SOIL > ATTERBERG LIMITS

LIQUID LIMIT DEVICE (Manual, Casagrande Method)

Code : T030



- The Liquid Limit Device, conforming to the Casagrande method, is used to determine the moisture content at which soil transitions from a plastic to a liquid state. This parameter is critical for soil classification and for evaluating the behavior of fine-grained soils under varying moisture conditions.
- The apparatus comprises a brass cup mounted on a cam mechanism that allows the cup to drop onto a hard rubber base from a standardized height. This setup simulates the shearing action experienced by soils in the field, providing consistent and repeatable results.
- An integrated mechanical counter records the number of blows applied to the soil sample, facilitating precise determination of the liquid limit as per standardized testing procedures.
- The device is available in both manual and motorized versions to accommodate different laboratory requirements and to comply with various international standards. The motorized model ensures uniformity in testing by delivering a consistent number of blows per minute.
- A grooving tool, conforming to the specified standard, is supplied with the device to create a standardized groove in the soil sample, which is essential for accurate measurement of the liquid limit.

- When used in conjunction with the Plastic Limit Test, the Liquid Limit Device aids in calculating the Plasticity Index, a vital parameter for assessing soil plasticity and workability.

STANDARDS

ASTM D4318 • EN 17892-12 • AASHTO T89 • BS 1377:2

TECHNICAL SPECIFICATIONS

- Operation: Manual or motorized
- Cup material: Brass
- Base material: Hard rubber
- Blow counter: Mechanical
- Motorized model blow rate: 120 blows per minute
- Grooving tool: Supplied as per specified standard

SET

Item	Standard	Cup	Grooving Tool
LIQUID LIMIT DEVICE (Casagrande Apparatus) - ASTM	ASTM D4318	Smooth Brass Cup	ASTM, Plastic
LIQUID LIMIT DEVICE (Casagrande Apparatus) - AASHTO	AASHTO T89	Smooth Brass Cup	AASHTO, Metal
LIQUID LIMIT DEVICE (Casagrande Apparatus) - BS	BS 1377:2	Smooth Brass Cup	BS, Metal

ORDERING INFORMATION

Item Name	Item Code
LIQUID LIMIT DEVICE (Casagrande Apparatus) - BS	T030H00BH

LIQUID LIMIT DEVICE (Casagrande Apparatus) - ASTM	T030H01AH
LIQUID LIMIT DEVICE (Casagrande Apparatus) - AASHTO	T030H02AH
MOTORIZED LIQUID LIMIT DEVICE - BS [60 Hz]	T030M00BK
MOTORIZED LIQUID LIMIT DEVICE - BS [50 Hz]	T030M00BT
MOTORIZED LIQUID LIMIT DEVICE - ASTM [60 Hz]	T030M01AK
MOTORIZED LIQUID LIMIT DEVICE - ASTM [50 Hz]	T030M01AT
MOTORIZED LIQUID LIMIT DEVICE - AASHTO [60 Hz]	T030M02AK
MOTORIZED LIQUID LIMIT DEVICE - AASHTO [50 Hz]	T030M02AT
GROOVING TOOL for LIQUID LIMIT DEVICE (Metal) - AASHTO	T030P001H
GROOVING TOOL for LIQUID LIMIT DEVICE (Metal) - ASTM	T030P002H
GROOVING TOOL for LIQUID LIMIT DEVICE (Metal) - BS	T030P003H
ROUGH BRASS CUP for LIQUID LIMIT DEVICE	T030P004H
SMOOTH BRASS CUP for LIQUID LIMIT DEVICE	T030P005H
GROOVING TOOL for LIQUID LIMIT DEVICE (Plastic) - ASTM	T030P006H
HEIGHT GAUGE for T030	T030P007H
RESILIENCE TESTER for T030 - ASTM	T030P008H
RESILIENCE TESTER for T030 - EN	T030P009H
MECHANICAL COUNTER for T030	T030P010H

OTHER PHOTOS



