

## LIQUID LIMIT DEVICE (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**

| Açıklama                                          | Malzeme   |
|---------------------------------------------------|-----------|
| LIQUID LIMIT DEVICE (Casagrande Apparatus) - ASTM | T030H01AH |

|                                                        |           |
|--------------------------------------------------------|-----------|
| LIQUID LIMIT DEVICE (Casagrande Apparatus) - AASHTO    | T030H02AH |
| LIQUID LIMIT DEVICE (Casagrande Apparatus) - BS        | T030H00BH |
| MOTORIZED LIQUID LIMIT DEVICE - ASTM [50 Hz]           | T030M01AT |
| MOTORIZED LIQUID LIMIT DEVICE - ASTM [60 Hz]           | T030M01AK |
| MOTORIZED LIQUID LIMIT DEVICE - AASHTO [50 Hz]         | T030M02AT |
| MOTORIZED LIQUID LIMIT DEVICE - AASHTO [60 Hz]         | T030M02AK |
| MOTORIZED LIQUID LIMIT DEVICE - BS [50 Hz]             | T030M00BT |
| MOTORIZED LIQUID LIMIT DEVICE - BS [60 Hz]             | T030M00BK |
| GROOVING TOOL for LIQUID LIMIT DEVICE (Metal) - ASTM   | T030P002H |
| GROOVING TOOL for LIQUID LIMIT DEVICE (Plastic) - ASTM | T030P006H |
| GROOVING TOOL for LIQUID LIMIT DEVICE (Metal) - AASHTO | T030P001H |
| 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 |
| HEIGHT GAUGE for T030                                  | T030P007H |
| RESILIENCE TESTER for T030 - ASTM                      | T030P008H |
| RESILIENCE TESTER for T030 - EN                        | T030P009H |
| MECHANICAL COUNTER for T030                            | T030P010H |

## **OTHER PHOTOS**

