



Features

- Designed to demonstrate filtration process.
- Non corrosive acrylic filter column used in the trainer.

Tesca Deep Bed Filter Column 32470 is designed to study the characteristics of a filter column. It consists of an acrylic unit with flanged end pieces to allow easy access. It consists of a column filled with Ballotini packing to ensure the good water distribution. Slotted pressure tapings are mounted on the column for measuring the pressure drop across the bed per unit length and staggered over an approximate 0.8 m depth. These tapings are connected to a differential manometer. These tapings can also be used for drawing the samples from the column and change in concentration of the suspension can be determined. The unit is complete with 2 Nos. of feed tanks. A centrifugal pump is provided to circulate the water through the column under 1 Atmospheric pressure. Water supplied to the column is regulated and controlled by Rotameter. The 10 kg bag of filter medium will be supplied with the set-up. Detailed Operation & Maintenance Manual is provided along with the trainer.

Specifications

The unit comprises the following main items:

Absorption Column

Filter column: Clear acrylic, 100mm internal diameter x 1350mm long

Typical media depth: 700mm

Note: Specifications are subject to change.

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Gauze mesh size: 0.35mm

Sump tanks: 2 - capacity 350 litres each

Flow meter range: 0.5 - 5.0 litres/min

Manometers: 41 tube multi-bank

Pump rating: 0.37Kw

Experiment Possibilities

To study the increase in loss of head with respect to time in the filter bed.

To plot the pressure drop profile through the filter bed.

To demonstrate the reversed flow fluidization and backwashing.

To measure the suspension concentration profile through the filter bed.

Services required

- Electric Supply 230 V AC, Single Phase, Earthed.
- Water: Tap water supply & Drain.