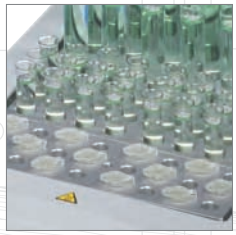
Grant
SCIENTIFIC

Scientific Equipment

Catalogue

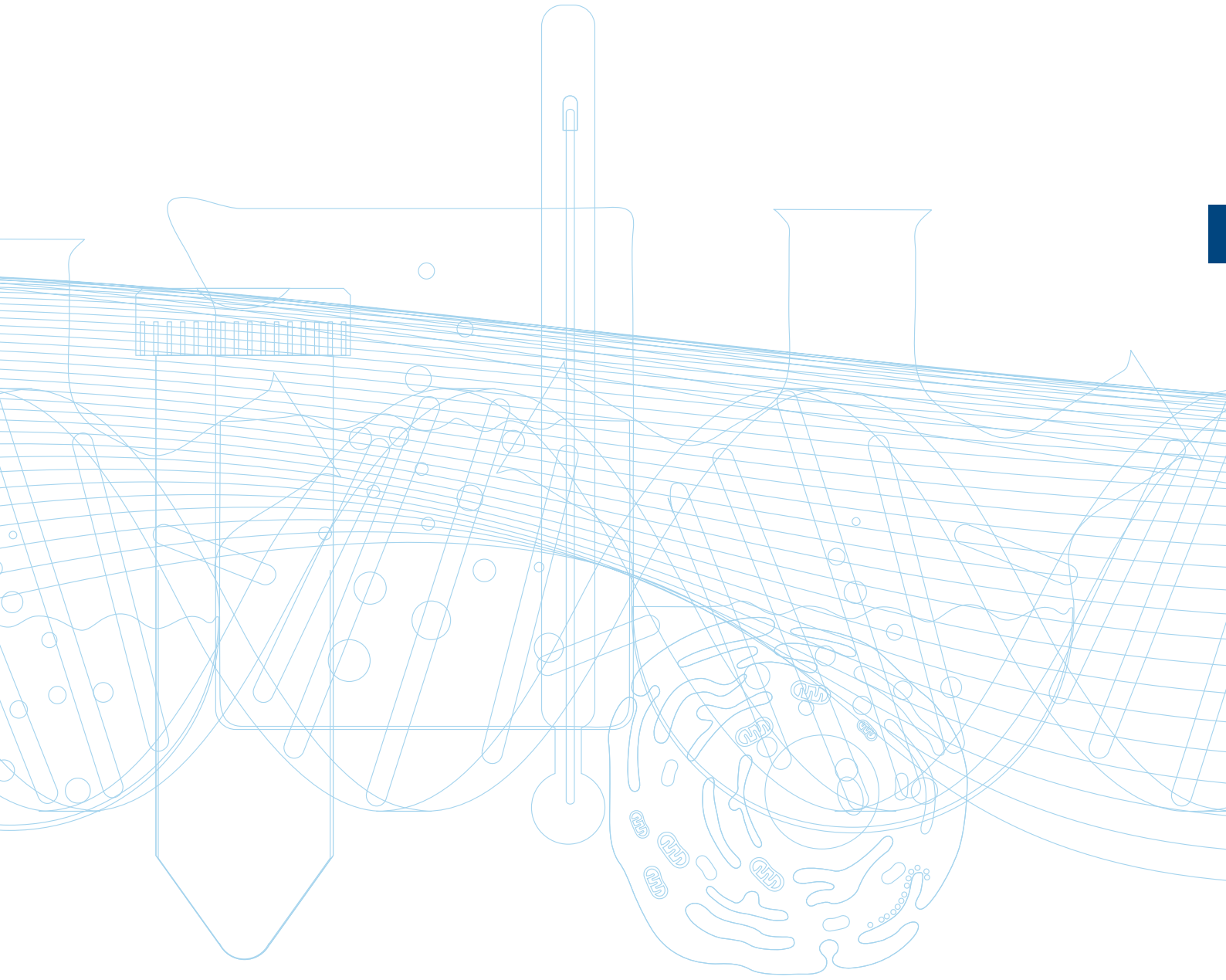
Precision temperature control, sample preparation and life sciences products for the world's laboratories




QUALITY DESIGN « » CONSISTENT PERFORMANCE « » SOUND INVESTMENT

9 Unstirred water baths

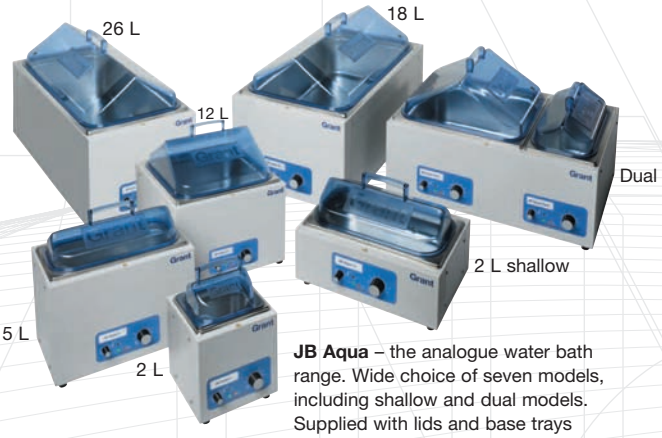


Unstirred water baths

The quality and reliability of Grant products have made Grant a world leading manufacturer of water baths for decades.

- **The new 'standard' for digital and analogue water baths.**
- **The world's best-selling range of water baths** – thousands sold and thousands of satisfied users.
- **Unbeatable for everyday use** – safe for your samples and safe for the user.
- **Durable and easy to use** – with Grant's legendary quality and reliability built in.
- **A complete range for all your needs** – offers the reliability, performance and value-for-money our customers have come to expect.

SUB Aqua – the new digital water bath range. Wide choice of seven models, including shallow and dual models. Supplied with lids and base trays



JB Aqua – the analogue water bath range. Wide choice of seven models, including shallow and dual models. Supplied with lids and base trays

SBB Series – Unstirred boiling baths
Choice of three models with stainless steel tanks and analogue control

SUB36 – Universal unstirred water bath
Bath with stainless steel tank and digital control

PB1 – Transparent unstirred bath
One model with transparent 3.5 L polycarbonate tank and analogue control

Grant also offers two ranges of unstirred baths with stainless steel tanks and outer cases for industrial and catering applications. Please contact Grant for more information.

The water bath ‘standard’ – SUB Aqua

High quality and excellent temperature stability, in a value-for-money package designed to meet the needs of the world’s researchers. The SUB Aqua range is a worthy successor to the world-renown SUB range and is composed of seven models, including shallow and dual baths.

- **Ambient + 5°C to 99°C operation**
- **Digital PID control for quick heat-up and precision control throughout the temperature range**
- **Stability ± 0.2°C**
- **Simple, yet intuitive user interface**
- **User-settable sample protection and fixed thermal cut-out**
- **3-year warranty as standard**

SUB Aqua 12 model shown

Stainless steel tank – high grade steel, with durable polished finish

Clean, painted steel case – maximum chemical and abrasion resistance

Grant polycarbonate perforated base tray, included as standard – promotes heat convection and optimal temperature uniformity and allows any container to be placed directly in the bath

User-settable over-temperature sample protection – protects samples from overheating

Raised feet – allow lifting whilst holding base of tank

Heater mat and sensor bonded to underside of tank – optimises temperature uniformity, workspace and is easy to clean

Grant non-drip polycarbonate lid, included as standard – improves performance, limits evaporation and conserves energy

Clear, wide-angle viewing LED display, with indication of heating state – ‘heating-up’, ‘cooling down’ or ‘maintaining temperature’

Digital PID temperature control circuitry – with sensitive PT1000 temperature control probe

Simple and intuitive, programming – immediate temperature re-setting from + / - buttons

Fixed thermal cut-out protects the user if the bath is accidentally run without water, or in the very unlikely event of failure of both control systems

User-calibration – single or dual-point for optimum re-calibration of your working temperatures

showcase – small volume, shallow digital water bath

SUB Aqua 2s 2 litres, a life science ‘microtube’ water bath

The **SUB Aqua 2s** is ideal when small tubes or vessels need to be maintained at a specific temperature and a limited water bath volume is sufficient. Energy is not wasted heating up too much water, and access to tubes is easy. The Grant polycarbonate lid ensures water lost to evaporation is minimised, while any condensation does not drip back onto samples in the bath.

- **A microtube water bath – ideal for life sciences applications**
- **High surface to volume ratio – does not waste energy by heating too much water**
- **It is easy to see the tubes at all times**
- **Space saving – ideal for laboratories where space is at a premium**

Grant non-drip polycarbonate lid, included as standard – improves performance, limits evaporation and conserves energy

Clear, wide-angle viewing LED display, with indication of heating state – ‘heating-up’, ‘cooling down’ or ‘maintaining temperature’

Fixed thermal cut-out – protects the user if the bath is accidentally run without water, or in the very unlikely event of failure of both control systems

showcase – dual, digital water bath

SUB Aqua Dual 5 and 12 litres

When two temperatures are needed and space and value-for-money are primary concerns – the **SUB Aqua Dual** is the answer. Popular 5 and 12 litre bath volumes are compatible with routine procedures and the bench space occupied is limited. A single unit can also easily be moved around for dual temperature procedures. Separate polycarbonate lids allow independent access to the baths and the use of two thermometers, if needed.

- **Excellent value-for-money – lower cost than two individual baths**
- **Dual controls – simple, separate set-ups and temperature displays for complete clarity**
- **Optimum use of space**
- **Dual lids provide separate access and reduce evaporation**
- **Single power lead**

Fixed thermal cut-out – protects the user if the bath is accidentally run without water, or in the very unlikely event of failure of both control systems

Clear, wide-angle viewing LED display, with indication of heating state – 'heating-up', 'cooling down' or 'maintaining temperature'

Heater mat and sensor bonded to underside of tank – optimises temperature uniformity, workspace and is easy to clean

The economical, quality water bath – JB Aqua

Quality meets value-for-money! Following on from the JB range – the world's best selling water baths – the JB Aqua range offers the simplicity of an analogue bath, with the quality and reliability expected in a Grant water bath. Blue transparent polycarbonate lid and polycarbonate base tray are included as standard to improve performance and limit energy wastage. The range consists of seven models including shallow and dual bath options.

- **Ambient + 5°C to 98°C**
- **User-settable sample protection and fixed thermal cut-out**
- **Polycarbonate lid and base tray – improve performance and reduce evaporation/energy loss**
- **3-year warranty as standard**

JB Aqua 18 model shown

Stainless steel tank – high grade steel, with durable polished finish

Clean, painted steel case – maximum chemical and abrasion resistance

User-settable over temperature cut-out – when sample has critical maximum temperature

Fixed thermal cut-out – protects the user if the bath is accidentally run without water or in the very unlikely event of failure of both control systems

Raised feet – allow lifting whilst holding base of tank

Grant non-drip polycarbonate lid, included as standard – improves performance, limits evaporation and conserves energy

Simple dial temperature setting – quick visual indication of temperature and ability to re-set dial position

Grant polycarbonate perforated base tray (included as standard) – promotes heat convection and optimal temperature uniformity, also allows any container to be placed directly in the bath

Heater mat and sensor bonded to underside of tank – optimises temperature uniformity and workspace

Removable knob – enables calibration

SUB Aqua unstirred water baths ranges – summary of specifications

ambient + 5 to 99°C

		'Standard' unstirred baths – SUB Aqua						
		SUB Aqua 2	SUB Aqua 2s	SUB Aqua 5	SUB Aqua 12	SUB Aqua 18	SUB Aqua 26	SUB Aqua Dual
		 h: 215 mm d: 200 mm w: 190 mm	 h: 150 mm d: 210 mm w: 335 mm	 h: 270 mm d: 215 mm w: 335 mm	 h: 270 mm d: 390 mm w: 335 mm	 h: 270 mm d: 570 mm w: 335 mm	 h: 270 mm d: 570 mm w: 335 mm	 h: 225 mm d: 360 mm w: 540 mm
Tank capacity		2 litres	2 litres	5 litres	12 litres	18 litres	26 litres	5 & 12 litres
Temperature range	°C	ambient + 5 to 99						
Temperature setting range	°C	10 to 99 in 0.1 steps						
Stability (DIN 58966)	°C	±0.2						
Temperature setting/energy regulation		digital						
Temperature display		3 digit bright, wide-angle view LED						
Working volume	l/w/d mm	140/150/140	150/300/55	150/300/140	325/300/140	505/300/140	505/300/190	150/300/140+ 325/300/140
Overall consumption	kW	0.13	0.13	0.375	0.77	1.5	1.5	1.2
Supply voltage	V	220-240						
Sample protection		adjustable cut-out						
CSA approved		yes						

Options and accessories

	SUB Aqua 2	SUB Aqua 2s	SUB Aqua 5	SUB Aqua 12	SUB Aqua 18	SUB Aqua 26	SUB Aqua Dual
	2 L	2 L	5 L	12 L	18 L	26 L	5 L and 12 L
	**Polycarbonate transparent lids, blue**						
	AQL2	**AQL5**	**AQL5**	**AQL12**	**AQL26**	**AQL26**	**AQL5, AQL12**
	Directs condensation away from immersed vessels, avoids contamination, reduces evaporation and saves energy						
	**Flat lids***						
	–	–	**LF6** (2 ring sets)	**LF14** (4 ring sets)	**LF28** (6 ring sets)	**LF28** (6 ring sets)	**LF6 / LF14**
	With ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation						
	**Polypropylene spheres*** (packs per bath)						
	1 x **PS20**	1 x **PS20**	1 x **PS20**	1 x **PS20**	2 x **PS20**	2 x **PS20**	1 x **PS20**
	Useful alternative to a lid, minimises evaporation and heat loss whilst allowing easy access to vessels in the bath; particularly useful for tall vessels						
	**Raised shelves** (w x l x h mm)						
	–	–	–	**RS14H** (100x80x80) covers 50% of the area of SUB Aqua 12	**RS28H** (120x90x80) covers 50% of the area of SUB Aqua 18	**RS28H** (120x90x80) covers 50% of the area of SUB Aqua 26	**RS14H** (100x80x80) covers 50% of the area of SUB Aqua 12
	**Racks** (no. per bath)						
			1 x **J2**	2 x **J2**	3 x **J2**	4 x **J2**	1 + 2 x **J2**
	Choice of 8 variants to accommodate different tube diameters and microtubes (see page 9.10)						
	**Base trays**						
	AQBT2	**AQBT5**	**AQBT5**	**AQBT12**	**AQBT26**	**AQBT26**	**AQBT5 & AQBT12**
	Required if flat-bottomed flasks are to be placed directly on the base of the bath and to promote thermal convection in the bath						

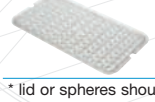
* lid or spheres should be used above 60ºC

JB Aqua unstirred water baths ranges – summary of specifications

ambient + 5 to 98°C

		Analogue unstirred baths – JB Aqua						
		JB Aqua 2	JB Aqua 2s	JB Aqua 5	JB Aqua 12	JB Aqua 18	JB Aqua 26	JB Aqua Dual
		 h: 215 mm d: 200 mm w: 190 mm	 h: 150 mm d: 210 mm w: 335 mm	 h: 270 mm d: 215 mm w: 335 mm	 h: 270 mm d: 390 mm w: 335 mm	 h: 270 mm d: 570 mm w: 335 mm	 h: 270 mm d: 570 mm w: 335 mm	 h: 225 mm d: 360 mm w: 540 mm
Tank capacity		2 litres	2 litres	5 litres	12 litres	18 litres	26 litres	5 & 12 litres
Temperature range	°C	ambient + 5 to 98						
Temperature setting range	°C	10 to 98 in 2.0 steps						
Stability (DIN 58966) @ 37°C	°C	±1.0						
Temperature setting/energy regulation		Analogue						
Working volume l/w/d	mm	140/150/140	150/300/55	150/300/140	325/300/140	505/300/140	505/300/190	150/300/140+ 325/300/140
Overall consumption	kW	0.13	0.13	0.375	0.77	1.5	1.5	1.2
Supply voltage	V	220-240						
Sample protection		adjustable cut-out						
CSA approved		yes						

Options and accessories

	JB Aqua 2	JB Aqua 2s	JB Aqua 5	JB Aqua 12	JB Aqua 18	JB Aqua 26	JB Aqua Dual
	2 L	2 L	5 L	12 L	18 L	26 L	5 L and 12 L
	**Polycarbonate transparent lids, blue**						
	AQL2	**AQL5**	**AQL5**	**AQL12**	**AQL26**	**AQL26**	**AQL5, AQL12**
	Directs condensation away from immersed vessels, avoids contamination, reduces evaporation and saves energy						
	**Flat lids***						
	–	–	**LF6** (2 ring sets)	**LF14** (4 ring sets)	**LF28** (6 ring sets)	**LF28** (6 ring sets)	**LF6 / LF14**
	With ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation						
	**Polypropylene spheres*** (packs per bath)						
	1 x **PS20**	1 x **PS20**	1 x **PS20**	1 x **PS20**	2 x **PS20**	2 x **PS20**	1 x **PS20**
	Useful alternative to a lid, minimises evaporation and heat loss whilst allowing easy access to vessels in the bath; particularly useful for tall vessels						
	**Raised shelves** (w x l x h mm)						
	–	–	–	**RS14H** (100x80x80) covers 50% of the area of JB Aqua 12	**RS28H** (120x90x80) covers 50% of the area of JB Aqua 18	**RS28H** (120x90x80) covers 50% of the area of JB Aqua 26	**RS14H** (100x80x80) covers 50% of the area of JB Aqua 12
	**Racks** (no. per bath)						
			1 x **J2**	2 x **J2**	3 x **J2**	4 x **J2**	1 + 2 x **J2**
	Choice of 8 variants to accommodate different tube diameters and microtubes (see page 9.10)						
	**Base trays**						
	AQBT2	**AQBT5**	**AQBT5**	**AQBT12**	**AQBT26**	**AQBT26**	**AQBT5 & AQBT12**
	Required if flat-bottomed flasks are to be placed directly on the base of the bath and to promote thermal convection in the bath						

* lid or spheres should be used above 60ºC

Boiling baths – SBB series

Unstirred boiling baths are robust and reliable and provide continuous 100°C operation making them suitable for a wide range of applications.

- **Adjustable energy regulator provides steady boiling**
- **Constant level device maintains liquid level**
- **Robust and reliable design to withstand everyday wear and tear**
- **Choice of sizes to suit individual applications**

Large available working area in relation to footprint

Choice of lids available as optional accessories to prevent evaporation of liquid and avoid contamination of samples

Stainless steel tank in a robust outer case – tough and durable in demanding environments

Recessed control panel protects controls from water spillage and accidental alteration

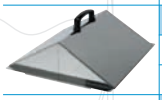
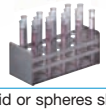
Range of tanks sizes and options to suit different requirements

Constant level device maintains the required liquid level for optimal operation

Two over-temperature cut-outs protect users and the workplace if bath is accidentally run without liquid

Supplied with perforated tray to ensure uniform heat distribution

Options and accessories

	 SBB6 6 L	 SBB14 14 L	 SBB28 28 L
	**Gabled lids***		
	LU6	**LU14**	**LU28**
	Direct condensation away from immersed vessels, avoid contamination and reduce evaporation		
	**Flat lids***		
	LF6 (2 ring sets)	**LF14** (4 ring sets)	**LF28** (6 rings sets)
	With ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation		
	**Polypropylene spheres*** (packs per bath)		
	1 x **PS20**	1 x **PS20**	2 x **PS20**
	Useful alternative to a lid, minimises evaporation and heat loss whilst allowing easy access to vessels in the bath; particularly useful for tall vessels		
	**Raised shelves**		
	–	**RS14H** – covers half the area of SBB14	**RS28H** – covers half the area of SBB28
	**Racks** (no. per bath)		
	1 x **J2**	2 x **J2**	4 x **J2**
	Choice of 8 variants to accommodate different tube diameters and microtubes (see page 9.10)		

* lid or spheres should be used above 60°C

Large universal bath – SUB 36

Universal water bath, high quality and excellent temperature stability for a wide range of routine applications.

- **Ambient + 5ºC to 99ºC operation**
- **Stability ± 0.2ºC**
- **Suits a wide range applications**
- **Robust durable design, with electronic control**

Large available working area

Stainless steel tank in a robust outer case – tough and durable in demanding environments

2-digit LED display for clear temperature indication

Easily accessible on/off switch

Independent over-temperature cut-out – protects users and the workplace if bath is accidentally run without liquid

Choice of lids to prevent evaporation of liquid and avoid contamination of samples

Digital control system – provides reproducibility of set temperature and accurate repetition of sensitive procedures

Overtemperature cut-out – protects samples in the event of primary control system failure

Heater mat and temperature sensor mounted under the tank – optimises temperature uniformity and workspace; easy to clean and keep clean

Transparent unstirred water baths – PB1

Ideal for educational purposes, routine laboratory purposes, procedures requiring visibility of reactions inside the vessels and as a 'personal' water bath for scientists needing only a small working area with a compact footprint.

- **20 to 60ºC operation**
- **Stability ± 0.3ºC**
- **Simple to use analogue control**

Optional gabled lid (LP1) to prevent evaporation of liquid* and avoid contamination of samples

Clear polycarbonate tank for easy visibility of reactions within the vessels

Perforated tray to mix the liquid by convection and enhance the performance

* evaporation can also be minimised by using polypropylene spheres (1 x PS20)

Removable control unit with simple to use analogue temperature setting dial

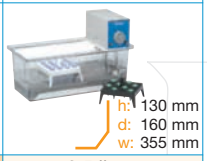
User-resettable over-temperature cut-out for confidence that equipment and workplace are protected

Choice of up to 3 P1 racks or 1 J2 rack

Unstirred water baths – summary of specifications

ambient + 5 to 60°C
ambient + 5 to 90°C
ambient + 5 to 99°C
100°C

	Boiling baths – SBB series		
	SBB6	SBB14	SBB28
	 h: 275 mm d: 205 mm w: 325 mm	 h: 275 mm d: 380 mm w: 325 mm	 h: 300 mm d: 555 mm w: 325 mm
Tank capacity	6 litres	14 litres	28 litres
Temperature range °C	100 only		
Temperature setting/energy regulation	analogue		
Working volume l/w/d mm	150/300/110	325/300/110	505/300/160
Heater power/overall consumption, 220-240 V/110-120 V	1.5/1.3 kW	1.5/1.35 kW	2.0/1.35 kW
Supply voltage V	220-240 or 110-120 (50-60 Hz)		
Safety temperature	two fixed cut-outs		

	Large universal unstirred bath	Transparent unstirred bath
	SUB36	PB1
	 h: 300 mm d: 720 mm w: 325 mm	 h: 130 mm d: 160 mm w: 355 mm
Tank capacity	36 litres	3.5 litres
Temperature range °C	ambient + 5 to 99	ambient + 5 to 60
Temperature setting range °C	15 to 99	10 to 60
Stability (DIN 58966) °C	± 0.2	@ 37°C ± 0.3
Temperature setting/energy regulation	digital	analogue
Temperature display	2-digit LED	–
Working volume l/w/d mm	635/300/190	225/120/80
Heater power/overall consumption, 220-240 V/110-120 V	2.0/1.3 kW	0.3 kW
Supply voltage V	220-240 or 110-120 (50-60 Hz)	220-240 (50-60 Hz)
Safety temperature	adjustable cut-out	fixed cut-out
EMC emissions	Class A	–

SUB 36 options and accessories

Gabled lids*

LU36

Direct condensation away from immersed vessels, avoid contamination and reduce evaporation

Flat lids*

LF36 (8 ring sets)

With ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation

Polypropylene spheres* (packs per bath)

3 x **PS20**

Useful alternative to a lid, minimises evaporation and heat loss whilst allowing easy access to vessels in the bath; particularly useful for tall vessels

Raised shelves

RS36H

– covers half the area of SUB36

Racks (no. per bath)

6 x **J2**

Choice of 8 variants to accommodate different tube diameters and microtubes (see page 9.10)

Base trays

SBT36

Required if flat-bottomed flasks are to be placed directly on the base of the bath

* lid or spheres should be used above 60°C

Rack capacity

(no. of test tubes per rack)

Tube size	J2 rack	P1 rack
0.5 ml	105	–
1.5 ml	65	–
10 mm	84	–
13 mm	55	12
16 mm	36	10
19 mm	32	9
25 mm	18	–
30 mm	12	–