TH 231 JACKETED VESSEL WITH COIL & STIRRER

GENERAL DESCRIPTION:

The apparatus is used for studying heat transfer with either an external jacket or an internal coil under batch wise or continuous feed conditions.

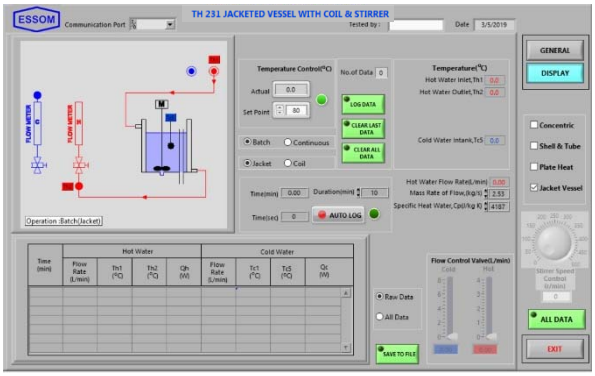
The unit consists of a jacketed vessel with a coil and stirrer and a service module. The module comprises a hot water tank with a transfer pump and instruments for monitoring and control. Parallel or counter flow or changing from jacked vessel to coil and stirrer may be done by rearranging flexible hoses.

A cold fluid in a vessel is heated by a hot fluid in the jacket or in the coil. An adjustable speed a stirrer and baffles are provided to allow thorough mixing of the vessel contents. The content volume in the vessel can be varied by an adjustable height overflow pipe. The unit requires outside water supply.

Instruction manual is also included.

EXPERIMENT CAPABILITIES:

- Demonstration of heat transfer for jacketed vessel with or without stirrer both continuous and batch types.
- Demonstration of heat transfer for heating coil with or without stirrer.
- Determination of heat transfer coefficient.
- Effects of flow rate and temperature difference.
- Effect of vessel content.



TECHNICAL DATA:

- Stainless steel vessel : Maximum content 2.5 L
  - Stainless steel jacket
  - Stainless steel coil.
  - Stirrer : 0- 500 rpm
- Service module consisting of:
  - Hot water pump
  - Heater : 3000 W
  - Flow meters : Hot water
    : Cold water
  - Temperature control unit to limit temperature of hot water to not more than 80°C
- Software for data display and analysis by computer (separately supplied).
- Power supply : 220 V, 1 Ph, 50 Hz. Other power supply is available on request.

OPTIONAL EQUIPMENT:

- TH 010 Flow digital display
- TH 231-050 Computer Interface
  Sensors with computer interface unit for key data acquisition instead of analog data measuring instruments.
  This includes computer interface unit with water flow sensors instead of rotameters.
- TH 231-060 Computer Control
  This includes flow control motors, water flow sensors instead of rotameters, computer interface unit and additional software for control by computer (separately supplied).

- Other optional equipment, please contact manufacturer (essom@essom.com)

Net (unpacked) shipping dimensions WxLxH : 50 x 115 x 65 cm
Net weight : Approx. 50 kg

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