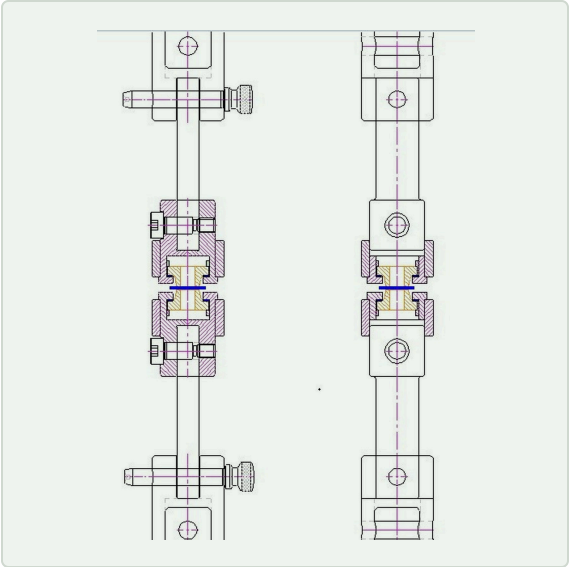
# ASTM F19 Tensile Grip

## Tensile Grip for Metallized Ceramic Seal Specimens

Built to ASTM F19 — Standard Test Method for Tension and Vacuum Testing Metallized Ceramic Seals



### OVERVIEW

Tensile grip set for testing brazed metallized ceramic seal specimens. Self-aligning holders engage the specimen ends and apply pure axial tension across the brazed joint, minimizing bending so the measured strength reflects the metallizing and braze bond rather than stray stress concentrations.

### KEY FEATURES

- Self-aligning holders minimize bending across the brazed joint
- Specimen seats matched to the standard ceramic test piece
- Even load distribution protects brittle ceramic shoulders
- Quick specimen insertion and removal
- Corrosion-resistant, precision-machined construction

### TECHNICAL SPECIFICATIONS

| | |
|---|---|
| **Test method** | Tension test of brazed metallized ceramic seal |
| **Test type / loading** | Axial tension |
| **Specimens** | Brazed ceramic test pieces, per ASTM F19 geometry |
| **Load capacity** | 10 kN standard; higher capacities on request |
| **Fixture material** | Heat-treated steel, corrosion-resistant finish |
| **Specimen seats** | Precision-machined holders to suit specimen shoulders |
| **Alignment** | Self-aligning couplings |
| **Compatible frames** | Electromechanical and servo-hydraulic universal test machines |

### APPLICATIONS

- Metallized ceramic-to-metal seals
- Hermetic electronic packages
- Braze process qualification
- Vacuum device components

### ABOUT THE STANDARD

ASTM F19 covers tension and vacuum testing of metallized ceramic seals, such as those used in electron devices and hermetic packages. Standard ceramic test pieces are metallized, brazed together and pulled to failure in tension to assess bond strength; seal integrity is checked by vacuum leak testing. Results are used to evaluate metallizing and brazing processes.

**Ordering & customization:** Specify specimen geometry, required 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-F19-TG