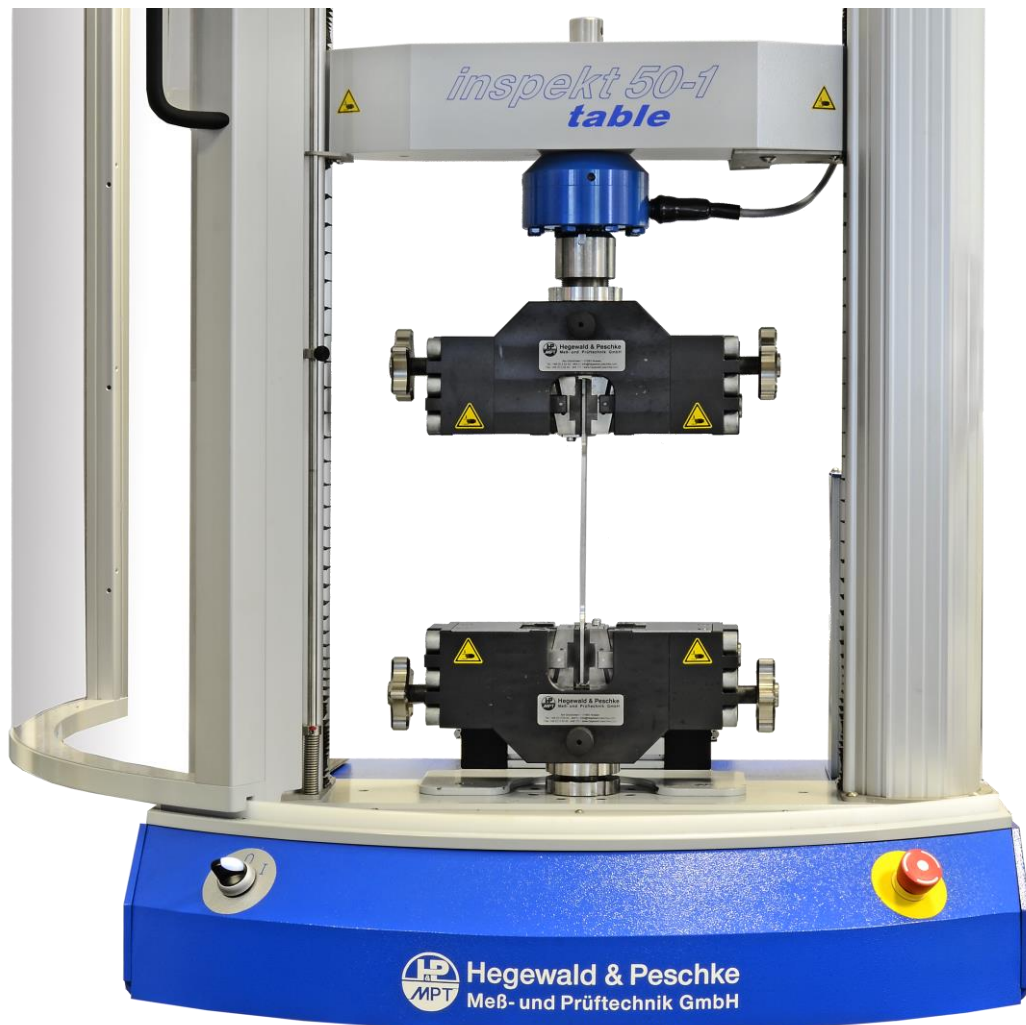




Product Information

Screw type wedge action grips

20 kN and 50 kN



Scope of application:

Screw type wedge action grips are mainly used for tensile tests. Compression and bending tests can be realized via optional connections in the base body.

Specimen material:

- Metals
- Thermo- and thermosets as well as fibre-reinforced plastics
- Wood materials
- Geotextiles

Specimen shapes:

Round and flat specimen, e.g.

- Strip specimens
- Shoulder specimens
- Round bars
- Wires

Functionality:

The opening and closing of the grips is carried out manually by actuating the hand wheels. In addition, a preload is applied thereby.

Due to the wedge action of the clamping jaws, the clamping force increases independently according to the tensile force.

Features:

- Low minimum clamping length of the specimen
- Easy changing of the clamping jaws without tools
- Flat jaws are equipped with a specimen stopper
- Use of special jaws for special specimen dimensions possible
- Low overall height in machine frame
- Time-saving adaptation of compression plates, small load cells, tools and test devices without specimen holder extension via optional mounting plates possible
- Optionally also available with motorized drive for closing / opening
- Optionally for use at low temperatures

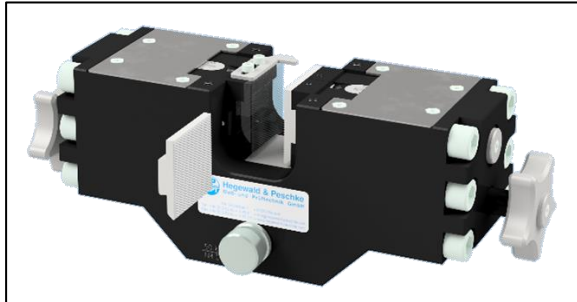
Technical data:

| | 14-103-020 | 14-103-050 |
|-------------------------------------|---|---------------------------|
| Capacity | 20 kN | 50 kN |
| Temperature range | -20°C up to +200°C | |
| Connection | Coupling adapter R20/8-H | Coupling adapter R36/18-H |
| Clamping force factor | 1.57 | |
| Max. symmetrical opening | 30 mm | |
| minimum clamping length | 20 mm | 25 mm |
| Height clamping jaws | 45 mm | |
| Dimensions (HxWxD) | 93 x 301 x 76 mm | 108 x 322 x 86 mm |
| Weight per grip | 10 kg | 12 kg |
| Coupling adapter for options | 4 x M6 - 65 x 65 mm | |
| Included in delivery | 1 pair of wedge action grips without clamping jaw | |

* A second connection flange is available as an option, the standard mounting is fixed to the crossmember

- Clamping of asymmetrical specimens with a gap > 4mm on request
- Screw type wedge action grips with extended clamping range on request
- Screw type wedge action grips for use in the low-temperature range down to -70 ° C on request

Changing of clamping jaws by simple insertion

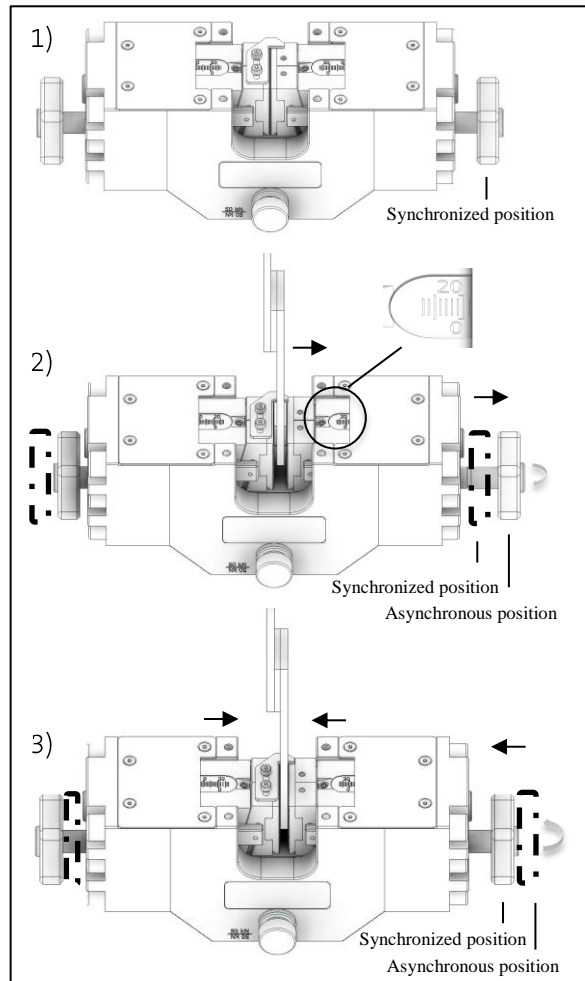


Switchable synchronization

By means of the switchable synchronization, the screw type wedge action grips can tension symmetrically and asymmetrically (for example, tests of shear specimens). The offset is easy to adjust and remains secure even when re-tightened. As a result, a one-hand operation on the left or right is also possible for asymmetric specimen, and the test area is always in the test centre.

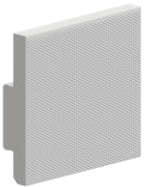


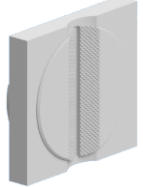
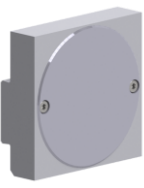
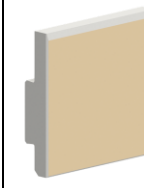
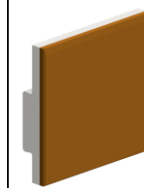
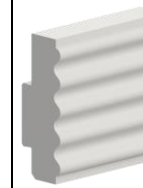


Clamping of asymmetric specimen



- 1) Close the grip in the synchronized position. Both clamping jaws are at zero position.
- 2) Switch to asynchronous mode and open right jaw. The opening distance is determined by the specimen and adhesive thickness.
- 3) Switch back to sync and close both jaws.

Accessories: Clamping jaws for various applications

| | | | | |
|--|--|---|---|---|
| Field of application | <ul style="list-style-type: none"> • Steel up to QT1000 • Non-ferrous metals • Wood • Fiber-reinforced plastics • Applicable up to R_m 1200 N/mm² | <ul style="list-style-type: none"> • Steel up to QT1000 • Applicable up to R_m 1200 N/mm² | Hard metals | Hard metals |
| Specimen shape | Flat specimen, sheets | Round specimen, rods | Flat specimen, sheets | Round specimen, rods |
| Model | Prism jaws with different saw tooth grids Tool steel 56 HRC | | 90° pyramid insertion with different sections Tool steel 65 ⁺¹ HRC | |
| |  |  |  |  |
| Dimensions clamping area [mm] | WxH: 45x45 WxH: 60x45 | L=43 | D=37 | L=37 |
| Temperature range | -20...+200 °C | -20...+200 °C | RT...+200 °C | RT...+200 °C |
| Clamping range screw type wedge action grip | 0...30 mm* | depend. on diameter: d = 4-8 mm d = 8-14 mm d = 12-20 mm | 0...10mm | depend. on diameter: d = 4-8 mm d = 8-14 mm d = 12-20 mm |
| Field of application | <ul style="list-style-type: none"> • Breakable materials • Steel sheets • Foils | <ul style="list-style-type: none"> • Clamping sensitive foils • Steel sheets • Non-ferrous metals | <ul style="list-style-type: none"> • Geotextiles • Textile tapes • Plastics • Tissues | <ul style="list-style-type: none"> • Plastics • Tissues |
| Specimen shape | Flat specimen, sheets | Flat specimen, sheet | Tapes, foils | Tapes, foils |
| Model | Ceramic insertion Tool steel 56 HRC | Diamond coating grain size D91 F0,2 | PUR layer | Wave profile |
| |  |  |  |  |
| Dimensions clamping area [mm] | D=35 | WxH: 45x35 WxH: 60x35 | WxH: 45x35 WxH: 60x35 | WxH: 45x35 WxH: 60x35 |
| Temperature range | 0...+200 °C | -20...+200 °C | -15...+80 °C | -15...+80 °C |
| Clamping range screw type wedge action grip | 0...10 mm | 0...30 mm* | 0...30 mm* | 0...30 mm* |

* At the widened design of the clamping jacks, the clamping range is reduced by 20 mm.

Your contact person: