Tensile Test Fixture for Metallic Materials

Built to ASTM E8 — Standard Test Methods for Tension Testing of Metallic Materials



OVERVIEW

Tensile fixture for testing metallic specimens to ASTM E8. Grip jaws or threaded and shouldered adapters hold round or flat specimens on the loading axis, reducing bending, while the specimen is pulled to failure at a controlled rate so yield strength, tensile strength, elongation and reduction of area can be determined.

KEY FEATURES

- Wedge-action jaws tighten as load increases, preventing slippage
- Interchangeable faces for flat and round specimens
- Threaded and shouldered specimen adapters available
- Self-aligning connection reduces bending on the specimen
- Extensometer-friendly open working area

TECHNICAL SPECIFICATIONS

Test method	Uniaxial tension
Test type / loading	Monotonic tensile loading to failure
Specimens	Flat, round, threaded or shouldered, per ASTM E8/E8M
Load capacity	50 kN standard; higher capacities on request
Fixture material	Heat-treated alloy steel body
Gripping surfaces	Replaceable serrated jaw faces, flat and V-groove
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Steel, aluminum and titanium alloys
- Mill certification testing
- Fasteners, wire and bar stock
- Incoming material inspection

ABOUT THE STANDARD

ASTM E8/E8M covers tension testing of metallic materials in any form at room temperature, including sheet, plate, bar, wire and tube. A specimen of defined geometry is pulled to fracture while force and extension are recorded. Results include yield strength, tensile strength, elongation and reduction of area, widely used for material acceptance and specification compliance.

Ordering & customization: Specify specimen geometry and dimensions, material strength, required capacity and machine connection when ordering.

Specifications are typical and may vary by configuration; confirm at time of quote. Users should refer to the current edition of the standard for test procedures. Part ref. UGC-E8-TF