text{max}}$</th>
<th>Dimensions</th>
<th>Specimen gripping</th>
<th>Opening width</th>
<th>Weight per grip unit, approx.</th>
<th>Connection, stud</th>
<th>Ambient temperature</th>
<th>Scope of delivery</th>
<th>Jaws supplied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td>0 to 12.5</td>
<td>8</td>
<td>Ø 20</td>
<td>-40 to +250</td>
<td>1</td>
<td>Surface</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
<td>20</td>
<td></td>
<td>0 to 12.5/8 to 20.5</td>
<td>6.5</td>
<td>Ø 20</td>
<td>-40 to +250</td>
<td>2</td>
<td>Gripping area (H x W)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20</td>
<td>20</td>
<td></td>
<td>12.5</td>
<td>8</td>
<td>Ø 36</td>
<td>+10 to +35</td>
<td>1</td>
<td>Hardness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20</td>
<td>20</td>
<td></td>
<td>12.5/20.51)</td>
<td>6.5</td>
<td>Ø 36</td>
<td>-40 to +250</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

1) depending on the jaws in use
2) Fsc = fish scale

<table>
<thead>
<tr>
<th></th>
<th>8302 320458</th>
<th>8302 318884</th>
<th>8302 320460</th>
<th>8302 318886</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>165</td>
<td>165</td>
<td>177</td>
<td>177</td>
</tr>
<tr>
<td>Width</td>
<td>156</td>
<td>156</td>
<td>156</td>
<td>156</td>
</tr>
<tr>
<td>Depth</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>Depth with actuation lever</td>
<td>197</td>
<td>197</td>
<td>197</td>
<td>197</td>
</tr>
</tbody>
</table>

The specimen must be gripped over at least 2/3 of the jaw height.

Opening width: 0 to 12.5, 0 to 12.5/8 to 20.5, 12.5, 12.5/20.5

Scope of delivery: 1, 2, 1, 2

Gripping process with self-tightening wedge grips
**Product Information**
Wedge Grips type 8302, Fmax 10 / 20 kN

**Accessories required**

**Jaws for Type 8302 (1x required)**
Scope of delivery: 1 set (= 4 pieces)

<table>
<thead>
<tr>
<th>Range of application</th>
<th>Version</th>
<th>Specimen thickness [mm]</th>
<th>Gripping area (H x W) [mm]</th>
<th>Ambient temperature [°C]</th>
<th>Hardness</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic, metal, wire, thin sheet metal, textiles, paper, wood...</td>
<td>Steel, fsc 1) 0.4 mm</td>
<td>0 to 12</td>
<td>50 x 60</td>
<td>-40 to +250</td>
<td>61 HRC</td>
<td>318888</td>
</tr>
<tr>
<td>Plastic, metal, wire, thin sheet metal, textiles, paper, wood...</td>
<td>Steel, fsc 1) 0.75 mm</td>
<td>0 to 12</td>
<td>50 x 60</td>
<td>-40 to +250</td>
<td>61 HRC</td>
<td>318890</td>
</tr>
<tr>
<td>Plastic, metal, wire, thin sheet metal, textiles, paper, wood...</td>
<td>Steel, fsc 1) 1.25 mm</td>
<td>0 to 12</td>
<td>50 x 60</td>
<td>-40 to +250</td>
<td>61 HRC</td>
<td>318892</td>
</tr>
</tbody>
</table>

1) Fsc = fish scale

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Round specimens made of metal, plastic, wood</td>
<td>Steel, st 1) 1.5 mm</td>
<td>Ø 4 to 12</td>
<td>50</td>
<td>-40 to +250</td>
<td>61 HRC</td>
<td>318990</td>
</tr>
<tr>
<td>Round specimens made of metal, plastic, wood</td>
<td>Steel, st 1) 1.5 mm</td>
<td>Ø 12 to 20</td>
<td>50</td>
<td>-40 to +250</td>
<td>61 HRC</td>
<td>318992</td>
</tr>
</tbody>
</table>

1) St= saw tooth

**Optional accessories**

**Jaw mountings for Type 8302**
Scope of delivery: 1 set (= 4 pieces)

<table>
<thead>
<tr>
<th>Description</th>
<th>Item number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jaw mountings incl. centering stops for Type 8287 jaws for specimen thickness 0 to 12 mm 1)</td>
<td>318894</td>
</tr>
<tr>
<td>Jaw mountings incl. centering stops for Type 8487 jaws for specimen thickness 0 to 12 mm 1)</td>
<td>318896</td>
</tr>
<tr>
<td>Jaw mountings incl. centering stops for Type 8487 jaws for specimen thickness 8 to 20 mm 1)</td>
<td>318898</td>
</tr>
</tbody>
</table>

1) When using jaws with jaw thickness 5mm

All data at ambient temperature.

We reserve the right to make technical changes in the course of ongoing development.