

Incubators

General Applications

General Incubators

- Cultivating thermophilic bacteria, germs and colon bacilli, microorganism, organism germs for life science, pharmacy, clinical science, chemistry, antibody testing, enzyme digestion, hematological testing, paraffin embedding, histochemical procedures, tissue culturing, crystallization studies, coliform determinations and biology.

Low Temperature Incubators:

High cooling performance by refrigerant

- Measuring COD/ BOD, cultivating low temperature microbes and plant cells, denaturalizing tests for food.
(Including above the general incubator applications)

Low Temperature Personal Incubators:

Peltier cooling device type

- Microorganism, organism germs for life science, pharmacy, clinical science, chemistry, antibody testing, paraffin embedding histochemical procedures, tissue culturing, crystallization studies, and biology.



Technical Benefits

Safety functions

- 1) Self-protecting cut-off function and signal:
 - For over temperature, automated cut the power supply for heater and controller orderly before the unit shuts down.
 - 2 separated over-current fuses for user safety.
 - 2) Time setting function for automated run/off:
 - Integrated time setting: Delayed ON/ OFF. (from 1 min to 99 hr 59 min)
 - Operating settable function: After a power interruption, select automated run or manual run.
 - 3) Door-open warning alarm:
 - Intermittent tone and optical signal alarm 5 min. after automated cut-off.
 - Heating element and fan automatically stop when door opening to minimize heat loss and protect operator.
- Frequently use 3 different temperatures memorable for convenient use.
 - Selectable measuring temperature in °C or °F
- 2) Applicable control display considering MMI (Man Machine Interface) network system:
 - Very similar key arrangement throughout the whole temperature chambers, bath circulators and shakers series.
 - Operator-friendly controller with the splash-proof/ easy-to-clean keypads and clear LED displays.
 - A speed lock key prevents accidental resetting of parameters conveniently.

Optimum control performance

- 1) Professional control electronics and program control:
 - Microprocessor PID temperature control with very simple calibration and auto-tuning features.
- 2) Perfectly sealed door gasket minimizes heat loss and fully insulated chambers keep exterior at a safe temperature.
- 3) Adjustable stainless steel and electro polished wire shelves for better air-flowing and easy cleaning.

Ideal construction

Exclusive gravity convection type incubators for all laboratory purposes

MD10 series are the most useful incubators for general purpose which manufactured equipped *air-jacketed convection* style for excellent variation without outside air disturbances.

Operating features

- +5°C above room temperature to 70°C
- MicroprocessPID control/ Auto-tuning/ Calibration
- Digital timer: 1 min ~ 99 hr 59 min, delayed ON/ OFF
- Over-temperature limiter/ Door opening alarm
- 3 different temperature values memorable
- Digital LED display (0.1°C resolution) using touch-sensitive keypads
- RS-232 interface available

Constructional features

- Fully insulated dual-wall door with rubber magnetic seal gasket keeps setting temperature
- Stackable 2 steps up with exclusive stacking kits (optional)
- Optimized sample inspection through a tempered inner glass door without affecting chamber temperature
- Separable shelves and rounded inner chamber corners for easy cleaning
- Highly durable incoloy heating element with fins guarantee better radiation
- Connectable other electric instruments to the inside of a chamber through a side cable port
- Adjustable port to control the amount of airflow in the chamber (dia 38mm/1.5")



Included Accessories - 2 wire shelves

Optional Accessories - Perforated shelves
- Stacking kits for stackable chambers

Specifications & Ordering Informations



Model		MD1001	MD1002	MD1003
Chamber Volume (L/cu ft)		60 / 2,1	102 / 3,6	151 / 5,3
Temperature	Range (°C/°F)	Amb. +5 to 70 / Amb. +9 to 158		
	Fluctuation ¹⁾ (± °C/°F) at 37°C	0,1 / 0,18	0,1 / 0,18	0,2 / 0,36
	Variation ¹⁾ (± °C/°F) at 37°C	0,6 / 1,08	0,2 / 0,36	0,6 / 1,08
Dimensions	Interior dimensions (W×D×H) (mm / inch)	400×360×420 / 15,7×14,2×16,5	480×410×520 / 18,9×16,1×20,5	310×460×540 / 24×18×21,3
	Exterior dimensions (W×D×H) (mm / inch)	595×555×745 / 23×22×29	675×605×855 / 27×24×34	805×655×885 / 32×26×35
	Net weight (Kg / lbs)	45 / 99	55 / 121	62 / 136
Electrical Requirements (230V)		50 / 60Hz, 1,3A	50 / 60Hz, 2,2A	50 / 60Hz, 3,1A
Electrical Requirements (120V)		50 / 60Hz, 2,8A	50 / 60Hz, 4,6A	50 / 60Hz, 6,4A

1) Technical data (according to DIN 12880)