COMPANY OVERVIEW

MRC is a leading Israel-based manufacturer and exporter of quality lab equipments & supplies since 1989.
We are manufacturing and distributing laboratory equipments in the fields of educational research, environmental protection, food, agriculture, microbiology, biotechnology, pharmacy and medical science etc.
Our range of products are of CE marked superior quality and at competitive price based on which we're proud of having built up a very successful sales network covering most worldwide countries.

Maintaining the highest standard of quality through implementation of ISO 9001 quality management system is our constant quality policy.
We strive to provide more reliable and economical solutions to make users laboratory test more efficient, easier and safer.

MRC Factory

MRC HeadQuarter

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www.mrclab.com

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WBO-200

WBO-100

WBO-Series, Unstirred Up To 80°C Water Bath

The MRC stainless steel water bath are available in 2 sizes: 10 & 20 liters. Model WBO-100 and WBO-200 unstirred bath are used for general applications in laboratories. They provides excellent temperature uniformity of the liquid.
A PID temperature controller provides instant and accurate temperature. The tank of the bath is made of corrosion resistant stainless steel with round corners for easy cleaning. Include hood cover.

Features:

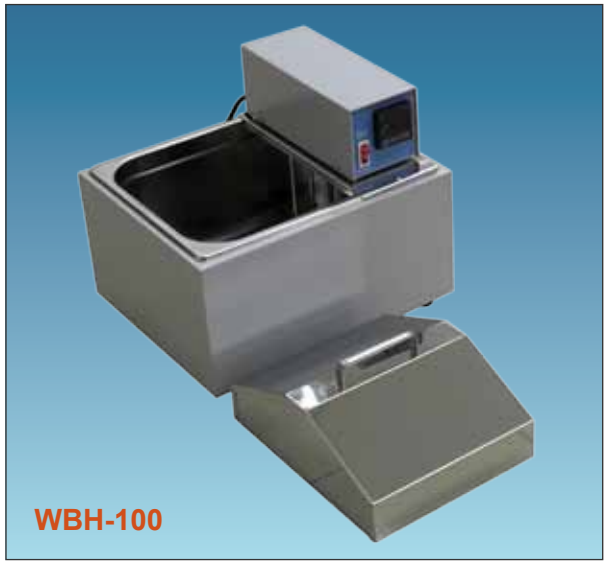
- Ideal for biotechnology, clinical, environmental, medical, petroleum, food industry.
- Stainless steel lid prevents evaporation & keeps constant temperature.
- Excellent uniformity & stability.
- Seamless, corrosion-resistant, stainless steal chamber.
- Available in 10, 20 Liters.
- Gable cover included.

Applications:

- Incubate cultures.
- Warn bacteriological media.
- Perform chemical reactions.
- Thaw samples.

WBO-200

Model	WBO-100	WBO-200
Temp. range	Room temperature ~ +5°C to 80°C	
Temp. constancy	±0.1	
Temp. control	PID	
Heater	300W	600W
Safety devices	Short circuit, over head protector, sensor abnormality	
Bath opening (mm)	W295xD235xH150	W495xD295xH150
Inside dimensions (mm)	W295xD235xH150	W495xD295xH150
Outside dimensions (mm)	W235xD135xH150	W620xD340xH185
Volume	10L	20L
Weight	6.5 kg	9 kg



WBH-Series
Digital Precise Circulation Water Bath

There are 2 models with internal circulation pump, 10 & 20 liters. The immersion circulator bridge can easily remove for easy cleaning of the tank.

External Circulation Option

Features:

- Ideal for Biotechnology, Clinical, Environmental, Medical, Petroleum, Food Industry, Pharmaceutical or Industrial Applications.
- Powerful Circulation Pump Assures Temp. Uniformity.: Internal and optional external Circulation.
- Stainless Steel Bath(#304) for Superior Durability & High Thermal Efficiency.
- Stainless Steel lid Prevents Evaporation and keeps Constant Temperature.

Model	WBH-100	WBH-200
Temp. range	Ambient +5°C to 100°C	
Temp. constancy	±0.1	
Temp. control	PID	
Internal circulating pump	Yes	
External circulating pump		Yes(WBH-200I)
Heater	800W	1000W
Safety devices	Short circuit, over head protector, sensor abnormality	
Bath opening (mm)	W200xD235xH150	W400xD295xH150
Inside dimensions (mm)	W295xD235xH150	W495xD295xH150
Outside dimensions (mm)	W340xD280xH320	W540xD340xH320
Volume	10L	20L
Weight	7kg	10kg

WBL-Series, Digital Precise Refrigerated Bath, Internal & External Circulator

WBL-100

Refrigerated Circulating Baths

- Compact design.
- For external & internal temperature applications.
- Low noise level.
- Rapid cool down and heating time.
- Water drain for easy cleaning of the inner tank.
- Models WBL-200 has casters.
- Water level protector.
- Ideal for direct immersion of samples or external cirulating system in the field of biotechnology and laboratories.
- Powerful circulation pump ensures temp. uniformity: internal and ecternal circulation.
- Connection with evaporator or viscometer is applicable.

WBL-200

WBL-100

Options:

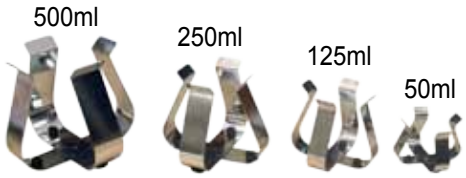
- Display resolution to 0.01°C.
- Build in RS-232/485.
- PT-100Ω temperature probe for direct measurements & control of external systems.
- Analog inputs and outputs for external programer & temperature recorder.

Model	WBL-100	WBL-101	WBL-200
Temperature range	-30°C~100°C		
Temp. constancy	±0.1°C		
Temp. control	PID		
Temp. sensor	PT-100Ω		
Circulation pump	9L/min. max. head 2m	18L/min. max. head 7m	27L/min. max. head 7m
Heater	1600W		2500W
Refrigerator	1/3HP		1 HP
Safety devices	Short circuit breaker, over heat protector, sensor abnormality, overload protector		
Bath opening (mm)	W200xD150xH150		W300xD210xH180
Bath dimension	W200xD300xH150		W300xD360xH180
Outside dimensions	W200xD450xH630		W420xD530xH800
Volume	9.0L		19.4L
In/Output	9.5mm		12.5mm
Weight	35kg		63kg

WBT-200/400/401, Digital Precise Shaking Water Bath, 22 & 38 Liter, & Digital PID Control, Reciprocating Motion, 20~200rpm, to 100°C, ±0.1°C, up to 1 Liter Flask

These reciprocating water bath shakers are available in three models.
Model WBT-200 small platform 250x300mm, Model WBT-400 large platform 300x400mm & Model WBT-401 refrigerated to 0°C.
Temperature control is precise, temp. range of 5°C above ambient to 100°C, speed range 20 - 200 rpm, heat loss and evaporation minimized with use of stainless steel hood cover.
Easy emptying through a drain at the lowest point.
Micro processor temperature PID controller with dual display of measured temperature and set temperature.
Electronically Controlled Shaking Mechanism Provides Quiet Reciprocating Motion and Precise Speed Control.

Universal Spring Racks



Flask Holders

Features:
Stainless Steel Bath for Superior Durability & High Thermal Efficiency • Innovative Easy-to-Use Digital PID Controller • Electronically Controlled Shaking Mechanism Provides Quiet Reciprocating Motion and Precise Speed Control • Universal Stainless Steel Spring Rack (Optional): for various kind of Flasks dishes and Tubes (optional) • Patent shaking mechanism: minimum noise and vibration.

Options:
- Water level protector.
- Universal platform.
- Digital speed control.

Model	WBT-200	WBT-400	WBT-401
System	Reciprocation shaking circulation		
Temp. range	Room temperature - 100°C		0°C-100°C
Temp. constancy	±0.1°C		
Temp. control	PID		
Temp sensor	PT-100Ω		
Inside material	SUS304		
Rate of shaking	20~200 rpm		
Shaking width	20 and 40 mm variable		
Shaking plate (mm)	W300xD250xH130	W400xD300xH160	
Refrigerator			1/4HP
Heater	1.0KW	1.6KW	
Safety devices	Short circuit breaker, over heat protector, sensor abnormality, refrigerator over protector		
Inside dimensions (mm)	W500xD300xH150	W600xD350xH180	
Outside dimensions (mm)	W700xD350xH300	W830xD415xH350	W980xD415xH430
Volume (liters)	22.5	37.8	
Weight	25kg	30kg	53kg

capacity of flasks	50 ml	125 ml	250 ml	500 ml	1000 ml
WBT-200 number of flasks	20	12	6	4	2
WBT-400/401 number of flasks	35	20	12	6	4

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

DFI-36 DFI-80 DFI-150 DFI-240

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 sileds, 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 comunication 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	±1°C at 100°C			
Temp. control	PID			
Temp. sensor	Thermo couple K			
Heater: Incubator	400W	400W	600W	800W
Inside Material	SUS -304			
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
Shelfs	2	2	2	3
Weight	34kg	47kg	60kg	76kg

INCUBATORS

Low Temperature (BOD)

BOD-150

Refrigerated Incubator 150 Liter

The MRC model BOD-150
cooled incubator designed to obtain freezing, incubating, drying & test temperatures between –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.

BOD-500

Large 487 Liter Refrigerated Incubator-BOD Incubator

The MRC model BOD-500
is ideal for BIOCHEMICAL OXYGEN DEMAND of sewage and waste water.
Internal power socket.
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:
- 38 mm cable port
- Gas inlet
- Day/Night Light+Timer

Specifications:

Model	BOD-150	BOD-500
System	Forced air circulation	
Temp. range	-10°C ~ +60°C	0°C ~ +60°C
Temp. constancy	±0.1°C	
Temp. uniformity	1°C (at 37°C)	±1.5°C (at 37°C)
Inside material	SUS-304	
Temp. control	PID	
Temp. sensor	PT-100Ω	
Temp. heat-up rate	25°C ~ 60°C (within 15 min)	
Temp. cool-down rate	25°C ~ 0°C (within 15 min)	
Heater: Incubator	500W	1000W
Refrigerator	1/5 HP	1/3 HP
Safety devices	Short circuit breaker, overheat protector refrigerator overload protector, sensor abnormality, over low protector	
Inside dimensions (mm)	W600 x D500 x H500	W700 x D580 x H1200
Outside dimensions (mm)	W680 x D760 x H890	W790xD860xH1770(with casters)
Volume (liters)	150	487
Shelf	2	5
Power supply	110/220V (8A)	110/220V (12A)
Weight	77kg	220kg

PGI-500V - Vertical Light

PGI-500H - Horizontal Light

Plant Growth Incubator 487 Liter

The MRC models PGI-500V/500H:
Illuminated growth 2 chamber features Controllers, allowing control 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, a steel exterior with welded seams & corners, & a double-coated, baked enamel finish. MRC Diurnal growth chambers are designed for studies requiring day and nighttime simulation.

Vertical Light

Features:

- Day/Night Light & Temp. Control
- Microprocessor Control
- Display of Set point & Chamber Temp.
- High & Low Limit Temp. Protection
- Fan Assisted/Forced-Air Circulation
- Hermetically Sealed Compressor

Horizontal Light

Specifications:

Model	PGI-500V	PGI-500H
System	Forced air circulation	
Temp. range	0°C~+60°C	
Temp. constancy	±0.1°C	
Temp. uniformity	±1.5°C (at 37°C)	
Inside material	SUS-304	
Temp. control	PID	
Temp. sensor	PT-100Ω	
Temp. heat-up rate	25°C~60°C (within 15 min)	
Temp. cool-down rate	25°C~0°C (within 40 min)	
Heater: Incubator	1000W	
Refrigerator	1/3 HP	
Illumination time	10 min~24 Hr	
Illumination	40W x 5 tube	20W x 9 tube
Safety devices	Short circuit breaker, over heat protector, refrigerator overload protector, sensor abnormality, over low protector	
Inside dimensions (mm)	W700xD580xH1200	
Outside dimensions (mm)	W790xD860xH1770 (with casters)	
Volume (liters)	487	
Shelf	5	
Power supply	110/220V (13A)	
Weight	225kg	

INCUBATORS

Hybridization

DHI-37

DHI-22

The MRC model DHI-22 hydridization incubator offers high performance with precise temperature control, safety and convenience. It is small and space saving incubator.
The bottle carusel is easily removable for easy cleaning of the chamber. The bottle carusel accept up to eight bottles (300mm). Very homogeneous temperature distribution in the chamber is obtained by airforced ventilation. This airflow system also ensure fast recover of chamer 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.

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 70°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

DHI-37 Includes Orbital Shaker 310x210mm

DHI-37

Optional Bottles

Model	DHI-22	DHI-37
System	Forced air circulation	
Shaking	Rotation	Rotation+Orbital
Rotation speed	5-50 pm	
Rotation width	0-20 Variable	
Orbital speed		5-120 rpm
Shaking width		25 mm
Shaking plate		W310xD210
Temp. range	Room temperature - 70°C	
Temp. constancy	±0.1°C	
Temp. uniformity	±1°C (at 37°C)	
Heater	300W	
Temp. control	PID	
Temp. heat-up rate	25°C-70°C within 20 min	
Bottle capacity	Standard 4 bottle, maximum 8 bottle	
Standard bottles	A-35 x 150mm B-35 x 200mm C-35 x 300mm	
Inside material	SUS-304	
Safety devices	Short circuit breaker, over heat protector, sensor abnormality	
Inside dimensions (mm)	W350xD250xH250	W350xD250xH425
Outside dimensions	W440xD430xH430	W440xD430xH650
Power supply	110/220V (3A)	110/220V (4A)
Weight	28 kg	44 kg

TOU-50/120-Series, Small & Medium Size Bench Top Incubator Shaker, Temperature Range Of 5°C Above Ambient To 70°C, Speed Range 20-250 RPM Or 30-400RPM.

TOU-120 TOU-50

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 pharmacentic etc.

TOU-120

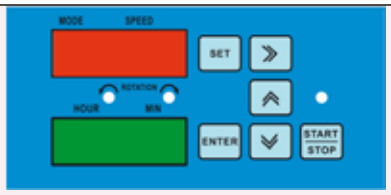
TOU-50

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 litre, 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 mechnism provides quiet shaking & precise speed control • Minimum 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).

Specifications:

Model	TOU-50	TOU-50-2	TOU-120	TOU-120-2
System	Forced air circulation			
Shaking system	Orbital			
Temp. range	Room temp. +5°C-70°C			
Temp. constancy	±0.1°C			
Temp. uniformity	±1°C (at 37°C)			
Temp. control	PID			
Rate of shaking	20-250 rpm	30-400 rpm	30-300 rpm	30-400 rpm
Shaking width	25 mm			
Shaking plate size	W400xD300mm	W400xD300mm	W450xD450mm	W450xD450mm
Maximum load	20kg			
Inside dimensions	W450xD380xH260mm	W450xD380xH260mm	W510xD540xH430mm	W510xD540xH430mm
Outside dimensions	W460xD490xH430	W460xD490xH430	W520xD650xH500	W520xD650xH500



Optional: Digital Speed Control

111-1-111145 UNIVERSAL PLATFORM FOR TOU-120

FLASK HOLDERS

Capacity for flasks:

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

SHAKER INCUBATORS Refrigerated

LOM-150

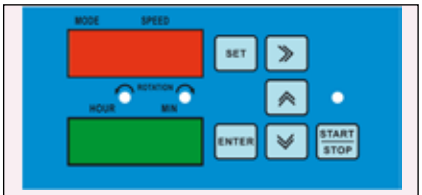
Application & Features: Useful for biological cultures under various temp. • Minimum noise & no vibration • Advanced shaking mechanism provides quiet shaking & precise speed control • Automatic stop of shaking, when the door is opened • Day/night light

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

This multipurpose model can shake, incubate and refrigerate. The 480x380mm platform accepts flasks up to 6 litre. Large viewing window and internal light provide clear chamber visibility, with moveable window blind. One stationaty 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.

Double Platform, LOM-150D

Model	LOM-150	LOM-150-2	LOM-150D
System	Forced air circulation		
Shaking system	Orbital		
Temp. range	0°C~60°C		
Temp. constancy	±0.1°C		
Temp. uniformity	±1°C (at 37)		
Temp. control	PID		
Temp. sensor	PT-100Ω		
Inside matrial	SUS-304		
Rate of shaking	20~250 rpm	30~400 rpm	20~250 rpm
Shaking width	25 mm		
Shaking plate	W480xD380		W480xD380 Double platform
Refrigerator	1/5 HP		
Heater: Incubator	500W		
Safety devices	Short circuit breaker, over heat protector, refrigerator over load protector, sensor abnormality, over low protector		
Inside dimensions (mm)	W600xD500xH500		
Outside dimensions (mm)	W680xD760xH890		
Volume (liter)	150		
Shelfs	1		
Power supply	110/220V, (8.5A)		
Weight	75Kg		80Kg



Optional: Digital Speed Control

111-1-111143 UNIVERSAL RACK FOR LOM-150

FLASK HOLDERS

Capacity of flasks holders:

Model	111-1-110050	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000	111-1-116000
Flask clamps	50ml	125ml	250ml	500ml	1000ml	2000ml	3liter	4liter	5liter	6liter
LOM-150/ LOM-150-2	48	30	20	12	6	4	2	2	1	1
LOM-150D	96	60	40	24	12	-	-	-	-	-

LOM-200/400-Series, Precise Shaking Incubator, Top Door, Orbital Motion With Digital PID Control Up To 60°C

LOM-400-2

The large capacity incubator shakers are available in 2 sizes & four models. Large capacity platforms 600x480mm or 960x600mm accepts flasks up to 6 litre. Wide temperature range 0-60°C & two choices of agitation 20-250rpm or 30-400rpm in a 25mm or 50mm circular orbit. Large viewing window & internal light provides clear chamber visibility without opening the door, with moveable window blind. Inside air circulation provide equal temperature & quick restore of temp. after opening the door. Hydraulic opening door control & casters.

Useful for biological culture under various temperature.

Application & Features: Minimum noise & no vibration • Advanced shaking mechanism provides quiet shaking & precise speed control • Automatic stop of shaking, when the door is opened • Optional: Digital speed control• Optional: day/night light.

LOM-400-2

Specifications:

Model	LOM-200-2	LOM-200-5	LOM-400-2	LOM-400-5
System	Forced air circulation			
Shaking system	Orbital			
Temp. range	0°C~60°C			
Temp. constancy	±0.1°C			
Temp. uniformity	±1°C (at 37)			
Temp. head up rate	25°C~60°C within 15 min			
Temp. cool down rate	25°C~0°C within 40 min			
Temp. control	PID			
Temp. sensor	PT-100			
Inside material	SUS-304			
Rate of shaking	30~400 rpm	20~250	30~400 rpm	20~250
Shaking width	25 mm	50 mm	25 mm	50 mm
Shaking plate	W600xD480		W960xD600	
Refrigerator	1/4 HP		1/3 HP	
Heater: Incubator	600W		800W	
Safety devices	Short circuit breaker, over heat protector, refrigerator over load protector, sensor abnormality, over low protector			
Inside dimensions (mm)	W690xD570xH530		W1050xD690xH530	
Outside dimensions (mm)	W1010xD760xH955		W1370xD880xH955	
Volume (liters)	208		383	
Power supply	110/220V, 50/60Hz, (8.5A)		110/220V, 50/60Hz, (14A)	
Weight	183Kg		216Kg	

Capacity of flask holders

Model	111-1-110050	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000	111-1-116000
Flask clamps	50ml	125ml	250ml	500ml	1000ml	2000ml	3liter	4liter	5liter	6liter
LOM-200 Capacity	80	48	30	20	12	6	6	4	2	2
LOM-400 Capacity	160	96	60	40	24	15	8	8	6	6

SHAKER INCUBATORS

Large Capacity, Refrigerated

LOM-500

Large 487,Liter Refrigerated Shaking Incubator

Front opening door provided easy access to all glassware in the chamber. These large capacity incubator shakers are available in single platform or double platform and in two choices of speed 20-250 or 30-400 rpm.
Large viewing window & internal light provides clear chamber visibility without opening door, moveable window blind.
Large capacity accessory platform 600x480mm accepts flasks up to 6 litre.
Two adjustable height, stationary shelves provide additional storage for incubating other experiments.
Optional: day/night light.

Application & Features:

Excellent for multi-use & wide range of sample testing under various temperature • Advanced shaking mechnism provides quiet shakig & precise speed control • Space saving design for large quantity samples • Optional: Digital speed control.

LOM-500

Model	LOM-500-2	LOM-500-5	LOM-500D-2	LOM-500D-5
System	Forced air circulation			
Shaking system	Orbital			
Temp. range	0°C~60°C			
Temp. constancy	±0.1°C			
Temp. uniformity	±1°C (at 37)			
Temp. heat-up rate	25°C~60°C within 15 min			
Temp. cool-down rate	25°C~0°C within 40 min			
Temp. control	PID			
Temp. sensor	PT-100Ω			
Inside matrial	SUS-304			
Rate of shaking	30~400 rpm	20~250 rpm	30~400 rpm	20~250 rpm
Shaking width	25 mm	50 mm	25 mm	50 mm
Shaking plate	W600xD480		W600xD480 Double platform	
Refrigerator	1/3 HP			
Heater	800W			
Safety devices	Short circuit breaker, over heat protector, refrigerator over load protector, sensor abnormality, over low protector			
Inside dimensions(mm)	W700xD580xH1200			
Outside dimensions(mm)	W790xD860xH1770			
Volume (liters)	487			
Shelf	2		1	
Power supply	110/220V, 60/50Hz, (11A)			
Weight	220Kg		240Kg	

Capacity of flask holders

Model	111-1-110050	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000	111-1-116000
Flask clamps	50ml	125ml	250ml	500ml	1000ml	2000ml	3liter	4liter	5liter	6liter
LOM-500-2/5 Capacity	80	48	30	20	12	6	6	4	2	2
LM-500D-2/5 Capacity	160	96	60	40	24	12	-	-	-	-

DFO-Serie, 36 Liter, 80 Liter, 150 Liter, 240 Liter Ovens

DFO series units are primarily used in applications needing rapid drying and sterilization. Totally homogenous temperature distribution, rapid dynamic response. This modern range of ovens is available in 4 sizes.
DFO series offers excellent uniformity and stability & are used for many applications as Glassware drying, warming, sterilizing, ageing , curing, softening, annealing, preheating and testing , drying slieds.
The inner case is constructed from polished stainless steel.
All units are provided with wire plated shelves with multi-position settings.
All models are with fan assisted air circulation, the chamber ventilation and exhaust vent are easily adjustable.
Wide choice of control options is available, PID controller & timer is fitted as standard with dual display of measured value and setpoint.

DFO-36

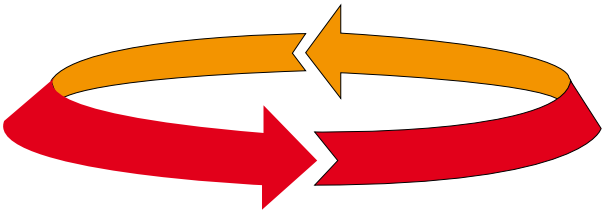
Options:

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

Specifications:

Model	DFO-36	DFO-80	DFO-150	DFO-240
Temp. range	Room temperature - 250°C			
Temp. constancy	±0.1°C			
Temp. uniformity	±1°C at 100°C			
Temp. control	PID			
Temp. sensor	Thermo couple K			
Heater: Oven	1100W	1500W	1800W	2200W
Inside Material	sus-304			
Timer	99hr 59min			
Window (mm)	W200xH300			W200xH500
Safety devices	Short circuit breaker, over heat protector, sensor abnormality			
Inside dimensions (mm)	W400xD300xH300	W500xD400xH400	W600xD500xH500	W600xD500xH800
Outside dimensions (mm)	W525xD420xH595	W620xD520xH620	W720xD620xH720	W720xD620xH1020
Capacity (liters)	36	80	150	240
Shelfs	2			3
Weight	34kg	47kg	60kg	76kg

BenchTop Platform Shakers :



MRC orbital shakers are for shaking in ambient conditions on the bench or in incubator or warm room or cool room. These shakers are available in three models.

Model TOS-4030P - flat platform shaker, model TOS-4030T universal platform shaker and model TOS-4030F flask clamps platform shaker.

Option: Digital speed controller & timer Platform can be easily removed and replaced by opening the four screws on the center of the platform.

Model TOS-4030F platform can accommodate a mix of flask clamps.

A powerful, quiet, space saving, reliable, either for gentle shaking of liquids or vigorous mixing of materials.

Maintenance free, the coated tray is proof against aggressive liquids.

Simple operation, the control is set by means of rotary switch and the speed display is by analog tachometer.

Flexible platform system.

All kinds of dishes can be placed on the platforms: beakers, erlenmeyer flask, test tube racks ets.

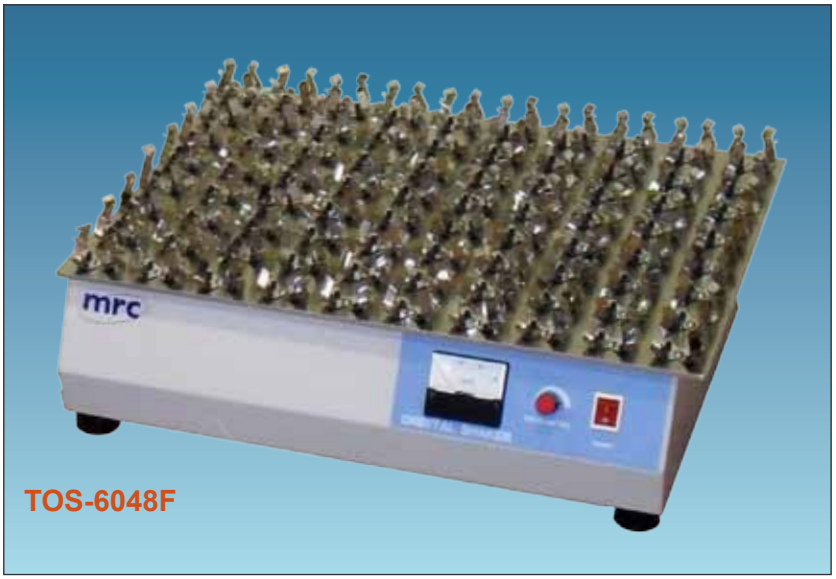
Option: Digital speed controller & timer.

TOS-4030F

TOS-4838F

Features:

- Triple eccentric drive enables continuous 24-hours operation, handles heavier loads and provides smooth uniform agitation of full or unbalanced loads even at high speeds.
- Units operate in temperature range of 4 to 40°C and humidity conditions from 20 to 80% non condensing enabling them to be used in incubators, warm rooms, environmental chambers and refrigerators.



TOS-6048F

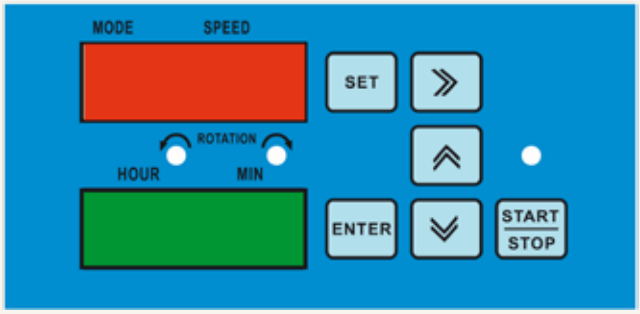
Applications:

- Cell cultures
- Bacterial suspensions
- Solubility studies
- Staining
- Extraction procedures
- Destaining
- Diagnostic tests
- Washing Procedures
- General Mixing
- Hybridization

TOS-4030F

TOS-4030T

TOS-4030P



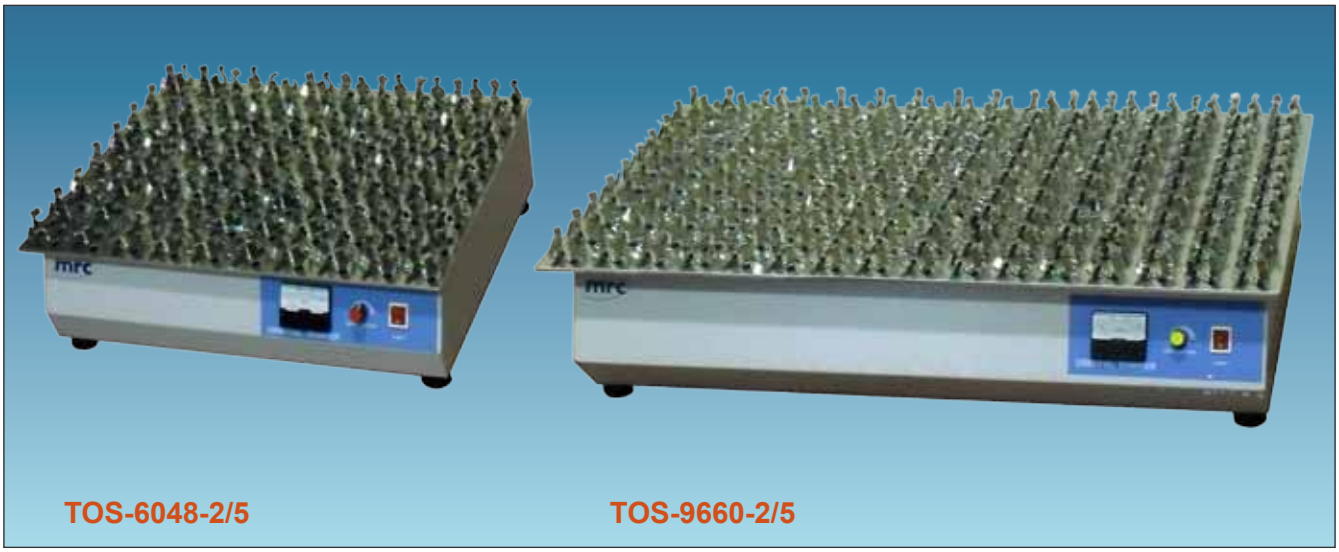
Optional: Digital Speed Control

Model	TOS-4030P	TOS-4030F	TOS-4030T	TOS-4838F	TOS-6048F
System shaking	Orbital				
Rate of shaking	20-250 rpm				
Shaking width	25m				
Shaking plate	W400xD300			W480xD380	W600xD480
Outside dimen. (mm)	W400xD330xH165			W480xD380xH165	W600xD480xH210
Shaking plate	Plate	Flask rack	Test tube rack	Flask rack	
Power supply	110/220V, 60/50Hz (1A)				
Weight	11kg	12kg	13kg	18kg	25kg

Accessories:

Model	111-1-110050	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000	111-1-116000
Model/flask clamps	50ml	125ml	250ml	500ml	1000ml	2Liter	3Liter	4Liter	5Liter	6Liter
TOS-4030F Capacity	35	20	12	6	4	2	1	1	-	-
TOS-4838F Capacity	48	30	20	12	6	4	2	2	1	1
TOS-6048F Capacity	80	48	30	20	12	6	6	4	2	2

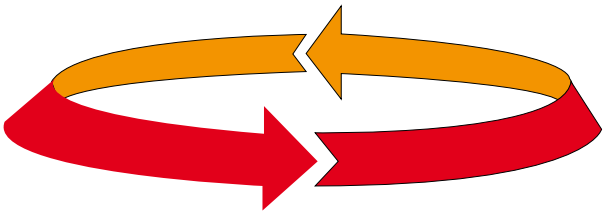
Heavy Duty Platform Shakers



MRC large open air shakers designed to uniformly shake hundreds of samples, day-in & day-out, under the extreme conditions of an environmental room.
new engineering concepts in load balancing minimize stress & vibrations, even when fully loaded & running at the maximum speed. accept s hundreds of samples on up to 2 accessory platforms. as pictured, platforms have easy access to all glassware, & lock in place without tools.

Maintenance free, the coated tray is proof against aggressive liquids. A powerful, quiet, reliable, either for gentle shaking of liquids or vigorous mixing of materials. Optional: Digital speed control.

Unique Advantage - Precisely balanced, extremely stable shaker mechanism with massive cast-iron base need not be bolted to the floor.

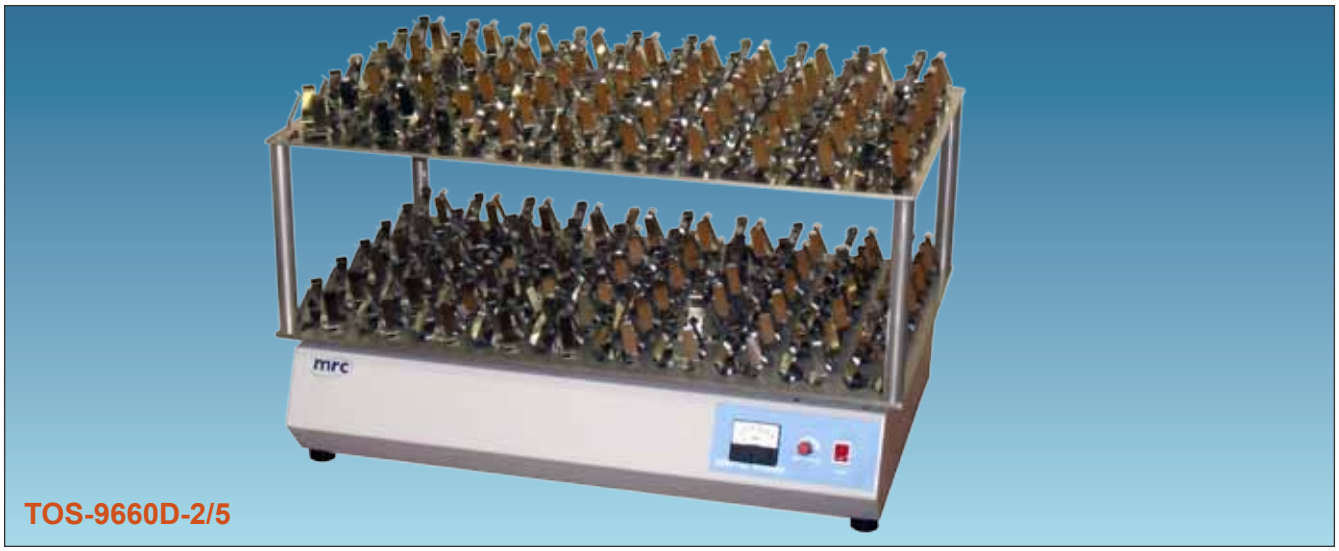


Model	TOS-6048-2	TOS-6048-5	TOS-9660-2	TOS-9660-5
Shaking system	Orbital			
Rate of shaking	30-400 rpm	20-250 rpm	30-400 rpm	20-250 rpm
Shaking width	25 mm	50 mm	25 mm	50 mm
Shaking plate	W600xD480		W960xD600	
Outside dimensions (mm)	W600xD480xH210		W960xD600xH210	
Weight	63 kg		75 kg	

Accessories:

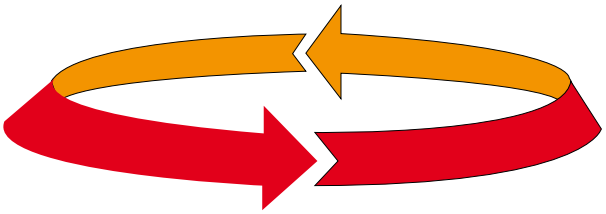
Model	111-1-110050	111-1-110125	111-1-110250	111-1-110500	111-1-111000	111-1-112000	111-1-113000	111-1-114000	111-1-115000	111-1-116000
Flask clamps	50ml	125ml	250ml	500ml	1000ml	2Liter	3Liter	4Liter	5Liter	6Liter
TOS-6048-2/5 Capacity	80	48	30	20	12	6	6	4	2	2
TOS-9660-2/5 Capacity	160	96	60	40	24	15	8	8	6	6

Double Platform Large Orbital Shakers



TOS-9660D-2/5

TOS-6048D-2/5



This space saving two stages shakers enable to shake 2 platform simultaneously. 600 x 480mm double platform.

Reliable, day after day operation, user friendly operation, 960x480mm double platform.

Model	TOS-6048D-2	TOS-6048D-5	TOS-9660D-2	TOS-9660D-5
Shaking system	Orbital			
Rate of shaking	30-400 rpm	20-250 rpm	30-400 rpm	20-250 rpm
Shaking width	25 mm	50 mm	25 mm	50 mm
Shaking plate	W600xD480 Double		W960xD600 Double	
Outside dimensions (mm)	W600xD480xH560		W960xD600xH560	
Weight	75 kg		95 kg	

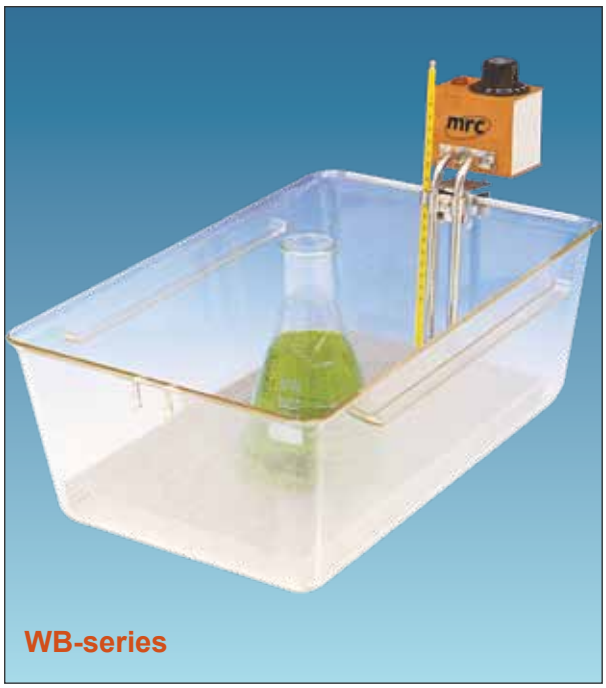
Accessories:

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	2Liter
TOS-6048D-2/5 Capacity	160	96	60	40	25	15
TOS-9660D-2/5 Capacity	320	192	120	80	48	30

WATER BATHS

Polycarbonate Thermostatic

WB-Series, For Full Visibility Of Samples



Transperent Polycarbonate Thermostatic Bath

Ideal for sample pre treatment in QC, pathology & educational purposes, routine laboratory purposes, procedures requiring visibility of reactions inside the vessels & as a 'personal' water bath for scientists needing only a small working area with a compact footprint.

Accessories:

Features:

- Low-cost fully compatible substitute for expensive Water Bath.
- Seamless transparent polycarbonate tank-withstands 120°C.
- Fast-Acting thermostat also serves as low-water-level protector, preventing heating-element burn-out and fire hazard.
- Temp. range: from slightly above ambient tp +100°C (with cover).
  Accuracy: approx ±0.3°C at 37°C (depending on operating conditions).
- Robust and reliable - designed for years of trouble-free service.
- S - Optional Safety thermostat.
- Voltage: 230V, 50Hz (or 120V, 50/60Hz).

Multi Purpose Extraction Water Bath, 4 or 6 Places, up to 100°C

- Concentric ring cover sets make effective steaming work
- Ideal for gentle extraction, soxhlet extraction and determination of COD

Standard model	With safety thermostat model	Digital model	Bath capacity (liters)	Inside dim's (cm) W1xD1xH1	Outside dim's (cm) W2xD2xH2	Watts	Bath cover model	Floating balls model	Evap. lid model
WB-3	WBS-3	WBS-3D	2.7	10 17 10	15 31 24	500	C-3	FB-3	-
WB-4	WBS-4	WBS-4D	4.5	10 27 10	16 41 24	600	C-4	FB-4	-
WB-5	WBS-5	WBS-5D	5.5	16 20 11	22 34 24	750	C-5	FB-5	EL-5
WB-7	WBS-7	WBS-7D	7.0	16 3 11	22 44 24	1000	C-7	FB-7	-
WB-8	WBS-8	WBS-8D	8.5	21 35 12	28 50 26	1000	C-8	FB-8	-
WB-11	WBS-11	WBS-11D	11.0	18 27 16	24 43 30	1200	C-11	FB-11	-
WB-14	WBS-14	WBS-14D	14.0	21 35 16	28 50 30	1500	C-14	FB-14	EL-14
WB-30	WBS-30	WBS-30D	30	32 51 18	38 66 24	*2000	C-30	FB-30	EL-30

*1500W at 120V

ICB-12, Immersion Circulator - Basic Model

Features:

- Temperature range: ambient to 100°C (with cooling +10 to 100°C).
- Accuracy: approx. ±0.3 to±1°C.
- Pumping capacity: up to 12 l/min.
- Safety Cut Off.
- 12L/min max. head 2m.
- Optional: External circulation.

ICD-12, Digital Immersion Circulator

Features:

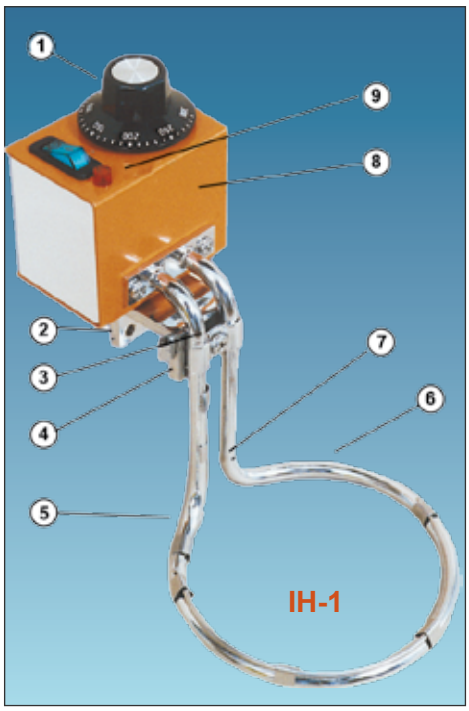
- Digital set and display of actual operating temperatures.
- PID controller provides very precise temperature control.
- Adapts to many different containers.
- Temperature range: ambient +5°C to 100°C (with cooling -10°C to 100°C).
- Accuracy: approx.±0.1°C.
- Pumping capacity: up to 12 l/min.
- Immersion depth: minimum 6 cm, maximum 15.5 cm.
- Safety Cut Off.

Model	ICB-12	ICD-12
Temperature range	up to 100°C	
Temperature stability	±0.3°C to 1°C	±0.1°C
Controller	Basic analog	PID Digital
Readout	Thermometer	Digital °C/°F
Pumping flow	12 Liter/min	
Immersion	Minimum 6cm, Maximum 155mm	
Heater	1000Watt	
Over temp. safety	Adjustable	
Dimensions (mm)	W200xD240xH90	
Weight	2kg	23kg

TB-Series, Polycarbonate Tank TB Type For Immersion Thermostat / Circulator

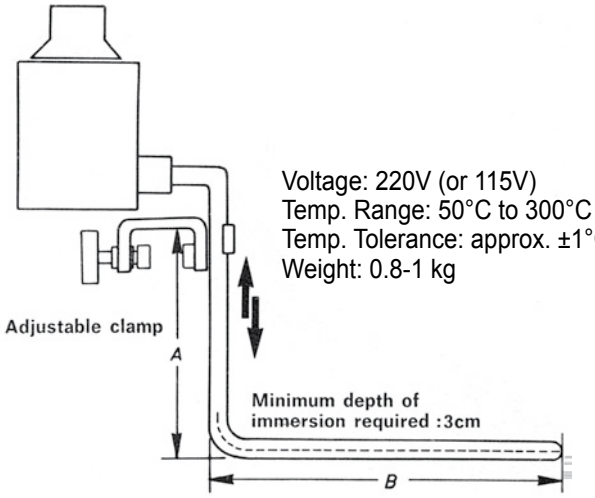
PC Tank with bridge for fixing immersion circulator ICB/ICD-12, Seamless Transparent Polycarbonate Tank - withstands 120°C. Heating circulators are commonly used for cell cultures, enzyme assays, coliform testing, DNA incubation & procedures.

TB-7	16x30x13cm Height, 7 Liter
TB-8	21x35x14cm Height, 8.5 Liter
TB-11	18x27x18cm Height, 11 Liter
TB-14	21x35x18cm Height, 14 Liter
TB-30	32x51x20cm Height, 30 Liter



IH-Series, Thermostatic Controlled Immersion Heaters

Immersoheat: Thermostatically Controlled Immersion Heaters. Reliable element for accurately heating liquids to temperatures of up to 300°C with a tolerance of approx. ±1°C. Designed for trouble-free application. Suitable for use in science and industry for: Distillation, evaporation, sterilization, rotary evaporation, ultrasonic cleaning, photographic bath etc.



Voltage: 220V (or 115V)
Temp. Range: 50°C to 300°C or 30°C to 110°C
Temp. Tolerance: approx. ±1°C
Weight: 0.8-1 kg

Immersoheat Features:

- Easily converts any container into a thermostatically controlled bath from ambient to 300C.
- Rugged, reliable, convenient, maintenance-free, energy-saving & reasonable priced.
- Fully valid substitute for expensive water and oil baths.
- Permits utilization of the entire contents of the container, without effecting the functioning of stirrers.
- Heat is applied directly to the liquid, ensuring rapid rise of temperature.
- Safe - fast acting thermostat server as low-level cut out.
- You get the temperature you set.
- Control box is located on the outside and is unaffected by vaporous and temperature effects.

Model 50-300°C	Model 50-110°C	Watts	"A" mm	"B" mmØ
IH3/13	IH1/13	500	100	130
IH3/15	IH1/15	750	110	150
IH3/17	IH1/17	750	120	170
IH3/19	IH1/19	1000	130	190
IH3/21	IH1/21	1000	150	210
IH3/23	IH1/23	1250	180	230
IH3/25	IH1/25	1500	200	250
IH3/27	IH1/27	1500	200	270

IMMERSOHEAT IH-1

1- Temperature setting in °C
2- Threaded hole for attachment to stand
3- Height adjustment permits wide range of application
4- Mounting bracket (patented design) with teflon-tipped disc premitting secure clamping to all surfaces, including glass
5- Heating element chromium-plated copper sheath: also available in stainless steel on special order
6- Fast-acting thermostat also serves as low-level cut-out, preventing element burn-out and fire hazard
7- Shallow immersion depth (3 cm)
8- The control housing is located outside the vessel and thus protected against vapors and temperature effects
9- Indicator light

CP-13/17, Circulation Pump

Pumping Capacity up to 13 liter/minute.
Model CP-13:
Max. Immersion Depth 13 cm.
Model CP-17:
Max. Immersion depth 17 cm.

Specialty Heating Mantles

KJL-2000 KJL-1000

KJLS-2000 KJLS-1000

Built-in electronic controller regulates heating element from ambient to 750°C, 2 ranges: low & high • Durable housing is chemically resistant • Accept a large range of flasks • For maximum operator protection, models are grounded should spillage or flask breakage occur • Units are designed with a built-in stainless steel liner that gives electrical & mechanical protection against spillage & enables easy cleaning • All models include support rod holder.

Three Flask Size In One Mantle
Model KJL-1000

- For flasks up to 1000ml.
- Stepless heat control.
- Operating temperature up to 750°C.

Model KJL-2000 for flasks up to 2000ml

Features:

- Three in one design accommodates 250, 500 or 1000ml round bottom flasks (KJL-1000, KJLS-1000).
- Three in one design accommodates 500, 1000 or 2000ml round bottom flasks (KJL-2000, KJLS-2000).
- Different vessel sizes, spill proof heater.
- Includes rear bracket for support rod.
- Stepless heat control up to 750°C (650°C with stirrer)
- Variable speed control up to 1800rpm (KJLS-1000, KJLS-2000).
- Heater on light.
- Element temperature range of ambient to 750°C.

Heating Mantle With Magnetic Stirrers
Model KJLS-1000/KJLS-2000

- Steeples heat control up to 650°C
- Variable speed control up to 1800 RPM

Specifications:

Model	Temp. range	Capacity	Stirring	Dimensions	Weight	Watt
KJL-1000	up to 750°C	250-1000ml	-	W12xD17xD18cm	1.2kg	550
KJL-2000	up to 750°C	500-2000ml	-	W21xD20xD24cm	1.4kg	750
KJLS-1000	up to 650°C	250-1000ml	up to 1600rpm	W16xD17xD23cm	2.3kg	550
KJLS-2000	up to 650°C	500-2000ml	up to 1600rpm	W21xD20xD24cm	2.5kg	750

BMN-C Serie, Heating Mantles For Beakers

Model	Capacity	Power
BMN-250C	250ml	200W
BMN-500C	500ml	300W
BMN-1000C	1000ml	400W
BMN-2000C	2000ml	500W
BMN-3000C	3000ml	600W
BMN-5000C	5000ml	700W

Features:

Maximum 450°C operating temperature • Aluminium housed case, rigid housing to support the weight of the beaker • Provide uniform heating of beaker without the danger of open frame • For beaker capacity: 250ml, 500ml, 1 litre, 2 litre, 3 litre, 5 litre • Fabric mantles for effective heating & protection of glass beaker from thermal shock • Manual control- proportional voltage control from 0-100%.

KJL-Series, Multi Unit Macro Kjeldahl Apparatus

KJL-6100

Model KJL-6100, 6 Positions

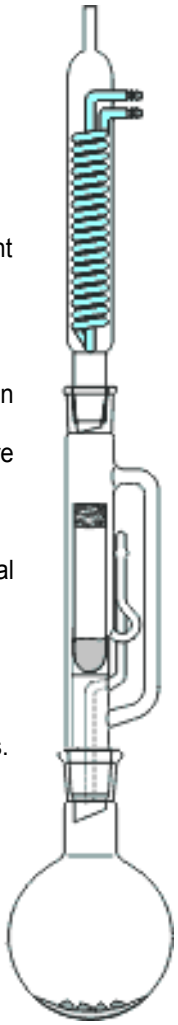
Up to 6 flasks • 220 Volt (or 110V), 6x550 Watt • Dimensions: (WxHxD) 80x19x20 cm (D includes rear bracket for support rod) • Nett weight: 6.8 Kgs.

KJL-4100

Model: KJL-4100, 4 Positions

Up to 4 flasks • 220 Volt (or 110 V), 4 x 550 Watt • Dimensions: (WxHxD) 60x19x20cm (D includes rear bracket for support rod) • Net weight: 4.8 Kgs.

- For flasks 250 up to 1000 ml.
- Spillproof–Stainless Steel Heater.
- Stepless– heat control.
- Operating temperature: up to 750°C.
- Includes 4 support rods and 4 clamps.
- Durable housing is chemically resistant.
- Built-in electronic controller regulates element temperature to 750°C, 2 ranges: low & high.
- Robust aluminium construction permits operation of the units as required by extraction and distillation processes.
- "Heat on" light for each recess indicates when power is being supplied to the heater.
- For maximum operator protection, models are grounded should spillage or flask breakage occur.
- Units are designed with a built-in stainless steel liner that gives electrical and mechanical protection against spillage & enables easy cleaning.
- Lower profile for space-saving convenience.
- Ideal for repetitive extracting (kjeldahl, soxhlet, and other extraction procedure), refluxing and distilling laboratory applications.
- Analog controller built-in system.
- Rods & clamps are offered as standard.
- Ideal for all brands round flasks.
- Highly-processed aluminium case offers robust standing, easy handling.



Exraction Apparatus, Soxhlet

For cold extraction from consisting of round bottom flask with sicket NS 29/32.

Model	Extractor Capacity	Flask Capacity	Cone/Condencer Socket/Extr
21-452-49	70ml	100ml	34/35NS
21-452-55	100ml	250ml	45/40NS
21-452-59	150ml	250ml	45/40NS
21-452-63	200ml	250ml	45/40NS
21-452-65	250ml	500ml	45/40NS
21-452-67	300ml	500ml	60/46NS
21-452-73	500ml	1000ml	60/46NS

MUH-Series, Multi Position Round Top Extraction Heater

MUH-6500

Application:

- Allows you to run different projects concurrently or to make simultaneous multiple runs of the same project.
- Ideal for extraction, distillation, and digestion.
- Optional: Aliuminium top mould for round bottom flasks up to 250ml/500ml for extraction apparatus soxhlet

The Multi Heating Apparatus offers such versatility that is suitable for many laboratory purposes: extractions, distillations, digestions, evaporation etc. The 6 separate heat controls allow the heaters to be used for several different projects or multiple runs of the same project. The Multi Heating Apparattus in conjuction with inter-changable top mould for round botton flasks - solves the most varied heating problems.

Model MUH-6500 Six individual heat controls with pilot lights • Built-in temperature regulator • For 6 places, 220 Volt (on request 115 V), 2700 Watts (6x450 W) • Approximate temp.: 40 - 450°C • Hotplate top 85 mm. dia. • Dimensions (WxHxD): 80x17x20 cm • Accesories: Optional: 6 interchangable aluminum top moulds for round bottom flasks up to 100 ml or 250 to 500ml (Kjeldahl flasks 500-800 ml) • 4 support rods 800x12 mm. with 4 clamps.

Model MUH-4500 as described above, but for 4 places 220 Volts 1800Watts (4x450 W). Dimen. (WxHxD): 60x17x20 cm.

HOP-2525
250x250mm hotplate

HOP-1818
175x175mm hotplate

HOP-1212
115x115mm hotplate

HOP Serie Aluminium Top Hotplates

Uniform Heating at a Reasonable Price!

This modern range of aluminium hotplates provides superior temperature uniformity and stability is available in 4 sizes.

300°C

Hop-1818
Back Panel

support device at the rear of the base to hold standard rod.

Features:

- Chemical resistant top plate, easy to clean.
- Excellent heat conduction distributes the heat evenly and uniformity over the entire heating surface.
- Sensitive “stepless” temperature control is maintained by means of a hydraulic thermostat with minimum overshoot and undershoot Making possible the processing of delicate materials at low critical temperatures.
- Pilot lamp indicates when heat is on.
- Special radiation shields keep apparatus relatively cool during continuous operation.
- Supplied with a 3-wire line cord and sturdy screw type support device at the rear of the base to hold standard rod.

Application:

- Distillations, extractions and digestions
- Heat aqueous reagents
- Semiconductor baking
- Acid/Base digestions - trace metal analysis. etc.
- Sample drying
- General reagent heating
- Heating TLC plates
- Evaporations
- Warning/curing applications - pastes, adhesives, and solder
- Ideal for general lab heating
- Liquid evaporations

HOP-1212

Compact and lightweight hotplate, great to use in limited space.

Making possible the processing of delicate materials at low critical temperatures.

HOP-2550

Specifications:

Model	Temperature range	Top plate	Dimensions	Watt	Weight
HOP-1212	40-300°C	115x115mm	W140xH110xD220mm	450W	1.2kg
HOP-1818	40-300°C	175x175mm	W200xH150xD260mm	750W	2.3kg
HOP-2525	40-300°C	250x250mm	W250xH150xD260mm	1500W	3.3kg
HOP-2550	40-300°C	500x250mm	W500xH150xD250mm	3000W	6.5kg

HOP-2525D
250x250mm Hotplate

HOP-1818D
175x175mm Hotplate

HOP-1212D
115x115mm Hotplate

HOP-D Serie Digital & Programmable Hotplates, Aluminium Top

Application:

- Distillations, extractions and digestions
- Heat aqueous reagents
- Semiconductor baking
- Acid/Base digestions - trace metal analysis. etc.
- Sample drying
- General reagent heating
- Heating TLC plates
- Evaporations
- Warning/curing applications-pastes, adhesives, & solder
- Viscosity studies
- Reaction optimization
- Solubility studies
- Safety thermostat

300°C

Hop-1818D
Back Panel

Support device at the rear of the base • External sensor input • Safety thermostat • External/internal sensor switch.

- External temp. sensor 200mm length, 3.2mm diameter.
- Optional: Communicator 3216 Com.
- Optional: Optional Temperature programmer.

3216CP
Optional Temperature programmer

Features:

- Temperature can be displayed in °C or °F.
- Digital timer and ramp to temperature function.
- Digital set-point and read-out of actual temperature.
- PID microprocessor Eurotherm 2132 controller provides precise temperature regulation all over the temp. range, include the low temp close to the ambient.
- Temperature may be controlled either at the plate surface by internal sensor,or at the sample by a Thermocouple Immersion probe.
- Safety: in the event of broken sensor,power to the heater is shut-down.
- Temperature range :above ambient to 300°C.
- Chemical resistant top plate, easy to clean.
- Excellent heat conduction distributes the heat evenly and uniformity over the entire heating surface.
- Pilot lamp indicates when heat is on.
- Special radiation shields keep apparatus relatively cool during continuous operation.

HOP-2550D
Large surface for large loads, 500x250mm Hotplate

Specifications:

Model	Temp. range	Top plate	Temp. stability	Dimensions	Watt	Weight
HOP-1212D	40-300°C	115x115mm	±1°	W140xH110xD220mm	450W	1.3kg
HOP-1818D	40-300°C	175x175mm	±1°	W200xH150xD260mm	750W	2.4kg
HOP-2525D	40-300°C	250x250mm	±1°	W250xH150xD260mm	1500W	3.4kg
HOP-2550D	40-300°C	500x250mm	±1°	W500xH150xD250mm	3000W	6.6kg

HSCD-4
Digital hotplate stirrer

HSC-4
Analog Hotplate stirrer

HPC-4
Analog Hotplate

Back Panel - Analog Models

support device at the rear of the base to hold standard rod

HPC-4 & HSC-4, Analog Models

Features:

- High impact strength Acid and alkali resistance
- Heats rapidly up to 540°C in 8 minutes
- Stepless heat control
- Ceramic top remains perfectly flat to ensure maximum heat transfer.
- Reflective white top makes sample viewing easy.
- Not recommended for use with metal vessels.

Applications:

- Models are excellent for microscale chemistry
- General lab heating&stirring
- Sample drying
- Media preparation
- General microbiological applications

500°C

Back Panel - Digital Models

Support device at the rear of the base • External sensor input • Safety thermostat • External/internal sensor switch

3216CP
Optional programmer

3216 com
Optional communication

HPCD-4 & HSCD-4, Digital Models

Measures Temperature on Plate or in Sample

Features:

- Microprocessor closed-loop control
- Digital display of all parameters for easy operation. Temperature can be displayed in °C or °F
- PID microprocessor Eurotherm 2132 controller provides precise temperature regulation all over the temp. range, include the low temp close to the ambient.
- Temperature may be controlled either at the plate surface by internal sensor,or at the sample by a Thermocouple Immersion probe.
- Ramp rate to setpoint & timer

Description:

- Solid state feedback control monitors and adapts to sudden changes in ambient or sample temperature, preventing boil-overs, ruined samples, and lost time.
- Digital display for quick and easy observation.
- Previous set point is stored in memory & will appear on the display when the unit is switched on.

Model	Temp. range	Top-plate	Temp. control	Magnetic stirrer
HPC-4	up to 500 °C	175x175mm	Analog	No
HPCD-4	up to 500 °C	175x175mm	Digital	No
HSC-4	up to 500 °C	175x175mm	Analog	100~1200rpm
HSCD-4	up to 500 °C	175x175mm	Digital	100~1200rpm

HOTPLATE STIRRERS

Aluminium Top

GHS-5

HS-4

HS-1

HS-Serie Hotplate Mgnetic Stirrers

Powerful Stirring and Uniform Heating!
Quiet direct drive motor/magnet system provides speed from 100 to 1200 RPM.

300°C

Features:

- Chemical resistant top plate, easy to clean.
- Excellent heat conduction distributes the heat evenly and uniformity over the entire heating surface.
- Sensitive “stepless” temperature control is maintained by means of a hydraulic thermostat with minimum overshoot and undershoot Making possible the processing of delicate materials at low critical temperatures.
- Pilot lamp indicates when heat is on.
- Special radiation shields keep apparatus relatively cool during continuous operation.
- Supplied with a 3-wire line cord and sturdy screw type support device at the rear of the base to hold standard rod.
- Uniform, stable heating
- Designed for continuous use, to handle fluids of varying viscosities in up to 25liter capacity
- Available in 4 models to accommodate most laboratory applications requiring mixing and temperature control.
- Gentle or vigorous stirring

Back panel

support device at the rear of the base to hold standard rod

Applications:

- Warming/mixing applications - gels, pastes, and adhesives
- Standard reagent mixing and heating
- Preparing culture media
- Evaporation and distillation procedures
- Titrations requiring heating and stirring of solution
- Gentle heating
- Microscale chemistry
- General lab heating & stirring
- Sample drying
- Media preparation
- General microbiological applications

HS-1 Compact & light weight, great to use in limited space

GHS-5 For large capacity up to 25 liter, stir viscous solution

Specifications:

Model	Temp. range	Speed range	Capacity max.	Top plate	Dimensions	Watt	Weight
HS-1	40-300°C	100-1200rpm	8 Liter	115x115mm	W140xH110xD220mm	450W	1.9kg
HS-4	40-300°C	100-1200rpm	10 Liter	175x175mm	W200xH150xD260mm	750W	3kg
HS-5	40-300°C	100-1400rpm	20 Liter	175x175mm	W200xH150xD260mm	1500W	3.4kg
GHS-5	40-300°C	100-1400rpm	25 Liter	250x250mm	W250xH150xD260mm	3000W	4.4kg

HSD-Serie Digital Magnetic Stirrers

Application:

- Warming/mixing applications - gels, pastes, and adhesives.
- Standard reagent mixing and heating.
- Preparing culture media.
- Evaporation and distillation procedures.
- Titrations requiring heating & stirring of solution.
- Gentle heating.
- Microscale chemistry.
- General lab heating & stirring.
- Sample drying.
- Media preparation.
- General microbiological applications.

300°C

Back panel

- **Support device at the rear of the base**
- **External sensor input**
- **Safety thermostat**
- **External/internal sensor switch**
- **External temp. sensor 200mm length, 3.2mm diameter**

3216CP
Optional programmer

3216 com
Optional communication

Features:

- Temperature can be displayed in °C or °F.
- Digital timer and ramp to temperature function.
- Digital set-point and read-out of actual temperature.
- PID microprocessor Eurotherm 2132 controller provides precise temperature regulation all over the temp. range, in clude the low temp close to the ambient.
- Temperature may be controlled either at the plate surface by internal sensor,or at the sample by a Thermocouple Immersion probe.
- Safety: in the event of broken sensor,power to the heater is shut-down.
- Temperature range :above ambient to 300°C.
- Chemical resistant top plate, easy to clean.
- Excellent heat conduction distributes the heat evenly and uniformity over the entire heating surface.
- Pilot lamp indicates when heat is on.
- Special radiation shields keep apparatus relatively cool during continuous operation.
- Designed for continuous use, to handle fluids of varying viscosities in up to 25liter capacity.
- Available in 4 models to accommodate most laboratory applications requiring mixing and temperature control.
- Gentle or vigorous stirring.

Specifications:

Model	Temp. range	Speed range	Capacity max.	Top plate	Dimensions	Watt	Weight
HSD-4	40-300°C	100-1200rpm	10 Liter	175x175mm	W200xH150xD260mm	750W	3kg
HSD-5	40-300°C	100-1400rpm	20 Liter	175x175mm	W250xH150xD260mm	750W	3.1kg
GHSD-5	40-300°C	100-1400rpm	25 Liter	250x250mm	W500xH150xD250mm	1500W	3.5kg
DHSD-5	40-300°C	100-1400rpm	25 Liter	250x250mm Dual	W500xH150xD250mm	3000W	4.5kg

Multi-Hotplate Stirrers, 4 Or 6 Places

Aluminium Top Plate • Independent Heating & Stirring Control • up to 300°C/1600rpm

Excellent for Multi-use & a Wide Various Sample Testing • Systemized 4 & 6 Hotplate-Stirrer • Independent Heating & Stirring Control • Maximum Temperature of 300°C • Aluminium tops heat up quickly & unifomity. Great for low temperature applications • Units are built from durable cast aluminium cases & painted with chemically resistant paint.

MUHS-6

Model: MUHS-4, 4 Positions

Multi-position hotplate stirrer with four positions (in one row), Same as model MUHS-6, except dimensions which
are: 60.5x14.5x22cm, weight 8 kg,
power 2000 watt-4x500 watt.

MUHS-2x2

MUHS-3x2

Model: MUHS-6, 6 Positions

- Multi position hotplate stirrer with six positions.
- Six individually controlled stirring and heating positions.
- Each position can be used to stir only, heat only or heat and stir at the same time.
- Ideal for a narrow bench-top or for applications needing support rack system.
- The top plates are chemical resistant and heat quickly.
- Stirrers are equipped with strong magnets & high torque motors.

Temperature range: Up to 300°C
Speed control: Up to 1600RPM
Dimensions: Top plate 11.5x11.5cm,
Overall W81xH14.5xD22cm
(D includes support rod clamp)
Power: 230V (or 115V), 50/60Hz, 3000W-6x500W
Net weight: 12Kg

Options: Model: MUHP-4
Similar to the above described model: MUHS-4, but without stirrers.

Model: MUHP-6
Multi position hotplate with six positions.

Model: MUHS-2x2

- Multi position hotplate stirrer with four positions (in 2 rows 2+2).
- 4 individually stirring and heating positions.
- 4 chemical resistant top-plates, 11.5x11.5cm.
- The top plates are chemical resistant and heat quickly.
- Stirrers are equipped with strong magnets and high torque motors.

Temperature range: Up to 300°C
Speed control: Up to 1600RPM
Dimensions: Top plate 11.5x11.5cm
Overall W30xH14.5xD31cm
(D includes support rod clamp)
Placed in two rows 2+2
Power: 230V (or 115V), 50/60Hz, 2000W-4x500W
Net weight: 8Kg

Options: Model MUHP-2x2, Similar to the above described model: MUHS-2x2, but without stirrers

Model: MUHS-3x2

Multi-position hotplate stirrer with six positions (in 2 rows 3+3)
Same as model MUHS-2x2, except dimensions which are:
45x14.5x31cm, weight 8 kg, power 2000 watt-4x500 watt.

- 6 individually stirring and heating positions.
- 6 chemical resistant top-plates, 11.5x11.5cm.
- The top plates are chemical resistant and heat quickly.
- Stirrers are equipped with strong magnets and high torque motors.

Options: Model MUHP-3x2, Similar to the above described model: MUHS-3x2, but without stirrers

MOS-1818, Power Large Volume Stirring, Up To 20Liter

Magnetic stirrer 175 x 175 mm with a heavy duty brushless (non sparking) induction motor with condencer. Exclusive powerful magnet is especially designed for most efficient magnetic coupling. Stir up to 20-25 litre water • Gentle or vigorous stirring • Integral ring-stand holder • Include rear bracket for support rod.

Stirring Assembly: Electronic speed control provides constant torque over a speed range from 50 to 1200 RPM, regardless viscosity changes of the medium.

Application: Stirring viscous gels • Stirring latex mixtures • Mixing polymers, starches & Molasses • Standard reagent mixing • Stir up to 4 liters of aqueous solution • Aluminium top plate remains cool while stirring • For safe operation, all models include a power indicator light that illuminates when power is applied to the control • Quiet stirring at a gentle 100 rpm as well as at a vigorous 1000 rpm operation • Strong magnetic coupling ensures that stir bar remains coupled with drive magnet, even in viscous solutions.

MOS-2525, Large Volume Stirrer

The giant stirrer is similar to the above described Model MOS-1818 but with a 25 x 25 cm. top plate. The giant size top plate easily accommodates stirring loads as large as 20-25 liter water.

MOS-1212, Magnetic Stirrer Up To 8Liter

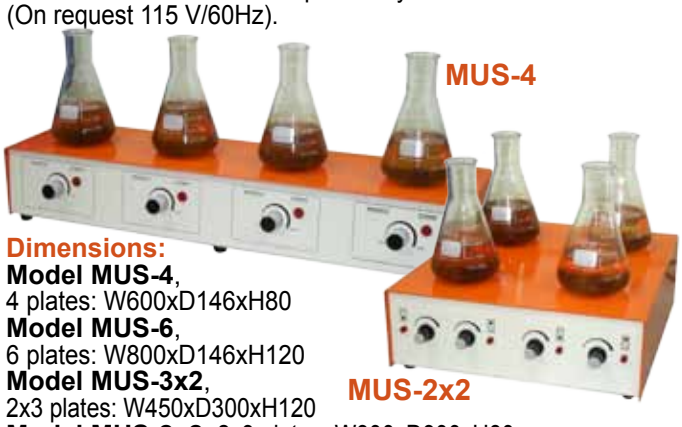
Powerful drive magnet • Strong motor-stirs up to 8 litre water • Compact design maximizes use of available bench space • Variable speed control up to 1300rpm • Electronic speed control with "OFF" position • Available as 4-position stirrer, and 6-position stirrer • Powerful motor and strong magnet provide exceptional stirring even with a solution that has a viscosity similar to cooking oil • Durable, easy-to-clean, corrosion-resistant top plate available.

Application: Turbidity testing: maintain solution homogeneity • Polymer integrity tests/viscosity.

Model	Top plate	Capacity	Speed range	Dimensions (WxHxD)	Weight
MOS-1212	120x120 mm	8 Liter	100 to 1200 rpm	120x100x135 mm	1.2 kg
MOS-1818	175x175 mm	20 Liter	100 to 1400 rpm	200x150x260 mm	3.2 kg
MOS-2525	250x250 mm	25 Liter	100 to 1400 rpm	250x150x260 mm	4.2 kg

MUS-4/6/2x2/3x2, MultiMagnetic Stirrer, Separate Speed Controller For Each Channel

The Multimagnetic Stirrer provides 4 to 6 stirring places. Separate stirrer control knobs and pilot lamps are provided, so that each stirrer can be independently controlled. 220V/50Hz. (On request 115 V/60Hz).



Dimensions:
Model MUS-4,
4 plates: W600xD146xH80
Model MUS-6,
6 plates: W800xD146xH120
Model MUS-3x2,
2x3 plates: W450xD300xH120
Model MUS-2x2, 2x3 plates: W300xD300xH80

Model		MUS-4	MUS-6	MUS-3x2	MUS-2x2
Speed range		0~1300 rpm			
Distance between stirring point		133 mm		150 mm	
Capacity		One point maximum - 8L			
		2liter-6 each			
Material		Plate: Aluminium			
Weight		5kg	7.5kg		5kg
Dimensions (mm)		W600xD146xH80	W800xD146XH120	W450xD300XH120	W300xD300XH80
Wattage		15W	30W		15W
Power		AC110/220/230V, 50/60Hz			
Unit	MUS-4 / MUS-2x2	4 Point magnetic stirrer			
	MUS-6 / MUS-3x2	6 point magnetic stirrer			