

# **Product information**

# Hydraulic grips 100 kN/250 kN

two-sided parallel closing system or one-sided closing system with manually adjustable clamp counterbearing







#### Field of application:

Hydraulic grips are primarily used for tensile tests where a high clamping force is required. Compression and bending tests can be realised via optional connections in the base body.

#### Specimen materials:

- metals, alloys
- thermoplastics and thermosets as well as fibre-reinforced plastics
- composite materials
- wood-based materials
- (geo) textiles (on request)

## Specimen shapes:

Round and flat specimens, e.g.

- strip specimens
- shoulder specimens
- round bars

#### Advantages:

- Easy change of clamping jaws
- Flat jaws with specimen depth stop
- Low overall height in the machine frame
- Robust and low-maintenance
- Use of special jaw holders for special specimen dimensions possible
- Time-saving adaptation of compression plates, additional smaller load cells, tools and test fixtures possible without removing the clamping fixture via optional slide-in units
- Available as a synchronised version for symmetrical clamping (item no.. 100.21 & 250.21)
  Or with handwheel on one side for symmetrical and asymmetrical clamping (item no. 100.20 & 250.20)

#### Clamping of asymmetrical specimen -

only with hydraulic clamping fixtures closing on one side (*item no. 100.20 and 250.20*)

Due to the switchable synchronisation, the hydraulic grips can be clamped symmetrically and asymmetrically (e.g. testing of shear specimens or slightly curved specimens). The offset can be easily adjusted and is safely maintained even

when re-tensioning. This allows one-hand operation even with asymmetrical specimens. It is also ensured that symmetrical and asymmetrical specimens can be axially aligned in the test axis.



#### Technical data:

- Temperature range: Room temperature
- Clamping pressure max.: 500 bar
- Connection: LK135-12xM12-IG / series inspekt table 100-250 / inspekt 100-250

#### Scope of delivery:

1 pair of hydraulic grips without clamping jaw set

#### Required accessories:

- Clamping jaws for a wide range of specimen shapes and applications (item no. 100.xx or 250.xx)
- 1 hydraulic power unit (item no.: 14-038-2x1)
- 1 computer control for semi-automatic hydraulic units (item no.: 14-036-xxx)
- Connection adapter

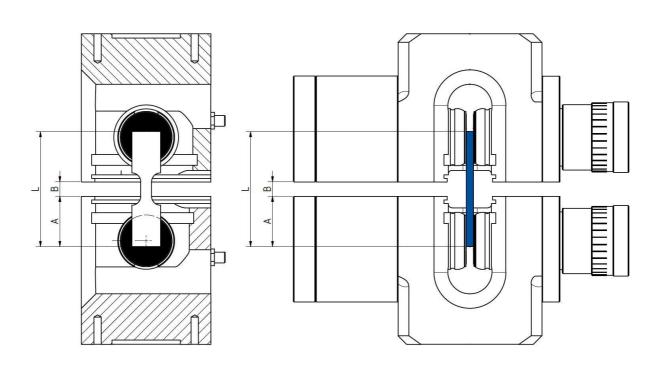
#### Optional accessories:

Coupling elements for other test systems or additional load cells as well as sample clamping aids



### Technical data:

	100.20	100.21	250.20	250.21
Version	one-sided closing system with manually adjustable clamp counterbearing	two-sided parallel closing system	one-sided closing system with manually adjustable clamp counterbearing	two-sided parallel closing system
Weight per clamp	50 kg	60 kg	74 kg	91 kg
Max. test force	100 kN		250 kN	
Fixture dimensions (HxWxD)	175 x 466 x 170 [mm]		206 x 492 x 180 [mm]	
Specimen dimensions	Flat specimens D: 0 - 60 mm, width: up to 53 mm Round specimens: 8 - 60 mm		Flat specimens D: 0 - 60 mm, width: up to 72 mm Round specimens: 8 - 60 mm	
Minimum clamping length (A)	53 mm		70 mm	
Minimum specimen length (L)	111 mm if a MFX long-distance extensometer is used: 136 mm		145 mm if a MFX long-distance extensometer is used: 170 mm	
Minimum distance between the grips (B)	5 mm if a MFX long-distance extensometer is used: 30 mm			

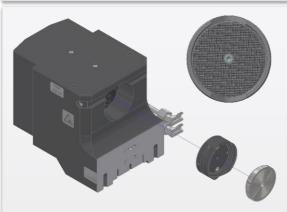




#### Necessary accessories:

#### Clamping jaws for different specimen shapes

# Modular system



- Separate jaw holder and jaw insert
- Easy handling with different specimen shapes and sizes
- Low wear part and spare part costs

#### Available jaw inserts (4 pieces each):

- for flat specimens plane
- for flat specimens with 1 mm or 2 mm profile
- for round specimens with 1 mm or 2 mm profile
  - o specimen diameter 8 18 mm
  - o specimen diameter 16 36 mm
  - o specimen diameter 30 60 mm

#### Further accessories (optional):

## Coupling elements for other clamping fixtures, load cells, calibration devices, etc.

The coupling sliders are inserted into a specially designed groove in the grips.

Example: Coupling of specimen holders for threaded and shoulder specimens, screws and nuts:





Hegewald & Peschke offers alternative hydraulic grips for clamping very short specimens. This tool can be used for testing specimens with a recommended clamping length of at least 35 mm.

Further information is available on our homepage at:

www.hegewald-peschke.com