Electrothermal

STEM RS Reaction Stations

Equipment for parallel synthesis

The STEM RS series Reaction Stations enable parallel synthesis to be carried out by offering the same controlled temperature and stirring rates at several reaction positions simultaneously.

The STEM RS Reaction Stations give you a choice of:

- 6 to 50 positions
- Working sample columes of between 10-30ml (but up to 250ml for RS600)
- Operational temperature range of ambient to 150°C
- Optional higher temperature models for up to 300°C
- Powerful stirring rate of between 400 - 2000rpm
- Wide range of accessories

Find out more! Please scan the QR/Mobile Tag with your smartphone for more information

RS600, RS900, RS1000, RS2500, RS5000, RS9000

STEM RS Reaction Stations

The Stem RS Reaction Stations enable parallel synthesis to be carried out by offering the same controlled temperature and stirring rates at several reaction positions simultaneously. They can be used for a wide range of applications from simple synthesis to process optimisation. The RS9000 is the exception in that it carries out controlled heating and shaking, as opposed to stirring.

The STEM RS Reaction Station range accommodates sample sizes from 2ml to 250ml in a wide range of vessel sizes and heating formats. Adaptor sleeves can be used to accommodate non-standard vessel sizes. The well-insulated reaction unit keeps the casework cool-to-touch; it gives quick heat-up times, excellent temperature uniformity across the block, and a thermal cut-out eliminates runaway conditions. High performance magnetic stirrers beneath each sample position ensure maximum coupling between the stirrer bar in the sample and the powerful motor. The combination of precise electronic control and rugged design ensures operator safety, while a PTFE coating protects the unit from chemical spills.

There are 5 models of STEM RS Heater/Stirrer Reaction Stations, giving you a choice of:

- 6 to 50 positions depending upon model (RS600 has 6 positions; RS900 and RS1000 have 10 positions; RS2500 has 25 positions and RS5000 has 50 positions)
- Working sample volumes of between 10-30ml, (but up to 250ml for RS600 only)
- RS600 model accommodates 57.5mm diameter vessels (also accommodates 40mm and other diameter vessels with appropriate adaptor sleeves)
- RS900, RS1000, RS2500, RS5000 models accommodate 24mm/25mm diameter vessels (also accommodate 16mm and other diameter vessels with appropriate adaptor sleeves)
- Operational temperature range of ambient to 150°C (ambient to 250°C for RS600 only)
- Optional higher temperature models for up to 300°C for some models (ie. RS600H, RS1000H)
- Powerful stirring rate of between 400 - 2000rpm, with bi-directional stirring option
- Optional PC-based external control software is available to schedule stir/heat profiles over varying time delays
- Wide range of accessories, including reflux and inerting head accessory, rotary evaporator adaptors, phase separation heads, filtration adaptors, glass condensers, temperature probes, and a selection of stir bars.

Part Code (230V)	PS80034	PS80067	PS80010	PS80025	PS80050
Part Code (115V)	PS80043	PS80068 (24mm)	PS80033 (24mm)	PS80036 (24mm)	PS80037 (24mm)
Model	RS600	RS900	RS1000	RS2500	RS5000
Higher temperature model	RS600H		RS1000H		
Stirred positions	6	10	10	24 or 25	50
Tube diameter	57.5 mm	24 or 25mm	24 or 25mm	24 or 25mm	24 or 25mm
Tube diameter with sleeves	40mm	16mm, 20mm	16mm, 20mm	16mm, 20mm	16mm, 20mm
Sample volume	Up to 250ml	10- 30ml	10- 30ml	10-30ml	10-30ml
Stir speed range	400 - 2000rpm	400 - 2000rpm	400 - 2000rpm	400 - 2000rpm	400 - 2000rpm
Soft start (to full ramp)	Adjustable 0 – 10 mins	Adjustable 0 – 10 mins	Adjustable 0 – 10 mins	Adjustable 0 – 10 mins	Adjustable 0 – 10 mins
Temperature Range	Ambient to 250°C	Ambient to 150°C	Ambient to 150°C	Ambient to 150°C	Ambient to 150°C
(Ambient)	Ambient to 300°C for RS600H		Ambient to 300°C for RS1000H		
Temp Stability	± 0.5°C	± 0.5°C	± 0.5°C	± 0.5°C	± 0.5°C
Time to max/min temp	15 min	15 min	15 min	30 min	30 min
Interface port	RS232/RS485 & manual	RS232 & manual	RS232/RS485 & manual	RS232/RS485 & manual	RS232/RS485 & manual
Electrical req. (All 230V)	50/60Hz, 600W	50/60Hz, 300W	50/60Hz, 600W	50/60Hz, 800W	50/60Hz, 800W
Dimensions, (w x h x d), mm	248 x 312 x 157	240 x 140 x 215	80 x 150 x 305	250 x 145 x 365	250 x 145 x 460
Shipping Weight, kg	10kg	5.4kg	4kg	10kg	13.8kg

Key Features

- 6 position reaction station
- 57.5mm diameter vessels
- Can accommodate 40mm and other diameter vessels with appropriate adaptor sleeves
- Sample sizes up to 250ml
- Controlled temperature range from ambient to 250°C
- Powerful stir speed from 400 to 2000rpm
- Bi-directional stir speed
- Manual control or external control via the RS232/RS485 interface ports
- Optional PC-based external control software available to schedule stir/heat profiles over varying time delays
- Variety of accessories available including reflux and inerting head accessory, rotary evaporator adaptors, phase separation heads, filtration adaptors, glass condensers, temperature probes, and a selection of stir bars
- High temperature RS600H option with temperature range from ambient to 300°C
- Compact footprint for easy integration onto a robotic platform

RS600H

High temperature model

STEM RS600

Reaction Station

The RS600 is a six position reaction station designed for 57.5mm diameter vessels (also 40mm and other diameter vessels with appropriate adaptor sleeves), and sample sizes up to 250ml.

With a controlled temperature range from ambient +5°C to 250°C, it has a powerful stir speed from 400 to 2000rpm, including a bi-directional stirring option. It has either manual control or external control via the RS232/RS485 interface ports.

Optional PC-based external control software is available to schedule stir/heat profiles over varying time delays.

The RS600 can be used with a reflux and inerting head accessory, plus a range of accessories including rotary evaporator adaptors, phase separation heads, filtration adaptors, glass condensers, temperature probes, and a selection of stir bars.

It is also available as a high temperature RS600H option with temperature range from ambient to 300°C.

Technical Information

Model	RS600
High temp model	RS600H
Stirred positions	6
Tube diameter	57.5mm
Tube diameter sleeves	40mm
Sample volume	Up to 250ml
Stir speed range	400 - 2000rpm
Soft start (to full ramp)	0 - 10mins (Adjustable)
Temperature range (ambient)	Ambient to 250°C Ambient to 300°C for RS600H
Temperature stability	±0.5°C
Time to max/min temp	15mins
Interface port	RS485 RS232 & manual
Dimensions (w x d x h), mm	248 x 157 x 312
Shipping weight, kg	10kg

Ordering Information

Part Code	Model	Voltage	No. of Bores	Bore Diameter
PS80034*	RS600	230V	6	57.5mm
PS80043	RS600	115V	6	57.5mm
PS80034H*	RS600H	230V	6	57.5mm
PS80043H	RS600H	115V	6	57.5mm

**Comes with EU Plug fitting*