

LABORATORY EQUIPMENTS

Product Catalogue

An Excellent Solution and Service Provider

Distributor & Importer for Laboratory and Scientific Equipments









With over one decade of focused dedication, a lot of installation trusted relationship with leading life science & health care companies and Research Organization.

Rutek Scientific Solutions has been established with an objective of serving scientific, medical and health care industries by way of providing good quality and proven products. It is endeavors to provide the right opportunities to those who could make contributions in the field keeping issues like environment, safety and community healthcare at the core.

Since inception, we have been working very closely with our customers to understand their needs and requirements to suggest appropriate solutions of their respective applications.

Our reputation for problem solving has been earned through timely support on service and application engineering with inhouse capabilities for critical jobs.

We have developed an expertise on validation services for various equipment with comprehensive documentation capabilities.

We are now a team of professionals committed to provide efficient and effective services.





Dragon Laboratory Instruments Limited, founded in 1992, has established its factory in China. Dragon a professional manufacturer of high quality laboratory instruments for research. All Dragon Lab Instruments design & manufactured in accordance with ISO 9001/13485. We bring quality, accuracy and convenience to our customer, so they can efficiently conduct their experiment and enjoy their research process at the same time.

ROTARY EVAPORATOR

- Patented condenser (cooling surface 1,500 cm²) provides excellent cooling effect
- Motorized lift, automatic release the evaporating flask to the top position in case of power failure
- Speed range from 20 to 280 rpm
- Chemical-resistant double PTFE system and patented pressure spring provide excellent sealing
- Easy to read large digital LCD display shows temperature, rotation speed and timing

Large 5L heating bath with a temperature range of room temperature, to 180°C





OVERHEAD STIRRER

OS40-Pro/ OS20-Pro Digital Overhead Stirrer

40 Liters (OS40-Pro) 20 Liters (OS20-Pro)

- High torque
- Speed range : 50-2200rpm, accuracy ±3rpm
- LCD displays real-time monitoring of torque and speed
- Brushless DC motor, maintenance free and explosion-proofed

OS40-S/ OS20-S LED Digital Overhead Stirrer 40 Liters (OS40-S) / 20 Liters(OS20-S)

- High torque
- Speed range: 0-2200 rpm
- LED display
- Brushless DC motor, maintenance free and explosion-proofed



MULTI-POSITION MAGNETIC STIRRER

MS-H-S10 10-Channel Classic Magnetic Hotplate Stirrer MS-M-S10 10-Channel Classic Magnetic Stirrer

- High-performance with 10 stirring positions benefit laboratory space
- Room temp.-120°C(MS-H-S10)
- Speed range: 0-1100 rpm
- Brushless DC motor, maintenance free and explosion-proofed
- Stainless steel plate with silicone films, anti-slip and anti-corrosion

7 INCH SQUARE MAGNETIC STIRRER & HOTPLATE

HP550-S LED Digital Hotplate

- Ceramic-Glass Hotplate
- Room temp.- 550°C
- LED display
- PT-1000 sensor option, control accuracy of ±0.5°C



MS7-H550-Pro **LCD Digital Magnetic Hotplate Stirrer**

- Ceramic-Glass Hotplate
- Room temp. -550°C
- Control accuracy of work plate: ±1°C(<100°C) ±1%(>100°C)
- PT-1000 sensor option, control accuracy of ±0.2°C
- Brushless DC motor, maintenance free and explosion-proofed Electronic speed control, 100-1500 rpm
- Backlit LCD display
- Hot warning above 50°C





MS7-H550-S **LED Digital Magnetic Hotplate Stirrer**

- Ceramic-Glass Hotplate
- Room temp. -550°C
- Speed range: 0-1500 rpm
- LED display
- PT-1000 sensor option, control accuracy of ±0.5°C

5 INCH CIRCULAR-TOP MAGNETIC STIRRER

MS-H-Pro+ LCD Digital Magnetic Hotplate Stirrer

- -Fully closed assembly guarantees safety and long service life
- -Room Temp. -340°C
- -Control accuracy of work plate: ± 1°C(<100°C) ±1%(>100°C)
- -PT-1000 sensor for medium temperature control, control accuracy of ±0.2°C
- -Brushless DC motor, maintenance free and explosion-proofed
- -Electronic speed control, 100-1500rpm
- -Backlit LCD display
- -Accessory reaction blocks for flasks and vessels are available



MS-H-S Classic Magnetic Hotplate Stirrer MS-S Classic Magnetic Stirrer

- -Room temp. -340°C (MS-H-S)
- -Ceramic coated steel plate
- -Speed range:0-1500 rpm



MS-H280-Pro LED Digital Hotplate Stirrer MS-PA LED Digital Magnetic Stirrer **MS-PB Classic Magnetic Stirrer**

- -Room temp.-280°C (MS-H280-Pro)
- -PT-1000 sensor option
- -LED display
- -Speed range: 100-1500 rpm



SHAKER

SK-O 180-E Classic Orbital Shaker SK-L 180-E Classic Linear Shaker SK-R1807-E Classic Rocking Shaker SK-D1807-E Classic 3D Shaker

- Adjustable speed range
- Fixed angle 7° (SK-R/D1807-E)
 Used with a wide variety of accessories
- Dimension of work plate [mm]: 240x240





SK-O330-Pro/SK-O180-Pro LCD Digital Orbital Shaker SK-L330-Pro/SK-L180-Pro LCD Digital Linear Shaker SK-R330-Pro LCD Digital Rocking Shaker SK-D3309-Pro LCD Digital 3D Shaker

- LCD displays speed and timer Fixed angle $9^{\circ}(\text{SK-R330-Pro/SK-D3309-Pro})$
- Used with a wide variety of accessories
- Dimension of work plate [mm] :320x320(model:330) 240x240(model:180)

HOMOGENIZER

D-500 Homogenizer

- Speed control from 10,000 to 30,000 rpm
- Interchangeable shafts, rotors & stators
- 7 position control dial
- Autoclavable stainless steel shafts



D-160 Handheld Homogenizer

- Easy to hold and light weight for one hand operation
- Speed control from 8,000 to 30,000 rpm
- 6 position speed control
- Autoclavable stainless steel shafts

ROTATOR

MX-RL Pro/MX-RD-Pro LCD Digital Rotator MX-RL-E/MX-RD-E Classic Rotator

- Rotisserie type OR disk type design
- Adjustable speed range
- Accessories available for different tubes
- LCD displays speed and time (MX-RL/RD-Pro)







DISPENSER & DILUTER

- Full range of syringes from 10µl to 50 ml It is ideal for dedicated dispensing and diluting applications
- The Basic controller performs standard dilutions and dispensing
- 0.002% of the nominal syringe volume, more effective and precise

MX-S VORTEX MIXER

- Variable Speed 0-2500 rpm
- Continuous or touch vortexing
- Accessories for tubes
- Steel base, silicone feet for ultra stability and vibration damping

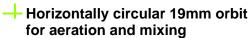


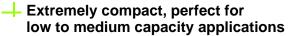


Benchmark Scientific, Inc., USA have been providing research laboratories with innovative, cost effective products and solutions design to improve laboratory efficiency, safety and results. We emphasis on next generation technologies, quality and value has served our customers and our company well.

Orbi-Shaker [™] JR Orbital Shaker







Instantly exchange flask clamps with MAGic Clamp[™] accessories





Ordering Information:

Item No.	Description:
ILCIII IAO.	

BT300* Orbi-Shaker™JR. with flat mat platform (9.5x8in.) H1000-MR** MAGic Clamp[™]universal platform for flasks and tubes BT300-RB Adjustable spring bar platform for unique vessel types

*Includes US plug. For EU plug, please add (+E)
**Flask clamps and tube racks sold separately

Technical Data:

Variable, 50 to 300 rpm Speed Range: 10 rpm Speed Increment:

Orbital / 19mm Motion / Orbit: 4x 1L or 9lbs(4kg) Load Capacity: Platform Size:

Standard (Included) : 9.5x8in./24x20cm 11.5x9.5in./29x24cm Magic Clamp

Operating Temp. Range +4°C to+65°C 1 min. to 99 hr., 59 min.

Timer: (WxDxH)

Weight: 12lbs (5.5kg) Universal Voltage Electrical:

1 Years

100to230V,50-60Hz, 250W

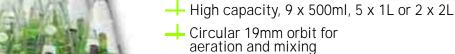
28x27x13cm/11x10.7x5 in.

Warranty:

Orbi-Shak<u>e</u>r ™ **Orbital Shaker**







Instantly exchange flask clamps with MAGic Clamp™ accessories



Technical Data

Speed Range: : Variable, 30 to 300 rpm Speed Increment: **Motion / Orbit:** Orbital/ 19mm **Load Capacity:** 5x1L or 14 lbs (6kg) 1 min. to 48 hr. / Continous Timer:

Platform Size: Standard (included): 13x12 in./33x30 cm MAGic Clamp (Universal): **Operation Temp. Range:**

14x12 in / 35x30 cm +4° C to+65° C **Dimensions (WxDxH):** 11x13x3in./28x33x7.5 cm Weight: 25 lbs (11.5kg)

Electrical: 115 or 230V, 50-60Hz, 600 W Warranty: 1 Years

Ordering Information:

Item No.	Description:
BT3000*	Orbi-Shaker™ with flat mat platform (13x12 in.)
BT3000-MR**	MAGic Clamp™ universal platform for flasks and tubes
H1000-P-SP	Universal spring platform for unique vessel types
H1000-P-MP	Dedicated platform for 4 x microplates
H1000-P-125	Dedicated platform 12 x 125ml flasks
H1000-P-250	Dedicated platform 8 x 250ml flasks
H1000-P-500	Dedicated platform 5 x 500ml flasks

*115V with US plug. For 230V (EU plug), please add (-E) **Flask clamps and tube racks sold separately

Shaking Incubator





Domed lid accept flasks upto 1L (NEW)

Exceptional temperature uniformity

Extremely compact: just 11" wide

Exchange flask clamps in one second with MAGic Clamp™ magnetic system

The Incu-Shaker[™] Mini is the most compact shaking incubator in its class. Despite the remarkably small footprint, a large 11.5 x 9.5 in. work space accepts several platforms and a variety of flasks, tubes and other common vessels.

The standard platform (included) features a non-slip, rubber coated surface, ideal for tissue culture flask, Petri dishes and staining trays.

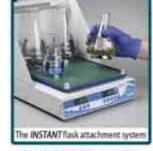
The convenient MAGic Clamp™ platform is also available for use with Erlenmeyer flasks and test tube racks. The unique, magnetic attachment method is the easiest way to instantly change between flask clamps of different sizes.





Technical Data:

Temperature Increments:
Temperature Uniformity
Temperature Uniformity
Temperature Accuracy:
Shaking Speed Range: 1 rpm 19 mm(3/4") 9.5x11.5in./23.5x29cm 11x15.7x10.8in./28x40x27cm Platform Dimensions: Exterior Dimensions (WxDxH) 1min. to 48 hours / continuous 25lbs. (11.5kg) 115 or 230V, 50-60Hz, 300W





Ordering	Information:
Item No.	Description:
H1000-M*	Incu-Shaker [™] Mini with non-slip rubber mat
H1000-MR	MAGic Clamp [™] universal platform for flasks and tubes
H1000-P-500	Dedicated platform with 5x500ml flask clamps
H1000-P-250	Dedicated platform with 8x250ml flask clamps
H1000-P-125	Dedicated platform with12x125ml flask clamps
H1000-P-MP	4x microplate platform (standard or deepwell)
H1000-SP	Spring rack platform, for uncommon vessels
Accessories for	H1000-MR MAGic Clamp Platform
H1000-MR-1000	Flask clamp for MAGic clamp platform 1000ml (max. 2)
H1000-MR-500	Flask clamp for MAGic clamp platform 500ml (max. 5)
H1000-MR-250	Flask clamp for MAGic clamp platform 250ml (max. 8)
H1000-MR-125	Flask clamp for MAGic clamp platform 125ml (max. 12)
H1000-MR-1550	Tube Rack, 21x15 & 12x50 ml (max. 1)
H1000-MR-T15	Tube Rack, 32x15 ml (max. 2)
H1000-MR-T50	Tube Rack, 15x50 ml (max. 2)

*115V with US plug. For 230V (EU plug), please add (-E)

H1000-MR-TSR Angled Tube Rack holder adjustable tilt (max. 1)

INCU-SHAKER



Incu-Shaker[™] 10L is a heavy-duty performer, designed for heavy workloads and continuous use. Its outstanding temperature accuracy and uniformity are supported by proprietary heat distribution technology that ensures that temperatures are precisely maintained throughout the chamber. Inconsistencies due to stratification are reduced to negligible levels and the selected temperature is precisely maintained within 0.25%, even in the corners.

Exceptional temperature uniformity

High capacity, up to 5 x 2L

Exchange flask clamps in one second with MAGic Clamp™ magnetic system

Optional shelf for Petri dishes, microplates, etc.











As easy as 1, 2, 3...



Two sizes of gel trays and combs included

Load myGel^T Contrast strip aids loading

The Accuris myGel Mini Electrophoresis System includes all the equipment you need to get up and running - gel tank, power supply and 2 complete casting sets. Ideal for personal use, small laboratories, or the classroom, this gel box/power supply combination is compact and easy to use.

The myGel Mini power supply attaches directly to the gel box for a secure connection every time. Selectable parameters include 3 preset voltages - 35, 50 and 100V - and a 99 minute timer. All are set using the membrane keypad.

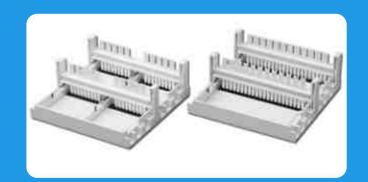
The safety lid is vented to help to dissipate heat generated during electrophoresis, and features a viewing area above the gel. Current will only run through the system when the lid is properly in place on top of the gel box.

Trays and casting stands for both 10.5 x 6 cm and 5 x 6 cm gels are included wtih the myGel Mini system, as are double sided combs. The smaller tooth combs are compatible with multichannel pipettes. Casting is quick and easy - just place the tray in the casting stand and pour. The gel trays feature a dark contrast strip to help visualize wells while loading and lines that fluoresce under UV and blue light to track the progress of the run.



Comes complete with:

- Gel box and safety lid
- Power supply
- Two 10.5 x 6 cm gel trays
- Four 5 x 6 cm gel trays
- Casting stands for the above gel trays
- Two double sided combs for each gel size



Specifications:

Output voltage: 35V, 50V or 100V

Timer: 0-99 minutes or continuous

Safety: Magnetic and mechanical lid interlock

Maximum buffer volume: 230 ml

Gel capacity: One 10.5 x 6 cm or two 5 x 6 cm

Dimensions: 7.5 x 5.1 x 2.1 in 19 x 13 x 5.5 cm

1 lb / 0.45 kg

Weight: 115V, 50-60Hz Electrical:

230V, 50-60Hz



Ordering Information:

E1101 myGel Mini Electrophoresis System, complete with power supply, two 10.5 x 6 cm and four 5 x 6 cm gel trays, casting stands for each size of gel tray and two double sided combs for each tray size

E1101-E myGel Mini Electrophoresis System, as above, 230V

Casting Set, for 10.5 x 6 cm gels, includes two trays and two combs (22*/12 teeth) Double sided combs, 22*/12 teeth, for E1101-CSI Castilng Set, pk 2 E1101-CS1

E1101-CSMB1

Casting Set, for 5 x 6 cm gels, includes four trays and two combs (18*/10 teeth) E1101-CS2

E1101-COMB2 Double sided combs, 18*/10 teeth, for E1101-CS2 Casting Set, pk 2

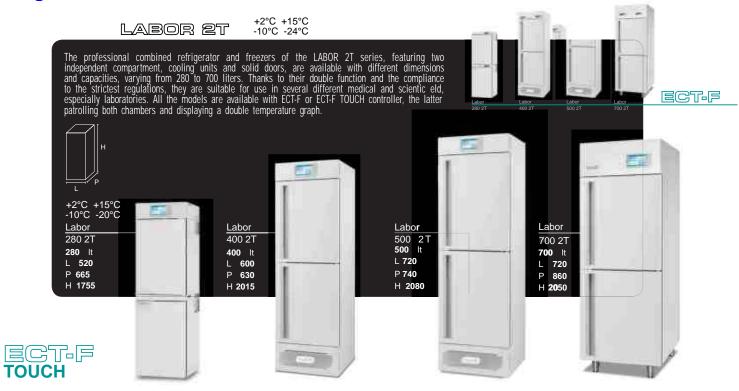
*Multichannel compatible





For more than 40 years Fiocchetti has been manufacturing refrigerators and freezers for a dedicated use in pharmacies, laboratories and hospitals. The respect of the strictest normative for this sector has always been assured; sanitary, biological thermo sensitive products, needing accurate temperature control, are granted optimal storage conditions.

Refrigerator - Freezer Cabinets





LABOR 2T

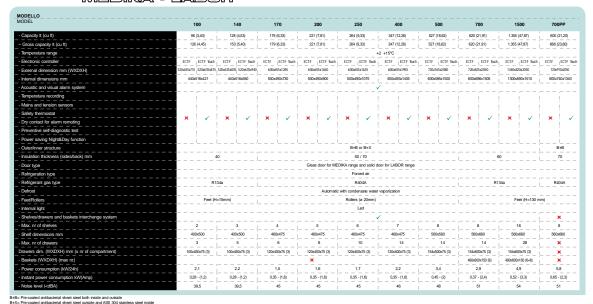
MODEL	280 2T	400 2T	500 2T	700 2T	
- Capacity It (cu ft)	128+128 (4,53+4,53)	170+160 (6,01+5,66)	249+230 (8,80+8,13)	260+265 (9,19+9,37)	
Gross capacity It (cu ft)	153+153 (5,40+5,40)	153 (5,40+5,40) 170+181 (6,01+6,39) 249+261 (8,80+9,22)		288+305 (10,18+10,78)	
Temperature range	+ 2 + 15 / -10 -20°C		+ 2 + 15 / -10 -24°C		
- Electronic controller	ECT-F Touch	ECT-F ECT-F Touch	ECT-F Touch	ECT-F Touc	
External dimension mm (WXDXH)	520x665x1650 520x665x17	755 600x630x2015	720X740X2080	720x860x2050	
Internal dimensions mm	440x516x421 (x2)	500x490x685 / 500x496x730	600x588x703 / 600x588x740	600x686x700 / 600x686x740	
Acoustic and visual alarm system			<i>_</i>		
Temperature recording					
Mains and tension sensors		į į	į į	į į	
- Safety thermostat					
Dry contact for alarm remoting	×	×	×	×	
Preventive self-diagnostic test		1			
Power saving Night&Day function		1			
- Outer/inner structure	B+B or B+X		B+B	B+X	
Insulation thickness (sides/back) mm	40	50/70	60/75	60	
- Door type		Soli	d door		
- Refrigeration type		Ford	ced air		
- Refrigerant gas type		R4	104A		
- Defrost		Automatic with conde	nsate water vaporization	Automatic	
- Feet/Rollers		Rollers	(ø 20mm)	Feet (H=130 mm)	
- Internal light			.ed		
Shelves/drawers and baskets interchange system			✓		
- Max. nr of shelves	6	6	6	6	
- Shelf dimensions mm	400x500	460x475	560x560	560x660	
- Max. nr of drawers	10	10	10	10	
Drawers dim. (WXDXH) mm (x nr of compartmen	100x450x75 (3)	120x400x75 (3)	154x500x75 (3)	154x500x75 (3)	
Baskets (WXDXH) (max nr.)		×		490x600x150 (2+2)	
Power consumption (kW/24h)	5,5	7,8	8,8	13,8	
Instant power consumption kW(Amp)	0,28/0,6 - (1,2/1,6A)	1,2 - (4A)	0,5/1 - (2,1 - 4,5 A)	0,33/0,86 - (1,2 - 3,2 A)	
- Noise level (< dBA)	48	53	52	56	

B+B= Pre-coated antibacterial sheet steel both inside and outside B+X= Pre-coated antibacterial sheet steel outside and AISI 304 stainless steel inside

MEDIKA - LABOR



Medika - Labor



CUBETTI - cube ice



MODEL	B18	B20	B30	B40	B50	B65	B90			
Condensing	А	AW	A W	A W	A W	A W	A W			
Ice production (kg/24h)	20	23	28	38	50	70	86			
Dimension mm (WXDXH)	340x460x600	390x520x640	470x590x690	530x520x810	530x540x770	690x535x885	690x535x88			
Storage bin capacity (kg)	5	8	15	16	18	30	30			
Cube average diameter h gr					i					
Refrigerant gas type		R134a								
Feet (H135mm)	×	Opt	ional							



Over more than 60 years as manufacturer of scientific equipment for laboratories, J.P. Selecta has achieved in consolidated a prestigious position in the market, distributing to more than 100 countries. Our constant research through out these years has made us worthy of ISO 9001:2000 certification for design, development, production and service quality assurance, guaranteed by AENOR in 1996.

Our factory in Abrera, Barcelona (Spain) in which we find control laboratories, process and environmental testing, equiped with sophisticated automation serial production.

Reversible magnetic Stirrers Forefront technology for the most exacting analysis

FOR SPEEDS FROM 50 TO 1500 rpm.

FOR ADJUSTABLE TEMPERATURES FROM 50 °C TO 350 °C. PRECISION ±2 °C.

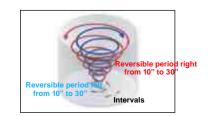
MAXIMUM STIR VOLUME: 10 LITRES. PLATE Ø IS 14,5 cm.

MAGNETIC REVERSIBLE ACTION STIRRERS, WITH ADJUSTABLE TIME STIRRING PERIODS AND PRECISE SPEED CONTROL, PROVIDES THE FOLLOWING ADVANTAGES FOR REPEAT PROCESSES:

- A.- FASTER MIXING, REDUCED STIRRING TIME.
- B.- CONTROLLABLE VORTEX EFFECT.
- C.- QUICKLY ELIMINATES AIR FROM WITHIN THE SAMPLE MIXTURE, DEGASSING.
- D.- MINIMUM SPLASHING, NO LOSS OF SAMPLE.

SELECT MOVEMENT FOR ONE DIRECTION OR REVERSE.

ELECTRONIC CONTROL OF THE FREQUENCY INVERTING PERIOD, FROM 10-30 SECONDS.





"Agimatic-Rev-E" with heating ELECTRONIC DIGITAL CONTROL OF STIR SPEED AND HEATER TEMPERATURE. WITH REMOVABLE SAFETY RING AGAINST SPILLAGE.

SILUMIN UPPER PLATE COVERED BY AISI 304 STAINLESS STEEL.

CONTROL PANEL

- 1. Digital display indicating stir speed or temperature.
- 2. Push button, parameter selector, Stir speed, Temperature or reverse stir speed time.
- 3. Push button, increase parameter value.
- 4. Push button, decrease parameter value.
- 5. Indictor lamp, safety thermostat "on"

6. Push button Start-Stop.

Part No. 7000836 Supplied with PTFE coated stir bar of Ø 8 x 40 mm. Long







"Agimatic-Rev-ED-C" with heating ELECTRONIC DIGITAL CONTROL OF STIR SPEED AND HEATER TEMPERATURE.

WITH REMOVABLE SAFETY RING AGAINST SPILLAGE.

SILUMIN UPPER PLATE WITH CERAMIC SURFACE.

CERAMIC SURFACE:

Excelent conducitity and heat distribution.

Unalterable surface.

Higher acceleration to reach temperature.

Extreme resistance against chemical agents and scratches.

CONTROL PANEL

- 1. Digital display indicating stir speed or temperature.
- 2. Push button, parameter selector, Stir speed or Temperature.
- 3. Push button, increase parameter value.
- 4. Push button, decrease parameter value.
- 5. Indicator lamp, safety thermostat activated.
- 6. Push button Start-Stop.

Part No. 7001610

Supplied with PTFE coated stir bar of Ø 8 x 40 mm. Long.









Reversible magnetic stirrer, submersible "Agimatic-Rev-W" without heating

WITH ELECTRONIC CONTROL AND DIGITAL DISPLAY.

Modular conception polyvalent, no motor

Stirring system with no moving parts within the plate. The operation of the plate is due to creating electronically a controlled gyrating magnetic field that spins a magnetic stir bar within a vessel.

By means of a control knob and a digital display the user can adjust the speed of rotation accurately from 100 to 1100 r.p.m.

To accelerate and improve better the stirring process, a reversible stirring action can be employed. The direction of rotation can be oscillated from 10 to 30 seconds by means of an adjustable control knob on the front of the unit.

Up to 4 magnetic stir plates can be connected to the control unit and run simultaneously to produce reproducible stir speeds on each plate.

The modular base plate can be extended and function some distance away from the control unit.

The plates are made with epoxy resin, hermetically sealed and are completely water tight and can be placed within a water bath to temperatures up to 50 °C.

Each plate has a threaded hole for a support rod and a 1.5 meters extended cable.





FEATURES

Electronic speed control from 100-1100 r.p.m. Select single or reverse stirring action. Electronic frequency control for rotation direction from 10 to 30 seconds.

Digital speed display.

Control unit case made from AISI 304 stainless steel. Four connectors situated at the back to connect up to 4 stir plates.

CONTROL PANEL

Rotation direction selector. Electronic speed control. Electronic reverse time period control. Digital speed display.



Example: system of submerged stirrers table top and with retort stand.

MODEL

Part No	Plate Ø cm	Maximum stir volume in litres	Speed Control r.p.m.	Height/Width/Depth Control Unit (exterior) cm	Power W	Weight Kg
7000922	14.5	2	100-1100	8 / 24 / 18	14	2.5

Comes complete with a magnetic stir plate, stir bar 8 \varnothing x 40 mm long and support rod that is fitted in the back of the unit that supports the plate at the height required.

ACCESSORIES

Tanks and thermostats.

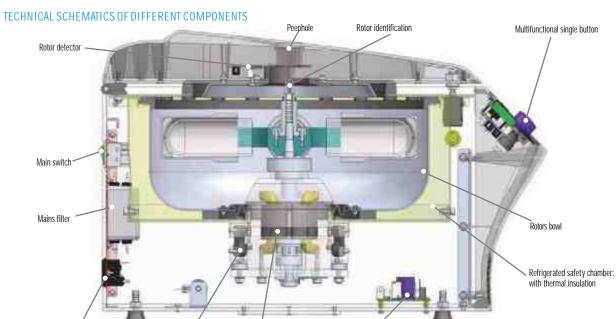
Magnetic stir plate. Part No. 7000923



versible period right from 10" to 30"

Intervals

MICROPROCESSOR CONTROLLED CENTRIFUGES "Centronic BL-II" and "Centrofriger BL-II"



COMMON FEATURES

Induction drive maintenance free motor. Low noise level 50-60 dBa.

Supply conector base

Robust all metal construction:

- -External case made from DUR-Al alloy.
- -Internal bowl and top plate all stainless steel
- -Internal steel safety chamber within the case.

Electronic circuits, ´ microprocessor digital control of all parameters and functions: speed, acceleration, brake, RCF, temperature, timer, 10 program storage, automatic rotor recognition and alarm system.



OVER TEMP

Rotor identification head, when the centrifuge lid is closed the rotor communicates all the data of the functions of it. This prevents, before use, any risk of failure of using the wrong rotor in a program or exceeding the rotors running parameters. The advantage of this system is that we can add additional rotors to the range without changing the centrifuge model.

Flexible suspension

Induction motor

All Rotors, buckets and adapters are identified

with an inalterable engraved laser code.

Air circulation system, to limit any excessive rise in temperature within the centrifuge, all air circulated within the chamber is channelled out of the back and is not re-circulated, this means that the centrifuges internal temperature will remain low and constant.

Hermetically sealed compressor, mounted on anti-vibration mounts with re-circulating evaporator around the centrifuge chamber. (only applies to refrigerated centrifuges). MONO single button programming:

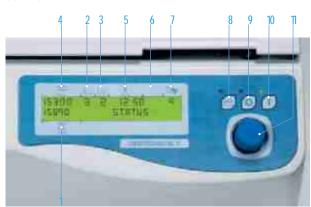
- Speed RCF Acceleration ramp - Deceleration ramp (brake) - Time - Temperature
- Configuration °C/°F Temperature calibration.

ALARM
POWER FAIL
ROTOR FAIL
DOOR OPEN
UNBALANCED
UNBALANCED
EEPROM FAIL
CONTROL FAIL
Speed detector indicator failure.

Informs of a fault:
Power failure during the run.
Fault in reading the rotor identification.
Out of balance, adjust distribution of tubes.
Set parameters failed to be recognised.
Speed detector indicator failure.

Over set temperature value.

Speed control circuit CONTROL PANEL



Suction support base

1. R.c.f.

Acceleration ramp.
 Brake ramp.

4. Speed.

5. Timer from 1' to 59' 59".

6. Temperature (Refrigeration model only)

7. Memory.

Open lid.
 Stop.

10. Start.

11. Single button control.

CONTROL PANEL INFORMATION LCD display of 2 x 20 characters that permanently show the running conditions of the machine.

STATUS Status.
STOP Stop.
START Starts the run.
STANDBY Wait, standby.

STORED Stores the last set of parameters.

CONFIG Sets the program parameters.

PROGRAM Select stored program.

RAMP Centrifuge accelerating to set speed.

SET SPEED Centrifuge is running at set speed.

BRAKE Centrifuge is slowing down in deceleration phase.

The selected program does not match the installed rotor.

PROGRAM TIME Informs that a time needs to be set to operate.



Versatile. Large range of rotors and adapters. Maintenance free induction motor drive.



Model "Centronic BL-II"

MODEL

ACCESSORIES

Part No.	Max. Volume ml	Max. number of tubes	Height / Width / Dep (exterior) cm			Power W	Weight Kg
7001668	400	4 x 100 ml	34	41	54	440	22

Control panel features

External case of DUR-AL alloy with ABS plastic coated front AISI 304 stainless steel bowl.



Model "Centrofriger BL-II" refrigerated, temperature range 0 °C to 30 °C.

Angle rotors with lid, made of anodised hardened aluminium with identification system. All rotors are autoclavable.



Part No.	Max. Volume ml	Max. number of tubes		Height / Width / Depth (exterior) cm		Power W	Weight Kg
7001669	400	4 x 100 ml	34	41	71	960	39

Note: The rotor being used limits the actual temperature in the chamber due to the speed and ambient temperature. Internal temperature indicated on the LCD display.

Part No.



Part No.

7001707

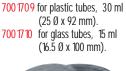


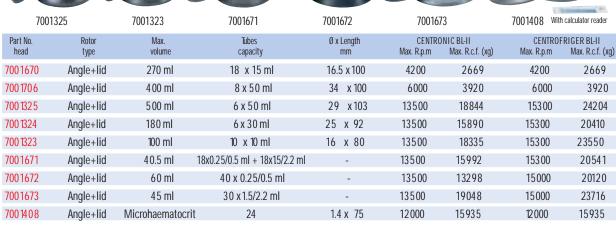
Tube adapters for rotor Part No. 700 170 6

for plastic tubes, 50 ml

(29 Ø x 103 mm).

700 1708 for glass tubes, 25 ml





ACCESSORIES

Swing out rotor with interchangeable sealed buckets and adapters, each with identification code. Autoclavable.



Part No. head	Rotor Type	Part No. bucket	Sealed bucket	Part No. adapter	Totel max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
	Swing out	700 1700	-	-	400 ml	1 x100 ml	44 x 104	5000	4137
	Swing out	7000793	-	-	200 ml	1 x 50 ml	34 x 100	5000	4137
	Swing out	7000794	-	-	100 ml	1 x 25 ml	24 x 100	5000	4137
	Swing out	7000795	-	-	240 ml	4 x 15 ml	16.5 x100	5000	4137
	Swing out	7000796	-	-	140 ml	5 x 7 ml	12 x 100	5000	4137
	Swing out	7000797	-	-	100 ml	5 x 5 ml	12.5 x 75	5000	3318
	Swing out	7000930	-	-	240 ml	4 x 15 ml Falcon	16.5 x 120	5000	4109
	Swing out	7000931	-	-	200 ml	1 x 50 ml Falcon	30 x117	5000	4109
	Swing out	700 1073	-	-	16 VAC	4 VAC*	16 x 100	5000	4137
7001407	Swing out	700 1074	-	-	16 VAC	4 VAC*	13 x 75	5000	3318
	Swing out	7000798	-	-	undrilled	-	-	5 000	4137
	Swing out	-	7001315	100 ml glass tube**	400 ml	1 x100 ml	44 x 104	5000	4137
	Swing out	-	7001315	7001316	200 ml	1 x 50 ml	34 x100	5000	4137
	Swing out	-	7001315	700 13 17	100 ml	1 x 25 ml	24 x 100	5000	4137
	Swing out	-	7001315	7001318	240 ml	4 x 15 ml	16.5 x 100	5000	4137
	Swing out	-	7001315	7001319	140 ml	5 x 7 ml	12 x 100	5000	4137
	Swing out	-	7001315	700 132 0	100 ml	5 x 5 ml	12.5 x 75	5000	4137
	Swing out	-	7001315	700 132 1	64 ml	4 VAC*	13 x 75	5000	4137
	Swing out	-	7001315	700 1322	undrilled	-	-	5000	4137

^{*}VAC(r): Blood tube with cap.

**Sealed bucket part no. 7001315 accommodates a 100 ml glass tube without the need of an adapter.

Micro-haematocrit rotor comes with a box of 100 tubes and calculus graph.

Note: All buckets and adapters come without tubes unless stated.



Microprocessor controlled centrifuges "Meditronic BL-S", "Medifriger BL-S", "Macrotronic BL" y "Macrofriger BL"



COMMON FEATURES

Induction drive maintenance free motor.

Low noise level 50-60dBa.

Robust all metal construction:

- -External case made from DUR-Al alloy.
- -Internal bowl and top plate all stainless steel
- -Internal steel safety chamber within the case.

Electronic circuits, microprocessor digital control of all parameters and functions: speed, acceleration, brake, RCF, temperature, timer, 10 program storage, automatic rotor recognition and alarm system.



Rotor identification head, when the centrifuge lid is closed the rotor communicates all the data of the functions of it. This prevents, before use, any risk of failure of using the wrong rotor in a program or exceeding the rotors running parameters. The advantage of this system is that we can add additional rotors to the range without changing the centrifuge model

All Rotors, buckets and adapters are identified with an inalterable engraved laser code.

Air circulation system, for centrifuges without refrigeration to limit any excessive rise in temperature within the centrifuge, all air circulated within the chamber is channelled out of the back and is not re-circulated, this means that the centrifuges internal temperature will remain low and constant.

Hermetically sealed compressor, mounted on anti-vibration mounts with re-circulating evaporator around the centrifuge chamber. (only applies to refrigerated centrifuges).

CONTROL PANEL INFORMATION CD display of 2 x 20 characters that permanently show the running conditions of the machine.

STATUS Status.
STOP Stop.
START Starts the run.
STANDBY Wait, standby.

STORED Stores the last set of parameters.

CONFIG Sets the program parameters.

PROGRAM Select stored program.

RAMP Centrifuge accelerating to set speed.

SET SPEED Centrifuge is running at set speed.

BRAKE Centrifuge is slowing down in deceleration phase.

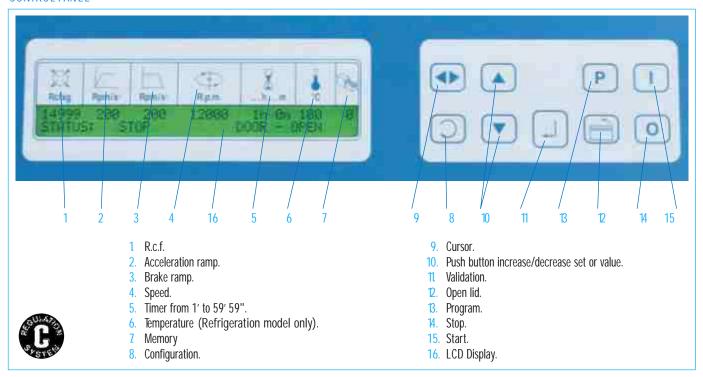
ROTOR><PRG
The selected program does not match the installed rotor.
PROGRAMTIME Informs that a time needs to be set to operate.

ALARM Informs of a fault:

Informs of a fault POWER FAIL ROTOR FAIL DOOR OPEN UNBALANCED EEPROM FAIL CONTROL FAIL OVER TEMP

Power failure during the run.
Fault in reading the rotor identification.
Lid open- not closed properly.
Out of balance, adjust distribution of tubes.
Set parameters failed to be recognised.
Speed detector indicator failure.
Over set temperature value.

CONTROL PANEL







Capacity up to 800 ml. Maintenance free induction motor drive.



Model "Meditronic-BL-S"

Model "Medifriger-BL-S" refrigerated, temperature range 0 °C to 30 °C.

MODEL

Part No.	Max. Volume ml	Max. Number of tubes	Height / Width / Deptl (exterior) cm	n Power W	Weight Kg
7001376	800	4 x 200 ml	38 46 52	520	44

MODEL

Part No.	Max. Volume ml	Max. Number of tubes	Height / Width / Depth (exterior) cm	Power W	Weight Kg
700 1377	800	4 x 200 ml	38 68 52	1230	70

Note: The rotor being used limits the actual temperature in the chamber due to the speed and ambient temperature. Internal temperature indicated on the LCD display.

ACCESSORIES

Angle rotors with lid, made of anodised hardened aluminium with identification system. All rotors are autoclavable.



7000741

7000742

7000743













7001449

7001448

7001447

7001446

7001445

7001444

Part No. head	Rotor type	Max. volume	Tube capacity	Ø x Length mm	MEDIT Max. R.p.m	RONIC BL-S Max. R.c.f. (xg)	MEDIFF Max. R.p.m	RIGER BL-S Max. R.c.f. (xg)
7000741	Angle+lid	600 ml	6 x 100 ml	44 x 104	4500	3170	4500	3170
7000742	Angle+lid	400 ml	8 x 50 ml	34 x 100	4600	3075	4600	3075
7000743	Angle+lid	360 ml	24 x 15 ml	16.5 x 100	4800	3761	4800	3761
7001449	Angle+lid	510 ml	6 x 85 ml	38 x 105	8 000	6868	12000	15455
7001448	Angle+lid	400 ml	8 x 50 ml	29 x 103	8 000	7802	12000	15938
7001447	Angle+lid	180 ml	6 x 30 ml	25 x 92	9000	7424	14000	17965
7001446	Angle+lid	200 ml	20 x 10 ml	16 x 80	9000	8964	11000	13390
7001445	Angle+lid	100 ml	10 x 10 ml	16 x 80	9000	7293	15000	20124
7001444	Angle+lid	45 ml	30 x 1.5/2.2 ml	-	11000	12619	15000	23470

Note: All buckets and adapters come without tubes unless stated.

ACCESSORIES

 $Swing \ out \ rotor \ with \ interchangeable \ sealed \ buckets \ and \ adapters, \ each \ with \ identification \ code. \ Autoclavable.$





Part No. head	Rotor type	Bucket open	Sealed bucket	Part No. adapter	Totel max. Volume (4 adapters)	Bucket/Adapter capacity	Ø x Length mm	Max. R.p.m.	Max. R.c.f. (xg)
	Swing out	7000731	7000732	Bottle 200 ml 5715202**	800 ml	1 x 200 ml	56.6 x 104	5000	4137
	Swing out	7000731	7000732	7000733	400 ml	1 x 100 ml	44 x 104	5000	4137
	Swing out	7000731	7000732	7000734	200 ml	1 x 50 ml	34 x100	5000	4137
	Swing out	7000731	7000732	7000935	200 ml	1 x 50 ml Falcon	30 x 117	5000	4137
	Swing out	7000731	7000732	7001645	240 ml	2 x 30 ml	25 x 92	5000	4137
	Swing out	7000731	7000732	7000735	200 ml	2 x 25 ml	24 x100	5000	4137
	Swing out	7000731	7000732	7000736	420 ml	7 x 15 ml and VAC*	16.5 x 100	5000	4137
7009079	Swing out	7000731	7000732	7000934	180 ml	3 x 15 ml Falcon	16.5 x 120	5000	4137
	Swing out	7000731	7000732	7001646	-	4 x 17 Ø x 110 mm	-	5000	4137
	Swing out	7000731	7000732	7001647	240 ml	6 x 10 ml	17 x110	5000	4137
	Swing out	7000731	7000732	7000737	336 ml	12 x 7 ml	12 x 100	5000	4137
	Swing out	7000731	7000732	7000738	240 ml	12 x 5 ml	12.5 x 75	5000	4137
	Swing out	7000731	7000732	7001648	140 ml	7 x 5 ml and VAC*	13 x 75	5000	4137
	Swing out	7000731	7000732	7000739	144 ml	12 x 3 ml	11 x100	5000	4137
	Swing out	7000731	7000732	7000740	-	undrilled	-	5000	4137
7000609	Swing out	-	-	-	-	6 x 96 microtiter	-	4200	2702

^{*}VAC: Blood tube with stopper.

** Bucket part nos. 7000731 and 7000732 accommodate 1 x 200 ml polypropylene bottle with cap without the need of an adapter. Note: All buckets and adapters come without tubes unless stated.



Water baths "Precisdig" with or without anti-evaporation folding lid digital control and display of temperature and time.

ADJUSTABLE TEMPERATURE RANGE FROM AMBIENT+5 °C TO 99.9 °C, STABILITY ±0.1 °C, HOMOGENEITY ±1 °C. ADJUSTABLE TEMPERATURE RANGE FROM AMBIENT+5 °C TO 200 °C, STABILITY±0.5 °C, HOMOGENEITY ±2.5 °C.

SAFETY: DIN128772 STANDARD. THE UNIT WILL CUT OUT IF THERE IS INSUFFICIENT LIQUID OR IF THE BATH TEMPERATURE EXCEEDS THE SET TEMPERATURE. A MANUAL RESET ADJUSTABLE TEMPERATURE SAFETY THERMOSTAT IS PLACED AT THE BACK OF THE UNIT.

Programmable temperature and time. Interior and exterior made from Stainless steel



FEATURES

Double skinned tank of AISI 310 stainless steel with an external case of AISI 304 stainless steel. Heating elements embedded in INCOLOY heat and corrosion resistant stainless steel. Comes complete with drain tap.



Height / Width / Depth

(usable) cm

15 30 14

15 30 14

15 30 30

15 30 30

15 48 30

15 48 30

15 62 50

15 62 50

2	3	4	5	6	11	15 /
	1					
		88	8 =		rino .	
				3		
	/ /			٥,		
7	8	9 10) 14	13	1

CONTROL PANEL

- 1. Illuminated mains switch.
- 2. Temperature mode indicator.
- 3. Time mode indicator.
- 4. Temperature and time indicator.
- 5. Start time indicator.
- 6. Waiting / delay time indicator.
- 7. Temperature set button.
- 8. Time set button.

Weight

6

10

18

600

1100

1100

1400

1500

2100

2400

3800

20 37 27

20 37 27

20 40 42

20 40 42

20 58 42

20 58 42

20 69 62

20 69 62

- 9. Increase, push button.
- 10. Decrease, push button.
- 11. Stop and start time.
- 12. Read Temperature.
- 13. Set start up time: from 1 min. to 9 hours 59 min, or up to 99.9 hours once the set temperature has been reached.
- 14. Set waiting / delay time: from 1 to 24 hours.
- 15. Safety thermostat indicator lamp.

All baths with heating shelf and drainage. Faucet included. MODELS WITH MAKROLON® FOLDING LID

Temperature maximum °C

99,9

200

99,9

200

99,9

200

99,9

200

Capacity litres

5

12

12

20

20

45

45

Part No.

6001195

6001236

6001196

6001237

6001197

6001238

6001198

6001239

Part No.	Temperature maximum °C	Capacity litres	J	/ Wid (usable	th / Depth e) cm	J		dth / Depth +lid) cm	Power W	Weight Kg
6001186	99,9	12	15	30	30	40	40	42	1100	8
6001187	99,9	20	15	48	30	40	58	42	1500	10
6001188	99,9	45	15	62	50	40	69	62	2400	18

All baths with heating shelf and drainage. Faucet included.

MAKROLON ® FOLDING LID PROPERTIES

Due to its transparency, you can visualize the bath's inside. It improves temperature stability, and restricts evaporation and pollution



Water bath with inner stirring "Agibat-20" with digital control and display of temperature and time

ADJUSTABLE TEMPERATURE RANGE FROM AMBIENT +5°C UP TO 80°C. STABILITY ±0.1°C. SET TEMPERATURE ACCURACY ±1°C, WORKING TEMPERATURE PRECISION 0.1°C.

NEW

P.Selecta original model. More space. More accuracy. Economical.







FEATURES

Double skinned tank, inner case made of AISI 310 stainless steel. External case of AISI 304 steel. Submerged heating elements in INCOLOY special alloy. It comes complete with drain tap.

STIRRING SYSTEM

constant flow stirring. Flow: 8 litres per minute.

CONTROL PANEL

Three positions switch: only heater, heater + stirring and start/stop.

MODEL WITH MAKROLON ® FOLDING LID

Due to its transparency, you can visualize the bath's inside. It improves temperature stability, and restricts evaporation and pollution.

MODELS

Part No.	Lid Makrolon®	Maximum Temp °C	Litres Capacity	Height/Width/Depth (usable) cm	Height/Width/Depth (exterior) cm	Power W	Weight Kg
6032012	Yes	80	20	15 48 30	20 58 42	2010	11
6032013	No	80	20	15 48 30	40 58 42	2010	12

All baths with heating shelf and drainage. Faucet included.

SAFETY:

DIN 128772 STANDARD. THE UNIT WILL CUT OUT IF THERE IS INSUFFICIENT LIQUID OR IF THE BATH TEMPE-RATURE EXCEEDS THE SET TEMPERATURE. A MANUAL RESET ADJUSTABLE TEMPERATURE SAFETY THER-MOSTAT IS PLACED AT THE BACK OF THE UNIT.





ACCESSORIES FOR "PRECISTERM", "PRECIDSDIG" AND "AGIBAT-20"

Suitable for all "PRECISTERM", "PECISDIG" and "AGIBAT-20" models.



Removable constant liquid level. Part No. 6001400 Note: Not compatible with gale and Part No. 6000123 Makrolon® lid.



Fixed, constant liquid level.

Únicamente para baños modelo "PRECISTERM"



Thermometer support with locking screw (up to 40 mm). Part No. 6000896

Thermometer. Part No. 1000120 up to 120 °C. 1000200 up to 200 °C. 1000872 up to 120 °C, extra long, suitable for Gable lid. 1000873 up to 200 °C, extra long, suitable for Gable lid.

- 1 Gable lid with thermometer location position hole.
- 2. Flat lid with concentric reduction rings of 105, 80, 60 and 37 mm Ø. With thermometer location position hole. Note: The perforated lid avoids the lock of the Makrolon® folding lid.
- 3. Support frame for tube racks.
- 4. Tube Racks various tube diameters available.



Capacity litres	Model code AGIBAT-20	Model code PRECISTERM	Model code PRECISDIG	1 Gable Iid	2 Lid with concentric reduction rings	3 Support frame
2		6000137 - 6000385		-	6003231 1 place	-
5		6000138 - 6000386	- 6001195*- 6001236*	6 0 0 0 7 1 0	6003232 2 places	100 1199
12		6000140 - 6000387	- 6001196*- 6001237*	6000711	6003234 4 places	100 12 00
20	6032012*6032013*	6000141 - 6000388	3 - 6001197*- 6001238*	6000712*	6003236 6 places	1001201
45		6000142*- 6000389	9*- 600 1198*- 600 1239*	6000714	600160312places	1001205

^{*} Comes complete with drain tap. *Only for bath without Makrolon ® lid "AG1BAT-20".

Capacity litres	for PRECISDIG baths with Makrolon® lid	2 Lid with concentric reduction rings	3 Support frame
12	6001186	6003234 4 places	1001200
20	6001187	6003236 6 places	1001001
45	6001188	600323612 places	1001205

		Tube racks	4 (requires support frame)				
Part No.	Tube Ø mm	Number of tubes per rack	Rack Dimensions Height / Width / Dep (usable) cm		lumber ath cap 12		
1001202	13	36	8 8.2 23.	.6 1	3	5	10
1001203	16	24	8 8.2 23	.6 1	3	5	10
1001204	20	24	8 8.2 23	3.6 1	3	5	10



water bath. Suitable for all types of flasks,erlenmeyers,





Precise reciprocal shaking baths controlled by microprocessor "Unitronic Reciprocating Shaking Bath" and with refrigeration "Unitronic Reciprocating Shaking Bath C"



UNITRONIC RECIPROCATING SHAKING BATH LINEAR: TEMPERATURE RANGE FROM AMBIENT +5 °C TO 99.9 °C. UNITRONIC RECIPROCATING SHAKING BATH C LINEAR: TEMPERATURE RANGE FROM 0 °C TO 99.9 °C. STABILITY ±0.05 °C HOMOGENEITY ±0.1 °C, SET TEMP. ERROR ±1 °C, RESOLUTION 0.1 °C.

SAFFTY.

CONFORMS TO THE DIN STANDARD 12879.0. SAFETY THERMOSTAT OVER TEMPERATURE CUT OUT WITH MANUAL RESET.

Reciprocal linear agitation, controllable from 10 to 100 oscillations per minute

Controllable time from 1 minute to 99 hours 59 minutes

MICROPROCESSOR CONTROL WITH DIGITAL DISPLAY AND PUSH BUTTON TEMPERATURE, SPEED AND TIME SELECTION. RS-232 INTERFACE FOR PRINTER OR COMPUTER OUTPUT.



APPLICATIONS

Cell culture and biological samples, yeasts and general applications that require stable and reproducible temperatures.

COMMON FEATURES

Linear motion sliding tray from 10 to 100 oscillations per minute, with a variable stroke length of 32 or 46 mm.

Digital display and selection of temperature, oscillations and time.

Temperature sensor: thermo-resistant Pt100. Rack frame support made of AISI 304 stainless steel incorporated in the tank that can accommodate a selection of flasks and racks.

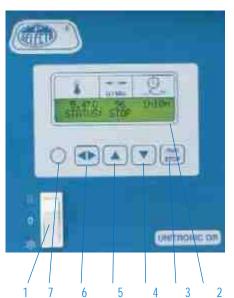
Internal tank made of AISI 310 stainless steel with an external case of AISI 304 stainless steel.

Built in drain tap.

Ventilated hermetically sealed compressor for refrigeration in the "Unitronic - C".

CONTROL PANEL

- 1. Mains power switch.
- 2. LCD screen that shows:
 - Temperature, oscillations per minute and time.
 - Alarms: set temperature and probe failure.
 - Configuration: °C or °F, temperature calibration and set working temperature limits.
- 3. Push button Start/ Stop.
- 4. Push button to decrease value.
- 5. Push button to increase value.
- 6. Push button for parameter selection: temperature, strokes per min. and time.
- 7. Push button for configuration.



"Unitronic Reciprocating Shaking Bath"

"Unitronic Reciprocating Shaking Bath C" Refrigerated Bath





MODELS	Part No.	Capacity litres	Height / Width / Depth (bath) cm	Height / Width / Depth (support carriage) cm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
UNITRONIC RECIPROCATING	6032011	27	18 48 29	17 35 24	30 74 40.5	1500	25
UNITRONIC RECIPROCATING-C	6001173	27	18 48 29	17 35 24	30 74 63.5	1750	43



Optimum cleaning efficiency



It comes complete with a universal basket, small basket for small items, lid with handle and drain device.

FEATURES

Double body container, completely made of stainless steel and with waste drain device

CONTROL PANEL

Illuminated main switch.

Start-stop push button.

Increase/decrease time push button in minutes (from 0' to 60'). Increase/decrease temperature push button in °C.

MODEL

Part No.	Capacity litres	J	/Widt sable)	h/ Depth cm			dth/ Depth or) cm	Power Generator W	Power Heater W	Weight Kg
3000865	5	15	24	14	27	31	18	120	75	3,8
3000866	6	15	30	15	27	35	18	180	75	5,8
3000867	10	15	30	24	35	38	28	240	225	8,2
3000868	22	15	50	30	27	58	35	600	375	15

It comes complete with a universal basket, small basket for small items, lid with handle and drain device.



Heated Ultrasonic baths "Ultrasons-H"

AJUSTABLE TEMPERATURE FROM AMBIENT +5 °C HASTA 75 °C.

APPLICATIONS

For long pieces cleaning (especially for pipettes) .



Note: For cleaning long objects whose length may exceed that of the tank, such as tubes, pipettes, etc, it has been proved that they are submitted to the same cavitation effect by introducing them in a test tube filled with liquid and placed vertically in the cleaner.

FFATIIRES

Evenly distributed heating element, adhered to the tank for maximum heat transfer. CONTROL PANEL

Adjustable thermostat heater.

Heater "on" indicator lamp.

Timer switch from 0-15 minutes or continuous operation.

In operation on indicator lamp.

MODEL

Part No.	Capacity litres	υ.	/ Width sable)			Height/Width/Depth (exterior) cm G		Power Generator W	Power Heater W	Weight Kg
3000839	9	15	50	14	30	56	20	200	800	11

ACCESSORIES

Basket, Height 12/Width 46/Depth12 cm. Part No6005144 3 Lid with concentric reduction ring. Part No 6005134

Lid with handle. Part No 6005124





Ultrasonic pipette cleaner "Ultrasons-P"

FEATURES

Designed for automatically cleaning and rinsing pipettes, mounted inside a basket, pipettes are ultrasonically cleaned and rinsed

Minimum rinsing time by using a water siphon action through the inside of the pipettes.

Metallic areas in contact with liquid are made of AISI 316 stainless steel.

The outer casing is made of AISI 304 stainless steel.

Cylindrical vessel in transparent acrylic, with lid to avoid splashing.

Connector(1") water inlet and siphon-drain tube.

Basket with handle in polypropylene for the easy handling and carrying of the pipettes. CONTROL PANEL

Timer from 0-15 minutes or continuous operation.

Indicator lamp showing when the bath is in operation.

MODEL

Part No.	Capacity	Ø / Height	Height / Width/ Depth	Power	Weight
	litres	(usable) cm	(exterior) cm	W	Kg
3000910	10	15 64	84 34 40	250	15



High temperature oven "Hightemp" FAN CONVECTION.

DIGITAL CONTROL AND DISPLAY OF TEMPERATURE AND TIME. ADJUSTABLE TEMPERATURES FROM 60 °C UP TO 400 °C. STABILITY: ±1 °C, UP TO 300 °C, HOMOGENEITY: ±3 °C, UP TO 300 °C SET ERROR: ±2 % OF THE WORKING TEMPERATURE.

SAFETY:

STANDARD DIN 12880.2 ADJUSTABLE OVER TEMPERATURE THERMOSTAT FITTED.

FEATURE

Digital electronic temperature control. Independent control box chamber thermaly insulated.

Shielded heating elements.

Fan circulation motor with thermal cut out, motor operates independently from the heating elements, the motor can be activated during the cooling cycle.

Inner chamber in AISI 310 heat resistant stainless steel with a high tolerance against corrosion and high temperatures.

Fixed position shelf guides. Ventilation device with adjustable outlet. Epoxy-coated outer casing.

STANDARD EQUIPMENT

2 shelves made of AISI 310 stainless steel.

CONTROL PANEL

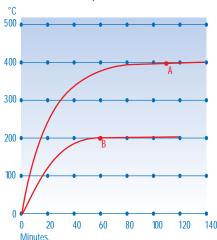
Main switch. Mains indicator lamp. Heater switch.

Heater operation indicator lamp.

Digital electronic temperature control.



Electronic safety thermostat with a K type probe that cuts off power to the heating elements in case of a controller fault. (standard to DIN 12.880 class 2).



Performance graph of temperature and time.

A. Set at 400 °c: 1h 50'.

B. Set at 200 °c: 1h.

ACCESSORIES. Shelves made of AISI 310 stainless steel. Part No. 2000071



MODEL

Part No.	Voltage	Capacity litres	Height / (in	Width terior) of shelf			t / Width exterior)	/ Depth cm	№ of shelf positions	Power W	Weight Kg
2001406	230 / 400 three phase	80	50	40	40	80	120	61	4	4000	75

ACCESSORIES

Accessories that must be installed in factory.



2000007 Digital programmable microprocessor. Capacity: 10 programs of 100 segments. Programmable timer: up to 99 hours 59' 59". Program repetition: up to 99 times. Programs can also be linked for up to 4 stages. R S-232 interface for data download to a printer or computer.



2000002 Timer switch 0-120 minutes.



2000003 Timer switch 0-12 hours.



2000009 24 hour programmer with continuous on/off cycling up to every 15 minutes.

Muffle Furnaces



Electric Muffle Furnace "Select-Horn"

TEMPERATURE CONTROLLABLE UP TO 1150 °C.
SET ACCURACY: ±1 °C OF THE SET VALUE. RESOLUTION: 1 DIGIT.
DIGITAL ELECTRONIC CONTROLLER FOR TEMPERATURE AND TIME THAT HAS THE POSIBILITY TO PROGRAM A SLOPE OF 8 SEGMENTS OR TWO SLOPS OF 4 SEGMENTS.

SAFETY:

PROBE BREAK DISCONNECTS THE POWER TO THE FURNACE AUTOMATICALLY.

MICROSWITCH THAT DISCONNECTS THE POWER OF THE HEATER ELEMENTS WHEN THE DOOR IS OPEN.
FLIP DOOR THAT CAN ALSO BE USED AS A SUPPORT TRAY AND USER PROTECTED FROM THE HOT INTERNAL SURFACE.

APPLICATIONS

Incineration processes, drying, degradation, re-heating, thermal treatments etc.

FEATURES

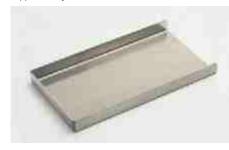
Interior chamber constructed from high quality lightweight refractory bricks, with a high alumina content with no asbestos or iron oxide.

Evenly distributed exceptional long life heating elements, annealed frequently at a high fusion point. Excellent thermal insulation made from Ceramic fibre of low density and thermal conductivity.

Low consumption with maximum performance.

Rapid temperature recovery after the door has been opened.

Flap door with easy to change components. Support tray made from special steel used as a base to support assay material.



CONTROL PANEL

Mains Switch.

Mains indicator lamp.

Digital electronic controller for temperature and time that has the possibility to program a slope of 8 segments or two slops of 4 segments.

Simultaneously indication of the actual and set temperature (4 digits).

K-Type Probe.



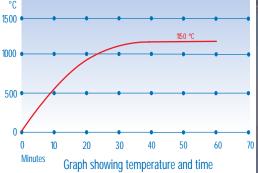




Image of the flap door system in operation.

MODELS

Part No.	Capacity litres		Height / Width / Depth (interior) cm		Width / Depth erior) cm	Power W	Weight Kg
2000366	3.6	10	15 24	52 5	54 56	2500	54
2000367	9	15 2	20 30	58 !	59 65	3000	70

Supplied complete with support tray, made from annealed steel.



ACCESSORIES. All accessories need to be fitted in the factory prior to delivery.



Programmable Microprocessor.

Capacity: 10 Programs of 10 segments per program. Run time for 1 program: from 1" to 99 hours. Program repetition: from 0 to 99 times or cycles.

Precision: ±0.25%.
Part No. 2001227



Exterior exhaust tube.

Located at the back of the furnace with a ventilator motor to extract gases and vapours. With an 80 mm \emptyset hat adapter.

Gases and Vapours can be extracted outside through the connecting tube.

Power consumption: 30 W. Part No. 2001477





Crucible tongs.

With thermally protected plastic coated handles. With bow, curved tips.

Part No. 1001590 Total length 220 mm. Part No. 1001591 Total length 330 mm.



Gloves Thermal "Kevlar 800"

Conforms to EN 388, EN407 and EN420 standards. For use with temperatures up to 800 °C, Made from seamless terry knit, with double face fibres, high level of protection against heat and flame.

Length 36 cm, universal fit.

Part No. 5000042



Crucibles made of zirconium Zr. Crucibles made of pure nickel Ni. Crucibles made of glazed porcelain. Crucibles made of stainless steel.



Muffle furnace electric "N-8 L" 1100 °C

FOR TEMPERATURES ADJUSTABLE UP TO 1100 °C. ELECTRONIC DIGITAL TEMPERATURE CONTROL. PRECISION ±2 °C OF THE SET VALUE. RESOLUTION: 1 DIGIT.



FEATURES

Metal external case with vent at the back of the unit. Interior and door made of ceramic fibre, resistant and durable (No asbestos). Heater situated at the side and bottom of the chamber.

CONTROL PANEL

Illuminated main On/ Off switch.

Temperature control with digital display of both the set and actual temperature.

Programmable in steps of 1 °C. Fitted with a type K probe.



MODEL	Part No.	Capacity litres		Height / Width / Depth (interior) cm			/ Width / exterior) c		Power W	Weight Kg
N-8 L	2200851	8.2	14.5	20	30	41	43.5	54	1800	33

Supplied complete with a refractory ceramic tray as a base and support for material to be assayed. Shelf size: 1 cm height x 16 cm width x 25 cm depth.





Human Corporation establish on 1st June 1993 having factory in South Korea are providing in advanced "Water Purification System." through continuous Investment on R&D, in order to meet the changing customer need and satisfied to the customer.

In this regard we human will do our utmost best to develop most advance and sophisticated product with our continuous efforts and technologies development to be a "BEST ONE" over the world for the water purification systems.

Arioso

New model, ARIOSO is the world's top which is embedded with state - of - the - art technology. It will satisfy you beyond your imagination with the world's frst developed 2 - in - 1 system (producing Pure water and Ultra pure water from 1 system), controlled by a large touch screen, meeting the various application,

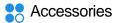
Precision Elegance

Effciently Innovative System of Human Corporation.



Extensible point of use







Pedal switch



PF final filter



Printer

System Display



POWER (RUN)



CALIBRATION



RO (RUN)



AUTO CLEANING



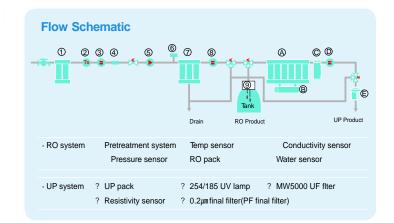
UP (RUN)

Arioso Power System Pure water & Ultra pure (2 in 1 System)

Features

- · Certifed CE, ISO 9001, ISO 14001
- · Awarded Korean excellent products
- · Auto calibraion for water sensor
- · Extensible point of use
- · Frost alarm message
- \cdot 3, 5 steps water level sensor
- Filter exchange indicator :
 Beep & charactor display
- \cdot Languages : English, Korean, etc
- · Self-diagnosis functions





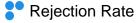
Specifcations

	Arioso Pow	er Ario	oso Power	+70	Arioso P	ower	Arioso Power	+70	Arioso Power	(TOC)		
Product flow rate (RO, UP)	Max. 15 L	/Hr	Max. RO : 15 L/Hr UP : 70 L/Hr			5 L/Hr	L/Hr Max. RO : 25 L/Hr UP : 70 L/Hr			-Hr		
Display & Controller												
	Ambient temp: -10 to 100											
Water quality display												
Water quality display												
			Ultra Pure (U	P) : Up	to 18.3MΩ∙cm							
				-					TOC : 0 to 200) ppb		
Pressure display	_	Digital Pressure Sensor (0~10kg/ ๓)ื่ Feed water pressure RO membrane pressure										
Self-check function		 Various valves System operation status Auto sensor calibration(RO, UP) Self-diagnosis 										
Cleaning function	· Auto regula	· Auto regular cleaning Self-test · Auto regular cleaning · Auto cleaning lower than setting value										
System function	 Volumetric 	• Filter replacement alarm & display (A/C, RO/UP pack, UF, UV lamp, 0.2 µmCF, etc) • Volumetric time setting (RO/UP) • Language(English, Korean, etc) • Auto/Manual Pressure S/W • Extensible point of use										
Type	Sch	olar	Sc	cholar-U	UV		Bio		Integrate			
Туре	_	PF	_		PF		ЫО		mlegrale			
0.2μmfinal filter	STD		STD				STD		STD			
Pyrogen free final filter		STD		STD								
254/185 UV lamp			STD		STD				STD			
MW 5000 UF filter							STD		STD			
Water Quality												
-TOC (ppb)	5~10	5~10	0~5		0~5		5~10		0~5			
-Endotoxin (Eu/ m I)	NA	< 0.125	NA		< 0.125		< 0.001		< 0.001			
-Bacteria (cfu/m I)	< 1	< 1	< 1		< 1		< 1		< 1			
-Particles (> 0.22 μm/m)	< 1	< 1	< 1		< 1		< 1		< 1			
Dimensions (WxDxH)					320 x 490	x 475 mm						
Power				23	0V / 110V, 5	0/60Hz, 60V	V					
Standard Accessories		Pretreat	ment System,	ROmen	mbrane, UP F	Pack, Level S	ensor, Manual, Pov	wer Co	rd			
Optional Accessories		Printer · Foot-Pedal switch · Pretreatment system · Low pressure valve, Wall-mounting bracket Water tank(20L, 30L, 40L, 60L) · Vent filter for PE water tank · Frame										

Arioso RO System Pure water System



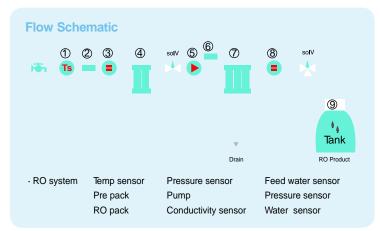
- · Certifed CE, ISO 9001, ISO 14001
- · Automatic calibration for water sensor
- · Large color 70 x 52 touch screen display
- Self-diagnosis functions
- · Frost alarm message
- · 5 steps water level sensor
- · Filter exchange indicator : Beep & character display
- · Languages : English, Korean, etc.



· Monovalent ions: 95~99% · Polyvalent ions : 98~99% · Microorganism : 99% · Particles : 99% · Organics : 99% · Pyrogen : 99%

Specifcations

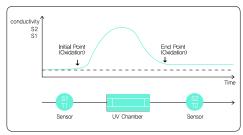




Specifications			
	Arioso RO 180	Arioso RO 280	Arioso RO 380
Product flow rate (RO)	Max. 15 L/Hr	Max. 25 L/Hr	Max. 35 L/Hr
Display & Controller		Large color 70 x 52 touch screen	
Water quality display		rnp : -10 to 100 ? . Feed water tem : 0 to 990 μs/cm . Pure water (RO)	p : 0 to 100 ?) : 0.2 to 250.0 μs/cm
Pressure display	С	Digital pressure Sensor (0~10kg/ cm²) Feed water pressure RO membran	e pressure
Self-check functions	· Various valv · Systerm op	res · Auto sensor calibrateration status · Self -diagnosis	tion
Cleaning functions	· Self -test · Auto	regular cleaning · Auto cleaning lower	er than setting value
System functions	•	Tank full Over conductivity & temp of feed	
Standard accessories	· Pre Pack	· RO Pack · Level sensor · Manual ·	Power cord
Dimensions (WxDxH)		320 x 490 x 475 mm	
Power		230V / 110V, 50/60Hz, 60W	
Optional Accessories	 Ion 2 hole pack Wall-mounting bracket Frame 		edal switch ank (20L, 30L, 40L, 60L)

Arioso up System Ultra Pure water System

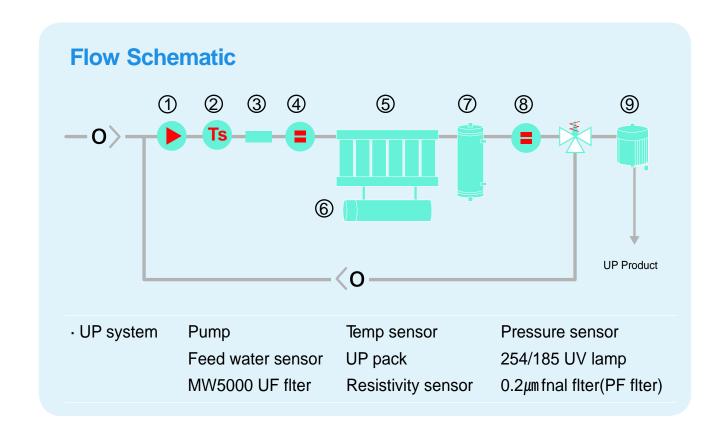
TOC measuring principle



TOC measuring principle

- 1) Measuring conductivity and temperature of the water before oxidation in S1.
- 2) Oxidizing it with UV lamp in the chamber.
- 3) Measuring conductivity and temperature of the water after oxidation in S2 and compensating at 25?
- 4) Measuring TOC value with difference between the conductivity values in S1&S2.
 (conductivity = S2-S1)





S Applications

T	Scholar		Schola	ar - UV	D'-	lata mata		
Туре	-	PF	-	PF	Bio	Integrate		
Type I grade water								
Analytical instruments								
AAS, ICP/MS, IC		_			_			
HPLC, GC	_	_			_			
TOC	_	_			_			
Cell & tissue culture	-		_					
In vitro fertilization	_		_					
Electrophoresis	-		_					
RNase, DNase&DNA free	_	_	_		_			
Molecular biology	_	_	_		_			

Applicable Model: Zenix UP / Zeneer Power, UP / New PNIX Power, UP / New Human Power, UP / Nex Power, UP Series

Specifcations

	Arioso UP 900							Arioso UP 900 (TOC)					
	Ambient temp : -10 to 100 ?												
	Feed water temp : 0 to 100?												
Maria a sura Pira d'a a la co	Feed water : 0 to 990 μs/cm												
Water quality display	Ultra pure(UP) : Up to 18.3MΩ-cm												
	Inlet pressure : 0 to 10kg/cmื้												
	-								TOC : 0 t	o 200 ppb			
Display & Controller					La	arge color 70x5	2 touch sc	reen					
Pressure display					Digi	ital Pressure se	ensor (0~1	Okg/cm))					
Self-check functions		· Var	ious valves	· Auto se	nsor cal	libration · Sys	stem opera	tion status	· Self dia	agnosis			
Cleaning functions		· Sel	f test	· Auto reg	gular cle	eaning · Au	to cleaning	lower than	setting valu	ıe			
System fuctions	· Filter replacement alarm & display (UP pack, UF, UV lamp, 0.2mCF) · Volumetric time setting · Language (English, Korean etc) · Auto/ Manual Pressure S/W · Extensible point of use								0				
T	Scholar		Scholar-UV				D:-			l-44-			
Туре	-		PF	-		PF		Bio			Integrate		
Product flow rate (L/min)	1.5 1.5		1.5 1.5		1.5	1.5		1.5					
0.2μm final filter	STD			STD			STD		STD				
Pyrogen free final filter			STD	STD		STD							
254/185 UV lamp				STD		STD					STD		
MW 5000 UF filter								STD			STD		
Water quality													
-TOC (ppb)		5~10			0~5			5~10			0~5		
-Endotoxin (Eu/ml)	NA	<	0.125	NA < 0.125		< 0.001			< 0.001				
-Bacteria (cfu/ml)		<1		<1			<1			<1			
-Particles (< 0.22 μm/ml)		<1		<1			<1			<1			
Standard accessories					UP pa	pack, 0.2 μmCF, manual, power cord							
UP Water analyzing data	Fe	Cu	Al	Ni	Zn	Cr	Na	К	CI -	NO2 -	NO3 ⁻	SO4 ⁻²	
(ppb)	<0.005	<0.005	<0.005	<0.005	<0.02	2 <0.005	<0.01	<0.02	<0.01	<0.02	<0.02	<0.01	
Dimensions (WxDxH)						320 x 490	x 475 mm						
Power					2	230V / 110V, 5	0/60Hz, 6	W00					
Optional Accessories			nter ot pedal sw			ensor for Pure ensor for UP w		· Wall · Fran	mounting b	oracket			
								* All spec	ifcations ar	e subject to	change wi	thout notice	

