

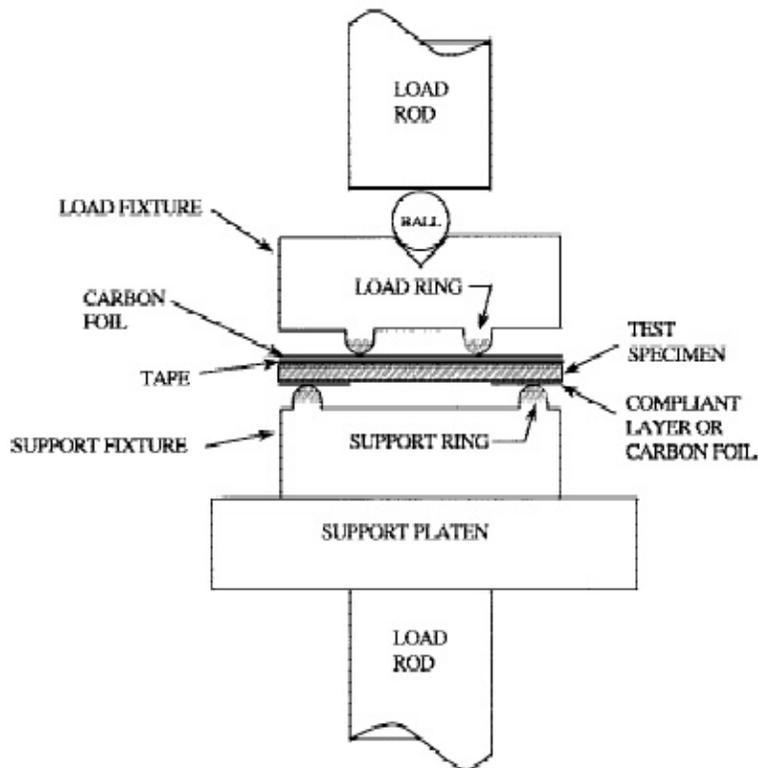
C1499 Fixture – Room Temperature Applications

Loading Rods and Platens

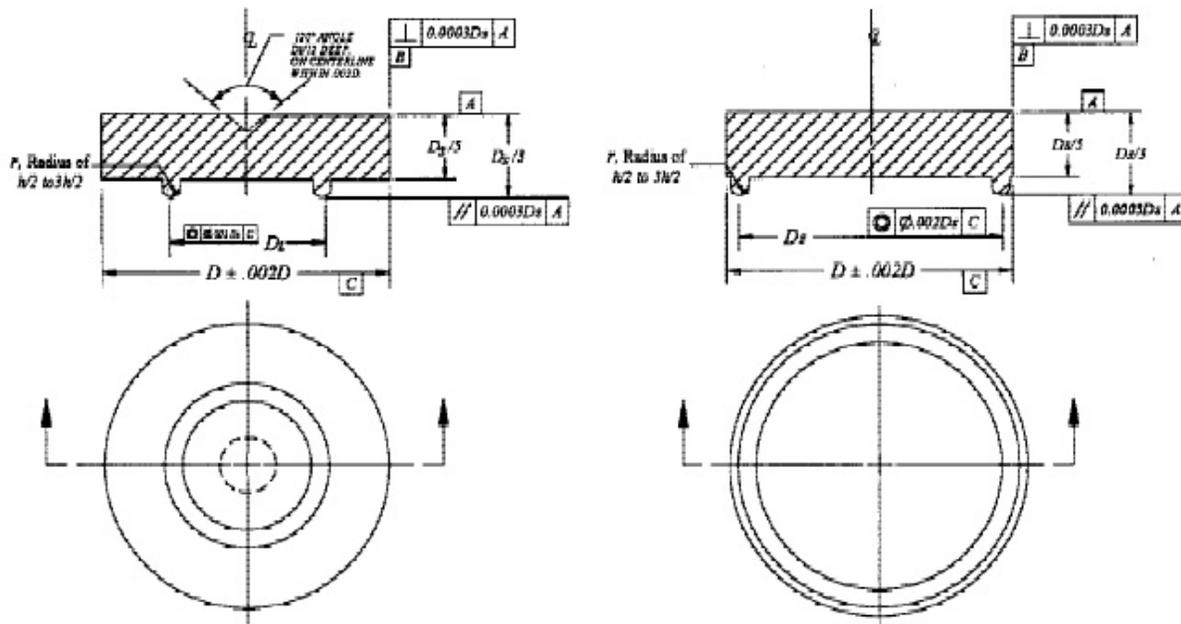
- Surfaces of the support platen shall be flat and parallel to 0.05 mm.
- The face of the load rod in contact with the support platen shall be flat to 0.025 mm.
- Two loading rods shall be parallel to 0.05 mm per 25 mm length and concentric to 0.25 mm when installed in the test machine.

Loading Fixture and Ring Geometry—

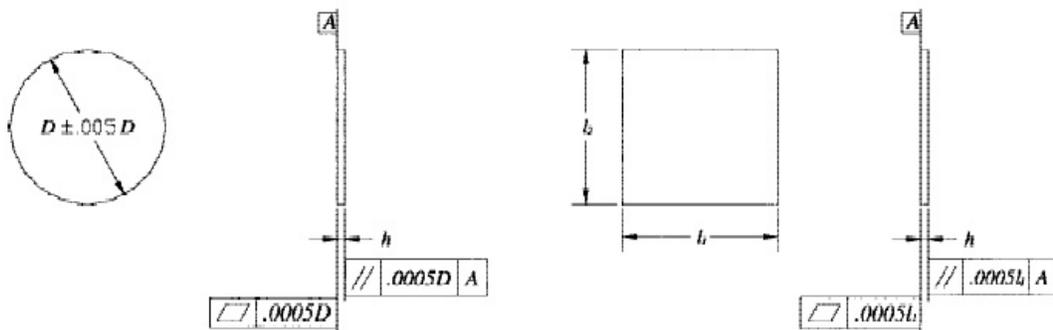
- Bases of load and support fixtures have same outer diameter as the test specimen.
- Parallelism and flatness of faces shall be as given in Fig. 2
- Concentricity of the load and support rings as given in Fig. 2
- Ratio of load ring diameter, DL , to that of the support ring, DS , shall be $0.2 \leq DL/DS \leq 0.5$.
- Load and support fixtures hardened steel HRC > 40.



Section View of Basic Fixturing and Test Specimen for Equibiaxial Testing



NOTE—0.4 to 0.8 μm surface finish. Harden to 40 Rc or greater.
FIG. 2 Load and Support Fixture Designs for Equibiaxial Testing



Round Test Specimen

Rectangular Test Specimen

FIG. 3 Recommended Equibiaxial Test Specimen Geometry (h and D or l_1 and l_2 are Determined from Eq 1-3).

Ring on Ring Fixture – High Temperature Applications

Modified version of C1499 for use at elevated (900C) temperatures – alumina

