HYDRAULIC GRIPS

Hydraulic Grip 60-180 kN Clamping

Spring-return hydraulic grips with 60 kN or 180 kN clamping force



OVERVIEW

Hydraulic grips for tensile tests on metals, composites, plastics and textiles. Ø 50 mm spring-return pistons close the jaws with 60 kN clamping force at 315 bar, or 180 kN with three pistons. Single-actuator and symmetric opposed-piston versions are available, with a wide range of hardened jaw faces and air-hydraulic pumps for remote operation.

KEY FEATURES

- 60 kN clamping at 315 bar (85 kN at 450 bar)
- 180 kN version with three Ø 50 mm pistons
- Symmetric versions with opposed pistons and lockable throttles
- Spring-return pistons, 15 mm stroke per piston
- Jaws 60 × 66 mm, 70 × 120 mm and 70 × 210 mm
- Air-hydraulic pumps with remote open/close control

TECHNICAL SPECIFICATIONS

Clamping force	60 kN at 315 bar (85 kN at 450 bar); 180 kN at 315 bar
Test type	Tension, static and dynamic versions
Pistons	Ø 50 mm, spring return, max. stroke 15 mm
Jaw opening	0–30 mm (symmetric), depending on jaws
Jaw face size	60 × 66, 70 × 120 or 70 × 210 mm
Coupling	Female clevis Ø 31.8 mm (1-1/4 in) or Ø 60 mm pin; others on request
Body material	Steel, nickel-plated; jaws hardened 58 HRC
Temperature range	0 to +70 °C; -30 to +100 °C or -10 to +200 °C with special seals
Weight	Approx. 15 kg (single) or 16.1 kg (double actuator) per grip, 60 kN

AVAILABLE VERSIONS

60 kN, single piston	One Ø 50 mm piston, spring return, 15 mm stroke
60 kN, symmetric	Two opposed pistons, 0–30 mm gap, lockable throttles
180 kN, single side	Three Ø 50 mm pistons, spring return
180 kN, symmetric	Six opposed Ø 50 mm pistons, spring return
Dynamic version	60 kN, lighter construction for dynamic tests
Jaws 60 × 66 mm	Smooth, pyramid, V, wave, rubber and diamond faces

APPLICATIONS

- High-strength steel and alloys
- Fiber-reinforced composites
- Geotextiles to ASTM D4595
- Plastic strapping and cords

STANDARDS ASTM D4595, ASTM D4632

Ordering & customization: Specify clamping force (60 or 180 kN), single or symmetric version, coupling, jaw size and face, temperature range and the hydraulic pump or hoses required.

Dimensional drawings
See page 2. Certified drawings and 3D models available on request.

Specifications are typical and may vary by configuration; confirm at time of quote. Custom versions, couplings and adapters available on request. Part ref. UGC-HG-060

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DIMENSIONAL DRAWINGS

FIG. 1

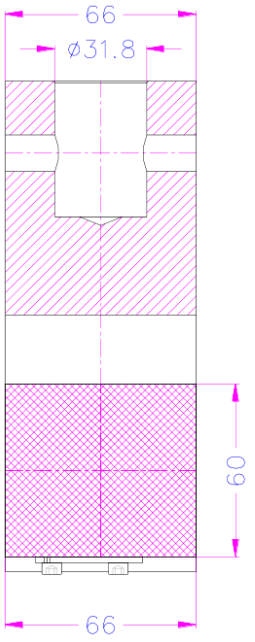


FIG. 2

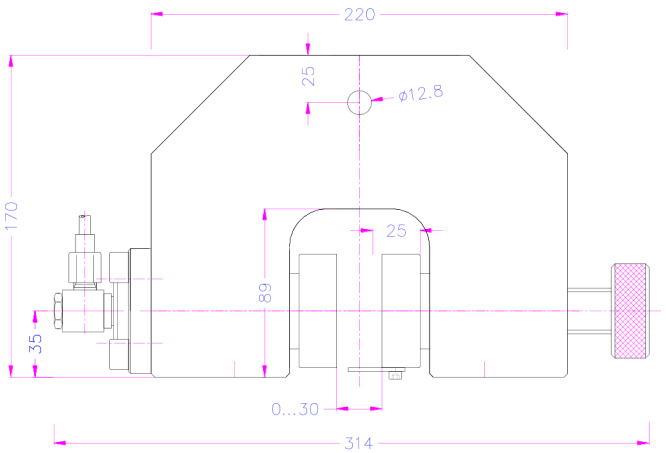


FIG. 3

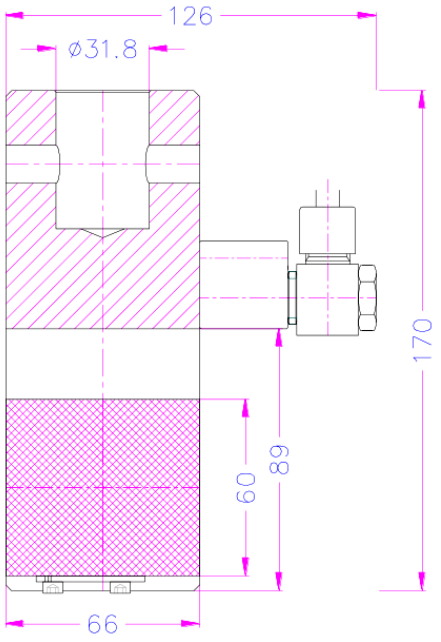
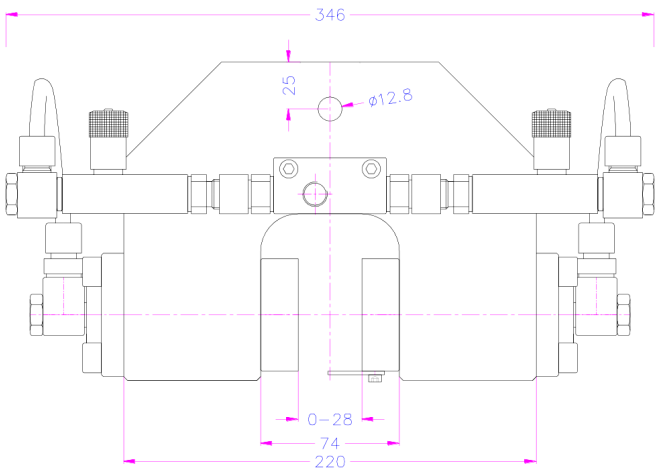


FIG. 4



Dimensions in mm. Drawings are representative of the product family and may show optional versions or accessories; dimensions are for reference only and may change without notice. Certified dimensional drawings and 3D models are available on request.