Homogenisers

Homogenisation is a very common sample preparation step prior to the analysis of nucleic acids, proteins, cells, metabolism, pathogens, and many other targets. The Stuart® range of homogenisers are designed especially for the homogenisation of material, such as tissue, plant, food, soil, and many others.

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THE BENCHTOP EQUIPMENT HYGIENE SOLUTION Protected by BioCote®

Handheld Homogeniser, SHM1

- Ergonomic design
- Variable motor speed 5,000 to 35,000rpm
- Processing range from 0.03ml-100ml
- Can be used with robust polycarbonate disposable probes or stainless steel ones

The Stuart® SHM1 is a powerful, variable speed, homogeniser. The high-speed, high-torque motor makes the unit ideal for most homogenising applications. During operation the rotor shaft, which is directly coupled to the motor, spins at up to 35,000rpm. The tube assembly that fits around the shaft remains static and as the rotor shaft spins, within the tube assembly, it creates a pumping action drawing the sample into the open end of the tube, or probe, and forcing it through the windows at the bottom of the tube assembly. This shearing action reduces the particle size of the sample. In addition the speed differential between the rapidly moving rotor, and the static tube assembly creates cavitational force, further dismantling the sample to additionally reduce particle size.

The SHM1 is lightweight making it comfortable to use, and most samples can be processed within thirty seconds. For longer processing the unit can be stand mounted using the included post clamp assembly. A retort stand is available separately.

The SHM1 can accommodate a selection of stainless steel probes for larger and tougher samples and also our polycarbonate disposable probes. Disposable probes are suitable for hard tissues and ideal where cross contamination is of concern. If necessary disposable probes can be easily dismantled and autoclaved up to seven times.

Through careful selection of probe type, samples of 0.03ml to 100ml can be processed.

All Stuart® homogenisers are supplied with a tool kit for dismantling the rotor probes for easy cleaning

SHM1

SHM1 with SHM/STAND

Technical specification

	SHM1
Motor	125 watt
Speed control	5,000 to 35,000rpm
Processing range	0.03ml to 100ml
Sound level	<72 db
Net weight, kg	0.5
Dimensions, mm (h x Ø)	160 x 55
Electrical supply	220-240V, 50Hz
IP Rating	30

Ordering information

Model	Description
SHM1/UK	Handheld homogeniser, UK plug
SHM1/EURO	Handheld homogeniser, European plug

Laboratory Homogeniser, SHM2

- Can be handheld or stand mounted
- Variable motor speed 5,000 to 28,000rpm
- Processing range from 0.03ml-2L
- Powerful 700 watt motor

SHM2

The Stuart® SHM2 with its 700 watt motor is incredibly powerful and versatile. The unit can handle virtually any processing application making it ideal for all homogenising applications such as tissue homogenisation, cell disruption, emulsions, suspensions and protein extraction and with the powerful motor especially suitable for tougher samples and larger volumes. The SHM2 can either be handheld for quick processes or securely stand mounted with a direct connection to the SHM/STAND.

The SHM2 can accommodate a selection of stainless steel probes for larger and tougher samples and also our polycarbonate disposable probes. Disposable probes are suitable for hard tissues and ideal where cross contamination is of concern. If necessary disposable probes can be easily dismantled and autoclaved up to seven times.

Through careful selection of probe type samples of 0.03ml to 20L can be processed.

All Stuart® homogenisers are supplied with a tool kit for dismantling the rotor stator generator probes for easy cleaning

Technical specification

	SHM2
Motor	700 watt
Speed control	5,000 to 28,000rpm
Processing range	0.03ml to 2L
Sound level	<72 db
Net weight, kg	1.6
Dimensions, mm (h x Ø)	220 x 70
Electrical supply	220-240V, 50Hz
IP Rating	30

SHM/20

Ordering information

Model	Description
SHM2/UK	Laboratory homogeniser, UK plug
SHM2/EURO	Laboratory homogeniser, European plug

See page 14 for a selection of probes and accessories

SHM Probes

These homogeniser probes have been designed specifically for use with the Stuart® range of homogenisers.

The disposable probes are manufactured from robust polycarbonate, and can either be disposed of after each sample or autoclaved, up to seven times. Ideal where cross sample contamination is of concern. Please note that it is necessary to use the disposable probe adaptor SHM/ADAPT, available separately, to use these probes with both the SHM1 and SHM2.

The stainless steel probes are available in a variety of sizes to suit your processing needs, all are precision engineered and suitable for autoclaving. The stainless steel 5mm probe comes with a flat end, all other probes have a saw tooth end and are capable of processing hard or frozen tissue.

Model	SHM/5	SHM/7	SHM/10	SHM/20	SHM/DISP
Size	5mm	7mm	10mm	20mm	7mm
Type	Flat head	Saw tooth	Saw tooth	Saw tooth	Saw tooth
Length	75mm	115mm	115mm	195mm	110mm
Processing Range	0.03ml – 5ml	0.25ml – 30ml	1.5ml – 100ml	50ml – 2l	0.25ml to 30ml

Ordering information

Model	Description
SHM/5	5mm Stainless steel probe
SHM/7	7mm Stainless steel probe
SHM/10	10mm Stainless steel probe
SHM/20	20mm Stainless steel probe
SHM/DISP	Disposable probes, pack of 25

SHM Stand and Accessories

The SHM/STAND has been purpose built to hold the Stuart® homogenisers, it couples directly to the SHM2 and attaches to the SHM1 clamp holder, included with SHM1. The stand is heavy duty to remain stable during use and comes with a rubber coated base to help stabilise samples during processing.

Technical Specification

	SHM/STAND
Base, mm (w x d x h)	220 x 304 x 11
Rod, mm (Ø x h)	16 x 610
Net weight, kg	3.6

Ordering Information

Model	Description
SHM/ADAPT	Adaptor for disposable probes
SHM/STAND	Stand compatible with SHM1 and SHM2
SHM/TOOL	Replacement tool kit to disassemble stainless probes

SHM/STAND