



## Shaking Water Baths

OLS26 combined Orbital & Linear shaking water bath

Offering ultimate flexibility and usability for all applications

LSB12 & LSB18 Linear shaking water baths

Superior usability for routine applications

# Shaking Water Baths

World-renowned shaking water baths from Grant. Precision temperature control combined with a robust, high quality, orbital and linear shaking mechanism that works smoothly and consistently for even the most demanding applications. Universal tray included as standard.

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Soft start, quiet operation - for smooth shaking over a wide speed range

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Flexible choice of linear and orbital shaking baths - for all routine and demanding techniques

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Extensive range of accessories - provides the right solution for your application with a choice of vessel types

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OLS26  
Combined orbital and  
linear shaking water bath



LSB18 and LSB12  
Excellent usability for  
all routine applications

## Liquids

We recommend the following liquids for use in Grant baths:

5°C to 99°C: Water - do not use to boil



Find your perfect solution today

Visit our website - [www.grantinstruments.com](http://www.grantinstruments.com)

# OLS26

## Combined orbital/linear shaking water bath

Ultimate flexibility and usability with the combined orbital and linear shaking mechanism of the OLS26 allows optimisation of aeration and shear forces mixing, for reproducible results.

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Precision digital temperature control

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Temperature range 0°C to 99°C operation\*

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Easy changeover from linear to orbital shaking

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Adjustable shaking speed and stroke length

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Universal tray and polycarbonate lid included as standard

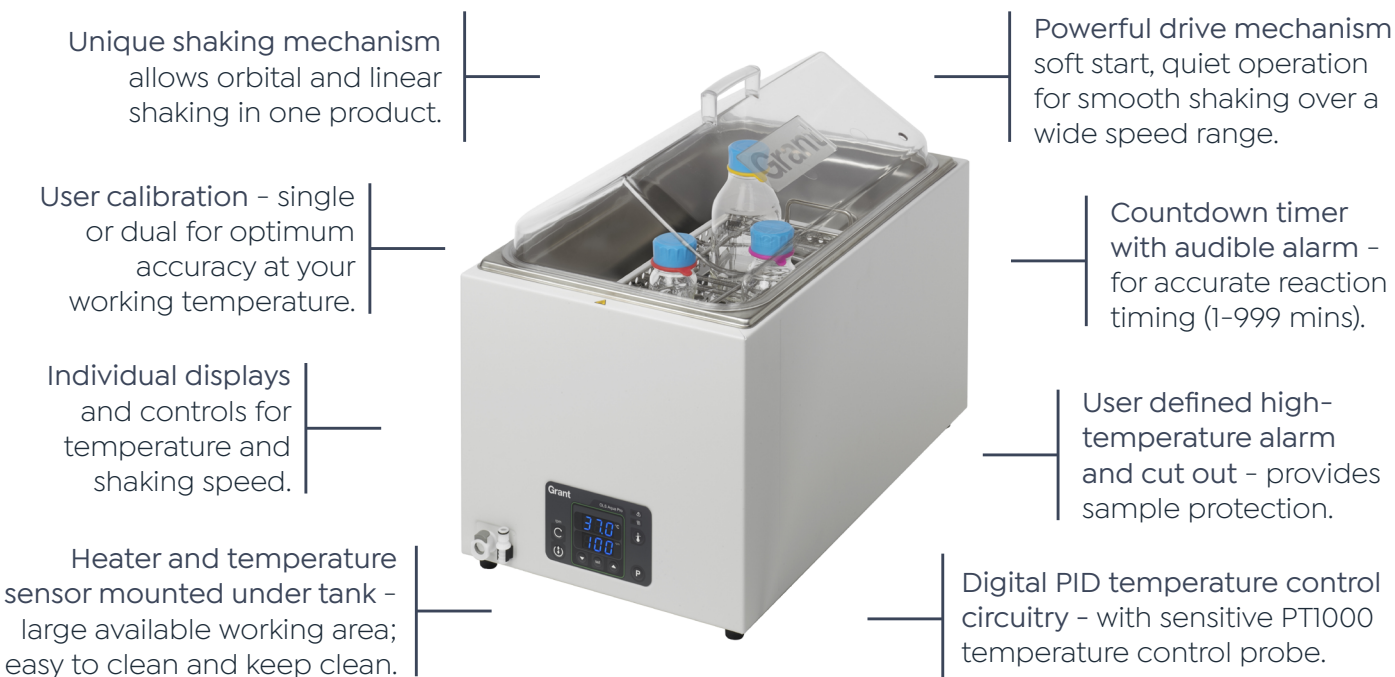
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Drain tap for convenient emptying

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3 year warranty

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\* Accessory cooling required for operation below ambient

### Applications

- General use - defrosting, cooling/warming liquids, temperature control of samples
- Life-science - microbiological assays, bacterial culture, biochemical assays, enzyme assay
- Industrial - materials testing, corrosion testing
- Biopharm - solubility testing of medical coatings, dissolution, cooling crystallisation
- Food & beverage - extractions, food digestion

# OLS26

## Technical specification

		OLS26
Dimensions	h x d x w mm	325 x 565 x 335
Capacity	L	26
Temperature range	°C	Ambient +5 to 99 0 to 99 with accessory cooling CC26
Stability (DIN 12876-3)	@70°C ±°C	0.1
Uniformity (DIN 12876-3)	@70°C ±°C	0.1
Working area	d x w mm	380 x 235
Min/max liquid depth	mm	70/134
Orbital and linear shaking speed	rpm	20 to 200 (depending on load)
Orbital shaking radius	mm	9
Shaking speed display resolution	rpm	1
Linear shaking stroke length	mm	18, 28 and 36
Display		2 x LED (individual displays and controls for temperature and shaking speed)
Timer		1 to 999 minutes
Drain tap		•
Sample protection		Over temperature protection/low liquid level cut-out
Heater power	230V W	1400
	120V W	1050
Supply voltage	V	120 or 230
Weight	kg	13.1

Easy to use keypad with clear, wide-angle LED display.

Quick changeover between linear and orbital shaking.



OLS Keypad

User defined high temperature alarm and cut-out - provides sample protection.

Two adjustable presets for temperature and shaking speed.

# LSB Aqua Pro

## Linear shaking water bath

A linear shaking bath with temperature stability and intuitive digital controls, for ultimate flexibility and usability. Available ready-to-use in two sizes to suit a variety of applications including sample preparation, mixing and thawing.

Robust magnetically coupled shaking mechanism - safe, reliable, durable, space saving.

User settable over temperature alarm - provides sample protection. Alerts user and cuts off heating at user defined temperature.

User calibration - single or dual for optimum accuracy at your working temperature.

Front panel lock - disables front panel controls preventing settings from accidentally being changed.

Two programmable temperature and shaking presets - allows commonly used temperatures and shaking speeds to be quickly selected.

Heater and temperature sensor mounted under tank - large available working area; easy to clean and keep clean.



## Product highlights

- Temperature range ambient +5°C to 99°C operation
- Stability:  $\pm 0.1^{\circ}\text{C}$
- Choice of two models - 12 and 18 litres
- Extensive choice of accessory shaking trays - tray sold separately
- Universal tray and polycarbonate lid included as standard
- Drain tap for convenient emptying
- 3 year warranty



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

Clear, wide-angle viewing LED display.

Unique shaking mechanism soft start, quiet operation for smooth shaking over a wide speed range.

Countdown timer with audible alarm - for accurate reaction timing (1-999 mins).

Stainless steel tank - high grade steel, with durable polished finish.



Digital PID temperature control circuitry - with sensitive PT1000 temperature control probe.

## Applications

- Healthcare research - thawing/mixing samples
- Pharmaceutical - heating and mixing samples
- Science education in schools/universities - practical science demonstration and experimentation
- Industrial - QC testing, sample preparation

# LSB

## Technical specification

			
		LSB12	LSB18
Dimensions	h x d x w mm	425 x 385 x 360	425 x 565 x 335
Capacity	L	12	18
Temperature range	°C	Ambient +5 to 99	
Stability (DIN 12876-3)	@70°C ±°C	0.1	
Uniformity (DIN 12876-3)	@70°C ±°C	0.1	
Working area	d x w mm	240 x 235	420 x 235
Min/max liquid depth	mm	60/93	
Linear shaking speed	rpm	20 to 200 (depending on load)	
Shaking speed display resolution	rpm	1	
Linear shaking stroke length	mm	20	
Display		LED	
Timer		1 to 999 minutes	
Drain tap		•	
Safety		Over temperature protection/low liquid level cut-out	
Heater power	230V W	800	1400
	120V W	800	1050
Supply voltage	V	120 or 230	
Weight	kg	8.9	11.2

Easy to use keypad with clear, wide-angle LED display.

Front panel lock to prevent unwanted setting changes.






LSB Keypad

User defined high temperature alarm and cut-out - provides sample protection.

Two adjustable presets for temperature and shaking speed.



# Technical specification

				
		OLS26	LSB12	LSB18
Universal tray - included as standard				
	Universal tray - with adjustable springs. Highly versatile for a variety of vessel types.	TU26	TU12	TU18
Flask/plate tray				
	Flask/plate tray - with threaded holes to accept flask clamps or holder for deep well plates ( $\geq 2$ ml).	TF26	TF12	TF18
Test tube tray				
	Test tube tray - compatible with SR racks or can be used alone to accommodate bags and vessels. See rack options on page 62.	TS26 (holds up to 5 SR racks)	TS12 (holds up to 3 SR racks)	TS18 (holds up to 5 SR racks)
Base tray				
	Base tray - stainless steel perforated tray allows bath to be used as an unstirred bath.	SBT26	SBT12	SBT26
Stainless steel sloping lid (optional)				
	With access hole for cooling coil	LS200	LU14	LU28
Replacement polycarbonate lid				
	Replacement polycarbonate lid	AQL26 (unsuitable for use with cooling coil)	AQL12	AQL26
Immersion cooler				
	Cooling coil - source of constant cooling to enable bath to be operated at or below ambient, down to 0°C.	CC26	-	-
Heat exchange coil				
	Heat exchange coil - can be attached to a cold water supply or refrigerated circulator. Can be used down to 2°C above the temp of the coolant	CW26	-	-

## Flasks and plate holder

Part number	Description	OLS26 capacity	LSB12 capacity	LSB18 capacity
SC-25	For 25ml flask	28	20	35
SC-50	For 50ml flask	24	16	28
SC-100	For 100ml flask	15	16	28
SC-250	For 250ml flask	8	9	15
SC-500	For 500ml flask	6	6	8
SC-1000	For 1000ml flask	3	4	6

## Test tube racks

Part number	Tube Diameter (mm)	Rack Capacity
SR-10	10	48
SR-13	13	44
SR-16	16	24
SR-19	19	21
SR-25	25	12
SR-30	30	10

## Microtube racks


Part number	Microtube size (ml)	Rack capacity
SR-SE	0.5	119
SR-LE	1.5	48

Note: For further information on all dimensions of the trays please visit: [www.grantinstruments.com/scientific/water-baths/shaking-water-baths](http://www.grantinstruments.com/scientific/water-baths/shaking-water-baths)

### Contact us today

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## Unstirred Water Baths

### SAP

Advanced-level  
unstirred water bath range

### JBN

Mid-level unstirred water bath range

### JBA

Entry-level unstirred water bath range

### SBB Aqua Plus

Boiling bath range

# Unstirred Water Baths

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

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Digital design - digital controls on all thermostatic baths from entry-level through to advanced-level

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Proven performance - advanced technology delivers accurate temperature control

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Set and Forget™ technology - fast heat up, accurate temperature control

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JBN range



JBA range






SAP range



SBB Aqua Plus boiling bath range

# Comparison of features and specifications

				
		JBA	JBN	SAP
		JB Academy	JB Nova	SUB Aqua Pro
Tank size	L	5, 12, 18	5, 12, 18, 26	2, 2L shallow, 5, 5L & 12 (dual), 12, 18, 26 & 34
Temperature range	°C	Ambient +5 to 95	Ambient +5 to 95	Ambient +5 to 99
Temperature display and setting resolution	°C	0.5		0.1
Stability (DIN 12876)	@70°C ±°C	0.5		0.2
Temperature setting		Digital		
Front panel lock			•	
Fixed thermal cut-out			•	
Dry start/boil dry protection			•	
User calibration		1pt		2pt
Element free tank			•	
Drain tap (12L and above)		-		•
Lid as standard		-		•
User adjustable over temperature alarm		-		•
Programmable temperature presets		-		3
Countdown timer with audible alarm		-		1 to 999 minutes
Supply voltage	V	120 or 230		
Compatible with heat transfer beads		-	•	• (5L+)

JBA Keypad



JBN Keypad



SAP Keypad



## Fluids

We recommend the following liquids for use in Grant baths:

5°C to 99°C: Water

The SAP and JBN ranges (greater than 2L) are compatible with heat transfer beads

# Sub Aqua Pro

## Advanced-level digital unstirred water bath range

Built to the highest standard and specifications, combining the latest technology the SUB Aqua Pro advanced water bath range supports even the most demanding applications requiring accurate temperature control. A choice of eight models with a base tray and lid included as standard.

SAP12 model shown.

Stainless steel tank - high grade steel, with durable polished finish.

User calibration - dual for optimum accuracy at your working temperature.

Fixed thermal cut-out - independent safety feature.

Heater mat and sensor bonded to underside of tank - optimised uniformity and work space. Tank easy to clean.

Drain tap - allows convenient emptying on 12L, 18L, 26L, 34L and dual baths (5L and 12L).



## Product highlights

- Temperature range ambient +5°C to 99°C operation
- Stability:  $\pm 0.2^{\circ}\text{C}$
- Unique Set and Forget™ technology - fast heat-up, accurate temperature control
- Simple, intuitive controls - quick and easy to set temperature
- Suitable for use with heat transfer beads (excluding SAP2 & SAP2S)
- Adjustable over temperature alarm - protect samples from over heating
- Practical front panel lock - disables front panel controls preventing unintentional changes
- 3 year warranty



Non-drip lid - improves performance, limits evaporation and conserves energy. Included as standard.

Advanced dry run and run dry protection - prevents costly service repairs in case bath is accidentally switched on or run without water. Simply fill and restart.

Base tray - promotes heat convection and optimal temperature uniformity. Also allows any container to be placed directly in the bath. Included as standard.

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


Countdown timer (1-999 mins) with audible buzzer - for accurate reaction timing.

## Applications

- Sample preparation, sample incubation, sample warming, sample thawing, media preparation, QC materials and practical science demonstration
- Markets: Pharma/biotech, education, industry, healthcare

# Sub Aqua Pro

## Technical specifications

										
		SAP2	SAP2S	SAP5	SAPI2	SAP18	SAP26	SAP34	SAPD 5 and 12L Dual bath	
Capacity	L	2	2 (shallow)	5	12	18	26	34	5 & 12	
Dimensions	mm	h: 305 d: 200 w: 186	h: 260 d: 215 w: 335	h: 310 d: 215 w: 335	h: 380 d: 390 w: 335	h: 420 d: 590 w: 335	h: 430 d: 590 w: 335	h: 400 d: 775 w: 335	h: 400 d: 380 w: 545	
Weight	kg	2.5	3	3.9	6.2	9.2	9.4	13.8	9.9	
Temperature range	°C	Ambient +5 to 99								
Stability (DIN 12876)	@70°C ±°C	0.2								
Setting resolution	°C	0.1								
Working area	mm	d: 117 w: 131	d: 139 w: 289	d: 131 w: 281	d: 306 w: 281	d: 485 w: 281	d: 481 w: 278	d: 635 w: 281	d: 131 w: 281	d: 281 w: 306
Min/max liquid depth	mm	50/125	32/40	50/125	50/125	50/125	70/175	70/166	50/125	
Countdown timer with audible alarm		1 to 999 minutes								
Temperature setting/energy regulation		Digital								
User adjustable over temperature alarm		•								
Fixed thermal cut-out		•								
Dry start/run dry protection		•								
Drain tap		-			•					
Programmable temperature pre-sets		3								
Heater power	230V W	250	350	350	800	1400	1400	1800	1150	
	120V W	250	350	350	800	1050	1050	1300	1150	
Supply voltage	V	120 or 230								
Regulatory approval		CE and CSA approved								

## Can't find what you're looking for?

If you cannot find what you are looking for in our standard product portfolio, our custom solutions experts are available to develop the right solution for your requirements. Contact the team today, who will be happy to help. Call +44 (0) 1763 260 811 or email [salesdesk@grantinstruments.com](mailto:salesdesk@grantinstruments.com). More information can also be found here: [www.grantinstruments.com](http://www.grantinstruments.com).



# Sub Aqua Pro

## Options and accessories

								
	SAP2	SAP2S	SAP5	SAP12	SAP18	SAP26	SAP34	SAPD
	2L	2L	5L	12L	18L	26L	34L	5L and 12L
	Replacement transparent polycarbonate lids - Directs condensation away from immersed vessels, avoids contamination, reduces evaporation and saves energy.*							
	AQL2	AQL5	AQL5	AQL12	AQL26	AQL26	-	AQL5 and AQL12
	Stainless steel sloping lids*							
	-	LU6	LU6	LU14	LU28	LU28	LU36	LU6 and LU14
	Flat lids - with ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation* Ring set reductions are 105, 78, 59, 43 and 31mm.							
	-	-	LF6	LF14	LF28	LF28	LF36	LF6 and LF14
	Polypropylene spheres (packs per bath) - useful alternative to a lid, minimises evaporation and heat loss whilst allowing easy access to vessels in the bath; particularly useful for tall vessels. *							
	x1 PS20	x1 PS20	x1 PS20	x1 PS20	x2 PS20	x2 PS20	x3 PS20	x2 PS20
	Raised shelves - reversible, allows two shelf depths. h = shelf height above tank base (mm)							
	-	-	-	RS14H (h 40 or 78) Shelf covers half area of SAP12	RS18H (h 40 or 78) Shelf covers half area of SAP18	RS28H (h 45 or 135) Shelf covers half area of SAP26	RS36H (h 45 or 135) Shelf covers half area of SAP34	RS14H (h 40 or 78) Shelf covers half area of SAPD
	Racks (no. per bath) - choice of 8 variants to accommodate different tube diameters and microtubes (see below).							
	-	-	1 x J2	2 x J2	4 x J2	4 x J2	6 x J2	1 + 2 x J2
	Replacement base trays - required if flat-bottomed flasks are to be placed directly on the base of the bath and to promote thermal convection in the bath.							
	AQBT2	AQBT5	AQBT5	AQBT12	AQBT26	AQBT26	SBT36	AQBT5 and AQBT12
	Drain stopper - Recommended when using heat transfer beads, to prevent beads entering drain hole.							
	-	-	-	UWB-DS (pack of 5)	UWB-DS (pack of 5)	UWB-DS (pack of 5)	UWB-DS (pack of 5)	UWB-DS (pack of 5)

## Unstirred water bath racks

	J2-10	J2-13	J2-16	J2-19	J2-25	J2-30	J2-SE	J2-LE
Tube size (diameter)	10mm	13mm	16mm	19mm	25mm	30mm	0.5ml	1.5ml
Capacity	84	55	36	32	18	12	105	65

# JB Nova

## Mid-level digital water bath range

Our mid-level range of water baths offer stable temperature control, simple interface and fast heat-up and features our unique Set and Forget™ technology. A choice of four models with a base tray and lid included as standard.

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Temperature range ambient +5°C to 95°C operation

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Unique Set and Forget™ technology - fast heat-up, reliable temperature control

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Simple, intuitive controls - quick and easy to set temperature

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Practical front panel lock - disables front panel controls preventing unintentional changes

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Suitable for use with heat transfer beads

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3 year warranty

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Simple and intuitive controls for quick temperature settings immediate temperature resetting using ▲ and ▼ buttons.

Stainless steel - high grade steel, with durable polished finish.

User calibration - single point for optimum accuracy at your working temperature.

Base tray, included as standard - promotes heat convection and optimal temperature uniformity, also allows any container to be placed directly in the bath.



Non-drip lid - improves performance, limits evaporation and conserves energy. Included as standard.

Advanced dry run and run dry protection - prevents costly service repairs in case bath is accidentally run without water. Simply fill and restart.

Fixed thermal cut-out - Independent safety feature.



Heater mat and sensor bonded to underside of tank - optimised uniformity and work space. Tank easy to clean.

### Applications









- Practical science demonstration, sample warming, sample preparation, QC materials, sample thawing, sample incubation, media preparation
- Markets: Education and industry

# JB Nova

## Technical specifications

					
		JBN5	JBN12	JBN18	JBN26
Capacity	L	5	12	18	26
Dimensions	h x d x w mm	310 x 215 x 335	380 x 390 x 335	420 x 590 x 335	420 x 590 x 335
Weight	kg	3.9	6.2	9	9.3
Temperature range	°C	Ambient +5 to 95			
Stability (DIN 12876)	@70°C ±°C	0.5			
Setting resolution	°C	0.5			
Working area	d x w mm	131 x 281	306 x 281	485 x 281	481 x 278
Min/max liquid depth	mm	50/125			70/175
Temperature setting energy regulation		Digital			
Fixed thermal cut-out		•			
Dry start/run dry protection		•			
Drain tap		-	•		
Heater power	230V W	350	800	1400	1400
	120V W	350	800	1050	1050
Supply voltage	V	120 or 230			
Regulatory approval		CE and CSA approved			

## Options and accessories

	Replacement transparent polycarbonate lids - Directs condensation away from immersed vessels, avoids contamination, reduces evaporation and saves energy.*			
	AQL5	AQL12	AQL26	AQL26
	Stainless steel sloping lids*			
	LU6	LU14	LU28	LU28
	Flat lids - with ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation* Ring set reductions are 105, 78, 59, 43 and 31mm.			
	LF6 (2 ring sets)	LF14 (4 ring sets)	LF28 (6 ring sets)	LF28 (6 ring sets)
	Polypropylene spheres (packs per bath) - useful alternative to a lid, minimises evaporation and heat loss whilst allowing easy access to vessels in the bath; useful for tall vessels.*			
	x1 PS20	x1 PS20	x2 PS20	x2 PS20
	Raised shelves - reversible, allows two shelf depths. h = shelf height above tank base (mm)			
	-	RS14H (h 40 or 78) Shelf covers half area of JBN12	RS18H (h 40 or 78) Shelf covers half area of JBN18	RS28H (h 45 or 135) Shelf covers half area of JBN26
	Racks (no. per bath) - choice of 8 variants for different tube diameters and microtubes.			
	1 x J2	2 x J2	4 x J2	4 x J2
	Replacement base trays - required if flat-bottomed flasks are to be placed directly on the base of the bath and to promote thermal convection in the bath.			
	AQBT5	AQBT12	AQBT26	AQBT26
	Drain stopper - Recommended when using heat transfer beads, to prevent beads entering drain hole.			
	-	UWB-DS (pack of 5)	UWB-DS (pack of 5)	UWB-DS (pack of 5)

# JB Academy

## Entry-level digital water bath range

Ideal for schools and colleges looking for a robust, long-lasting, simple and easy to use water bath. Base tray included as standard\*. This is cost-saving range comes in three models - 5L, 12L and 18L.

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Temperature range ambient +5°C to 95°C operation

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Unique Set and Forget™ technology - fast heat-up, reliable temperature control

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Simple, intuitive controls - quick and easy to set temperature

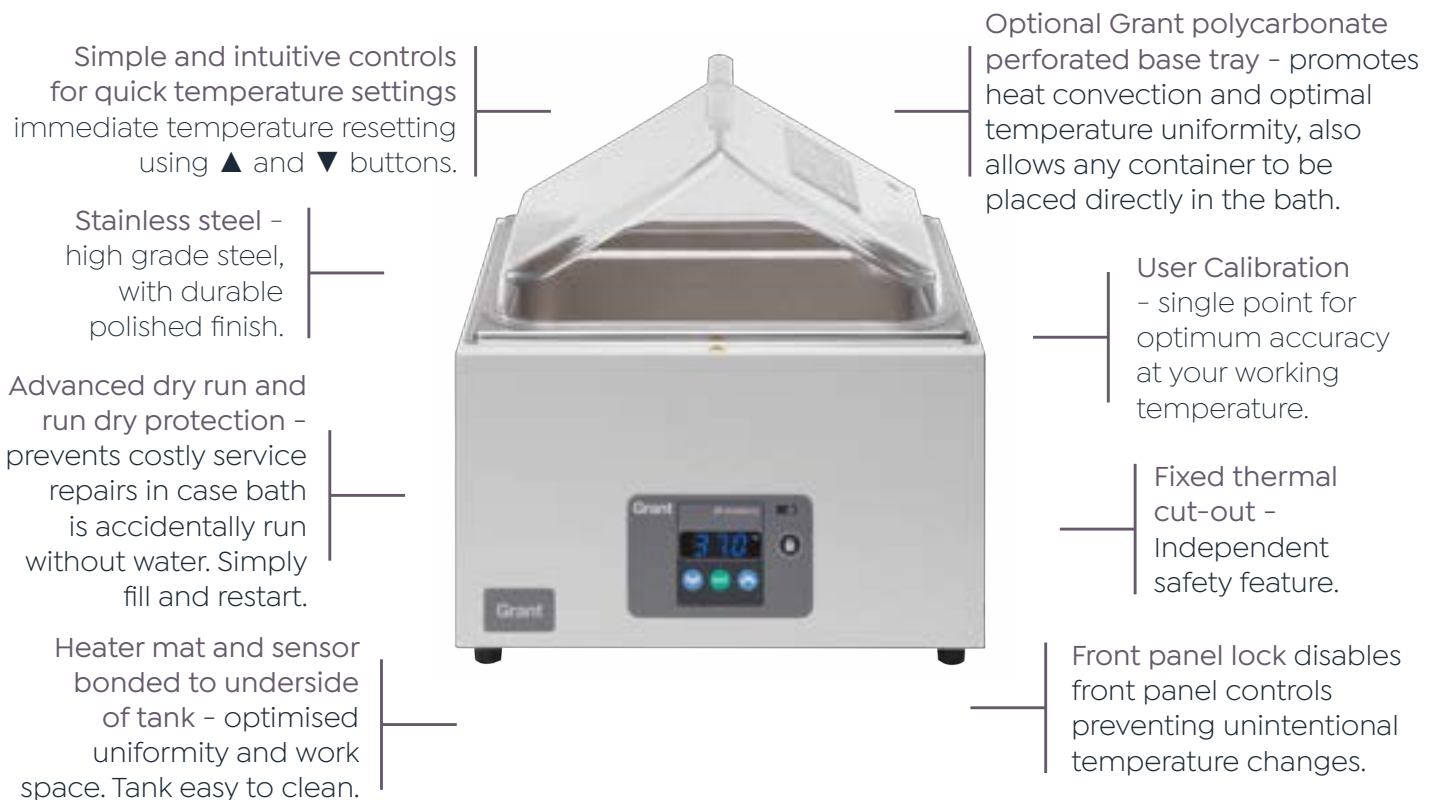
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Practical front panel lock - disables front panel controls preventing unintentional changes

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3 year warranty

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\* Lid sold separately

### Applications









- Practical science demonstration, sample warming, media preparation
- Markets: Education, schools, colleges and industry

# JB Academy

## Technical specifications

				
		JBA5	JBA12	JBA18
Capacity	L	5	12	18
Dimensions	h x d x w mm	310 x 215 x 335	380 x 390 x 335	420 x 590 x 335
Weight	kg	3.9	6.2	9
Temperature range	°C	Ambient +5 to 95		
Stability (DIN 12876)	@70°C ±°C	0.5		
Setting resolution	°C	0.5		
Working area	d x w mm	131 x 281	306 x 281	485 x 281
Min/max liquid depth	mm	50/125		
Temperature setting/ energy regulation		Digital		
Fixed thermal cut-out		•		
Dry start/run dry protection		•		
Heater power	230V W	350	800	1400
	120V W	350	800	1050
Supply voltage	V	120 or 230		
Regulatory approval		CE and CSA approved		

## Options and accessories

	<b>Optional transparent polycarbonate lids</b> – Directs condensation away from immersed vessels, avoids contamination, reduces evaporation and saves energy.*			
	AQL5	AQL12	AQL26	AQL26
	<b>Stainless steel sloping lids*</b>			
	LU6	LU14	LU28	LU28
	<b>Flat lids</b> – with ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation* Ring set reductions are 105, 78, 59, 43 and 31mm.			
	LF6 (2 ring sets)	LF14 (4 ring sets)	LF28 (6 ring sets)	LF28 (6 ring sets)
	<b>Polypropylene spheres (packs per bath)</b> – useful alternative to a lid, minimises evaporation and heat loss whilst allowing easy access to vessels in the bath; useful for tall vessels.*			
	x1 PS20	x1 PS20	x2 PS20	x2 PS20
	<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 JBN12	RS18H (h 40 or 78) Shelf covers half area of JBN18	RS28H (h 45 or 135) Shelf covers half area of JBN26
	<b>Racks (no. per bath)</b> – choice of 8 variants for different tube diameters and microtubes.			
	1 x J2	2 x J2	4 x J2	4 x J2
	<b>Replacement base trays</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.			
	AQBT5	AQBT12	AQBT26	AQBT26
	<b>Drain stopper</b> – Recommended when using heat transfer beads, to prevent beads entering drain hole.			
	-	UWB-DS (pack of 5)	UWB-DS (pack of 5)	UWB-DS (pack of 5)

# SBB Aqua Plus

## Boiling bath range

The SBB Aqua Plus boiling baths are robust, reliable and designed for continuous 100°C operation. Analogue control on a simple dial for straightforward energy regulation. The range consists of four models to suit a range of applications and any budget.

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Adjustable energy regulator provides steady boiling

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Constant level device maintains liquid level

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Robust and reliable design to withstand everyday wear and tear

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Simple, intuitive controls for quick and easy energy regulation

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Non-drip polycarbonate lid included as standard

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3 year warranty

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

Large available working area in relation to footprint.

Constant level device ensures the bath doesn't boil dry, protecting the unit and samples.

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

Supplied with perforated tray to ensure uniform heat distribution.

Adjustable energy regulator – provides steady boiling.

Two over temperature cut-outs – independent safety protection for users and the workplace if bath is accidentally run without water.



## Applications








- Clinical, microbiology and pathology labs – media preparation
- University research/teaching – tissue culture preparation, warming tissue culture media
- Industrial laboratories – equipment sanitisation, sample preparation for immuno assays
- Science education in schools/universities – practical science demonstration and experimentation

# SBB Aqua Plus

## Technical specifications

					
		SBB Aqua 5 Plus	SBB Aqua 12 Plus	SBB Aqua 18 Plus	SBB Aqua 26 Plus
Capacity	L	5	12	18	26
Dimensions	h x d x w mm	375 x 250 x 390	440 x 385 x 390	445 x 600 x 390	445 x 600 x 390
Weight	kg	5.5	7.8	10.2	11
Temperature range	°C	100 only			
Working area	d x w mm	145 x 290	315 x 290	495 x 290	495 x 290
Min/max liquid depth	mm	50/125			70/175
Temperature setting/ energy regulation		Analogue			
Safety		Two fixed thermal cut-outs			
Heater power	230V W	1500		2000	
	120V W	1300	1350		
Supply voltage	V	120 x 230			

## Options and accessories

	Replacement transparent polycarbonate lids - Directs condensation away from immersed vessels, avoids contamination, reduces evaporation and saves energy.*	AQL5	AQL12	AQL18	AQL26
	Stainless steel sloping lids*	LU6	LU14	LU28	LU28
	Flat lids - with ring sets of variable hole diameter to accommodate tall vessels whilst reducing evaporation* Ring set reductions are 105, 78, 59, 43 and 31mm.	LF6 (2 ring sets)	LF14 (4 ring sets)	LF28 (6 ring sets)	LF28 (6 ring sets)
	Polypropylene spheres (packs per bath) - useful alternative to a lid, minimises evaporation and heat loss whilst allowing easy access to vessels in the bath; useful for tall vessels.*	x1 PS20	x1 PS20	x2 PS20	x2 PS20
	Raised shelves - reversible, allows two shelf depths. h = shelf height above tank base (mm)	-	RS14H (h 40 or 78) Shelf covers half area of JBN12	RS18H (h 40 or 78) Shelf covers half area of JBN18	RS28H (h 45 or 135) Shelf covers half area of JBN26
	Racks (no. per bath) - choice of 8 variants for different tube diameters and microtubes.	1 x J2	2 x J2	4 x J2	4 x J2
	Replacement base trays - required if flat-bottomed flasks are to be placed directly on the base of the bath and to promote thermal convection in the bath.	SBT6	SBT14	SBT28	SBT28

\* Lid or spheres recommended for use above 60°C

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## Shaking Water Baths

OLS26 combined Orbital & Linear shaking water bath

Offering ultimate flexibility and usability for all applications

LSB12 & LSB18 Linear shaking water baths

Superior usability for routine applications

# Shaking Water Baths

World-renowned shaking water baths from Grant. Precision temperature control combined with a robust, high quality, orbital and linear shaking mechanism that works smoothly and consistently for even the most demanding applications. Universal tray included as standard.

---

Soft start, quiet operation - for smooth shaking over a wide speed range

---

Flexible choice of linear and orbital shaking baths - for all routine and demanding techniques

---

Extensive range of accessories - provides the right solution for your application with a choice of vessel types

---



OLS26  
Combined orbital and  
linear shaking water bath



LSB18 and LSB12  
Excellent usability for  
all routine applications

## Liquids

We recommend the following liquids for use in Grant baths:

5°C to 99°C: Water - do not use to boil



Find your perfect solution today

Visit our website - [www.grantinstruments.com](http://www.grantinstruments.com)

# OLS26

## Combined orbital/linear shaking water bath

Ultimate flexibility and usability with the combined orbital and linear shaking mechanism of the OLS26 allows optimisation of aeration and shear forces mixing, for reproducible results.

Precision digital temperature control

Temperature range 0°C to 99°C operation\*

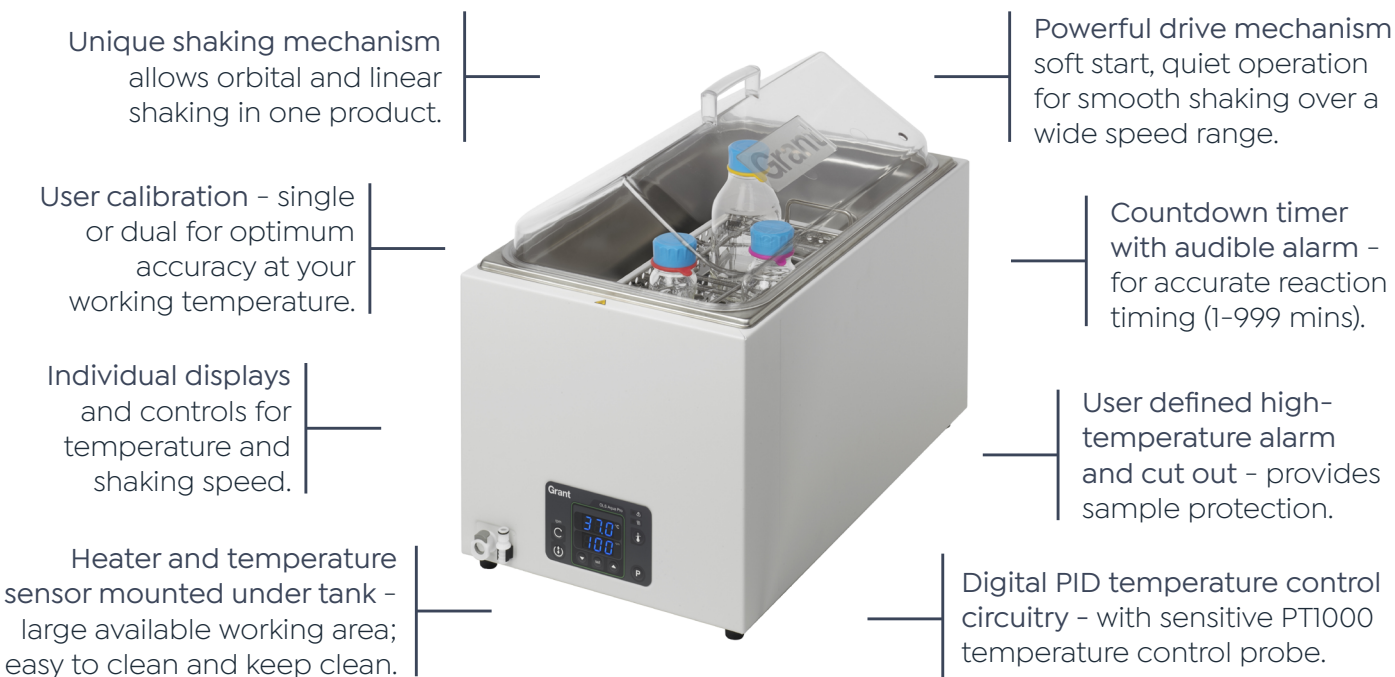
Easy changeover from linear to orbital shaking

Adjustable shaking speed and stroke length

Universal tray and polycarbonate lid included as standard

Drain tap for convenient emptying

3 year warranty



\* Accessory cooling required for operation below ambient

### Applications

- General use - defrosting, cooling/warming liquids, temperature control of samples
- Life-science - microbiological assays, bacterial culture, biochemical assays, enzyme assay
- Industrial - materials testing, corrosion testing
- Biopharm - solubility testing of medical coatings, dissolution, cooling crystallisation
- Food & beverage - extractions, food digestion

# OLS26

## Technical specification

		OLS26
Dimensions	h x d x w mm	325 x 565 x 335
Capacity	L	26
Temperature range	°C	Ambient +5 to 99 0 to 99 with accessory cooling CC26
Stability (DIN 12876-3)	@70°C ±°C	0.1
Uniformity (DIN 12876-3)	@70°C ±°C	0.1
Working area	d x w mm	380 x 235
Min/max liquid depth	mm	70/134
Orbital and linear shaking speed	rpm	20 to 200 (depending on load)
Orbital shaking radius	mm	9
Shaking speed display resolution	rpm	1
Linear shaking stroke length	mm	18, 28 and 36
Display		2 x LED (individual displays and controls for temperature and shaking speed)
Timer		1 to 999 minutes
Drain tap		•
Sample protection		Over temperature protection/low liquid level cut-out
Heater power	230V W	1400
	120V W	1050
Supply voltage	V	120 or 230
Weight	kg	13.1

Easy to use keypad with clear, wide-angle LED display.

Quick changeover between linear and orbital shaking.



OLS Keypad

User defined high temperature alarm and cut-out - provides sample protection.

Two adjustable presets for temperature and shaking speed.

# LSB Aqua Pro

## Linear shaking water bath

A linear shaking bath with temperature stability and intuitive digital controls, for ultimate flexibility and usability. Available ready-to-use in two sizes to suit a variety of applications including sample preparation, mixing and thawing.

Robust magnetically coupled shaking mechanism - safe, reliable, durable, space saving.

User settable over temperature alarm - provides sample protection. Alerts user and cuts off heating at user defined temperature.

User calibration - single or dual for optimum accuracy at your working temperature.

Front panel lock - disables front panel controls preventing settings from accidentally being changed.

Two programmable temperature and shaking presets - allows commonly used temperatures and shaking speeds to be quickly selected.

Heater and temperature sensor mounted under tank - large available working area; easy to clean and keep clean.



## Product highlights

- Temperature range ambient +5°C to 99°C operation
- Stability:  $\pm 0.1^{\circ}\text{C}$
- Choice of two models - 12 and 18 litres
- Extensive choice of accessory shaking trays - tray sold separately
- Universal tray and polycarbonate lid included as standard
- Drain tap for convenient emptying
- 3 year warranty



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

Clear, wide-angle viewing LED display.

Unique shaking mechanism soft start, quiet operation for smooth shaking over a wide speed range.

Countdown timer with audible alarm - for accurate reaction timing (1-999 mins).

Stainless steel tank - high grade steel, with durable polished finish.



Digital PID temperature control circuitry - with sensitive PT1000 temperature control probe.

## Applications

- Healthcare research - thawing/mixing samples
- Pharmaceutical - heating and mixing samples
- Science education in schools/universities - practical science demonstration and experimentation
- Industrial - QC testing, sample preparation

# LSB

## Technical specification

			
		LSB12	LSB18
Dimensions	h x d x w mm	425 x 385 x 360	425 x 565 x 335
Capacity	L	12	18
Temperature range	°C	Ambient +5 to 99	
Stability (DIN 12876-3)	@70°C ±°C	0.1	
Uniformity (DIN 12876-3)	@70°C ±°C	0.1	
Working area	d x w mm	240 x 235	420 x 235
Min/max liquid depth	mm	60/93	
Linear shaking speed	rpm	20 to 200 (depending on load)	
Shaking speed display resolution	rpm	1	
Linear shaking stroke length	mm	20	
Display		LED	
Timer		1 to 999 minutes	
Drain tap		•	
Safety		Over temperature protection/low liquid level cut-out	
Heater power	230V W	800	1400
	120V W	800	1050
Supply voltage	V	120 or 230	
Weight	kg	8.9	11.2

Easy to use keypad with clear, wide-angle LED display.

Front panel lock to prevent unwanted setting changes.






LSB Keypad

User defined high temperature alarm and cut-out - provides sample protection.

Two adjustable presets for temperature and shaking speed.



# Technical specification

				
		OLS26	LSB12	LSB18
Universal tray - included as standard				
	Universal tray - with adjustable springs. Highly versatile for a variety of vessel types.	TU26	TU12	TU18
Flask/plate tray				
	Flask/plate tray - with threaded holes to accept flask clamps or holder for deep well plates ( $\geq 2\text{ml}$ ).	TF26	TF12	TF18
Test tube tray				
	Test tube tray - compatible with SR racks or can be used alone to accommodate bags and vessels. See rack options on page 62.	TS26 (holds up to 5 SR racks)	TS12 (holds up to 3 SR racks)	TS18 (holds up to 5 SR racks)
Base tray				
	Base tray - stainless steel perforated tray allows bath to be used as an unstirred bath.	SBT26	SBT12	SBT26
Stainless steel sloping lid (optional)				
	With access hole for cooling coil	LS200	LU14	LU28
Replacement polycarbonate lid				
	Replacement polycarbonate lid	AQL26 (unsuitable for use with cooling coil)	AQL12	AQL26
Immersion cooler				
	Cooling coil - source of constant cooling to enable bath to be operated at or below ambient, down to 0°C.	CC26	-	-
Heat exchange coil				
	Heat exchange coil - can be attached to a cold water supply or refrigerated circulator. Can be used down to 2°C above the temp of the coolant	CW26	-	-

## Flasks and plate holder

Part number	Description	OLS26 capacity	LSB12 capacity	LSB18 capacity
SC-25	For 25ml flask	28	20	35
SC-50	For 50ml flask	24	16	28
SC-100	For 100ml flask	15	16	28
SC-250	For 250ml flask	8	9	15
SC-500	For 500ml flask	6	6	8
SC-1000	For 1000ml flask	3	4	6

## Test tube racks

Part number	Tube Diameter (mm)	Rack Capacity
SR-10	10	48
SR-13	13	44
SR-16	16	24
SR-19	19	21
SR-25	25	12
SR-30	30	10

## Microtube racks


Part number	Microtube size (ml)	Rack capacity
SR-SE	0.5	119
SR-LE	1.5	48

Note: For further information on all dimensions of the trays please visit: [www.grantinstruments.com/scientific/water-baths/shaking-water-baths](http://www.grantinstruments.com/scientific/water-baths/shaking-water-baths)

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## Ultrasonic Baths

### XUB range of digital ultrasonic baths

Advanced-level range with a choice of five baths

### XUBA range of analogue ultrasonic baths

Entry-level range with analogue controls

# Ultrasonic baths

The XUB and XUBA series of reliable, high-performance ultrasonic baths offer fast, safe and cost-effective ultrasonic bath technology. Ideal for use in cleaning applications, preparation for sterilisation and degassing liquids.

**Powerful technology** - superior performance giving a more accurate and precise ultrasonic process

**Gentle effective cleaning** - consistent results for rapid and complete removal of contaminants

**Suitable for sophisticated applications** - in the scientific sector such as degassing, and fluid dissolution

**Clean finish, high-quality and robust design** - for long-term reliability and durability

**A choice of five digital and two analogue models** - XUBA's available in 230V versions only



The XUB and XUBA range of baths are ideal for cleaning a wide range of laboratory instruments as well as in other healthcare, research and industrial applications. The ultrasonic activity generated in the baths allows rapid and effective cleaning and processing of a wide range of instruments and components - a safer alternative to manual operations.

# XUBA

## Entry-level analogue ultrasonic baths

Compact analogue-controlled range of ultrasonic baths providing a high standard of reliable and effective ultrasonic technology. The choice of two baths come in a great value-for-money package, with M2 cleaning solution, stainless steel basket and ABS plastic lid included as standard (available in 230V versions only).

**Excellent entry level ultrasonic baths**

**Temperature range** ambient +5°C to 70°C on the XUBA3

**Fast, effective, efficient and safe** cleaning and processing of instruments, components and solutions

**Supplied with stainless steel basket** and ABS plastic lid as standard

**Robust design** offers outstanding durability and reliability

**Control panel easy to operate** even when wearing gloves

**Timer control** from 0-15 minutes

**Stainless steel basket and ABS plastic lid** forms a drip collection unit to collect excess liquid when basket is removed from the tank.

**One bottle of M2 SOL ultrasonic cleaning solution** included as standard

**Heating function** (XUBA3 only) to deliver reduced processing times.

**Ergonomic lid** reduces noise volume and minimises potential of aerosol escape.

**Stainless steel basket** designed specifically to generate maximum ultrasonic activity.

**Simple dial analogue controls** for accurate setting of cycle time and temperature (temperature control on XUBA3 only, XUBA1 unheated).



## Applications

- General use - glass, component cleaning, sonication of cytometer nozzles, dispersion and solubilisation
- Healthcare research
- Laboratories - degassing fluids, mixing fluids and compounds, cell disruption, fluid dissolution
- Industrial - light manufacturing
- Biopharm - dissolution of samples

# XUB

## Digital ultrasonic baths

The XUB range of digitally controlled benchtop ultrasonic baths offer consistent and reliable performance in a variety of environments. Incorporating Frequency LEAP technology to ensure uniform levels of ultrasonic activity throughout the fluid, these baths offer high performance giving an accurate and precise ultrasonic process.



**Lid and basket forms a drip collection unit**, minimising flow of contaminated liquid once cycle is finished.

**Stainless steel basket** designed specifically to generate maximum ultrasonic activity, prevent items resting on the tank and prevent operators coming into contact with chemical solutions.

**Modern, sleek design** with stainless steel basket, ABS plastic lid, M2 SOL ultrasonic cleaning solution, SD card and drain tap included as standard.

**SD port** allows easy validation between XUB series and PC.

Improved software memory logs cleaning parameters allowing easy cycle repeatability.

**Easy traceability** of cycle number, time, temperature and sonics validation.

**Ergonomic lid** included as standard – reduces noise volume and minimises potential of aerosol escape.

Can be cooled with C1G or LT ecocool and CW5.

**Drain valve** for convenient emptying. Located at the rear of the unit.

**Intelligent software** remembers last cycle cleaning setting.

**Accurate fluid level sensors** to ensure bath is not underfilled prior to or during the cycle.

**Easy to use single touch LCD control panel** with user-settable parameters to suit the individual requirements.

## Product highlights

- Temperature range ambient +5°C to 70°C
- Frequency LEAP technology provides more homogeneous ultrasonic activity throughout the tank, reducing dead spots and standing waves
- Accurate process control of time, temperature, ultrasonic activity, degas and power
- Degassing function to remove small bubbles from liquid, reducing the overall time needed for ultrasonic operation
- A choice of five sizes
- Adjustable power that can be reduced from 100 to 50% in 5% increments

## Applications

- General use – glass, component cleaning, sonication of cytometer nozzles, dispersion and solubilisation
- Healthcare Research
- Laboratories – degassing fluids, mixing fluids and compounds, cell disruption, fluid dissolution
- Industrial – light manufacturing
- HPLC – degassing of solvents pre analysis
- Biopharm – dissolution of samples

# Ultrasonic water baths

## Technical specifications

									
		XUB5	XUB10	XUB12	XUB18	XUB25	XUBA1	XUBA3	
		Digital					Analogue		
Dimensions	h x d x w mm	266 x 235 x 345	266 x 220 x 545	365 x 330 x 342	365 x 385 x 375	365 x 385 x 546	200 x 185 x 198	195 x 166 x 275	
Working capacity	L	4.5	9.5	12.5	17.5	25	1.5	2.5	
Max capacity	L	5	10.5	14	18.5	28	1.75	2.75	
Temperature range	°C	Ambient +5 to 70					N/A	Ambient +5 to 70	
Ultrasonic power	W	100	200	200	300	400	35	35	
	per litre/W	22.2	21	16	17	16	23.3	14	
Operating frequency	KHz	32-38					44		
Frequency LEAP		•					-		
Digital LCD controls		•					-		
SD port with SD card		•					-		
Timer		0-99 minutes					0-15 minutes		
Drain outlet BSP valve		3/8"					N/A		
Heater power	230V W	150	250	300	450	650	N/A	150	
	120V W	125	240	365	480	600	N/A		
Supply voltage	V	120 or 230					230 only		
Weight	kg	6.4	9.3	10.5	12.6	15.1	2.3	3.3	

## Options and accessories

		XUB5	XUB10	XUB12	XUB18	XUB25	XUBA1	XUBA3
Replacement ABS lid								
	Reduce operating noise and potential escape of aerosols*	XAL5	XAL10	XAL12	XAL18	XAL25	XAL1	XAL3
Replacement baskets								
	Supports items to be processed and works with the lid as a drip collection unit.*	XAB5	XAB10	XAB12	XAB18	XAB25	XAB1	XAB3
	Internal basket dimensions including handle (w x d x h) mm	265 x 120 x 140	467 x 100 x 115	263 x 203 x 193	295 x 267 x 160	463 x 263 x 159	115 x 95 x 87	208 x 115 x 98
Ultrasonic solution								
	General purpose detergent for use with ultrasonic baths.	M2 SOL						

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