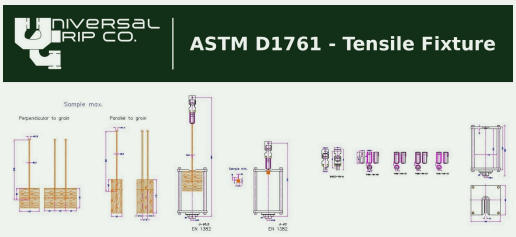
ASTM D1761 Tensile Fixture

Fastener Withdrawal Fixture for Wood

Built to ASTM D1761 — Standard Test Methods for Mechanical Fasteners in Wood



OVERVIEW

Tensile fixture for withdrawal testing of nails, screws and other mechanical fasteners in wood. The wood specimen is held under a rigid restraining plate while a fastener holder grips the head and pulls the fastener along its axis at a controlled rate, recording maximum withdrawal resistance.

KEY FEATURES

- Rigid restraining plate holds the wood specimen down
- Interchangeable holders for nail, screw and lag screw heads
- Holder aligned on the withdrawal axis to limit bending
- Accepts a range of specimen sizes
- Supplied with adapters to suit your load frame

TECHNICAL SPECIFICATIONS

Test method	Direct withdrawal of mechanical fasteners
Test type / loading	Monotonic tension at constant rate
Specimens	Wood members with installed fasteners per ASTM D1761
Load capacity	10 kN standard; higher capacities on request
Fixture material	Steel, corrosion-resistant finish
Gripping surfaces	Fastener head holders; restraining plate
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Nail and screw holding evaluation
- Wood species and product comparison
- Fastener product development
- Connection design data

ABOUT THE STANDARD

ASTM D1761 covers tests to determine the resistance of wood and wood-base materials to withdrawal and lateral loading of mechanical fasteners, including nails, staples, screws, lag screws and bolts, as well as head pull-through. The tests provide data for comparing fasteners, wood species and products, and for establishing connection design values.

Ordering & customization: Specify fastener types and sizes, specimen dimensions, required capacity and test 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-D1761-TF