



**UNIVERSE**

## **CONSOLIDATION APPARATUS (FRONT LOADING TYPE) AZA0896**

The AZA0896 Front Loading Consolidation Apparatus is a precision-engineered instrument designed for conducting one-dimensional consolidation (oedometer) tests in geotechnical laboratories. Its front-loading configuration offers superior ergonomics compared to conventional top-loading systems, enabling easy placement and removal of consolidation cells, reducing operator fatigue, and minimizing handling errors.

The apparatus is used to evaluate soil compressibility and settlement characteristics, essential for the design of foundations, embankments, retaining structures, and other civil engineering works. Combining operational convenience with high measurement accuracy, the AZA0896 is ideal for both academic and professional testing environments.



### **Key Features & Benefits**

- Front loading mechanism for easy and safe handling of consolidation cells
- Improved ergonomics, reducing operator fatigue and setup time
- Dead-weight loading system ensures consistent load application
- High-precision deformation measurement
- Upgradeable with digital instrumentation (LVDT & data logging)
- Stable and rigid frame for accurate long-duration testing



## UNIVERSE TECHNICAL SPECIFICATION

Parameter	Specification
Model	AZA0896
Test Type	One-Dimensional Consolidation (Oedometer)
Loading Type	Front Loading
Configuration	Single Station
Loading System	Dead weights with lever arm
Load Ratio	10:1 or 1:1 (typical)
Consolidation Cell Sizes	50 mm, 63.5 mm, 75 mm diameter
Deformation Measurement	Mechanical Dial Gauge (standard)
Dial Gauge Resolution	0.01 mm
Maximum Load Capacity	Up to ~1000 kPa (or higher on request)
Optional Upgrade	LVDT with digital display & data logging



## UNIVERSE TECHNICAL SPECIFICATION

Parameter	Specification
Construction	Heavy-duty steel frame
Installation	Benchtop
Stability	High-mass, vibration-resistant design
Compliance	ASTM D2435, BS 1377-5

### Standards Compliance

- ASTM D2435 – One-Dimensional Consolidation Test
- BS 1377 (Part 5) – Compression & Swelling Tests
- Compatible with IS 2720 Series

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