ASTM D1037 Fig. 13 Tensile Fixture

Nail and Screw Withdrawal Fixture for Wood Panels

Built to ASTM D1037 Fig. 13 — Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials



OVERVIEW

Tensile fixture for direct nail and screw withdrawal testing of wood-base panels. A square restraining plate with a central clearance hole holds the panel down while a fastener holder grips the head and withdraws the nail or screw along its axis, recording maximum withdrawal load.

KEY FEATURES

- Square restraining plate with central clearance hole
- Interchangeable holders for nail heads and screw heads
- Holder aligned on the withdrawal axis to limit bending
- Accepts a range of panel thicknesses
- Supplied with adapters to suit your load frame

TECHNICAL SPECIFICATIONS

Test method	Nail and screw direct withdrawal (Fig. 13 arrangement)
Test type / loading	Monotonic tension at constant rate
Specimens	Panel specimens with driven nail or screw per ASTM D1037
Load capacity	5 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 universal test machines

APPLICATIONS

- Particleboard and MDF screw holding
- Furniture and cabinetry panels
- Oriented strand board fastener tests
- Panel product development and QC

ABOUT THE STANDARD

ASTM D1037 provides test methods for wood-base fiber and particle panel materials, including bending, tension, compression, fastener performance, hardness, shear, moisture and other properties. Direct withdrawal tests measure the resistance of a panel to pulling out nails and screws, an essential property for furniture, cabinetry and construction panel connections.

Ordering & customization: Specify panel thickness, fastener types and sizes, 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-D1037Fig.13-TF