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## **STANDARD COMPACTION TEST AZA0864**

The AZA0864 Standard Compaction Test Apparatus is precision-engineered to perform the British Standard Light Compaction (Proctor) Test in accordance with BS 1377-4 and BS 1924-2.

It is used to determine the Maximum Dry Density (MDD) and Optimum Moisture Content (OMC) of soils under controlled compactive effort. The test simulates field compaction conditions typically achieved by light rollers and rammers, making it essential for quality control in earthwork construction.



### **Main Components**

#### **Compaction Mould**

- Internal Diameter: 105 mm
- Height: 115.5 mm
- Volume: 1000 cc
- Material: Powder-coated mild steel (Gunmetal optional)

#### **Extension Collar**

- Ensures controlled and spill-free soil filling
- Provides additional height during compaction

#### **Detachable Base Plate**

- Facilitates easy specimen removal and cleaning

#### **Standard Compaction Rammer**

- Weight: 2.5 kg
- Drop Height: 300 mm
- Face Diameter: 50 mm
- Manual operation with controlled free fall



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### **Standards Compliance**

- BS 1377 – Part 4 – Compaction Tests
- BS 1924 – Part 2 – Stabilized Materials Testing

### **Purpose & Significance**

The test establishes the relationship between moisture content and dry density of soil under standardized compaction energy.

Determination of MDD and OMC enables engineers to:

- Specify target field compaction levels
- Ensure soil stability and load-bearing capacity
- Control moisture during construction
- Prevent settlement and shear failure

### **Applications**

- Subgrade and embankment compaction
- Road and pavement construction
- Foundation soil preparation
- Soil stabilization studies
- Geotechnical laboratories and site testing
- Academic and research institutions

### **Working Principle (BS Method)**

- Soil is compacted in a mould in three equal layers
- Each layer is subjected to 27 blows using a standard rammer
  - Excess material is trimmed and the mould is weighed
  - Moisture content is determined through oven drying
  - A dry density vs moisture content curve is plotted
  - MDD and OMC are obtained from the peak of the curve



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**TECHNICAL SPECIFICATION**

<b>Component</b>	<b>Specification</b>
Model Number	AZA0864
Standards	BS 1377-4, BS 1924-2
Mould Size	105 mm I.D. × 115.5 mm height
Mould Volume	1000 cc
Rammer Weight	2.5 kg
Drop Height	300 mm
Rammer Face	50 mm diameter
Construction	Powder-coated mild steel
Operation	Manual (Lab & Field use)

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