NAPRO
Total Process Solutions

NAVIN PROCESS SYSTEMS

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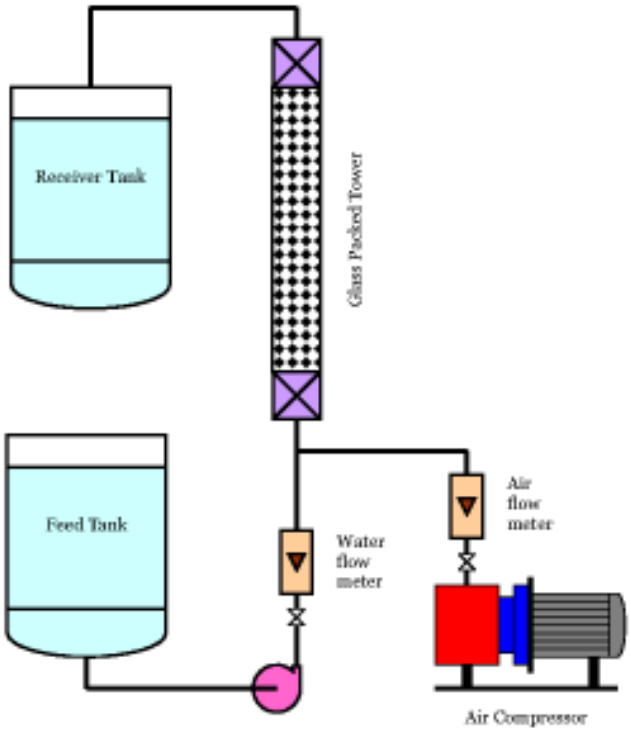
# PACKED COLUMN APPARATUS




A packed column apparatus is employed to study a number of phenomena related to fluid flow, such as hydrodynamics, loading velocity, flooding velocity, mass transfer, liquid-liquid extraction, flow field, velocity distribution, turbulence, axial mixing, etc. It is a valuable tool for numerical simulation & computational fluid dynamics.

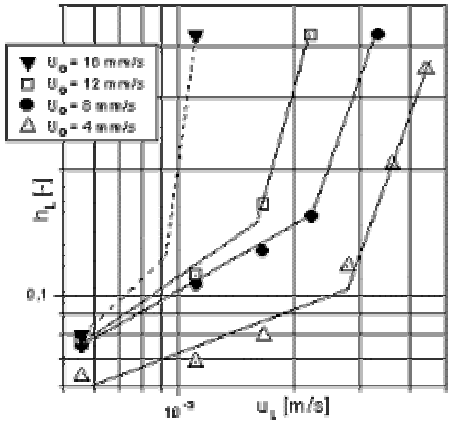
The standard apparatus consists of a 100 mm internal diameter glass column with 1.0 m height of packing. However, different sizes & H:D ratios can be provided as per requirement. It is suitable for liquids, gases as well as a combination of both. For liquids, a feed tank, receiver tank, feed pump & liquid flow meter are provided. An air compressor with an air flow meter is provided for gas-phase experiments. Structured or random packings in plastic, ceramic, or other appropriate materials can be used.

Feed fluid is pumped on top of a mixer/distributor-element, which ensures a uniform distribution of the liquid over the entire cross section of the column. The liquid flows upwards through the packing & exits at the top of the column.

The flooding point is an important design parameter since it establishes the maximum hydrodynamic capacity at which a packed column can operate. The Billet-Buchanan models for packed columns can be studied within the flooding region. Experiments can be conducted for determining flooding point v/s liquid load & flooding pressure drop v/s liquid load.

Salient features of our product are as follows :-

1. Suitable for use in colleges & research laboratories
2. Interdisciplinary training is facilitated
3. Works on single phase AC power
4. Silent operation, negligible vibrations
5. User friendly; easy to operate & maintain
6. No operator training required
7. Compact, requires minimum table/floor space
8. Low maintenance downtime & cost
9. PC-based process control with SCADA software available
10. Can be hooked up to existing process control system




*Manufactured in India by :-*

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