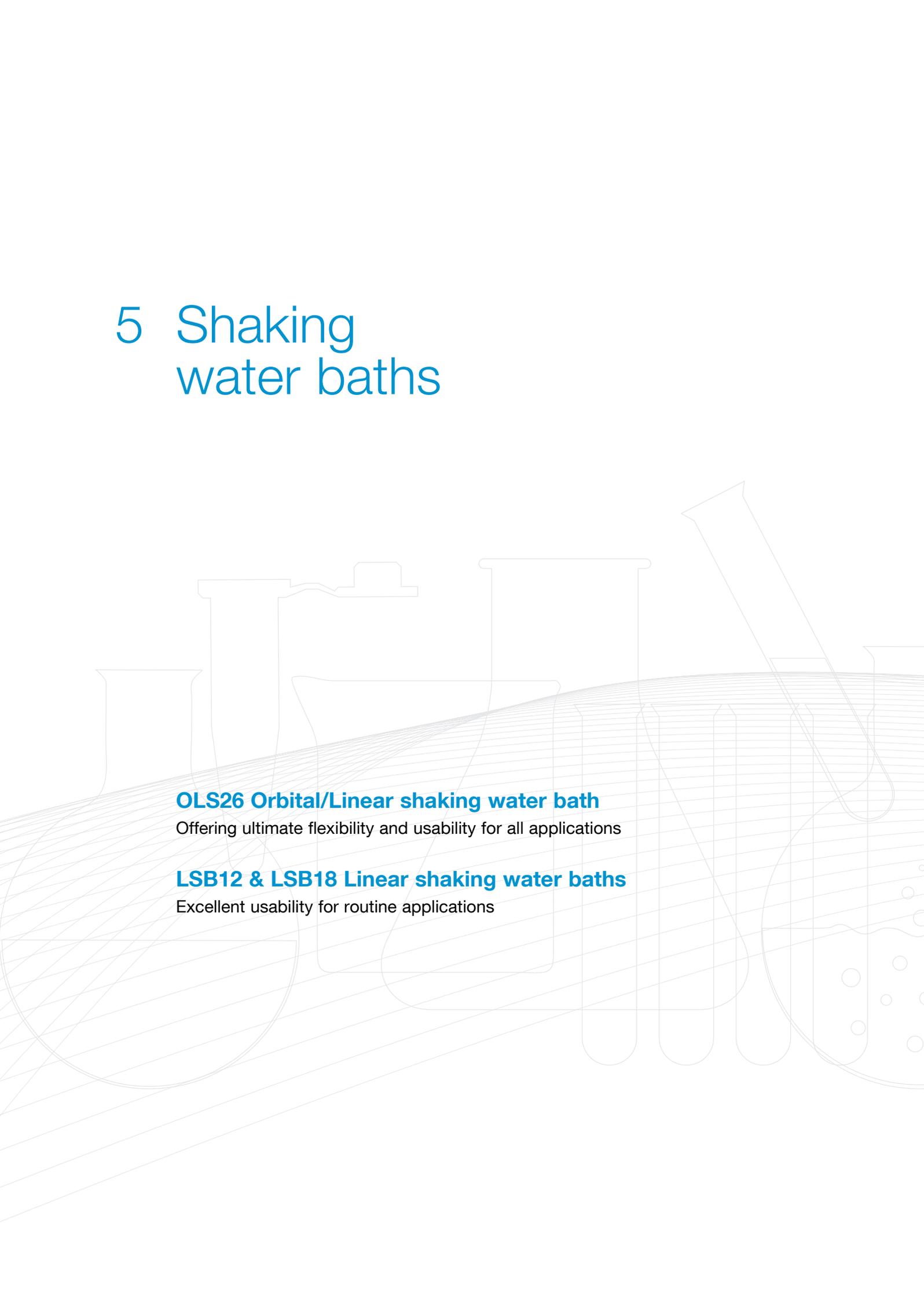


5 Shaking water baths



OLS26 Orbital/Linear shaking water bath

Offering ultimate flexibility and usability for all applications

LSB12 & LSB18 Linear shaking water baths

Excellent usability for routine applications

Shaking water baths

Shaking water baths

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

- **High quality, robust design with unique magnetically coupled shaking mechanism** for maximum reliability, consistency and quiet operation.
- **Flexible choice of combined orbital/linear shaking or linear only shaking** for all routine and demanding techniques.
- **Extensive range of accessories** to provide the right solution for your application. Varied vessel types can be securely held using high quality, springs, clamps or racks



Combined orbital/linear shaking water bath OLS26
For ultimate flexibility and usability

LSB12 and LSB18
Excellent usability for all routine applications

Liquids

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

5°C to 99°C: Water

Shaking water baths » OLS26 combined orbital/linear shaking water bath

Combined orbital/linear shaking water bath

Model OLS26 Amb +5°C to 99°C. Extend lower range to 0°C using optional accessory cooling.

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

- Precision digital temperature control
- 0°C to 99°C operating range*
- Stability $\pm 0.1^\circ\text{C}$
- 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



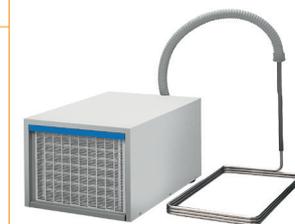
OLS26 model shown

Universal tray included as standard - additional accessory trays include:
Flask tray - mix and match flask clamps.
Test tube / microtube tray
See page 5.3 for full list of trays

Universal tray flask capacity:
3 x 1000ml, 6 x 500ml, 18 x 100ml, 28 x 50ml, 45 x 25ml.

Powerful drive mechanism - soft start, quiet operation for smooth shaking over a wide speed range.

Can be operated below ambient to 0°C with accessory cooling - CC26.



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

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

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

Unique shaking mechanism allows orbital and linear shaking in one product - simply rotate the tray carrier 180° to change between modes.

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

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

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

Digital PID temperature control circuitry - with sensitive Pt1000 temperature control probe.

Conveniently located drain tap for easy emptying.



Individual displays / controls for temperature and shaking speed.

Two adjustable temperature and shaking speed presets.

* accessory cooling required for operation below ambient

Applications:

- General use - defrosting, cooling/warming liquids, temperature control of samples
- Life-science - microbiological assays, tissue studies, cell cultivation fermentation, 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 Shaking water bath » Specifications

OLS26 Shaking water bath – Technical specifications

			Orbital/linear shaking water bath
			OLS26
			
			h: 475mm d: 590mm w: 335mm weight: 13.1kg
Tank size	L		26
Min/max liquid depth	mm		70/134
Temperature range	°C		ambient +5 to 99. 0 to 99 with accessory cooling
Uniformity (DIN 12876-3) @ 70°C	±°C		0.1
Stability (DIN 12876-3) @ 70°C	±°C		0.1
Display			2 x LED (individual displays and controls for temperature and shaking speed)
Orbital and Linear shaking speed			20 to 200 rpm (depending on load)
Orbital shaking radius	mm		9
Shaking speed display resolution	rpm		1
Linear shaking stroke length	mm		18, 28, and 36
Shaking tray area (d x w)	mm		380 x 235
Timer			1 to 999 mins
Heater power	120V/230V	W	1050/1400
Drain tap			yes
Safety			over temperature protection / low liquid level cut-out
Supply voltage		V	120 or 230

Accessories

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

Flask clamps and plate holder

Part Number	Description	OLS26 Capacity
SC-25	for 25ml flask	28
SC-50	for 50ml flask	24
SC-100	for 100ml flask	15
SC-250	for 250ml flask	8
SC-500	for 500ml flask	6
SC-1000	for 1000ml flask	3
SH-DWP	1 x deep well plate	4

Test tube racks / microtube 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
Part Number	Microtube size (ml)	Rack capacity
SR-SE	0.5	119
SR-LE	1.5	48

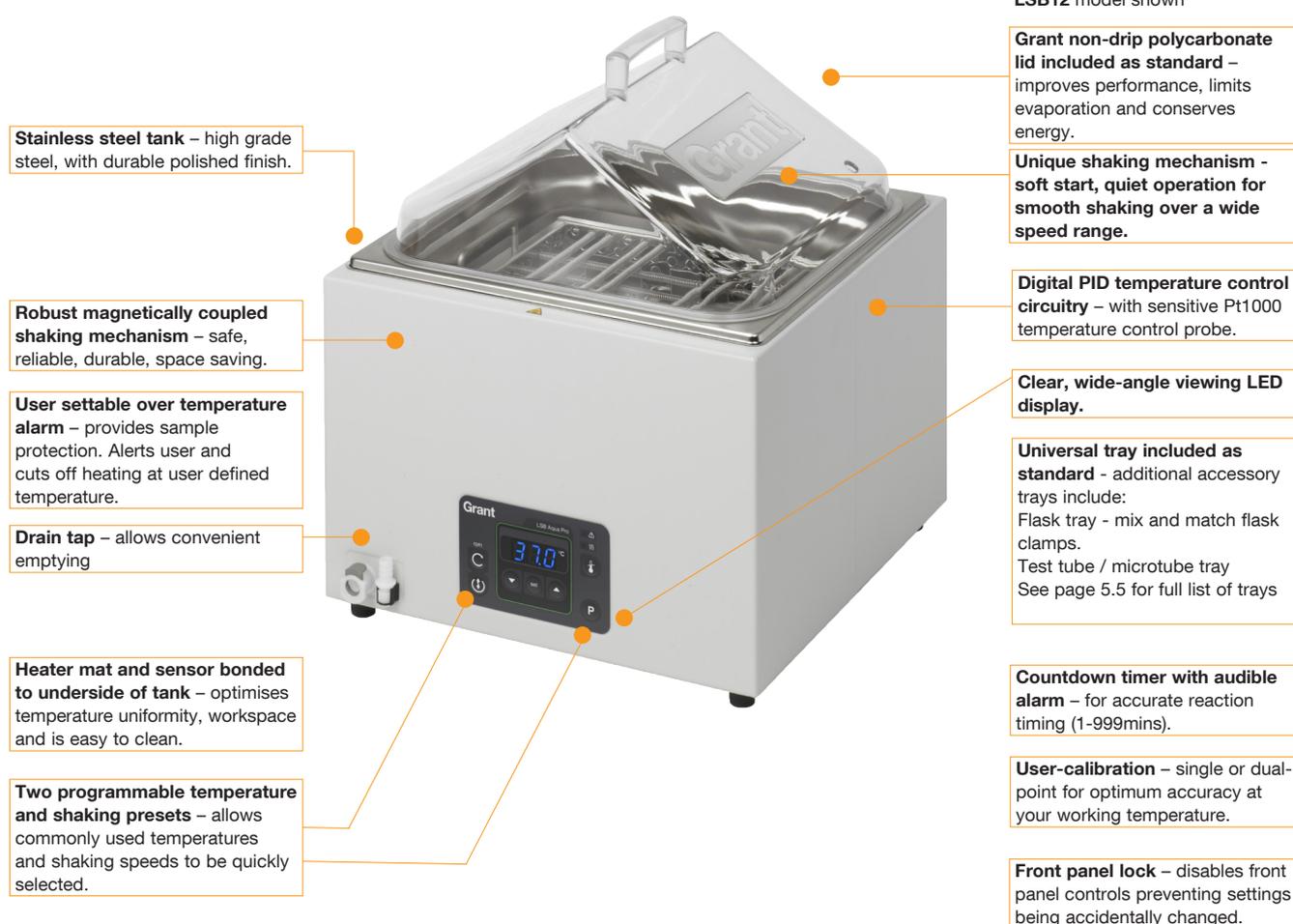
Linear shaking water bath – LSB Aqua Pro range

Grant quality and design combined with the temperature stability and functions you need in a linear shaking bath for your laboratory.

- Ambient +5°C to 99°C operation
- Stability $\pm 0.1^\circ\text{C}$
- Choice of two models – 12 and 18 litre
- Drain tap for convenient emptying
- 3 year warranty
- Universal tray and polycarbonate lid included
- Extensive choice of accessory shaking trays



LSB12 model shown



Applications:

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

Shaking water baths » LSB Aqua Pro range » Technical specifications

LSB shaking water baths – Technical specifications

			Linear shaking water bath	
			LSB12	LSB18
				
			h: 425mm d: 385mm w: 360mm weight: 8.9kg	h: 425mm d: 395mm w: 335mm weight: 11.2kg
Tank size	L		12	18
Min/max liquid depth	mm		60/93	
Temperature range	°C		ambient +5 to 99	
Uniformity (DIN 12876-3) @ 70°C	±°C		0.1	
Stability (DIN 12876-3) @ 70°C	±°C		0.1	
Display			LED	
Linear shaking speed	rpm		20 to 200 (depending on load)	
Shaking speed display resolution	rpm		1	
Linear shaking stroke length	mm		20	
Shaking tray area (d x w)	mm		240 x 235	420 x 235
Timer			1 to 999 mins	
Heater power	120V/230V	W	800/800	1050/1400
Drain tap			yes	
Safety			over-temperature protection / low liquid cut-out	
Supply voltage	V		120 or 230	

Accessories

LSB12

LSB18

		LSB12	LSB18
	Universal tray (included) - with adjustable springs. Highly versatile for a variety of vessel types.	Universal tray	
		TU12	TU18
	Flask / plate tray - with threaded holes to accept flask clamps or holder for deep well plates (≥2ml). See options below.	Flask / plate tray	
		TF12	TF18
	Test tube tray - compatible with SR racks or can be used alone to accommodate bags and miscellaneous vessels. See rack options below.	Test tube tray	
		TS12 (holds up to 3 SR racks)	TS18 (holds up to 5 SR racks)
	Base tray - stainless steel perforated tray allows bath to be used as an unstirred bath.	Base tray	
		SBT12	SBT26
	With access hole for cooling coil	Stainless steel sloping lid	
		LU14	LU28
	Replacement polycarbonate lid	Replacement polycarbonate lid	
		AQL12	AQL26

Flask clamps and plate holder

Part Number	Description	LSB12 Capacity	LSB18 Capacity
SC-25	for 25ml flask	20	35
SC-50	for 50ml flask	16	28
SC-100	for 100ml flask	16	28
SC-250	for 250ml flask	9	15
SC-500	for 500ml flask	6	8
SC-1000	for 1000ml flask	4	6
SH-DWP	1 x deep well plate	1	4

Test tube racks / microtube 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
Part Number	Microtube size (ml)	Rack capacity
SR-SE	0.5	119
SR-LE	1.5	48

*For further information on all dimensions of the trays please visit www.grantinstruments.com