

Demonstration of Boiling

DESCRIPTION

- Hot water is pumped through the external tube of a glass concentric-heat exchanger. This heat is exchanged with the refrigerant found in the internal tube, causing it to boil. The tube containing the refrigerant is partially evacuated and the heat absorbed creates natural convection currents in the liquid. The translucent exchanger enables the observer to see the change in phase from liquid to vapour during the heating process.
- The unit PBE 010 is delivered complete with instrumentation along with a technical manual and instructions.

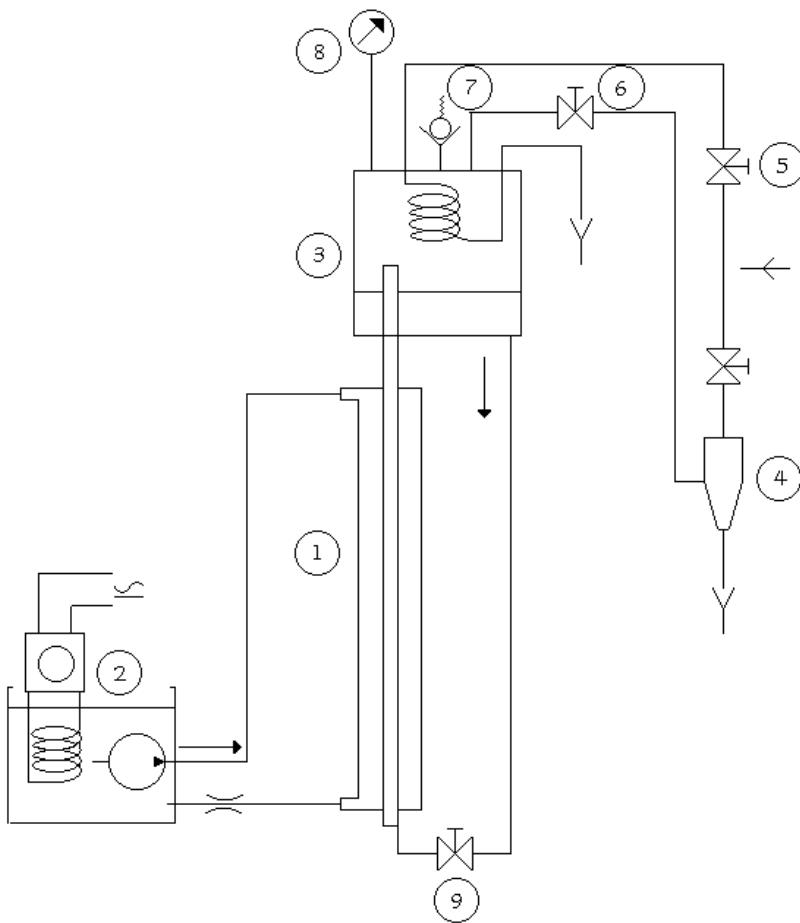


SUGGESTED APPLICATIONS

Observation of the change in phase from liquid to vapour while heating the refrigerant. This unit permits observation of

- convection currents
 - heat transfer
 - various states of the refrigerant from supercooled liquid to overheated vapour
- Observation of the disruptive effect of air in a condenser

PBE 010



1. Glass concentric tube exchanger
2. Pump and thermoregulator 500 W
3. Refrigerating fluid tank with water condenser
4. Air ejector with fountain (vacuum pump)
5. Control valve for the condenser water flow rate
6. Emptying and vacuum valve
7. Safety valve
8. Manometer
9. Flow rate valve of the refrigerant

UTILITIES

Electricity : 230 V single-phase - 50 Hz – 0.5 kW
Water : 0.15 m³/h (refrigeration)
0.5 m³/h (vacuum pump) 2 bars

DIMENSIONS AND WEIGHT

Length : 400 mm
Width : 400 mm
Height : 1800 mm
Weight : 35 kg