SHEAR FIXTURES

Shear Fixture with Cardan Joints ISO 1922

Self-aligning shear fixture for core materials and adhesive joints



OVERVIEW

A shear fixture with two cardan joints for testing core materials and adhesive joints to ISO 1922, EN 12090, ASTM C273 and related standards. The specimen is bonded between steel test plates, and the cardan joints align the load path so the specimen sees pure shear. Versions cover parallel shear, angled shear and adjustable shear widths up to 110 mm.

KEY FEATURES

- Two cardan joints ensure self-aligning load introduction
- Parallel shear version to ISO 1922 and EN 12090
- Angled (approx. 5°) version to ASTM C273 and C394
- Adjustable version with 0–110 mm shear width, up to 100 kN
- Supplied as a pair with 2 test plates
- Additional 50.8 × 330 × 15 mm test plates available

TECHNICAL SPECIFICATIONS

Test type	Shear, parallel or angled tensile loading
Max. load	20 kN (Ø 15.9 mm) / 35 kN (Ø 31.8 mm); adjustable: up to 100 kN
Shear width	0–110 mm (adjustable version)
Test plates	50.8 × 330 × 15 mm
Coupling	Female clevis Ø 15.9 mm or Ø 31.8 mm; others on request
Material	Steel, nickel-plated
Temperature range	0 … +70 °C (others on request)
Weight	6.7–11.6 kg per pair, by version

AVAILABLE VERSIONS

Parallel shear	ISO 1922, EN 12090 Fig. 1; 6.7–7 kg per pair
Angled shear, approx. 5°	ASTM C273 Fig. 2, ASTM C394; 7.6–9.6 kg per pair
Adjustable, 0–110 mm	100 kN (0–10 mm thick) / 75 kN (11–20 mm); Ø 31.8 mm
Test plates, 1 pair	50.8 × 330 × 15 mm, steel, nickel-plated
Test plates, 5 pairs	50.8 × 330 × 15 mm, steel, nickel-plated

APPLICATIONS

- Sandwich core materials
- Rigid foams
- Honeycomb cores
- Structural adhesive joints

STANDARDS ISO 1922, EN 12090, ASTM C273, ASTM C394, NF T54-605

Ordering & customization: Specify the version (parallel, angled or adjustable), specimen thickness, coupling size and number of spare test plates.

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-SF-140

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DIMENSIONAL DRAWINGS

FIG. 1

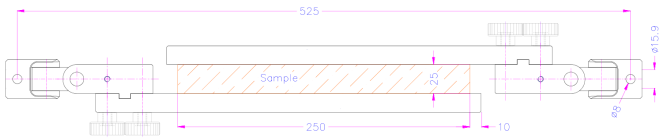


FIG. 2

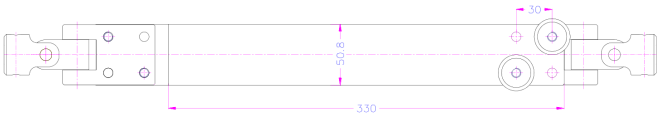


FIG. 3

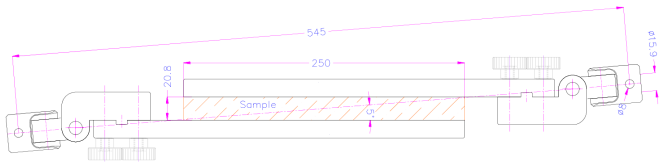
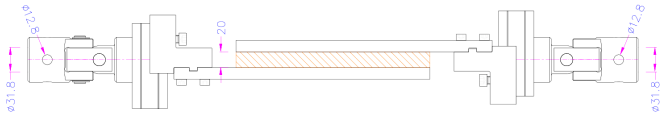


FIG. 4



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.