



Heat Exchangers are devices in which heat is transferred from one fluid to another. Tesca Parallel Flow / Counter Flow Apparatus is a tube in tube type concentric tube heat exchanger. Hot fluid flows through inner tube and cold fluid flows through outer tube. The direction of cold fluid flow can be changed from parallel flow to counter flow with the help of valves. Thermometer pockets with thermometers are provided to measure temperatures of incoming and outgoing cold and hot fluid.

An electrical geyser of sufficient capacity is provided to obtain hot water. Flow rates of cold and hot water can be controlled by means of valves and measured by measuring flask. Main test section is insulated to minimize heat losses.

Specifications

1. Length of heat exchanger - 1.5 m
2. Outer Tube- G.I. O.D. 38 mm I.D. 27.5 mm
3. Inner Tube - Copper, O.D. 12.5 mm
4. Digital Temperature Indicator
5. Geyser - 3 KW capacity.
6. Measuring Flask & Stop Clock.

Experimentation

1. Determination of overall heat transfer co-efficient for a tube in tube type heat exchanger.
2. To calculate -
 - a) Rate of heat transfer.
 - b) L.M.D.T.
 - c) Theoretical overall heat transfer co-efficient

Services Required

1. 230 V.A.C. stabilized supply with proper earthing terminal
 2. Floor space - 3.5 m X 1 m at working height.
 3. Water supply about 10-15 L.p.m. at constant head.
 4. Adequate drainage system
1. Determination of overall heat transfer co-efficient for a tube in tube type heat exchanger.

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.

IT-2013, Ramchandrapura Industrial Area, Sitapura Extension,
Near Bombay Hospital, Vidhani Circle, Jaipur-302022, Rajasthan, India,
Tel: +91-141-2771791 / 2771792; Email: info@tesca.in, tesca.technologies@gmail.com
Website: www.tescaglobal.com