SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Discontinuous Stirred Tank Reactor | ReaktiLabX - 17

Category: Chemical Reaction Technology · **Country of Origin:** India

Product Overview

The Discontinuous Stirred Tank Reactor ReaktiLabX - 17 studies batch reactor behavior for slow reaction rates and small product volumes. This Discontinuous Stirred Tank Reactor features a glass DN 100 tank, variable speed stirrer, and a stainless steel chambered bottom for isothermal heat exchange. It preheats reactants before transfer and tracks conversion using a combined conductivity and temperature sensor. It requires the Service Unit for Chemical Reactors for pump, tank, and heating circuit support.

View this product online: https://scienticoindia.com/product/discontinuous-stirred-tank-reactor-reaktilabx-17/



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

Technical Specifications

Discontinuous Stirred Tank Reactor ReaktiLabX - 17 — Technical Specifications

Specification	Detail
Connection	For connection to service unit ReaktiLabX 07
Operation Mode	Complete self-contained batch type stirred tank reactor to operate standalone
Reactor	With stirrer
Chambered Bottom	Made of stainless steel, as heat exchanger
Sensor	For measuring the conductivity and temperature via ReaktiLabX 17
Temperature Control	In the reactor via ReaktiLabX 17

Technical Data

Reactor

Parameter	Value
Size	DN 100
Height	250mm
Material	Boro 3.3 glass
Reactor capacity	approx. 1950mL

Stirrer

Parameter	Value
Speed	300min^{-1}
Drive	Variable speed, brushless geared motor

Required

Parameter	Value
Accessory	Service Unit for Chemical Reactors ReaktiLabX 07

Key Features

Key Features

- **Reactor Size:** DN 100, 250mm height, boro 3.3 glass, approx. 1950mL capacity
- **Stirrer:** variable speed, brushless geared motor, 300min^{-1} speed
- **Batch Operation:** complete self-contained batch type stirred tank reactor, operates standalone
- **Chambered Bottom:** stainless steel, functions as heat exchanger for isothermal operation
- **Quick-Release Connections:** for fast connection to the supply unit
- **Preheating:** reactants preheated at the beginning of the unit before transfer to the reactor
- **Sensor:** combined conductivity and temperature measurement, digitally displayed on switch cabinet
- **Reaction Study:** determination of reaction rate constant and its temperature dependence, central to this Discontinuous Stirred Tank Reactor

Experiments

- Fundamentals of a saponification reaction
- Determination of reaction rate constant
- Determination of temperature dependence of reaction rate constant
- Conversion depending on: reaction time, temperature, concentration

Construction and Design

The Discontinuous Stirred Tank Reactor ReaktiLabX - 17 uses a reactor sized DN 100, 250mm in height, made of boro 3.3 glass, with a capacity of approximately 1950mL. A stirrer, driven by a variable speed brushless geared motor at 300min^{-1}, ensures a homogenous mixture and extends reactant contact time. The reactor's chambered bottom, made of stainless steel, acts as a heat exchanger for isothermal operation, studying temperature effects on the reaction. The reactor is secured to the unit using two pins and connects via quick-release connections. Reactants are preheated at the beginning of the unit before being transferred into the reactor. A combined conductivity and temperature sensor identifies conversion in the reactor, with values digitally shown on the unit's switch cabinet.

Required Accessories

- Service Unit for Chemical Reactors ReaktiLabX 07

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

Q: What is the Discontinuous Stirred Tank Reactor ReaktiLabX - 17 used for?
A: It is used to study discontinuous stirred tank reactor behavior, including saponification reaction fundamentals, reaction rate constant determination, and conversion analysis.

Q: What is the reactor's size and capacity?
A: The reactor is DN 100 in size, 250mm in height, made of boro 3.3 glass, with a capacity of approximately 1950mL.

Q: How does the reactor's chambered bottom function?
A: The chambered bottom, made of stainless steel, acts as a heat exchanger, supporting isothermal operation and temperature effect studies.

Q: Is this reactor a standalone unit?

A: Yes, it is a complete self-contained batch type stirred tank reactor designed to operate standalone.

Q: What accessory is required to operate this reactor?

A: The Service Unit for Chemical Reactors ReaktiLabX 07 is required to operate this reactor, providing pumps, tanks, and the heating water circuit.