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Product Name :

Liquid limit devices (Casagrande)

Product Code :

SLE/CE/66



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Description :

Liquid limit devices (Casagrande) (Product Code: SLE/CE/66) are cam-operated brass cup instruments used to determine the liquid limit of fine-grained soils in soil mechanics and civil engineering laboratories. Students and testing staff use them to find the water content at which a grooved soil pat closes over 1.25 cm under 25 blows, with a built-in counter recording every drop. They are made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM among lab instruments manufacturers in India, at its own factory in Ambala.

Specifications

Parameter	Detail
Cup	Brass cup held on an adjustable bracket
Height of fall	Cup adjustable for a fall of 1 cm
Mechanism	Cup raised and dropped by cam action onto a rubber base of standard hardness
Blow counter	Counter registers the number of blows
Grooving tools	One Casagrande grooving tool and one ASTM grooving tool
Height gauge	Height gauge block for setting the drop
Liquid limit definition	Water content at which soil cut by a groove of standard dimensions flows together for 1.25 cm under 25 blows
Soil strength at liquid limit	About 0.17 N/cm² (17 g/cm²)
Product code	SLE/CE/66
Manufacturer	Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM
Country of origin	India (made in Ambala, Haryana)

What Is the Casagrande Liquid Limit Device Used For?

Moist soil paste is spread in the brass cup, a groove is cut through it with one of the grooving tools, and the handle is turned at a steady pace so the cam lifts and drops the cup onto the rubber base. The counter tallies each blow until the two halves of the pat flow together over 1.25 cm. Repeating this at several water contents and plotting blows against moisture gives the water content at 25 blows — the liquid limit.

At that moisture the soil is just passing from a liquid to a plastic state, so the liquid limit, together with the plastic limit, is used to classify clays and silts and to anticipate their compressibility. For colleges sourcing from an engineering lab equipment manufacturer, it is one of the first soil tests students perform. Check the 1 cm drop with the gauge block before each session and keep the rubber base clean and dry.

OEM Manufacturer

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