

Features

- Designed to demonstrate Batch Distillation Process.
- Distillation of several mixtures possible.
- Comprehensive Instrumentation Panel with all necessary measuring instruments & Safety Devices.

Tesca Pilot Scale Continuous Distillation Column has been designed and constructed to demonstrate the batch distillation process. It includes a borosilicate glass distillation column including a re-boiler, a sieve-tray column and condenser with reflux head and reflux valve. Glass tank for collection of the distillate is also included.

Following components are included in the trainer

1. Discontinuous rectification with packed and sieve plate column
 2. Interchangeable columns
 3. Sieve plate column with 8 plates
 4. Packed column with Ranche rings
 5. Vacuum mode possible with water jet pump
 6. Electrically heated evaporator
 7. Tank for top product
 8. Condenser and phase separation tank for top product
 9. All tanks made of DURAN glass and stainless steel
 10. Adjustment of reflux ratio using valves
 11. 8 temperature measuring points per column
- Detailed Operation & Maintenance Manual is provided along with the trainer.



Specifications

The Pilot Plant comprises the following main items:

- Wheeled AISI 304 stainless steel structure
- Borosilicate glass distillation column, DN50, h-600-765 mm approx. with 7 sieve trays
- Borosilicate glass tank for the distillate, 1-2 L
- Variable – area flow meter
- Borosilicate glass reboiler of 3 L capacity, including electrical heater
- 6 digital thermometers
- Borosilicate glass condenser with reflux head
- AISI 304 stainless steel tube-in-tube heat exchangers
- Thyristor control unit for the reboiler electrical heater Switchboard IP55, complying with CE standards. With plant synoptic and ELCB and emergency pushbutton

Experiment Capabilities

- Distillation of several mixtures (water/ethanol, water/methanol, methanol/propanol, etc) according to the variation of different operating parameters
- Flooding phenomenon
- Energy and mass balances

Services Required

- Electric Supply 220 - 240V AC, 16 A, Single Phase, Earthed.
- Water, Tap water supply & Drainage.

Note: Specifications are subject to change.

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