Zwick Roell

Product Information

Wedge screw grips, Type 8305, Fmax 10 kN



Type 8305 wedge screw grips, Fmax 10 kN

Applications

CTA: 40045 115788

- Specimen material:
- Metals, plastics
- Specimen shape
- Round specimens (wires) and flat specimens
- Type of loading Tensile

Function description

A handwheel is used to open and close the wedge screw grips, as well as apply closing force before the test. Both sides can be adjusted independently of each other.

The gripping force is generated via wedge action. The gripping force is proportional to the tensile force. The ratio is determined via the wedge angle.

Advantages and features

• Because the jaws can be adjusted independently of each other, both symmetrical and asymmetrical specimens can be tested (glued specimen, shear test tensile specimen, etc.).



Type 8305 wedge screw grips, Fmax 10 kN: dimensions

- The specimen is held securely due to the external high gripping force (approx. 3.5 times tensile force). The jaws are needle bearing and are run with extra flat wedge angle.
- accurate test results combined with a high number of cycles for inserting wires and threads and adjustable centering stops for flat specimens
- Fast and easy insertion of specimen is enabled due to the ergonomic and open design.
- Sensitive specimens are always gently gripped via large clamping lengths. This prevents jaw breakage.
- The specimen grip can be easily operated in the temperature chamber and quickly reaches its test temperature due to its low mass.

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Technical data

| Туре | 8305 | | |
|-----------------------------------|--|--------|--|
| Item No. | 021140 | | |
| Test load (F _{max}) | 10 | kN | |
| Dimensions | | | |
| Height | 143 | mm | |
| Width | 246 | mm | |
| Depth | 108 | mm | |
| Gripping of the specimen | The specimen must be gripped above at least 2/3 of the jaw height. | | |
| Opening width, max. | 20 ¹⁾ | mm | |
| Weight per specimen grip, approx. | 8.6 | kg | |
| Connection, bolts | Ø 20 | mm | |
| Ambient temperature | -70 to +150 ²⁾ | °C | |
| Scope of delivery | 2 | pieces | |

1) For symmetrical gripping

2) It is possible that the temperature range is limited by a smaller jaw temperature range.

Accessories required

Jaws (required: 1)

Scope of delivery: 1 set (= 4 pieces)

| | | Gripping area (H x W) | Ambient tem- perature | | |
|--|-------------------------------|--------------------------|--------------------------|---------------------------------------|----------------------|
| Applications | Version | [mm] | [°C] | Hardness | Item No. |
| Wires, plastic bands | Steel, fsc ¹⁾ 0.4 | 80 x 60 | -70 to +150 | 61 HRC | 028517 |
| Plastics, sheet metal, softer wires, GFRP strip specimens | Steel, fsc ¹⁾ 0.75 | 80 x 60 | -70 to +150 | 61 HRC | 028518 |
| Plastics, wood laminated materi- als, plywood, sheet metal, wires | Steel, fsc ¹⁾ 1.25 | 80 x 60 | -70 to +150 | 61 HRC | 028519 |
| Hard materials, fixed metal wires/ strips, non-metallic straps | Oxide ceramic, smooth | 80 x 60 | -70 to +80 | Knoop 8002300 N/mm ² | 028520 ²⁾ |
| Notch sensitive metal strips, thin sheets, plastic bands | Corundum 240, smooth | 80 x 60 | -70 to +80 | - | 028521 ³⁾ |

1) Fsc = fish scale

2) The opening width of the wedge screw grips is reduced to 12 mm max. when using these jaws.

3) The opening width of the wedge screw grips is reduced to 16 mm max. when using these jaws.