STANDARDS TEST FIXTURE

# Drift Expanding Test Mandrel ISO 8493

Hardened conical mandrels for drift expanding tests on metallic tubes



## OVERVIEW

Conical mandrels for the drift expanding test on metallic tubes according to ISO 8493. The tube end is pushed over a hardened 30° or 60° cone by the testing machine until the specified expansion is reached, revealing cracks or defects in the tube wall. Mandrels are hardened to 58 HRC and nickel-coated, with cone diameters up to 130 mm and loads up to 250 kN.

## KEY FEATURES

- Cone angles of 30° and 60° per ISO 8493
- Hardened steel, 58 HRC, with chemical nickel coating
- Maximum cone diameters from 80 mm to 130 mm
- Rated to 100 kN; heavy-duty 60° version to 250 kN
- Also usable for flaring tests per ASTM A370
- Use with bottom compression platen on the machine

## TECHNICAL SPECIFICATIONS

| | |
|---|---|
| **Max. load** | 100 kN; 250 kN heavy-duty version |
| **Test type** | Drift expanding (compression) |
| **Cone angle** | 30° or 60° |
| **Max. cone diameter** | 80, 88, 98 or 130 mm |
| **Material** | Steel, hardened 58 HRC, nickel-coated |
| **Coupling** | Female clevis Ø 50 mm or Ø 60 mm (25 mm pin) |
| **Temperature range** | Ambient; others on request |

## AVAILABLE VERSIONS

| | |
|---|---|
| **Cone 30°, max. Ø 80 mm** | Female clevis Ø 50 mm |
| **Cone 30°, max. Ø 98 mm** | Female clevis Ø 60 mm, 25 mm pin |
| **Cone 30°, max. Ø 130 mm** | Female clevis Ø 60 mm, 25 mm pin |
| **Cone 60°, max. Ø 80 mm** | Female clevis Ø 50 mm |
| **Cone 60°, max. Ø 88 mm** | Female clevis Ø 60 mm, 25 mm pin |
| **Cone 60°, heavy-duty** | 250 kN, female clevis Ø 60 mm, 25 mm pin |

## APPLICATIONS

- Seamless and welded steel tubes
- Copper and aluminum tubing
- Tube mill quality control
- Pressure pipe qualification

**STANDARDS** ISO 8493, ASTM A370

**Ordering & customization:** Specify cone angle, tube outside and inside diameter range, maximum load and machine coupling; order the bottom platen separately.

**Drawings available on request**
Contact us for dimensional drawings or 3D models of this product.

Specifications are typical and may vary by configuration; confirm at time of quote. Custom versions, couplings and adapters available on request. Part ref. UGC-ST-680