# Undergrad Hotplates

The Stuart® range of Undergrad hotplates includes dedicated hotplates and stirrers as well as combination hotplate stirrer models, the majority of which are available in a choice of ceramic or coated metal tops. All surfaces are square to allow more flexibility in vessel sizes and combinations, for example four 250ml beakers can easily be accommodated.

## Key features

- LED temperature indicator
- Choice of glass ceramic or ceramic coated metal surface
- Hot warning light, remains active even when unplugged
- Compact design to save bench space
- Units can be stored on side, minimising required storage space
- Design allows retort base to slide underneath
- Compatible with SCT1 temperature controller

## LED Temperature indicator

All hotplate models in the Undergrad range feature a true °C temperature setting, rather than a 1 to 10 arbitrary scale. The LED temperature indicator surrounds the heater control knob and progressively illuminates to indicate the actual surface temperature. This not only provides a bright, obvious indication that the unit is hot, which can be seen from across the room, but also clearly differentiates the heat and stir controls.

## Hot warning light

All hotplate models feature a "Hot" warning light, which will flash once the hotplate surface reaches 50°C. The "Hot" light will continue to flash even once the unit has been switched off and unplugged from the mains, until the surface temperature drops below 50°C.

## Safety in design

For safety all units have been designed to direct any spills away from the user controls. A mains switch is standard (excluding Stir only models) for greater convenience and power saving. All units incorporate the latest technology, microprocessor controlled, dual thermocouples to ensure accurate temperature control and over temperature protection.

## Power

Powerful magnets and motor give stirring speeds up to 2000rpm and are capable of mixing large volumes (up to 15 litres)

## Retort rod

The entire range of hotplate stirrers feature an integral fitting for a retort rod, but the units are also uniquely designed to allow a retort base to slide underneath, saving valuable time where numerous units need to be set up, for example in an educational environment.

## Design – storage

The Undergrad range has been designed with ease of use in mind, the case has been designed so the units can be easily stored on their side, minimising the required storage space. The units also have a compact footprint to take up less bench space.

# Choice of surfaces

The hotplates and hotplate stirrers come with a choice of surfaces; available in a choice of ceramic or coated metal tops, all surfaces are square to allow more flexibility in vessel sizes and combinations.

## Glass Ceramic

Glass ceramic for excellent chemical resistance. The surface is easy to clean and the thermal properties allow very high plate temperatures, while ensuring the edges stay cooler, reducing the chance of accidental burns. The white surface ensures good visibility of colour changes, for example during titrations.

## Ceramic coated Aluminium

Ceramic coated Aluminium/silicon alloy for robustness. The top plate has a thin ceramic coating for added chemical resistance. A 700W element gives rapid heating and ensures even temperature distribution across the whole surface of the plate.

## Stainless Steel

Robust Stainless steel (US151 only), for accurate stirring. This surface won't produce eddy currents like aluminium and ensure a very powerful coupling and stirring action on our dedicated stirrers.

# Technical specification

## Hotplate Stirrers

| Model | US152 | UC152 |
|---|---|---|
| Plate Material | Coated Aluminium/Silicon | Glass ceramic |
| Plate Dimensions, mm | 150 x 150 | 150 x 150 |
| Heated Area, mm | 150 x 150 | 120 x 120 |
| Heater Power, Watt | 700 | 500 |
| Max plate temp, °C | 325 | 450 |
| Stirrer Speed, rpm | 100 - 2000 | 100 - 2000 |
| Maximum Stirring Capacity, L * | 15 | 15 |
| Compatible with SCT1 | Yes | Yes |
| Control accuracy with SCT1 | ±1°C | ±1°C |
| Dimensions (w x d x h), mm | 172 x 248 x 120 | 172 x 248 x 122 |
| Net weight, kg | 2.9 | 2.9 |
| Electrical supply | 230V, 50Hz, 750W | 230V, 50Hz, 550W |
| IP Rating | 32 | 32 |

## Hotplates

| Model | US150 | UC150 |
|---|---|---|
| Plate Material | Coated Aluminium/Silicon | Glass ceramic |
| Plate Dimensions, mm | 150 x 150 | 150 x 150 |
| Heated Area, mm | 150 x 150 | 120 x 120 |
| Heater Power, Watt | 700 | 500 |
| Max plate temp, °C | 325 | 450 |
| Compatible with SCT1 | Yes | Yes |
| Control accuracy with SCT1 | ±1°C | ±1°C |
| Dimensions (w x d x h), mm | 172 x 248 x 120 | 172 x 248 x 122 |
| Net weight, kg | 2.2 | 2.2 |
| Electrical supply | 230V, 50Hz, 700W | 230V, 50Hz, 500W |
| IP Rating | 32 | 32 |

## Stirrers

| Model | US151 | UC151 |
|---|---|---|
| Plate Material | Stainless steel | Glass ceramic |
| Plate Dimensions, mm | 150 x 150 | 150 x 150 |
| Stirrer speed, rpm | 100 - 2000 | 100 - 2000 |
| Max. stirring capacity, L * | 15 | 15 |
| Compatible with SCT1 | No | No |
| Dimensions (w x d x h), mm | 172 x 248 x 109 | 172 x 248 x 107 |
| Net weight, kg | 2.0 | 2.0 |
| Electrical supply | 230V, 50Hz, 50W | 230V, 50Hz, 50W |
| IP Rating | 32 | 32 |

* Based on water contained in a 20 litre glass bottom flask