BATHS

SHAKERS

STIRRERS

HOTPLATES

INCUBATORS

HEATING MANTLES

INCUBATORS

INCUBATORS

DFI Series, 36 Liter, 80 Liter, 150 Liter, 240 Liter Incubators

DFI–36 DFI–80 DFI–150 DFI–240

Incubator With Forced Convection

Premium equipment for all gentle incubation applications, including processing large numbers of samples at high throughput. Outstanding dynamics keep the required temperature virtually stable with homogenous distribution, irrespective of how many times the door is opened. The modern range of incubators is available in 4 sizes.
DFI Series offers excellent uniformity and stability & are used for many applications as incubation of culture test, drying slides, microbiological incubation, bacteriological test and more. The inner case is constructed from polished stainless steel. Internal glass door for incubator. All units are provided with wire plated shelves with multi position settings.
All models are with fans assisted air circulation.
The chamber ventilation and exhaust vent are easily adjustable.
Wide choice of control options is available.
PID controller is fitted as standard with dual display of measured value and setpoint.

DFI–36

Options:

- 38mm cable port
- Gas inlet
- 5 programs of 8 segments model: 3216CP
- 4 programs of 16 segments model: 2416P4
- RS-232/485 communication model: 3216E
- Datalogger

Model	DFI–36	DFI–80	DFI–150	DFI–240
Temp. range	Room temperature ~ 80°C			
Temp. constancy	±0.1°C			
Temp. uniformity	±2% at 37°C			
Temp. control	PID			
Temp. sensor	Thermocouple K			
Heater: Incubator	400W	400W	600W	800W
Inside Material	S.S -430			
Timer	99hr 59min			
Safety devices	Short circuit breaker, over heat protector, sensor abnormality			
Inside dimensions (mm)	W400xD300xH300	W500xD400xH400	W600xD500xH500	W600xD500xH800
Outside dimensions (mm)	W525xD420xH595	W620xD520xH620	W720xD620xH720	W720xD620xH1020
Volume (Liters)	36	80	150	240
Shelves	2	2	2	3
Weight	34kg	47kg	60kg	76kg

COOLED INCUBATORS

- Automatic high and low temperature alarm to prevent the temperature from going too high and dropping too low
- Built-in circulating fan for temperature stability
- Illumination and Timer can be install if required
- The compressor will be delayed to start working if power cut & with timer for defrost. Using environmental protection cold-media R134a
- Internal Power socket.

BOD-80/150

The MRC model BOD-80/150/175x2
cooled incubator designed to obtain freezing, incubating, drying & test temperatures between 0°C and +70°C (or –10°C and +60°C).
It has stainless steel chamber and two doors, when the outer metallic door is opened there is inner glass door. Very good uniformity is achieved by forced air circulation. A PID temperature controller provides constant and accurate temperature. Inside power socket enable the use of the shaker rotator or other instrument inside. Cable port with cup is available upon request.

The MRC model BOD-400/550/590
is ideal for BIOCHEMICAL OXYGEN DEMAND of sewage and waste water.
Other applications includes fermentation studies, drug stability tests.
Excellent temperature uniformity is obtained by forced air circulation.
A PID microprocessor temperature controller provide accurate and constant temperature.
Dual display of setpoint and chamber temperature.
Hermetically sealed compressor and automatic defrost.
Options: 38mm cable port • Gas inlet • Day/Night Light+Timer

Model	BOD-590	BOD-550	BOD-400	BOD-150	BOD-175 Dual	BOD-80
Temp. range	0°C~70°C (or -10°C to 60°C)					
Temp. Accuracy	±0.1°C					
Temp. control	PID					
Temp. Display	LED digital display actual and setting temperature					
Temp. Sensor	PT-100Ω					
Heater	900W	1200W	1200W	900W	900W x 2	900W
Volume	590L	550L	400L	150L	175L x 2	80L
Shelf (Adjustable)	4	4	4	2	2	2
Inside Material	Strengthen white porcelain	SUS 304				
Refrigerator	1/3HP			1/4HP		
Inside dimensions WxDxH(mm)	680x600x1450	680x580x1400	600x500x1350	600x500x500	700x500x500	500x400x400
Outside dimensions WxDxH(mm)	815x800x1940	760x820x1860	670x740x1820	680x700x825	780x690x1720	560x550x670
Weight	90Kg	90Kg	90Kg	78Kg	150Kg	50Kg

HYBRIDIZATION INCUBATORS

HD-801D

HD-Series, Hybridization Incubator

The MRC hybridization incubators offers high performance with precise temperature control, safety and convenience. It is small and space saving incubator.
The bottle carrousel is easily removable for easy cleaning of the chamber. The bottle carrousel accept up to eight bottles (300mm). Very homogeneous temperature distribution in the chamber is obtained by air forced ventilation. This airflow system also ensures fast recovery of chamber temperature after door opening.
A PID temperature controller provide constant & no temperature overshoot. Dual display of actual chamber temperature & set point temp.
Tempered glass viewing window provides clear chamber visibility without opening the door. Simple operation of speed by means of rotary switch & the speed display is by analog tachometer.

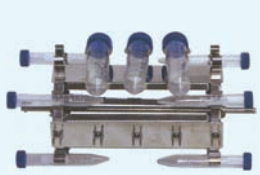
HD-800D

Features:

- Requires less probe to produce consistent films with sharp bands.
- Forced air convection provides excellent temperature uniformity.
- Compact design saves bench space.
- Broad temperature range from ambient +5°C to 80°C.
- Precise microprocessor-based PID temperature control from 5°C above ambient to 70°C in 0.1°C increments.
- Forced air circulation maintains temperature uniformity of ±0.5°C.
- Variable speed models provide consistent speed even at low rpms for uniform distribution of solutions and complete wetting of membrane.

Applications:

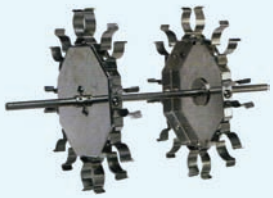
- Northern (RNA) blot hybridizations
- Southern (DNA) blot hybridizations
- Western (Protein) blot hybridizations.



HD-AC-H

HD-AC-1.5

HD-AC-15



HD-AC-50

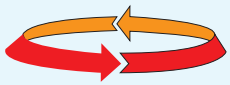
AC-210-96

Model	HD-800D	HD-801RD	HD-801DS	HD-801RK
Shaking	Rotation+orbital	Rotation	orbital	Rocking
Temp. range	Ambient +5°C~80°C			
Temp. Accuracy	±0.1°C			
Temp. control	PID			
Temp. Display	LED			
Rotor Speed	6 ~ 50rpm		-	-
Rotor Capacity	8 pcs (Max)	Supplied 8 pcs (Max)	-	-
Shaker Speed	10 ~ 100rpm	-	20 ~ 200rpm	6 ~ 60rpm
Shaking Width	25mm	-	-	-
Shaker Capacity	Carry 6 kg			
Timer	999 h / 999 min / 999 sec			
Shaking Plate (mm)	310 x 210			
Inside dimensions WxDxH(mm)	350x250x425		350x255x250	
Outside dimensions WxDxH(mm)	440x375x660		440x375x410	
Weight	33kg		23kg	

BENCHTOP SHAKER INCUBATORS

TOU-50N

- Automatic stop of shaking, when the door is opened
- Accommodate flasks up to 2000ml
- Universal spring rack for various shapes/sizes of flasks is available (optional).



Optional: Universal spring tray

LOM-65/TOU-50N/TOU-120N, Orbital Shaking Incubator, BenchTop

Applications

- Areas of application: cultivation of cell & tissue cultures or micro organisms. molecular biology, cell and insect culture, and entomology studies.
- Production of secondary natural substances and biogenetic pharmaceutics etc.

Features:

- Space saving with transparent window in the front which provide good visibility that minimize the need to open the chamber, automatic cutout of shaker when lid is open to protect operator.
- Platform 300 x 400 mm or 450 x 450mm accept flasks up to 2 Liter, test tubes racks and gel trays.
- Shakers feature a triple eccentric drive that handles heavy workloads, provides uniform agitation & enables continuous 24-hour operation even at high speeds.
- Precisely monitor and control chamber temperature over complete range with ±0.1°C accuracy at 37°C with PID temperature controller
- DC motor & variable speed control from 40 to 400rpm, controlled by a rotary dial
- Integrated tachometer monitors & displays speed in rpm to guarantee an accurate setting
- Easy-to-read digital display shows temperature
- Advanced shaking mechanism provides quiet shaking & precise speed control
- Min. noise & no vibration

TOU-50N – Top opening

LOM-65 – Front opening with one standing shelve

Model	TOU-50N	TOU-120N	LOM-65
Type	Flip-up door		Upright
Temp. range	Ambient + 5°C~70°C		
Temp. Accuracy	±0.1°C		
Temp. control	PID		
Temp. Display	LED		
Shaker Speed	20~250 rpm (optional 400 rpm)		
Shaking width	25 mm		
Timer	999h / 999min / 999sec		
Volume	66L	102L	65L
Shelve	N/A	N/A	1
Shaking Plate Size (mm)	400x300	450x450	400x300
Inside dimensions (mm)	W455xD390xH380	W500xD540xH380	W450xD390xH370
Outside dimensions (mm)	W460xD510xH540	W510xD650xH540	W520xD550xH610
Weight (Approx.)	30Kg	40Kg	50Kg

Capacity of flask holders

Model	111-1-110050	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000
Flask clamps	50ml	125ml	250ml	500ml	1000ml	2000ml
TOU-50N	35	20	12	6	4	2
TOU-120N	64	36	25	16	9	5
LOM-65	35	20	12	6	4	2

COOLED SHAKER INCUBATORS

LOM-150

LOM-150-Series, 150Liter Shaking Incubator, Orbital Motion

This multipurpose model can shake, incubate & refrigerate.
The 480x380mm platform accepts flasks up to 6 Liter.
Large viewing window & internal light provide clear chamber visibility, with moveable window blind.
One stationary shelve for incubating added samples with a front opening door, the LOM-570 can be used on the bench or on the floor, wide temp. range 0°C to 60°C.
Model LOM-150D: two stage shaker enable to shake two platform simultaneously.
Useful for biological culture under various temperature.

- Useful for biological culture under various temp.
- Inside material is SUS304 & outside body is powder painting
- Screen-touch panel
- The compressor will be delayed to start working if power cut and with timer for defrost.
- With safety switch to stop shaking when opening door
- Three-point bearing transmission is adopted suitable for heavy loads and continuous duty.
- Minimum noise, no vibration.
- Refrigeration using non cfc gas R134A
- Optional day/night light with timer.
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brush less AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.
- Optional: Day/night light+timer.

Double Platform, LOM-150D

Optional: Tube Holders

FLASK HOLDERS

Universal platform for LOM-150
111-1-111143

Model	LOM-150	LOM-150D
System	Forced air circulation	
Shaking system	Orbital	
Shaking platform	Single	Double
Temp. range	0°C~70°C	
Temp. constancy	±0.1°C	
Temp. uniformity	±1°C (at 37)	
Temp. control/display	PID/LED	
Temp. sensor	PT-100Ω	
Inside material	SUS-304	
Rate of shaking	20~300 rpm (option 400 rpm)	20~150 rpm
Shaking width	25 mm	
Shaking plate	W480xD380	W480xD380 Double platform
Refrigerator	1/4 HP	
Heater: Incubator	900W	
Safety devices	Short circuit breaker, over heat protector, refrigerator over load protector, sensor abnormality, over low protector	
Inside dimensions (mm)	W600xD500xH500	
Outside dimensions (mm)	W680xD690xH860	
Volume (Liter)	150	
Shelves	1 (Adjustable)	N/A
Power supply	110/220V, (8.5A)	
Weight	98Kg	100Kg

Capacity for flasks holders:

Model	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000
Flask clamps	125ml	250ml	500ml	1000ml	2000ml	3Liter	4Liter	5Liter
LOM-150	30	20	12	6	5	4	2	1
LOM-150D	30x2 set	20x2 set	12x2 set	-	-	-	-	-

DUAL SHAKER INCUBATORS

LOM-175-Dual

LOM-175-Dual/LOM-175D-Dual, Orbital Dual Shaking Incubator

Features:

- Useful for biological culture under various temp.
- Inside material is SUS304 & outside body is powder painting
- Screen-touch panel
- The compressor will be delayed to start working if power cut and with timer for defrost.
- With safety switch to stop shaking when opening door
- Three-point bearing transmission is adopted suitable for heavy loads and continuous duty.
- Minimum noise, no vibration.
- Refrigeration using non cfc gas R134A
- Optional day/night light with timer.
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brush less AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.

Optional: Tube Holders

FLASK HOLDERS

Model	LOM-175-Dual	LOM-175D-Dual
Platform	Single	Double
Temp. range	0°C~70°C	
Temp. Accuracy	±0.1°C	
Temp. control	PID	
Temp. Display	LED 2-screen digital display actual and setting temperature	
Shaker Speed	20~250 rpm (option 400 rpm)	20~150 rpm
Shaking width	25 mm	
Timer	999h / 999min / 999sec	
Heater	900 W each chamber	
Refrigerator	1/4HP	
Volume	Each chamber 175L	
Shaking Plate Size (mm)	640x440	
Inside dimensions (mm)	W700xD500xH500	
Outside dimensions (mm)	W780xD690xH1720	
Shelf (Adjustable)	1	N/A
Weight (Approx.)	170Kg	180Kg

Capacity of flask holders

Model	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000
Flask clamps	125ml	250ml	500ml	1000ml	2000ml	3Liter	4Liter	5Liter
LOM-175-Dual	40	28	20	12	6	6	2	2
LOM-175D-Dual	40x4 set	28x4 set	20x4 set	-	-	-	-	-

SHAKER INCUBATORS

LOM-300

LOM-300, Orbital Shaking Incubator, Double Door

Features:

- Useful for biological culture under various temp.
- Inside material is SUS304 & outside body is powder painting
- Screen-touch panel
- The compressor will be delayed to start working if power cut and with timer for defrost.
- With safety switch to stop shaking when opening door
- Three-point bearing transmission is adopted suitable for heavy loads and continuous duty.
- Minimum noise, no vibration.
- Refrigeration using non cfc gas R134A
- Optional day/night light with timer.
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brush less AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.

Optional: Tube Holders

Optional: Universal spring tray for LOM-300

FLASK HOLDERS

Model	LOM-300
Temp. range	0°C~70°C
Temp. Accuracy	±0.1°C
Temp. control	PID
Temp. Display	LED
Shaker Speed	20~250 rpm (option 400 rpm)
Shaking width	50 mm
Timer	999h / 999min / 999sec
Illumination	Fluorescent lamp 20 W
Heater	1200 W
Refrigerator	1/3HP
Volume	300L
Shaking Plate Size (mm)	900x500
Inside dimensions (mm)	W1000xD600xH500
Outside dimensions (mm)	W1380xD690xH890
Shelf (Adjustable)	1
Weight (Approx.)	280Kg

Capacity of flask holders

Model	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000
Flask clamps	125ml	250ml	500ml	1000ml	2000ml	3Liter	4Liter	5Liter
LOM-300	66	50	32	18	10	10	3	3

LARGE SHAKER INCUBATORS

LOM-560/LOM-834, Orbital Shaking Incubator, Large Vertical Type

LOM-834D

Features:

- Useful for biological culture under various temperature.
- Inside material is SUS304 & outside body is powder painting
- Screen-touch panel
- The compressor will be delayed to start working if power cut and with timer for defrost.
- With safety switch to stop shaking when opening door
- Three-point bearing transmission is adopted suitable for heavy loads and continuous duty.
- Minimum noise, no vibration.

LOM-560D

- Refrigeration using non cfc gas R134A
- Optional day/night light with timer.
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brush less AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.

FLASK HOLDERS

Model	LOM-560	LOM-560D	LOM-834	LOM-834D
Shaking platform	Single	Double	Single	Double
Temp. range	0°C~70°C			
Temp. Accuracy	±0.1°C			
Temp. control	Micro-computer PID temperature controller			
Temp. Display	LED 2-screen digital display actual and setting temperature			
Shaker Speed	20~250 rpm	20~150 rpm	20~250 rpm	20~150 rpm
Shaking width	50 mm			
Timer	999h / 999min / 999sec			
Heater	1600 W			
Illumination	Fluorescent lamp 20 W			
Shelf (Adjustable)	2	1	2	1
Refrigerator	1/3HP		1/2HP	
Volume	560L		834L	
Shaking Plate Size (mm)	740x480		960x600	
Inside dimensions (mm)	W860xD600xH1100		W1100xD690xH1100	
Outside dimensions (mm)	W940xD800xH1840		W1190xD920xH1840	
Weight (Approx.)	280Kg		300Kg	

Capacity of flask holders

Model	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000
Flask clamps	125ml	250ml	500ml	1000ml	2000ml	3Liter	4Liter	5Liter
LOM-560	48	40	24	12	9	6	6	4
LOM-560D	96	60	40	24	–	–	–	–
LOM-834	78	50	36	18	10	10	8	8
LOM-834D	156	100	72	36	–	–	–	–

LARGE SHAKER INCUBATORS

LOM-200N/400N, Precise Shaking Incubator, Top Door, Orbital Motion With Digital PID Control Up To 70°C

LOM-400N

Features:

- Useful for biological culture under various temp.
- Inside material is SUS304 & outside body is powder painting
- Screen-touch panel
- The compressor will be delayed to start working if power cut and with timer for defrost.
- With safety switch to stop shaking when opening door
- Three-point bearing transmission is adopted suitable for heavy loads and continuous duty.
- Minimum noise, no vibration.
- Refrigeration using non cfc gas R134A
- Optional day/night light with timer.
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brush less AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.

LOM-200N

Optional: Tube Holders

FLASK HOLDERS

Model	LOM-200N	LOM-400N
System	Forced air circulation	
Shaking system	Orbital	
Temp. range	0°C~70°C	
Temp. constancy	±0.1°C	
Temp. uniformity	±1°C (at 37)	
Temp. control / display	PID / LED	
Temp. sensor	PT-100	
Inside material	SUS-304	
Rate of shaking	20~250rpm	
Shaking width	50 mm	
Shaking plate (mm)	W600xD480mm	W960xD600mm
Refrigerator	1/4 HP	1/3 HP
Heater: Incubator	1200W	
Safety devices	Short circuit breaker, over heat protector, refrigerator over load protector, sensor abnormality, over low protector	
Inside dimensions	W680xD560xH540mm	W1040xD680xH540mm
Outside dimensions	W1010xD640xH870mm	W1370xD760xH870mm
Volume (Liters)	205	381
Power supply	110/220V, 50/60Hz, (8.5A)	
Weight	200Kg	300Kg

Capacity of flask holders

Model	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000
Flask clamps	125ml	250ml	500ml	1000ml	2000ml	3Liter	4Liter	5Liter
LOM-200N	48	30	20	12	9	6	6	4
LOM-400N	96	60	40	24	15	15	12	8

GROWTH INCUBATORS

PGI-550RH

PGI-550R/PGI-550RH, Plant Growth Incubator 550 Liter

- Customized design
- Apply to microorganism Lab / Cell culture / Biotechnology experiments / Analytical Lab / Food Science and Technology / Agricultural Lab / The Fisheries Laboratory / Gardening / Plant Research / Seeds.

Illuminated growth chamber controllers, allow setting of two temp. conditions day & night & an On/Off illumination cycle relative to the program selected. Timers can be set to adjust cycles from 10 minutes up to 24 hours.

Each system operates independently allowing for simulation of a diurnal cycle, such as an eight hour day cycle of 30°C with light followed by a sixteen hour night cycle of 18°C without light.

Forced air circulation ensures the most reproducible test conditions. The chamber air is gently & continuously circulated at a rate that ensures temp. uniformity of all test samples. The unit is equipped with a hermetically-sealed compressor & an independent over temp. safety controller. It also includes a circuit breaker to protect from electrical overload, 5 shelves, adjustable leveling feet, steel exterior with welded seams & corners, & double-coated, baked enamel finish.

MRC Diurnal growth chambers are designed for studies requiring day and night time simulation.

Internal

Model	PGI-550R	PGI-550RH
Temperature Range	0°C ~ 60°C	
Temperature Control	PID temperature controller, PV actual value and SV setting value displayed at the same time	
Temperature Precision	±0.1°C	
Touch Setting	Power, cooling temperature, humidity, illumination timer device	
Safety Device	overheat and over low cut off device. 2-stage protection with safety protection alarm and indicator, compressor delay-start, high and low pressure of cold media protection device	
Heater	1200 W SUS 304#	
Refrigerator	1/3 HP R134a	
Humidity Display	-	PID temperature controller, PV actual value and SV setting value displayed at the same time
Humidity Control	-	30% RH ~ 95% RH
Control Precision	-	± 3%
Humidity Display	-	DIgital
Humidity Device	-	Ultrasonic wave stainless steel (Back-mounted)
Illumination	4000-8000 LUX	
Timer	24H Temperature and light control	
Shelf / Inner Chamber	5 psc / SUS 304# stainless steel	
Inside Dimension (WxDxH)	680 x 580 x 1400 mm (Approx 550 L)	
Outside Dimension (WxDxH)	760 x 820 x 1870 mm	
Volume	550 L	
Power Voltage	110V/220V14A/7A	110V/220V16A/8A
Weight	150 kg	180 kg

GROWTH INCUBATORS

PGI-2660

- Animals, plant cell culture
- Insect
- Plant culture
- Tissue culture
- Domestication treatment
- Algae culture
- Pathology observation
- Biochemical experiment.

Model	PGI-2460/ PGI-2460H	PGI-2660/ PGI-2660H
Temperature range	0°C ~ 45°C	
Temperature control	Micro-computer PID temperature controller, PV actual value and SV setting value displayed at the same time, with independent day/night temperature	
Control Precision	±0.02°C dpi 0.1°C	
Touch Setting	Power, cooling, temperature, humidity, light, timer, all using touch setting	
Safety Device	Electronic LCD display, precision setting 0.1°C, overheat and over low cut off device. 2-stage protection with safety protection alarm and indicator, compressor delay-start, high and low pressure of cold media protection device	
Heater / Cooler	1KW SUS 304# / 7000 BTU	1.5KW SUS 304# / 12000 BTU
Humidity Control	Micro-computer PID temperature controller, PV actual value and SV setting value displayed at the same time	
Humidity Range	30% RH ~ 90% RH	
Control Precision	±0.02% dpi: 0.1%RH / ±3% RH	
Display / Safety Device	Digital display/Electronic setting precision 0.1%RH, with high or low humidity alarm	
Humidifier	Ultrasonic wave stainless steel humidifier	
Illumination Device	4-sides glasses heat insulation illumination: 0-30000LUX for choose, independent light control	
Timer Device	24h temperature and light control	
Shelf / Material	5pcs	10pcs
Inside Dimension (WxDxH)	620 x 620 x 1300 mm	1200 x 690 x 1300 mm
Outside Dimension (WxDxH)	910 x 930 x 2070 mm	1490 x 1000 x 2070 mm
Weight	500 L	1076 L
Power Voltage	220V 50/60Hz	

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Fried Electric
Factory: 19 Marconi St. Haifa 31250 Israel

DNI Series, 10 Liter, 20 Liter, 30 Liter, 50 Liter, 80 Liter, 150 Liter, 300 Liter Incubators

Lab incubators are specially designed for long-term and stable continuous operation. Ideal for gentle incubation of organisms, such as on agar plates, and also for conditioning of heat sensitive media. **Lab Incubators** are ideal for cultures, eggs, microbiology, and other biology samples in hospitals, industries, and laboratories. **PID Temp. Control** provides automatic compensation after load changes, setting changes or door opening for excellent accuracy. **Natural convection** heat distribution combines with the adjustable air vents to provide excellent uniformity.

Double wall construction, **fiberglass** insulation provided on 5 sides as well as between inner and outer walls, and **silicon rubber** door sealing reduce heat loss and power drain. **Stainless steel interior** chamber and shelves are corrosion resistant, durable and easy to clean. **Powder coating exterior** is beautiful, durable, and corrosion resistant. Internal transparent door to facilitate product inspection.

DNI-300D

Features:

- Simple keypad input allows easy temperature setting.
- LED digital display enables users to monitor the chamber temperature at any given time.
- Visual alarm indicator alerts users of abnormal conditions if the chamber temperature exceeds the setting point by 10°C.
- The temperature can be controlled and maintained to 70°C.
- Double doors allow samples viewing from the inner door.
- Shelves can be adjustable.
- The temperature stability is ±0.3°C at 37°C; ±0.4°C at 70°C.
- DNI-10 incubator: a reliable efficient and compact chamber in a sturdy design at a very favorable price. Units are stackable.

Specifications:

Model	DNI-10	DNI-20	DNI-30	DNI-50
Convection	Natural convection			
Temperature Range	Ambient +5°C ~ 70°C			
Volume (Liters)	10	20	30	50
Inside Dimensions (mm)	W282xD200xH190	W300xD310xH230	W325xD310xH315	W380xD365xH390
Heater: Incubator	150W	200W	300W	500W
Outside Dimensions (mm)	W500xD270xH300	W412xD420xH500	W425xD420xH610	W480xD475xH695
Shelves	1 Shelve	2 Shelves		
Power supply	AC220V 50/60Hz (110V 60Hz available)			

Model	DNI-80	DNI-150	DNI-300
Convection	Natural convection		
Temperature Range	Ambient +5°C ~ 70°C		
Volume (Liters)	80	150	300
Inside Dimensions (mm)	W420xD450xH463	W625xD510xH500	W625xD510xH1000
Heater: Incubator	700W	800W	1000W
Outside Dimensions (mm)	W522xD560xH770	W725xD620xH795	W725xD620xH1465
Shelves	2 Shelves		
Power supply	AC220V 50/60Hz (110V 60Hz available)		

DFI Series, 36 Liter, 80 Liter, 150 Liter, 240 Liter Incubators

Microbiological Incubator With Forced Convection

Premium equipment for all gentle incubation applications, including processing large numbers of samples at high throughput. Outstanding dynamics keep the required temperature virtually stable with homogenous distribution, irrespective of how many times the door is opened. The modern range of incubators is available in 4 sizes.
DFI Series offers excellent uniformity and stability & are used for many applications as incubation of culture test, drying slides, microbiological incubation, bacteriological test and more. The inner case is constructed from polished stainless steel. Internal glass door for incubator. All units are provided with wire plated shelves with multi position settings.
All models are with fans assisted air circulation.
The chamber ventilation and exhaust vent are easily adjustable.
Wide choice of control options is available.
PID controller is fitted as standard with dual display of measured value and setpoint.


DFI-36

Options:

- 38mm cable port
- Gas inlet
- 5 programs of 8 segments model: 3216CP
- 4 programs of 16 segments model: 2416P4
- RS-232/485 communication model: 3216E
- Datalogger

Model	DFI-36	DFI-80	DFI-150	DFI-240
Temp. range	Room temperature - 80°C			
Temp. constancy	±0.1°C			
Temp. uniformity	±2% at 37°C			
Temp. control	PID			
Temp. sensor	Thermocouple K			
Heater: Incubator	400W	400W	600W	800W
Inside Material	S.S -430			
Timer	99hr 59min			
Safety devices	Short circuit breaker, over heat protector, sensor abnormality			
Inside dimensions (mm)	W400xD300xH300	W500xD400xH400	W600xD500xH500	W600xD500xH800
Outside dimensions (mm)	W525xD420xH595	W620xD520xH620	W720xD620xH720	W720xD620xH1020
Volume (Liters)	36	80	150	240
Shelves	2	2	2	3
Weight	34kg	47kg	60kg	76kg

DFI-N Series, 50 Liter, 70 Liter, 140 Liter, 240 Liter Incubators

Precise incubating, Micro-processor based temperature controller up to ±0.1°C.
Silent hot conditioned axial fan and the unique design of air circulation for uniformity up to ±1.5%.
Patented ventilator featured with safe & easy access for exhausting of damp and fume, fast cool-down and ultra-low intrinsic temperature close to ambient.
Available with power-on modes of standby and auto restart after power failure for additional reliable and uninterrupted operation.
Bright cool white temperature screen, easy access symbolic key icon and status display.
Hair-style polished stainless steel interior and rounded corner bottom for easy cleaning and long service life.
Adjustable shelves for more space & different heights.


DFI-240N

Applications:

Applicable fields of medical ls & pharmaceuticals, life science, agriculture, food industries and, electric and electronics

Specifications:

Model	DFI-50N	DFI-70N	DFI-140N	DFI-240N
Temp. range	Room temperature 80°C			
Temp. constancy	±0.1°C ~ 0.3°C			
Temp. uniformity	±1.5 ~ 2.0%			
Temp. control	PID			
Heater: Oven	240W		375W	500W
Inside Material	SUS-304, hair style polishing			
Timer	Auto start-up, Auto shut-up			
Safety devices	Protection and warning against short-open-circuit temperature sensor High-temperature cutout and low-temperature alarm Independent over temperature cutout (STB), RCD ATC (Absolute Temperature Calibration), Auto start-up or standby after power fail ure			
Inside dimensions (mm)	W400xD400xH320	W440xD400xH400	W550xD550xH460	W640xD610xH610
Outside dimensions (mm)	W510xD550xH698	W550xD550xH778	W660xD705xH858	W750xD765xH1008
Capacity (Liters)	50	70	140	240
Shelves/Maximum	2/3	2/4	2/5	3/7
Power input	220-240V- 50/60Hz, 100V- 50/60Hz, 120V-50/60Hz			
Observation window	Yes			
Insulation material	Rock wool			
Door gasket	Silicone rubber			
Duty cycle	Continuous			
Air convection mode	Forced convection			


GI12-2

GI-Series, General Purpose

MRC General Purpose Incubators are the ideal solution for industrial protocols, biological research and environmental studies that demand accurate and repeatable results. Their best in class temperature uniformity is usually found only in more expensive, application specific incubators.
MRC General Purpose Incubator's wide temperature and size range make them a perfect solution for any lab.
Heated doors and a unique air jacket design achieve precise temperature uniformity. An independent secondary temperature controller offers the added safety and security of over temperature production.
The GI Series models include a sealed, inner glass door which provides a view into the chamber without compromising samples or the chamber environment. Stainless steel panels and doors reduce contamination, provide durability and allow for easy cleaning.

Precise Temperature Control – Superior Uniformity:

- Independent Over Temperature Thermostat
- Over Temperature Alarm
- Temperature Uniformity +/–0.35°C at 37°C
- Temperature Range Ambient +8°C to 70°C.

Applications:

- Hematology Studies
- Microbiological Determinations
- Pharmaceutical Stability Assays
- General Purpose Incubator Applications
- Large Scale Roller Apparatus Applications
- Bacterial Culturing and Research
- Food Processing Quality Control
- Biochemical Studies.


GI2-2


GI11-2


GI6-2

Model	GI2-2	GI6-2	GI7-2	GI11-2	GI12-2
Net Weight (kg)	37	72	74	89	144
Capacity	56 L	163 L	185 L	306 L	163 L each
Control/Displays	Microprocessor/Digital LED				
Exterior DIM.(cm)	55.9Wx55.9Dx66.1H	64.8Wx69.3Dx96.6H	76.2Wx80.7Dx82H	108Wx68.6Dx96.6H	64.8Wx69.3Dx192.5H
Chamber DIM.(cm)	38.1Wx38.1Dx38.1H	48.9Wx50.8Dx65.4H	60.3Wx60.9Dx50.2H	92Wx50.8Dx65.4H	48.9Wx50.8Dx65.4H
Interior Outlet	One				One each
Temperature Range	5° above amb. to 70°C				
Temp. Uniformity	±0.35°C at 37°C				
Chamber Style	Single			Single-2 doors	Dual-over/under
Tempered Safety Glass Door	Yes				
Access Port	Yes				
Over Temp. Safety	Independent Overtemp Protection				
Electrical Specifications Phase-120V Phase-220V	450W / 4.5A / 50/60Hz 500W / 2.5A / 50/60Hz	700W / 4.5A / 50/60Hz 725W / 2.5A / 50/60Hz	650W / 4.5A / 50/60Hz 700W / 2.5A / 50/60Hz	850W / 5.9A / 50/60Hz 3840W / 16A / 50/60Hz	Each chamber 650W / 5.0A / 50/60Hz 725W / 2.5A / 50/60Hz
Shelving	6	12	9	12	12 each

PIN200

PIN–Series, incubators

PIN30

The incubators are of the same basic construction as the ovens & have a maximum operating temperature of 80°C. Minimum operating temperature 10°C above ambient. Both gravity convection & fan assisted versions are available. All units have an integral sealed glass door to facilitate product inspection and are designed for long term accuracy and reliability. As with all products in the Peak range, a wide choice of control and programming options and other optional features is available. The 400 & 800 Liter capacities are floor standing models.
Heat up times are excellent and temperature stability with microprocessor three term control varies from ±0.2°C to ±0.5°C, depending on the model type.

		Incubators Without Fans				Incubators With Fans					
Model		PIN30	PIN60	PIN120	PIN200	PIF30	PIF60	PIF120	PIF200	PIF400	PIF800
Max Temp (°C)		80	80	80	80	80	80	80	80	80	80
Chamber Dimensions (mm)	**H** **W** **D**	255 330 320	350 392 420	450 492 520	700 592 520	300 292 320	400 392 420	500 492 520	750 592 520	1500 605 510	1500 1200 510
External Dimensions	**H** **W** **D**	470 655 470	570 765 570	670 865 670	920 965 670	470 665 470	570 765 570	670 865 670	920 965 670	1970 980 720	1720 1585 1000
Chamber Capacity (Liters)		27	58	115	215	28	66	128	230	400	800
Weight (Kg)		30	45	60	75	30	45	60	75	200	280
Shelves (number supplied) (max. possible) (max dist load/shelf kg) (max load kg)		2 3 10 20	2 5 10 30	2 9 10 40	2 15 10 50	2 3 10 20	2 5 10 30	2 9 10 40	2 15 10 50	3 30 10 75	3 30 10 100
PERFORMANCE											
Power Rating at 240V (watts)		250	550	675	1000	250	675	675	1000	2000	4000
Holding Power * at max. temp (watts)		70	95	140	250	115	150	200	300	530	840
Temperature Uniformity * (at max temp as a %)		±3.5	± 3.5	±3.5	± 3.5	± 1.5	± 1.5	± 1.5	± 1.5	± 2.0	± 2.0
Temperature Stability on/off control (°C)		±2.0	±2.0	±2.0	±2.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0
Temperature Stability PID control (°C)		±0.5	±0.5	±0.5	±0.5	±0.2	±0.2	±0.2	±0.2	±0.2	±0.2
Heat Up Times * **(mins)** 240V	37°C 60°C 80°C	6.5 12.5 18	6.5 12.5 8	6.5 12.5 8	8 16 25	2.5 8.5 16.5	3 7 12	3 8.5 15.5	4 12 23	15 40 85	17 45 100
Recovery Times * **(mins)** Door Open 60secs 240V	37°C 60°C 80°C	0.5 1 1.5	1 2.5 3	2 3.5 4.5	2.5 4 6	1 2 3.5	0.5 1 1.5	1 1.5 2.5	1.5 3 5	10 12 25	12 15 30
Air Exchanges vol (l/h)		N/A	N/A	N/A	N/A	1400	1400	1400	1400	12000	12000
Air Exchanges Exchanges/Hour		N/A	N/A	N/A	N/A	50	21	11	6	30	15

Note: A uniformity of ± 1% = ± 1°C at 100°C.
* With vents closed

BOD-250A

BOD-80A/BOD-150A/BOD-250A, Cooling

Features:

- Supplied with high quality cold rolling plate, sprayed with Dupont powder.
- The inner chamber is made of stainless still SUS304.
  The incubators are insulated using German Bayer CFC-free Polyurethane one-time foaming technology.
- Also provided are independent temperature controller and creepage protector to insure maximum safety.
- The unique air duct structure and configuration can guarantee even temperature throughout the chamber and accurate heating/cooling rate as well as full air circulation inside the chamber.
- RS232 Communication interface is provided.
  One 45 mm test tube with mold protection is located at either the left or right side of the incubator.
- Provided with advanced fuzzy PID programmable temperature controller system.
- Intelligent programmable mode, over temperature protection, creepage protection, door open alarm, current failure alarm and sensor alarm.

Model	BOD-80A	BOD-150A	BOD-250A
Control method	Fuzzy PID type controller		
Range of temperature control	-10°C ~ 65°C (optional -40°C ~ 65°C)		
Temperature display accuracy	0.1°C		
Precision temperature control	± 0.1°C (45°C)		
Temperature evenness	± 0.1°C (45°C)		
Working room temperature	5 ~ 35°C		
Overall dimension (mm)	W525xD607xH1100	W625xD657xH1270	W705xD747xH1500
Inner dimensions (mm)	W400xD400xH500	W500xD450xH670	W580xD540xH800
Product weight	About 87.5KG	About 95.5KG	About 117KG
Effective volume	80L	150L	250L
Temperature control method	Fuzzy logic PID control method		
Defrost method	Force/manual (optional)		
Power supply voltage	AC-220V 50/60HZ		
Programed control	Normal mode/program mode		
Refrigerating power	123W	175W	222W
Heating power	550W	750W	1000W
Test hole	Left right double test hole		
Tray (standard)	Two-layers	Three-layers	Three-layers

- Performance parameter testing under no-load conditions: ambient temperature 20°c, humidity 50%RH.

BOD-250A

Airduct structure
It applies circular airflow design concept and forced convection simulated air circulation principle.
The large power air circulating blades design can produce higher air flow rate and guarantee high, even and stable inner chamber temp.

Test hole
One test hole with the diameter of 45mm made with special mould is arranged on the left & right of the incubator respectively for observation. Internal silica gel soft plugs are provided to make sure the temperature inside the incubator is not effected.

RS232 interface
It is a special interface for PC.


LI20P-2

LI6P-2, LI20P-2, Incubators Peltier Cooled LIP Series

Innovative peltier cooling technology, eliminates the need for a refrigeration compressor in the LI6P-2 & LI20P-2. These units use 78% less power than alternative models and reduce room air conditioning loads by 75%. They also include 75 pound capacity shelves, which eliminates sagging. These incubators meet APHA specifications for Biochemical Oxygen Demand (B.O.D.) & include a mechanical convection system to ensure even air distribution, digital temperature set controller, over temperature limit control, and a digital temperature display.


LI6P-2

Features:
- Independent Over Temperature Thermostat.
- Over Temperature Alarm.
- Temperature Uniformity ±0.5°C at 20°C.
- Temperature Range 15°C to 40°C at 20°C Ambient.

Model	LI6P-2	LI20P-2
Exterior Dimensions (wxdxh)	762x801x851mm	762x801x1766mm
Chamber Dimensions (wxdxh)	647x609x469mm	647x609x1384mm
Incubator Chamber Capacity	185L	546L
Power	230V, 50/60Hz	230V, 50/60Hz
Bottle Capacity	120	300
Number of Shelves	2 included	5 included

- Automatic high and low temperature alarm to prevent the temperature from going too high and dropping too low
- Built-in circulating fan for temperature stability
- Humidity System, illumination and Timer can be install if required
- The compressor will be delayed to start working if power cut & with timer for defrost. Using environmental protection cold-media R134a
- Internal Power socket
- Touch-screen panel.

BOD-80/175-Dual/400, Orbital Shaking, BenchTop

The MRC model BOD-80/150/175x2
cooled incubator designed to obtain freezing, incubating, drying & test temperatures between 0°C and +70°C (or –10°C and +60°C).
It has stainless steel chamber and two doors, when the outer metallic door is opened there is inner glass door. Very good uniformity is achieved by forced air circulation. A PID temperature controller provides constant and accurate temperature. Inside power socket enable the use of the shaker rotator or other instrument inside. Cable port with cup is available upon request.

The MRC model BOD-400/550/590
is ideal for BIOCHEMICAL OXYGEN DEMAND of sewage and waste water.
Other applications includes fermentation studies, drug stability tests.
Excellent temperature uniformity is obtained by forced air circulation.
A PID microprocessor temperature controller provide accurate and constant temperature.
Dual display of setpoint and chamber temperature.
Hermetically sealed compressor and automatic defrost.

Options: 38mm cable port • Gas inlet • Day/Night Light+Timer

Model	BOD-590	BOD-550	BOD-400	BOD-150	BOD-175 Dual	BOD-80
Temp. range	0°C~70°C (or -10°C to 60°C)					
Temp. Accuracy	±0.1°C					
Temp. control	PID					
Temp. Display	LED digital display actual and setting temperature					
Temp. Sensor	PT-100Ω					
Heater	900W	1200W	1200W	900W	900W x 2	900W
Volume	590L	550L	400L	150L	175L x 2	80L
Shelf (Adjustable)	4	4	4	2	2	2
Inside Material	Strengthen white porcelain	SUS 304				
Refrigerator	1/3HP			1/4HP		
Inside dimensions WxDxH(mm)	680x600x1450	680x580x1400	600x500x1350	600x500x500	700x500x500	500x400x400
Outside dimensions WxDxH(mm)	815x800x1940	760x820x1860	670x740x1820	680x700x825	780x690x1720	560x550x670
Weight	90Kg	90Kg	90Kg	78Kg	150Kg	50Kg

LI20–2

LI5–2

LI5–2, LI20–2, LI27–2, Incubators Refrigerated LI Series

MRC Refrigerated Incubators (often called B.O.D. Incubators or Low Temp. Incubators) are commonly used for applications such as B.O.D. Determinations, Plant & Insect Studies, Fermentation Studies, and Bacterial Culturing. The MRC Low Temperature Incubators have a temperature range of 20°C degrees below ambient to 45°C. Units are equipped with a hermetically-sealed compressor, a circuit breaker to protect from electrical overload, and an easy to clean, fully insulated chamber. Gentle, continuous forced-air circulation ensures temperature uniformity and reproducible test conditions.

The Refrigerated Incubators also include an independent over temperature safety controller, adjustable shelves in two inch increments and a one amp interior outlet to allow the use of shakers, stirrers, roller bottles or other apparatus.

LI27–2

Applications:

- APHA Method at 20°C.
- Plant Cell Growth.
- Fermentation Studies.
- Bacterial Culturing.
- Mycology Studies.
- Independent Over Temperature Thermostat.
- Over Temperature Alarm.
- Temperature Uniformity +/- 0.5°C at 20°C.
- Temperature Range 0°C to 45°C at 20°C Ambient.

Model	LI5–2	LI20–2	LI27–2
Exterior Dimensions (wxdxh)	61.0 x 53.4 x 85.8 cm	87.7 x 87.7 x 196.9 cm	92.8 x 90.9 x 196.9 cm
Chamber Dimensions (wxdxh)	40.6 x 30.4 x 54.6 cm	68.5 x 58.4 x 143.5 cm	76.2 x 67.3 x 137.1 cm
Incubator Chamber Capacity	68L	574L	763L
Power	220V, 50/60Hz	220V, 50/60Hz	220V, 50/60Hz
Bottle Capacity	62	345	540
Number of Shelves	2 included	4 included	6 included

RI40-2

RI28-2. RI40-2, Reach-In Large Capacity Incubators

This incubator provides extra large capacities while minimizing the amount of floor space needed. The temp. in this large space is kept uniform by integrating a highly responsive microprocessor with an appropriately sized heating element. An independent secondary temp. controller offers the added security of over temperature protection.

Our unique forced air circulation system creates a one-pass circulation pattern that provides both exceptional temp. uniformity & rapid heat recovery. The chamber floors are ruggedly reinforced to support roller apparatus or shakers.
The RI28 & RI40 supplied with six sturdy shelves that will not sag or bend under heavy loads.

The General Purpose Incubator Family ranges in size from 2 to 38 cu.ft. (RI40 - 2 to 38.6 cu.ft.) This this superior line of incubators has created a level of comfort & convenience for professionals that is unrivaled.

Applications:

- Hematology Studies.
- Microbiological Determinations.
- Pharmaceutical Stability Assays.
- General Purpose Incubator Applications.
- Large Scale Roller Apparatus Applications.
- Bacterial Culturing and Research.
- Food Processing Quality Control.
- Biochemical Studies.

Features include:

- Microprocessor Control.
- Viewing Window.
- Roller Bottle Apparatus Accommodation.
- Interior Outlet.
- Powder Coated White Interior.
- Six Shelves.

Forced Airflow

The MRC air jacket design and heated outer door allows for uniform heat throughout our incubators.

Model	RI28-2	RI40-2
Capacity	872 L	1092 L
Interior Dimensions	81.9W x 66D x 161.2H cm	97.8W x 86.4D x 191.2H cm
Exterior Dimensions	88.9W x 66D x 186H cm	105.4W x 88.3D x 222.3H cm
Temperature Range	Ambient +8 to 70°C	Ambient +8 to 70°C
Temp. Uniformity	±0.8°C at 37°C	±0.8°C at 37°C
Electrical Specifications	Volts: 120V Hertz: 50/60Hz Watts: 1485W Amps: 8.5A	Volts: 120V Hertz: 50/60Hz Watts: 1650W Amps: 12.5A
Shelving	6 Supplied (16 max)	6 Supplied (20 max)
Access Port	One	One
Interior Outlet	Four	Four
Net Weight (kg)	226	386


HC6-2

HC6-2, HC9-2, HC30-2, Standard Humidity Cabinets
HC9R-2, HC30R-2, Refrigerated Humidity Cabinets

MRC Humidity Test Cabinets provide a controlled environment for a wide range of industrial & biotechnology testing applications. This line is designed to duplicate a natural condition, which allows testing the limitations of a sample when exposed to various temperature & moisture fluctuations.

Microprocessor controls maintain temperature and humidity in approximate ranges of 35-70°C (HC30R-2 10-70°C) and 40-95%RH, respectively. An extra large water jacket minimizes condensation inside the chamber and supports optimum uniformity conditions.

A low-pressure water vapor generator, injecting saturated water vapor into the recirculating air duct, controls chamber humidification. This process is preferable to steam generation because steam introduces additional heat to the chamber atmosphere, which then compromises temperature control. Uniform temperature and humidity are maintained using the same horizontal air flow technology employed in the MRC oven family.

HC9-2

HC9R-2

Applications include:
- Shelf Life Testing.
- MIL-SPEC Packaging.
- Component Burn In.
- Vapor Transmission.
- Stability Testing.
- Fingerprint Detection.

MRC Humidity Test Chambers provide a controlled environment for a wide range of industrial and bio technical testing applications. All chambers include:
- Microprocessor Control.
- Seamless Corrosion-Resistant Stainless Steel Interior.
- High Limit Back-Up Controller.


HC30R-2

Models HC9R-2/HC30R-2, These humidity test chambers incorporate a refrigeration system that dramatically increases the operational range of the cabinet.

Model	HC6-2	HC9-2	HC9R-2	HC30-2	HC30R-2
Capacity	141 L	309 L	309 L	799 L	799 L
Interior DIM. WxDxH cm	60.5x40.75x61	76.2x53.3x76.2	76.2x53.3x76.2	76.8x66x157.4	76.8x66x157.4
Exterior DIM. WxDxH cm	74x66x94	112.4x83.2x144.8	112.4x83.2x144.8	108x94x215.9	108x94x215.9
Temp. Range	Ambient +10°C to 80°C	Ambient +10°C to 70°C	+10°C to 70°C	Ambient +10°C to 70°C	+10°C to 70°C
Temp. Uniformity	±0.5°C at 37°C	±0.5°C at 37°C	±0.5°C at 37°C	±0.5°C at 37°C	±0.5°C at 37°C
Electrical Specifications	220 Volts				
Temp. Control	± 0.5°C				
Jacket Type	Air	Air	Air	Air	Air
Relative Humidity Range	Ambient +10% to -95%				
Shelving	2 supplied (5 max)	3 Supplied (8 max)	3 Supplied (8 max)	6 Supplied (16 max)	6 Supplied (16 max)

HD-800

HD-800 Series, Hybridization Incubator

The MRC hybridization incubators offers high performance with precise temperature control, safety and convenience. It is small and space saving incubator.
The bottle carrousel is easily removable for easy cleaning of the chamber. The bottle carrousel accept up to eight bottles (300mm). Very homogeneous temperature distribution in the chamber is obtained by air forced ventilation. This airflow system also ensures fast recovery of chamber temperature after door opening.
A PID temperature controller provide constant & no temperature overshoot. Dual display of actual chamber temperature & set point temp.
Tempered glass viewing window provides clear chamber visibility without opening the door. Simple operation of speed by means of rotary switch & the speed display is by analog tachometer.

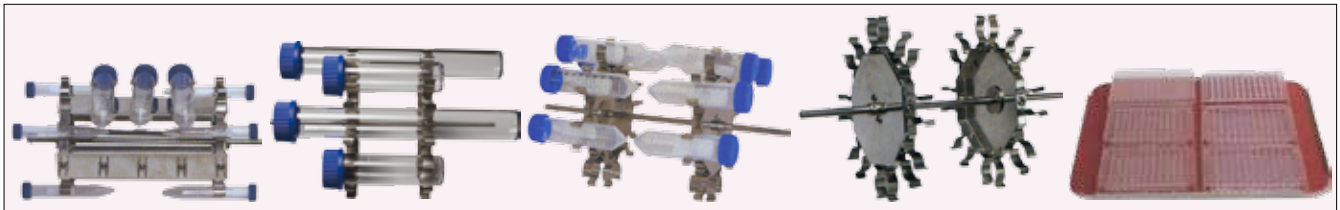
HD-801

Features:

- Requires less probe to produce consistent films with sharp bands.
- Forced air convection provides excellent temperature uniformity.
- Compact design saves bench space.
- Broad temperature range from ambient +5°C to 80°C.
- Precise microprocessor-based PID temperature control from 5°C above ambient to 70°C in 0.1°C increments.
- Forced air circulation maintains temperature uniformity of ±0.5°C.
- Variable speed models provide consistent speed even at low rpms for uniform distribution of solutions and complete wetting of membrane.

Applications:

- Northern (RNA) blot hybridizations
- Southern (DNA) blot hybridizations
- Western (Protein) blot hybridizations.


HD-AC-H HD-AC-1.5 HD-AC-15 HD-AC-50 AC-210-96

Model	HD-800D	HD-801RD	HD-801DS	HD-801RK
Shaking	Rotation+orbital	Rotation	orbital	Rocking
Temp. range	Ambient +5°C~80°C			
Temp. Accuracy	±0.1°C			
Temp. control	PID			
Temp. Display	LED			
Rotor Speed	6 ~ 50rpm		-	-
Rotor Capacity	8 pcs (Max)	Supplied 8 pcs (Max)	-	-
Shaker Speed	10 ~ 100rpm	-	20 ~ 200rpm	6 ~ 60rpm
Shaking Width	25mm	-	-	-
Shaker Capacity	Carry 6 kg			
Timer	999 h / 999 min / 999 sec			
Shaking Plate (mm)	310 x 210			
Inside dimensions WxDxH(mm)	350x250x425		350x255x250	
Outside dimensions WxDxH(mm)	440x375x660		440x375x410	
Weight	33kg		23kg	

1013–2

1013–2, Hybridization Incubator

Hybridization ovens are the preferred technique for hybridization in today's laboratory. Incubation takes place inside the incubator, under constant rotation, ensuring even distribution of probe solution over the membrane. While there are other solutions available for hybridization applications, hybridization ovens offer better agitation and higher throughput. They also require less volume per membrane area, resulting in savings for labs.

MRC 1013–2 Hybridization incubator's unique fan assisted airflow system circulates air evenly and continuously, delivering excellent temperature uniformity throughout the oven chamber. This system ensures fast recovery of chamber temperature after a door opening.

The digital set/digital read microprocessor temperature controller maximizes rapid heat-up of the oven. An over temperature safety control is automatically set by the microprocessor at 1.0°C above the setpoint. In the unlikely event of a microprocessor failure, a thermal cutoff will shut off the power to the heating elements.

The 2–20 RPM rotation speed range permits hybridization and washing at different speeds at the touch of a dial. A separate jogging switch has been included to allow incremental rotation of the carousel for easy loading & unloading. This unit has a 12 bottle capacity and is supplied with a drip pan with adjustable feet, a locking pin, & a power cord.

Model	1013–2
Exterior Dimensions (mm)	445Wx508Dx553H
Chamber Dimensions (mm)	317Wx304Dx368H
Rotator Capacity	12 Bottles

Applications:

- Molecular Biology Assays.
- Southern (DNA) Hybridization.
- Northern (RNA) Hybridization.
- Western Blot.
- Temperature Range Ambient +5°C to 70°C.
- Temperature Adjustable by 0.1°C.

3025–2

3015–2, 3025–2, Water Jacket Value Line Incubators

Water Jacket Incubators provide excellent temperature uniformity. Both the water jacket and the heated door design eliminate condensation on the walls & glass door. Copper strip in the water jacket inhibits bacteria growth.

The microprocessor temperature control allows digital temperature set and read-out to 0.1C. Incubators are available as a single chamber unit or over/under unit and feature a full length inner glass door for visual checks without disturbing incubation. Through-wall access port allows roller apparatus, rocker or stirrer operation. Adjustable leveling feet compensate for uneven surfaces. All 3000 Series Incubators are supplied with a humidity pan.

3015–2

Applications include:

- Biochemical Studies.
- Hematologic Studies.
- Bacterial Culturing and Research.
- Microbiological Determinations.
- Pharmaceutical Stability Assays.
- Food Processing Quality Control.
- Large Scale Roller Apparatus Applications.

Model	3015–2	3025–2
Weight (kg)	143	286
Capacity	155 L	311 L
Interior Dimensions	46.9W x 46.9D x 62.2H cm	46.9W x 46.9D x 62.2H cm
Exterior Dimensions	58.4W x 59.7D x 97.8H cm	58.42W x 59.7D x 195.6H cm
Temperature Range	Ambient +5 to 70°C	Ambient +5 to 70°C
Temp. Uniformity	+0.2°C	+0.2°C
Electrical Specifications	Volts: 220V Hertz: 50/60Hz Watts: 650W	
Shelving	3 Supplied	3 Supplied per unit

LIFLY–2

LIFLY–VIEW–2

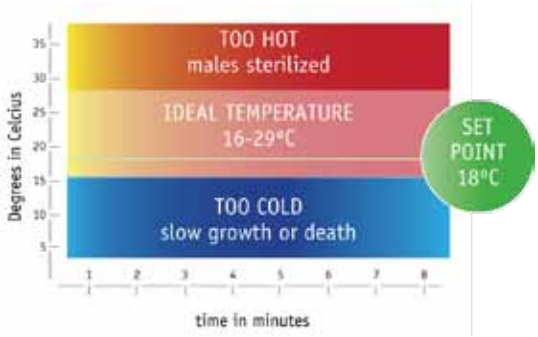
LIFLY–2/LIFLY–VIEW–2, Drosophila Incubators LIFLY Series

The MRC LIFLY is the first Drosophila specific low temperature incubator that takes advantage of the range of temperatures acceptable in Drosophila culture allowing the condensing coil adequate cycling time, thus avoiding ice buildup. The LIFLY addresses all of the major performance issues associated with other fly-specific incubators on the market.

This incubator functions within the range of temperature preferred by fruit flies. The elements only activate if the chamber temperature goes below the programmed lowest acceptable level. The compressor will shut off & rest while the chamber temperature slowly rises in response to a door opening or heat from fan or optional light. This results in a longer lasting unit with less maintenance, reduced heat output & less noise from the compressor.

Applications:

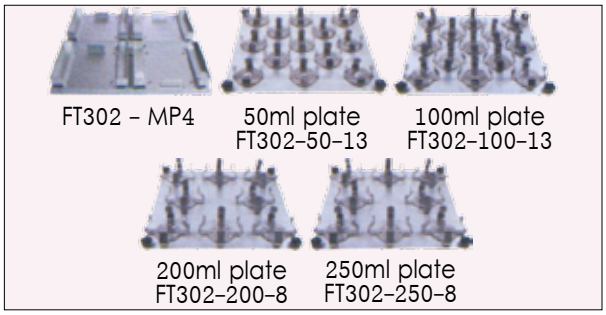
- Microprocessor controlled interior light mimics diurnal cycles that foster breeding.
- Conformal coated refrigeration coils.
- Robust, programmable heating and cooling control.



Energy Saving Features:

- On and off condenser cycles prevent ice build-up.
- No costly coil replacements from pitting caused by crystallized gas contact with ice.
- Compressor cycling requires less than 25% of the energy required for standard B.O.D. incubators.

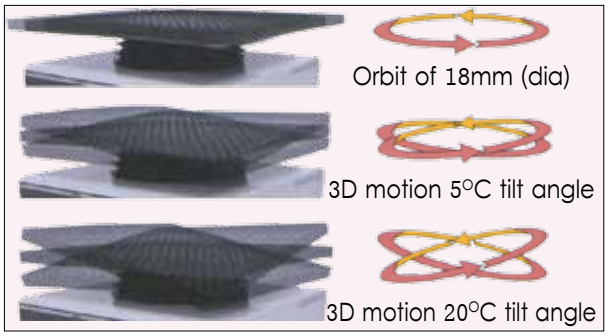
Model	LIFLY–2	LIFLY–VIEW–2
Exterior Dimensions (wxdxh)	87.7 x 87.7 x 196.9 cm	87.7 x 87.7 x 196.9 cm
Chamber Dimensions (wxdxh)	68.5 x 58.4 x 143.5 cm	68.5 x 58.4 x 143.5 cm
Incubator Chamber Capacity	574L	574L
Interior Outlet	220V	220V
Number of Shelves	8 included	8 included



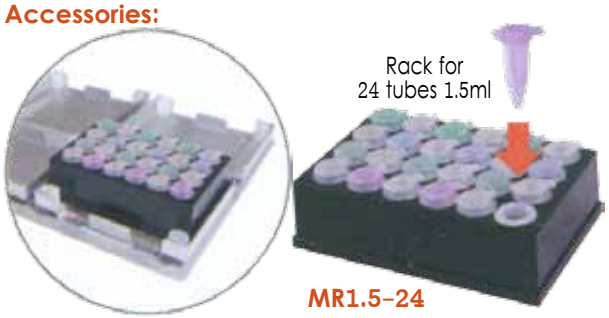
Other Accessories:

Model	Description
FT302-MP4	Rack for micro well plate - Capacity: 4ea
FT302-50-13	Flask Rack for 50ml flask - Capacity: 13ea
FT302-100-13	Flask Rack for 100ml flask-Capacity: 13ea
FT302-250-8	Flask Rack for 250ml flask - Capacity: 8ea

View of actual movements:



Accessories:



Rack for flask | for micro well plate (4ea) or 1.5ml centrifuge tube(96ea) | Dimple pad for conical tubes | Rubber mat for petri dish

TOU-H30/C30, Shaking Incubator, Variable plate for heating & shaking Incubator

TOU-H30: for heating, TOU-C30: heating and cooling

- The internal mechanism and chamber are separated, therefore, there is no loss of heat.
- TOU-H/C MECHANISM (patented, 5step angle adjustment system) allows orbital motion & various twist for movement
- Digital micro processor control [PID] for highest accuracy
- Select between heating & cooling mode or heating mode
- Orbit of 18mm for best mixing result especially for get and blotting
- Convenient upward opening door
- Dual mat to accommodate each vessels in the proper mat
- LED display for actual speed
- Safety features :
  -Flashing alarm lamp to warn over-temp.
  -Over-temp. cut-out
  -Over-temp. safety thermostat.

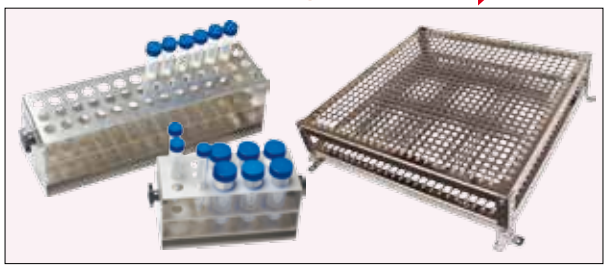
Model	TOU-H30	TOU-C30
Speed Range	30-300rpm	
Shaking Angle	orbital range-18mm 3D twist 5°C 3D twist 10°C 3D twist 15°C 3D twist 20°C	
Temp. Range	Ambient +5°C~80.0°C	15.0°C~65.0°C
Dimensions	W470xD630xH410 mm	
Weight	34kg	39kg
Wattage	610W	810W
Power	AC 110V/220V/230V, 50/60Hz	

Shaking Capacities:

Model	TOU-H30	TOU-C30
1.5ml Tubes	96ea	
Conical Tubes(50ml)	14ea	
Petri dish	9ea	
Micro Well Plate	4ea	
Deep Well Plate	4ea	
Flask 50ml	13ea	
Flask 100ml	13ea	
Flask 250ml	8ea	

- Automatic stop of shaking, when the door is opened
- Accommodate flasks up to 2000ml
- Universal spring rack for various shapes/sizes of flasks is available (optional).

Optional: Universal spring tray



LOM-65/TOU-50N/TOU-120N, Orbital Shaking Incubator, BenchTop

Applications

- Areas of application: cultivation of cell & tissue cultures or micro organisms. molecular biology, cell and insect culture, and entomology studies.
- Production of secondary natural substances and biogenetic pharmaceutics etc.

Features:

- Space saving with transparent window in the front which provide good visibility that minimize the need to open the chamber, automatic cutout of shaker when lid is open to protect operator.
- Platform 300 x 400 mm or 450 x 450mm accept flasks up to 2 Liter, test tubes racks and gel trays.
- Shakers feature a triple eccentric drive that handles heavy workloads, provides uniform agitation & enables continuous 24-hour operation even at high speeds.
- Precisely monitor and control chamber temperature over complete range with ±0.1°C accuracy at 37°C with PID temperature controller
- DC motor & variable speed control from 40 to 400rpm, controlled by a rotary dial
- Integrated tachometer monitors & displays speed in rpm to guarantee an accurate setting
- Easy-to-read digital display shows temperature
- Advanced shaking mechanism provides quiet shaking & precise speed control
- Min. noise & no vibration

TOU-50N LOM-65

Model	TOU-50N	TOU-120N	LOM-65
Type	Flip-up door		Upright
Temp. range	Ambient + 5°C~70°C		
Temp. Accuracy	±0.1°C		
Temp. control	PID		
Temp. Display	LED		
Shaker Speed	20~250 rpm (optional 400 rpm)		
Shaking width	25 mm		
Timer	999h / 999min / 999sec		
Volume	66L	102L	65L
Shaking Plate Size (mm)	400x300	450x450	400x300
Inside dimensions (mm)	W455xD390xH380	W500xD540xH380	W450xD390xH370
Outside dimensions (mm)	W460xD510xH540	W510xD650xH540	W520xD550xH610
Weight (Approx.)	30Kg	40Kg	50Kg

Capacity of flask holders

Model	111-1-110050	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000
Flask clamps	50ml	125ml	250ml	500ml	1000ml	2000ml
TOU-50N	35	20	12	6	4	2
TOU-120N	64	36	25	16	9	5
LOM-65	35	20	12	6	4	2

TOUR-120-2

TOUR-120-2/5, Orbital BenchTop Refrigerated Shaker-Incubator

Applications

- Areas of application: cultivation of cell & tissue cultures or micro organisms. molecular biology, cell and insect culture, and entomology studies.
- Production of secondary natural substances and biogenetic pharmaceutics etc.

Features:

- Space saving with transparent covers which provide good visibility that minimize the need to open the chamber, automatic cutout of shaker when lid is open to protect operator.
- Platform 460 x 460mm accept flasks up to 2 Liter, test tubes racks and gel trays.
- Shakers feature a triple eccentric drive that handles heavy workloads, provides uniform agitation & enables continuous 24-hour operation even at high speeds.
- Programmable controls - automatic changes temperature & speed in timed intervals
- Constant speed & temperature mode
- Advanced shaking mechanism provides quiet shaking & precise speed control
- Min. noise & no vibration
- Automatic stop of shaking, when the door is opened
- Accommodate flasks up to 2000ml
- Universal spring rack for various shapes/sizes of flasks is available (optional).

Optional: Tube Holders

FLASK HOLDERS

Product parameters:

Model	TOUR-120-5	TOUR-120-2
Control	Fuzzy PID controller	
Shaker Speed	25~300RPM ±1 RPM	25~400RPM ±1 RPM
Shaking System	Orbital	
Shaking Orbit	25mm	
Timing Range (additional)	Auto start-up; auto shutdown; power off memory; power on resume; valuing temperature and speed control; programmed temperature and speed control (0~99h)	
Temperature Precision	± 0.1 (0~999h)	
Temperature Control Range	4°C~60°C	
Temperature Uniformity	±1°C	
Shaking Plate Size (mm)	460mm x 460mm	
Inside Dimensions (mm)	(W x L x H) 520mm x 550mm x 450mm	
Outside Dimensions (mm)	(W x L x H) 620mm x 840mm x 630mm	
Power Capacity	220V 50/60Hz 800VA	

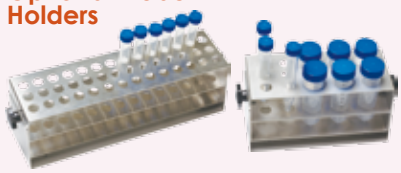
- Performance parameters under ideal conditions: ambient temperature 20°C, ambient humidity 50%RH

Capacity of flask holders

Model	111-1-110050	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000
Flask clamps	50ml	125ml	250ml	500ml	1000ml	2000ml
Number of Holders	64	36	25	16	9	5

LOM-150

Optional: Tube Holders



FLASK HOLDERS

Universal platform for LOM-150
111-1-111143

LOM-150-Series, 150Liter Shaking Incubator, Orbital Motion

This multipurpose model can shake, incubate & refrigerate.
The 480x380mm platform accepts flasks up to 6 Liter.
Large viewing window & internal light provide clear chamber visibility, with moveable window blind.
One stationary shelve for incubating added samples with a front opening door, the LOM-570 can be used on the bench or on the floor, wide temp. range 0°C to 60°C.
Model LOM-150D: two stage shaker enable to shake two platform simultaneously.
Useful for biological culture under various temperature.

- Useful for biological culture under various temp.
- Inside material is SUS304 & outside body is powder painting
- Screen-touch panel
- The compressor will be delayed to start working if power cut and with timer for defrost.
- With safety switch to stop shaking when opening door
- Three-point bearing transmission is adopted suitable for heavy loads and continuous duty.
- Minimum noise, no vibration.
- Refrigeration using non cfc gas R134A
- Optional day/night light with timer.
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brush less AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.
- Optional: Day/night light+timer.


Double Platform, LOM-150D

Model	LOM-150	LOM-150D
System	Forced air circulation	
Shaking system	Orbital	
Shaking platform	Single	Double
Temp. range	0°C~70°C	
Temp. constancy	±0.1°C	
Temp. uniformity	±1°C (at 37)	
Temp. control/display	PID/LED	
Temp. sensor	PT-100Ω	
Inside material	SUS-304	
Rate of shaking	20~300 rpm (option 400 rpm)	20~150 rpm
Shaking width	25 mm	
Shaking plate	W480xD380	W480xD380 Double platform
Refrigerator	1/4 HP	
Heater: Incubator	900W	
Safety devices	Short circuit breaker, over heat protector, refrigerator over load protector, sensor abnormality, over low protector	
Inside dimensions (mm)	W600xD500xH500	
Outside dimensions (mm)	W680xD690xH860	
Volume (Liter)	150	
Shelves	1 (Adjustable)	N/A
Power supply	110/220V, (8.5A)	
Weight	98Kg	100Kg

Capacity for flasks holders:

Model	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000
Flask clamps	125ml	250ml	500ml	1000ml	2000ml	3Liter	4Liter	5Liter
LOM-150	30	20	12	6	5	4	2	1
LOM-150D	30x2 set	20x2 set	12x2 set	-	-	-	-	-

LOM-175-Dual

LOM-175-Dual/LOM-175D-Dual, Orbital Dual Shaking Incubator

Features:

- Useful for biological culture under various temp.
- Inside material is SUS304 & outside body is powder painting
- Screen-touch panel
- The compressor will be delayed to start working if power cut and with timer for defrost.
- With safety switch to stop shaking when opening door
- Three-point bearing transmission is adopted suitable for heavy loads and continuous duty.
- Minimum noise, no vibration.
- Refrigeration using non cfc gas R134A
- Optional day/night light with timer.
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brush less AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.

Optional: Tube Holders

FLASK HOLDERS

Model	LOM-175-Dual	LOM-175D-Dual
Platform	Single	Double
Temp. range	0°C~70°C	
Temp. Accuracy	±0.1°C	
Temp. control	PID	
Temp. Display	LED 2-screen digital display actual and setting temperature	
Shaker Speed	20~250 rpm (option 400 rpm)	20~150 rpm
Shaking width	25 mm	
Timer	999h / 999min / 999sec	
Heater	900 W each chamber	
Refrigerator	1/4HP	
Volume	Each chamber 175L	
Shaking Plate Size (mm)	640x440	
Inside dimensions (mm)	W700xD500xH500	
Outside dimensions (mm)	W780xD690xH1720	
Shelf (Adjustable)	1	N/A
Weight (Approx.)	170Kg	180Kg

Capacity of flask holders

Model	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000
Flask clamps	125ml	250ml	500ml	1000ml	2000ml	3Liter	4Liter	5Liter
LOM-175-Dual	40	28	20	12	6	6	2	2
LOM-175D-Dual	40x4 set	28x4 set	20x4 set	-	-	-	-	-

LOM-300

LOM-300, Orbital Shaking Incubator, Double Door

Features:

- Useful for biological culture under various temp.
- Inside material is SUS304 & outside body is powder painting
- Screen-touch panel
- The compressor will be delayed to start working if power cut and with timer for defrost.
- With safety switch to stop shaking when opening door
- Three-point bearing transmission is adopted suitable for heavy loads and continuous duty.
- Minimum noise, no vibration.
- Refrigeration using non cfc gas R134A
- Optional day/night light with timer.
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brush less AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.

Optional: Tube Holders

Optional: Universal spring tray for LOM-300

FLASK HOLDERS

Model	LOM-300
Temp. range	0°C~70°C
Temp. Accuracy	±0.1°C
Temp. control	PID
Temp. Display	LED
Shaker Speed	20~250 rpm (option 400 rpm)
Shaking width	50 mm
Timer	999h / 999min / 999sec
Illumination	Fluorescent lamp 20 W
Heater	1200 W
Refrigerator	1/3HP
Volume	300L
Shaking Plate Size (mm)	900x500
Inside dimensions (mm)	W1000xD600xH500
Outside dimensions (mm)	W1380xD690xH890
Shelf (Adjustable)	1
Weight (Approx.)	280Kg

Capacity of flask holders

Model	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000
Flask clamps	125ml	250ml	500ml	1000ml	2000ml	3Liter	4Liter	5Liter
LOM-300	66	50	32	18	10	10	3	3

LOM2-8043

Descriptions:

MRC now can offer new space-saving incubator shakers. This LOM – Series shaker (touch screen) can be stacked up to three units high, providing laboratory professionals tripled culture capacity, while still only occupying the same "footprint" of a single shaker. All models feature an insulated, fold-down door with double-layer glass window for high visibility. On all refrigerating models, microprocessor controller provides unmatched versatility by enable users to create personalized program (with up to 9 segments, with cycling) to automate changes to function parameters.

LOM1-8043, LOM2-8043, LOM3-8043, Premium Stackable Shaking Incubators

Features:

- 5.6'' LCD 640x480 touch screen panel clearly indicates all parameters in one page display.
- Fold-down door with door handle, and dedicated sliding shaking platform provide convenient access to your experiment products. Moreover, the top of the casing can be further used as a work area for locating small items of lab equipment etc.
- The incubator casing is made of heavy-gauge cold-rolled steel; together with high graded #304 stainless steel inner chambers with cover corners make it easy to clean with mild detergent.
- The unit can be upgraded with CO2 and humidity control, with heated window glass to prevent condensation, perfect for cell culture.
- Heavy-duty, eccentric drive mechanism allows extended speed ranges from 30 to 300 rpm, ±1 rpm with minimized vibration, even when shakers are stacked of three high.
- Robust brushless AC motor enables and smooth quiet shaking motion, even when unit is operating at top speed with maximum workload.
- Non-volatile memory saves settings during power outage & automatically restarts the unit after power is restored.
- Audible and visual alarms alert user of setpoint deviations. Audible alarm may be muted.
- Heater shuts off when high-temperature limit is exceeded.
- Shaker stops when excess vibration is detected or when door is opened.
- Interior chamber light for clear observation.
- Pre drilled platform as standard configuration, flask clamps excluded.
- Please contact MRC for more information about humidity and CO2 control options.

Model	LOM1-8043	LOM2-8043	LOM3-8043
Control	P.I.D Microprocessor		
Control Mode	Fix Value or Program (up to 9 Segments)		
Control Panel	LCD Touch Screen		
Air Convection	Forced		
Shaking Mode	Orbit		
Volume/ Compartment (L)	190		150
Working Temperature (°C)	10-35		
Shaking speed (rpm)	30-300		
Stroke (mm)	1-50 Stepless Adjustable		
Temperature Range (°C)	4-60		
Temperature Accuracy (°C)	0.1		
Temperature Uniformity (°C)	±1°C@37°C		
Timer	1 to 9999 mins		
Tray (mm) (WxD)	800x430		
No. Of Tray	1	2	3
Inner Dimensions	920Wx532Dx395H mm		920Wx532Dx305H mm
Exterior Dimensions	1300Wx950Dx900H mm	1300Wx950Dx1310H mm	1300Wx950Dx1890H mm
Packing Dimensions	1420Wx1070Dx1040H mm	1420Wx1070Dx1480H mm	1420Wx1070Dx2060H mm
Net/Gross Weight	200/240 kg	390/440 kg	580/650 kg
Power (W)	1200	2400	3600
Electricity	220/240Volt 50/60 HZ		
Approval	CE, ISO		
Security	Over-temperature Protection, Compressor Overload Protection, Electrical Leakage Protection, CO2 Concentration Deviation Alarm.		
Additional	Built-in Printer, RS-232 interface		

Glass dimensions may reduce max. capacity:

Model	50ml	100ml	250ml	500ml	750ml	1000ml	2000ml
LOM1-8043	50	50	32	26	20	14	8
LOM2-8043	100	100	64	52	40	28	16
LOM3-8043	150	150	96	78	60	42	–

LOM-560/LOM-834, Orbital Shaking Incubator, Large Vertical Type

LOM-834D

Features:

- Useful for biological culture under various temperature.
- Inside material is SUS304 & outside body is powder painting
- Screen-touch panel
- The compressor will be delayed to start working if power cut and with timer for defrost.
- With safety switch to stop shaking when opening door
- Three-point bearing transmission is adopted suitable for heavy loads and continuous duty.
- Minimum noise, no vibration.

LOM-560D

- Refrigeration using non cfc gas R134A
- Optional day/night light with timer.
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brush less AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.

Model	LOM-560	LOM-560D	LOM-834	LOM-834D
Shaking platform	Single	Double	Single	Double
Temp. range	0°C~70°C			
Temp. Accuracy	±0.1°C			
Temp. control	Micro-computer PID temperature controller			
Temp. Display	LED 2-screen digital display actual and setting temperature			
Shaker Speed	20~250 rpm	20~150 rpm	20~250 rpm	20~150 rpm
Shaking width	50 mm			
Timer	999h / 999min / 999sec			
Heater	1600 W			
Illumination	Fluorescent lamp 20 W			
Shelf (Adjustable)	2	1	2	1
Refrigerator	1/3HP		1/2HP	
Volume	560L		834L	
Shaking Plate Size (mm)	740x480		960x600	
Inside dimensions (mm)	W860xD600xH1100		W1100xD690xH1100	
Outside dimensions (mm)	W940xD800xH1840		W1190xD920xH1840	
Weight (Approx.)	280Kg		300Kg	

Capacity of flask holders

Model	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000
Flask clamps	125ml	250ml	500ml	1000ml	2000ml	3Liter	4Liter	5Liter
LOM-560	48	40	24	12	9	6	6	4
LOM-560D	96	60	40	24	-	-	-	-
LOM-834	78	50	36	18	10	10	8	8
LOM-834D	156	100	72	36	-	-	-	-

LOM-200N/400N, Precise Shaking Incubator, Top Door, Orbital Motion With Digital PID Control Up To 70°C

LOM-400N

Optional: Tube Holders

FLASK HOLDERS

Features:

- Useful for biological culture under various temp.
- Inside material is SUS304 & outside body is powder painting
- Screen-touch panel
- The compressor will be delayed to start working if power cut and with timer for defrost.
- With safety switch to stop shaking when opening door
- Three-point bearing transmission is adopted suitable for heavy loads and continuous duty.
- Minimum noise, no vibration.
- Refrigeration using non cfc gas R134A
- Optional day/night light with timer.
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brush less AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.

LOM-200N

Model	LOM-200N	LOM-400N
System	Forced air circulation	
Shaking system	Orbital	
Temp. range	0°C~70°C	
Temp. constancy	±0.1°C	
Temp. uniformity	±1°C (at 37)	
Temp. control / display	PID / LED	
Temp. sensor	PT-100	
Inside material	SUS-304	
Rate of shaking	20~250rpm	
Shaking width	50 mm	
Shaking plate	W600xD480mm	W960xD600mm
Refrigerator	1/4 HP	1/3 HP
Heater: Incubator	1200W	
Safety devices	Short circuit breaker, over heat protector, refrigerator over load protector, sensor abnormality, over low protector	
Inside dimensions	W680xD560xH540mm	W1040xD680xH540mm
Outside dimensions	W1010xD640xH870mm	W1370xD760xH870mm
Volume (Liters)	205	381
Power supply	110/220V, 50/60Hz, (8.5A)	
Weight	200Kg	300Kg

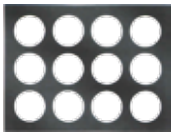
Capacity of flask holders

Model	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000
Flask clamps	125ml	250ml	500ml	1000ml	2000ml	3Liter	4Liter	5Liter
LOM-200N	48	30	20	12	9	6	6	4
LOM-400N	96	60	40	24	15	15	12	8

MOB-04A
4 MicroPlate

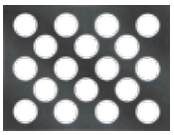
MOB-02A
2 MicroPlate

SI-50



CO-1518
Rack for 18x15ml

CO-5012
Rack for 12x50ml



Model: MOB-02A/04A, 2/4 MicroPlate Incubator Mixer Shaker

MOB-02A/MOB-04A Thermo-shaker incubator is a high performance microplate incubator and orbital shaker which accommodates up to 2/4 microplates. They can be used for any enzyme or cell-based assays requiring uniform and strictly controlled incubation up to 70°C & effective mixing.
Temperature, shaking speed , and incubation time are programmable via the keypad, while the status parameters are displayed on the LCD in real time via an easy to use interface.
Microprocessor controlled heating plates above and below microplates provide uniform temperature with less than 0.5°C variation between any two wells. This ensures our standing and repeatable assay performance.

The devices can be used in:

Cytochemistry – for in situ reactions;
Immunochemistry – for immunofermentative reactions;
Biochemistry – for enzyme and protein analysis;
Molecular chemistry – for matrix analysis.

Features:

- Temp. range: from +8°C over room temp. to 70°C.
- Convenient upward opening door.
- Microprocessor controlled time, speed & temp.
- Accurately control & display time, temp. & speed.
- Heating platform for standard microtitre plates.
- Soft start, easy to setup & use.
- Audible signal to indicate end of shaking motion after program completion.
- LCD display.

Model	MOB-02A	MOB-04A
Temperature range	RT+8°C~70°C	
Uniformity over the platform	≤±0.5°C	
Display accuracy	0.1°C	
Shaking speed	100-1200 rpm	100-1500 rpm
Orbit	2mm	
Independent timer	1 min~99h59min	
Heating Speed	<25min from 20°C to 70°C	
Power supply	110/220 V, 60/50 Hz, max. 250VA	
Platform capacity	2 microtitre plates	4 microtitre plates
Microplate dimensions	W89xL133xH48mm	
Dimensions	280x270x140mm	320x350x185mm
Weight	6.5kg	9kg

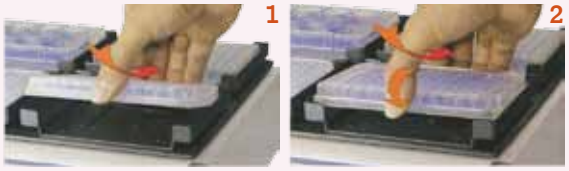
SI-50, Conical tube Mixer with heating for 15,50ml Conical Tubes

• Digital microprocessor control [PID] : digital display • Well designed ventilation system provides with accurate temperature control • Temp. range from ambient +5°C to 65°C • Orbit of 6mm in low speed & orbit of 40mm in high speed • Variable speed range: 60-500rpm • High quality permanent DC brush less motor for gentle & powerful motion • Continuous or timed operation • Rack for 50ml conical tube: 12ea or Rack for 15ml conical tube: 18ea • LED display (Shown actual speed or time) • "up and over" door

Model		SI-50
Orbit range		Low speed-6mm/High speed-40mm
Speed range		60-500rpm
Capacity	conical tube 50ml	12ea
	conical tube 15ml	18ea
Temp. range		Ambient +5°C~65°C
Temp. Accuracy		±0.2°C
Timer		99hours 59min
Dimensions (mm)		W280xD423xH257
Weight (kg)		14Kg
Wattage		330W

SI-20 / SI-40 / TOU-H20 / TOU-C20, 2 micro well plate mixer with heating

Plate Installation:



simple silicon holders allow quick & easy lifting of micro well plates & optional rack for 15ml centrifuge tube

SI-20/SI-40: for heating

- Digital microprocessor control [PID]: digital display
- Well designed ventilation system provides with accurate temperature control
- SI-20/40: Standard platform for 2/4 micro well plates
- Temperature range from ambient +5°C to 65°C
- High quality permanent DC brush less motor for gentle and powerful motion
- Continuous or timed operation
- Optional rack (MR1.5-24) for 1.5ml centrifuge tubes
- Simple silicon holders for easy & speedy of plate installation
- LED display (Shown actual speed or time).

TOU-H20: for heating, TOU-C20: heating & cooling

- The internal mechanism & chamber are separated, resulting in no loss of heat.
- Digit. micro processor control (PID) for high accuracy
- Select between heating & cooling mode or heating mode
- Variable speed between 300 to 2000rpm
- Convenient upward opening door
- Standard platform for six microplates
- Simple silicon holders for easy & quick plate installation
- LED display for actual speed
- Safety features :
  -Flashing alarm lamp to warn over-temp.
  -Over-temp. cut-out
  -Over-temp. safety thermostat.

TOU-H/C20

Accessories: for all mixers

- 1.5ml centrifuge tube: 24ea

MR1.5-24

Model		SI-20	SI-40	TOU-H20	TOU-C20
Orbit range		3mm			
Speed Range	Deep well plate	300-1400rpm		300-2000rpm	
	Micro well plate & 1.5ml tube	300-2000rpm	300-1600rpm		
Capacity	micro well plate	2ea	4ea	6ea	
	deep well plate	2ea	4ea	6ea	
	1.5ml tube	48ea	96ea	144ea	
Temp. range		Ambient +5°C~65°C	Ambient +5°C~65°C	Ambient +5°C~65.0°C	15.0°C~65.0°C (cooling)
Temp. Accuracy		±0.2°C			
Timer		99hours 59min			
Dimensions (mm)		W280xD423xH257	W384xD423xH257	W470xD630xH410 mm	
Weight (kg)		10.5Kg	13Kg	34kg	39kg
Wattage		320W	580W	610W	810W

SI-1401 Benchtop Shaking/Rotating Incubator, SI-1201 Benchtop Refrigerated Incubator

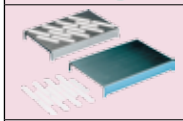
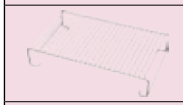
SI-1401 SI-1201

Features:

- Compact and lightweight.
- Magnetic Rotating/Rocking Platform & Clip Plate System holds almost any container at any angle.
- Expansion kits available for increased capacity and different containers.
- Viewing Window to inspect samples without affecting chamber environment.
- RS232 Port for computer control &/or data logging.
- Chamber air is gently & continuously recirculated ensuring temperature consistency and uniformity.
- Economical, Space Saving and Secure.
- An optional 3-D Orbital Shaker Attachment turns the unit into a 3-D Shaking Incubator.
- Precise temperature control and uniformity – range from 28°C to 75°C (SI-1401).
- Fast & Precise Temperature. 4-75°C for refrigeration or incubation (SI-1201).
- New crystal-clear backlit LCD displays all parameters in any lighting conditions at a glance (SI-1201).
- Two Integrated High Speed/Low Speed Magnetic Stirrers (SI-1201).
- Programmable Timers and Alarms for temperature and/or mixing (SI-1201).
- Peltier controlled Refrigeration & Heating (no compressor) (SI-1201).
- Ideal for Hybridization (SI-1401).

Model	SI-1401	SI-1201
Supplied	Magnetic Platform, 1 Clip Plate each for 10–13mm, 15–17mm, and 28–30mm Tubes, 4 Bag Mounting Strips, Non-Skid Tray and Stackable Shelf	Magnetic Platform, 1 Clip Plate each for 10–13mm, 15–17mm, and 28–30mm Tubes, 4 Bag Mounting Strips, Non-Skid Tray and Stackable Shelf
Rotating	3–35 RPM	1–35 RPM
Rocking / Rocking Angle	6–70 cycles per minute / ±10 degrees from horizontal	2–70 cycles per minute / ±10 degrees from horizontal
Stirring	–	1–2000 RPM including stir reverse
Platform Capacity	4.5 kg	4.5 kg
Temperature Range	28–75°C	4–75°C
Accuracy / Uniformity	±0.2°C / ±0.5°C	±0.2°C / ±0.5°C
Resolution / Stability	0.1°C / ±0.1°C	0.1°C / ±0.1°C
Chamber Dimensions (DxWxH)	254 x 362 x 260 mm	254 x 362 x 260 mm
Overall Dimensions (DxWxH)	400 x 560 x 368 mm Depth with Rocker Tray – 305 mm	495 x 622 x 368 mm Depth with Rocker Tray – 305 mm
Chamber Volume	24 L	24 L
Weight	19.5 kg	36 kg

Accessories:

Model/Image	Description
	**6 Clip Plates For 12 Each 10–13mm Tubes:** Pack of 6 metal clip plates to accommodate up to 12 tubes with a diameter of 10–13mm. A maximum of 8 clip plates, 4 per side, may be attached to the Magnetic Platform for use with the Roto-Shake Genie, Enviro-Genie, or Incubator Genie. A maximum of 12 clip plates, 6 per side, may be attached to the Magnetic Platform for use with the Rotator Genie. **SI-1120**
	**6 Clip Plates For 6 Each 15–17mm Tubes:** Pack of 6 metal clip plates to accommodate up to 6 tubes with a diameter of 15–17mm. A maximum of 8 clip plates, 4 per side, may be attached to the Magnetic Platform for use with the Roto-Shake Genie, Enviro-Genie or Incubator-Genie. A maximum of 12 clip plates, 6 per side, may be attached to the Magnetic Platform for use with the Rotator Genie. **SI-1121**
	**6 Clip Plates For 3 Each 28–30mm Tubes:** Pack of 6 metal clip plates to accommodate up to 3 tubes with a diameter of 28–30mm. A maximum of 8 clip plates, 4 per side, may be attached to the Magnetic Platform for use with the Roto-Shake Genie, Enviro-Genie or Incubator-Genie. A maximum of 12 clip plates, 6 per side, may be attached to the Magnetic Platform for use with the Rotator Genie. **SI-1122**
	**Clip Plate 10–13mm Tubes:** One metal clip plate to accommodate up to 12 tubes with a diameter of 10–13mm. A maximum of 8 clip plates, 4 per side, may be attached to the Magnetic Platform for use with the Roto-Shake Genie, Enviro-Genie or Incubator-Genie. This attachment is included in the Roto-Shake Genie, Enviro-Genie & the Incubator-Genie. A max. of 12 clip plates, 6 per side, may be attached to the Magnetic Platform for use with the Rotator Genie. **SI-1123**
	**Clip Plate 15–17mm Tubes:** One metal clip plate to accommodate up to 6 tubes with a diameter of 15–17mm. A maximum of 8 clip plates, 4 per side, may be attached to the Magnetic Platform for use with the Roto-Shake Genie, Enviro-Genie or Incubator-Genie. This attachment is included in the Roto-Shake Genie, Enviro-Genie & the Incubator-Genie. A max. of 12 clip plates, 6 per side, may be attached to the Magnetic Platform for use with the Rotator Genie. **SI-1124**
	**Clip Plate 28–30mm Tubes:** One metal clip plate to accommodate up to 3 tubes with a diameter of 28–30mm. A maximum of 8 clip plates, 4 per side, may be attached to the Magnetic Platform for use with the Roto-Shake Genie, Enviro-Genie or Incubator-Genie. This attachment is included in the Roto-Shake Genie, Enviro-Genie and the Incubator-Genie. A max. of 12 clip plates, 6 per side, may be attached to the Magnetic Platform for use with the Rotator Genie. **SI-1125**
	**Magnetic Stainless Steel Bag Strip (pack of 16):** Tube Holder holds six 50mL tubes vertically. Holder snaps on to any Vortex-Genie 2 mixer. No additional attachment necessary. **SI-1126**
	**Expansion Kit (Two Stainless Steel Trays, 24 Magnetic Bag Mounting Strips):** Two stainless steel Trays and 24 magnetic Bag Mounting Strips used to attach sealed bags to the Magnetic Platform (Part No. 0A-1100-030) for use with the Roto-Shake Genie,Enviro-Genie or Incubator-Genie for increased bag capacity. **SI-1127**
	**2 Clip Plates For Hybridization Tubes:** Pack of 2 metal clip plates to accommodate one 35mm ID Hybridization Tube up to 300mm in length. This can be attached to the Magnetic Platform for use with the Roto-Shake Genie, Rotator Genie, Enviro-Genie or Incubator-Genie. **SI-1130**
	**Stackable Wire Rack:** Stackable Wire Rack may be used in the Enviro-Genie and the Incubator Genie to increase shelf space for use as a temperature controlled chamber. This is included in the Enviro-Genie and the Incubator-Genie. Two wire racks will fit inside the chamber to provide 3 levels for containers. **SI-1131**
	**Serial Cable:** Serial Cable may be used to connect the Enviro-Genie to a computer via a serial port for data capture or programming. It is a standard 9-pin, female to female straight through serial cable. **SI-1132**
	**2 Universal Clip Plates:** Pack of 2 clip plates with two elastic bands each for use with odd-shapped sample vessels. This can be attached to the Magnetic Platform for use with the Roto-Shake Genie, Rotator Genie, Enviro-Genie or Incubator-Genie. **SI-1134**
	**1 Magnetic Covered 100 Microtube Box:** Plastic box with hinged lid holds up to (100) 1.5ml or 2.0ml microtubes. A maximum of 4 boxes, 2 per side, can be attached to the Magnetic Platform for use with the Roto-Shake Genie, Enviro-Genie or Incubator Genie. A maximum of 8 boxes, 4 per side can be attached to the Magnetic Platform for use with the Rotator Genie. **SI-1135**
	**1 Clip Plate For 100ml Volumetric Flasks:** Metal clip plate to accommodate up to 4 100-ml Volumetric Flasks. This can be attached to the Magnetic Platform for use with the Roto-Shake Genie, Rotator Genie, Enviro-Genie or Incubator-Genie. **SI-1136**
	**Non-Skid Tray For Enviro-Genie / Incubator-Genie:** The Non-Skid Tray for the Enviro-Genie and the Incubator-Genie attaches to the Magnetic Platform (Part No. SI-1320) to rock open containers. The Non-Skid Tray measures 203 x 305mm (8 x 12in) and is included with the Enviro-Genie and Incubator-Genie. **0A-1200-001**
	**3-D Orbital Shaker Attachment For Enviro-Genie / Incubator-Genie:** The 3-D Orbital Shaker Attachment for the Enviro-Genie and the Incubator-Genie provides gentle yet thorough mixing of dishes, flasks, beakers & open containers. It moves at a 5 degree angle through a 360 degree rotation (providing a combination of vertical and horizontal motions). This means that every corner or crevice of a container will receive complete mixing, making it the perfect choice for applications such as gel and blot staining/blocking, sample washing, polymer resin preparation, and more. Please note, platform capacity is 1 Kg. **SI-1250**
	**Dual Port Mixing Tube:** A V-shaped glass tube with dual ports, which attaches magnetically to the Roto-Shake Genie, Rotator Genie, Enviro-Genie and Incubator-Genie using clip plate accessory SI-1130 (sold separately). Ideal for use in the rotating mode for mixing dry ingredients. **SI-1137**

3503-2, 42 Liter Small Water Jacket

3517-2, 143 Liter Water Jacket

3524-2, Double 286 Liter Water Jacket

The 3500 Series of CO2 Incubators offer dependable Infrared (IR) CO2 Sensor control and are ideal for sensitive tissue and cell culture applications. They provide the benefits of contamination control and uncompromising temperature uniformity for even the most demanding incubations.

Precision is easily maintained with push-button calibration of both temp. and CO2, and audio/visual alarms that signal high/low temp. & CO2 conditions. Modular controls and backup systems ensure confidence for incubating valuable samples, providing the dependable assurance you expect from a MRC incubator.

Features:

- Coved Corners for Easy Cleaning.
- New Anti-Corrosion Anode for Easy Set-Up & Tap Water Use.
- Patented Copper-Housed HEPA Filter for Superior Contamination Prevention.
- Built-In CO2 Tank Switcher (3517-2 & 3524-02).
- Factory Pre-Set Door Thermostat.
- Pre-Heated CO2 Gas Inlet for Increased Temperature Uniformity.
- Front-Mounted Connections for Convenience.

Model	3503-2	3517-2	3524-2
Capacity	42 L	143 L	286 L
Interior Dimensions (cm)	40Wx40Dx26H	48.9Wx50.1Dx58.4H	48.9Wx50.1Dx58.4H per chamber
Exterior Dimensions (cm)	53.4Wx57.2Dx68.6H	66.1Wx64.8Dx102.3H	66.1Wx64.8Dx204.6H
Temperature Range	Ambient +8°C to 60°C		
Temp. Uniformity	+/-0.2°C at 37°C	±0.2°C at 37°C	±0.2°C at 37°C
Electrical Specifications	Volts: 220V, Hertz: 50/60Hz, Watts: 550W, Amps: 5A		
CO2 Range	0-20%	0-20%	0-20%
CO2 Sensor	Infrared (IR)	IR	IR
CO2 Recovery Rate	-	< 5 minutes	< 5 minutes
Temperature Control	Microprocessor	-	-
Jacket Type	Water Jacket		
Relative Humidity Range	Up to 95%		
Shelving	3 Supplied (8 max)	3 Supplied (16 max)	3x2 Supplied(32 max)
Access Port (in)	1	1.5	1.5

Contamination Control:

Extensive use of copper in the CO2 sample port, heated CO2 feed line, housing of the patented HEPA filtration system, and humidity pan with copper SL decontamination token, adds reassurance that foreign microbes will not affect test results. Cleanup is a breeze with the all stainless steel chamber, and autoclavable door gasket. Optional copper shelves are available for even more contamination control.

Tissue & Cell Culture Applications

These incubators control three essential variables related to replicating the mammalian environment;

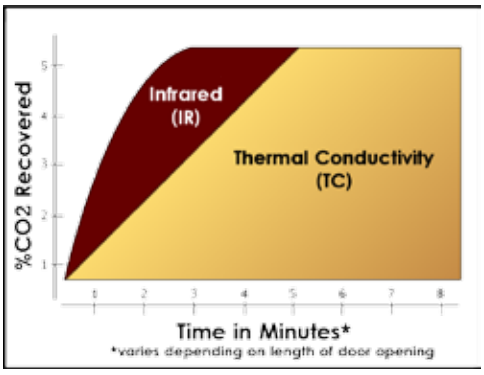
- Stable CO2 Level
- Controlled Temperature
- Relative Humidity (RH)

Patented Copper Coated HEPA Filter

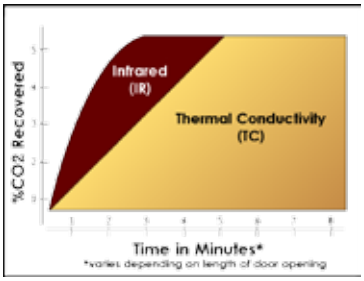
A "Bacteriostatic" copper cage to trap particulate matter and reduce potential for chamber contamination. This filter removes 99.97% of all airborne microbes and isolated microbes 0.3 micons or larger.

Infrared (IR) CO2 Sensors

For the fastest CO2 recovery & most stable performance, this Series features IR sensors.



2406-2



Infrared (IR) CO2 Sensors

For the fastest CO2 recovery & most stable performance, this Series features IR sensors.

- Independent Over Temperature Thermostat.
- Temperature & CO2 Alarm.
- Inner Glass Viewing Door.

2406-2/2406/2-2, Economy Air Jacketed

Our model 2406-2 was designed and manufactured to accommodate tight budgets, while maintaining the fundamental needs of quality and precision. These units have PID microprocessor controllers, a heated outer door and a tempered-glass inner door. They provide exceptional temperature uniformity, while minimizing cold spots that lead to condensation and ultimately, contamination.

Although they do not have a humidity display, the extremely stable temperature environment maintains constant humidity through evaporation at up to 95%.

The audible/visual alarms for temperature and CO2 respond to out-of-tolerance conditions. They offer an independent over temperature safety control to protect samples from overheating, and an optional CO2 tank switch/alarm to prevent prematurely exhausting the gas supply.

Contamination Control:

Extensive use of copper in the CO2 sample port, heated CO2 feed line, and humidity pan with a copper SL decontamination token, adds reassurance that foreign microbes will not affect test results.

Cleanup is a breeze with the all stainless steel chamber, and autoclavable door gasket.

Optional copper shelves are available for even more contamination control.

Tissue & Cell Culture Applications:

These incubators control three essential variables related to replicating the mammalian environment;

- Stable CO2 Level
- Controlled Temperature
- Relative Humidity (RH).

Model	2406-2	2406/2-2
Weight (kg)	140.6	281.2
Capacity	165 L	342 L
Exterior Dimensions (cm)	66Wx66.7Dx102.3H	66.1Wx65.5Dx203.2H
Chamber Dimensions (cm)	51.4Wx50.1Dx64.1H	52Wx50.8Dx64.7H
Temperature Range	Ambient +8°C to 60°C	
Temp. Uniformity	±0.2°C at 37°C	
Electrical Specifications	Volts: 120V Hertz: 50/60Hz Watts: 550W Amps: 5A	
CO2 Range	0-20%	
CO2 Sensor	IR	
CO2 Recovery Rate	< 5 minutes (Recovery)	
Relative Humidity	Up to 80%	
Jacket Type	Water	
Shelving	3 (16 Maximum)	3 each chamber (16 Max)

5215-2, Air Jacket

5230-2, Air Jacket

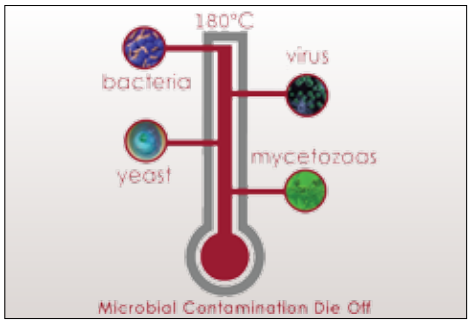
Contamination Control & Patented Copper Coated HEPA Filter

Model 5215 was designed to minimize contamination & be operational within hours of installation. This slim, lightweight incubator is easily repositioned with minimal downtime and is well-suited for multiple users. Three temperature control settings (main chamber, external door, and front liner) minimize condensation and yield precise temperature uniformity with no unwelcome temperature gradients. Our unique HEPA filtration system removes 99.97% of all airborne microbes and isolated particulates 0.3 microns or larger. The patented copper housing around the filter is designed to destroy microbes entrapped in the filter. Additional anti-contamination features include a stainless steel chamber with easy-to-clean coved corners, our Quick Clean Shelf System which disassembles without tools in less than a minute, and our Non-Tip Shelf System to reduce spills.
A separate digital keypad with large, bright LEDs (for CO2 and temperature) is highly visible on the front panel. The audible alarms can be muted easily, and the redundant safety system for temperature protects samples from overheating. In addition, the CO2 gas supply is protected by a PID with an infrared sensor that is extremely quick to recover, a door switch that automatically turns off the gas when the door is opened, and a sample port on the side to help minimize waste during CO2 calibration.

Features:

- Copper Enclosed HEPA Filter.
- Infrared CO2 Sensor.
- Heated Outer Doors.
- Pre-heated CO2 Gas Inlet.
- Independent Over temperature Protection.
- Quick Clean Shelf System.

Model	5215-2	5230-2
Weight (kg)	113.4	226
Capacity	142 L	284 L (142 each)
Interior Dimensions (cm)	52Wx50.1Dx54.6H	52Wx50.1Dx54.6H
Exterior Dimensions (cm)	69.3Wx71.2Dx95.9H	69.3Wx71.2Dx191.8H
Temperature Range	Ambient +5°C to 60°C	Ambient +8°C to 60°C
Temp. Uniformity	±0.25°C at 37°C	±0.25°C at 37°C
Electrical Specifications	Volts: 120V Hertz: 50/60Hz Watts: 600W Amps: 5A	
CO2 Range	0-20%	
CO2 Sensor	IR	
CO2 Recovery Rate	< 5 minutes	
Jacket Type	Air	
Relative Humidity Range	Up to 95%	
Shelving	3 Supplied (16 max)	3 Supplied (16 max) per unit
Access Port	1.5	



Contamination Control & Infrared (IR) CO2 Sensors

3552-2, High Heat Decontamination CO2 Incubator

Decontamination is easier than ever. The Model 3552 is the latest addition to the 3500 Series of CO2 Incubators. Featuring a dry, high heat decontamination cycle, the The model 3552 features a dry heat decontamination cycle, that maintains 180oC for 120 minutes. This industry best time and temperature relationship satisfies all global standards for decontamination. This is decontamination at its fastest easiest and most effective - it is not necessary to remove the IR CO2 sensor prior to activating the decontamination process and we feature the shortest cycle time on the market. This is a more convenient approach and eliminates potential damage to the sensitive IR sensor. Other features of the 3352 include a USB interface for software communication, precise temperature control microprocessor and an independent over temperature safety controller.

Features:

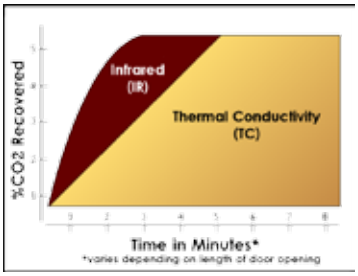
- Dry Heat Decontamination at 180 degrees C for 120 minutes.
- Pre-heated Copper CO2 Gas Inlet for Increased Temperature Uniformity.
- No Handling of the IR Sensor.
- HEPA Filter.

Model	3552-2
Weight (kg)	125
Capacity	169 L
Interior Dimensions (cm)	51.4Wx50.8Dx64.7H
Exterior Dimensions (cm)	72.4Wx78.2Dx100.4H
Temperature Range	Ambient +5°C to 60°C
Temp. Uniformity	±0.25°C at 37°C
Electrical Specifications	Volts: 120V Hertz: 50/60Hz Watts: 600W Amps: 5A
CO2 Range	0-20%
CO2 Sensor	Infrared (IR) ±0.1%
CO2 Recovery Rate	< 5 minutes
Relative Humidity Range	Up to 95%
Shelving	3 Supplied (16 max)
Access Port	1.5


2440-2

2428-2/2440-2/2460-2, Large Capacity Air Jacketed

These units are well-suited for roller bottle apparatus & high-volume tissue culture applications & is ideal for cell harvesting.
This large capacity incubator maximizes laboratory space in a convenient floor model design. Its chamber floor is specifically designed for easy movement of roller bottle apparatus by use of a flip-out ramp.
Supplied with four 1 amp interior electrical outlets & gentle mechanical air convection that ensures excellent temp. uniformity, & eliminates cold spots.
An infrared system accurately controls CO2 levels and provides fast CO2 recovery after door openings. This unit is supplied with six stainless steel shelves, which are adjustable on 1/2 inch increments.



Infrared (IR) CO2 Sensors

For the fastest CO2 recovery & most stable performance, this Series features IR sensors.


2428-2

Features:

- Accommodates Roller Bottle Apparatus.
- Infrared CO2 Sensing Technology.
- Viewing Door.
- Independent Over temperature Protection.

CO2 Incubator Applications:

- Cell & Tissue Culture.
- Immunology.
- Genetic Engineering.
- Protein Synthesis.
- Virology.
- Neurology.
- Pharmacology.
- In virtu Fertilization.
- Human Vaccines.
- Veterinary Vaccines.
- Carcinogenicity Testing.
- Monoclonal Antibodies.

Model	2428-2	2440-2	2460-2
Weight (kg)	226.8	385.6	431
Capacity	879 L	1125 L	1641 L
Exterior Dimensions (cm)	100.4Wx85.5Dx191.2H	108Wx87.7Dx221H	129.6Wx113.7Dx203.2H
Chamber Dimensions (cm)	83.1Wx66.0Dx160.0H	88.9Wx66Dx191.7H	109.2Wx87.6Dx171.4H
Temperature Range	Ambient +8°C to 60°C		
Temp. Uniformity	±0.5°C at 37°C		
Electrical Specifications	Volts: 220V Hertz: 50/60Hz Watts: 1800W Amps: 15A (20A Cord Supplied)		
CO2 Range	0-20%		
CO2 Sensor	IR Accuracy ±0.1%		
CO2 Recovery Rate	< 5 minutes (Recovery)		
Jacket Type	Air		
Shelving	6 (30 Maximum)		
Interior Outlet	4		

2428H-2

- Independent Over Temperature Thermostat.
- Temperature & CO2 Alarms.

Infrared (IR) CO2 Sensors

For the fastest CO2 recovery and most stable performance, this Series features IR sensors.

2428H-2, Humidified Large Capacity

Model 2428H, is the newest addition to the large capacity CO2 incubator line. This 27 cubic foot incubator features active humidity control up to 95%. This unit has exceptional CO2 & temp. uniformity, along with a user controllable humidity system that is more accurate and responsive to door openings than a traditional water pan humidity system.

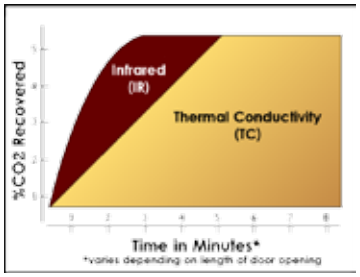
The 2428H-2 humidity system provides less evaporation of culture media & eliminates a potential source for contamination. Contamination is minimized by the heated glass door & an antimicrobial copper drain.

The triple-paned glass door allows for easy viewing of samples without having to open the incubator door, so samples can thrive in the stable environment within the chamber. A gentle horizontal airflow heating system is used for quick temperature recovery after door openings.

This airflow system obtains superior temperature control with minimal drying or disturbance of sample conditions. The CO2 is accurately controlled with an IR sensor, providing overall CO2 stability.

Features:

- Programmable temperature, over-temperature, CO2, humidity.
- Audible/visual alarm & alarm silence.
- Remote alarm contacts.
- Data outputs to help meet internal and regulatory documentation requirements.
- One thru-wall access ports for probes, sensors, power cords.
- Stainless-steel interior.
- Heavy-duty, solid stainless-steel shelves resist corrosion; adjust on 0.5 in. centers.



Model	2428H-2
Weight (kg)	385.6
Capacity	740 L
Interior Dimensions (cm)	78.1Wx66Dx143.5H
Exterior Dimensions (cm)	99.7Wx94Dx199.4H
Temperature Range	Ambient +5°C to 50°C
Temp. Uniformity	±0.5°C at 37°C
Electrical Specifications	Volts: 220V Hertz: 50/60Hz Watts: 1550W Amps: 13A
CO2 Range	0-20%
CO2 Sensor	IR Accuracy ±0.1%
CO2 Recovery Rate	< 5 minutes
Jacket Type	Forced Air
Relative Humidity Range	Up to 95%
Shelving	6 Supplied (30 max)
Access Port	One


LI15-2

LI15-2, Diurnal Plant Chamber

MRC Diurnal growth chambers are designed for studies requiring day and nighttime simulation.
This unit features dual-program selector dials, which allows control of two temperature conditions and an ON/OFF illumination cycle relative to the program selected.
Each system operates independently allowing for simulation of a diurnal cycle, such as an eight hour day cycle of 30°C with light followed by a sixteen hour night cycle of 18°C without light.
Forced air circulation ensures the most reproducible test conditions.
The chamber air is gently and continuously circulated at a rate that ensures temperature uniformity of all test samples.

The unit is equipped with a hermetically-sealed compressor and an independent over temp. safety controller.
In addition, a one amp interior outlet allows use of shakers, stirrers, roller bottles or other apparatus.
This chamber is ideal for plant growth studies.

Features:

- LED Display of Set point and Chamber Temp.
- High and Low Limit Temperature Protection.
- Day/Night Light and Temperature Control.
- Fan Assisted/Forced-Air Circulation.
- Hermetically Sealed Compressor.
- Interior Electrical Outlet.
- Independent Over Temperature Thermostat.
- Temperature Range 0°C to 45°C at 20°C Ambient.
- Temperature Uniformity +/- 0.5°C at 20°C.

Model	LI15-2
Exterior Dimensions (wxdxh)	87.7x87.7x196.9 cm
Chamber Dimensions (wxdxh)	68.5x58.4x143.5 cm
Temperature Range	0°C to 45°C at 20°C Ambient
Temperature Uniformity	± 0.5°C at 20°C
Incubator Chamber Capacity	574L
Interior Outlet	220V
Bottle Capacity	317
Number of Shelves	4 included

LE-250B, Stability Testing Chamber, Temperature, Humidity, Light

LE-250B

Airduct structure
Applies circular airflow design concept & forced convection simulated air circulation principle. The high power air circulating blades specially designed to produce higher air flow rate & guarantee high even and stable inner bag temperature and humidity. The humidity can be precisely controlled within the range of 20% to 98% to realize effictive and stable test effect.

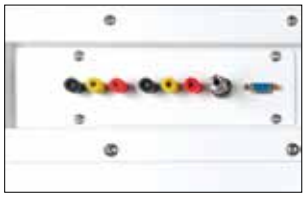
Touch screen
Super large touch screen. intelligent operating system and 32-digit processor are equipped to simplify the operation and to be more humanized.

High precision electronic temperature sensor
It is used for absolute precise humidity measurement. The humidifying and dehumidifying system is controlled electronically. ROTRONIC electronic humid. sensor can guarantee the reliability of humidity inspection even if the samples are changed frequently. The senor does not require maintenance.

Innovative refrigerating system
International famous brand refrigerant compressor and Germany EBM condenser applying 134a, refrigerant fluorine free, environmental protection, precision and high efficiency are applied.

Illumination effect
One-side illumination concept is applied to better conduct authentic and real-time light stability test on active substance.

Test hole
One test hole with the diameter of 45mm made with special mould is arranged on the left & right of the incubator respectively for observation. Internal silica gel soft plugs are provided to make sure the temperature and humidity inside the incubator are not effected during the test.



RS232 interface
It is a interface for PC.

Temperature and humidity

Features:

- The incubator is made with imported NC machine tool and laser processing technology. The outside incubator body applies high quality cold rolling plate, which is strongly resistant to rusting. The inner bag applies SUS304 stainless plate.
- The incubator bottom truckle is imported from Japan. Its direction is adjustable and it can be locked. The outside incubator body is sprayed with American Dupont powder.
- One test hole with the diameter of 45mm made with special mould is arranged on the left and right of the incubator respectively for observation. Two silica gel soft plugs are provided inside. Temperature and humidity
- The heat insulating material applies Germany Bayer CFC-free polyurethane one-time foaming technology to improve the insulating property and reduce-energy consumption. It can save over 30% in energy compared with similar products.
- Rational air duct structure; balance type control method; imported special electric motor and blade are applied to make temperature and humidity distribution evened and greatly improve test precision and evenness of temperature and humidity.
- International famous brand refrigerant compressor and Germany EBM condenser applying 134a refrigerant and featuring fluorine free, environmental protection are applied and conform to the world trends.
- Super large touch screen, intelligent operating system and 32-digit processor are equipped to simplify the operation and programming.
- Programmed temperature and humidity control; micro-computer fuzzy control PID control; temperature priority and time priority; optional for the user.
- Temperature sensor PT100 applies Honeywell product. The humidity sensor applies Swiss Rotronic capacitive sensor.
- Over-temperature protection, creepage protection, door open alarm, current failure alarm and sensor alarm functions are provided to improve the safety. Meanwhile, automatic start, stop, timed operation, clock display and self recover after energizing are provided.
- R-232 communication interface, USB storage, GRPS remote control alarm functions are provided.
- Automatic defrosting and manual defrosting functions are provided for long term test to solve the problem of temperature and humidity drifting.

Model	LE-250B
Convection method	Compulsory convection method
Control method	Balance type
Temperature range	No illumination -15°C ~ +85°C With illumination 10°C ~ +85°C
Humidity control scope	20 ~ 98%
Temperature resolution	0.1°C
Temperature fluctuation	±0.1°C
Temperature evenness	±1.0°C (65°C)
Humidity fluctuation	Within ± 1.5% (65°C)
Working room temperature	5°C ~ 35°C
Illumination intensity	0-6000LX adjustable
Illumination error	≤ ±300LX
Insulating material	Overall foaming of polyurethane
Programmed control	Fuzzy logistic PID control method common operating mode/programmed operating mode
Overall dimension(mm)	W765 x D733 x H1490
Inner dimension (mm)	W640 x D400 x H890
Weight	About 137KG
Effective volume	250L
Total power of heating and humidifying	2000W
Refrigerating power- refrigerant	270W,R134a
Water supply volume	Inside: 10L Outside: 25L
Power voltage	AC-220V 50/60Hz
Tray (standard configuration)	Three layers

PGI-550RH

PGI-550R/PGI-550RH, Plant Growth Incubator 550 Liter

- Customized design
- Apply to microorganism Lab / Cell culture / Biotechnology experiments / Analytical Lab / Food Science and Technology / Agricultural Lab / The Fisheries Laboratory / Gardening / Plant Research / Seeds.

Illuminated growth chamber controllers, allow setting of two temp. conditions day & night & an On/Off illumination cycle relative to the program selected. Timers can be set to adjust cycles from 10 minutes up to 24 hours.

Each system operates independently allowing for simulation of a diurnal cycle, such as an eight hour day cycle of 30°C with light followed by a sixteen hour night cycle of 18°C without light.

Forced air circulation ensures the most reproducible test conditions. The chamber air is gently & continuously circulated at a rate that ensures temp. uniformity of all test samples. The unit is equipped with a hermetically-sealed compressor & an independent over temp. safety controller. It also includes a circuit breaker to protect from electrical overload, 5 shelves, adjustable leveling feet, steel exterior with welded seams & corners, & double-coated, baked enamel finish.

MRC Diurnal growth chambers are designed for studies requiring day and night time simulation.


Internal

Model	PGI-550R	PGI-550RH
Temperature Range	0°C ~ 60°C	
Temperature Control	PID temperature controller, PV actual value and SV setting value displayed at the same time	
Temperature Precision	±0.1°C	
Touch Setting	Power, cooling temperature, humidity, illumination timer device	
Safety Device	overheat and over low cut off device. 2-stage protection with safety protection alarm and indicator, compressor delay-start, high and low pressure of cold media protection device	
Heater	1200 W SUS 304#	
Refrigerator	1/3 HP R134a	
Humidity Display	-	PID temperature controller, PV actual value and SV setting value displayed at the same time
Humidity Control	-	30% RH ~ 95% RH
Control Precision	-	± 3%
Humidity Display	-	Digital
Humidity Device	-	Ultrasonic wave stainless steel (Back-mounted)
Illumination	4000-8000 LUX	
Timer	24H Temperature and light control	
Shelf / Inner Chamber	5 psc / SUS 304# stainless steel	
Inside Dimension (WxDxH)	680 x 580 x 1400 mm (Approx 550 L)	
Outside Dimension (WxDxH)	760 x 820 x 1870 mm	
Volume	550 L	
Power Voltage	110V/220V14A/7A	110V/220V16A/8A
Weight	150 kg	180 kg

PGI-2660

PGI-2460/PGI-2460H/PGI-2660/PGI-2660H, Growth Chamber with High Illumination

- Animals, plant cell culture
- Insect
- Plant culture
- Tissue culture
- Domestication treatment
- Algae culture
- Pathology observation
- Biochemical experiment.

Model	PGI-2460/ PGI-2460H	PGI-2660/ PGI-2660H
Temperature range	0°C ~ 45°C	
Temperature control	Micro-computer PID temperature controller, PV actual value and SV setting value displayed at the same time, with independent day/night temperature	
Control Precision	±0.02°C dpi 0.1°C	
Touch Setting	Power, cooling, temperature, humidity, light, timer, all using touch setting	
Safety Device	Electronic LCD display, precision setting 0.1°C, overheat and over low cut off device. 2-stage protection with safety protection alarm and indicator, compressor delay-start, high and low pressure of cold media protection device	
Heater / Cooler	1KW SUS 304# / 7000 BTU	1.5KW SUS 304# / 12000 BTU
Humidity Control	Micro-computer PID temperature controller, PV actual value and SV setting value displayed at the same time	
Humidity Range	30% RH ~ 90% RH	
Control Precision	±0.02% dpi: 0.1%RH / ±3% RH	
Display / Safety Device	Digital display/Electronic setting precision 0.1%RH, with high or low humidity alarm	
Humidifier	Ultrasonic wave stainless steel humidifier	
Illumination Device	4-sides glasses heat insulation illumination: 0-30000LUX for choose, independent light control	
Timer Device	24h temperature and light control	
Shelf / Material	5pcs	10pcs
Inside Dimension (WxDxH)	620 x 620 x 1300 mm	1200 x 690 x 1300 mm
Outside Dimension (WxDxH)	910 x 930 x 2070 mm	1490 x 1000 x 2070 mm
Weight	500 L	1076 L
Power Voltage	220V 50/60Hz	

LE-FH130

LE-F130/LE-FH130, High Illumination

The LE-130 can be used for botanical cell, botanical tissue culture, microbial culture studies.
The temperature (CO_2 level) are controlled through the PID system. The large (7") control panel allow to set the four walls illumination intensity and photo period, also the temperature (& CO_2 level).

Control Panel:

- Temperature display: setting value display
- Color control panel: TFT7"
- Control temperature, time & lighting (optional: RH, for LE-FH130)
- 2 different set temperature for day & night for LE-FH130
- Timer alarm.

Optional:

CO_2 detector (0-5000ppm) and control.
CO_2 detector NDIR.

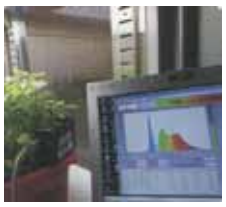
Safety devices:

- Automatic abnormality detection
- Electronic overheat protection
- Low temperature protection
- Delayed start (compressor) option
- Smart automatic defrosting device
- Best use in low-temp environment
- Boil dry protection for LE-FH130.

Remote monitoring

Alarm

Recording



Control & Display

Model	LE-F130-15	LE-F130-30	LE-FH130-15	LE-FH130-30
Temperature range	5~40°C (w/o illumination) 10~40°C (illumination)			
Illumination	15,000Lux	30,000Lux	15,000Lux	30,000Lux
Temp. Accuracy	±0.5°C			
Temperature controller	Microprocessor PID controller, non-contact SSR output			
Humidity range	-		Designed to your specifications	
Humidity accuracy	-		±2%RH	
Humidifying type	-		Ultrasonic/Steam	
Interior material	SUS #304 stainless steel			
Door	2 layers			
Shelves included	4 Shelves			
Exterior material	Powder coating			
Compressor	-		1/3HP (~4000BTU)	
Inner size	W620XD620XH1200mm (±5mm)			
Volume	460 Liter			
Exterior dimension	W920X D960X H2050mm (±5mm)			
Power	220V ± 10%, 50/60Hz			

LE-FH230

Safety devices:

- Automatic abnormality detection
- Electronic overheat protection
- Low temperature protection
- Delayed start (compressor) option
- Smart automatic defrosting device
- Best use in low-temp environment
- Boil dry protection for LE-F/FH230.

Control Panel:

- Temperature display: Instruction and setting, setting value display
- Color control panel: TFT7"
- Control temperature, time and lighting (optional: RH, for LE-F/FH230)
- 2 different settable temperature for day and night for LE-F/FH230
- Alarm set time.

LE-F230/LE-FH230 Series, High Illumination

The LE-F/FH230 can be used for botanical cell, botanical tissue culture, microbial culture studies.
The temperature (CO_2 level) are controlled through the PID system. The large (7") control panel allow to set the four walls illumination intensity and photo period, also the temperature (& CO_2 level).

Application:

- Cultivation of Algae
- Plant Grows Seedlings & Germinating Experiment
- Seed and Tuber Preservation
- Food Preservation Experiment
- Tissue Culture for fruit trees and flowers
- Plant Disease Experiment
- Various kinds of Raise
- Plants Cultivation
- Microorganism Culture
- Insect Raising.

Optional:

- CO_2 detector (0-5000ppm) & control.
- CO_2 detector NDIR.

Recording

Control & Display

Remote monitoring

Alarm

Model	LE-F230-20	LE-F230-30	LE-FH230-20	LE-FH230-30
Temperature range	5~40°C (w/o illumination), 10~40°C (illumination)			
Illumination	20,000Lux	30,000Lux	20,000Lux	30,000Lux
Temp. Accuracy	±0.5°C			
Temperature controller	Microprocessor PID controller, non-contact SSR output			
Humidity range	-		Designed to your specifications	
Humidity accuracy	-		±2%RH	
Humidifying type	-		Ultrasonic/Steam	
Heater wattage	-		1.2KW	
Interior material	SUS #304 stainless steel			
Door	2 layers			
Shelves included	8 Shelves			
Exterior material	Powder coating			
Compressor	-		1/3HP(~4000BTU)	
Inner size	W1295XD660XH1200mm (±5mm)			
Volume	1025 Liter			
Exterior dimension	W1580X D960X H2050mm (±5mm)			
Capacity	1000L			
Power	220V ± 10%, 50/60Hz			

LE-80FLED

Touch screen control panel

LE-80FLED, LED Environment

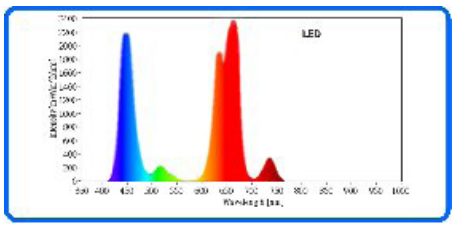
With his compact size the LE-80FLED is the perfect tool to study in a little space the effect of the LED light on the physiognomy of the plant.
Fully programmable the LE-80FLED is a concentrate of technology.
The Environment of the plant is completely controllable.
Temperature, RH, Photo period, (CO_2 control).

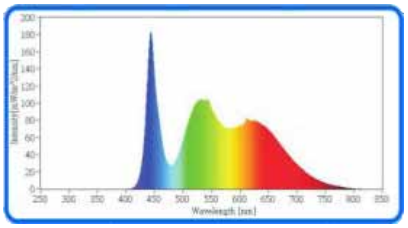
Area of Application

Morphology Analysis, Algae Cultivation, Insect Raising, Microorganism Culture, Tissue Culture for corps, fruit trees and flowers.

Illumination system:

- Light source LED,
  3 wavelengths: B450nm,G525nm, R660nm
  Optional: 6 wavelength: 425, 450, 525, 640, 660, 735nm
- Illumination power: Optical disc high less than 20cm>5000lux
- LED plate size: 200x200mm
- Light quality: 0~200 μ mol s^1 m^2, Adjustable
- BRIR: B450nm, R660nm, IR735nm
- Intensity: @ 20cm > 8000LUX.





Light Control:

- Frequency: C1~C6: 0-5000 Hz
- Duty Ratio: C1~C6: 0-100%
- Illumination: C1~C6: 0-100%
- Phase Shift Range: C1~C6: 0-100%
- Timer: C1~C6: Programmable 0:00-24:00
- Work with PLC device.

Temperature:

- W/O illumination: +10°C to 45°C
- W/ illumination: +15~40°C
- Cooling capacity: TEC 200W
- Environmental Condition: 0°C to +35°C.

Control Panel:

- Temperature display
- Color control panel: TFT7"
- Control temperature, time and lighting (optional: RH,CO_2)
- All conditions can be recorded
- Multi-purpose photo source control system: 6 groups of photo sources channel, luminosity, frequency
- Data output & compact flash card / USB port / RS-232.

Structure:

- Inner material: SUS#304
- Power: 110V/220V, 50/60Hz.

Optional accessories:

- Humidify System
- CO2 Controller 0-5000PPM
- CCD Camera System
- Plant Physiological cycle analysis system.

Model	LE-80FLED
Temperature range	10°C ~ 45°C ± 3°C
Wet range	60 ~ 95% ± 3%
Capacity	80L
Glasswork Windows	W20 x H30 safe double glazing
Interior dimensions	W460x330xH530mm
Exterior dimensions	W522xD639xH920mm

LE-740F

LE-740F/740FH, Growth Chambers

With its unique adaptability to different research applications, the LE-740F/FH offers an economical and flexible equipment platform.
Incubation, Tissue Culture, Plant Growth, etc...
LE-740F/FH integrate our PID control system associated to the large Interactive TFT 7" control panel.
Temperature, time, light, Relative Humidity, Alarms can be set easily using the control panel.
If you want to save your settings, it's really easy and secure.
The USB port allow you to save your data manually, but if you are not at your laboratory but you need some information from your growth chamber, we've created a cloud system where your data is automatically save on a server (optional), like that it's easily that you can login and access to your precious information via the server.
Recently we also developed a remote control system that allows you to be 24h/24h connected to your growth chamber and control it even if you are on the other side of the planet.

Illumination System:
- Light source LED
- Provide spectrum range: 400~740 nm
- Light quality: Max. 200μmols^{-1} m^{-2} adjustable.

Temperature:
- Temperature range:+5~ 40°C(W/O illumination)
  +10~40°C(W/ illumination)
- Temperature accuracy: ±0.3°C at 25°C
- Temp. control: Microprocessor PID controller (PT-100Ω)
- Heater wattage: 600W
- Compressor : 1/3 HP.

Model	LE-740F	LE-740FH
Temperature range	5~40°C (w/o illumination), 10~40°C (illumination)	
Temp. Accuracy	±0.3°C at 25°C	
Temp. Control	Microprocessor PID Controller	
Illumination	1200-8000Lux (optional LED plate available)	
Humidity range	-	50 - 95% (W/O illumination)
Humidity accuracy	-	±3%
Humidifying type	-	Ultrasonic Type
Humidity Sensor	-	Hygroscopic polymer
Humidity display	-	Digital
Volume	500L	
Shelves included	3 Shelves	
Interior material	SUS #304 Stainless Steel	
Exterior material	Powder coating	
Power	220V ± 10%, 50/60Hz	
Interior dimension	W700XD600XH1150mm	
Exterior dimension	W870X D800X H1950mm	
Weight	210kg	235kg

Safety devices:
- Automatic abnormality detection
- Electronic overheat protection
- Low temperature protection
- Delayed start (compressor) option
- Smart automatic defrosting device
- Best use in low-temp environment.

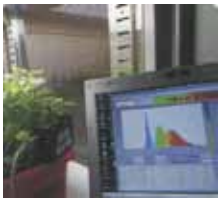
Control System:
- 3.5" Touch panel Display
- Operating interface include:
  -Actual conditions of Temp./Light/ Alarm...displayed
  -Set-point and actual conditions of temperature displayed in large characters.
  -Multi Set-Point functionality ex: Hi/Lo temp. alarm function, defrosting switch, cooling system switch etc.
  -Infinite cycle capability for long-term experiences:
    ON/OFF period
    Day and Night Temperature
    Photo period (Fluorescent tube)
  -Light, Cooling and Alarm system real time control
  -Date, Time, Reason of the Alarm are recorded.
  -Temperature recorded every 5min
  -Temperature curve available.

Main supply:
- Power: 220V 50Hz.


Remote monitoring


Alarm


Recording


Control & Display