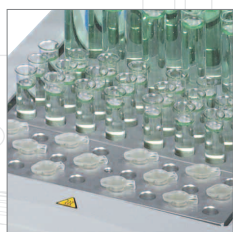


# Scientific Equipment

## Catalogue

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

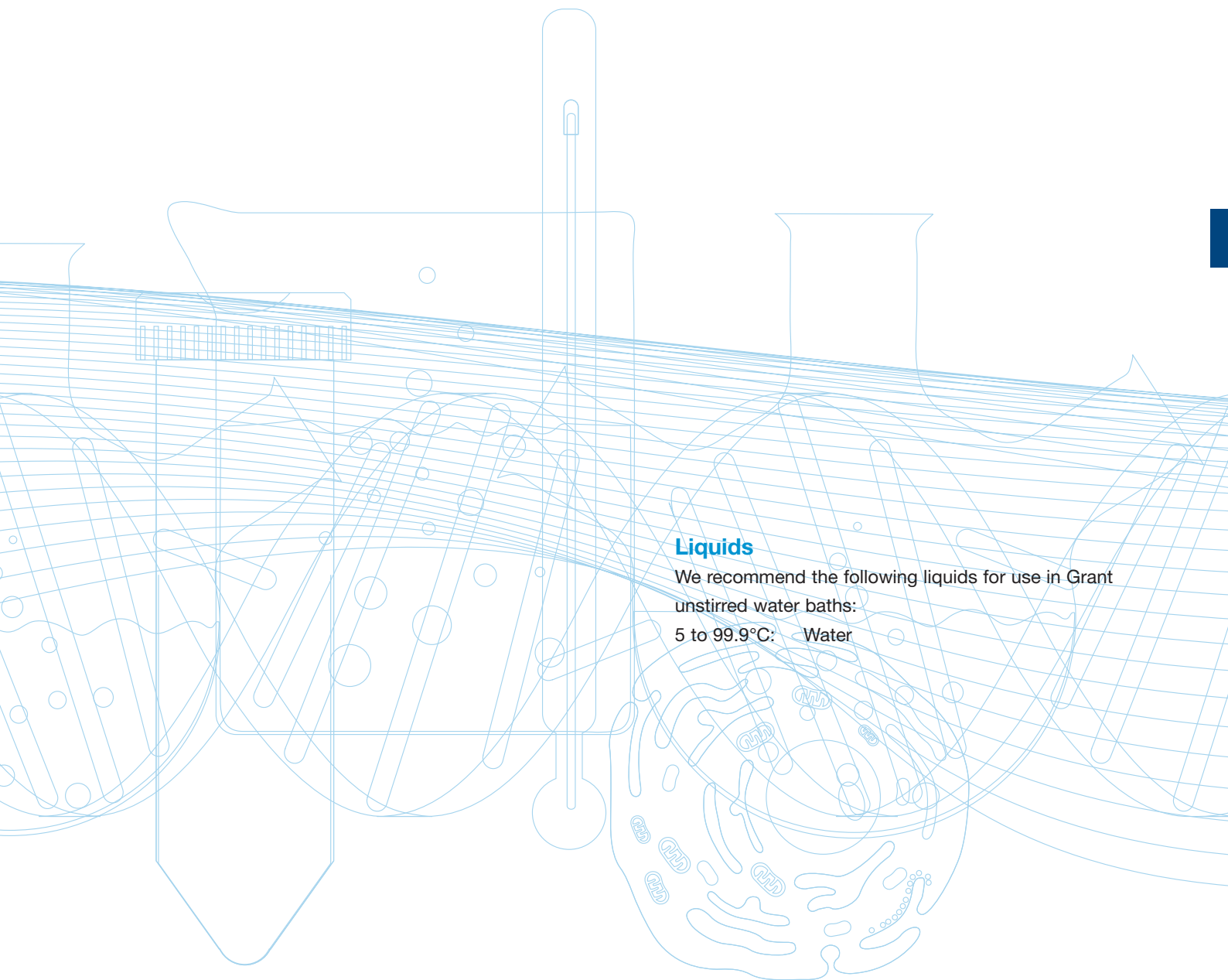


# 9 Unstirred water baths

## Liquids

We recommend the following liquids for use in Grant unstirred water baths:

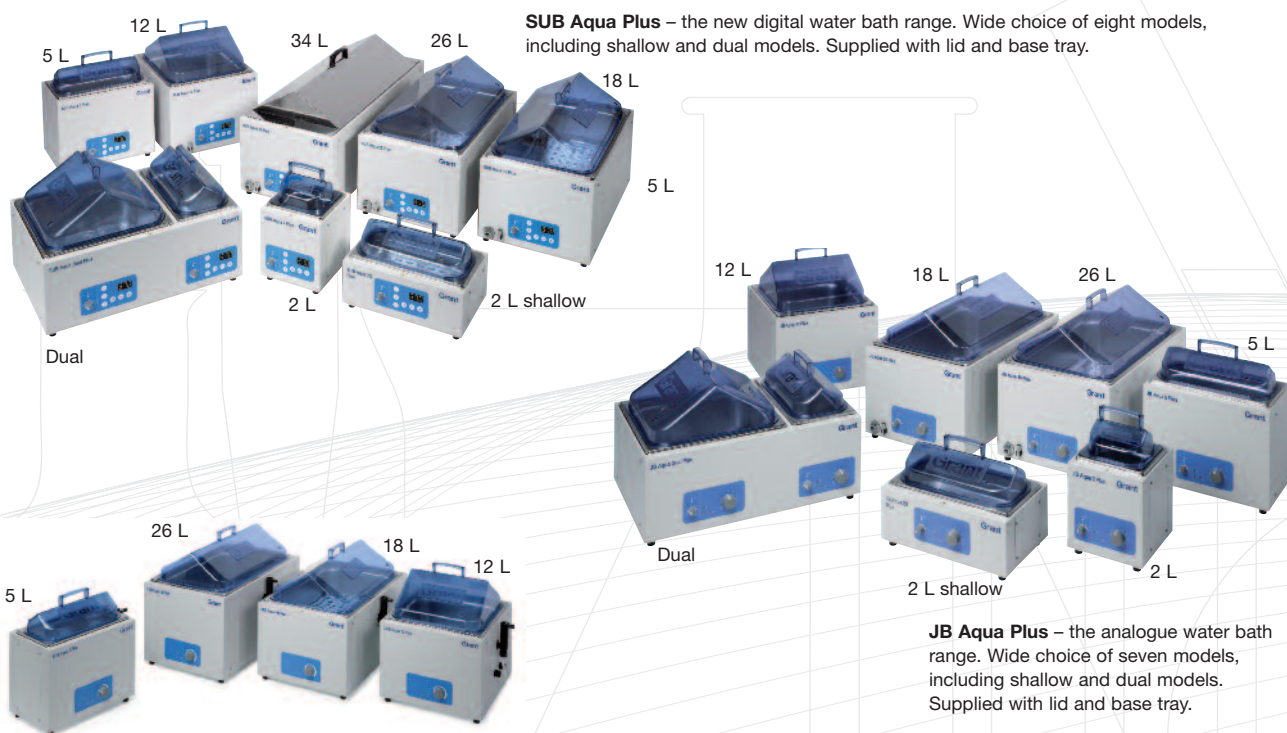
5 to 99.9°C: Water



# Unstirred water baths

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

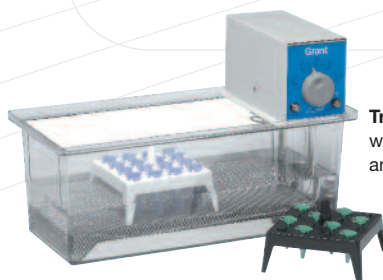
- **The new 'standard' for digital and analogue water baths.**
- **The world's best-selling range of water baths** – thousands sold and thousands of satisfied users.
- **Unbeatable for everyday use** – safe for your samples and safe for the user.
- **Durable and easy to use** – with Grant's legendary 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 Plus** – the new digital water bath range. Wide choice of eight models, including shallow and dual models. Supplied with lid and base tray.

**JB Aqua Plus** – the analogue water bath range. Wide choice of seven models, including shallow and dual models. Supplied with lid and base tray.

**SBB Aqua Plus boiling bath range** – choice of four models. Supplied with polycarbonate lid and stainless steel base tray.

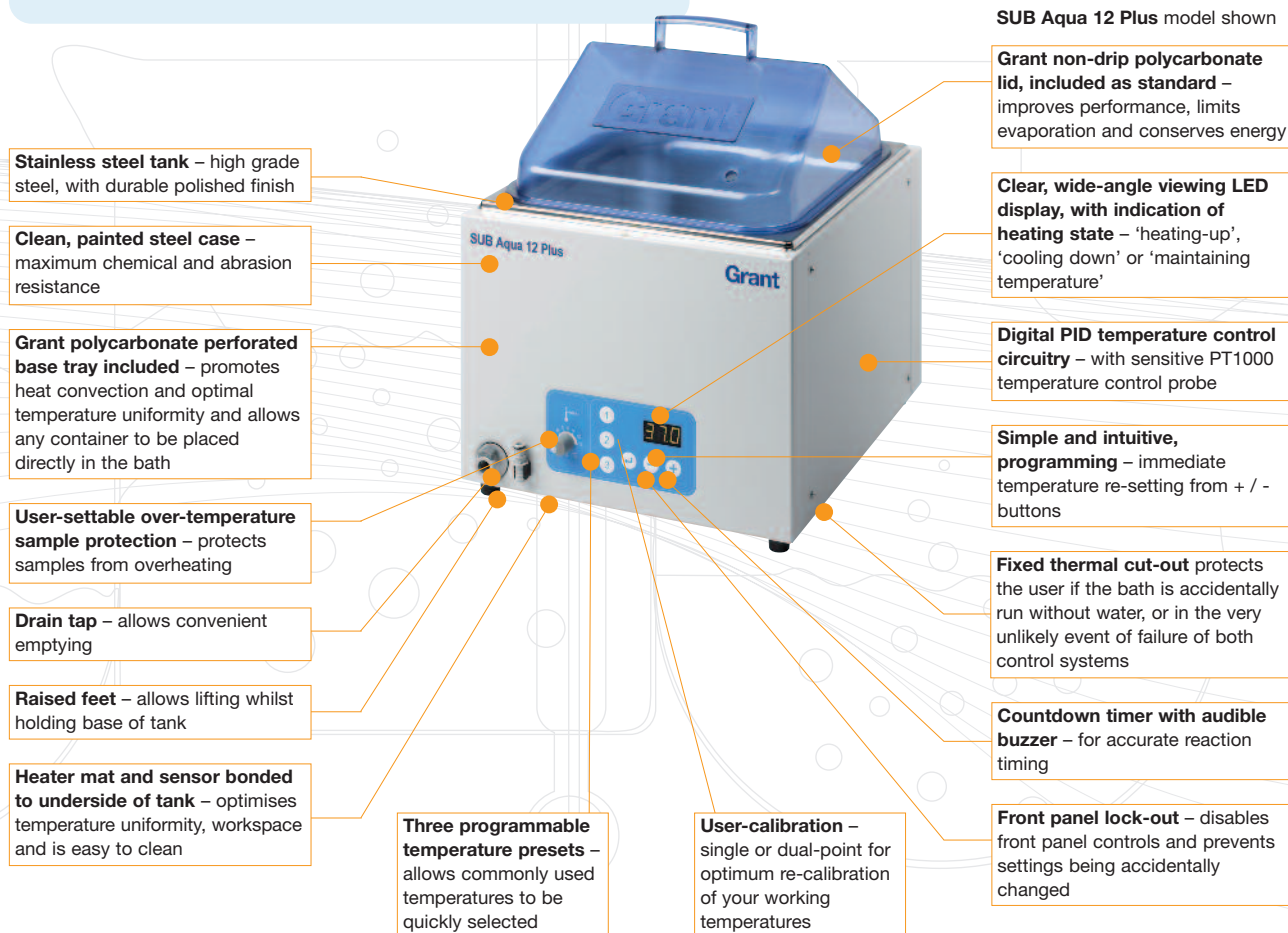


**Transparent unstirred bath PB1** – one model with transparent 3.5 L polycarbonate tank and analogue control.

## The water bath 'standard' – SUB Aqua Plus

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 Plus range has raised the standard with new usability features across the eight model range.

- Ambient + 5°C to 99°C operation
- Digital PID control for quick heat-up and precision control throughout the temperature range
- Stability  $\pm 0.2^\circ\text{C}$
- User-settable sample protection and fixed thermal cut-out
- Three programmable temperature presets
- Drain tap available on SUB Aqua 12 Plus, 18 Plus, 26 Plus and 34 Plus
- Front panel lock-out
- 3-year warranty



## showcase – small volume, shallow digital water bath

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

The **SUB Aqua 2s Plus** 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 conserved, heating only the water needed 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 science applications**
- **High surface to volume ratio – conserves energy by heating only as much water as is needed**
- **It is easy to see the tubes at all times**
- **Space saving – compact size is ideal for laboratories where space is at a premium**
- **Low height – ideal for use in fume cupboards**



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

**Three programmable temperature presets** – allows commonly used temperatures to be quickly selected

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

**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

**Countdown timer with audible buzzer** – for accurate reaction timing

**Front panel lock-out** – disables front panel controls and prevents settings being accidentally changed



## showcase – dual, digital water bath

### SUB Aqua Dual Plus 5 and 12 litres

When two temperatures are needed and space and value-for-money are primary concerns – the **SUB Aqua Dual Plus** is the answer. Popular 5 and 12 litre bath volumes are compatible with routine procedures and the bench space occupied is limited. 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

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

Three programmable temperature presets – allows commonly used temperatures to be quickly selected

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

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

Front panel lock-out – disables front panel controls and prevents settings being accidentally changed

Countdown timer with audible buzzer – for accurate reaction timing

## The economical, quality water bath – JB Aqua Plus









Quality meets value-for-money! The JB Aqua Plus 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
- Drain tap available on JB Aqua 12 Plus, 18 Plus and 26 Plus
- 3-year warranty










## Unstirred water baths » SUB Aqua Plus range, summary of specifications, options and accessories

### SUB Aqua Plus unstirred water baths range – summary of specifications

	'Standard' unstirred baths – SUB Aqua Plus								
	SUB Aqua 2 Plus	SUB Aqua 2s Plus	SUB Aqua 5 Plus	SUB Aqua 12 Plus	SUB Aqua 18 Plus	SUB Aqua 26 Plus	SUB Aqua 34 Plus	SUB Aqua Dual Plus	
									
	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: 270 mm d: 750 mm w: 340 mm	h: 225 mm d: 360 mm w: 540 mm	
Tank capacity	2 litres	2 litres	5 litres	12 litres	18 litres	26 litres	34 litres	5 & 12 litres	
Temperature range	ambient + 5 to 99								
Temperature setting range	10 to 99 in 0.1 steps								
Stability (DIN 12876**) @ 37°C	±0.2								
Temperature setting/energy regulation	digital								
Temperature display	3 digit bright, wide-angle view LED								
Working volume	l/w/d mm	125/140/115	145/290/30	145/290/115	315/290/115	495/290/115	495/290/165	630/290/160	145/290/115+ 315/290/115
Power consumption	120V kW	0.13	0.375	0.375	0.77	1.2	1.2	1.4	1.2
	230V kW	0.13	0.375	0.375	0.77	1.5	1.5	2.1	1.2
Supply voltage	V	120 or 230							
Sample protection		adjustable cut-out							

### Options and accessories






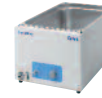

	SUB Aqua 2 Plus	SUB Aqua 2s Plus	SUB Aqua 5 Plus	SUB Aqua 12 Plus	SUB Aqua 18 Plus	SUB Aqua 26 Plus	SUB Aqua 34 Plus	SUB Aqua Dual Plus
	2 L	2 L	5 L	12 L	18 L	26 L	34 L	5 L and 12 L
	<b>Polycarbonate transparent lids, blue</b>							
	AQL2	AQL5	AQL5	AQL12	AQL26	AQL26	–	AQL5, AQL12
	Directs condensation away from immersed vessels, avoids contamination, reduces evaporation and saves energy							
	<b>Stainless steel sloping lids</b>							
	–	LU6	LU6	LU14	LU28	LU28	LU36	LU6 & LU14
	<b>Flat lids*</b>							
	–	–	LF6 (2 ring sets)	LF14 (4 ring sets)	LF28 (6 ring sets)	LF28 (6 ring sets)	LF36 (8 ring sets)	LF6 / LF14
	With ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation							
	<b>Polypropylene spheres*</b> (packs per bath)							
	1 x PS20	1 x PS20	1 x PS20	1 x PS20	2 x PS20	2 x PS20	3 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							
	<b>Raised shelves</b> – reversible, allows two shelf depths. h = shelf height above tank base (mm)							
	–	–	–	RS14H (h 40 or 78) shelf covers half area of SUB Aqua 12 Plus	RS18H (h 40 or 135) shelf covers half area of SUB Aqua 18 Plus	RS28H (h 45 or 135) shelf covers half area of SUB Aqua 26 Plus	RS36H (h 45 or 135) shelf covers half area of SUB Aqua 34 Plus	RS14H (h 40 or 78) shelf covers half area of SUB Aqua Plus dual 12 tank
	<b>Racks</b> (no. per bath)							
	–	–	1 x J2	2 x J2	4 x J2	4 x J2	6 x J2	1 + 2 x J2
	Choice of 8 variants to accommodate different tube diameters and microtubes (see page 1.10)							
	<b>Base trays</b>							
	AQBT2	AQBT5	AQBT5	AQBT12	AQBT26	AQBT26	SBT36	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 60°C \*\*figures determined according to DIN 12876

















## Unstirred water baths » JB Aqua Plus range, summary of specifications, options and accessories

### JB Aqua Plus unstirred water baths range – summary of specifications

ambient + 5 to 98°C		Analogue unstirred baths – JB Aqua Plus						
		JB Aqua 2 Plus	JB Aqua 2s Plus	JB Aqua 5 Plus	JB Aqua 12 Plus	JB Aqua 18 Plus	JB Aqua 26 Plus	JB Aqua Dual Plus
								
		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 12876**)	@ 37°C °C	±1.0						
Temperature setting/energy regulation		Analogue						
Working volume	l/w/d mm	125/140/115	145/290/30	145/290/115	315/290/115	495/290/115	495/290/165	145/290/115+ 315/290/115
Power consumption	120 V kW	0.13	0.375	0.375	0.77	1.2	1.2	1.2
	230 V kW	0.13	0.375	0.375	0.77	1.5	1.5	1.2
Supply voltage	V	120 or 230						
Sample protection		adjustable cut-out						
CSA approved		yes						

### Options and accessories

							
	JB Aqua 2 Plus	JB Aqua 2s Plus	JB Aqua 5 Plus	JB Aqua 12 Plus	JB Aqua 18 Plus	JB Aqua 26 Plus	JB Aqua Dual Plus
	2 L	2 L	5 L	12 L	18 L	26 L	5 L and 12 L
	<b>Replacement Polycarbonate lids, blue</b>						
	<b>AQL2</b>	<b>AQL5</b>	<b>AQL5</b>	<b>AQL12</b>	<b>AQL26</b>	<b>AQL26</b>	<b>AQL5, AQL12</b>
	Directs condensation away from immersed vessels, avoids contamination, reduces evaporation and saves energy						
	<b>Stainless steel sloping lids</b>						
	–	<b>LU6</b>	<b>LU6</b>	<b>LU14</b>	<b>LU28</b>	<b>LU28</b>	<b>LU6 &amp; LU14</b>
	<b>Flat lids*</b>						
	–	–	<b>LF6 (2 ring sets)</b>	<b>LF14 (4 ring sets)</b>	<b>LF28 (6 ring sets)</b>	<b>LF28 (6 ring sets)</b>	<b>LF6 / LF14</b>
	With ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation						
	<b>Polypropylene spheres*</b> (packs per bath)						
	<b>1 x PS20</b>	<b>1 x PS20</b>	<b>1 x PS20</b>	<b>1 x PS20</b>	<b>2 x PS20</b>	<b>2 x PS20</b>	<b>2 x PS20</b>
	Useful alternative to a lid, minimises evaporation and heat loss whilst allowing easy access to vessels in the bath; particularly useful for tall vessels						
	<b>Raised shelves</b> – reversible, allows two shelf depths. h = shelf height above tank base (mm)						
	–	–	–	<b>RS14H (h 40 or 78)</b> shelf covers half area of JB Aqua 12 Plus	<b>RS18H (h 40 or 135)</b> shelf covers half area of JB Aqua 18 Plus	<b>RS28H (h 45 or 135)</b> shelf covers half area of JB Aqua 26 Plus	<b>RS14H (h 40 or 78)</b> shelf covers half area of JB Aqua dual 12 Plus
	<b>Racks (no. per bath)</b>						
	–	–	<b>1 x J2</b>	<b>2 x J2</b>	<b>4 x J2</b>	<b>4 x J2</b>	<b>1 + 2 x J2</b>
	Choice of 8 variants to accommodate different tube diameters and microtubes (see page 1.10)						
	<b>Base trays</b>						
	<b>AQBT2</b>	<b>AQBT5</b>	<b>AQBT5</b>	<b>AQBT12</b>	<b>AQBT26</b>	<b>AQBT26</b>	<b>AQBT5 &amp; AQBT12</b>
	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 60°C \*\* figures determined according to DIN 12876

## Boiling baths – SBB Aqua Plus series

The SBB Aqua Plus boiling baths are robust and reliable and provide continuous 100°C operation. The range consists of four models to suit a range of applications and any budget.

- 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
- Grant non-drip polycarbonate lid included as standard
- 3-year warranty

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

Large available working area in relation to footprint

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

Adjustable energy regulator provides steady boiling



SBB Aqua 12 Plus model shown


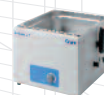







Range of tank sizes and options to suit different requirements

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

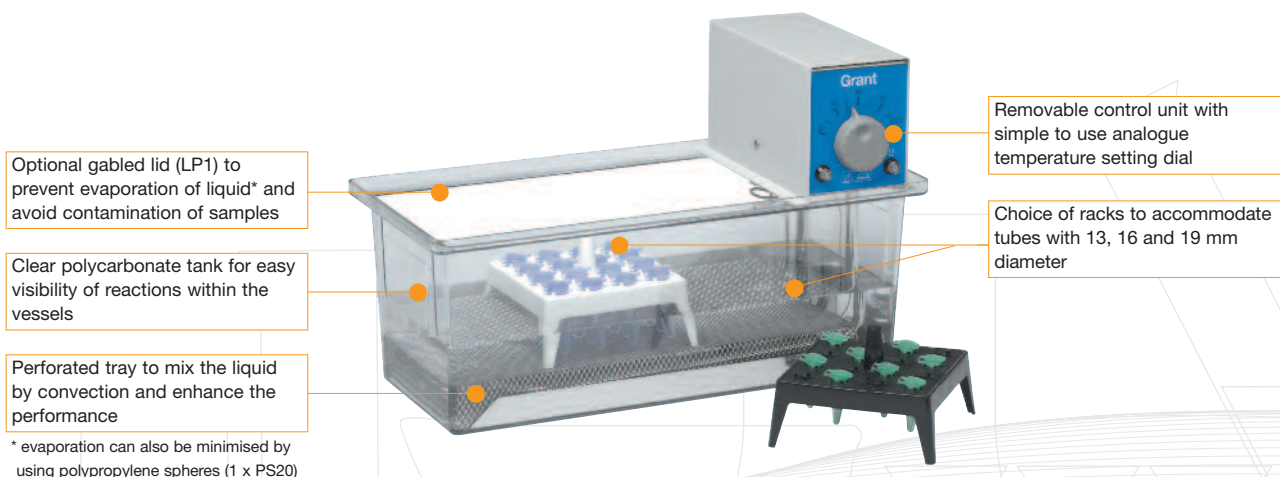
### Options and accessories

				
	SBB Aqua 5 Plus	SBB Aqua 12 Plus	SBB Aqua 18 Plus	SBB Aqua 26 Plus
	<b>Replacement polycarbonate lids, blue</b>			
	<b>AQL5</b>	<b>AQL12</b>	<b>AQL18</b>	<b>AQL26</b>
	Directs condensation away from immersed vessels, avoids contamination, reduces evaporation and saves energy			
	<b>Stainless steel sloping lids</b>			
	<b>LU6</b>	<b>LU14</b>	<b>LU28</b>	<b>LU28</b>
	<b>Flat lids</b>			
	<b>LF6</b> (2 ring sets)	<b>LF14</b> (4 ring sets)	<b>LF28</b> (6 rings sets)	<b>LF28</b> (6 rings sets)
	With ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation			
	<b>Polypropylene spheres*</b> (packs per bath)			
	<b>1 x PS20</b>	<b>1 x PS20</b>	<b>2 x PS20</b>	<b>2 x PS20</b>
	Useful alternative to a lid, minimises evaporation and heat loss whilst allowing easy access to vessels in the bath; particularly useful for tall vessels			
	<b>Raised shelves</b> – reversible, allows two shelf depths. h = shelf height above tank base (mm)			
	–	<b>RS14H</b> (h 40 or 78) shelf covers half area of SBB Aqua 12 Plus	<b>RS18H</b> (h 40 or 135) shelf covers half area of SBB Aqua 18 Plus	<b>RS28H</b> (h 45 or 135) shelf covers half area of SBB Aqua 26 Plus
	<b>Racks</b> (no. per bath)			
	<b>1 x J2</b>	<b>2 x J2</b>	<b>4 x J2</b>	<b>4 x J2</b>
	Choice of 8 variants to accommodate different tube diameters and microtubes (see page 9.10)			
	<b>Base trays</b>			
	<b>SBT6</b>	<b>SBT14</b>	<b>SBT28</b>	<b>SBT28</b>
	Required if flat-bottomed flasks are to be placed directly on the base of the bath and to promote thermal convection in the bath			

## 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 60°C operation
- Stability  $\pm 0.3^\circ\text{C}$
- Simple to use analogue control



## Unstirred water baths » summary of specifications, options and accessories

### Unstirred water baths – summary of specifications

ambient + 5 to 60°C  
 100°C

		Boiling baths – SBB Aqua Plus series			
		SBB Aqua 5 Plus	SBB Aqua 12 Plus	SBB Aqua 18 Plus	SBB Aqua 26 Plus
					
		h: 270 mm d: 215 mm w: 385 mm	h: 270 mm d: 390 mm w: 385 mm	h: 270 mm d: 570 mm w: 385 mm	h: 300 mm d: 570 mm w: 385 mm
Tank capacity		5 litres	12 litres	18 litres	26 litres
Temperature range	°C	100 only			
Temperature setting/energy regulation		analogue			
Working volume	l/w/d mm	145/290/105	315/290/105	495/290/105	495/290/155
Heater power/overall consumption,	120 V / 230 V	1.3/1.5 kW	1.35/1.5 kW	1.35/2.0 kW	1.35/2.0 kW
Supply voltage	V	120 or 230			
Safety	temperature	two fixed cut-outs			

#### Transparent unstirred bath

#### PB1



Tank capacity		3.5 litres
Temperature range	°C	ambient + 5 to 60
Temperature setting range	°C	10 to 60
Stability (DIN 58966)	°C	@ 37°C ± 0.3
Temperature setting/energy regulation		analogue
Temperature display		–
Working volume	l/w/d mm	225/120/80
Heater power/overall consumption,	120 V / 230 V	0.3 kW
Supply voltage	V	120 or 230
Safety	temperature	fixed cut-out

#### Unstirred Bath Racks

J2 Racks	Tube size Ø	Capacity	P1 Racks	Tube size Ø	Capacity
J2-10	10 mm	84	P1-13	13 mm	12
J2-13	13 mm	55	P1-16	16 mm	10
J2-16	16 mm	36	P1-19	19 mm	9
J2-19	19 mm	32			
J2-25	25 mm	18			
J2-30	30 mm	12			
J2-SE	0.5 ml	105			
J2-LE	1.5 ml	65			



Thank you for reading this data sheet.

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



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**Tel: +44 (0)330 088 0560**

**Fax: +44 (0)1245 808399**

**Email: [sales@keison.co.uk](mailto: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.