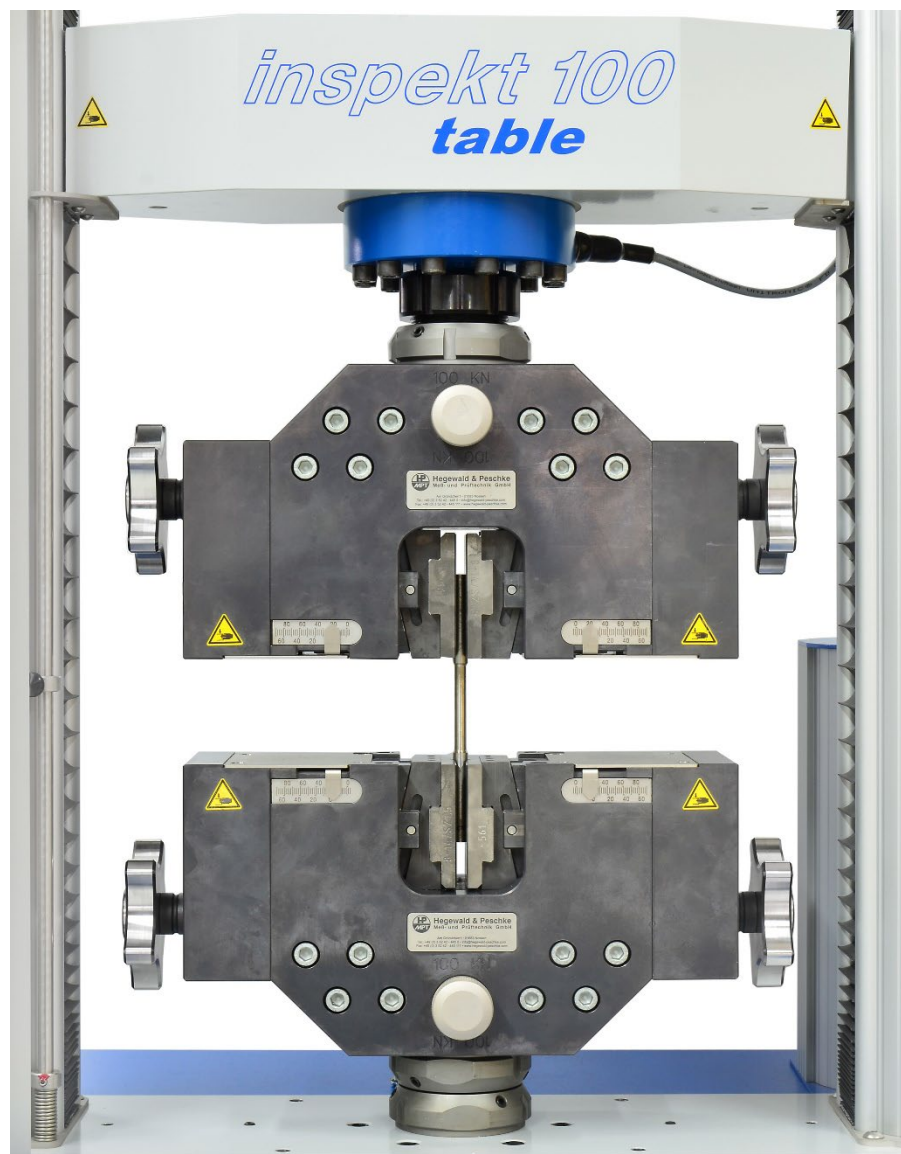




Product Information

Screw type wedge action grips

100 kN and 250 kN





Scope of application:

Screw type wedge action grips are suitable for tensile test on a broad range of materials and specimen geometry.

Furthermore, compression and bending tests can be realized via optional connections in the base body.

Specimen material:

- Metals, alloys
- Thermo- and thermosets as well as fiber-reinforced plastics
- Wood materials
- (Geo-) textiles

Specimen shapes:

Round and flat specimen, e.g.

- Strip specimens
- Waisted specimens
- Round bars
- Wires

Features:

- Low minimum clamping length of specimen
- Easy changing of clamping jaws without tools

Technical data:

- Flat jaws 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
- Clamping ring prevents slipping of the coupling (synchronous/asynchronous clamping)
- Optionally also available with motorized drive for closing/opening
- Optionally for use at low/higher temperatures
- Optionally with torque control device (Art.-no. 14-103-904) for applying reproducibly preclamping loads
- Optionally with handling device for textiles
- Available as synchronized version for symmetrical clamping (Art.-no. 14-103-96x) or with switchable synchronization for symmetrical and asymmetrical clamping (Art.-no. 14-103-100 or -250)

	14-103-100 / 14-103-963*	14-103-250 / 14-103-964*
Capacity	100 kN	250 kN
Connection	R60/30-H	R60/30-H (upper), LK130 (lower)
Temperature range	-20°C up to +200°C	
Clamping force factor	1.57	
Max. symmetrical opening	flat 40 mm, round Ø 30 mm	flat 30 mm, round Ø 22 mm
minimum clamping length	38 mm	45 mm
Dimensions (HxWxD)	192 x 443 x 120 mm	176 x 452 x 176 mm
Weight per grip	44 kg	72.5 kg
Coupling adapter for options	4 x M12 - 100 x 100 mm	4 x M16 - 100 x 145 mm
Included in delivery	1 pair of wedge action grips without clamping jaw	
Necessary Accessories	Clamping jaws for various applications	

- Clamping of asymmetrical specimens with a gap > 4 mm 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

* synchronized design for symmetric clamping only



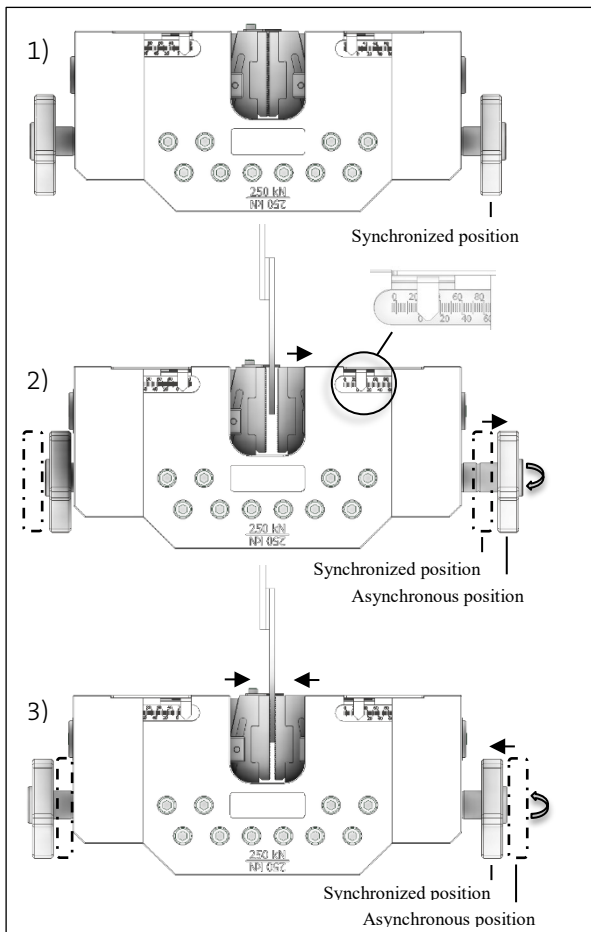
Functionality:

The opening and closing of the grips is carried out manually by actuating the hand wheels. In addition, the preload is applied thereby. Due to the wedge action of the clamping jaws, the clamping force increases according to the tensile force.

Switchable synchronization/ Clamping of asymmetric specimen

(only for art.-no. 14-103-100 and -250)

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.



- 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.

On request, the coupling shaft can also be fixed so that the clamping devices can only be operated synchronously. (art.-no. 14-103-96x)

Necessary accessories:

Clamping jaws for various applications

- Metals (round and flat specimen)
- Wood
- Fiber-reinforced plastics
- Geotextiles
- Textile tapes
- Thin, high-tensile wires
- Breakable materials
- Clamping sensitive foils
- High-tensile tapes

Technical data on the different versions of the jaw adapters can be found in a separate flyer.

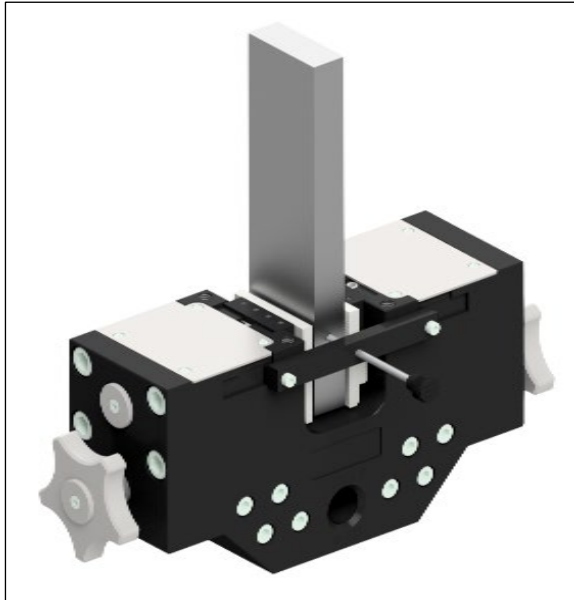
Changing of clamping jaws by simple insertion:



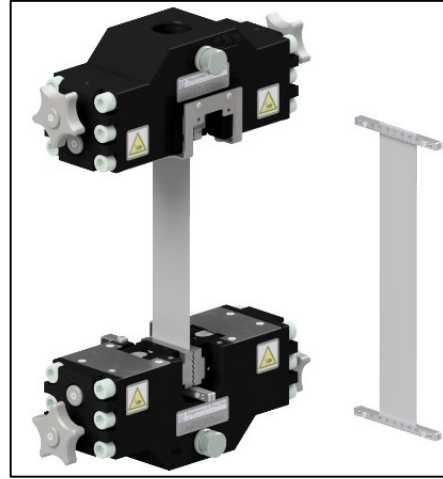


Further accessories:

Specimen depth control stop for big, solid specimen in the screw type wedge action grip (Art.-No.: 14-103-901)



Handling device for flexible specimen (e.g. textiles): (Art.-No.: 14-103-902)

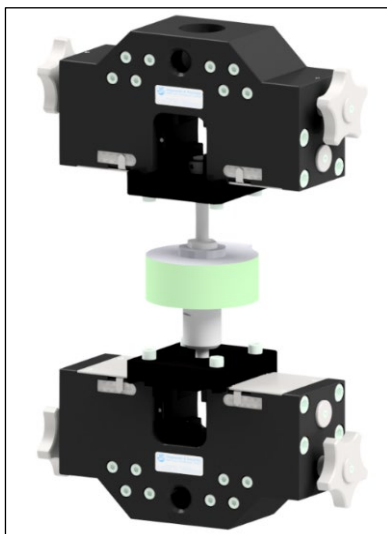


Specimen dimensions length max. 400 mm, width 60 mm, thickness max. 2.5 mm

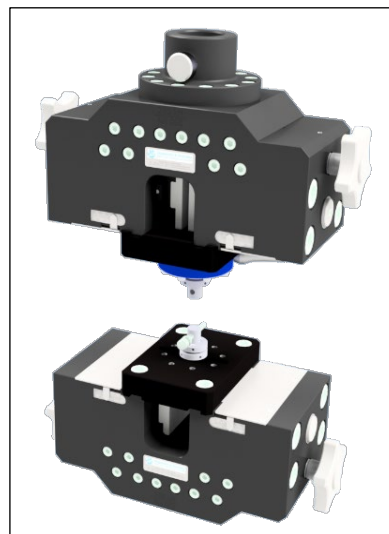
Included in delivery Clamping aid incl. counterweight for crease-free insertion of the specimen

The clamping aid can remain in the screw type wedge action grips during the test.

Adapter for the calibration of the load cell with installed screw type wedge action grip



Installation of adapter plates for small tool connections (Art.-No.: 12-055-xxx)



Installation of testing tools with connection adapter plates (e.g. compression plates 14-104-xxx, bending devices etc.)

