

Bend Test Fixture for Ductility of Metals

Built to ASTM E290 — Standard Test Methods for Bend Testing of Material for Ductility



OVERVIEW

Bend fixture for ductility testing of metallic specimens. Two support rollers and a central mandrel bend the specimen through a specified angle around a defined radius, after which the outer surface is checked for cracks. Adjustable roller spacing and interchangeable mandrels suit a wide range of thicknesses.

KEY FEATURES

- Interchangeable mandrels for different bend radii
- Adjustable roller spacing to suit specimen thickness and mandrel size
- Free-rotating support rollers reduce surface friction and marking
- Hardened, ground contact surfaces for long life
- Simple setup for routine production QC testing

TECHNICAL SPECIFICATIONS

Test method	Semi-guided bend over mandrel
Test type / loading	Compression-driven bending
Specimens	Flat or round metallic specimens, per ASTM E290
Load capacity	Sized to application; 100 kN typical, higher on request
Fixture material	Hardened alloy steel
Contact surfaces	Hardened, ground rollers and mandrels
Machine connection	Threaded or clevis adapter, or press mounting plate
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Sheet, plate and bar ductility checks
- Reinforcing bar and wire bend tests
- Product specification acceptance testing
- Mill and fabrication QC

ABOUT THE STANDARD

ASTM E290 covers bend testing of metallic materials to assess ductility. A specimen is bent through a specified angle around a given inside radius using guided-bend, semi-guided or free-bend arrangements, and the convex surface is examined for cracks or other defects. It is commonly referenced by product specifications for sheet, plate, bar and wire.

Ordering & customization: Specify specimen thickness or diameter, mandrel radius, bend angle, 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-E290-BF