Introduction

Hotplates

Stuart® offers a comprehensive range of hotplates, most units are available with either a robust silicon metal alloy or ceramic surface. Ceramic units offer better chemical resistance, and a higher maximum temperature of 450°C.

Stuart® hotplates are available in a variety of sizes, with the smallest units having an A4 footprint and surface size of 16 x 16cm, our medium units offer a 30 x 30cm surface while our largest units have 30 x 50cm surface size. Capable of holding up to 30 x 100ml beakers simultaneously. All units are available with simple analogue control and most are also available with more accurate digital control.

In addition to the standard Stuart® hotplates we also offer an acid resistant unit, the CP300. The CP300's external surfaces consist entirely of PTFE or ceramic to offer excellent chemical resistance. The CP300's control unit is remote to the hotplate, so it could be housed outside of a fume cupboard for example.

Our CR300 offers infra red heating as an alternative to the traditional resistance element, the advantage of IR is that the heat acts directly upon the sample. Allowing for the fastest heat up times and the most accurate temperature control.

Hotplate Stirrers

Hotplate stirrers are ideal for making solutions, combining heat with the action of a magnetic stirrer. As with the hotplates most units are available with either a robust silicon metal alloy or ceramic surface. The Stuart® hotplate stirrers are also offered in the Standard 16x16cm and 30 x 30cm sizes. As with the other units digital and analogue models are generally available, and additionally the -C162 range of analogue units has the facility for accurate temperature control via the SCT1 temperature controller.

Stirrers

All Stuart® stirrers use powerful Neodymium magnets to offer the strongest coupling to the stirrer bar and minimise decoupling. Stuart® stirrers are available in 16 x 16cm and 30 x 30cm. With the addition of the three position unit, the SB161-3 with individual speed control for up to three flasks. Additionally the SM27 is available for field applications and can be powered by standard "D" type batteries.

SB300

CD162

CB302

Hotplates, CB160 & SB160

- Choice of robust aluminium or chemically resistant ceramic tops
- Advanced safety features:
  - Flashing "Hot" warning light to warn when top plate is too hot to touch
  - Spillproof design which helps deflect spills away from the controls and the user
  - Independent safety circuit to protect against overheating
- Microprocessor control for accurate temperature setting

General purpose, reliable hotplates with compact A4 footprint. These hotplates have microprocessor control of temperature allowing a calibrated scale to be printed around the control dial in °C rather than an arbitrary 1 - 10 scale.

The "Hot" warning light will flash whenever the plate temperature is above 50°C and will operate even when the hotplate is turned off and connected to the mains.

Model CB160 has a glass ceramic top which has excellent chemical resistance and allows high plate temperatures for faster heating.

Model SB160 has a robust aluminium/silicon alloy top plate which will withstand the knocks of everyday use.

CB160

Technical specification

	CB160	SB160
Plate material	Glass ceramic	Al/Si alloy
Plate dimensions, mm	160 x 160	160 x 160
Heater power, W	500	700
Max. plate temp, °C	450	325
Dimensions, mm (w x d x h)	190 x 300 x110	190 x 300 x110
Net weight, kg	2.5	2.5
Electricity supply	230V, 50-60Hz	230V, 50-60Hz
IP Rating	32	32

SB160

Ordering Information

Model	Description
CB160	Hotplate, ceramic top, analogue
SB160	Hotplate, metal top, analogue

Hotplate, digital, SD160

SD160

- Accurate digital setting and control of plate temperature
- Microprocessor for very accurate temperature control
- Simultaneous display of set and actual temperature

A stylish digital hotplate designed for very accurate control of plate temperature. Ideal for microarrays, *in-situ* hybridisation and specialised electronics applications.

The excellent heat transmission of the robust aluminium top plate combined with state of the art digital temperature control gives rapid heating and ensures very even temperature distribution across the whole of the plate.

The easy to read digital display indicates both set and actual plate temperature and the encoder control allows rapid and accurate temperature selection.

The cast aluminium body is shaped for stability and also helps deflect spills away from the user. The "Hot" warning light will flash whenever the plate temperature is above 50°C.

An independent safety circuit protects against overheating and internal electronic components are protected against corrosion.

Technical specification

	SD160
Plate material	Al/Si alloy
Plate dimensions, mm	160 x 160
Heater power, W	700
Max. plate temperature, °C	325
Display resolution, °C	1
Temperature variation across plate, °C	±0.2 @ 37°C, ±1.0 @ 150°C
Temperature stability, °C	±0.25
Dimensions, mm (w x d x h)	190 x 300 x 110
Net weight, kg	2.5
Electricity supply	230V, 50-60Hz , 700W
IP Rating	32

Ordering Information

Model	Description
SD160	Hotplate, metal top, digital

Hotplate/stirrers accessories

A complete range of accessories is available for Stuart® hotplates and stirrers (160 x 160mm plate size). From protecting the equipment to bringing solutions for heating different shape vessels, these accessories are the safe and easy way to get the most from your hotplate.

Protective Covers

- Fits snugly around the outercase
- Economic protection against spillage of chemicals
- Resistant to most common chemicals and solvents
- Manufactured from silicone rubber

Oil / Water Bath

- Robust aluminium construction
- Safe alternative to using glass containers
- Cool phenolic handles
- Four feet to secure the bath onto the plate
- Large 2 litre capacity

Sand Bath

- Perfect to dry heat test tubes or any small vessels.
- Robust aluminium construction
- Four feet to prevent the bath from moving off the plate
- 1 litre capacity

Round bottom flask block

- Transform hotplates into heating mantles!
- Robust aluminium block with securing feet
- Four different sized holes for 25ml, 50ml, 100ml and 250ml round bottom flasks.
- Pre-drilled hole for thermometer or other types of temperature probe

Ordering Information

Model	Description
SB16/1	Protection cover hotplate or stirrer only
SB16/2	Protection cover stirrer/hotplate analogue
SB16/3	Protection cover stirrer/hotplate digital
SB16/4	Protection cover hotplate digital
SB16/5	Oil / water bath
SB16/6	Flask block
SB16/7	Sand bath

SB160 with SB16/1 cover

SB16/5

SB16/7

SB16/6

Hotplates, large capacity, CB300 & SB300

CB300

- Choice of top plate material
- Large square plate area ideal for heating one large vessel or several smaller ones
- Accommodates vessels up to 10 litre capacity
- Hotplate temperature controlled by easy to use dial
- Fitted with a "Hot" warning light which will flash whenever the plate temperature is above 50°C and will operate even when the hotplate is turned off and connected to the mains.

Model CB300 has a glass ceramic top which has excellent chemical resistance and allows much higher plate temperature.

Model SB300 has a robust aluminium/silicon alloy top plate which gives even plate temperature and will withstand the knocks of everyday use.

SB300

Technical specification

	CB300	SB300
Plate material	Glass ceramic	Al/Si alloy
Plate dimensions, mm	300 x 300	300 x 300
Heated area, mm	200 x 200	300 x 300
Heater power, W	1200	600
Max. plate temp. °C	450	300
Dimensions, mm (w x d x h)	300 x 365 x 105	300 x 365 x 105
Net weight, kg	6	6
Electricity supply	230V, 50-60Hz	230V, 50-60Hz
IP Rating	31	31

Ordering Information

Model	Description
CB300	Hotplate, ceramic top, analogue
SB300	Hotplate, metal top, analogue

Hotplates, large capacity, CB500 & SB500

- Choice of top plate material, metal or ceramic
- Large plate area ideal for heating multiple vessels
- Accommodates up to 30 x 100ml beakers

These large rectangular shaped hotplates are ideal for heating many smaller vessels simultaneously, e.g. in educational use where lots of students require their samples heated at the same time.
An easy to use knob located on the front of the hotplate controls the top plate temperature. The robust side arms make the unit very easy to carry.

The large surface area may stay hot for a long time after use, so for maximum safety, a bright red hot warning light will continue to flash until the hotplate is cool.

There are two models to choose from:
Model CB500 has a glass ceramic top plate. It is easy to clean in the event of spillage and, due to unique thermal properties, can be heated to very high temperatures giving very fast heat up times.

Model SB500 has an aluminum / silicon alloy top plate. This material has very good conductive properties so will give a very even plate temperature. This means all samples, no matter where they are placed on the hotplate, will be subjected to the same conditions for excellent uniformity and reproducibility.

CB500

SB500

Technical specification

	CB500	SB500
Plate material	Glass ceramic	Al/Si alloy
Plate dimensions, mm	300 x 500	300 x 500
Heated area, mm	250 x 450	300 x 500
Heater power, W	2250	1500
Max. plate temp. °C	375	300
Dimensions, mm (w x d x h)	520 x 360 x 130	520 x 360 x 130
Net weight, kg	12	12
Electricity supply	230V, 50-60Hz	230V, 50-60Hz
IP Rating	31	31

Ordering Information

Model	Description
CB500	Hotplate, ceramic top, analogue
SB500	Hotplate, metal top, analogue

Hotplates, digital, SD300 & SD500

SD300

- Digital setting and control of plate temperature
- Accurate temperature control by microprocessor
- Easy to use controls

Metal top plate gives very even plate temperature and uniform heating conditions. Hotplates with microprocessor control for accurate monitoring of the plate temperature. Large capacity to accommodate multiple vessels or microscope slides.

Technical specification

	SD300	SD500
Plate dimensions, mm	300 x 300	300 x 500
Heater power, W	600	1500
Display resolution, °C	1	1
Max. plate temp., °C	300	300
Dimensions, mm (w x d x h)	320 x 365 x 105	520 x 360 x 130
Net weight, kg	6	12
Electricity supply	230V, 50-60Hz	230V, 50-60Hz
IP Rating	31	31

Ordering Information

Model	Description
SD300	Hotplate, digital, 300 x 300mm
SD500	Hotplate, digital, 300 x 500mm

Hotplate, infra red, ceramic, CR300

CR300

- Very efficient heating saving time and energy
- Chemically resistant ceramic top
- "Hot" warning light for user safety

Using a very efficient infra red heater of just 900W power this hotplate will boil 1 litre of water over 30% faster than a conventional ceramic hotplate of 1200W. Ideal for heating large volumes of liquid.

Technical specification

	CR300
Plate dimensions, mm	300 x 300
Heated area, mm	140 diameter
Heater power, W	900
Dimensions, mm (w x d x h)	300 x 365 x 105
Net weight, kg	4
Electricity supply	230V, 50-60Hz, 900W
IP Rating	31

Ordering Information

Model	Description
CR300	Hotplate, infra red

Hotplate, acid resistant, CP300

- A completely new concept in hotplates
- PTFE construction with glass ceramic plate for exceptional resistance to chemical attack
- Ideal for acid digestions or trace metal analysis
- Separate control box connected with a PTFE coated lead

A heated glass ceramic plate mounted in a block of pure PTFE creates a powerful hotplate which is almost impervious to chemical attack, even by concentrated acids.

When boiling acid solutions the CP300 is unaffected by the fumes and splashes which eventually destroy conventional hotplates. The chemical inertness of the PTFE body and ceramic top plate also means that much more aggressive cleaning agents can be used. For example, if all traces of metal must be removed, this hotplate can be washed with concentrated nitric acid!

The separate temperature controller is connected to the hotplate via a 2 metre PTFE coated lead. This allows the hotplate to be located in a fume cupboard and the controller kept outside, well away from the corrosive environment.

The controller is also fitted with a "Hot" warning light that will flash whenever the plate temperature of the hotplate is above 50°C and it will continue to operate when the hotplate is turned off and connected to the electricity supply.

The hotplate has a large 200mm square heated area so is ideal for heating either one large vessel or several smaller ones.

CP300

Technical specification

	CP300
Plate material	Glass ceramic
Body material	PTFE
Plate dimensions, mm	300 x 300
Heated area, mm	200 x 200
Heater power, W	900
Max. plate temperature, °C	400
Hotplate dimensions, mm, (w x d x h)	320 x 360 x 60
Control unit dimensions, mm, (w x d x h)	150 x 160 x 65
Net weight, kg	11
Electrical supply	230V, 50-60Hz
IP Rating	43 (Plate) & 30 (Control)

Ordering information

Model	Description
CP300	Hotplate, acid resistant, including control unit

Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

UK Office
Keison Products,
P.O. Box 2124, Chelmsford, Essex, CM1 3UP, England.
Tel: +44 (0)1245 600560
Fax: +44 (0)1245 600030
Email: sales@keison.co.uk

Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.