

Shakers (SK) & Shaking Incubators (SI/IS)



The shakers and shaking incubators are pictured to illustrate the full complement of accessories available from Medline.

These include:

- Universal drilled platforms (supplied as standard)
- Clamps for separating funnels & Erlenmeyer flasks (various sizes from 50ml to 6000ml)
 - Spring wire racks
 - Rubber mats
- Test tube racks (numerous volumes/configurations)

Shakers & Shaking Incubators

SK SERIES - PLATFORM SHAKERS



SK-300



SK-600



SK-71

The SK series comes in a range of 3 sizes ranging from the 35 x 35cm via the 45 x 45cm to the 76 x 47cm platform. All feature the patented rotational monitoring system, ensuring the platform stops in the same position each time. Ideal for remote titration into flasks or beakers, the series also includes programmed functions for forward and reverse rotation. The motion can be easily altered between orbital and reciprocal motion by the operator. The timer can be set for run durations of up to 999 hours, with start and finish settings, thereby allowing for unattended operation.

The flywheel counterbalance system also includes 3 orbital diameter settings of 20, 30 and 40mm; each shaker is delivered factory set at 30mm. A bright LED and numerical display provide a clear indication of time, RPM and process functions.

Model	SK-300	SK-600	SK-71
Product reference	31105	31205	31305
Motion	Orbital (forward, backward, pause): standard, reciprocal		
Shaking system	Frequency 10 to 300 rpm		
Accuracy	±1 at 150 rpm		
Timer	Run time (999hr 59min), pause (Max.99min, Min.1min) backward (Max.9min 50sec, Min.10sec)		

Product reference	Flask clamp Size	SK-300/ SI-300R	SK-600/ SI-600R	SK-71/ IS-971R
23550	50ml	28	45	99
23551	100ml	16	25	74
23552	250ml	13	18	39
23553	500ml	9	13	25
23554	1000ml	4	7	14
23555	2000ml	2	5	9

Guide table of accessories available for both the IS/SI and SK ranges illustrating recommended maximum quantities.

AVAILABLE ACCESSORIES

- Universal attachment with roller bars
- Separating funnels
- Rubber mats
- Spring wire racks
- Test tube racks
- Microtitre plate holder
- Sticky pads



Recommended number of flask clamps

Flask Clamps	Product ref.	Size	SK-300	SI-300R	SK-600	SI-600R	SK-71	IS-971R/F
	23550	50ml	36	28	55	45	99	99
	23551	100ml	28	24	44	36	74	74
	23552	250ml	13	13	24	18	39	39
	23553	500ml	10	9	16	13	25	25
	23554	1000ml	5	4	8	7	14	14
	23555	2000ml	4	2	5	5	9	9
	23557	2800ml	2	1	4	2	6	6
	23558	4000ml	1	-	2	-	4	4
	23559	6000ml	1	-	2	-	4	4



Shakers & Shaking Incubators

SI-300R/600R



These bench-top shaking incubators form the backbone of the Jeiotech range. Using the SK series shaker platforms as a base, the SI-300R and SI-600R refrigerated models combine accurate shaking speed with multiple functionality. Each model can be set to orbital or reciprocal movement with a choice of 3 orbit diameters. The program features allow for bi-directional orbit setting and pause modes for precipitation protocols. Temperature is controlled by PID microprocessor and the re-calibration feature of the Pt 100 probe ensures consistent long-term validity. Ideal for ISO or GLP environments, the integral refrigeration systems of the SI series allow process temperatures to be achieved from 15°C to 60°C.

Model	SI-300R	SI-600R
Product reference	23112	23212
Chamber volume litres	53	83
	Range	15°C to 60°C
Temperature	Accuracy	± 0.1°C at 38°C
	Safety device	CLS-Control system, Class II
	Motion	Orbital (Standard) or Reciprocal
Shaking system	Frequency	10 to 300 rpm, accuracy: ± 1 rpm
	Accuracy	± 1 at 150 rpm

IS-971R/RF

This floor-standing, chest-style shaking incubator, complete with glass viewing window, provides both large capacity and high performance. The size of the platform provides room for 39 x 250ml Erlenmeyer flasks to be shaken. Its dual compressor refrigeration system offers a working temperature range from +4°C to 60°C. With the the RF version, fluorescent lighting is housed within the lid behind a glass panel. This ensures the lighting does not affect the accuracy of the temperature control during operation. Two fans vent air away from the lid to eliminate any long term heat build up. The new 971R model also benefits from an RS232 data port with Lab Tracer software.

Model	IS-971R	IS-971RF
Product reference	23322	23352
Chamber volume litres	250	240
	Range	4°C to 60°C
Temperature	Accuracy	± 0.1°C at 38°C
	Safety device	CLS-Control system, Class II
	Motion	Orbital (Standard) or Reciprocal
Shaking system	Frequency	10 to 300 rpm, accuracy: ± 1 rpm
	Amplitude	30, 40, 50, 60, 70mm (standard = 30mm)



Shaking Water Baths (BS)



BS-series

The BS-Series offers a truly comprehensive range of shaking baths with volumes from 17 to 55 litres. These baths come complete with hinged and gabled stainless steel lids, height adjustable 2 layer spring wire racks (pictured right), full digital controls and a dual LED display for temperature and shaking speeds. The timer functions allow pre-set start and stop settings and the standard safety features of over-temperature protection and low level alarms ensure the BS baths provide safe and reliable use in all laboratories.

Model	BS-06	BS-11	BS-21	BS-31
Product reference	44062	44112	44212	44312
Bath volume litres	17	25	37	55
Temperature	Range	Amb. +5°C to 100°C		
	Accuracy	±0.1° at 50°C		
Shaking system	Motion	Reciprocal		
	Frequency	20 to 180rpm		
Size (mm)	430 x 440 x 355	550 x 440 x 355	710 x 440 x 355	860 x 490 x 355
Mains power	220-240V / 50-60Hz			

Baths & Circulators



Water Bath BWE-series

An economic range of water baths covering most applications, with a temperature range from ambient +5°C to 100°C.

Specifications include:

- PID temperature controller
- Over temperature limiter with alarm indication
- Digital LED temperature display

Model	BW-05E	BW-10E	BW-20E
Product reference	45012	45022	45032
Bath volume litres	3.5	11.5	20
Temperature	Range		
	Amb. +5°C ~ 100°C		
	Accuracy		
	± 0.2°C at 50°C		
Size (mm)	303 x 227 x 233	357 x 330 x 283	564 x 392 x 283
Mains power	220-240V / 50-60Hz		



Dual Water Bath BWD-series

A range of dual tank water baths with specifications as per BWE-series.

Specifications include:

- 2 separate individually controlled baths
- PID temperature controller
- Over temperature limiter with alarm indication
- Digital LED temperature display

Model	BW-0505D	BW-0510D	BW-1010D	BW-1020D
Product reference	AAH47012K	AAH47022K	AAH47032K	AAH47042K
Bath volume litres	3.5 & 3.5	3.5 & 11.5	11.5 & 11.5	11.5 & 20.0
Working Temperature Range	Amb. +5°C to 100°C			
Temperature Stability	0.3°C			
Bath opening/depth (W x L, D & W x L, D)mm	240 x 136, 115 Per chamber	240 x 136, 115 & 300 x 240, 165	300 x 240, 165 Per chamber	300 x 240, 165 & 498 x 300, 165



Water Bath BWG-series

A range of water baths covering most applications, with a temperature range from ambient +5°C to 100°C. As with all other baths, numerous accessories are available.

Specifications include:

- Microprocessor PID controller / auto timing / calibration
- Digital timer (1 min - 99hrs 59 mins)
- Over temperature limiter with low fluid protection
- Memory set points for three different temperatures

Model	BW-05G	BW-10G	BW-20G
Product reference	41405	41415	41425
Bath volume litres	5	10	20
Temperature	Range		
	Amb. +5°C ~ 100°C		
	Accuracy		
	± 0.1°C at 50°C		
Size (mm)	355 x 260 x 334	410 x 311 x 354	471 x 390 x 374
Mains power	220-240V / 50-60Hz		

Optional accessories:

- Test tube racks
- Spring wire racks
- Dedicated platforms
- Flask clamps
- Open-ring covers (BW-Series only)
- Half-shelf adjusters (BW-Series only)
- Perspex gable cover



Baths & Circulators

Water Bath Circulator CW-series

This range of circulating water baths covers most heated bath applications. Volumes are 5, 10, and 20 litres and the temperature range is from ambient +5°C to 150°C.



Model	CW-05G	CW-10G	CW-20G	CW-30G
Product reference	52305	52315	52325	52335
Bath volume litres	5	10	20	30
Temperature	Range			
	Amb. +5°C ~ 150°C			
	Accuracy			
	± 0.05°C at 50°C			
Size (mm)	220 x 395 x 424	281 x 450 x 444	360 x 510 x 464	370 x 560 x 494
Pump Pressure	28 l/min			
Mains power	220-240V/50-60Hz			

Refrigerating Water Bath Circulator RW-series

Refrigerated baths with a powerful circulation pump for external and internal circulation.

Temperature range from -25°C to 150°C.



Specifications include:

- Microprocessor PID controller / auto timing / calibration
- Digital timer (1 min - 99hrs 59 mins)
- Over temperature limiter with low fluid protection
- Memory set points for three different temperatures

Model	RW-0525G	RW-1025G	RW-2025G	RW-3025G
Product reference	57002	57012	57022	57032
Bath volume litres	5	10	20	30
Temperature	Range			
	-25°C~150°C			
	Accuracy			
	± 0.05°C at -10°C			
Size (mm)	302 x 438 x 690	360 x 490 x 780	380 x 560 x 825	440 x 620 x 895
Pump Capacity	28 l/min			
Mains power	220-240V/50-60Hz			

Refrigerating Water Bath Circulator RW-series LOW TEMP

Refrigerated baths with a powerful circulation pump for external and internal circulation. Temperature range from -35°C to 150°C.

All units come complete with a stainless steel lid, RS232 port and Lab Tracer software, external circulation capability, a dual digital display of set and actual temperatures, the 3 user profile settings feature and a timer.

Model	RW-0540G	RW-1040G	RW-2040G	RW-3040G
Product reference	57102	57112	57122	57132
Bath volume litres	5	10	20	30
Temperature	Range			
	-35°C~150°C			
	Accuracy			
	± 0.05°C at -10°C			

Viscosity Baths

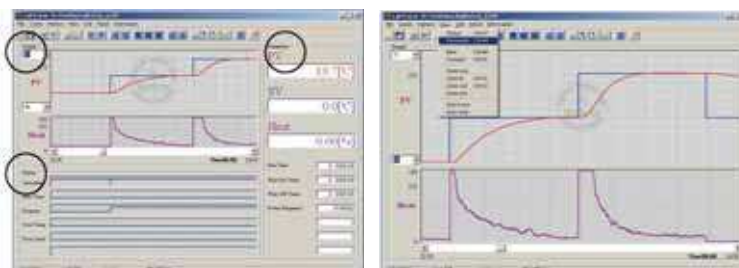
High precision heating baths for kinematic viscosity measurement with microprocessor PID controls and digital LED display. All units supplied with double tempered safety glass windows, baffle plate screen and stainless steel cooling coil.



Model	VB-25G	VB-40G
Product Reference	43302	43402
Chamber volume litres	25	40
Temperature Range	Amb. +5°C to 150°C	
Bath opening / depth (W x L, D) mm	145 x 265, 368	295 x 265, 368
Cover lids / Hole for thermometer mm	5ea / Ø51.0, 1ea / Ø12.6	8ea / Ø51.0, 1ea / Ø12.6
Size (WxLxH) mm	492 x 374 x 547	642 x 374 x 547
Mains power	220-240V /50-60Hz	220-240V /50-60Hz

Lab Tracer - Control software

- Software and connecting cable included
- Display of temperature values and effective space heating/cooling capacity on PC
- Programming and recording of time parameter and individual temperature profile



Available accessories:
Viscometer tube holders, Cooling circulators



Laboratory Incubators



ILP - low temperature personal incubators

A compact, lightweight range of Incubators suited to areas where space is at a premium. The space-saving compact size allows units to sit on bench-tops; they can even be stacked for optimum efficiency. The ILP series has an integrated Peltier cooling system, with exceptionally low noise and vibration during operation. Stainless steel interiors, digital PID controls. CLS safety system and RS232 data port with Lab Tracer software are all included.

Model	ILP-02	ILP-12
Product reference	24032	24042
Chamber volume litres	14	48
Cooling system	Peltier method	
Temperature	Range	
	Amb. +5°C to 40°C	
	Accuracy	
	± 0.1°C at 20°C	
Size (WxLxH) mm	430 x 495 x 400	430 x 650 x 620
Mains power	220-240V/50-60Hz	



IL - low temperature incubators

A range of forced air convection Incubators with an integrated HBP compressor cooling system, which provides silent operation and prevents water evaporation within the chamber. Stainless steel interiors, with rounded inner chamber and digital PID controls, including the Jeitech CLS safety system and RS232 data port with Lab Tracer software, are included.

Model	IL-11	IL-21
Product reference	22042	22052
Chamber volume litres	150	244
Refrigerator	1/8Hp	1/6Hp
Temperature	Range	
	0°C to 60°C	
	Accuracy	
	± 0.1°C at 20°C	
Size (WxLxH) mm	735 x 742 x 1010	635 x 740 x 1630
Mains power	220 -240V/50-60Hz	



IB - incubators

In a selection of three volumes, 60, 102 and 151 litres, these air incubators have an impressive specification. Stainless steel interiors and digital PID controls, including the Jeitech CLS safety system, and RS232 data port with Lab Tracer software, are included. Double thickness outer doors and a glass internal door provide the best possible temperature stability and the offset recalibration facility means traceability throughout the life of the product.

Model	IB-05G	IB-15G	IB-25G
Product reference	21162	21172	21182
Chamber volume litres	60	102	151
Temperature	Range		
	Amb. + 5°C to 70°C		
	Accuracy		
	± 0.1°C at 40°C		
Size (WxLxH) mm	595 x 555 x 745	675 x 605 x 855	805 x 655 x 885
Mains power	220-240V/50-60Hz		



Laboratory Ovens



OFE - Economic Convection Ovens

Three fan-assisted circulation chamber volumes of 52, 100 and 150 litres. Stainless steel interiors, digital PID controls with CLS safety system and temperature recalibration facility.

Model	OF-01E	OF-11E	OF-21E
Product reference	14012	14022	14032
Chamber volume litres	52	100	150
Temperature	Range		
	Amb. +10°C to 220°C		
	Accuracy		
	± 1°C at 100°C		
	Heat up time		
	100°C within 15 mins		
Size (WxLxH) mm	530 x 535 x 737	610 x 595 x 877	740 x 625 x 922
Mains power	220-240V/50-60Hz		



ON - Natural Convection Ovens

Built to the same exacting standards as the OF series, utilising quality flow convection with vertical airflow, (providing uniform sample heating) the natural convection ovens differ by the use of air convection and no RS232 data link.

Model	ON-02G	ON-12G	ON-22G
Product reference	11135	11145	11155
Chamber volume litres	52	91	135
Temperature	Range		
	Amb. +15°C to 250°C		
	Accuracy		
	± 1°C at 100°C		
	Heat up time		
	100°C within 45 mins		
Size (WxLxH) mm	577 x 542 x 760	657 x 592 x 870	785 x 642 x 897
Mains power	220-240V/50-60Hz		



OF - Forced Convection Ovens

Three fan-assisted circulation chamber volumes of 60, 102 and 151 litres. Stainless steel interiors, digital PID controls with CLS safety system, RS232 data port with Lab Tracer software, a temperature recalibration facility and top of the range performance are just some of the features that make these ovens excellent value.

Model	OF-02G	OF-12G	OF-22G
Product reference	12155	12165	12175
Chamber volume litres	60	102	151
Permissible temperature	5°C to 40°C		
Temperature	Range		
	Amb. +10°C to 250°C		
	Accuracy		
	± 1°C at 100°C		
	Heat up time		
	100°C within 15 mins		
Size (WxLxH) mm	577 x 642 x 760	657 x 692 x 870	727 x 742 x 974
Mains power	220-240V/50-60Hz		



OV - Vacuum Ovens

The ovens come complete with analogue pressure gauges and RS232 interfaces. In addition, Lab Tracer software is included in the base price. The port system is 3 way and allows the introduction of an inert gas as well as the usual vent and vacuum functions. Controls are set using a touch membrane keypad and the timer enables the user to initiate the heating process in advance of vacuum applications.

Model	OV-11	OV-12
Product reference	13115	13125
Chamber volume litres	28	65
Temperature	Range	
	Amb. + 5°C to 250°C	
	Accuracy	
	± 2°C at 100°C	
	Heat up time	
	100°C within 70 mins	100°C within 85 mins
Vacuum range	1 x 10 ⁻² ~ 76cmHg	
Size (WxLxH) mm	680 x 453 x 495	780 x 557 x 595
Mains power	220-240V/50-60Hz	



Vacuum pump
Flow rate:
132 ltr/min

Product reference
MED-141C



Plant Growth Chambers

GC - Plant growth chambers

The GC series of plant growth chambers ensure optimum performance and accuracy with the unique microprocessor and digital PID controller, they enable full user control and reliability.

The powerful air circulation system and reinforced blue and red spectral lighting ensure that these chambers are ideal for plant growth and photosynthesis applications.

Operating features

- +5°C to 50 (lamp off)/ 10°C to 50°C (lamp on)
- Max. to 20,000Lux for GC-300 series
- Max. to 35,000Lux for GC-1000
- 40 to 80% RH for GC-300TLH (at 20~35°C)
- 50 to 90% RH for GC-1000TLH (at 20~35°C)
- 300 to 5,000ppm CO2 control (optional)
- Microprocessor PID control/ Auto-tuning/ Calibration
- Digital timer: 1 min to 99 hr 59 min
- Over-temperature limiter/ Door opening alarm
- 10 steps of temperature, humidity, and illumination programmable and repeat up to 999 cycles (self-testing)

Constructional features

- High quality 304 stainless steel interior with dirt-repellent powder coated exterior
- User-friendly door system
- Wide inner tempered glass doors
- High frequency electronic ballast lamps
- Casters allow for easy transport and installation
- Electronic humidity sensor enables easy calibration
- Dual type water level sensor
- Adjustable water tank positions (only for GC-300TLH)



Model	GC-300TL	GC-300TLH	GC-1000TLH
Product reference	AAHA1012	AAHA1022	AAHA1032
Chamber volume litres	300	300	1000
Temperature	Range 5°C to 50°C - lamp off		
	10°C to 50°C - lamp on		
	Accuracy ± 0.1°C at 20°C		
Illumination	Range	0 to 20,000 Lux	0 to 35,000 Lux
	Control	10 steps	11 steps
Humidity	Range	n/a	50 - 90% RH
	Control	n/a	± 3% RH at 70% RH
Size (WxLxH) mm	700 x 765 x 1900	700 x 765 x 1900	1410 x 1070 x 2150
Mains power	220-240V/50-60Hz		

Temperature & Humidity Chambers

Table Top Models (PE/ME Series)

A small and lightweight solution to the demands of the industry, both series provide 3 variations in temperature and humidity range of
-20°C to 150°C / 0°C to 120°C /
-20°C to 120°C (20% to 95% RH)
with three chamber capacities of 20L, 65L and 100L.

Simple to operate with a large LCD display and touch sensitive keypad, both models include PID microprocessor controller with auto-tuning and calibration functions.

Select your optimum chamber from the dedicated temperature ranges.

- User-friendly design
- Small size & light weight
- Compact design with high performance
- Rapid heating/cooling system

Control operation

- Microprocessor PID control/ Auto-tuning/ Calibration
- Digital LCD display with 7 place touch-sensitive keypad
- Easy operation with wide LCD screen
- Temperature & humidity/ timer settings and operating condition
- Program patterns are memorized for 10 years
- PCB built-in battery
- Expansionary parameters inputting
- Programming operation



Water tank for easy water supply

- Maintenance can be done easily from the front side Inner glass door for observation
- A tempered glass door provides a clear view of your specimen during testing

Temperature & Humidity Chambers

Safety functions

- Leakage breaker for power supply
- Over current protector
- Overheat/overcool protectors
- Switch-off after alarm for over heating
- Door opening alarm
- Water level low/empty indicator (TH-ME/TH-PE only)

Optional Accessories:

80mm diameter cable port

- For multiple cables

Computer interface

- To save and transfer all data into Excel
- Program information, setting values backup/recovery, and temperature/humidity values memory Recorder
- 6-point dots type recorder with digital display

Stacking stands

- Maximum capacity of two chambers when floor space is limited

Full specification sheets are available for each model.

Please contact Medline Scientific for further information.



Floor standing units also available (180L ~ 1000L). Further information available upon request.



Temperature & Humidity Chambers – Tabletop

Model	TH-ME-025	TH-ME-065	TH-ME-100
Product reference	AAH82112	AAH82122	AAH82132
Chamber Volume litres	25	65	100
Temperature Range	-20 to 120°C (without humidity)		
Heating Time (without humidity)	55 minutes / From -15°C to 120°C		
Cooling Time (without humidity)	60 minutes / From 120°C to -15°C		
Humidity Range (%RH)	55 to 95 at 15°C		
	40 to 95 at 30°C		
	30 to 95 at 70°C		
	30 to 98 at 70°C to 85°C		
Inner size (WxDxH) mm	350 x 220 x 350	400 x 330 x 495	500 x 380 x 530
Mains power	220-240V/50-60Hz		

Model	TH-PE-025	TH-PE-065	TH-PE-100
Product reference	AAH82212	AAH82222	AAH82332
Chamber Volume litres	25	65	100
Temperature Range	0 to 120°C (without humidity)		
Heating Time (without humidity)	40 minutes / From 0°C to 120°C		
Cooling Time (without humidity)	30 minutes / From 120°C to 0°C		
Humidity Range (%RH)	60 to 95 at 15°C		
	45 to 95 at 30°C		
	35 to 95 at 70°C		
	35 to 98 at 70°C to 85°C		
Inner size (WxDxH) mm	350 x 220 x 350	400 x 330 x 495	500 x 380 x 530
Mains power	220-240V/50-60Hz		

Temperature Chambers - Tabletop

Model	TC-ME-025	TC-ME-065	TC-ME-100
Product reference	AAH86012	AAH86022	AAH86032
Chamber Volume litres	25	65	100
Temperature Range	-20 to 120°C		
Heating Time	55 minutes / From -15°C to 120°C		
Cooling Time	60 minutes / From 120°C to -15°C		
Inner size (WxDxH) mm	350 x 220 x 350	400 x 330 x 495	500 x 380 x 530
Mains power	220-240V/50-60Hz		

The 4 models offer easy and reliable operation for the user and incorporate a fully integrated microprocessor controller providing alarm facilities in case of power failure. Based upon the proven thermal-conductivity testing method, a reliable CO₂ measuring sensor is installed to measure and control the concentration of CO₂ gas in the chamber thus ensuring long-term stability of PH values.

- Unique direct heating and air jacketed system maintain the inner chamber at a constant and stable temperature.
- Microprocessor control system.
- Inner glass door allows for cultures to be examined without affecting running conditions.
- Outer-door heating system eliminates condensation from forming on interior glass door.
- Simple operation with soft-touch control panel & auto-start function.
- High grade platinum (Pt1000) temperature sensor.
- Excellent temperature control from Ambient +5°C ~ 50°C.
- Independent over-temperature protection with secondary sensor installed as standard.

All models operate at a high relative humidity to protect samples against drying out and to maintain the appropriate osmotic pressure in cells. Ideal for long-term cultures.

For the prevention of micro-organism contamination within the chamber, it is normal to use manual cleaning or UV light disinfection (MD-151UV / MD-212UV). With the MD-151 and MD-240 there is now no need as we have developed a solution to eliminate all contamination at the touch of a button. The MD-151 & MD-240 use moist heat sterilisation, where the chamber is held at 90°C for 9 hours with humidity in excess of 80%. This is activated at the touch of a button and is a fully automated cycle with cool down period.



Product reference	MD-151UV	MD-212UV	MD-151	MD-240
Dimensions				
External mm	615 x 865 x 680	910 x 795 x 763	637 x 909 x 762	780 x 944 x 820
Internal chamber mm	470 x 607 x 530	600 x 600 x 588	470 x 607 x 530	607 x 670 x 583
Volume litres	151	212	151	240
Weight Kg	75	95	85	108
Shelves (W x D)	423 x 445	550 x 510	423 x 445	554 x 503
No. supplied	3	3	3	3
Maximum	10	10	10	12
Temperature system				
Range	Amb. +5°C ~ 50°C	Amb. +5°C ~ 50°C	Amb. +5°C ~ 50°C	Amb. +5°C ~ 50°C
Deviation				
Temporal	±0.1°C	±0.1°C	±0.1°C	±0.1°C
Spatial	±0.4°C	±0.4°C	±0.4°C	±0.4°C
CO₂ System				
Measurement sensor	TCD	TCD	TCD	TCD
Control range (%)	0 ~ 20	0 ~ 20	0 ~ 20	0 ~ 20
Deviation at 37°C (%)	±0.1	±0.1	±0.1	±0.1
Humidity				
Relative humidity	≥95%	≥95%	≥95%	≥95%
Distilled water vol. (max) litres	4	4	3	3
Disinfection				
Method Duration	UV light 30 minutes	UV light 30 minutes	90°C moist heat 25 hours	90°C moist heat 25 hours
Power	220V/50-60Hz	220V/50-60Hz	220V/50-60Hz	220V/50-60Hz