

VOLUME CHANGE MEASUREMENT

The volume change gauges are designed to measure changes in volume of specimen, measured in terms of the change in the volume of the cell, during a triaxial shear test. The apparatus consists of an outer acrylic tube and an inner graduated glass burette held between two aluminum blocks. Manifolds are provided to enable water, either to pass through the tubes during measurements or to go direct to the cell when no measurements are required. The indicator is coloured paraffin (not supplied with the unit). The volume changes are measured by the downward movement of paraffin/water inter-face in tube burette. In the twin burette gauges the manifolds allows the reversal of flow of water, this enabling continuous measurements when testing large diameter samples. The gauges are designed for a working pressure of 1000kpa.

(Higher pressure optional)

●● HS28.120

Single Burette Gauge

Capacity 10 ml x 0.05 ml.

The whole assembly is fitted on a steel board suitable for wall mounting.

Spares:

HS28.120.1 Glass Burette (pair) 10 ml x 0.05 ml.

●● HS28.125

Single Burette Gauge

Capacity 25 ml x 0.1 ml.

Similar to HS28.120 but designed for a larger volume change measurement.

Spares:

HS28.125.1 Glass Burette (pair) 25 ml x 0.1 ml.



HS28.125

●● HS28.130

Twin Burette Gauge

The unit consist of two burettes of 50mlx0.2ml provided with valves and manifolds for reversal of direction of flow while in use with Triaxial cell and constant pressure system. The assembly is fitted on a laminated board for wall mounting.



HS28.130

●● HS28.135

Sensitive Volume Change Gauge

Specially designed for research purpose, the volume changes of the order of 0.003 cc can be measured during slow triaxial tests. It consists of a long capillary tubing

about 2 mm inside diameter, fixed along a scale.

The ends of the tubing connected through mercury traps to a valve manifold from which the direction of fluid flow in the capillary tubing can be reversed without affecting the precision of the test.

Directional control valve with flow reversing facility and and by-passing the volume change unit is provided as standard.

Capacity of gauge is about 6 cc per cycle and can withstand a pressure of 21 kg/cm².

●● HS28.140

Electronic Volume Change Unit

The unit is lightly sensitive and accurate unit for the measurement of volume change. It has a frictionless rolling bellowfram seal coupled to submersible type displacement sensor. Sensitivity of the system is 0.01ml. Change in volume is directly displayed on digital display system in engineering units.



HS28.140