
PRODUCT DATA SHEET

ASTM/AASHTO Calibration Container

Calibration Vessel for Field Density (Sand Replacement Method) Testing



1. GENERAL INFORMATION

- Equipment Name: ASTM/AASHTO Calibration Container
- Application: Calibration of the sand pouring cylinder's bulk density and cone correction factor for the Sand Replacement (Sand Cone) Method of field density testing
- Standard: ASTM D1556 / AASHTO T191 / IS 2720 (Part 28)
- Use: Geotechnical & Soil Mechanics Laboratory / Field Testing

2. MATERIAL OF CONSTRUCTION

- Body Material: Mild Steel (MS), precision-machined cylindrical vessel
- Retaining Bracket: Forged steel four-arm bracket with bolt-and-nut fasteners to hold the calibration cylinder firmly in place during calibration
- Finish: Smooth powder-coated exterior and interior, corrosion resistant
- Structure: Rigid welded construction with reinforced clamping arms to prevent movement during the calibration procedure

3. DIMENSIONS (STANDARD)

- Internal Diameter: 150 mm / 200 mm (standard sizes; other capacities available on request)
- Internal Height: 150 mm / 200 mm (calibrated volume as per known internal dimensions)
- Volume: Precisely known / calibrated internal volume, marked on the container
- Retaining Bracket Span: 380 mm (across opposite arms), with M10 bolt-and-nut fasteners (4 nos.)

4. DESIGN FEATURES

- Precisely machined cylindrical cavity of known volume for accurate bulk density calibration

- Four-arm retaining bracket with bolt-and-nut fasteners to securely hold the container level and stationary during calibration
- Smooth internal surface ensures uniform, repeatable filling of standard sand
- Rigid, distortion-free body maintains dimensional accuracy over repeated use
- Powder-coated finish for corrosion resistance and long service life
- Compatible with standard sand pouring cylinder apparatus

5. TESTING / OPERATIONAL PURPOSE

- **Determines the bulk density of standard (calibrated) sand used in the sand replacement test**
- Establishes the cone correction factor of the sand pouring cylinder
- Provides a known-volume reference for calculating in-situ field density of compacted soil

6. PERFORMANCE REQUIREMENTS

- Consistent, known internal volume for accurate calibration results
- No leakage or volume loss during sand filling and levelling
- Stable, vibration-free setup during the calibration procedure
- Repeatable and accurate results suitable for continuous laboratory/field use

7. APPLICATION AREA

- Geotechnical & Soil Testing Laboratories
- Highway & Pavement Construction Quality Control
- Earthwork & Embankment Compaction Testing
- Field Density Testing on Construction Sites