



**Cone penetrometer method for:**

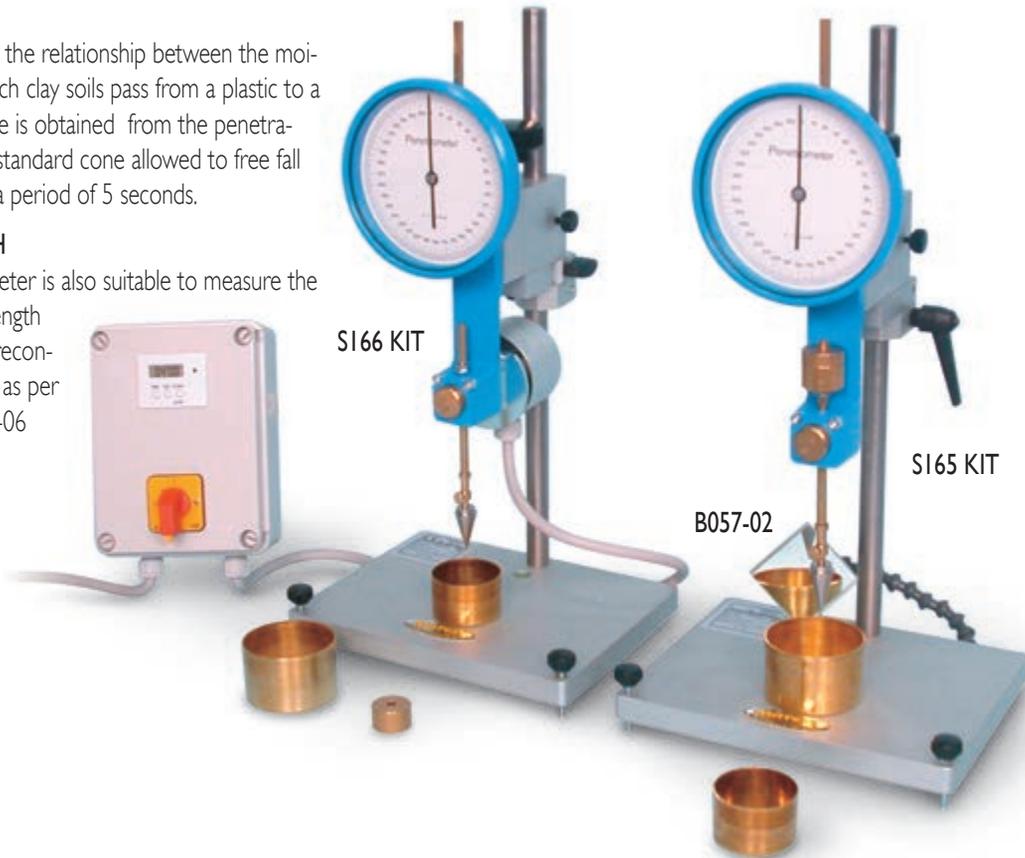
- **Liquid Limit determination.** STANDARDS: CEN ISO/TS 17892-12 / BS 1377:2 / NF P94-052-1
- **Shear Strength determination.** STANDARD: CEN ISO/TS 17892-06

**LIQUID LIMIT**

The test is based on the relationship between the moisture content at which clay soils pass from a plastic to a liquid state. This value is obtained from the penetration capacity of the standard cone allowed to free fall into the sample for a period of 5 seconds.

**SHEAR STRENGTH**

The cone penetrometer is also suitable to measure the shear undrained strength of undisturbed and reconstituted soil samples as per CEN ISO/TS 17892-06 Standard.



**MODELS:**

**S165 KIT  
Cone dial penetrometer**

The cone penetrometer consists of:

- Aluminium base with levelling screws and spirit level.
- Chromed vertical rod with "micrometric vertical displacement device"
- Dial gauge 150 mm diameter, graduated in 360°, division 0,1 mm
- Slider, brass made, with free fall, stop and release push button, automatic zero set.
- Stainless steel penetration test cone 35 mm long, 30° angle
- Weight 20 g.
- Two brass cups dia. 55x35 mm and 70x45 mm

Dimensions: 220x170x410 mm  
Weight: 13 kg approx.

**S166 KIT  
Semiautomatic cone dial penetrometer**

Basically structured as mod. S165KIT, but equipped with a magnetic controller device with electronic digital programmable timer that automatically releases the plunger head and ensures free falling of the cone during the 5-seconds test.

Supplied complete.  
Power supply: 230V 1ph 50Hz 200W  
Dimensions: 220x280x410 mm  
Weight: 15 kg approx.

**ACCESSORIES:**

- S166-03** TEST GAUGE, to check the condition of the cone point 30° angle.
- B057-02** MIRROR, to facilitate the height adjustment of the cone.
- S166-04** TEST CONE 60° angle and 60g weight (liquid limit and shear strength tests).
- S166-05** TEST GAUGE, to check the condition of the cone point 60° angle.
- S166-06** WEIGHT, 320g to be added to the cone 30° angle, to get a total weight of 400g (shear strength test)

**SPARE PARTS:**

- S166-01** Test cone 35 mm long and 30° angle.
- S166-02** Weight 20g to be added to the cone 30° angle, to get a total weight of 100g
- V122-05** Brass cup dia. 55x35 mm
- V122-06** Brass cup dia. 70x45 mm

