

Soil Compaction

Automatic Soil Compactor

UTS-0620

The Automatic Soil Compactor is designed to compact specimens automatically and uniformly, assuring conformity with the above listed international standards.

The principle of the design is to allow the hammer to drop the required height into the soil in the mould which rotates circularly to distribute the blows uniformly over the surface of the specimen in the mould. The drop height is adjustable to 300 mm, 305 mm, 450 mm and 457 mm. The rammer is circular faced and interchangeable to 50 mm or 50.8 mm diameter. Rammer weight is adjustable to 2.5 kg or 4.5 kg according to reference standard. When compacting 100 mm diameter specimens the unit operates on a single radius and when compacting 150 mm diameter specimens the unit operates on inner and outer radius to obtain even compaction.

The number of blows per layer can be set at the beginning of the compaction process by the digital counter according to the standard preferred by user. This automatic blow pattern ensures effective and equal compaction for each layer of soil by rotating the base table, so the mould, in equal steps and travelling the rammer across the mould. User defined blow number and in-out distribution is also available.

Compactor is equipped with programmable digital counter which allows the machine;

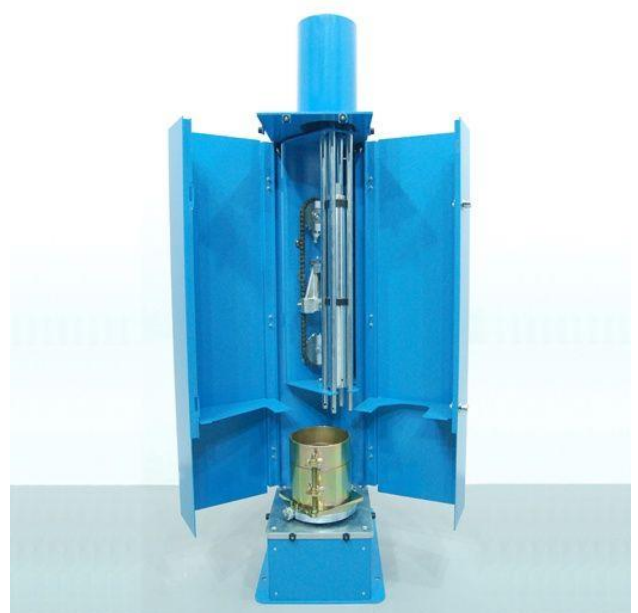
- To select reference standard (number of blows and mould size) by the operator at the beginning of the test.
- To set desired compaction cycle (number of blows and count of the number of inner and outer drops) by user.

The Automatic Soil Compactor is supplied complete with:

- ASTM/EN/BS Rammer
- ASTM Rammer Face, \varnothing 50.8 mm.
- EN/BS Rammer Face, \varnothing 50 mm.

Technical Specifications

Dimensions	650x550x1550 mm
Weight (approx.)	150 kg
Power	370 W



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Proctor Moulds and Rammers

Moulds and rammers are used to determine the connection between the density and moisture content of compacted soil. The moulds are made of plated steel and are supplied complete with a collar, mould body and base plate. Rammers are made of plated steel and are used to compact the soil sample in the Proctor Moulds. Different models are available conforming to the relevant standards.

PCTE are able to supply quality moulds and rammers to the Australian Standard specifications. In Australia, the standard compactive effort of 596kJ/m³ is used. To achieve this, a 2.7kg Hammer is dropped from 300mm a total of 75 times for the 105mm mould, or 180 times for the 152mm mould. The standard also specifies heights, volumes and tolerances for the moulds, as well as diameter, sector radius and segment arc for the rammer/hammer.

Proctor Penetrometer

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The UTS-0665 Spring Type Proctor Penetrometer is used for determining the moisture-penetration resistance relation of fine-grained soils. The apparatus is supplied complete with a spring loading device which is graduated from 10 to 150 lbf in 2 lbf subdivisions.



About PCTE

PCTE have over 30 years' experience in the measurement and testing of construction materials. PCTE can provide more than just the equipment, they can provide expert training. PCTE have a service centre in Sydney in which they can provide calibration, repairs and warranty repairs.

PCTE supply three main ranges: NDT, Lab and Geotech Instrumentation.

NDT includes: Rebound Hammers, Covermeters, Ultrasonics, GPR, Corrosion Testing, Coating Testing and Foundation Testing

Lab includes equipment for: Concrete, Cement, Aggregate, Soil, Asphalt and Metal

Geotech Instrumentation includes: Strain Gauges, Piezometers, Inclometers, Extensometers, Tiltmeters, Load Cells and Dataloggers