



### **Unconfined Compression Apparatus, Motorized**

**Unconfined Compression Apparatus** is a testing device used to accurately determine the unconfined compressive strength of soil specimens. Its motorized operation allows for precise and controlled application of axial load to a soil sample without the confining pressure typically applied in other compression tests.

The key purpose of the Motorized Unconfined Compression Apparatus is to provide essential data on soil strength parameters, which are crucial for geotechnical design and analysis. The apparatus is designed with load sensors and displacement measuring devices to accurately record applied loads and soil deformation throughout the test.

### **Feature of Motorized Unconfined Compression Apparatus**

- Equipped with a motorized system that provides a controlled and consistent axial load application to soil specimens.
- Designed to accommodate various sizes of soil specimens.
- Modern apparatus systems come with data acquisition software for real-time data recording, analysis, and generation of stress-strain curves, providing detailed insights into soil behavior.
- Adheres to relevant industry standards such as ASTM and AASHTO for consistent and reliable testing practices.

### **Test Procedure for Unconfined Compression Apparatus**

1. **Prepare the Sample:** Obtain and shape a soil sample as needed. Measure its dimensions and weight.

*Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.*



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2. **Set Up the Apparatus:** Place the sample centrally on the lower platen of the apparatus, ensuring proper alignment and leveling.
3. **Calibrate and Start Testing:** Calibrate the load and displacement systems according to manufacturer guidelines. Start the motorized system to apply load gradually.
4. **Monitor and Record:** Monitor the sample for any deformation as the load increases. Record the maximum load at failure or the specified deformation limit.
5. **Calculate Compressive Strength:** Use the maximum load and sample area to calculate the unconfined compressive strength of the soil specimen.
6. **Report and Clean Up:** Prepare a test report documenting sample details, testing parameters, and results. Clean the apparatus and handle the sample according to laboratory protocols.

**TECHNICAL PARAMETERS**

<b>Capacity</b>	50 kN
<b>Max. V. Clearance</b>	590 mm
<b>Max. H. Clearance</b>	220 mm
<b>Speed Rate (50 Hz)</b>	1.0 mm/min
<b>Dimension (mm)</b>	530 (L) x 375 (W) x 870 (H)
<b>Approx. Weight</b>	53 kg
<b>Power</b>	220 V, 50 / 60 Hz, 1 ph, 0.25 Hp

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