

## Study of condensation

### DESCRIPTION

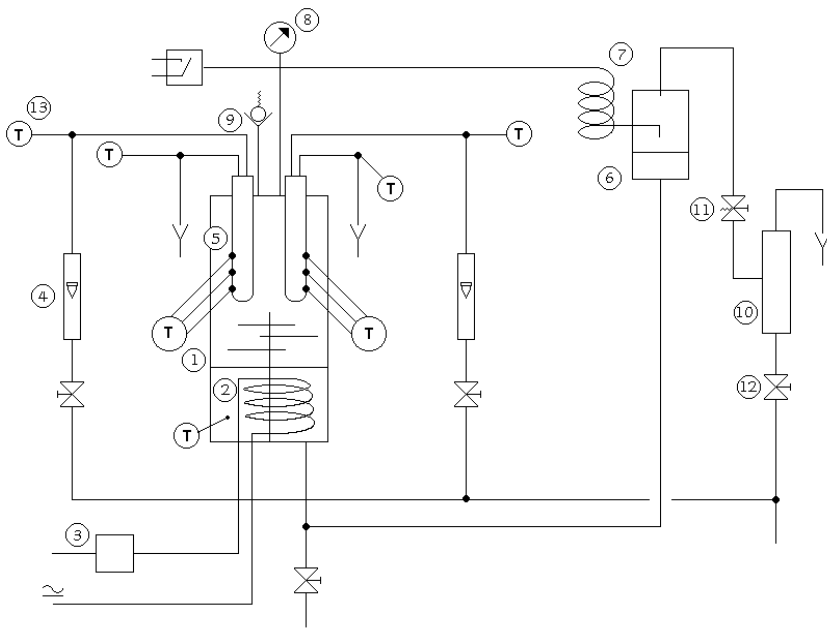
- Water in a closed glass chamber is heated by an electric heater and is converted into vapour.
- This vapour is condensing in drops on one condenser and as a film on another condenser.
- An air jet blower extracts the air from the condensers.
- The instruments of this unit make it possible to measure the heat exchanged and to observe the advantages of condensation in drops over condensation as a film.
- The BEC equipment is delivered complete with instrumentation and includes a technical manual as well as instructions.



### SUGGESTED APPLICATIONS

- Visual observation of the boiling water and the condensation in drops and as a film.
- Measurement of the heat flow and the surface heat transfer coefficient for the condensation in drops and film
- Examination of the relationship between temperature and pressure for the saturated water vapour between 50°C and 100°C
- Visual demonstration of the effect of air in a condenser
- Observation of DALTON's law.

# BEC 010



1. Glass tube
2. Heater
3. Heater control (3 kW maximum)
4. Two flow meters  
20 - 200 L/h  
4 - 40 L/h
5. Two condensers (film,  
drop)
6. Separator
7. Cooler
8. Flow meter  $\pm 1$  bar
9. Safety valve
10. Air jet blower with water jet (vacuum  
generator)
11. Air extraction valve
12. Control valve for the jet blower
13. Eleven temperature measurements  
Three for each condenser  
Four for the water inlets and outlets  
One for the boiling temperature

## UTILITIES

Electricity: 230 V single phase - 50 Hz – 3 kW  
Water : 800 L/h maxi (2.5 bars are required)

## DIMENSIONS

Length : 500 mm  
Width : 400 mm  
Height : 620 mm  
Weight : 30 kg