SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

Phone: +91 7015865225 **Email:** info@scienticoindia.com **Web:** scienticoindia.com **Address:** #71, Industrial Area, Ambala Cantt, Haryana, India

Bubble Point Calculation Unit | ThermoFlux-27

Category: Thermodynamics Lab Equipment · **Order Code:** THERMOFLUX-27 · **Country of Origin:** India

Product Overview

The Bubble Point Calculation Unit ThermoFlux-27 is a standalone laboratory unit for comparative study of bubble point and dew point phenomena. This bubble point calculation unit includes a boiler with a temperature controller and 0 to 3 kW power regulating knob, a 3-litre glass and stainless steel feed tank, a 0.5-litre glass and stainless steel vapour separation tank, and a 780 mm coil-type glass condenser. Three temperature channels (-100 to 400°C each), a cooling water flow rate measurement (1 to 7 lpm), and a system pressure gauge (0 to 4 bar) provide complete process monitoring. Students separate a solvent from a solution using both the bubble point method and the dew point method on the same apparatus.

View this product online: https://scienticoindia.com/product/bubble-point-calculation-unit-thermoflux-27/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Bubble Point Calculation Unit ThermoFlux-27, Technical Specifications

Parameter	Value
Model	ThermoFlux-27
Unit Type	Standalone bubble point and dew point experiment unit
Heater Control	Temperature controller with power regulating knob
Heating Power Range	0 to 3 kW
Temperature Measurement Channels	3
Temperature Measurement Range	-100 to 400°C per channel
Measurements	Boiler vapour temperature, vapour separation temperature
Condenser Type	Coil
Condenser Material	Glass
Condenser Height	780 mm
Feed Tank Capacity	Approx. 3 litres
Vapour Separation Tank Capacity	Approx. 0.5 litres
Tank Materials	Glass and stainless steel
Cooling Water Flow Rate Range	1 to 7 lpm

Parameter	Value
System Pressure Gauge Range	0 to 4 bar
Scope of Delivery	1 experimental unit, 1 instruction manual

Technical Data

Condenser

Parameter	Value
Type	Coil
Material	Glass
Height	780 mm

Tanks

Tank	Capacity	Material
Feed tank	Approx. 3 litres	Glass and stainless steel
Vapour separation tank	Approx. 0.5 litres	Glass and stainless steel

Measuring Ranges

Parameter	Range
Temperature	3 channels, -100 to 400°C each
Heating Power	0 to 3 kW
Cooling Water Flow Rate	1 to 7 lpm
System Pressure Gauge	0 to 4 bar

Heater

Parameter	Value
Temperature Control	Heater temperature controller
Power Adjustment	Heater power regulating knob
Maximum Power	3 kW

Key Features

Key Features

- **Bubble Point Calculation Unit Function:** Standalone unit for comparative bubble point and dew point experiments
- **Heating System:** Temperature controller with power regulating knob, 0 to 3 kW heating power range
- **Temperature Measurement:** 3 channels, -100 to 400°C each, covering boiler vapour and vapour separation temperatures
- **Condenser:** Coil type, glass construction, 780 mm height
- **Feed Tank:** Approx. 3 litres, glass and stainless steel
- **Vapour Separation Tank:** Approx. 0.5 litres, glass and stainless steel
- **Cooling Water Flow Rate:** 1 to 7 lpm, measured during operation
- **System Pressure Gauge:** 0 to 4 bar
- **Experiment Methods:** Bubble point method and dew point method, both on same apparatus for direct comparison

Experiments

- Separate the solvent from a solution using the bubble point method
- Separate the solvent from a solution using the dew point method

Construction and Design

The Bubble Point Calculation Unit ThermoFlux-27 is a standalone apparatus built around a boiler, two tanks, and a coil-type glass condenser. The feed tank, with a capacity of approximately 3 litres, and the vapour separation tank, with a capacity of approximately 0.5 litres, are both fabricated from glass and stainless steel, allowing visual observation of liquid levels and phase separation during experiments. The coil condenser is constructed entirely from glass and stands 780 mm in height, condensing separated vapour back to liquid for collection and measurement.

The boiler heater is governed by a dedicated temperature controller. A heater power regulating knob allows continuous adjustment of heating power from 0 to 3 kW. Three independent temperature measurement channels, each covering -100 to 400°C, monitor boiler vapour temperature and vapour separation temperature throughout each experiment. Cooling water flow to the condenser is controllable within a range of 1 to 7 litres per minute. A system pressure gauge with a range of 0 to 4 bar monitors operating pressure across the unit.

This bubble point calculation unit supports both the bubble point and dew point separation methods on the same apparatus, enabling direct side-by-side comparison of the two approaches for solvent separation from a solution.

Scope of Delivery

- 1 experimental unit
- 1 instruction manual

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q1: What is the difference between the bubble point and dew point experiments performed on the ThermoFlux-27?
Both experiments involve separating a solvent from a solution but approach phase transition from different directions. The bubble point method identifies the temperature at which the first bubble of vapour forms in a liquid mixture. The dew point method identifies the temperature at which the first drop of liquid condenses from a vapour mixture. The ThermoFlux-27 supports both methods on the same apparatus for direct comparison.

Q2: What are the tank capacities and materials on the ThermoFlux-27?
The feed tank has a capacity of approximately 3 litres and the vapour separation tank approximately 0.5 litres. Both tanks are constructed from glass and stainless steel.

Q3: How is the heating power controlled on this bubble point calculation unit?
A dedicated heater temperature controller governs the boiler temperature. A heater power regulating knob provides continuous manual adjustment of heating power from 0 to 3 kW.

Q4: What temperature ranges are covered by the measurement channels?
Three temperature measurement channels are provided, each covering -100 to 400°C. They monitor boiler vapour temperature and vapour separation temperature independently during experiments.

Q5: What type of condenser is used and what are its dimensions?
The condenser is a coil type, constructed from glass, with a height of 780 mm. It receives cooling water at a flow rate between 1 and 7 litres per minute to condense separated vapour during experiments.

SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India
#71, Industrial Area, Ambala Cantt, Haryana, India

+91 7015865225 · info@scienticoindia.com
scienticoindia.com
Product reference: THERMOFLUX-27