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Product Name :Separating and Throttling Calorimeter Bench

Product Code: LBNY-0005-16300012



Description:

The steam bench includes an insulated separating calorimeter, equipped with a water level sight glass, connected via fixed orifice to a lagged throttling calorimeter which exhausts to a water cooled steam condenser. Separating and Throttling Steam Bench consists of a sturdy framework and panels of all steel construction, fitted with a student work surface, interconnecting back panel and adjustable feet. A manometer is provided for measuring the pressure inside the throttling calorimeter and thermocouples are provided for measuring steam supply and temperatures which may be individually selected for display on an analogue temperature meter.

Experimental Capability:

To determine the dryness fraction of steam i.e. The quantity of dry vapour present in any wet vapour mixture.

Technical Specification:

The separating calorimeter is fitted with a graduated level gauge, protected by a clear Perspex tubular shield, and a drain line with isolating valve; the throttling calorimeter is fitted with brass orifice block, a temperature measuring point, a pressure measuring point connected to a manometer via an isolating valve, and a steam outlet line to a steam condenser with cooling water supplied from the service line, via an isolating valve, and connected to drain via a combined sight glass and check valve. Steam bench designed for determining the dryness fraction of steam. The bench includes series connected mild steel separating and throttling calorimeters, each welded in accordance with designed for a maximum working pressure of 10.34 bar and a maximum steam temperature of 235C, and lagged with fibreglass insulation enclosed within a mild steel cover. Steam supply pressure is indicated on a 016 bar Bourdon type pressure gauge and analogue indications of temperatures are provided by a 0250C meter connected via toggle switch to type K thermocouples fitted at the temperature measuring points. Steam is supplied to the separating calorimeter from a fully insulated steam header via a

steam control valve; the steam supply line having temperature and pressure measuring point fittings.



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