

GLS400 Linear shaking bath



Based on Grant's very successful 'Optima' series, the GLS400 shaking bath system offers a simple, safe and versatile solution for linear shaking applications in the laboratory. The unique magnetic shaking mechanism avoids the use of a complex exposed mechanical arm for total safety and a fully useable working volume. Sample trays can be exchanged in just a few seconds for high throughput applications and easy cleaning.

Grant's Intelligent Control Optimisation® (ICO) used in the GLS400 ensures accurate and precise real-time adaptive PID temperature control for varying liquid volumes. The navigator rotor and interactive display system boasts an exceptionally simple user interface based on a novel sensitive rotor and two key selection system. The soft touch navigator permits fast, accurate set-up and intuitive movement from one layer of menu options to another.

- temperature range ambient + 5 to 99°C, stability $\pm 0.1^\circ\text{C}$, uniformity $\pm 0.1^\circ\text{C}$
- adjustable shaking speed, 40 to 400 strokes per minute
- fixed resettable overtemperature cut out
- unique 'Navigator' rotor and LED digital display, which makes setup of temperature and shaking speed easy
- user adjustable preset temperature value
- magnetic coupling: mechanically safe, higher reliability than a mechanical arm
- powerful drive mechanism: produces smooth, consistent shaking over a wide speed range, quiet operation
- robust and reliable shaking mechanism, for long term, steady shaking
- pressed stainless steel tank with heater and temperature sensors mounted underneath the tank
- timer function for shaking operation, 120 minutes, with audible alert and shaker control
- variable high temperature alarm setting

		GLS400
Temperature range	°C	ambient +5 to 99
Stability (DIN58966)	°C	± 0.1
Uniformity	°C	± 0.1
Display resolution	°C	0.1
Linear – Shaking speed	strokes/min	40 to 400*
Linear – Stroke length	mm	18
Display resolution	strokes/min	1
Minimum working volume	L	9
Tank dimensions (l/w/h)	mm	505/300/200
Shaking tray area	mm	375 x 235
Overall dimensions (l/w/h)	mm`	560/330/370
Flask immersion, min/max	mm	0 to 90
Heater power	kW	1.4
Overall consumption	kW	1.5
Safety: Overtemperature/low liquid level		Fixed resettable cut out
Electrical supply	V	220 – 240 or 110 – 120
	Hz	50 – 60
* Depending on load		

Product Accessories

Universal flask tray

The UT200 stainless steel tray is designed for ultimate versatility as to the types and sizes of vessel which can be accommodated. The spring configuration is adjustable for maximum flask capacity, and springs can be removed to accommodate awkward shaped vessels - 'sandwich boxes' for hybridisations, for example. The strong springs ensure fast securing of the glassware, whilst allowing easy insertion and removal - thus avoiding breakages.

The universal tray can accommodate a combination of different flasks, or single size Erlenmeyer flasks as follows:

43 x 25ml, 26 x 50ml, 15 x 100ml,
11 x 250ml, 6 x 500ml, 3 x 1L

Test tube tray

TT200 holds five H1 test tube racks:

Rack	Capacity
H1 - 10	48 x 10mm tubes
H1 - 13	44 x 13mm tubes
H1 - 16	24 x 16mm tubes
H1 - 19	21 x 19mm tubes
H1 - 25	12 x 25mm tubes
H1 - 30	10 x 30mm tubes
H1 - LE	48 x 1.5 microtubes

Plain tray

The UTP plain tray will accommodate containers, bags and miscellaneous vessels.

Perforated tray

The PF200 perforated tray replaces the trolley, providing a platform on which vessels or racks can be placed, for use as an unstirred thermostatic bath.

Lid

Please note that a lid is recommended for use above 60°C and below room temperature. The stainless steel LS200 sloping lid directs condensate to the edges of the bath to prevent it dripping into open flasks.

Cooling systems

Accessory cooling is required for operation at or below room temperature.

CW200 heat exchange coil

The CW200 is designed to be attached to a supply of cooling tap water or a refrigerated circulator. It can be used down to 2°C above the temperature of the coolant. The coil fits underneath the shaking tray.

CS200G immersion cooler

The CS200G is a refrigerated cooler; the coil fits underneath the shaking tray. Cooling rate will depend on the ambient temperature, the supply voltage and the volume of liquid used.

Specification - CS200G immersion cooler

Liquid temperature range		°C	0 to 35
Extraction rate	@20°C	W	200
	@0°C	W	100
Power consumption		VA	500
Dimensions: case	l/w/d	mm	410/285/225
Flexible pipe	l	mm	925
Electrical supply		V	220-240