

MINILABOTRON 2000

2 kW – 2450 MHz

The Minilabotron 2000 is a high-performance microwave-assisted equipment developed specifically for laboratory use in the fields of chemistry, biochemistry, etc.

It has the flexibility to meet all experimental requirements. It can be easily configured for different applications, including liquid phase, solid phase and gas phase reactions, in homogeneous and heterogeneous mixtures.

The Minilabotron 2000 is built of high-quality stainless steel, with a high degree of finish and shock-resistant. The internal and external surfaces are covered with a layer of anti-corrosive resin.

The double envelope construction of the microwave cavity allows the reactor to operate at high temperatures (250 °C) while the outer surfaces remain at room temperature. The microwave cavity is designed to provide a very uniform microwave field.

APPLICATIONS

LABORATORY APPLICATIONS

- Extraction
- Chemical synthesis

KEY FEATURES

DESIGN

- Compact footprint
- Double envelope construction
- Door with double security microwave leaks (2 airlocks)

TECHNOLOGY

- High temperatures: 250°C
- Continuous-flow or batch experiments
- USB socket (data transfer)

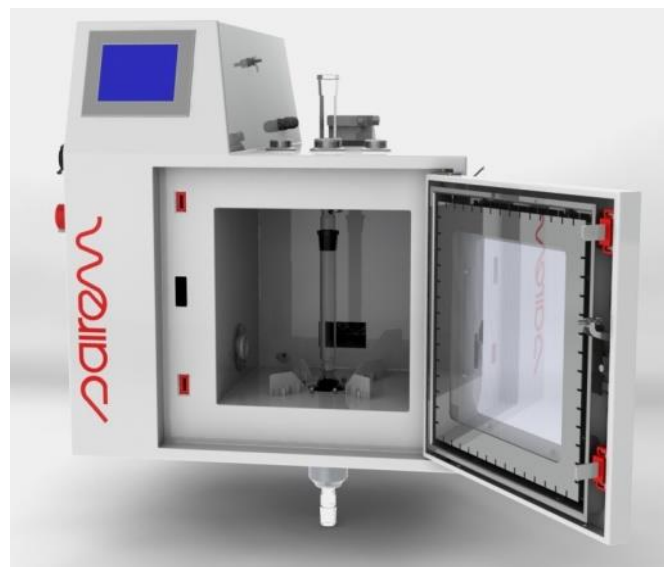
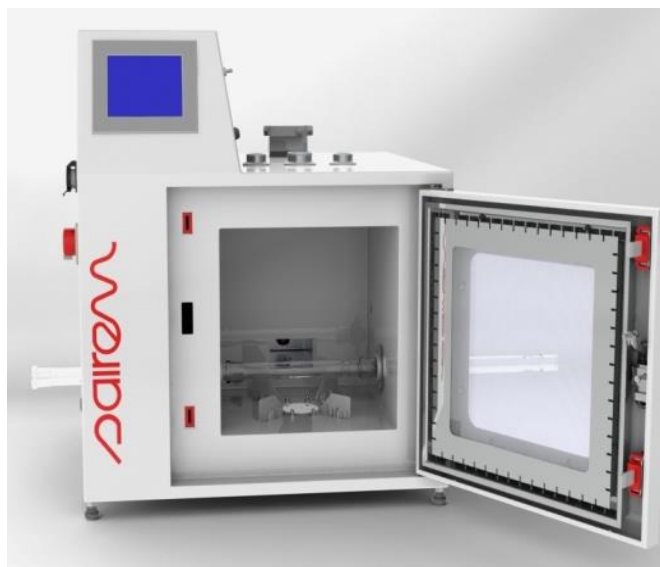
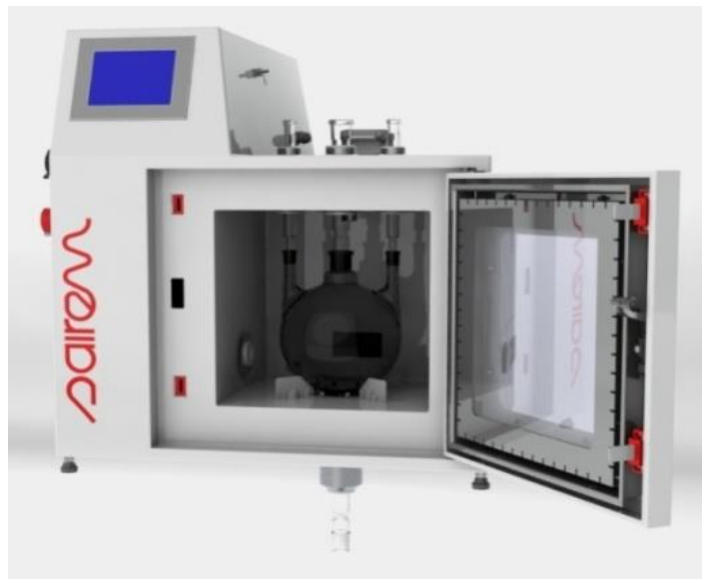


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Minilabotron 2000 with 0.5 to 3 L batch reactors (glassware not supplied)



Minilabotron 2000 with column type reactor horizontal and vertical (glassware not supplied)

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Optical fibre	Door safety interlocks	Ventilator
Digital touchscreen	4 adjustable feet	Cavity purge connection (nitrogen or air)
3 parallel chimneys	Mechanical stirrer (not provided)	Handles (2 on each side)
Continuous reactor chimneys (1 on each side)	Location for a magnetic agitator (not provided)	

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KEY SPECIFICATIONS

Reference	<ul style="list-style-type: none">• MINILABOTRON 2000
Microwave frequency	<ul style="list-style-type: none">• 2450 MHz
Maximum power	<ul style="list-style-type: none">• 2 kW in continuous wave (CW), adjustable
Microwave cavity	<ul style="list-style-type: none">• Stainless steel 304L, anti-corrosive paint inside and outside• Dimensions: 300 x 300 x 300 mm
Doors	<ul style="list-style-type: none">• $\frac{1}{4}$ wave choke, sight window and LED illumination• Double door security by contact• Reflected power limitation by PLC and bidirectional coupler
Safety	<ul style="list-style-type: none">• Temperature sensors inside the microwave cavity• Internal gas purging $\frac{1}{4}$" NPT• Audible 'beep' to signal end of reaction time
Temperature control	<ul style="list-style-type: none">• IR (infra-red) from 0 to 400°C & optical fiber, from -80 to 250 °C
Gas flow (into reactor)	<ul style="list-style-type: none">• Integrated mass flow meter & electromagnetic valve 0.2 – 10 L/min
Pyrex Reactors (not supplied)	<ul style="list-style-type: none">• Batch 0.5 L to 3 L• Continuous column-type (diam. 40 mm, L = 275 mm)
Control	<ul style="list-style-type: none">• Forward power, reflected power and temperature via a touch screen, operating with or without nitrogen
Electrical requirements	<ul style="list-style-type: none">• 208/230 VAC, 60 Hz; 220/240 VAC, 50 Hz• Max. 25 A
Cooling fluid	<ul style="list-style-type: none">• Water, 2 L/min, with integrated electro-valve for control
Dimensions (h x p x l), weight	<ul style="list-style-type: none">• 700 x 580 (1000 with front door opened at 90°) x 700 mm, 70 kg
Stirrer (not supplied)	<ul style="list-style-type: none">• Magnetic or mechanical
Option	<ul style="list-style-type: none">• Trolley on wheels

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MAIN DIMENSIONS

