



STRUMENTAZIONE

**CATALOGO
PRODOTTI**

La scelta logica



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MICROPETTE PLUS

Single-channel Adjustable Volume Pipettes



FEATURES

- Fully autoclavable
- Slim design and light in weight, less risk of strain injuries.
- Covers all volume ranges in the lab from 0.1µL to 10mL.
- Easy calibration and maintenance.
- Compatible with most universal tip brands.

Cat. No.	Volume
7030301001	0.1-2.5µl
7030301004	0.5-10µl
7030301005	2-20µl
7030301006	5-50µl
7030301008	10-100µl
7030301009	20-200µl
7030301011	50-200µl
7030301014	100-1000µl
7030301016	200-1000µl
7030301017	1000-5000µl

SPECIFICATION

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			Accuracy error		Precision error	
			%	µL	%	µL
0.1-2.5µL	0.05µL	2.5µL	2.50%	0.0625	2.00%	0.05
		1.25µL	3.00%	0.0375	3.00%	0.0375
		0.25µL	12.00%	0.03	6.00%	0.015
0.5-10µL	0.1µL	10µL	1.00%	0.1	0.80%	0.08
		5µL	1.50%	0.075	1.50%	0.075
		1µL	2.50%	0.025	1.50%	0.015
2-20µL	0.5µL	20µL	0.90%	0.18	0.40%	0.08
		10µL	1.20%	0.12	1.00%	0.1
		2µL	3.00%	0.06	2.00%	0.04
5-50µL	0.5µL	50µL	0.60%	0.3	0.30%	0.15
		25µL	0.90%	0.225	0.60%	0.15
		5µL	2.00%	0.1	2.00%	0.1
10-100µL	1µL	100µL	0.80%	0.8	0.15%	0.15
		50µL	1.00%	0.5	0.40%	0.2
		10µL	3.00%	0.3	1.50%	0.15
20-200µL	1µL	200µL	0.60%	1.2	0.15%	0.3
		100µL	0.80%	0.8	0.30%	0.3
		20µL	3.00%	0.6	1.00%	0.2
50-200µL	1µL	200µL	0.60%	1.2	0.15%	0.3
		100µL	0.80%	0.8	0.30%	0.3
		50µL	1.00%	0.5	0.40%	0.2
100-1000µL	5µL	1000µL	0.60%	6	0.20%	2
		500µL	0.70%	3.5	0.25%	1.25
		100µL	2.00%	2	0.70%	0.7
200-1000µL	5µL	1000µL	0.60%	6	0.20%	2
		500µL	0.70%	3.5	0.25%	1.25
		200µL	0.90%	1.8	0.30%	0.6
1000-5000µL	50µL	5000µL	0.50%	25	0.15%	7.5
		2500µL	0.60%	15	0.30%	7.5
		1000µL	0.70%	7	0.30%	3
2-10mL	0.1mL	10mL	0.60%	60	0.20%	20
		5mL	1.20%	60	0.30%	15
		2mL	3.00%	60	0.60%	12

MICROPETTE PLUS MULTI-CHANNEL

8-channel Adjustable volume



FEATURES

- Fully Autoclavable
- Multi-channel micropipette plus pipettes are appropriate for 96-well plates.
- Slim design and light in weight, less risk if strain injuries.
- Covers all volume ranges in the lab from 0.1µL to 10mL
- Individual piston and tip cone assemblies allow easy repair and maintenance.
- Compound material-made tip cone secures high sealing performance.
- Compatible with most universal tip brands.

Cat. No.	Volume
7030303004	0.5-10µL
7030303006	5-50µL
7030303012	50-300µL

SPECIFICATION

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			Accuracy error		Precision error	
			%	µL	%	µL
0.5-10µL	0.1µL	10µL	1.50%	0.15	1.50%	0.15
		5µL	2.50%	0.125	2.50%	0.125
		1µL	4.00%	0.04	4.00%	0.04
5-50µL	0.5µL	50µL	1.00%	0.5	0.50%	0.25
		25µL	1.50%	0.375	1.00%	0.25
		5µL	3.00%	0.15	2.00%	0.1
50-300µL	5µL	300µL	0.70%	2.1	0.25%	0.75
		150µL	1.00%	1.5	0.50%	0.75
		50µL	1.50%	0.75	0.80%	0.4

MICROPETTE PLUS MULTI-CHANNEL

12-channel Adjustable volume



FEATURES

- Fully Autoclavable
- Multi-channel micropipette plus pipettes are appropriate for 96-well plates.
- Slim design and light in weight, less risk if strain injuries.
- Covers all volume ranges in the lab from 0.1µL to 10mL
- Individual piston and tip cone assemblies allow easy repair and maintenance.
- Compound material-made tip cone secures high sealing performance.
- Compatible with most universal tip brands.

Cat. No.	Volume
7030304004	0.5-10µL
7030304006	5-50µL
7030304012	50-300µL

SPECIFICATION

Volume Range	Increment	Test Volume	Error limits in accordance with ISO8655-2			
			Accuracy error		Precision error	
			%	µL	%	µL
0.5-10µL	0.1µL	10µL	1.50%	0.15	1.50%	0.15
		5µL	2.50%	0.125	2.50%	0.125
		1µL	4.00%	0.04	4.00%	0.04
5-50µL	0.5µL	50µL	1.00%	0.5	0.50%	0.25
		25µL	1.50%	0.375	1.00%	0.25
		5µL	3.00%	0.15	2.00%	0.1
50-300µL	5µL	300µL	0.70%	2.1	0.25%	0.75
		150µL	1.00%	1.5	0.50%	0.75
		50µL	1.50%	0.75	0.80%	0.4

MOTORIZED PIPETTE FILLER LEVO PLUS



FEATURES

- Compatible with most plastic and glass pipettes from 0.1 to 100mL.
- Eight speeds of selection for aspiration and dispensing.
- LCD display shows low battery warning and speed setting.
- Powerful rechargeable Li-ion battery enables 8h runtime.
- Enables single handed operation with minimum effort.
- 0.45µm replaceable hydrophobic filter.

Cat. No.	Description
7033100100	Levo Plus with AC adapter, Euro plug.

SPECIFICATION

Aspiration Speed	25mL<5s (8 shift)
Dispensing Speed	Motor (8 shift)/ Gravity
Battery	Lithium-ion
Battery Service Life	More than 8 Hours of Intermittence use
Charging Time	2-3 Hours
Pipette Types	Glass or Plastic Pipette (0.1-100mL), Pasteur Pipettes
Filter	0.45µm Hydrophobic
Weight	200g

LEVO PLUS ACCESSORIES

Cat. No.	Description
17400032	Levo Plus charger, Euro plug
17000205	Levo Plus Lithium battery
17000103	Filter 0.45µm1pc/pk (for both Levoplus & Levo ME)

VORTEX - MIXER MX-F



FEATURES

- Touch operation or continuous mode.
- Fixed Speed 2500rpm.
- Used for various mixing applications with optional adapters.
- Various adapters fit for different tubes.
- Specially designed vacuum suction foot for body stability.
- Robust aluminum-cast construction.

Cat. No.	P/N	Power supply
8031101000	MX-F	Euro plug, 220/50Hz

SPECIFICATION

Voltage	110-120V/220-230V, 50/60Hz
Power	60W
Mixing motion	Orbital
Orbital diameter	4mm
Motor type	Shaded pole motor
Motor rating input	58W
Motor rating output	10W
Speed range	2500rpm
Run type	Touch operation/Continuous
Dimensions [W × H × D]	127×130×160mm
Weight	3.5kg
Permissible ambient temperature	5-40°C
Permissible relative humidity	80%RH
Protection class	IP21

ACCESSORIES

Cat. No.	P/N	Description
	VT1.1	Standard top cup for \varnothing30mm tubes and small vessels
18900044	VT1.2	Tube holding rod, used with VT1.3.1 to VT1.3.5
18900035	VT1.3	Universal top plate 100mm plate attachment, free of Rubber vacuum suction foot (18900158, 4pcs)
18900020	VT1.3.1	Tube adapter, for 48 holes test tubes, \varnothing 6mm, used with VT1.3/ VT1.2/PS1.1
18900021	VT1.3.2	Tube adapter, for 15 holes test tubes, \varnothing 10mm, used with VT1.3/ VT1.2/PS1.1
18900022	VT1.3.3	Tube adapter, for 12 holes test tubes, \varnothing 12mm, used with VT1.3/ VT1.2/PS1.1
18900023	VT1.3.4	Tube adapter, for 8 holes test tubes, \varnothing 16mm, used with VT1.3/ VT1.2/PS1.1
18900024	VT1.3.5	Tube adapter, for 8 holes test tubes, \varnothing 20mm, used with VT1.3/ VT1.2/PS1.1
18900043	VT1.3.6	Platform pad, for \varnothing99mm tubes and small vessels
18900158	VT1.3.7	Rubber vacuum suction foot with screw, 1pc
17000103	MX-F	Levo Plus Lithium battery
17000103	MX-F	Filter 0.45 μ m 1pc/pk (for both Levoplus & Levo ME)

VORTEX - MIXER MX-S



FEATURES

- Touch operation or continuous mode.
- Variable speed control from 0 to 2500rpm.
- Used for various mixing applications with optional adapters to fit different tubes.
- Specially designed vacuum suction foot for body stability.
- Robust aluminum-cast construction.

Cat. No.	P/N	Power supply
8031102000	MX-S	Euro plug, 220/50Hz

SPECIFICATION

Voltage	110-120V/220-230V, 50/60Hz
Power	60W
Mixing motion	Orbital
Orbital diameter	4mm
Motor type	Shaded pole motor
Motor rating input	58W
Motor rating output	10W
Speed range	0-2500rpm
Speed display	Scale
Run type	Touch operation/Continuous
Dimensions [W × H × D]	127×130 ×160mm
Weight	3.5kg
Permissible ambient temperature	5-40°C
Permissible relative humidity	80%RH
Protection class	IP21

ACCESSORIES

Cat. No.	P/N	Description
18900034	VT1.1	Standard top cup for \varnothing30mm tubes and small vessels
18900044	VT1.2	Tube holding rod, used with VT1.3.1 to VT1.3.5
18900035	VT1.3	Universal top plate 100mm plate attachment , free of Rubber vacuum suction foot (18900158, 4pcs)
18900020	VT1.3.1	Tube adapter, for 48 holes test tubes, \varnothing 6mm, used with VT1.3/ VT1.2/PS1.1
18900021	VT1.3.2	Tube adapter, for 15 holes test tubes, \varnothing 10mm, used with VT1.3/ VT1.2/PS1.1
18900022	VT1.3.3	Tube adapter, for 12 holes test tubes, \varnothing 12mm , used with VT1.3/ VT1.2/PS1.1
18900023	VT1.3.4	Tube adapter, for 8 holes test tubes, \varnothing 16mm, used with VT1.3/ VT1.2/PS1.1
18900024	VT1.3.5	Tube adapter, for 8 holes test tubes, \varnothing 20mm, used with VT1.3/ VT1.2/PS1.1
18900043	VT1.3.6	Platform pad, for \varnothing99mm tubes and small vessels
18900158	VT1.3.7	Rubber vacuum suction foot with screw, 1pc

MIXER MX-M

Microplate Mixer include Microplate clamp, 18900067



FEATURES

- Specially designed to accommodate double micro plates.
- Various adapters fit for different tubes.
- Maintenance free brushless DC motor.
- A wide range of speed from 0-1500rpm.

Cat. No.	P/N	Power supply
8031202000	MX-M	Euro plug,100V-220V/50Hz/60Hz

SPECIFICATION

Shaking movement	Orbital
Orbital diameter	4.5mm
Max. shaking weight(with accessory)	0.5kg
Motor type	Brushless DC motor
Motor rating input	18W
Motor rating output	10W
Speed range	Single microplate: 0-1500rpm • Double microplate: 0-1000rpm
Speed display	Scale
Voltage	100-240V, 50/60Hz
Power	20W
Dimensions [D × W × H]	260×150×80mm
Weight	3kg
Permissible ambient temperature and humidity	5-40°C, 80%RH
Protection class	IP21

ACCESSORIES

Cat. No.	P/N	Description
18900067	PS1.1	Universal top plate(round) used with VT1.3.1--5
18900020	VT1.3.1	Tube adapter, for 48 holes test tubes, Ø6mm (0.5ml), used with VT 1.3/ VT 1.2/PS1.1
18900021	VT1.3.2	Tube adapter, for 18 holes test tubes, Ø10mm (1.5-2.0ml), used with VT 1.3/ VT 1.2/PS1.1
18900022	VT1.3.3	Tube adapter, for 12 holes test tubes, Ø12mm (2-7ml) , used with VT 1.3/ VT 1.2/PS1.1
18900023	VT1.3.4	Tube adapter, for 8 holes test tubes, Ø16mm (4-15ml), used with VT 1.3/ VT 1.2/PS1.1
18900024	VT1.3.5	Tube adapter, for 8 holes test tubes, Ø20mm (20ml), used with VT 1.3/ VT 1.2/PS1.1
18900042	PS1.2	Microplate clamp
18900079	MXM-116	Double microplate clamps

MIXER MS-H-S



FEATURES

- Stainless steel work plate with ceramic coating provides good chemical resistance.
- Maintenance free brushless DC motor.
- Max. heating temperature of 340°C.
- Stirring speed up to 1500rpm.
- Safety circuits provide overheating protection.

Cat. No.	P/N	Description
8030211010	MS-H-S	Classic Hotplate Magnetic Stirrer, stainless steel with ceramic coated hotplate, heating temperature up to 340°C.

SPECIFICATION

Dimension of work plate	φ135mm(5 inch)
Work plate material	stainless steel cover with ceramic
Motor type	Brushless DC motor
Motor rating input	18W
Motor rating output	10W
Power	530W
Heating output	500W
Voltage	100-120/200-240V 50/60Hz
Stirring positions	1
Max. stirring quantity [H ₂ O]	20L
Max. magnetic bar [length]	80mm
Speed range	0-1500rpm, resolution±1rpm
Speed display	Scale
Temperature display	Scale
Heating temperature range	Room temp.-340°C
Over temperature protection	350°C
Temperature display accuracy	±0.5°C
Protection class	IP42
Dimension [W x D x H]	160×280×85mm
Weight	2.8kg
Permissible ambient temperature and humidity	5-40°C, 80%RH

HOT PLATE - MAGNETIC STIRRER MS-H-PROT



FEATURES

- Stainless steel work plate with ceramic coating and metal housing provides high chemical resistance.
- Maintenance free Brushless DC motor.
- MS-H-ProT has a timer function from 1 min to 99h 59min.
- The "HOT" warning will flash when the plate temperature is above 50 °C even when the hotplate is turned off.
- Connect with temperature sensor PT1000 to detect sample temperature.
- RS232 interface provides PC control and data transmission.
- Max. stirring quantity of H₂O at 20L.

Cat. No.	P/N	Description
8030201110	MS-H-Pro T	LCD Digital Hotplate Magnetic Stirrer with Timer, stainless steel with ceramic coated hotplate, heating temperature up to 340°C.

SPECIFICATION

Dimension of work plate	φ135mm(5 inch)
Work plate material	stainless steel cover with ceramic
Motor type	Brushless DC motor
Motor rating input	18W
Motor rating output	10W
Power	530W
Heating output	500W
Voltage	100-120/200-240V 50/60Hz
Stirring positions	1
Max. stirring quantity [H ₂ O]	20L
Max. magnetic bar [length]	80mm
Speed range	0-1500rpm, resolution±1rpm
Speed display	Scale
Temperature display	Scale
Heating temperature range	Room temp.-340°C
Over temperature protection	350°C
Temperature display accuracy	±0.5°C
Protection class	IP42
Dimension [W x D x H]	160×280×85mm
Weight	2.8kg
humidity	5-40°C, 80%RH
Temperature display accuracy	±0.5°C
Protection class	IP42
Dimension [W x D x H]	160×280×85mm
Weight	2.8kg
humidity	5-40°C, 80%RH

ORBITAL SHAKER SK-0330-PRO



FEATURES

- Max. load capacity is 7.5kg with platform.
- Double LCDs for independent display of time and speed.
- Various platform accessories are available.
- Maintenance- free brushless DC motor.
- Over speed detection and protection.
- Remote function provides PC control and data transmission.

Cat. No.	P/N	Description
8032220100	SK-O330-Pro	Digital Orbital Shaker (7.5 Kg) with SK 330.1 Universal attachment.

SPECIFICATION

Orbital diameter	10mm
Max. load capacity (with platform)	7.5kg
Motor type	Brushless DC motor
Motor input power	28W
Motor output power	15W
Speed range	100-500rpm
Speed display	LCD
Timer display	LCD
Time settings range	1min-19h59min
Voltage	100-240V, 50/60Hz
Power	30W
Weight	13.5kg
Permissible ambient temperature and humidity	5-40°C, 80%RH
Dimensions [W × D × H]	370×420×100mm
Protection class	IP21
Data connector	RS232

ACCESSORIES

Cat. No.	P/N	Description
18900027	SK330.1	Universal attachment with 4 bars
18900028	SK330.2	Fixing clip attachment
18900040	SK330.3	Lengthways roller attachment
18900155	SK330.5	Dish platform with non-slip mat and fixed string (8 pcs)
18900036		Bar for SK330.1 Universal attachment black
18900029	SK180.2.1 /SK330.2.1	Fixing clip for flask volume 25 ml
18900030	SK180.2.2 /SK330.2.2	Fixing clip for flask volume 50 ml
18900031	SK180.2.3 /SK330.2.3	Fixing clip for flask volume 100 ml
18900032	SK180.2.4 /SK330.2.4	Fixing clip for flask volume 200/250 ml
18900033	SK180.2.5 /SK330.2.5	Fixing clip for flask volume 500 ml
18900280		Connect sticks for double dishes shaker 4/pK

ROCKING SHAKER SK-R330-PRO



FEATURES

- Rocking motion angle 9°.
- Max. load capacity is 10kg with platform.
- Speed range of 10-70rpm.
- Double LCDs for independent display of time and speed.
- Various platform accessories are available.

Cat. No.	P/N	Description
8032320100	SK-R330-Pro	LCD Digital Rocking Shaker (including of a platform 18900155), see-saw wave, angle 9°.

SPECIFICATION

Tilt angle	9°
Max. load capacity(with platform)	10kg
Motor type	DC motor
Motor input power	40W
Motor output power	24W
Speed range	10-70rpm
Speed display	LCD
Timer display	LCD
Time settings range	1min-19h59min
Voltage	100-240V, 50/60Hz
Power	50W
Weight	9kg
Permissible ambient temperature and humidity	5-40°C, 80%RH
Dimensions [W×D×H]	360×410×200mm
Protection class	IP21

3D SHAKER SK-D3309-PRO



FEATURES

- Three-dimensional rocking motion with the angle of 9°.
- Max. load capacity is 5kg with platform.
- Speed range of 10-70rpm.
- Double LCDs for independent display of time and speed.
- Various platform accessories are available.

Cat. No.	P/N	Description
8032422100	SK-D3309-Pro	LCD Digital 3D Shaker (including of a platform 18900155), angle 9°.

SPECIFICATION

Tilt angle	9°
Max. load capacity (with platform)	5kg
Motor type	DC motor
Motor input power	40W
Motor output power	24W
Speed range	10-70rpm
Speed display	LCD
Timer display	LCD
Time settings range	1min-19h59min
Voltage	100-240V, 50/60Hz
Power	50W
Weight	9kg
Permissible ambient temperature and humidity	5-40°C, 80%RH
Dimensions [W × D × H]	360×430×106mm
Protection class	IP21

ACCESSORIES

Cat. No.	P/N	Description
18900027	SK330.1	Universal attachment with 4 bars
18900028	SK330.2	Fixing clip attachment
18900040	SK330.3	Lengthways roller attachment
18900155	SK330.5	Dish platform with non-slip mat and fixed string(8 pcs)
18900036		Bar for SK330.1 Universal attachment black
18900029	SK180.2.1 /SK330.2.1	Fixing clip for flask volume 25 ml
18900030	SK180.2.2 /SK330.2.2	Fixing clip for flask volume 50 ml
18900031	SK180.2.3 /SK330.2.3	Fixing clip for flask volume 100 ml
18900032	SK180.2.4 /SK330.2.4	Fixing clip for flask volume 200/250 ml
18900033	SK180.2.5 /SK330.2.5	Fixing clip for flask volume 500 ml
18900280		Connect sticks for double dishes shaker 4/pK

THERMAL CONTROL HB120-S



FEATURES

- High precision temperature control with max. heating temperature up to 120 °C.
- Lid for protection and heat preservation.
- LED digital display of temperature and time.
- Flexible adapter block selection.
- Availability of timer function support with timer from 1min-99h59min.
- Seven types of blocks with different capacities are available from 0.2mL-50mL.

Cat. No.	Power supply
5032101200	Euro plug, 200V-240V/50Hz/60Hz

SPECIFICATION

Functions	Heating
Temperature range	Room temp.-120°C
Temperature control accuracy	±0.5°C
Temperature uniformity	±0.5°C
Maximum heating rate	5.5°C/min
Timer	1min-99h59min
Screen	LED
Overheating protection	140°C
Adapter block material	aluminum
Voltage, Frequency	100-120V/220-240V,50Hz/60Hz
Power	160W
Dimensions [W×D×H]	95x150x50mm
Weight	3kg

ACCESSORIES

Cat. No.	Description
18900218	Heating block, used for 0.2mL tubes, 54 holes
18900219	Heating block, used for 0.5mL tubes, 40 holes
18900253	Heating block, used for 1.5mL tubes, 40 holes
18900220	Heating block, used for 2mL tubes, 40 holes
18900221	Heating block, used for 5/15mL tubes, 28 holes
18900222	Heating block, used for 50mL tubes, 8 holes
18900223	Heating block, used for 96/384 microplate
18900224	Heating block, used for 0.2mL, 0.5mL and 1.5/2mL tubes ,18 holes each volume
18900274	Heating block, used for 0.2mL tubes, 54 holes (thin)
18900275	Heating block, used for 0.5mL tubes, 40 holes (thin)
18900276	Heating block, used for 1.5mL tubes, 40 holes (thin)
18900277	Heating block, used for 2mL tubes, 40 holes (thin)
18900279	Heating block, used for 96/384 microplate (thin)
18900278	Heating block, used for 0.2mL, 0.5mL and 1.5/2mL tubes ,18 holes each volume (thin)

THERMAL CONTROL MIX HCM100-PRO



FEATURES

- Precise temperature control and excellent mixing results.
- 3-in-1 instrument with heating, cooling and mixing.
- 8 types of blocks with different capacities ranging from 0.2mL-50mL.
- Timer function support is available.
- 9 programs can be stored.
- Overheating protection and auto-recognition of blocks.

Cat. No.	P/N	Description
5032103100	HCM100-Pro	LCD digital Thermo Mix with heating, cooling,mixing.

SPECIFICATION

Functions	Heating, cooling &mixing
Temperature range	Heating: Room temp.-100°C; Cooling: Room temp. -below room temp.15 °C
Temperature control accuracy [@20-45°C]	±0.5°C
Temperature uniformity [@20-45°C]	Max. ±0.5°C
Max. heating rate	5.5°C/min
Max. cooling rate	5°C/min (110°C-room temp.) 0.5°C/min (below room temp.)
speed range	300-1500rpm
Mixing diameter	3mm
Screen	TFT
Program	9
Over temperature protection	150°C
Adapter block material	Aluminum
Voltage, Frequency	100-120V/220-240V,50Hz/60Hz
Power	200W
Dimension [W×D×H] (without the heating block)	200×235×120mm
Weight	7.3kg

BLOCKS

Cat. No.	Description
18900238	Heating block, used for 0.5mL tubes, 24 holes
18900237	Heating block, used for 1.5mL tubes, 24 holes
18900239	Heating block, used for 2mL tubes, 24 holes
18900240	Heating block, used for 5mL tubes, 8 holes
18900241	Heating block, used for 15mL tubes, 8 holes
18900242	Heating block, used for 50mL tubes, 4 holes
18900243	Heating block, used for 0.2ml/96 well PCR plate
18900244	Heating block, used for 96/384 microplate

NEW BLOCKS FOR EPPENDORF TUBE

Cat. No.	Description
18900351	Heating block, used for 1.5mL tubes, 24 holes
18900352	Heating block, used for 2mL tubes, 24 holes
18900353	Heating block, used for 5mL tubes, 8 holes
18900354	Heating block, used for 5mL tubes, 8 holes, cone bottom, only for new machine
18900355	Heating block, used for 15mL tubes, 8 holes
18900356	Heating block, used for 50mL tubes, 4 holes

THERMAL CONTROL MIX HM100-PRO



FEATURES

- Excellent mixing result.
- Maximum heating temperature range is 100°C.
- Stable and wide range of speed adjustment from 300-1500rpm.
- A combination of heating & mixing in one instrument.
- Flexible adapter selection.
- 8 types of blocks, compatible with most universally used tubes within 0.2mL-50mL volume range.
- Timing from 1min-99h59min.
- 9 programs can be stored.

Cat. No.	P/N	Description
5032104100	HM100-Pro	LCD digital Thermo Mix with heating, mixing.

SPECIFICATION

Functions	Heating & mixing
Temperature range	Heating: Room temp.-100°C
Temperature control accuracy [@20-45°C]	±0.5°C
Temperature uniformity[@20-45°C]	Max. ±0.5°C
Max. heating rate	5.5°C/min
speed range	300-1500rpm
Mixing diameter	3mm
Screen	TFT
Program	9
Over temperature protection	150°C
Adapter block material	Aluminum
Voltage, Frequency	00-120V/220-240V,50Hz/60Hz
Power	200W
Dimension [W×D×H] (without the heating block)	200x235x120mm
Weight	7.3Kg

BLOCKS

Cat. No.	Description
18900238	Heating block, used for 0.5mL tubes, 24 holes
18900237	Heating block, used for 1.5mL tubes, 24 holes
18900239	Heating block, used for 2mL tubes, 24 holes
18900240	Heating block, used for 5mL tubes, 8 holes
18900241	Heating block, used for 15mL tubes, 8 holes
18900242	Heating block, used for 50mL tubes, 4 holes
18900243	Heating block, used for 0.2ml/96 well PCR plate
18900244	Heating block, used for 96/384 microplate

NEW BLOCKS FOR EPPENDORF TUBE

Cat. No.	Description
18900351	Heating block, used for 1.5mL tubes, 24 holes
18900352	Heating block, used for 2mL tubes, 24 holes
18900353	Heating block, used for 5mL tubes, 8 holes
18900354	Heating block, used for 5mL tubes, 8 holes, cone bottom, only for new machine
18900355	Heating block, used for 15mL tubes, 8 holes
18900356	Heating block, used for 50mL tubes, 4 holes

THERMAL CONTROL MIX HC110-PRO



FEATURES

- Precise temperature control of heating and cooling.
- 2-in-1 instrument with a combination of heating and cooling functions.
- 8 types of blocks with different capacities ranging from 0.2mL-50mL.
- 9 programs can be stored.
- Over heating protection and self-recognition of blocks.

Cat. No.	P/N	Description
5032102100	HC110-Pro	LCD digital Thermo Mix with heating, cooling.

SPECIFICATION

Functions	Heating & cooling
Temperature range	Heating: Room temp.-110°C Cooling: Room temp.-below room temp. 25°C
Temperature control accuracy [@20-45°C]	±0.5°C
Temperature uniformity [@20-45°C]	Max. ±0.5°C
Max. heating rate	5.5°C/min
Max. cooling rate	2.5°C /min(110°C-room temp.) 0.5°C/min(below room temp.)
Screen	TFT
Program	9
Over temperature protection	150°C
Adapter block material	Aluminum
Voltage, Frequency	100-120V/220-240V,50Hz/60Hz
Power	200W
Dimensions[W×D×H] (without the heating block)	200×235×120mm
Weight	7.3kg

BLOCKS

Cat. No.	Description
18900238	Heating block, used for 0.5mL tubes, 24 holes
18900237	Heating block, used for 1.5mL tubes, 24 holes
18900239	Heating block, used for 2mL tubes, 24 holes
18900240	Heating block, used for 5mL tubes, 8 holes
18900241	Heating block, used for 15mL tubes, 8 holes
18900242	Heating block, used for 50mL tubes, 4 holes
18900243	Heating block, used for 0.2ml/96 well PCR plate
18900244	Heating block, used for 96/384 microplate

NEW BLOCKS FOR EPPENDORF TUBE

Cat. No.	Description
18900351	Heating block, used for 1.5mL tubes, 24 holes
18900352	Heating block, used for 2mL tubes, 24 holes
18900353	Heating block, used for 5mL tubes, 8 holes
18900354	Heating block, used for 5mL tubes, 8 holes, cone bottom, only for new machine
18900355	Heating block, used for 15mL tubes, 8 holes
18900356	Heating block, used for 50mL tubes, 4 holes

HIGH SPEED REFRIGERATED MICRO CENTRIFUGE - 9033101121 mod. D3024R



High speed micro-centrifuge range is widely used in physical and chemistry analysis, biochemistry, cellular and molecular biology, clinical Labs and blood donation centers, and is ideal for high-end research applications:

- Sedimentation of cells and viruses
- Separation of sub-cellular organelles
- Isolation of macromolecules such as DNA, RNA, proteins or lipids

D3024R with AS24-2 aluminum alloy rotor kit

ADVANTAGES

CONFORMS TO INTERNATIONAL SAFETY STANDARDS AND REGULATIONS

- Manufacturer cooperates with TUV Rheinland Company and its Centrifuges have passed CB scheme by TUV Rheinland China and marked with CE, cTUVus and FCC. All test items are positive which according to IEC/EN 61010-1 and MCA test according to IEC/EN61010-2-20, including explosion-proof and bio-safe tests.
- Quiet and stable operation for the lab.
- High strength metal casing ensures security of centrifugal process.
- Dual door interlock design for safety (D3024 & D3024R).
- Gentle braking at low speed with efficient separation.

POWERFUL AND EFFICIENT COOLING SYSTEM

- Pre-cooling provides cool down prior to operation and keeps the chamber at the pre-set temperature.
- Powerful cooling system quickly cools down chamber to 2°C after only 7 minutes and maintains the samples temperature under 2°C at maximum speed.
- Unique cooling system design minimizes rotor heating to less than 10°C after running for 1 hour.
- Sound alert and the lid remains closed after operation to maintain the chamber temperature.
- Intermittent temperature control mode, CFC-free refrigerant and low carbon life.

ROTOR CAPACITY

- Bio-safe rotor/anti-sample overflow ensures the samples do not leak during the centrifugal process helps prevent microbial contamination.
- High strength aluminum alloy rotor can be fully autoclaved, with unlimited service life.
- Four rotors are optional, comes with 24 x 1.5/2.0ml tubes. Smaller 0.2ml and 0.5ml tubes can be used with adapters.

PRECISE CONTROL

- Brushless DC motor accelerates quickly and effortlessly to the set speed.
- High accuracy of speed in ± 20 rpm.
- Operation can be timed from 30 seconds to 99 minutes or used in continuous mode.
- Timer starts once the target speed reached, for accurate separation time.

ERGONOMIC DESIGN

- User-friendly large LCD display shows running information.
- Both RPM or G-force can be set and displayed.
- The parameters can be modified after the set speed is reached.
- The short spin function is used for quick spins by pressing and holding PULSE key. The centrifuge speed can be accelerated and held at the target speed.
- Easy-to-read display and sound alerts.

SPECIFICATIONS

Max. Speed	15000rpm (200-15000rpm), increment:10rpm
Max. RCF	21380×g, increment:10×g
Speed Accuracy	±20rpm
Temperature Range	-20°C-40°C
Rotor Capacity	5mL×18, 0.2mL/0.5mL/1.5mL/ 2mL×24, 0.5mL×36,PCR8×4
Run Time	30sec-99min/Continuous
Driving Motor	Brushless DC motor
Safety Devices	Dual door interlock, Overspeed detection, Overtemperature detection, Automatic internal diagnosis.
Power	Single-phase, AC220V-240V, 50Hz/60Hz, 10A, AC110V-120V, 50Hz/60Hz,10A 400W
Acceleration/Braking time	25s [^] 25s [˘]
Dimensions [D × W ×H]	338×580×324mm
Weight	30kg
Additional Features	Speed/RCF switch; Short-time run function; Sound-alert function.

ROTORS

Cat. No.	Description
19400012	Aluminum alloy rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 5ml*18, used with D3024 & D3024R.
19400032	Aluminum alloy rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 5ml*12 (eppendorf tube), used with D3024 & D3024R.
19400006	Aluminum alloy rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 2ml/1.5ml*24, used with D3024 & D3024R.
19400007	Aluminum alloy rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 0.5ml*36, used with D3024 & D3024R.
19400008	Aluminum alloy rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 4*PCR8, used with D3024 & D3024R.
19500001	2ml to 0.2ml rotor adapter, used with A12-2, A12-2P, AS24-2 and A24-2P rotors, 24pcs/pk.
19500002	2ml to 0.5ml rotor adapter, used with A12-2, A12-2P, AS24-2 and A24-2P rotors, 24pcs/pk.
19500003	0.5ml to 0.2ml rotor adapter, used with AS36-05 rotor, 36pcs/pk.

HIGH SPEED MICRO CENTRIFUGE

9033001121 - mod. D3024



High speed micro-centrifuge range is widely used in physical and chemistry analysis, biochemistry, cellular and molecular biology, clinical Labs and blood donation centers, and is ideal for high-end research applications:

- Sedimentation of cells and viruses
- Separation of sub-cellular organelles
- Isolation of macromolecules such as DNA, RNA, proteins or lipids

D3024 with AS24-2 aluminum alloy rotor kit

ADVANTAGES

CONFORMS TO INTERNATIONAL SAFETY STANDARDS AND REGULATIONS

- Manufacturer cooperates with TUV Rheinland Company and its Centrifuges have passed CB scheme by TUV Rheinland China and marked with CE, cTUVus and FCC. All test items are positive which according to IEC/EN 61010-1 and MCA test according to IEC/EN61010-2-20, including explosion-proof and bio-safe tests.
- Quiet and stable operation for the lab.
- High strength metal casing ensures security of centrifugal process.
- Dual door interlock design for safety (D3024 & D3024R).
- Gentle braking at low speed with efficient separation.

UNIQUE FEATURES

- Special multi-flow air cooling design (Patent No. 201120322916.0) helps keep lower rotor temperature.
- Unique temperature display protects sensitive samples.

ROTOR CAPACITY

- Bio-safe rotor/anti-sample overflow ensures the samples do not leak during the centrifugal process helps prevent microbial contamination.
- High strength aluminum alloy rotor can be fully autoclaved, with unlimited service life.
- Four rotors are optional, comes with 24 x 1.5/2.0ml tubes. Smaller 0.2ml and 0.5ml tubes can be used with adapters.

PRECISE CONTROL

- Brushless DC motor accelerates quickly and effortlessly to the set speed.
- High accuracy of speed in ± 20 rpm.
- Operation can be timed from 30 seconds to 99 minutes or used in continuous mode.
- Timer starts once the target speed reached, for accurate separation time.

ERGONOMIC DESIGN

- User-friendly large LCD display shows running information.
- Both RPM or G-force can be set and displayed.
- The parameters can be modified after the set speed is reached.
- The short spin function is used for quick spins by pressing and holding PULSE key. The centrifuge speed can be accelerated and held at the target speed.
- Automatic release of lid when the rotor stops to save processing time (excluding D3024R).
- Easy-to-read display and sound alerts.

SPECIFICATIONS

Max. Speed	15000rpm (200-15000rpm), increment:10rpm
Max. RCF	21380×g, increment:10×g
Speed Accuracy	±20rpm
Rotor Capacity	5mL×18, 5mL culture tubes×12 0.2mL/0.5mL/1.5mL/ 2mL×24, 0.5mL×36, PCR8×4
Run Time	30sec-99min/Continuous
Driving Motor	Brushless DC motor
Safety Devices	Dual door interlock, Overspeed detection, Overtemperature detection, Automatic internal diagnosis.
Power	Single-phase, AC220V-240V, 50Hz/60Hz, 5A; AC110V-120V, 50Hz/60Hz, 8A 200W
Acceleration/Braking time	25s [^] 25s [˘]
Dimensions [D × W ×H]	280×364×266mm
Weight	12kg
Additional Features	Speed/RCF switch; Short-time run function; Sound-alert function.

ROTORS

Cat. No.	Description
19400012	Aluminum alloy rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 5ml*18, used with D3024 & D3024R
19400032	Aluminum alloy rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 5ml*12 (eppendorf tube), used with D3024 & D3024R
19400006	Aluminum alloy rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 2ml/1.5ml*24, used with D3024 & D3024R
19400007	Aluminum alloy rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 0.5ml*36, used with D3024 & D3024R
19400008	Aluminum alloy rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 4*PCR8, used with D3024 & D3024R
19500001	2ml to 0.2ml rotor adapter, used with A12-2, A12-2P, AS24-2 and A24-2P rotors, 24pcs/pk
19500002	2ml to 0.5ml rotor adapter, used with A12-2, A12-2P, AS24-2 and A24-2P rotors, 24pcs/pk
19500003	0.5ml to 0.2ml rotor adapter, used with AS36-05 rotor, 36pcs/pk

MULTI-PURPOSE CLINICAL CENTRIFUGE - 9015001123

mod. DM0636

The **DM0636 Multi-Purpose Clinical Centrifuge** is ideal for the centrifugation of samples in clinical chemistry, cytology, research laboratories, industrial laboratories, etc.

Swing-out rotors and adapters are used for standard tubes up to 100 mL at low speed, in addition, this centrifuge can be used for tubes with a screw cap, blood collection tubes or urine tubes.



FEATURES

- Speed can be set from 300 rpm to a max. of 6000 rpm.
- Maximum capacity of the centrifuge: 100 mL x4.
- 9 Acceleration/10 Brake speed settings to ensure the sample a better separation.
- Swing-out and fixed rotors options.
- Comprehensive, versatile range of accessories.
- Automatic rotor identification.
- Timer can be set for up to 99 minutes or continuous.
- Whisper quiet operation to benefit your work environment.
- With the 9 routine procedures memory ability, it is greatly simplified the experiment operation.
- Brushless DC motor is clean, maintenance free and safe. It can drive quickly and effortlessly acceleration of the rotor to set speed.

SPECIFICATIONS

SPECIFICATIONS	
Speed Range	300-6000rpm
Max. RCF	4300×g
Speed Accuracy	±20rpm
Rotor Capacity	9 types
Run Time	30sec-99mins/continuous
Driving Motor	Brushless DC
Display	LCD

SPECIFICATIONS

Program memory	9
Safety Devices	Door interlock, Imbalance protection, motor over hot protection, Over speed detection, chamber over temperature detection
Acceleration/Braking time	9s [^] 10s [~]
Power	Single-phase AC220V-240V, 50Hz/60Hz, 6.3A; AC110V-120V, 50Hz/60Hz, 10A
Dimensions [D × W ×H]	445×579×269mm
Weight	36kg
Additional Features	Speed/RCF switch; Rotor identification

ROTORS

Cat. No.		Description
9015001123	DM0636	Multi-Purpose Clinical Centrifuge, with swing-out rotor kit19400041 & 100mLbasket 19400042 (select them below).
19400041	SE4-100	Swing-out rotor with four baskets.
19400045		3-10ml basket with adapter.
19400044		10-15ml basket with adapter.
19400043		50ml basket with adapter.
19400042		100ml basket with adapter
19400040	A30-15	Fix angle rotor.
19400038	AS6-50V	Fix angle rotor for 50ml×6.
19400036	AS12-PCR8	Fix angle rotor PCR 8 Trips×12.
19400034	AS30-2	Fix angle rotor 2mL×30.
19400037	AS60-2	Fix angle rotor 2mL×60.
19400035	AS18-5V	Fix angle rotor 5mL×18.
19400039	A8-50	Fix angle rotor 50mL×8/15ml×16.

HIGH SPEED MINI CENTRIFUGE

9032002121 - mod. D2012 plus

High strength plastic rotor with CE mark.
 Low noise $\leq 54\text{dB}$;
 Delivers fast acceleration and deceleration.



D2012 plus with A12-2p plastic rotor kit

FEATURES

- Powerful centrifugal force of $15100\times g$ and a max. speed of 15000rpm.
- Brushless DC motor drive quickly accelerates the rotor to set speed.
- Quiet working, Low noise $\leq 56\text{dB}$.
- D2012 Plus passed the rigorous explosion-proof test and accredited with CE, cTUVus, FCC certificates, and MCA test. MCA test according to IEC/EN61010-2-20

CONFORMS TO INTERNATIONAL SAFETY STANDARDS AND REGULATIONS

- **D2012** has tested according to IEC/EN 61010-1.
- Cast iron chassis with low gravity, provides stable and reliable running at maximum speed
- Multi voltage design with high speed accuracy and reliable running
- **D2012 Plus** has passed explosionproof test and marked with CE, cTUVus and FCC. MCA test according to IEC/EN61010-2-20.

SPECIFICATIONS	
Max. Speed	15000rpm(500-15000rpm), increment: 100rpm
Max. RCF	15100 $\times g$, increment: 100 $\times g$
Speed Accuracy	$\pm 20\text{rpm}$
Rotor Capacity	0.2mL/0.5mL/1.5mL/ 2mL $\times 12$
Run Time	30sec-99min/Continuous
Driving Motor	Brushless DC motor
Safety Devices	Door interlock, Over-speed detection, Over-temperature detection, Automatic internal diagnosis.
Power	100W
Voltage	Single-phase, AC110V-240V, 50Hz/60Hz, 3A
Noise level	$\leq 54\text{dB}$
Acceleration/Braking time	11s \sim 9s \sim
Dimensions [D \times W \times H]	255 \times 245 \times 140mm
Weight	6kg
Additional Features	Speed/RCF switch, Short-time run function, Sound-alert function

ROTORS	
Cat. No.	Description
19400010	Plastic rotor kit with lid (blank LOGO), fixing clips and O'ring, 15000rpm, 2ml $\times 12$
19500001	2ml to 0.2ml rotor adapter, used with A12-2, A12-2P, AS24-2 and A24-2P rotors, 24pcs/pk
19500002	2ml to 0.5ml rotor adapter, used with A12-2, A12-2P, AS24-2 and A24-2P rotors, 24pcs/pk

D1008



FEATURES

- Small footprint - for quick spin downs and microfiltration applications.
- Compatible with 2mLx8 and PCR8x2 rotors.
- Easy to use with dual start/stop function.
- Quiet running with noise level ≤ 45 dB.
- Available in 2 colors - Blue and Green.

SPECIFICATIONS

SPECIFICATIONS	
Max. Speed	7000rpm
Max. RCF	2680xg
Speed Accuracy	0.2/0.5/1.5/2.0mLx8; 0.2mLx16 PCR strips or 0.2mLx2 PCR 8 strips
Rotor Capacity	Continuous operation
Run Time	DC motor
Driving Motor	AC110-240V/50Hz/60Hz
Safety Devices	≤ 45 dB
Power	160x170x122mm
Voltage	0.5kg
Noise level	CE cTÜVus FCC MCA

Cat. No.	Description
9031001012	Mini Centrifuge with blue lid, including two rotors A08-2 & A02-PCR8 and both adapter SA02P2&SA05P2
9031002012	Mini Centrifuge with green lid, including two rotors of A08-2 & A02-PCR8 and both adapter SA02P2&SA05P2
9031003012	Mini Centrifuge with pink lid, including two rotors of A08-2 & A02-PCR8 and both adapter SA02P2&SA05P2
9031004012	Mini Centrifuge with yellow lid, including two rotors of A08-2 & A02-PCR8 and both adapter SA02P2&SA05P2

ACCESSORIES

Cat. No.	Description
19400015	Plastic rotor (blank LOGO), 7000rpm, 2ml/1.5ml*8, used with D1008
19400017	Plastic rotor (blank LOGO), 7000rpm, PCR8*2, used with D1008
19400029	2ml to 0.2ml rotor adapter, used with D1008 rotor 8pcs/pk
19400026	2ml to 0.5ml rotor adapter, used with D1008 rotor 8pcs/pk

SPECTROPHOTOMETER SP-V1000



FEATURES

- Large 128x64 dots, backlit LCD screen with brightness control displays a large array of data also also in graphical format.
- Large sample compartment to accomodate 5-100mm path length cuvette with optional holders.
- Autosetting of wavelength-to calibrate the system through arrow keys and avoid operational errors.
- The system can save the test results, upto 200 groups of data and 200 standard curves in the RAM memory.
- Data can also be restored after a sudden power failure.

Cat. No.	P/N	Description
4010210100	SP-V1000	325~1000nm Tungsten lamp

SPECIFICATION

Optical System	Single Beam
Light Source	Tungsten lamp
Spectral Bandwidth	4.0nm
Wavelength Range	325-1000nm
Wavelength Accuracy	±2nm
Wavelength Repeatability	≤1nm
Photometric Range	-0.3-3.0A, 0-200%T
Photometric Accuracy	±0.003A@ 0.5A, ±0.006A@ 1.0A, ±0.5%T @100%T
Photometric Repeatability	≤0.0015A@ 0.5A, ≤0.003A@ 1.0A, 0.25%T @100%T
Stability	≤0.002A/h @ 500nm (after preheat 2 hours)
Stray Light	≤0.2%T@ 360nm
Sample Compartment	4-position, 10mm pathlength cuvette
Display	LCD
Output	USB Port& Parallel Port (Printer)
Power	110/220VAC, 50/60Hz, 80W
Dimensions[LxWxH]	490x360x210mm
Weight	10Kg

SPECTROPHOTOMETER SP-UV1000



FEATURES

- Large 128x64 dots, backlit LCD screen with brightness control displays a large array of data also also in graphical format.
- Large sample compartment to accomodate 5-100mm path length cuvette with optional holders.
- Autosetting of wavelength-to calibrate the system through arrow keys and avoid operational errors.
- The system can save the test results, upto 200 groups of data and 200 standard curves in the RAM memory.
- Data can also be restored after a sudden power failure.

Cat. No.	P/N	Description
4010110100	SP-UV1000	200-1000nm Tungsten lamp & Deuterium lamp

SPECIFICATION

Optical System	Single Beam
Light Source	Tungsten lamp and Duterium lamp
Spectral Bandwidth	4.0nm
Wavelenth Range	200-1000nm
Wavelength Accuracy	±2nm
Wavelength Repeatability	≤1nm
Photometric Range	-0.3-3.0A, 0-200%T
Photometric Accuracy	±0.003A@ 0.5A, ±0.006A@ 1.0A, ±0.5%T @100%T
Photometric Repeatability	≤0.0015A@ 0.5A, ≤0.003A@ 1.0A, 0.25%T @100%T
Stability	≤0.002A/h @ 500nm (after preheat 2 hours)
Stray Light	≤0.2%T@ 220&360nm
Sample Compartment	4-position, 10mm pathlength cuvette
Display	LCD
Output	USB Port& Parallel Port (Printer)
Power	110/220VAC, 50/60Hz, 120W
Dimensions[LxWxH]	490x360x210mm
Weight	12Kg

MICRO-VOLUME SPECTROPHOTOMETER

MN-913A



MaestroNano PRO

About Micro Volume Spectrophotometer, MaestroNano has a whole new design with MaestroNano Pro which is a specialized instrument for bio-chemical research, especially for micro volume solution concentration measurement for DNA, RNA, Protein samples. It realizes a user-friendly interface, an accurate measurement, a competitive price and a stylish industrial design.

FEATURES

- MaestroNano Pro is a whole new technology of optical system design of micro volume spectrophotometer.
- There is NO optical fiber needed, moreover, with the vertical slide design that the sample measuring area is also more durable and stable.
- MaestroNano Pro has a reliable measurement range of concentration from 2 to 2000 (ng/μL) and has a great resistance for the interference of ambient light to get more accurate measurement.

SPECIFICATION

Measurement Sample Size	2 ul - (A) OD230nm, OD260nm, OD280nm, OD320nm
Measurement Data Output	(B) Sample concentration (ng/ul) (C) OD260nm/OD230nm, OD260nm/OD280nm
Minimum Concentration	2 ng/ul (dsDNA)
Maximum Concentration	2,000 ng/ul (dsDNA)
Light Propagation Material	Quartz glass
Absorbance Range (10mm)	0.04 ~ 40
Pathlength	~0.5 mm
Measurement Time	< 5 sec
Operation System	Android OS (ver. 4.4.3)
LCD Resolution	7 inches, 1024(W)X 600(H) dots matrix
Light Source	Xenon flash lamp
Internal Storage	32GB
Data Output Interface	Thermal printer
Data Connection interface	1. Wi-Fi X 1 (USB dongle) 2. OTG USB X 1 (connected to PC to access) 3. Ethernet X 1 (RJ-45) 4. USB X 2 Auto diagnosis, Calibration Program,
Maintenance	Fix pathlength
Operating Voltage	12 V
Dimensions	26(W) X 26(D) X 20(H) cm
Weight	4.2 Kg

THERMAL CYCLER TC1000-S



FEATURES

- Unique design of block and multiple Peltier modules ensure temperature uniformity and repeatable results.
- 256 programs can be stored.
- 7" Large color touch screen, excellent graphical interface, easy programming with user friendly software.
- Large program storage memory.
- Innovative heating/cooling elements and drive circle design.
- High performance DSP and temperature control algorithm.
- Fast heating and cooling rates.

Cat. No.	P/N	Description	Power supply
5034101300	TC1000-S	Thermo cycler	Euro plug, 200V-240V/50Hz/60Hz

SPECIFICATION

Sample Capacity	96×0.2mL PCR tube; 8×12 PCR plate or 96 well plates
Heating Temperature Range	4-105°C
Lid Temperature Range	30-110°C
Temperature Display Accuracy	±0.1°C
Temperature Control Accuracy [@55°C]	±0.3°C
Temperature uniformity [@ 55°C]	<0.3°C
Max. Heating/Cooling Rate	3°C/Sec
Gradient Range	--
Adapter block material	Aluminum
Display	7" LCD 800x480mm
Input	Touch panel
User defined file system	Max. 30 segments 99 cycle Max. 16 folders with 16 files in each folder
Power off protection	yes
Power Supply	100-120V/200-240V,50/60Hz
Dimensions[W×D×H]	280×370×250mm
Weight	11kg

THERMAL CYCLER TC1000-G



FEATURES

- Unique design of block and multiple Peltier modules ensure temperature uniformity and repeatable results.
- Gradient function of TC1000-G helps users to optimize the experiment condition.
- 256 programs can be stored.
- 7" Large color touch screen, excellent graphical interface, easy programming with user friendly software.
- Large program storage memory.
- Innovative heating/cooling elements and drive circle design.
- High performance DSP and temperature control algorithm.
- Fast heating and cooling rates.

Cat. No.	P/N	Description	Power supply
5034102300	TC1000-G	Gradient Thermo cycler	Euro plug, 200V-240V/50Hz/60Hz

SPECIFICATION

Sample Capacity	96X0.2mL PCR tube; 8X12 PCR plate or 96 well plate
Heating Temperature Range	4-105°C
Lid Temperature Range	30-110°C
Temperature Display Accuracy	±0.1°C
Temperature Control Accuracy [@55°C]	±0.3°C
Temperature uniformity [@55°C]	<0.3°C
Max. Heating/Cooling Rate	3°C/Sec
Gradient Temperature Setting Range	30-99°C
Gradient Range	1-42°C
Adapter block material	Aluminum
Display	7" LCD 800x480mm
Input	Touch panel
User defined file system	Max.30 segments 99 cycle Max.16 folders with a max. of 16 files in each folder
Power off protection	yes
Power Supply	100-120V/200-240V,50/60Hz
Dimensions [W×D×H]	280×370×250mm
Weight	11kg

CO₂ CELCULTURE® INCUBATOR

CCL-170B-8 (CAT. 2170002), 170 L, IR Sensor, CO₂ Control, ULPA filter.



Esco CelCulture® CO₂ incubators are widely used in scientific research to grow and maintain cell cultures. Typical fields of application include tissue engineering, in vitro fertilization, neuroscience, cancer research, stem cell research, regenerative medicine, and other mammalian cell research. Sleek, reliable and intuitive, Esco CelCulture® CO₂ incubators provide all-rounded sample protection that brings your scientific dreams one step closer to reality.

KEY BENEFITS

- ULPA filtration system.
- 90oC moist heat decontamination cycle, validated by HPA UK.
- Precise temperature and gas control.

VIVOCELL™ PRECISE TEMPERATURE, CO₂ CONTROL AND HIGH HUMIDITY

- Best uniformity and control among competition.
- Fast CO₂, temperature and humidity recovery without overshoot.
- Direct heat design for rapid recovery, with 8 heater grouped into 3 zones.
- Air jacket provides isolation against ambient temperature fluctuations.
- VentiFlow™ forced convection.
- Filtered air circulates across water pan to accelerate humidifying process.
- Air flows gently around culture plates, causing no disturbance to cell culture.
- Blower automatically stops when door is opened, to minimize mixing of chamber and room air.

CONTAMINATION CONTROL SYSTEM PROVIDES SEAMLESS PROTECTION

- SteriSafe™ ULPA filtration enables the chamber air to be maintained at ISO class 5 condition.
- SwiftCon™ 90 °C validated moist heat decontamination cycle operates overnight to eradicate any contamination.
- All input gases are filtered by in-line filters before they enter the chamber to remove impurities and contaminants.
- The incubator's main body is made from electro-galvanized steel with Esco's unique ISOCIDE™ antimicrobial coating.

USER-FRIENDLY SOFTWARE INTERFACE

- Comprehensive user-configurable alarms for all the parameters.
- CelAlert™ alarm system reminds user to replace CO₂ tank and ULPA filter.
- Intelligent data and event logger records all incubator parameters for on-screen recall.
- 2 MB built-in flash memory guarantees long term storage of data.
- RS485 data output.

EASY-TO-CLEAN

- Chamber is made of shiny stainless steel chamber with all rounded corners.
- Ductwork, plenums and shelves are removable without tools.
- Glass door is removable without tools.
- Inner gasket removable without tools.

EASY-TO-SERVICE

- Diagnostic functions in the microprocessor include historical read-out of the parameters.
- Service can be carried out from the top/front.
- Esco electronics and sensors have been expertly designed to minimize need for calibration.

ACCESSORIES

Cat. No.	Mod. No.	Description
5170478	COA-2001-F	Roller Base (170 L)
5170479	COA-2002-F	Floor Stand 200mm (8.0") With Adjustable Feet (170 L)
5170327	COA-2007-F	Extra Shelf (170 L, Stainless Steel)

CO₂ CELSAFE® INCUBATOR

CLS-170B-8 (CAT. 2170187), 170 L, IR Sensor, CO₂ Control, High Heat Sterilization.



Esco's CelSafe® CO₂ incubator with touch screen user interface and latest advanced technology represents safety of your precious samples, efficiency on your lab work and enhanced user experience.

KEY BENEFITS

- Greater than 160°C High Heat Sterilization System.
- Advanced Sensor Technology.
- CelTouch™ Screen User Interface.
- Optional Active Humidification System.
- Complete Data Collection and Graph Functions.

HIGH HEAT STERILIZATION CYCLE

- Fully automatic sterilization cycle with a simple touch on the screen.
- Effectiveness of high heat sterilization cycle is validated through in-house laboratory test.
- All components and accessories are designed to meet temperature requirement.
- Complies with different international guideline requirements for dry heat sterilization (U.S. and E.U. Pharmacopeias).
- Everything is STANDARD to avoid running cost on other external accessories and consumables just to perform sterilization cycle.

LATEST INFRARED CO₂ SENSOR TECHNOLOGY

- CARBOCAP® technology for heat durability and long term stability.
- With full temperature and pressure compensation.
- No need to remove CO₂ probe inside the chamber during sterilization cycle, thus, saving time and reducing risk of cross contamination.
- Water vapor, dust, other chemicals, change in temperature, humidity, other gases and pressure do not affect the performance of the IR sensor.
- Internal pressure sensor improves accuracy and stability.
- Sensor head is heated to prevent condensation.

OPTIMIZED CLEAN CHAMBER DESIGN

- New ribbed design chamber allows installation of shelves without screws or pilasters.
- Minimize risk of contamination.
- Quick and easy to clean.
- More chamber space.

COMPLETE SECURITY SYSTEM

- Multiple over-temperature protection system guarantee maximum sample, user and environment protection.
- PIN code prevents unauthorized access on screen menu and functions.
- Magnetic Door Lock System
- Automatically locks during high heat sterilization cycle to protect users
- Inlet Door Latch function turns off pump, gas supply, and heating functions when the door is opened.

CELTOUCH SCREEN CONTROL SYSTEM

- Big, clear, and easy-to-read parameter display.
- Easy to follow on-screen icon menus.
- Actual Data Graph, Data Logging functions, Event Logs and Alarm Functions are easily seen on the screen.
- Easy download of data log files using USB Write menu.
- Fully functional even with gloved fingers.
- Multiple language selections: English, German, Spanish, French, Italian.

ACCESSORIES

Cat. No.	Mod. No.	Description
5170478	COA-2001-F	Roller Base (170 L)
5170479	COA-2002-F	Floor Stand 200mm (8.0") With Adjustable Feet (170 L)
5170327	COA-2007-F	Extra Shelf (170 L, Stainless Steel)

BIOLOGICAL SAFETY CABINETS (E-Series)

AIRSTREAM® PLUS CLASS II, TÜV NORD Certified to EN 12469



The World's Leading Energy-Efficient, Quiet, and Compact Biosafety Cabinet. TÜV NORD Certified to EN 12469. Equipped with the latest technology and upgrades from the Airstream® Gen 3, the Airstream® Plus is the best choice for providing operator, product and environmental protection. With the new LED lamp and dual energy-efficient DC ECM motor, the Airstream® Plus is probably the most energy-efficient Class II Biosafety Cabinet in the world. The Airstream® Plus still boasts the features of the Airstream® Gen 3 but now added with optional hydrogen peroxide injection port for even better decontamination process. With the latest advancements in the Airstream® Plus, it is a great addition to any laboratories around the world.

KEY BENEFITS

- Energy-saving.
- Stable, self-compensating, airflow.
- Low Noise and Ergonomic Design.
- TÜV NORD Certified to EN 12469.
- Airflow sensor monitors real-time airflow for safety, alerts the user if airflow is insufficient.
- ISOCIDETM powder coat inhibits microbial growth on external surface prevents contamination and improves safety.
- Dual energy-efficient DC ECM Motor that offers 70% energy savings compared to AC Motor.
- SentinelTM Gold Microprocessor Controller displays all safety information on one screen.
- Motorized window offering aerosol tight seal with convenience of moving the window by fingertip.
- Easy-to-reach service fixtures and outlets, large corner radius for easy cleaning.
- Equipped with ULPA filter which provides better filtration than HEPA filter at >99.999% typical efficiency at MPPS, H14 as per EN 1822 EU.
- Unique Stainless Steel and Glass Hybrid Wall (E-series) which is easy to clean.
- Multiple work tray for ease of cleaning. Single-piece option for S-Series.
- Ergonomically-designed Raised Arm Rest helps prevent grille blocking and creates a comfortable working posture.
- Removable Paper Catch which is easy to clean with optional pre-filter.
- Optional U15 filter with 99.999% efficiency which creates ISO Class 3 Work Zone.
- Angled Drain Pan that is easy to clean and does not harbor contaminants.
- Energy-efficient LED lamp that is brighter and lasts 4x longer than standard fluorescent lamp.
- RS 232 data output port enables remote monitoring of cabinet operating parameters.
- Available in 0.9m (3'), 1.2m (4'), 1.5m (5'), 1.8m (6') sizes.

Cat. No.	Mod. No.	Ext. Dim (mm) without arm rest	Ext. Dim.(mm) with arm rest	Int. Dim (mm)	Airflow Velocity (Inflow)	Airflow Velocity (Downflow)	Electrical
2011005	AC2-4E8-TU	1340x767x1400	1340x823x1400	1220x580x654	0.48 m/s	0.35 m/s	230 V - 50/60 Hz
2010981	AC2-5E8-TU	1645x767x1400	1645x823x1400	1525x580x654	0.48 m/s	0.35 m/s	230 V - 50/60 Hz
2011007	AC2-6E8-TU	1950x767x1400	1950x823x1400	1830x580x654	0.48 m/s	0.35 m/s	230 V - 50/60 Hz

BIOLOGICAL SAFETY CABINETS (E-Series)

AIRSTREAM® PLUS CLASS II, Gen 3



The Esco Airstream® Class II Biological Safety Cabinet is an effective solution in providing operator, product and environmental protection within laboratories and industrial facilities. With the presence of its DC ECM blower, this is the most energy-efficient Class II Biosafety Cabinet in the world with 70% energy savings compared to AC motor.

It also features stable and self-compensating airflow, despite building voltage fluctuations & filter loading. Its large performance envelope is an open declaration of possible safe operating airflow values. Certified to EN 12469, Esco Airstream® Class II Biological Safety Cabinet also has antimicrobial coating on all its external and internal painted surfaces for improved safety.

KEY BENEFITS

- Energy-saving.
- Compact.
- Stable, self-compensating airflow.
- Low Noise and Ergonomic Design.
- ULPA Filter* with 99.999% efficiency against 0.3µm particles, 99.995% filter efficiency for MPPS at 0.1µm improves safety.
- Sentinel™ Gold Microprocessor Controller displays all safety information on one screen.
- Airflow sensor alerts the user if airflow is sufficient for greater safety.
- RS 232 Serial Interface Port enables sending of operational information to Building Management System (BMS).
- ISOCIDETM powder coat inhibits microbial growth on external surface prevents contamination and improves safety.
- Ergonomically-designed raised arm rest helps prevent grille blocking and create a comfortable working posture.
- Curved Corner and Glass Side with large corner radius facilitates easily cleaning and enables easy reach of service fixture and outlets.
- Divided autoclavable work tray allows easy cleaning.
- Available in 0.6m (2'), 0.9m (3'), 1.2m (4'), 1.5m (5'), 1.8m (6') sizes.

Cat. No.	Mod. No.	Ext. Dim (mm) without arm rest	Ext. Dim.(mm) with arm rest	Int. Dim (mm)	Airflow Velocity (Inflow)	Airflow Velocity (Downflow)	Electrical
2010767	AC2-2E8	730x753x1400	730x810x1400	610x580x660	0.45 m/s - (90 fpm)	0.30 m/s - (60 fpm)	230 V - 50/60 Hz
2010721	AC2-3E8	1035x753x1400	1035x810x1400	915x580x660	0.45 m/s - (90 fpm)	0.30 m/s - (60 fpm)	230 V - 50/60 Hz
2010711	AC2-4E8	1340x753x1400	1340x810x1400	1220x580x660	0.45 m/s - (90 fpm)	0.30 m/s - (60 fpm)	230 V - 50/60 Hz
2010725	AC2-5E8	1645x753x1400	1645x810x1400	1525x580x660	0.45 m/s - (90 fpm)	0.30 m/s - (60 fpm)	230 V - 50/60 Hz
2010722	AC2-6E8	1950x753x1400	1950x810x1400	1830x580x660	0.45 m/s - (90 fpm)	0.30 m/s - (60 fpm)	230 V - 50/60 Hz

* According to American Standard IEST-RP-CC001, equivalent to HEPA H14 for EU-Standard EN1822.

Esco offers a variety of options and accessories to meet local applications. Contact Esco or your local Sales Representative for ordering information.

SUPPORT STANDS

- Fixed height, available 711 mm (28") or 864 mm (34").
 - » With leveling feet.
 - » With casters.
- Telescoping height.
 - » With leveling feet, 660 mm to 960 mm (26" to 37.8"), 25 mm (1") increment.
 - » With casters, 660 mm to 880 mm (26" to 34.6"), 25 mm (1") increment.
- Electric adjustable height, 711 mm to 864 mm (28" to 34").
 - » With leveling feet.
 - » With casters.

ELECTRICAL OUTLETS

- European/Worldwide Style.
- Available in type C, D, E, F, G, H, I.
- North American Style.

CABINET ACCESSORIES

- Germicidal UV Lamp, 253.7 nm wavelength.
 - » With timer to optimize lamp life and specific species exposure need.
- PVC Arm Rest, 712 mm (28") size.
 - » Provides maximum operator comfort.
 - » Easy to clean.
- Ergonomic Lab Chair, 395 to 490 mm (15.6" to 19.3") height.
 - » Laboratory grade, ISO Class 5 rated.
 - » Alcohol resistant.
- Ergonomic Foot Rest.
 - » Improves working posture.
 - » Adjustable height with anti-skid coating and chemical resistant finish.
- Stainless Steel IV Bar with Hooks.
 - » Maximum load is 6 Kg (13 lbs.) total.

FEATURES

- ULPA Filter* with 99.999% efficiency against 0.3µm particles, 99.995% filter efficiency for MPPS at 0.1µm improves safety.
- Sentinel™ Gold Microprocessor Controller displays all safety information on one screen.
- Airflow sensor alerts the user if airflow is sufficient for greater safety.
- RS 232 Serial Interface Port enables sending of operational information to Building Management System (BMS).
- ISOCIDETM powder coat inhibits microbial growth on external surface prevents contamination and improves safety.
- Ergonomically-designed raised arm rest helps prevent grille blocking and create a comfortable working posture.
- Curved Corner and Glass Side with large corner radius facilitates easily cleaning and enables easy reach of service fixture and outlets.
- Divided autoclavable work tray allows easy cleaning.
- Vailable in 0.6m (2'), 0.9m (3'), 1.2m (4'), 1.5m (5'), 1.8m (6') sizes.

* According to American Standard IEST-RP-CC001, equivalent to HEPA H14 for EU-Standard EN1822.

PCR CABINETS STREAMLINE®

Polymerase Chain Reaction Cabinets



Polymerase Chain Reaction* (PCR) is a process where millions of copies of DNA are amplified from a single copy, or low copy number template. This reaction is fundamental to almost all applications requiring high copy number of starting material and is used in all laboratories working with DNA and RNA. Because of the high copy number that is generated during PCR, it is absolutely essential to prevent contamination of the PCR reaction.

In addition to good laboratory practice, the ideal PCR laboratory should consist of three areas, each isolated from the other. Reagents should be prepared in the reagent preparation area and transferred to the sample preparation area, through a pass box, or inside closed containers. After preparation of the final reaction mix, the tubes should be transferred to the amplification area, again through a pass box

or in a closed container. The PCR amplification and results analysis takes place in this area. To guarantee contaminant-free samples, it is essential to work in an environment where the air quality is controlled, such as a PCR clean bench, vertical laminar flow or microbiological safety cabinet.

KEY BENEFITS

- HEPA-filtered laminar flow.
- Cost & space saving.
- Simple & Reliable operation.
- True vertical laminar airflow with a large filter covering the entire work zone within the cabinet for better protection against cross contamination, as compared to conventional dead-air boxes.
- High-quality polyurethane pre-filter and main HEPA filter with a typical efficiency of >99.99% at 0.3 microns provide the best product protection in the world; typical HEPA filter lifespan is more than 3 years depending on ambient operating conditions and total number of hours in usage.
- A powerful 253.7 nanometer 20-watt UV lamp is placed behind the front panel out of the operator's direct line of sight, ensuring maximum operator comfort and safety; This unique placement design eliminates "dead zones" and ensures all exposed interior surfaces are decontaminated effectively.
- Easily accessible adjustable UV-timer (from 0 - 60 minutes) for precise decontamination cycle control.
- Integral safety cover (constructed of 5mm / 0.2" UV-absorbing beta radiation resistant polycarbonate - superior to conventional materials such as acrylic) with two operating positions; fully open (self-supporting with spring hinges) during normal use & fully closed during UV decontamination of interiors.
- Effective safety features to prevent operator exposure to harmful UV rays; interlock system ensures UV lamps do not activate unless safety cover is closed; in case the cover is accidentally opened the UV lamps will also automatically deactivate.
- Built-in warm white, 5.000k electronically ballasted lighting offers excellent illumination throughout the work zone in order to reduce operator fatigue and is comfortable to the eyes. Light tubes are mounted out of the air stream for better airflow uniformity.

Mod. No.	External Dimensions (mm)	Internal Dimensions (mm)	Laminar Airflow	Electrical
SCR-2A3	730x617x950	630 x 538 x 550	0.275 - 0.325 m/s	230 V - 60 Hz

PCR CABINETS AIRSTREAM®

Polymerase Chain Reaction Cabinets



Polymerase Chain Reaction* (PCR) is a process where millions of copies of DNA are amplified from a single copy, or low copy number template. This reaction is fundamental to almost all applications requiring a high copy number of starting material and is used in all laboratories working with DNA and RNA.

Because of the high copy number generated during PCR, it is essential to prevent possible contamination of the PCR reaction. Precautions must be taken during the sample and reagent preparation steps to minimize this risk. In addition to good laboratory practice, the ideal PCR laboratory should consist of three areas, each isolated from the other.

Reagents should be prepared in the reagent preparation area and transferred to the sample preparation area, through a pass box, or inside closed containers. After preparation

of the final reaction mix, the tubes should be transferred to the amplification area, again through a pass box or in a closed container. The PCR amplification and results analysis takes place in this area.

To guarantee contaminant-free samples, it is essential to work in an environment where the air quality is controlled. This should form part of the equipment in the sample preparation area.

KEY BENEFITS

- HEPA-filtered laminar flow
- Airflow monitoring
- UV lamp & prefilter change alarm
- True vertical laminar airflow with a large filter covering the entire work zone within the cabinet for better protection against cross contamination, as compared to conventional dead-air boxes.
- High-quality polyester pre-filter and main HEPA filter with a typical efficiency of 99.99% at 0.3 microns provide the best product protection in the world; typical HEPA filter life span is more than 3 years depending on operating conditions and total number of hours in use.
- Esco Sentinel™ Microprocessor Control provides flexibility and full configurability according to the requirements of the user.
- Admin PIN can be set on the control to restrict unauthorized access to menu parameters.
- UV decontamination cycle is fully programmable using the Microprocessor keypad; a timer will turn off the UV lamp after the set period of time.
- Unique pre-filter change alarm and UV lamp replacement alarm make the cabinet the safest and the most user-friendly PCR cabinet on the market.

Mod. No.	External Dimensions (mm)	Internal Dimensions (mm)	Laminar Airflow	Electrical
PCR-3A3-2A3	1035x617x950	935x538x550	-	230 V - 60 Hz
SCR-2A3	1340x617x950	1240x538x550	-	230 V - 60 Hz

Esco offers a variety of options and accessories to meet local applications. Contact Esco or your local Sales Representative for ordering information.

SUPPORT STANDS

- Fixed height, available 711 mm (28") or 864 mm (34").
 - » With leveling feet.
 - » With casters.

CABINET ACCESSORIES

- Ergonomic Foot Rest.

ULTRA LOW TEMPERATURE FREEZER

ULUF 450[®] Item code: DAI 1408



UPRIGHT

The ULUF -86°C range are products of our passion, striving for excellence when we offer the best in ultra low temperature freezing. Once again, we set new standards with the most user friendly controller in the market. All features such as alarms and data logging functions are always included as standard. This range consists of 9 different models starting from a volume of 7 L. (0.25 cu. ft.) up to 826 L. (29 cu. ft.).

To facilitate the installation of your freezer, the ULUF 450 and ULUF 850 are now also available with an exterior height of only 2 meters. The ULUF -86°C series is produced with the true and original single compressor technology.

MAIN FEATURES

- Check Low energy consumption.
- Check Low noise level: < 55db.
- Check Low heat dissipation.
- Check Insulated inner doors.
- Check Castors and door key lock.
- Check Ergonomic loading.
- Check Heated door frame.
- Check Heated vacuum valve.
- Check 100% HCFC/CFC free.
- Check Porthole for external temperature probes.

Model info	
Volume Lt.	413
Temperature range	-86 / -40
Max. ambient temperatur (C)	25
Power supply AC2-4E8	230
Frequency	50/60
Power consumption (KWH/24H)	12,0
Power (Watt)	800
Horse Power (HP)	3/4
Current (A)	4,2

Controller features	
Visual / Acoustic Alarm	check
Power failure alarm	check
Ajustable high/low temperature alarm	check
Low battery alarm	check
Compressor alarm	check
Open door alarm	check
Probe failure alarm	check
Alarm display as text - not codes	check
Contact for remote alarm	check
Prepared for GSM alarm module	check
Hours of battery backup	72
Digital display	check
Data logger	check
RS 232 interface	check
RS 485 interface	check
USB	check
Defrost technology	Manual
Chart recorder	Optional

Bodywork	
Shelves (pcs) / drawers (pcs)	4 / -(*)
Adjustable Shelves (pcs) / drawers (pcs)	no
Basket	clear
Sub lids / doors (pcs)	- / 5
Lightning	check
Castors	check
Locks	check
Inner liner material	Stainless steel
Cabinet material	Varnished steel
Colour (exterior)	White
Number of compressors	1
Refridgerant	EP88

Rack model	Box size (height mm)	Rack model and total quantity	No. of boxes pr. rack	Total no. of boxes	Exterior dimensions of rack (WxDxH mm)
Upright drawer rack	50	16 x UDR50 - 44 + 4 x UDR50 - 45 (= 20 racks)	4 x 4 / 4 x 5	256 + 80 (= 336 boxes)	140 x 558 x 228 140 x 558 x 285
Upright drawer rack	75	16 x UDR75 - 43 + 4 x UDR75 - 44 (= 20 racks)	4 x 3 / 4 x 4	192 + 64 (= 256 boxes)	140 x 558 x 246 140 x 558 x 328
Upright drawer rack	100	16 x UDR100 - 42 + 4 x UDR100 - 43 (= 20 racks)	4 x 2 / 4 x 3	128 + 48 (= 176 boxes)	140 x 558 x 214 140 x 558 x 315
Upright side rack	50	16 x USR50 - 44 + 4 x USR50 - 45 (= 20 racks)	4 x 4 / 4 x 5	256 + 80 (= 336 boxes)	139 x 558 x 221 139 x 558 x 276
Upright side rack	75	16 x USR75 - 43 + 4 x USR75-44 (= 20 racks)	4 x 3 / 4 x 4	192 + 64 (= 256 boxes)	139 x 558 x 240 139 x 558 x 320
Upright side rack	100	16 x USR100 - 42 + 4 x USR100 - 43 (= 20 racks)	4 x 2 / 4 x 3	128 + 48 (= 176 boxes)	139 x 558 x 210 139 x 558 x 315

ULTRA LOW TEMPERATURE FREEZER

ULUF 550[®] Item code: DAI 1375



UPRIGHT

The ULUF -86°C range are products of our passion, striving for excellence when we offer the best in ultra low temperature freezing. Once again, we set new standards with the most user friendly controller in the market. All features such as alarms and data logging functions are always included as standard. This range consists of 9 different models starting from a volume of 7 L. (0.25 cu. ft.) up to 826 L. (29 cu. ft.).

To facilitate the installation of your freezer, the ULUF 450 and ULUF 850 are now also available with an exterior height of only 2 meters. The ULUF -86°C series is produced with the true and original single compressor technology.

MAIN FEATURES

- Check Low energy consumption.
- Check Low noise level: < 55db.
- Check Low heat dissipation.
- Check Insulated inner doors.
- Check Castors and door key lock.
- Check Ergonomic loading.
- Check Heated door frame.
- Check Heated vacuum valve.
- Check 100% HCFC/CFC free.
- Check Porthole for external temperature probes.

Model info	
Volume Lt.	585
Temperature range	-86 / -40
Max. ambient temperatur (C)	25
Power supply AC2-4E8	230
Frequency	50/60
Power consumption (KWH/24H)	15,2
Power (Watt)	730
Horse Power (HP)	3/4
Current (A)	4,3

Controller features	
Visual / Acoustic Alarm	check
Power failure alarm	check
Ajustable high/low temperature alarm	check
Low battery alarm	check
Compressor alarm	check
Open door alarm	check
Probe failure alarm	check
Alarm display as text - not codes	check
Contact for remote alarm	check
Prepared for GSM alarm module	check
Hours of battery backup	72
Digital display	check
Data logger	check
RS 232 interface	check
RS 485 interface	check
USB	check
Defrost technology	Manual
Chart recorder	Optional

Bodywork	
Shelves (pcs) / drawers (pcs)	4 / -(*)
Adjustable Shelves (pcs) / drawers (pcs)	no
Basket	clear
Sub lids / doors (pcs)	- / 5
Lightning	check
Castors	check
Locks	check
Inner liner material	Stainless steel
Cabinet material	Varnished steel
Colour (exterior)	White
Number of compressors	1
Refridgerant	EP88

Rack model	Box size (height mm)	Rack model and total quantity	No. of boxes pr. rack	Total no. of boxes	Exterior dimensions of rack (WxDxH mm)
Upright drawer rack	50	16 x UDR50 - 44 + 4 x UDR50 - 45 (= 20 racks)	4 x 4 / 4 x 5	256 + 80 (= 336 boxes)	140 x 558 x 228 140 x 558 x 285
Upright drawer rack	75	16 x UDR75 - 43 + 4 x UDR75 - 44 (= 20 racks)	4 x 3 / 4 x 4	192 + 64 (= 256 boxes)	140 x 558 x 246 140 x 558 x 328
Upright drawer rack	100	16 x UDR100 - 42 + 4 x UDR100 - 43 (= 20 racks)	4 x 2 / 4 x 3	128 + 48 (= 176 boxes)	140 x 558 x 214 140 x 558 x 315
Upright side rack	50	16 x USR50 - 44 + 4 x USR50 - 45 (= 20 racks)	4 x 4 / 4 x 5	256 + 80 (= 336 boxes)	139 x 558 x 221 139 x 558 x 276
Upright side rack	75	16 x USR75 - 43 + 4 x USR75-44 (= 20 racks)	4 x 3 / 4 x 4	192 + 64 (= 256 boxes)	139 x 558 x 240 139 x 558 x 320
Upright side rack	100	16 x USR100 - 42 + 4 x USR100 - 43 (= 20 racks)	4 x 2 / 4 x 3	128 + 48 (= 176 boxes)	139 x 558 x 210 139 x 558 x 315

FAST PROTEIN SYSTEM

SEMI DRY BLOTTER - 16CM X 16CM



The **IB44000** semi dry blotter has a transfer surface that measures 16cm x 16cm and each plate is graphite coated to reduce heat, minimize buffer usage and produce clear transfer bands that are not distorted.

A transfer unit stack is formed by the gel and membrane being in contact and sandwiched between filter papers soaked in transfer buffer. An electric current is applied perpendicular to the gel and buffer saturated filter papers. The bands from the charged molecules of the gels migrate and bind to the membrane to complete the transfer. The time required to complete the transfer is dependent on molecule size and the number of transfer units being transferred.

Several stacks of transfer units can be run simultaneously. The IB44000 semi-dry blotter can accommodate three trans-units at the same time.

- **Ideal for efficient and economic transfer of protein, RNA, or DNA** from polyacrylamide or agarose gels to a solid membrane support, which is subsequently visualized by staining methods.
- **Working Surface Dimensions:** 16cm long x 16cm wide.
- **Recommended Maximum Capacity:** 2-3 Trans-Units.

FAST PROTEIN SYSTEM

Codice	Descrizione
IB44000	Fast Protein System - Semi Dry Blotter - 16cm x 16cm

SPECIFICATION

Working surface dimensions	16.0cm(W) x 16cm(L)
Weight	3.5 lbs.
Cathode electrode wire	32 inches
Anode electrode wire	30 inches
Recommended capacity	2-3 trans-units
Electrode plate material	Graphite

TECHNICAL INFORMATION

Current Density	Trans Units	Time Limit
0.8ma/cm ²	1 to 6	1 to 2 hours
2.5ma/cm ²	1 to 6	30 - 45 minutes
1.0ma/cm ²	1 to 6	10 - 30 minutes

MaGELin MINI PROTEIN SYSTEM

Model Number IB94000



- For 10 cm x 10 cm cast-your-own polyacrylamide gels.
- Comes with dual casting system.
- 3 sets of glass plates and 2 sets of 0.8 mm thickness spacers.
- Buffer tank, dual gel capture, vented lid and power cords included.

The IB94000 MaGELin Mini protein system comes complete with everything you need to pour 10 cm x 10 cm cast-your-own gels. This highly versatile system will also accommodate the IB95000 Western Transfer module so when you're not running gels the unit can be used as a dedicated Western transfer system. The IB94000 comes complete with:

- Dual gel capture device for running two gels simultaneously.
- Dual gel casting system that allows casting outside of the running unit.
- Three sets of glass plates for pouring and running gels.
- Two sets of special 0.8 mm side spacers to seal the gel sandwich during pouring.
- Buffer tank.
- Vented lid.
- Power cords.
- Two 0.8 mm x 12-tooth combs.

The IB94000 utilizes a unique spacer and casting system to make it easy and fast to cast your own gels. The special side spacers are made specifically to accommodate the thickness of each glass slide that comes with the unit. These side spacers will produce a 0.8 mm thick gel. Once the glass plates have been assembled using the side spacers, they can now be inserted into the gel casting unit. This unit accommodates two sets of glass plates simultaneously. The bottom of the gel casting unit contains a very soft gel-like gasket that will seal the bottom of the gel sandwich. Once the gel sandwich is placed inside the casting unit, place the lid of the casting unit on top and press gently to fasten using the included thumb screws. Once fastened the lid will provide the correct amount of down pressure on the gel sandwich to seal the bottom and hold them in place. The polyacrylamide solution can now be introduced through the opening in the casting fixture lid.

SPECIFICATIONS

Unit dimensions	18.0 cm(H) x 17.0 cm(W) x 17 cm(L)
Gel dimensions	10.0 cm(W) x 10 cm(L)
Max sample capacity	15 samples
Buffer capacity	350 ml min. – 850 ml max.
Max volt	150 V

WESTERN TRANSFER MODULE

Model Number IB95000



- Fits inside the buffer tank of the Ma-GEL-In Protein system.
- Comes complete with two cassettes, filter pads, and cassette locks.
- Accommodates two gels for simultaneous transfer.

The IB95000 is a Western Transfer module that fits inside the buffer tank of the IB94000 (when not running a gel) and can be purchased as an accessory item. The IB95000 accommodates two gels for simultaneous transfer.

IB95000 Western Transfer Module comes with 2 cassettes, pads and cassette locks.

Ideal for wet transfer of proteins to either PVDF or Nitrocellulose membranes from agarose or polyacrylamide gels.

SPECIFICATIONS

SPECIFICATIONS	
Unit dimensions	9.0 cm (H) x 6.5 cm (W) x 14 cm (L)
Max. Gel Size	10 cm x 10 cm
Volt. Limit	100 vdc
Current Limit	500 mA

NANO BIS



The **nanoBIS** is a compact, affordable, easy-to-use imaging system for stained gels. Equipped with a high-resolution scientific camera, the nanoBIS system can be used to image gels incorporating fluorescent stains (e.g., ethidium bromide and SYBR® stains) or colorimetric stains (Coomassie™ and silver stains).

Each nanoBIS includes a camera hood and your choice of interchangeable bases: UV light Base or Blue light Base.

For Colorimetric applications (such as Coomassie™ blue stain) you may use either the Blue Light Base or the UV Light Base in combination with the nanoBIS dedicated converter. Setup is simple, and the system features intuitive software for band analysis.

APPLICATIONS



BLUE LIGHT



ULTRA VIOLET



WHITE LIGHT

SPECIFICATIONS

Camera & Optics

Camera	1.3 Mpixel
Type	CCD
CCD resolution	1,296 X 964
Pixel Size	7.4µM X 7.4µM
Gradation	16 bit, 65,536 levels of gray
Dynamic Range	3.8 orders of magnitude
Exposure Time	0.124 Seconds to 1.0 Minute
Super Bright Lens	F/1.4 fixed lens
Excitation Light Source	UV light – 312 nm • Blue light – 470 nm

System's Dimension

Size	Hood 20.3 cm/ 28.4 cm/ 36.5 cm • Base 21.4 cm/ 30.4 cm/ 11.9 cm
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MICROCHEMI



The MicroChemi is a personal system for all chemiluminescence application, the MicroChemi eliminates the need of dark rooms and film developing imaging.

- The MicroChemi combined optics and camera technology provides high sensitivity and wide dynamic range for high quality detailed images.
- Wide dynamic range – More than 4.6 orders of magnitude enables to accurately detect and quantify both weak and intense signals in the same image.
- The MicroChemi incorporates low light imaging standard with a continually glowing Tritium light source, showing a wide detection range
- Compatible with a wide range of Chemiluminescence, Bioluminescence and visible light applications

APPLICATIONS



HIGH CONTRAST

SOFTWARE

GELCAPTURE SOFTWARE:

DNR's image acquisition controls the exposure time and other essential image capture functions.

- Auto Exposure – Detect your weakest band and automatically takes the optimal image.
- Save with reference (Marker Overlay) – adding the marker image to the Chemiluminescent image.
- Advanced Save – enables you to program and capture a series of images with selected exposure times and delays between each image.
- Save Parameters to Image – Enables you to save the parameters to the Image and accurately repeat the same experiment.

GELQUANT ANALYSIS SOFTWARE:

- Auto lane and Bend detection.
- Image manipulation tools.
- Molecular Weight calibration.
- Quantity calibration.
- Optional – CFR21 part 11 module.

SPECIFICATIONS	
Camera & Optics	
Type	CCD
CCD resolution	2.0 Mpixel 1,200 X 1,600 4.2 Mpixel 2,048 X 2,048
Cooling temperature	-60°C
Pixel Size	7.4µM X 7.4µM
Gradation	16 bit, 65,536 levels of gray
Dynamic Range	>4.6 orders of magnitude
Exposure Time	0.5 Seconds to 24 Hours
Super Bright Lens	F/0.95
Binning	8 different binning positions
Illumination	
Illumination	Epi white light
Tray	
Removable	removable
Field of View	10 cm X 14 cm
System's Dimension	
Size	35 cm / 32 cm/ 64 cm
Weight	Weight – 19 Kg
Software	
Image Analysis	<p>GelCapture Software: Allows simple image acquisition by pressing just one button. Full PC control and possible image export in "tiff", "BMP" or "JPG" formats.</p> <p>GelQuant Express Analysis Software: easy to use, high quality analyzation of your results.</p>
Darkroom	
Dark Chamber	Dual sealed dark chamber for maximal prevention of light penetration



La scelta logica.





Shipping
Time
24h



Shipping
Fees
€ 0



Shipping Fees for temperature
controlled products
€ 0



Minimum
Order
NO



MICROTECH[®]
RESEARCH PRODUCTS

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