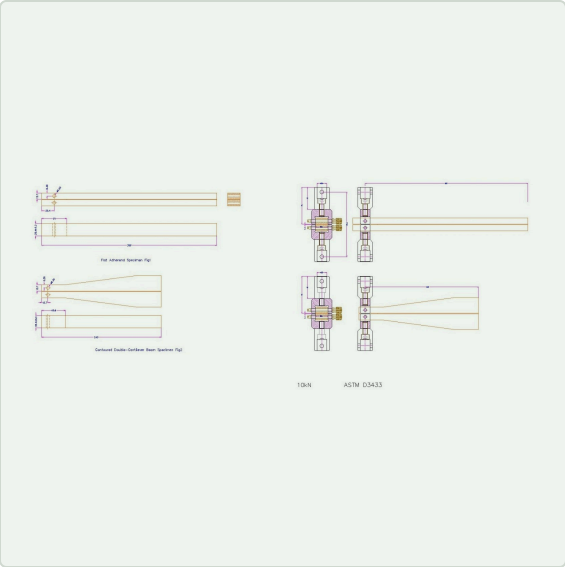
Cleavage Fixture for Adhesive DCB Specimens

Built to ASTM D3433 Fig. 1, 2 — Standard Test Method for Fracture Strength in Cleavage of Adhesives in Bonded Metal Joints



OVERVIEW

Tensile loading fixture for flat and contoured double cantilever beam (DCB) adhesive specimens, per Figures 1 and 2 of ASTM D3433. Clevises connect to the loading holes in each beam arm and pull them apart, driving a crack along the bond line to determine fracture toughness in cleavage.

KEY FEATURES

- Clevises with load pins for flat and contoured DCB specimens
- Self-aligning linkage applies a pure opening (Mode I) load
- Clevis slot widths sized to specimen thickness
- Hardened load pins for repeatable loading
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Cleavage fracture strength (DCB)
Test type / loading	Tension, Mode I opening of beam arms
Specimens	Flat or contoured DCB specimens per ASTM D3433 Fig. 1, 2
Load capacity	10 kN standard; higher capacities on request
Fixture material	Hardened alloy steel
Specimen attachment	Load pins through specimen loading holes
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Structural adhesive fracture toughness
- Aerospace bonded joints
- Surface treatment comparison
- Adhesive development

ABOUT THE STANDARD

ASTM D3433 determines the fracture strength in cleavage of adhesives in bonded metal joints using double cantilever beam specimens, either flat or contoured. The beam arms are pulled apart through loading pins, propagating a crack along the bond line. Load and crack length are used to calculate the critical strain energy release rate for the adhesive.

Ordering & customization: Specify specimen type (flat or contoured), thickness, pin diameter 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-D3433Fig.1,2-TF