

AIR ENTRAINMENT METERS

Since recent studies have shown that uniformly distributed entrained air improves the properties of concrete in many ways and also considerably improves the workability of fresh concrete, their use in all major construction works involving mass concreting is now being widely adopted. Though entrainment of correct proportion of air gives the concrete good weathering resistance, too much of it affects the strength while too little causes rapid deterioration by weathering. As such, control of the air content in fresh concrete to optimum proportion before its placement through regular test checks by right type of equipment is very important.

HEICO offers two different models of air entrainment meters; that is type A and type B for estimation of air content of concrete mixes having different maximum sized aggregates. They are pressure type instruments and use the principle of **Boyle's law** for indication of air content in the concrete.

TYPE - A

●● HC48.05

Air Entrainment Meter, Cap. 0.005 cum. IS : 9799-1981

Suitable for concrete containing 38 mm nominal maximum sized aggregate. The apparatus consists of a measuring bowl of 0.005 cum. capacity. A flanged conical cover assembly fits over the bowl that can be sealed with clamps keeping a rubber gasket in between.

A water inlet valve with a spray tube and air bleed valve are fitted on the conical cover assembly.

A pressure gauge is mounted on the top of the stand pipe. A hand pump is provided for application of pressure. Supplied complete with one calibrating cylinder, a rubber mallet, one measure and one tamping rod.



HC48.05

●● HC48.10

Air Entrainment Meter, Cp. 0.007 cum. IS : 9799-1981

Similar to HC 48.05 but the capacity of the bowl is 0.007 cu m. It is used for concrete containing 38 mm maximum sized aggregate.

●● HC48.15

Air Entrainment Meter, Cap. 0.01 cum. IS : 9799-1981

Similar to HC 48.05 but the capacity of the bowl is 0.01 cu m, for use with concrete containing 75 mm maximum sized aggregate.

●● HC48.20

Air Entrainment Meter, Cap. 0.1 cu m, IS : 9799-1981

Similar to HC 48.05 but the capacity of the bowl is 0.1 cu m. Suitable for concrete containing 150 mm maximum sized aggregate.

TYPE - B

This is a precise, quick and rugged instrument for the measurement of air content. Reading is displayed directly in percentage on a 100 dia gauge. Apparatus consists of a 0.008 cu m chamber, clamps and a cover with integral pump.

●● HC48.25

Air Entrainment Meter, Type - B Capacity 0.008 cu m, IS : 9799-1981

It is used for concrete containing 38mm maximum size aggregate.



HC48.25