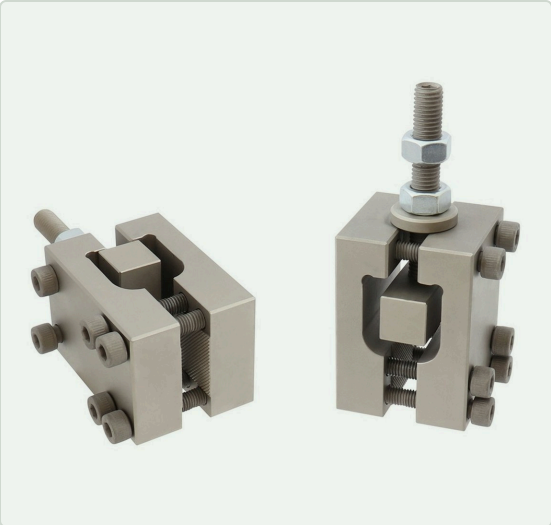
VISE GRIPS

Bone Cement Fatigue Test Fixture

Lightweight 30 kN fatigue grips for bone cement and other rigid specimens



OVERVIEW

Compact, lightweight fatigue grips with high clamping force for constant-amplitude, force-controlled fatigue tests on acrylic bone cement to ASTM F2118. Backlash-free adjustment keeps the specimen tight through cyclic loading, and hardened serrated or V-jaws hold flat specimens up to 12 mm thick or round specimens from Ø 4 to 12 mm. The grips also suit steel, aluminum and fiber-reinforced composites, including in temperature chambers.

KEY FEATURES

- Backlash-free clamping for force-controlled fatigue testing
- Low mass of about 1.5 kg per grip
- Serrated jaws for flat specimens up to 12 mm thick
- V-jaw version for round specimens Ø 4 to 12 mm
- Hardened, nickel-coated steel for -40 to +280 °C
- Threaded stud coupling for rigid, aligned load trains

TECHNICAL SPECIFICATIONS

Max. load	30 kN (static and dynamic)
Test type	Tension-compression fatigue
Specimen size	Flat 0 – 12 mm thick or round Ø 4 – 12 mm
Clamping surface	30 × 30 mm, serration 1.2 × 45°
Coupling	M12 × 1.75 threaded stud
Material	Steel, hardened 58 HRC, nickel-coated
Temperature range	-40 to +280 °C
Weight	1.5 – 1.54 kg per grip
Scope of supply	1 pair of grips

AVAILABLE VERSIONS

Flat-specimen version	Serrated jaws, 0–12 mm, ASTM F2118
Round-specimen version	V-jaws, Ø 4–12 mm, 1 mm tooth pitch
Diamond-coated jaws	30 × 30 mm, opening 0–10 mm
High-capacity specials	50, 100 or 200 kN fatigue grips on request
High-temperature special	30 kN, up to +600 °C, TiN-coated

APPLICATIONS

- Acrylic bone cement
- Medical implant materials
- Steel and aluminum fatigue
- CFRP and fiberglass composites

STANDARDS ASTM F2118

Ordering & customization: Specify flat or round specimen geometry and size, required capacity, coupling thread and test temperature.

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-VG-160

Bone Cement Fatigue Test Fixture

DIMENSIONAL DRAWINGS

FIG. 1

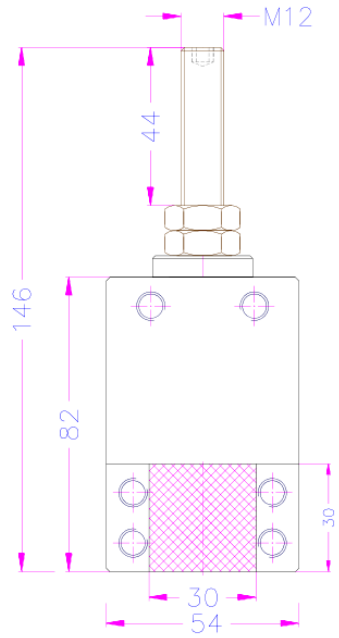


FIG. 2

Max. load:	30 kN
Specimen diameter:	4-12 mm
Clamping surface:	V-jaws with tooth pitch 1 mm x 30 mm
Coupling:	M12 threaded stud
Body and jaws:	Steel, nickel-coated, hardened
Temperature range:	-40 … +280°C
Weight:	1.5 kg each grip
Scope of supply:	1 pair of grips

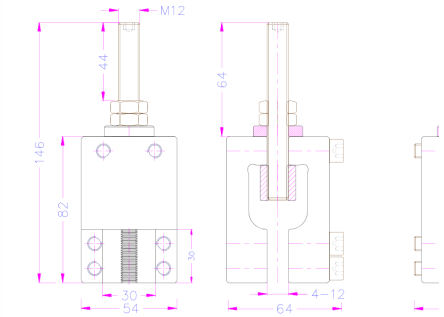
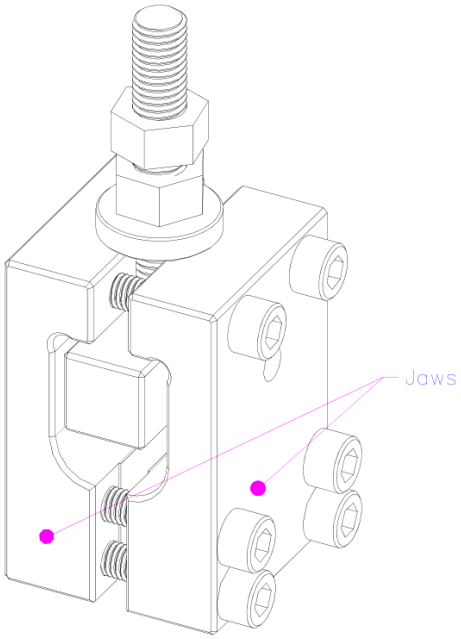


FIG. 3



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.