

Incubators



mrc

INCUBATORS

Natural Convection

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.

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 $\pm 0.3^{\circ}\text{C}$ at 37°C ; $\pm 0.4^{\circ}\text{C}$ at 70°C .
- DNI-10 incubator: a reliable efficient and compact chamber in a sturdy design at a very favorable price. Units are stackable.

DNI-300D



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 Shelf	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)		

DNI-10N, Natural Convection

Mini. incubator, Natural convection heat distribution combines with the adjustable air vents to provide excellent uniformity.

Double wall construction, fiberglass insulation provided on 4 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.

**Features:**

- Simple keypad input allows easy temperature setting.
- LED digital display enables users to monitor the chamber temperature at any given moment.
- Visual alarm indicator alerts users of abnormal conditions if the chamber temp. exceeds the setting points by 10°C.
- The temperature can be controlled & maintained to 70°C.
- Shelves can be adjustable.
- Quality certification: ISO 9001, ISO 13485.

Model	DNI-10N
Convection	Natural convection
Working temperature	Ambient +5°C~70°C
Capacity (L)	10
Chamber dimension	W285xD207xH220mm
Power watt	150W
Overall dimension	W355xD287xH450mm
Accessory	1 pc of shelf
Power supply	AC 110V 50/60Hz (220V 50/60Hz available)

**DFI-720/1008, 720 Liter, 1008 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 and 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, timer included.

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-720	DFI-1008
Temp. range	Room temperature – 80°C	
Temp. constancy	±0.1°C	
Temp. control	PID	
Inside Material	SUS 430	
Timer	1 minute to 99 hours & 59 minutes or continuous	
Safety devices	Short circuit breaker, over heat protector, sensor abnormality	
Inside dimensions (mm)	W1200xD600xH1000	W1400xD600xH1200
Outside dimensions (mm)	W1450xD750xH1580	W1650xD750xH1820
Volume (Liters)	720	1008
Shelves	4	

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, timer included.

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. control	PID			
Heater: Incubator	400W	400W	600W	800W
Inside Material	SUS 430			
Timer	1 minute to 99 hours & 59 minutes or continuous			
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 fitted	2	2	2	3
Max. Shelves	7	10	13	23
Weight	34kg	52kg	75kg	85kg



- Automatic high and low temperature alarm to prevent the temperature from going too high and dropping too low
- Built-in circulating fan for temperature uniformity
- 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

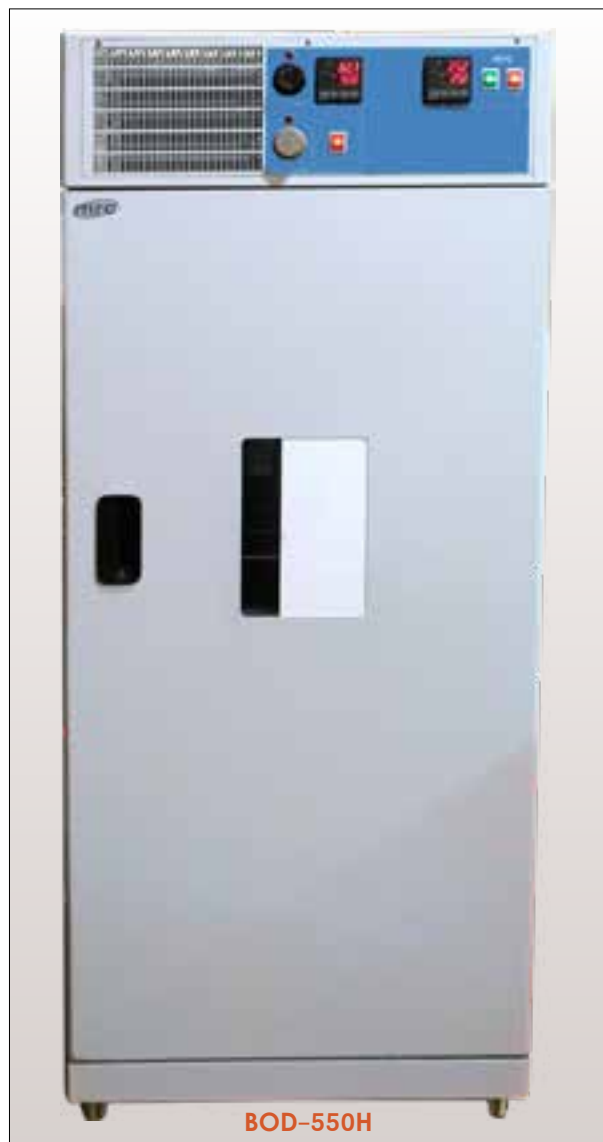
Cooled incubator designed to obtain freezing, incubating, drying & test temperatures between 0°C and +70°C (or -10°C and +60°C). It has stainless steel chamber and two doors, when the outer metallic door is opened there is inner glass door. Very good uniformity is achieved by forced air circulation. 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-400/550/590/850

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-850	BOD-550	BOD-400	BOD-320	BOD-150	BOD-175Dual	BOD-80
Temp. range	0°C~70°C (or -10°C to 60°C)							
Temp. Accuracy /Uniformity	±0.1°C/ ±1.5°C at 37°C					±0.1°C / ±1°C at 37°C		
Temp. control	PID							
Temp. Display	LED digital display actual and setting temperature							
Temp. Sensor	PT-100Ω							
Heater	900W	1200W	1200W	1200W	1200W	900W	900W x 2	900W
Volume	590L	1010L	550L	400L	320L	150L	175L x 2	80L
Shelf (Adjustable)	4	4	4	4	3	2	2	2
Inside Material	Strengthen white porcelain		SUS 304					
Refrigerator	1/3HP					1/4HP		
Inside WxDxH(mm)	680x600x1450	850x850x1400	680x580x1400	600x500x1350	600x500x1070	600x500x500	700x500x500	500x400x400
Outside WxDxH(mm)	815x800x1940	930x1060x1860	760x820x1860	670x740x1820	680x740x1472	680x700x825	780x690x1720	560x550x670
Weight	90Kg		200Kg	180Kg		78Kg	150Kg	50Kg



BOD-550H

Options:

- 38mm cable port
- Gas inlet
- Day/Night Light+Timer

DHI-22/37, Hybridization Incubator

MRC stability chambers are perfectly designed for the high requirements of stability studies and climatic tests. Stability Testing for shelf life, accelerated aging, expiration date testing.

Whether your testing is for R&D, clinical trials, pharmaceuticals store life, packaging life, ongoing stability, our stability chambers provide a stable, temperature/humidity conditioned environment for worry-free operation with a control system that is easy to use and saves you time. Stability Chambers specifically developed to meet FDA/ICH stability requirements. MRC chambers generating exceptional control and uniformity of both temperature and humidity. MRC Chambers feature various safety features.

Features:

- Inside Stainless Steel and Outside Mild Steel Powder Coated
- Inside observation glass door
- Heavy-duty door hinges and latches
- Optional port Hole with rubber seal to insert sensors for validation purpose
- Compressor with CFC Free
- Safety thermostats to cut off the supply in case of overshoot & undershoot of Temp.
- Optional IQ, OQ, Documents
- Works on 230V AC single phase 50Hz
- Built-in circulating fan for temp. uniformity
- Illumination and Timer can be installed if required
- The compressor will be delayed to start working if power cut and with timer for defrost. Using environmental protection cold-media R134a
- Internal Power socket.



BACK

Model	BOD-550H	BOD-850H
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	
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 Wat	2000 Wat
Refrigerator	1/3 HP R134a	3/4 HP R134a
Humidity Display	PID Humidity controller, PV actual value & 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)	
Shelf / Inner Chamber	4 psc / W650xD550mm	4 psc / W820xD820mm
Inside Dimension (WxDxH)	680 x 580 x 1400 mm (Approx 550 L)	850 x 850 x 1400 mm (Approx 1010 L)



DHI37

Applications:

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

DHI-22/37, 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 carousel is easily removable for easy cleaning of the chamber. The bottle carousel 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.



DHI-22

Features:

- Inside material is SUS304 & outside body is powder painting
- Touch-screen panel
- Speed and temperature with digital display
- Built-in circulating fan for temperature stability
- Full accessories are available
- Orbital(bi-directional)/Rotation/Rocking motion.



DHI-AC-H

DHI-AC-1.5

DHI-AC-15

DHI-AC-50

AC-210-96

Model	DHI-37	DHI-22
Shaking	Rotation+orbital	Rocking
Temp. range	Ambient +5°C~70°C	
Temp. Accuracy	±0.1°C	
Temp. control	PID	
Temp. Display	LED	
Rotor Speed	6 ~ 50rpm	-
Rotor Capacity	8 pcs (Max)	-
Shaker Speed	10 ~ 100rpm	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



TDU-50

Flask Holders

- Min. noise & no vibration, maximum load 20kg
- Automatic stop of shaking, when the door is opened
- Accommodate flasks up to 2000ml
- Auto restart after power failure.

Optional: Universal spring tray



Tube holders

Universal spring tray for various sites of flasks

LOM-65/TDU-50/TDU-120, 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 pharmaceuticals 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, smooth quiet enables continuous 24-hour operation even at high speeds.
- Precisely monitor and control chamber temperature over complete range with $\pm 0.1^{\circ}\text{C}$ accuracy at 37°C with PID temperature controller
- AC brushless motor & precise speed control from 25 to 250rpm or 40 to 400rpm, controlled by a digital controller
- Speed programmability: Continuous or multi-step RPM programmability in which a timed run consisting of a sequence of up to 9 timed steps, each at a set speed & direction of rotation. Each timed run can be repeated up to 999 times.



LOM-65 – Front opening with one standing shelf

Model	TOU-50N	TOU-50-2	TOU-120	TOU-120-2	LOM-65	LOM-65-2
Type	Flip-up door				Front door	
Temp. range	Ambient + 4°C~70°C					
Temp. Accuracy/Uniformity	±0.1°C / ±0.5°C at 37°C					
Speed/Temp. control	PID					
Temp. Display	LED					
Speed programer(9 steps of speed & direction of rotation)	20~250 rpm	40~400 rpm	20~250 rpm	40~400 rpm	20~250 rpm	40~400 rpm
Shaking Orbit	25 mm					
Timer	1 minute to 99 hours & 99 minutes or continuous operation					
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
TDU-50N/50-2	35	20	12	6	4	2
TDU-120/120-2	64	36	25	16	9	5
LOM-65/65-2	35	20	12	6	4	2

Cooled Shaker Incubators

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 shelf for incubating added samples with a front opening door, the LOM-150 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.

- 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
- Transparent glass observation window & internal light.
- Provide clear visibility without opening the door.
- Uses brushless AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature uniformity.

Optional:

Day/night light+timer.



LOM-150

Model	LOM-80	LOM-150	LOM-150-2	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			
Speed Programer	20~300 rpm		20~400 rpm	20~150 rpm
Shaking width	25 mm			
Shaking plate	W440xD340	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)	W500xD400xH400	W600xD500xH500		
Outside dimensions (mm)	W580xD590xH790	W680xD690xH860		
Volume (Liter)	80	150		
Shelves	1 (Adjustable)			N/A
Power supply	110/220V, (8.5A)			
Weight	78Kg	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-80	20	12	6	4	2	1	1	-
LOM-150	30	20	12	6	5	4	2	1
LOM-150D	30x2 set	20x2 set	12x2 set	-	-	-	-	-



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

Features:

- Useful for biological culture under various temperatures
- 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 brushless 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	
Speed Programer (9 steps)	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	
Shelves	1 Adjustable	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	-	-	-	-	-

Orbital Shaking, Large Horizontal 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

SHAKER-INCUBATORS Stackable

LOM-7450, LOM-7450-CO2/L/2L, Stackable Incubator Shakers (with or without CO2 Controller)



Descriptions:

Stackable incubator shakers are the ideal choice for optimizing laboratory space without compromising the advantages of performing large capacity incubations. The products are designed with sliding platforms and light controller for easy of access to samples.

Model	LOM-7450	LOM-7450-CO2	LOM-7450-L	LOM-7450-2L
Product Name	Stackable Incubator Shaker	Stackable Incubator Shaker with CO2 Controller	Stackable Incubator Shaker with Light Controller	Low Profile Stackable Incubator Shaker
Speed	0rpm, 30-300rpm			
Speed Precision	±1rpm			
Orbit Diameter	Ø26mm			
Maximum Capacity	50ml x 90/100ml x 42/250ml x 30/500ml x 18/1000ml x 12/2000ml x 8/3000ml x 6/5000ml x 6			50mlx84/100mlx42/150mlx42/200mlx40/250mlx40/500mlx24/1000mlx15/2000mlx12
Flask Clamps in Standard Package	500ml x 18			
Size of Platform	740mm x 500mm			
Number of Platforms	1 Piece/Accessories available			
Temperature Range	Ambient -15°C ~ 60°C (Low Limit: 4°C)			
Temperature Sensitivity	0.1°C			
Temperature Uniformity	±0.5°C			
CO2 Sensor		Infrared		
CO2 Control Range		0-20%		
CO2 Control Sensitivity		0.1% (at 5%)		
CO2 Concentration Indicator		Digital Display		
Light intensity			0-20000LX	
Automatic Defrost	Yes			
Display	LCD			
Timer	0-999 (Hours)			
Outside Dimensions (WxDxH)	1240x777x670mm			1240x777x570mm
Capacity	840x590x483mm			840x590x383mm
Power	<1100W		<1300W	<1100W
Power Supply	AC220V ± 22V / 50Hz ± 1Hz			
Weight	220kg (Single Unit)			200kg (Single Unit)
Maximum Height	2m			1.7m



LOM1/2/3-8043, Premium Stackable Shaking Incubator

Descriptions:

This LOM1/2/3-8043 shaking incubators 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.

Features:

- Stackable up to three units for maximum space savings.
- 5.6" LCD 640x480 touch screen panel clearly indicates all parameters in one page display and enables all complicated program settings intuitively just with finger tips.
- Wide-view fold-down door with door handle, and ergonomic sliding-out shaking platform provide convenient access to your experiment products.

- Direct beltless driving system is both durable and economical, maintenance free, allows extended speed ranges from 30 to 300 RPM, ± 1 RPM with minimized vibration, even when shakers are stacked of three high. The shaking diameter can be changed from 1-50mm for optimum oxygenation and nutrient mixing and agitation in from small to large flasks.
- 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 coved corners make it easy to clean with mild detergent. Chamber is tall enough to hold 2L Erlenmeyer flasks.
- The ceiling of the unit can be upgraded and fitted with LED lighting kit for cultivation of phototrophic organisms. Mono/dual light colors are possible and the intensity of each color can be independently controlled and programmed to simulate day/night cycles, perfect for plant cell culture.
- Robust brushless DC motor enables shaking motion quiet and smooth, even when unit is operating at top speed with maximum workload.
- Non-volatile memory saves settings during a power outage and automatically restarts the unit after power is restored.
- For data recording, the units are equipped with a built-in thermo printer as standard, so that operators could check how the performance parameters vary according to specified process without having to be on site.
- Predrilled platform as standard configuration, flask clamps excluded.
- For a comfortable working height, the base stands are available in 500mm high.



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	24



SHAKER-INCUBATORS Stackable

Ordering Information:

Model	Descriptions
LOM1-8043	190Lx1, Premium Stackable Shaking Incubator, Single, 4-60°C, 30-300rpm
LOM2-8043	190Lx2, Premium Stackable Shaking Incubator, Double, 4-60°C, 30-300rpm
LOM3-8043	190Lx3, Premium Stackable Shaking Incubator, Triple, 4-60°C, 30-300rpm
P5010	Base Stand for LOM1-8043, 1300*800*500mm
P5011	LED Lighting Panel and Control Kit, For LOM1/2/3-8043, 890x500mm
P8010	Tube Rack S/S
P8011	Tube Rack ABS Plastic
P8012	Clamp for 96 Well Plate, S/S
P8017	Sticky Mat, 20 x 20cm
P8021	O Clamp, S/S, for 50ml Flask, with Spring Retainer
P8022	O Clamp, S/S, for 100ml Flask, with Spring Retainer
P8023	O Clamp, S/S, for 250ml Flask, with Spring Retainer
P8024	O Clamp, S/S, for 500ml Flask, with Spring Retainer
P8025	O Clamp, S/S, for 750ml Flask, with Spring Retainer
P8026	O Clamp, S/S, for 1000ml Flask, with Spring Retainer
P8027	O Clamp, S/S, for 2000ml Flask, with Spring Retainer

Lighting Control Kit (Option):

Model	P5011
Light Source	LED
Light Color	50% Red, 50% Blue
Spectrum	Red: 640-660nm, Blue: 430-450nm
Light Intensity	13,000 Lux (Red: 6500Lux, Blue
Control Range	Individually, from 0-100% output
Control Mode	Fixed Value & Programmable
Panel Dimensions	890x500x10mm
Power	300W

* Fully customized color combinations are available, contact MRC representatives for more information.
 # Min. Operating Temperature: 15°C when Photosynthetic Lighting option is applied.



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		
Ambient Temperature (°C)	10-35		
Shaking Speed (rpm)	30-300		
Stroke (mm)	Ø1-50 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		
Tray Included	1	2	3
Inner Dimensions (mm) (WxDxH)	920x532x395		
Exterior Dimen. (mm) (WxDxH)	1300x930x735	1300x930x1315	1300x930x1895
Packing Dimen. (mm) (WxDxH)	1420x1050x905	1420x1050x1480	1420x1050x2060
Net/Gross Weight (kg)	250/290	430/500	630/730
Power (W)	1200	2400 (1200x2)	3600 (1200x3)
Electricity	220-240V 50/60 Hz		
Approval	CE, ISO		
Security	Over-temperature Protection, Compressor Overload Protection, Electrical Leakage Protection		
Additional	Built-in Printer, RS485 COM Kit (Option), LED Lighting Control Kit (Option), Base Stand(Optional)		



LOM-9056-3X-R-L-UV

LOM-9056-3Xn SERIES, Stackable Refrigerated Shaker+UV light Incubator Shakers (with or without CO2 Controller)

Descriptions:

The incubating shaker with the 3 axis eccentric balance mechanism which is stable and reliable, also with long life. The speed control system has a speed terminal feedback system, which keeps the machine with high precision oscillation. The combination and innovation of PID control technology and fuzzy control technology have realized high precision control within the range of temp. The use of inverter compressor for refrigeration, which is in high efficiency and small energy consumption. The whole machine is in mute design, the noise is only 53dB. This machine can run continuously and work as the timer which is up to 999 hours. 12 segments function can be programmed to achieve the sample in diverse environment conditions and different running times to automatically create the required environments. It is convenient for the sample to be taken and put by choose

the rail tray or the movable transfer tray. The advanced Wifi monitoring system can be equipped with multiple iPhones and remote monitoring of the same machine at the same time, and timely access to the alarm information without air intake to deal with emergency situations quickly, safely and protect cultured cells. It is suitable for medium scale and large scale experiments and production.

Model	LOM-9056-3X-R-L-UV	LOM-9056-3X-R-L-UV-U	LOM-9056-3X-R-L-UV-CO2	LOM-9056-3X-R-L-UV-CO2-50	LOM-9056-3X-R-L-UV-CO2-50-U
Product Name	Large Capacity Stackable Incubator Shaker	Large Capacity Stackable Incubator Shaker +Upward Door	Large Capacity Stackable Incubator Shaker +CO2 Controller	Large Capacity Stackable Incubator Shaker +CO2 Controller & Shake Diam. 50mm	Large Capacity Stackable Incubator Shaker +CO2 Controller & Shake Diam. 50mm +Upward Door
Temp. Range	18°C–60°C (4°C) Room Temp. Minus 18°C–60°C (Lowest Temp. is 4°C)				
Temp. Accuracy	±0.1°C				
Temp. Uniformity	±0.5°C				
Speed	0 (Stop), 30–300rpm				
Speed Accuracy	±1rpm				
Orbit Diameter	Φ26mm			Φ50mm	
CO2 Sensor	NA		IR		
CO2 Control Range	NA		0–20%		
co, Control Accuracy	NA		±0.1%		
Recover Time after Open Door 30s on Temp	NA		≤6min (@37°C)		
Recover Time after Open Door 30s on CO2	NA		≤6min (@5%)		
RH Type	NA		Evapor Naturally		
Max. Humidity	NA		95%		
Programing Numbers	12 Sections				
Illumination	Both of Side Lamps				
Disinfection	Both of Side UV Lamps				
Door Open Direction	Downward	Upward	Downward	Downward	Upward
Display	10" Color Capacitance Touch Screen				
Touch Screen Type	Capacitance Type				
Auto-lock	Yes				
Auto-close Screen	Yes				
Protect Set arameters	Passwords Protect				
Display the Date	In a week				

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



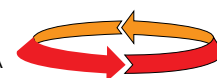
LOM-834D

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.
- 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 brushless AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.
- Speed programmer - 9 steps of speed & direction of rotation.



LOM-560D



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			
Speed Programmer	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			
Shelves (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 SHAKER-INCUBATORS

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



LOM-400

Optional: Tube Holders

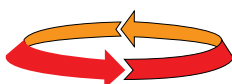


Flask Holders



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 brushless AC motor for long durability and stable performance of the shaking system.
- Overheat and over low protector, built-in circulating fan for temperature stability.
- Speed programmer: 9 steps of speed & direction of rotation.



LOM-200
With optional
day/night illumination+timer



Model	LOM-200-5	LOM-200-2	LOM-400-5	LOM-400-2
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			
Speed Programmer 9 steps of speed & direction of rotation	20~250rpm	20~400rpm	20~250rpm	20~400rpm
Shaking width	50 mm (25 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-200	48	30	20	12	9	6	6	4
LOM-400	96	60	40	24	15	15	12	8

SHAKER-INCUBATORS Large Capacity, Refrigerated

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



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-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)	W960xD600mm
Refrigerator	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	W1040xD680xH540mm
Outside dimensions	W1370xD760xH870mm
Volume (Liters)	381
Power supply	110/220V, 50/60Hz, (8.5A)
Weight	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-400N	96	60	40	24	15	15	12	8

For 2, 4, 6 Microplate & 1.5ml Tubes **SHAKER-INCUBATORS**

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

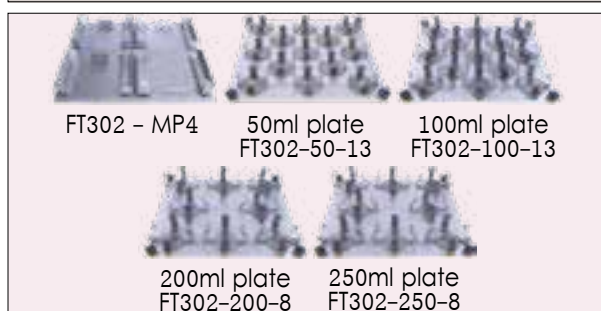
MR1.5-24



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



TOU-H/C30

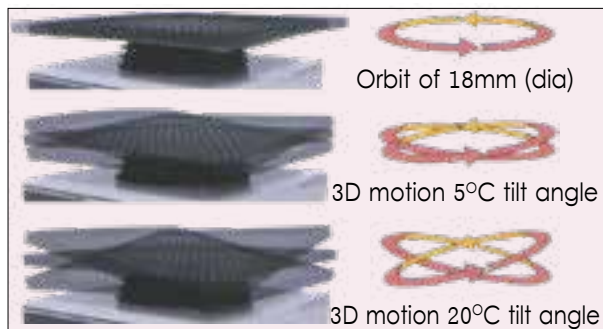


FT302 - MP4 50ml plate FT302-50-13 100ml plate FT302-100-13
200ml plate FT302-200-8 250ml plate FT302-250-8

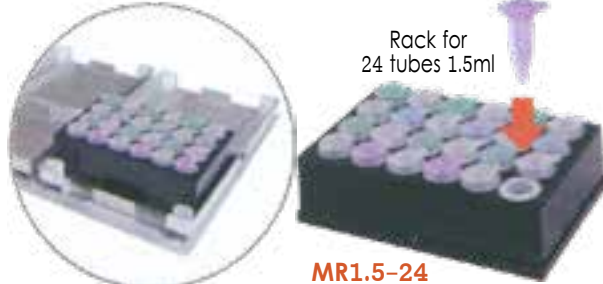
Other Accessories:

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:



MR1.5-24



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

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

















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

SHAKER-INCUBATORS Rotating/Rocking

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-shaped 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



ROL-INC-30

ROL-INC Series, Roll In Incubators – Cell Culture

The MRC CellRoller Roll-In Incubator is designed with convenient space saving features for cell cultures using a roller culture apparatus. It is an economical alternative to a warm room for small production. Its programmable PID temperature control feature and double wall insulation provide precise, uniform & stable temperature distribution. The product holds full size roller cultures apparatus unit. Its mirror graded stainless internal wall makes it easy to clean. Based on ROL-INC-16 and ROL-INC-30 Roll-In Incubators. ROL-INC-16-CO₂ & ROL-INC-30-CO₂ models are designed with feature of automatic CO₂ concentration control for more applications. The CO₂ concentration is microprocessor controlled with PID program. The unit comes with pressure regulator and filter.

Features:

- Programmable PID temperature control;
- LED digital display;
- Independent over temperature protection;
- Double walled window door;
- Alarm, automatic power off;
- Concise and practical design with delicate appearance.

Model	ROL-INC-16	ROL-INC-16-CO2	ROL-INC-30	ROL-INC-30-CO2
Temp. Display	Digital			
Temp. range	Environment Temperature +5°C ~ 60°C (Environment Temperature +5°C ~ 40°C)			
Temp. Sensitivity	0.1°C			
Temp. Uniformity	±0.5°C (Environment Temp.: 25°C; Set T: 37°C, No Load)			
Temp. Fluctuation	±0.2°C (Environment Temp.: 25°C; Set T: 37°C. No Load)			
Concentration Indicator	N/A		Digital Display	
CO ₂ Control Range	N/A		0-20%	
CO ₂ Control Sensitivity	N/A		0.1% (at 5%)	
CO ₂ Recovery Rate to 5%	N/A		<3min	
Return to 37°C after door opening	N/A		<3min	
CO ₂ Sensor	N/A		Infrared	
Power Supply	AC220V ±22V/50Hz ±1Hz			
Maximum Power	1250W			
Inside dimensions WxDxH(mm)	745x690x1115	870x690x1480	745x690x1115	870x690x1480
Outside dimensions WxDxH(mm)	845x885x1349	970x885x1716	845x885x1349	970x885x1716
Interior Wall	Mirror Grade Stainless Steel			
Door	Double Glass Window			
Alarm Function	Over-temperature, Temperature Sensor Malfunction, CO ₂ Concentration Alarm			
Weight	175Kg	195Kg	175Kg	195Kg



INC-190-CO₂, CO₂ Incubator

CO₂ incubator is a key equipment for immunology, oncology genetics and bioengineering . It provides a reliable microprocessor controller to ensure the accuracy and uniformity of temperature and CO₂ concentration. Advanced sterilization technology has been applied to keep the experiment from being polluted.

Features:

- Dual wavelength infrared detector insures precise and reliable CO₂ detection
- HEPA air filtration provides class 100 air purification
- High temperature or moist heat function makes it easy to sterilize
- Temperature control on the door prevents condensation
- Audible and visual alarm for over limit status
- Mirror grade stainless steel chamber with round corner for easy clean up.



Model	INC-190-CO ₂
Capacity	191L
Temp. range	+5°C ~ 60°C
Temp. Uniformity	±0. 3°C@ 37C
Temp. Sensor	PT100
Temp. Accuarcy	±0.1°C
Temp. Control Alarm	Adjustable
CO ₂ Range	0-20%
CO ₂ Control Accuarcy	0.1%
CO ₂ Detector	IR
CO ₂ Alarm	Adjustable
CO ₂ Recovery 5% Time after Door Operation	<3min
Return to 37°C after Door Opening	<3min
Open Door Side	Left (standard) or Right Side open
Humidification Dish	3L
Insulation	Dry-wall
Relative Humidity	>95%@ 37°C
Outside dimensions WxDxH(mm)	670x705x1010
Inside dimensions WxDxH(mm)	540x510x705
Stainless Steel Shelves	3 pieces
Sterilization	High Temperature
HEPA Filter	Yes
Power Supply	AC220V±22V / 50HZ±1HZ



SCO2W-2

Applications:

- Cell Culture • Tissue Culture • Food Analysis
- Stem Cells • Microbiology • Plant Cell Culture.

Contamination Control:

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

Control, Feedback, and Monitoring:

The advanced PID (proportional, integral, derivative) controller commands proportional power to the heating elements and CO₂ injection frequency to provide the most accurate and responsive control. Each controller is matched to the incubator chamber volume to assure faster response to setpoint without overshoot, and quicker recovery following door openings. Indicator lights are included for visual status feedback on critical functions.

Integrated Control Panel:

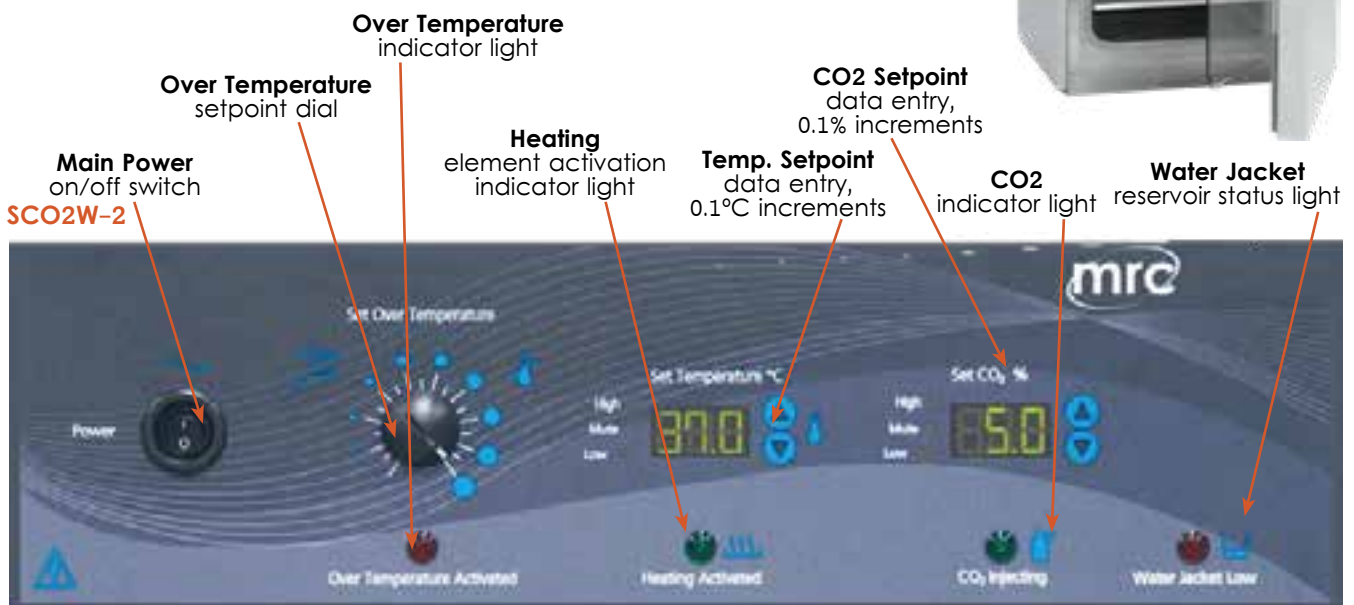
All controls are centrally located on the main panel including manual power, independent over temperature control, digital temperature/CO₂ adjustments, and indicator lights for all functions.

SCO2/5W-2, Water Jacketed CO₂ Incubator**Ideal for Clinical, Analytical, & General Laboratory Applications:**

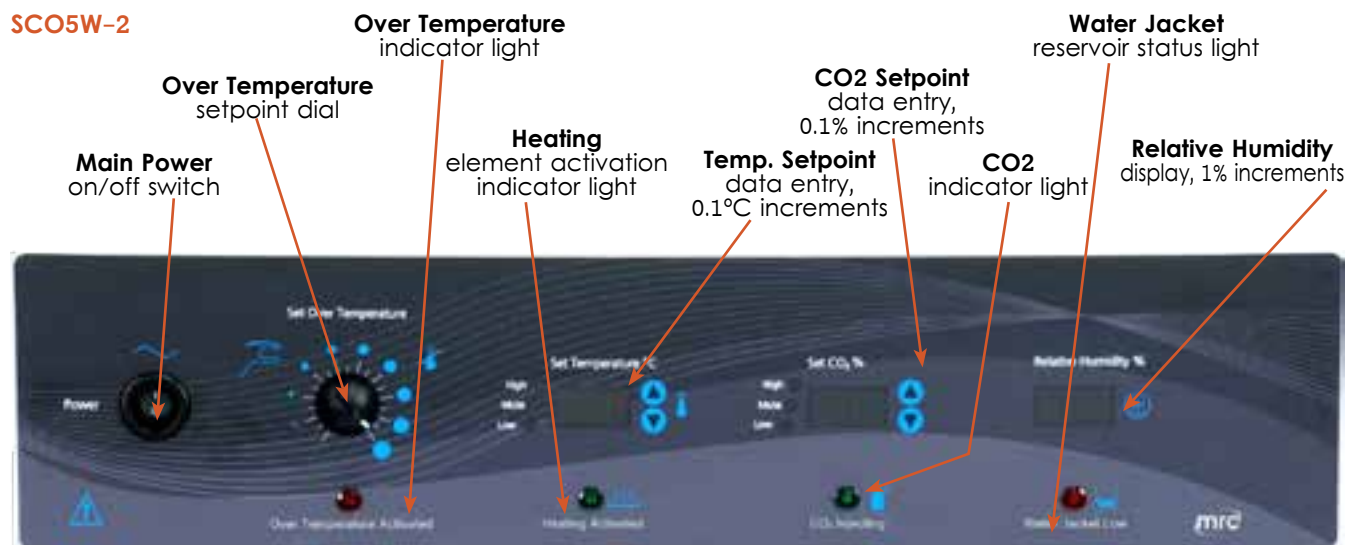
SCO water jacketed CO₂ incubators provide the uniform temperatures and highly stable CO₂ environments necessary to prevent shocks to cell samples.

Features and Benefits: Copper gas plumbing and a glass viewing door enhance the SCO water jacket CO₂ incubators with extensive protection against microbiological contamination.

- + Infrared (IR) sensor for quick recovery of CO₂ levels after door openings. This sensor does not need to be removed during the high-heat decontamination cycle.
- + USB data logging capabilities.
- 1. Advanced PID temperature control system for sensitive response.
- 2. Independent over temperature set point & operational control override for additional safety.
- 3. Side-mounted access port, 1" inner diameter (2.85cm) for independent cables, sensors, and instrumentation.
- 4. Stainless steel interior construction for long life operation, easy cleaning.
- 5. Heated Copper CO₂ inlet to promote temperature uniformity and reduce the risks of contamination and condensation.
- 6. Autoclavable shelving system.
- 7. Unique water jacketed design provides excellent temperature uniformity of $\pm 0.2^{\circ}\text{C}$ at 37°C .
- 8. Patented copper cage HEPA filter for reduced risk of contamination.
- 9. Heated door to ensure superior temperature uniformity.
- 10. Sealed inner glass door allows for viewing without disturbing the critical growth atmosphere and allows for improved gas utilization and condensate reduction.
- + Safety certified CAN/CSA, UL, EN, IEC 61010, and compliant with CE.



SCO5W-2



Model	SCO2W-2	SCO5W-2
Unit Specification Chart		
Interior Volume, Nominal	42 liters	142 liters
Interior Dimensions (W x H x D)	40.0 x 40.0 x 26.0cm	48.9 x 50.0 x 58.0cm
Exterior Dimensions (W x H x D)	53.4 x 57.2 x 68.6cm	66.0 x 64.8 x 102.2cm
Interior Construction	300 series stainless steel	
Exterior Construction	20 gauge steel, powder coated	
Shelves (See Accessories)*	3 standard, 8 total	3 standard, 16 total
Maximum Weight Per Shelf*	15.8kg	
Permitted Total Load	45.3kg	90.7kg
Site Preparation and Installation Guides		
Door Swing Clearance (Nominal)	48.3cm	61.0cm
Wall Clearance, Sides	10.0cm	
Wall Clearance, Roof	5.0cm	
Access Port (Inner Diameter)	4.45cm	
Unit Weight Empty	61.7kg	115.2kg
Shipping Weight	81.2kg	135.6kg
Electrical, 50/60Hz, AC, 1Ø		
Voltage	220V-240V	
Full Load Amps	3.5	
Nominal Power (watts @37°C)	300	400
Recommended Breaker, Amps	15	
Power Cord Supplied	EU1-16P	
CO ₂ Range	1-20%	
Recovery CO ₂ at 5%*	< 5min.	
Sensor Type	Infrared	
Humidity Range Passive (Ambient 95%)	+	
Temperature Uniformity		
At 37°C	± 0.2°C	
Temperature Range Recovery 37°C**		
Recovery to 37°C after 30 sec. Door Opening	8.0 min.	5.0 min.

*Extra standard and reinforced shelves available. See Accessories

**To 98% of set value.

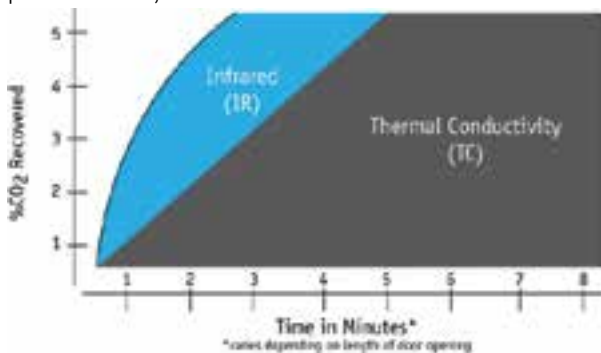
Options and Accessories:

• CO₂ Cylinder Regulator, Dual Stage • 4-20 mA outputs for CO₂ • Caster Platform • Cooling Coils • Tri-Glass Door • Stacking Rack • Copper Shelf Kit: Includes 3 Shelves; 6 Shelf Slides • Extra Shelf, Copper, Max Weight 35 lbs (15.8kg) • Extra Slide, Copper • Extra Stainless Steel Shelf and Slide Kit, Max. Weight 35 lbs(15.8kg) .
Options must be specified when ordering. Contact SHEL LAB for additional information.



Infrared (IR) CO₂ Sensors:

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



unique design keeps shelf from tipping



copper shelving option

SCO5A5-2, Air Jacketed CO₂ Incubator

The air jacketed 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 temperature and CO₂, and audio/visual alarms that signal high/low temperature and CO₂ conditions. Modular controls and backup systems ensure confidence for incubating valuable samples, providing the dependable assurance you expect from a MRC incubator.

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 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.

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 & isolated microbes 0.3 microns or larger.



Precise Temperature Control – Superior Uniformity:

- Independent Over Temperature Thermostat
- Over Temperature & CO₂ Alarm
- Inner Glass Viewing Door
- Temperature Uniformity $\pm 0.25^{\circ}\text{C}$ at 37°C
- Temperature Range Ambient $+8^{\circ}\text{C}$ to 60°C
- CO₂ Range 0 – 20%
- Infrared (IR) CO₂ Sensor Accuracy $\pm 0.1\%$
- CO₂ Recovery Rate < 5 Minutes
- Relative Humidity Up to 95%
- Data Logging Capabilities.



Model	SCO5A-2	SCO10A-2
Exterior Dimensions (W x H x D) (cm)	69.3 x 71.2 x 95.9	69.3 x 71.2 x 191.8
Chamber Dimensions (W x H x D) (cm)	52.0 x 50.1 x 54.6	52.0 x 50.1 x 54.6 each
Incubator Chamber Capacity (L)	142	284
Number of Shelves (Included)	3	3 each
Voltage	220–230V	

*Specifications are based on nominal values at an ambient temperature of 25°C and a line voltage of 240V respectively. The temperature t_a is determined in accordance with DIN 12880.



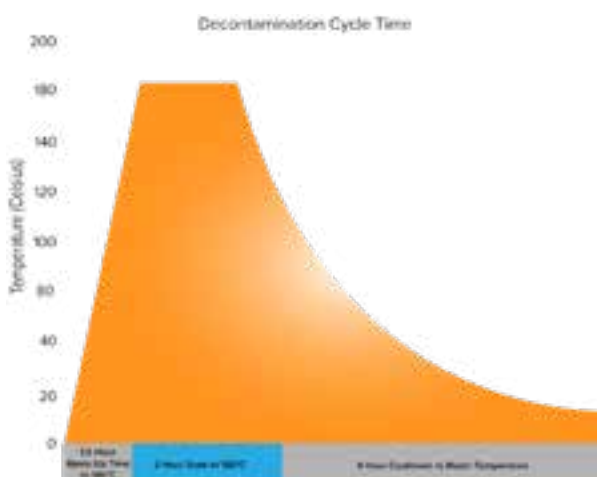
SCO6AD-2

Applications:

- Cell Culture • Tissue Culture • Food Analysis
- Stem Cells • Microbiology • Plant Cell Culture.

Contamination Control:

Extensive use of copper in the CO₂ sample port, humidity reservoir, and heated CO₂ feed line adds reassurance that foreign microbes will not affect test results. Cleanup is a breeze with the all stainless steel chamber, coved corners, and autoclavable door gasket. Optional copper shelves are available for additional contamination control.



Control, Feedback, and Monitoring:

The advanced PID (proportional, integral, derivative) controller commands proportional power to the heating elements and CO₂ injection frequency to provide the most accurate and responsive control. Each controller is matched to the incubator chamber volume to assure faster response to setpoint without overshoot, and quicker recovery following door openings. Indicator lights are included for visual status feedback on critical functions.

SCO6AD-2, High Heat Auto Decontamination CO₂ Incubator

Ideal for Clinical, Analytical, & General Laboratory Applications:

The SCO6AD-2 unit provides an optimized culturing environment with passive humidification, highly stable CO₂ levels, and tight temperature uniformity to safeguard your cell sample populations.

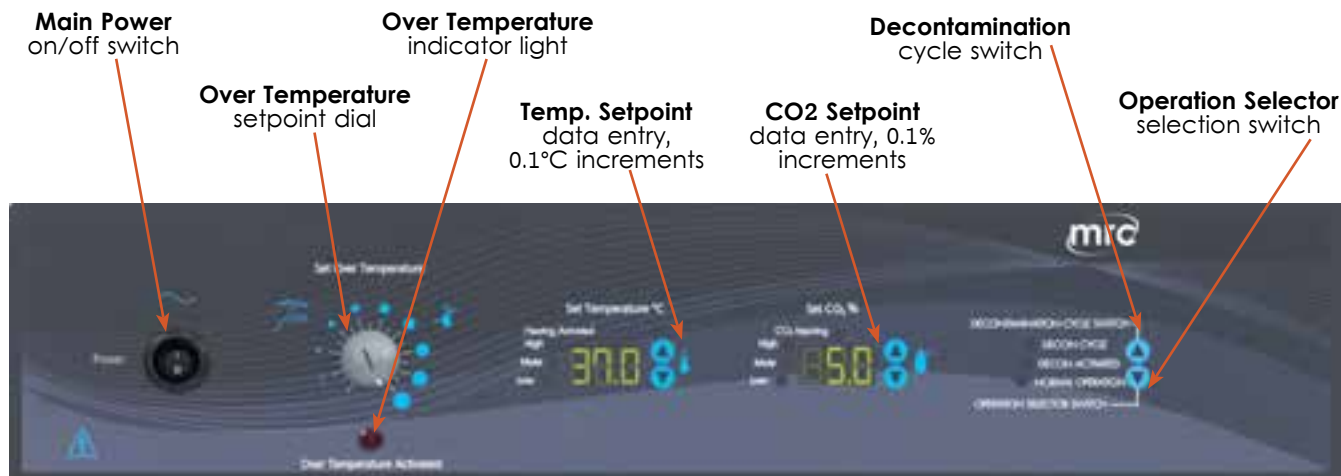
Features and Benefits: Copper gas plumbing, a high-heat auto decontamination cycle, & a glass viewing door gives the SCO6AD-2 enhanced protection against microbiological contamination.

- + Infrared (IR) sensor for quick recovery of CO₂ levels after door openings. This sensor does not need to be removed during the high-heat decontamination cycle.
- + USB data logging capabilities.
- 1. Advanced PID temperature control system for sensitive response.
- 2. Independent over temperature set point & operational control override for additional safety.
- 3. Side-mounted access port, 1.5" inner diameter (3.81cm) for independent cables, sensors, and instrumentation.
- 4. Stainless steel interior construction for long life operation, easy cleaning.
- 5. Heated Copper CO₂ inlet to promote temperature uniformity and reduce the risks of contamination and condensation.
- 6. Autoclavable shelving system.
- 7. Auto decontamination cycle designed to stop microbial contamination caused by mycetoza, yeast, viruses, bacteria, and a variety of other microorganisms.
- 8. Heated door to ensure superior temperature uniformity.
- 9. Sealed inner glass door allows for viewing without disturbing the critical growth atmosphere and allows for improved gas utilization and condensate reduction.
- 10. Unique air jacketed design provides excellent temperature uniformity of $\pm 0.25^{\circ}\text{C}$ at 37°C .
- + Safety certified CAN/CSA, UL, EN, IEC 61010, and compliant with CE.



Integrated Control Panel:

All controls are centrally located on the main panel including manual power, independent over temperature control, digital temperature/CO₂ adjustments, and indicator lights for all functions.



Model	SCO6AD-2
Unit Specification Chart	
Interior Volume, Nominal	167 liters
Interior Dimensions (W x H x D)	51.3 x 64.7 x 50.8cm
Exterior Dimensions (W x H x D)	72.4 x 100.3 x 78.2cm
Interior Construction	300 series stainless steel
Exterior Construction	20 gauge steel, powder coated
Shelves (See Accessories)*	3 standard, 8 total
Maximum Weight Per Shelf*	15.8kg
Permitted Total Load	47.6kg
Site Preparation and Installation Guides	
Wall Clearance, Sides	10.0cm
Wall Clearance, Roof	5.0cm
Access Port (Inner Diameter)	3.81cm
Unit Weight Empty	61.7kg
Shipping Weight	137kg
Electrical, 50/60Hz, AC, 1Ø	
Voltage	220V-240V
Full Load Amps	6.0
Nominal Power (watts @37°C)	110
Recommended Breaker, Amps	15
Power Cord Supplied	EU1-16P
CO ₂ Range	1-20%
Recovery CO ₂ at 5%*	< 5min.
Sensor Type	Infrared
Temperature Uniformity	
At 37°C	± 0.25°C
Humidity Range Passive (Ambient 95%)	+
Temperature Range Recovery 37°C**	
Recovery to 37°C after 30 sec. Door Opening	6.0 min.

*Extra standard and reinforced shelves available. See Accessories

**To 98% of set value.

Options and Accessories:

• Shuttle Valve for Dual CO₂ Tanks • 4-20 mA outputs for CO₂ • Locking Outer Door • Tri-Glass Door • Stacking Stand • Caster Platform • Copper Shelf Package: Includes 3 copper shelves, 6 copper shelf slides • Extra Shelf, Copper, Max Weight 15.8kg • Extra Slide, Copper, 2 Required Per Shelf • Extra Stainless Steel Shelf and Slide Kit, Max. Weight 15.8kg • Extra Shelf, Reinforced. Max. Weight 22.7kg • Extra Standard, Stainless Steel, 2 Required Per Shelf • Extra Slide, Stainless Steel, 2 Required Per Shelf.



SCO6WE-2

Applications:

- Cell Culture • Tissue Culture • Food Analysis
- Stem Cells • Microbiology • Plant Cell Culture.

Contamination Control:

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

Control, Feedback, and Monitoring:

The advanced PID (proportional, integral, derivative) controller commands proportional power to the heating elements and CO₂ injection frequency to provide the most accurate and responsive control. Each controller is matched to the incubator chamber volume to assure faster response to setpoint without overshoot, and quicker recovery following door openings. Indicator lights are included for visual status feedback on critical functions.

Integrated Control Panel:

All controls are centrally located on the main panel including manual power, independent over temperature control, digital temperature/CO₂ adjustments, and indicator lights for all functions.

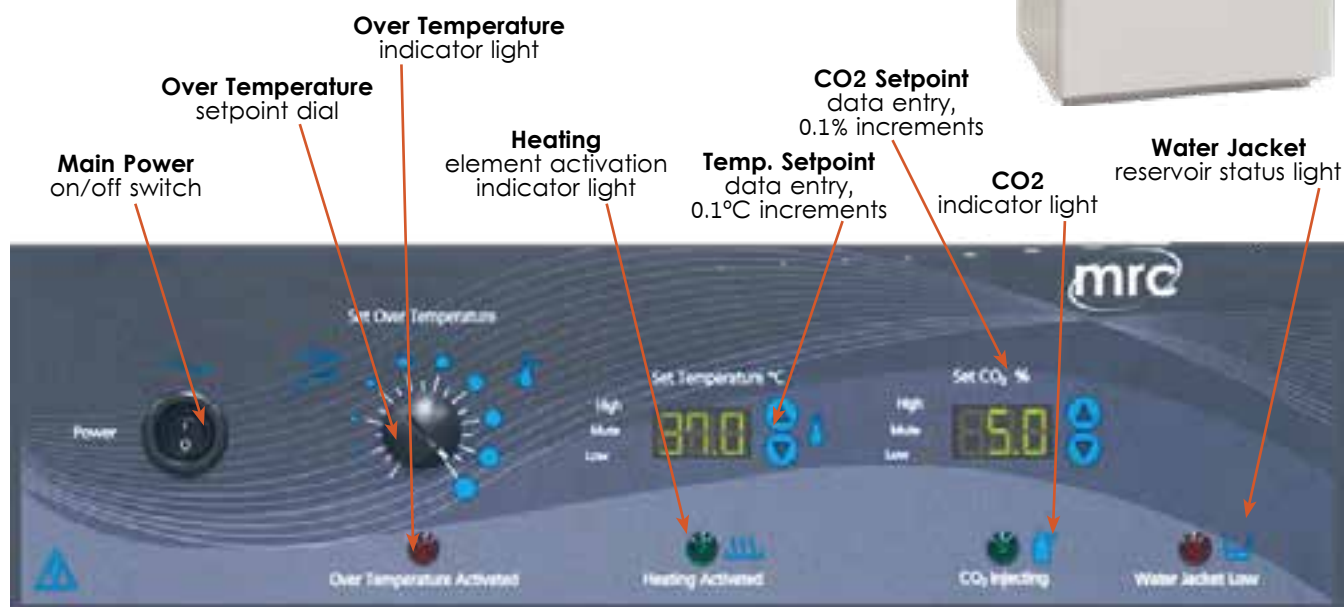
SCO6WE-2, Water Jacketed CO₂ Incubator

Ideal for Clinical, Analytical, & General Laboratory Applications:

SCO water jacketed CO₂ incubators provide the uniform temperatures and highly stable CO₂ environments necessary to prevent shocks to cell samples.

Features and Benefits: Copper gas plumbing and a glass viewing door enhance the SCO water jacket CO₂ incubators with extensive protection against microbiological contamination.

- + Infrared (IR) sensor for quick recovery of CO₂ levels after door openings. This sensor does not need to be removed during the high-heat decontamination cycle.
- + USB data logging capabilities.
- 1. Advanced PID temperature control system for sensitive response.
- 2. Independent over temperature set point & operational control override for additional safety.
- 3. Side-mounted access port, 1" inner diameter (2.85cm) for independent cables, sensors, and instrumentation.
- 4. Stainless steel interior construction for long life operation, easy cleaning.
- 5. Heated Copper CO₂ inlet to promote temperature uniformity and reduce the risks of contamination and condensation.
- 6. Autoclavable shelving system.
- 7. Unique water jacketed design provides excellent temperature uniformity of $\pm 0.2^{\circ}\text{C}$ at 37°C .
- 8. Patented copper cage HEPA filter for reduced risk of contamination.
- 9. Heated door to ensure superior temperature uniformity.
- 10. Sealed inner glass door allows for viewing without disturbing the critical growth atmosphere and allows for improved gas utilization and condensate reduction.
- + Safety certified CAN/CSA, UL, EN, IEC 61010, and compliant with CE.



Model	SCO6WE-2
Unit Specification Chart	
Interior Volume, Nominal	171 liters
Interior Dimensions (W x H x D)	51.3 x 50.0 x 60.0cm
Exterior Dimensions (W x H x D)	66.0 x 66.7 x 102.2cm
Interior Construction	300 series stainless steel
Exterior Construction	20 gauge steel, powder coated
Shelves (See Accessories)*	3 standard, 16 total
Maximum Weight Per Shelf*	15.8kg
Permitted Total Load	90.7kg
Site Preparation and Installation Guides	
Door Swing Clearance (Nominal)	61.0cm
Wall Clearance, Sides	10.0cm
Wall Clearance, Roof	5.0cm
Access Port (Inner Diameter)	4.45cm
Unit Weight Empty	117.9kg
Shipping Weight	138.4kg
Electrical, 50/60Hz, AC, 1Ø	
Voltage	220V-240V
Full Load Amps	3.5
Nominal Power (watts @37°C)	400
Recommended Breaker, Amps	15
Power Cord Supplied	EU1-16P
CO ₂ Range	1-20%
Recovery CO ₂ at 5%*	< 5min.
Sensor Type	Infrared
Humidity Range Passive (Ambient 95%)	+
Temperature Uniformity	
At 37°C	± 0.2°C
Temperature Range Recovery 37°C**	
Recovery to 37°C after 30 sec. Door Opening	4.0 min.

*Extra standard and reinforced shelves available. See Accessories

**To 98% of set value.

Options and Accessories:

• CO₂ Cylinder Regulator, Dual Stage • 4-20 mA outputs for CO₂ • Caster Platform • Cooling Coils • Tri-Glass Door • Stacking Rack • Copper Shelf Kit: Includes 3 Shelves; 6 Shelf Slides • Extra Shelf, Copper, Max Weight 35 lbs (15.8kg) • Extra Slide, Copper • Extra Stainless Steel Shelf and Slide Kit, Max. Weight 35 lbs(15.8kg) .
Options must be specified when ordering. Contact SHEL LAB for additional information.



Applications:

- Cell Culture • Microbiology • Plant Cell Culture
- Stem Cells • Tissue Culture • Food Analysis.

Contamination Control:

Extensive use of copper in the humidity heated CO2 feed line and precise airflow management designed to prevent condensation adds reassurance that foreign microbes will not affect test results. Cleanup is a breeze with the all stainless steel chamber.

Control, Feedback, and Monitoring:

The advanced PID (proportional, integral, derivative) controller commands proportional power to the heating elements and CO2 injection frequency to provide the most accurate and responsive control. Each controller is matched to the incubator chamber volume to assure faster response to setpoint without overshoot, and quicker recovery following door openings. Indicator lights are included for visual status feedback on critical functions.

Integrated Control Panel:

All controls are centrally located on the main panel including manual power, independent over temperature control, digital temperature/CO2 adjustments, and indicator lights for all functions.

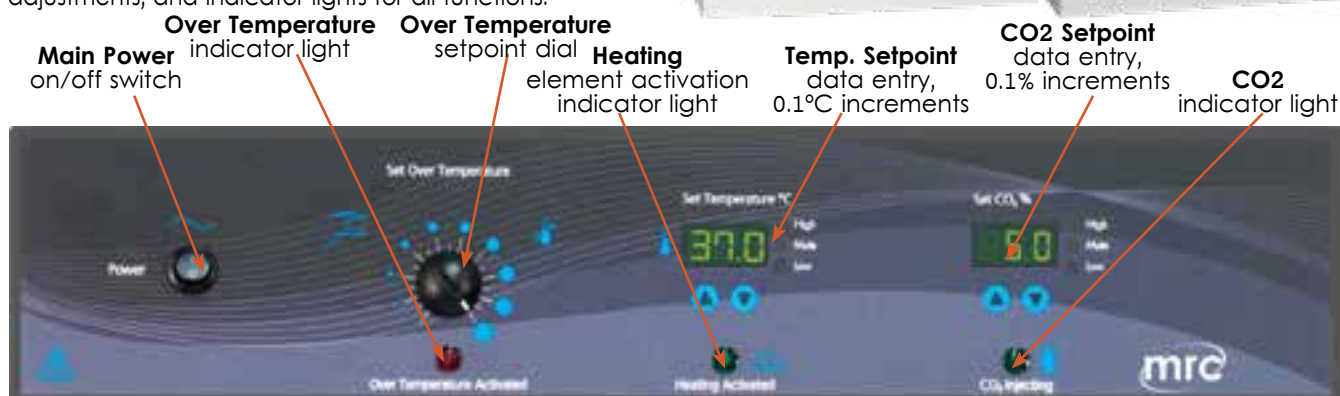
SCO31/40/58-2, Large CO2 Incubators

Ideal for Clinical, Analytical, & General Laboratory Applications:

SCO water jacketed CO2 incubators provide the uniform temperatures and highly stable CO2 environments necessary to prevent shocks to cell samples.

Features and Benefits: Contamination control, data logging capabilities, and automatic CO2 deviation alarm protect the SCO large capacity CO2 incubators against microbiological contamination.

- + Infrared (IR) sensor for quick recovery of CO2 levels after door openings. This sensor does not need to be removed during the high-heat decontamination cycle.
- + USB data logging capabilities.
- 1. Advanced PID temperature control system for sensitive response.
- 2. Independent over temperature set point & operational control override for additional safety.
- 3. Side-mounted access port, 1.75" inner diameter (4.45cm) for independent cables, instrumentation.
- 4. Stainless steel interior construction for long life operation, easy cleaning.
- 5. Condensed connection panel includes; 4-20 mA, dry contact alarm, CO2 inlet, and CO2 sample port.
- 6. Autoclavable shelving system.
- 7. Crafted forced-air conduction provides excellent temperature uniformity of $\pm 0.5^{\circ}\text{C}$ at 37°C .
- 8. Roller track ensures ease of use with roll-in bottle racks.
- 9. Sealed glass window allows for viewing without disturbing the critical growth atmosphere and allows for improved gas utilization and condensate reduction.
- + Safety certified CAN/CSA, UL, EN, IEC 61010, and compliant with CE.



Model	SCO31-2	SCO40-2	SCO58-2
Unit Specification Chart			
Interior Volume, Nominal	879 liters	1125 liters	1642 liters
Interior Dimensions (W x H x D)	83.1 x 66.0 x 160.0cm	88.9 x 66.0 x 191.7cm	109.2 x 88.9 x 172.7cm
Exterior Dimensions (W x H x D)	100.3 x 85.8 x 191.2cm	108.0 x 87.6 x 228.6cm	128.2 x 113.0 x 218.4cm
Interior Construction	300 series stainless steel		
Exterior Construction	20 gauge steel, powder coated		
Shelves (See Accessories)*	6 standard, 30 total		
Maximum Weight Per Shelf*	22.7kg		
Permitted Total Load	136.1kg		
Site Preparation and Installation Guides			
Wall Clearance, Sides	10.0cm		
Wall Clearance, Roof	5.0cm		
Access Port (Inner Diameter)	4.45cm		
Unit Weight Empty	226.8kg	260.4kg	430.9kg
Shipping Weight	262.6kg	309.4kg	492.2kg
Electrical, 50/60Hz, AC, 1Ø			
Voltage	220V-240V		
Full Load Amps	8	9	8
Nominal Power (watts @37°C)	300	340	350
Recommended Breaker, Amps	16		
Power Cord Supplied	EU1-16P		
CO ₂ Range	1-20%		
Recovery CO ₂ at 5%*	< 5min.		
Sensor Type	Infrared		
Temperature Uniformity			
At 37°C	± 0.5°C		
Temperature Range Recovery 37°C**			
Recovery to 37°C after 30 sec. Door Opening	8.0 min.	7.0 min.	

*Extra standard and reinforced shelves available. See Accessories
 **To 98% of set value.

Options and Accessories:

- Shuttle Valve for Dual Co₂ Tanks
- CO₂ Cylinder Regulator Kit
- Caster Platform
- Chart Recorder Option
- Solid Door
- Reverse Door
- Locking Outer Door
- Extra Shelf, Stainless Steel, Max. Weight 22.7kg
- Extra Shelf, Reinforced, Max Weight 34.0kg
- Extra Shelf Clips, 4 Required Per Shelf.



SCO31-2



SCO40-2

INCUBATORS

Applications:

• Hematological 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.



SMI2-2

SMI2/7/11/6/12-2, General Purpose Incubators

MRC General Purpose Incubators are the ideal solution for industrial protocols, biological research and environmental studies that demand accurate & 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 protection.

The general purpose series models include a sealed, inner glass door which provides a view into the chamber without compromising samples or the chamber environment.

The optional factory installed reversible door makes it easier to fit these incubators into your laboratory.

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 $\pm 0.35^{\circ}\text{C}$ at 37°C
- Temperature Range Ambient $+8^{\circ}\text{C}$ to 70°C .

Model	SMI2-2	SMI7-2	SMI11-2	SMI6-2	SMI12-2
Exterior Dimensions (wxdxh) cm	55.9x55.9x66.1	76.2x80.7x82.0	108x68.6x96.6	64.8x69.3x96.6	64.8x69.3x192.5
Chamber Dimensions (wxdxh) cm	38.1x38.1x38.1	60.3x60.9x50.2	92.0x50.8x65.4	48.9x50.8x65.4	48.9x50.8x65.4
Incubator Chamber Capacity (L)	56	185	306	163	163 (each)
Number of Shelves	Included Maximum	2 9	6 12	3 12	3 (each) 12 (each)



SMI39-2

SMI31/39-2, General Purpose Incubators

Models SMI31 and SMI39 incubators provide 872/1092L chamber capacities while minimizing the amount of floor space used. Both models incorporate our microprocessor controller to achieve precise temperature uniformity. An independent, secondary temperature controller offers the added security of over temperature protection.

The chamber floors are reinforced to support roller apparatus or shakers. Both models are supplied with six shelves capable of supporting the weight of benchtop instruments.

Features:

- Four (4) Interior Electrical Outlets
- Prewired Panel for Chart Recorder
- Optional Reversible Door
- Tempered Glass Viewing Window.

Precise Temperature Control – Superior Uniformity:

- Independent Over Temperature Thermostat
- Over Temperature Alarm
- Temperature Uniformity $\pm 0.8^{\circ}\text{C}$ at 37°C
- Temperature Range Ambient $+8^{\circ}\text{C}$ to 70°C .

Model	SMI31-2	SMI39-2
Exterior Dimensions (wxdxh) cm	97.8 x 86.4 x 191.2	105.4 x 88.3 x 222.3
Chamber Dimensions (wxdxh) cm	82.8 x 66.0 x 162.8	90.4 x 66.0 x 193.0
Incubator Chamber Capacity (L)	872	1092
Interior Outlet/ Access Port	110V-4/ 220V-4 / 1	
Number of Shelves (Included)	6 (16 max)	6 (20 max)



DWI-SERIES, Water jacket Constant-Temp. Incubator

Features:

- LCD display.
- Water overflow protection.
- Microprocessor temperature controller
- Castors are equipped for easy movement.
- Double door design and magnetic door sealing.
- The working chamber adopts round angle structure, easy to clean.
- Water-jacket function which helps to keep long time temperature upon power off.

Safety function:

- Over temperature protection, temperature sensor malfunction alarm.
- Parameters can be saved automatically when power off or system error.
- High and low water level alarm, automatic heating off for low water level.



Model	DWI-50	DWI-80	DWI-160	DWI-270
Capacity	50L	80L	160L	270L
Temp. Control	RT+5~60°C			
Temp. Fluctuation	±0.2°C			
Time Range	1~9999mins			
New Function	Water-jacket temperature preservation function, keep about 2~3 hours upon power off (temperature drop 3~5°C)			
Consumption	600W	900W	1200W	2100W
Shelves	2 pcs/adjustable			
Power Supply	AC220V±10%, 50/60Hz			
Internal Size (mm)	350x350x400	410x405x510	505x455x700	600x600x750
External Size (mm)	490x540x740	550x590x850	655x640x1030	750x795x1080
Packing Size (mm)	640x690x910	700x740x1020	800x790x1200	900x940x1250
Gross Weight (kg)	64	80	115	155

INCUBATORS

Peltier Cooled



SRI3P-2



SRI6P-2

SRI3/6/20P-2, Peltier Cooled Incubators

Innovative peltier cooling technology, eliminates the need for a refrigeration compressor. These units use over 70% less power than alternative models and reduce room air conditioning loads by 75%. They also include strong shelves, which eliminates sagging. These incubators meet APHA specifications for Biochemical Oxygen Demand (B.O.D.) and include a mechanical convection system to ensure even air distribution, digital temperature set controller, over temperature limit control, door ajar alarm and a digital temperature display.

Precise Temperature Control – Superior Uniformity:

- Independent Over Temperature Thermostat
- Over Temperature Alarm
- Door Ajar Alarm
- Temperature Uniformity $\pm 0.5^{\circ}\text{C}$ at 20°C .



SRI3P-2

SRI20P-2

Model	SRI3P-2	SRI6P-2	SRI20P-2
Exterior Dimensions (wxdxh) cm	59.7x53.4x85.6	76.2x80.1x85.1	76.2x80.1x176.6
Chamber Dimensions (wxdxh) cm	48.3x41.1x66.5	64.7x60.9x46.9	64.7x60.9x138.4
Incubator Chamber Capacity (L)	85	185	546
Interior Outlet	120V -1 / 230V-2		
Temperature Range at 20°C Ambient	15°C – 30°C	15°C – 40°C	
Bottle Capacity	84	120	300
Number of Shelves (Included)	2	2	5



SRI20PF-2

SRI6PF/20PF-2, Drosophila nergy Efficient Peltier Incubators

Expanding on our current thermoelectric (Peltier) refrigerated incubators, the MRC Drosophila units utilize day/night controls along with LED lighting to provide an excellent environment for drosophila culture. The cabinets are designed with a mechanical convection system to ensure a gentle and even air distribution. A programmable day/night microprocessor temperature controller and over temperature limit control ensure a proper and safe environment.

The energy saving thermoelectric cooling system provides improved temperature uniformity and up to 78% less power than traditional compressor based models. These units are covered under a two year warranty and are certified to current global standards.

Precise Temperature Control – Superior Uniformity:

- Independent Over Temperature Thermostat
- Door Ajar Alarm
- Temperature Range 15°C to 40°C at 20°C Ambient.



SRI6PF-2

SRI20PF-2

Model	SRI6PF-2	SRI20PF-2
Exterior Dimensions (wxdxh) cm	76.2x80.1x85.1	76.2x80.1x176.6
Chamber Dimensions (wxdxh) cm	64.7x60.9x46.9	64.7x60.9x138.4
Incubator Chamber Capacity (L)	185	546
Interior Outlet	110V – 1 / 220V – 2	
Number of Shelves (Included)	2	5



PGI-550H/1015H/550RH/550V/550VH, Plant Growth Incubator

- 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. Standard models come with flourescent illumination. Optional led illumination.



Internal

PGI-500H: Horizontal illumination

PGI-500RH: Horizontal illumination with humidity control

PGI-500V: Vertical illumination

PGI-500VH: Vertical illuminationn with humidity control.

Horizontal illumination	PGI-550H	PGI-850H	PGI-1015H	PGI-550RH+Humid.	PGI-850RH+Humid.	PGI-1015RH+Humid.
Verticalal illumination	PGI-550V	PGI-850V	-	PGI-550VH+Humid.	PGI-850VH+Humid.	-
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	1200W SUS304#	2000W SUS304#		1200W SUS 304#	2000W SUS 304#	
Refrigerator	1/3 HP R134a	3/4 HP R134a		1/3 HP R134a	3/4 HP R134a	
Humidity Display	-			PID Humidity 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 (mm)	4 psc/W650xD550	4 psc/W820xD820	4 psc/W1250xD550	4 psc/W650xD550	4 psc/W820xD820	4 psc/W1250xD550
Inside Dimen. (WxDxH) (mm)	680x58x1400 (Approx 550L)	850x850x1400 (Approx 1010L)	1250x580x1400 (Approx 1015L)	680x580x1400 (Approx 550L)	850x850x1400 (Approx 1010L)	1250x580x1400 (Approx 1015L)
Outside Dimen.(WxDxH)(mm)	760x820x1870	930x1060x1860	1280x780x1870	760x820x1870	930x1060x1860	1280x780x1870
Volume	550 L	1010 L	1015 L	550 L	1010 L	1015 L
Power Voltage	110V/220V14A/7A			110V/220V16A/8A		
Weight	200 kg		380 kg	210 kg		380 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	Without Humidity	PGI-2460	PGI-2660
	With Humidity	PGI-2460H	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
Volume	500 L		1076 L
Power Voltage	220V 50/60Hz		