

Full-Size Bolt and Screw Tensile Test Fixture

Built to ISO 898-1 — Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread



OVERVIEW

Tensile fixture set for testing full-size bolts, screws and studs. Open-window housings accept interchangeable thread adapters and head bearing plates sized by thread diameter, so the fastener is loaded axially through its head and engaged thread; wedge washers can be added for wedge loading tests.

KEY FEATURES

- Open-window housings for fast side loading of fasteners
- Interchangeable thread adapters and bearing plates marked by thread size
- Head bearing plates and wedge washers for wedge loading tests
- Heat-treated alloy steel components for high proof loads
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Full-size fastener tensile, proof load and wedge loading
Test type / loading	Axial tension through head and thread
Specimens	Metric bolts, screws and studs; size range to order
Load capacity	250 kN standard; up to 1000 kN on request
Fixture material	Heat-treated alloy steel
Contact surfaces	Hardened bearing plates, thread adapters, wedge washers
Machine connection	Threaded or pin adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Bolts, screws and studs, classes 4.6–12.9
- Fastener manufacturers and distributors
- Automotive and structural bolting
- Incoming inspection and lot certification

ABOUT THE STANDARD

ISO 898-1 specifies the mechanical and physical properties of carbon and alloy steel bolts, screws and studs in property classes such as 8.8, 10.9 and 12.9. Tests include tensile strength and proof load on full-size fasteners, wedge loading to check head soundness, and tests on machined specimens. Results confirm the fastener meets its marked property class.

Ordering & customization: Specify thread sizes and pitches, property classes, wedge angles needed and test machine capacity and 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-ISO898-1-TF