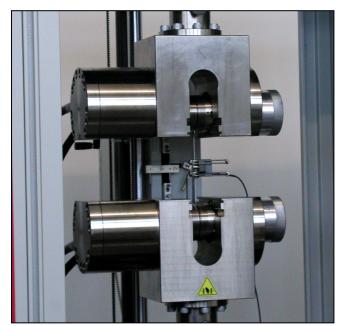


Hydraulic grips Type 8802, Fmax 100 kN, and Type 8803, Fmax 250 kN



Hydraulic grips Type 8802, Fmax 100 kN



CTA: 39745 39755

- 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



Hydraulic grips Type 8803, Fmax 250 kN

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**

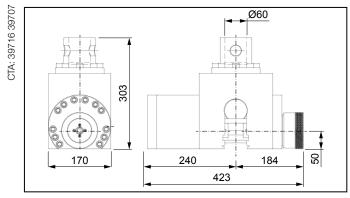
- If the application changes, the jaws can be easily switched.
- Accurate test results along with a high cycle rate that is made possible by central insertion of the sample with the aid of an easily adjustable centering stop.
- The constant gripping force allows for repeatable test results.
- Short specimen 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 forcezero 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



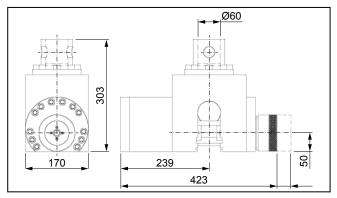
Hydraulic grips Type 8802, Fmax 100 kN, and Type 8803, Fmax 250 kN

#### **Technical data**

| Item No.                                | 317178   | 317180          |        |  |  |
|---|--|-----------------|--------|--|--|
| Туре                                    | 8802   | 8803            |        |  |  |
| Operating principle                     | Single-actuator  | Single-actuator |        |  |  |
| Adjustment of opposing jaw              | Stepless   | Stepless        |        |  |  |
| Test load F <sub>max</sub>              | 100  | 250             | kN     |  |  |
| Pressure, min.                          | 12   | 12              | bar    |  |  |
| Pressure, max.                          | 300  | 480             | bar    |  |  |
| Closing force at max. pressure          | 255  | 410             | kN     |  |  |
| Dimensions                              |  |                 |        |  |  |
| Height                                  | 303  | 303             | mm     |  |  |
| Width                                   | 423  | 423             | mm     |  |  |
| Depth                                   | 170  | 170             | mm     |  |  |
| Width with screw unit, open all the way | 461  | 423 (461)       | mm     |  |  |
| Gripping travel                         | 35   | 70              | mm     |  |  |
| Gripping of the specimen                | The specimen must be gripped above at least 2/3 of the jaw height. |                 |        |  |  |
| Connection, stud                        | Ø 60   | Ø 60            | mm     |  |  |
| Ambient temperature                     | +10 to +35   | +10 to +35      | °C     |  |  |
| Weight per specimen grip, approx.       | 70   | 70              | kg     |  |  |
| Scope of delivery                       | 2  | 2               | pieces |  |  |



Hydraulic grips Type 8803, Fmax 250 kN, overview



Hydraulic grips Type 8802, Fmax 100 kN, overview

### **Accessories required**

### Hydraulic power pack



Hydraulic grips Type 8802, Fmax 100 kN, and Type 8803, Fmax 250 kN

### Flat jaws

Scope of delivery: 2 pieces each

| Applications   | Version                                  | Specimen<br>thickness<br>[mm] | Gripping area<br>[mm] | Hardness | Item No. |
|--|--|-------------------------------|-----------------------|----------|----------|
| Flat jaws for metal strip and shoulder-end specimens, reinforced plastics (flat specimens)         | Steel, concentric Grooves, distance 1mm  | 0 to 59 <sup>1)</sup>         | Ø 74 <sup>2)</sup>    | 58 HRC   | 314046   |
| Flat jaws for metal strip and<br>shoulder-end specimens, rein-<br>forced plastics (flat specimens) | Steel, pr <sup>3)</sup><br>0.35 mm       | 0 to 59 <sup>1)</sup>         | Ø 74 <sup>2)</sup>    | 58 HRC   | 316139   |
| Flat jaws for metal strip and<br>shoulder-end specimens, rein-<br>forced plastics (flat specimens) | Steel, pr <sup>3)</sup><br>0.75 mm       | 0 to 59 <sup>1)</sup>         | Ø 74 <sup>2)</sup>    | 58 HRC   | 320618   |
| Flat jaws for metal strip and<br>shoulder-end specimens, rein-<br>forced plastics (flat specimens) | Steel, pr <sup>3)</sup><br>1.5 mm        | 0 to 59 <sup>1)</sup>         | Ø 74 <sup>2)</sup>    | 58 HRC   | 320620   |
| Flat jaws for metal strip and shoulder-end specimens, reinforced plastics (flat specimens)         | Steel, concentric Grooves, distance 2 mm | 0 to 59 <sup>1)</sup>         | Ø 74 <sup>2)</sup>    | 58 HRC   | 317244   |
| Thin metal strips, CFRP/GFRP strip specimens   | Steel, smooth, ground                    | 0 to 59 <sup>1)</sup>         | Ø 74 <sup>2)</sup>    | 58 HRC   | 317246   |

<sup>1)</sup> When using specimen grips Type 8497, a specimen thickness of 0 to 35 mm is possible. For Type 8597 a specimen thickness of 0 to 29 mm is possible.

### Flat jaws

Scope of delivery: 1 set (= 4 pieces)

| Applications                   | Version               | Specimen<br>thickness<br>[mm] | Gripping<br>area (H x<br>W)<br>[mm] | Ambient<br>tempera-<br>ture<br>[°C] | Hard-<br>ness | Item No.             |
|--------------------------------|-----------------------|-------------------------------|-------------------------------------|-------------------------------------|---------------|----------------------|
| Textile tapes (flat specimens) | Steel,<br>smooth      | 0 to 20                       | 110 x 110                           | +10 to +35                          | 55 HRC        | 320350 <sup>1)</sup> |
| Textile tapes (flat specimens) | Steel, undu-<br>lated | 0 to 20                       | 110 x 110                           | +10 to +35                          | 55 HRC        | 320352 <sup>1)</sup> |

 $<sup>^{\</sup>rm 1)}$   $\,$  Can only be used with single-actuator hydraulic grips 8802 and 8803

<sup>2)</sup> With shatter protection shield

<sup>3)</sup> Pr = pyramid grid



Hydraulic grips Type 8802, Fmax 100 kN, and Type 8803, Fmax 250 kN

### Prism jaws

Scope of delivery: 2 pieces each

| Applications                   | Version   | Specimen<br>thickness<br>[mm] | Gripping<br>area (H x<br>W)<br>[mm] | Ambient<br>tempera-<br>ture<br>[°C] | Hard-<br>ness | Item No.             |
|--------------------------------|---|-------------------------------|-------------------------------------|-------------------------------------|---------------|----------------------|
| Prism jaws for round specimens | Steel, V-slot,<br>undulated, dis-<br>tance 1 mm | Ø 3 15 <sup>1)</sup>          | 74 high                             | -70 to +250                         | 58 HRC        | 314050 <sup>2)</sup> |
| Prism jaws for round specimens | Steel, V-slot,<br>undulated, dis-<br>tance 1 mm | Ø 10 59 <sup>3)</sup>         | 74 high                             | -70 to +250                         | 58 HRC        | 314052 <sup>2)</sup> |

<sup>1)</sup> When using specimen grips Type 8802, a specimen diameter of 3 to 15 mm is possible. For Type 8594 a specimen diameter of 6 to 15 mm is possible.

### Jaw mounting (required for prism jaws)

| Description                          | Item number |
|--------------------------------------|-------------|
| Suitable jaw mounting for prism jaws | 314048      |

### **Optional accessories**

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

<sup>1)</sup> Fmax may be restricted due to a lower test kit/device Fmax

<sup>2)</sup> Suitable jaw mountings for the prism jaws (required for prism jaws): Item No. 314048

<sup>3)</sup> When using specimen grips Type 8802, a specimen diameter of 10 to 59 mm is possible. For Type 8594 a specimen diameter of 16 to 59 mm is possible.