Weld Shear Test Fixture for Welded Wire Reinforcement

Built to ASTM C1452 — Standard Specification for Reinforced Autoclaved Aerated Concrete Elements



OVERVIEW

Weld shear fixture for verifying the strength of welded intersections in wire reinforcement per ASTM C1452. The cross wire is seated against a rigid anvil while the longitudinal wire is gripped and pulled, loading the weld in shear until it fails so the breaking force can be compared with the specified minimum.

KEY FEATURES

- Rigid anvil supports the cross wire close to the weld for a true shear load path
- Accepts a range of plain and deformed wire sizes with interchangeable inserts
- Wedge or serrated jaws grip the longitudinal wire without slipping
- Open design for quick loading of specimens cut from production sheets or rolls
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Weld shear strength of welded intersections per ASTM C1452
Test type / loading	Tension on longitudinal wire, cross wire restrained by anvil
Specimens	Welded intersections cut from AAC reinforcement cages
Load capacity	50 kN standard; higher capacities on request
Fixture material	Hardened alloy steel, corrosion-resistant finish
Gripping surfaces	Hardened serrated jaws; anvil inserts sized to wire diameter
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Reinforcement cages for AAC panels
- AAC lintels and floor/roof elements
- Plant production quality control
- Reinforcement supplier qualification

ABOUT THE STANDARD

ASTM C1452 covers reinforced autoclaved aerated concrete (AAC) elements such as wall, floor and roof panels and lintels. The welded steel reinforcement cages anchor through their cross wires, so the specification includes verification of the strength of welded intersections, tested by shearing the weld between longitudinal and cross wires.

Ordering & customization: Specify the wire diameter range (plain or deformed), cross-wire spacing, 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-C1452-SF