

2008  
Product Catalog

**LAB INSTRUMENTS**



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# Catalogue

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## Dry Bath (Incubator)

### 1. MK-10/MK-20 Dry Bath

- Precise microprocessor control
- Temperature and time can be set
- Easy user calibration
- Wide temperature setting range
- Sample block design is easy removed for Cleaning or replacement.
- Peltier design of MK-20 provides thermal Efficiency, reliability and compact size.



MODEL	MK-10	MK-20
Temp. Control Range	RT+5°C~100°C	-10°C~100°C
Timing Range	1min~99h59min	1 min~99h59min
Temp. Control Accuracy	≤±0.3°C	≤±0.3°C
Display Accuracy	0.1°C	0.1°C
Heating Time	≤12min ( 20 to 100°C )	≤20min ( 20°C to 100°C )
Cooling Time (*)	----	≤30min ( 20°C to -10°C )
Standard blocks	See Page No.2	See Page No.2
Heating parts	Heater	TE module
Cooling parts	----	TE module
Dimension ( LxWxH ) mm	300×220×170	300×220×170
Net Weight	2.5kg	5.0kg
Power supply	AC220 or 120V 50/60 Hz 150W	AC220 or 120V 50/60 Hz 200W
Certificate		CE

\*:1) cooling rate ≤25min ( 20°C to -5°C ) if the ambient temperature is lower 30°C

2) cooling rate≤30min ( 20°C to -10°C ) if the ambient temperature is lower 25°C

## Dry Bath (Incubator)

### Dry bath blocks for MK-10, MK-20, MS-100, MSC-100

Type	Parameter	Max.Temp.	Min.Temp. ( MK-20 )	Max.Speed (rpm)
A	96×0.2ml	100°C	-10°C	1500
B	54×0.5 ml	100°C	-10°C	1500
C	35×1.5ml	100°C	-10°C	1500
D	35×2.0ml	100°C	-10°C	1500
E	15×0.5 ml+20×1.5ml	100°C	-10°C	1500
F	24×Dia.≤φ12mm tube	100°C	0°C	1200
G	12×15ml Falcon	100°C	0°C	750
H	6×50ml Falcon	100°C	0°C	750



**A**



**B**



**C**



**D**



**E**



**F**



**G**



**H**

## 2. K30 Economic Dry Bath

- Precise microprocessor control
- Temperature and time can be set
- Aluminum blocks ensure good temperature transfer.
- Blocks are rotundity.



MODEL	K30
Temp. Control Range	RT+5°C~100°C
Timing Range	1min~99h59min
Temp. Control Accuracy	≤±0.5°C
Display Accuracy	0.1°C
Heating Time	≤20min ( 20 to 100°C )
Standard blocks	See No.3 page
Heating parts	Heater
Dimension ( LxWxH ) mm	225×160×197
Net Weight	3kg
Power supply	AC220V or AC120V 50/60 Hz 150W

### Dry bath blocks for K30

Type	Parameter	Capacity	Dimension (mm)
A-30	Centrifuge tubes	96×0.2ml	Φ108 x 32
B-30	Centrifuge tubes	29×0.5ml and 32×1.5ml	Φ108 x 32
C-30	Centrifuge tubes	61×0.5 ml	Φ108 x 32
D-30	Centrifuge tubes	41×1.5ml	Φ108 x 32
E-30	Centrifuge tubes	41×2.0ml	Φ108 x 32
F-30	Φ6mm	61	Φ108 x 32
H-30	Φ12mm	41	Φ108 x 50
I-30	Φ13mm	36	Φ108 x 50
J-30	Φ15mm	21	Φ108 x 50



## Dry Bath (Incubator)

K-30	Φ16mm	21	Φ108 x 50
L-30	Φ18mm	17	Φ108 x 50
M-30	Φ20mm	14	Φ108 x 50
N-30	Φ25mm	9	Φ108 x 50

### 3. MK200-1/MK2001A/MK200-2/MK200-4 Dry Bath

MODEL	MK200-1	MK200-1A	MK200-2	MK200-4
Temp. Control Range	RT+5°C~150°C	RT+5°C~150°C	RT+5°C~150°C	RT+5°C~150 °C
Timing Range	1min~99h59min	1min~99h59min	1min~99h59min	1min~99h59min
Temp. Control Accuracy @40°C	±0.3°C	±0.3°C	±0.3°C	±0.3°C
Temp. Control Accuracy @40~100°C	±0.5°C	±0.5°C	±0.5°C	±0.5°C
Temp. Control Accuracy @100~150°C	±1°C	±1°C	±1°C	±1°C
Display Accuracy	0.1°C	0.1°C	0.1°C	0.1°C
Heating Time ( 40~150°C )	≤30min	≤30min	≤30min	≤30min
Number of Sample Blocks	1	1	2	4
Standard blocks	See No.4 Page (BK01~BK18)	See No.5 Page (BK19,BK20)	See No.4 Page (BK01~BK18)	See No.4 Page (BK01~BK18)
Dimension ( mm )	280 x 240 x 110	280 x 240 x 110	280 x 240 x 110	380 x 240 x 110
Power supply	AC220V or AC120V,50/60Hz			



MK200-1



MK200-1A



MK200-2



MK200-4

Dry bath blocks for MK200 series

## Dry Bath (Incubator)

Type	Parameter	Capacity	Dimension (mm)
BK01	Φ6 mm	49	96 x 96 x 49
BK02	Φ7 mm	49	96 x 96 x 49
BK03	Φ10 mm	25	96 x 96 x 49
BK04	Φ12 mm	25	96 x 96 x 49
BK05	Φ13 mm	25	96 x 96 x 49
BK06	Φ15 mm	12	96 x 96 x 49
BK07	Φ15 mm	16	96 x 96 x 49
BK08	Φ16 mm	12	96 x 96 x 49
BK09	Φ16 mm	16	96 x 96 x 49
BK10	Φ19 mm	12	96 x 96 x 49
Type	Parameter	Capacity	Dimension (mm)
BK11	Φ19 mm	16	96 x 96 x 49
BK12	Φ20 mm	9	96 x 96 x 49
BK13	Φ26 mm	9	96 x 96 x 49
BK14	Φ28 mm	4	96 x 96 x 49
BK15	Φ40 mm	4	96 x 96 x 49
BK16	0.5 ml	49	96 x 96 x 49
BK17	1.5 ml	25	96 x 96 x 49
BK18	2.0 ml	25	96 x 96 x 49
BK19	0.2ml	96	78 x 114 x 26
BK20	Plate(no holes)	microplate	81 x 123 x 19



### 4. MiniT-- Mini Dry Bath

- Mini-dimensions: 110(w) x 150(D) x 80(H)mm
- LCDdisplay, it is easy to set up and use
- With 12V power for total portability
- Temp. control range: from 5°C above ambient to 100°C
- Time range: 1min ~ 99h59min

#### Dry bath blocks for MiniT

Type	Dimension	Tubes	Remark
A	0.2ml	40×0.2ml	8×0.2ml strip
B	0.5ml	32×0.5ml	
C	1.5ml	15×1.5ml	
D	2.0ml	15×2.0ml	



### 5. MK100-4p Dry Bath

- Microprocessor controlled time and temperature
- Beep-signal and stop of after program completion
- Heating platform for standard microtest plate
- Temperature range: RT+5~60
- Uniformity over the platform:  $\leq \pm 0.5$
- Platform capacity: 4 microtest plates
- Overall dimensions: 385×395×190 mm



### 6. K37 ID-Incubator

The ID-Incubator K37 is a high performance incubator which microplates and 24 blood type cards in racks at 37°C

#### Features:

1. Microprocessor controlled time and temperature
2. Beep-signal and stop of after program completion
4. Excellent temperature accuracy and uniformity across the place
5. Time and temperature are displayed(LCD)
6. Incubator capacity: W x D x H = 218mm x 268mm x 105mm
7. Dimension: W x D x H = 310mm x 410mm x 136mm

#### Specifications:

1. Incubation: 37°C
2. Temperature stability  $\pm 0.3^\circ\text{C}$
3. Temperature gradient  $< 0.5^\circ\text{C}$
4. Incubator for 24 ID-Cards in racks at 37°C
5. Racks:



Microplates's Rack



ID-Cards's Rack

# Thermo-Shaker

## 1. MS-100/MSC-100 Thermo-Shaker for Microtubes

Designed for simultaneous heating and cooling and mixing of small samples, the MS-100 and MSC-100 are supplied with interchangeable platforms for microtubes.

Mixing and heating and cooling modes can be used both simultaneously and independently, The main body of the Mixing Block can be used with different kinds of blocks

### Features

- LCD display. It easy to setup and use.
- Accurately control and display time, temprature and speed
- Over heating protection device ensures safety & reliability
- Temperature can be calibrated to meet user's needs.
- Low noise working even under the speed of 1,500rpm
- Conforms to CE safty standard



### Specification

Model	MS-100	MSC-100	
Temp. Setting Range	5°C~100°C	0°C~100°C	
Temp. Control Range	RT.+5°C~100°C	0°C~100°C	Ambient Temp.≤20°C
		4°C~100°C	Ambient Temp.≤25°C
		10°C~100°C	Ambient Temp.≤30°C
Timing Range	1 min~99h59min	1 min~99h59min	
Mixing Speed	200rpm-1500rpm	200rpm-1500rpm	
Mixing Orbit	2mm	2mm	
Temp. Control Accuracy	< ± 0.3 °C	< ± 0.3 °C	
Display Accuracy	0.1 °C	0.1 °C	
Heating Time (from 20 °C to 100 °C)	≤20min	≤15min	
Cooling time	-----	≤30min(from RT. to RT.-20 °C)	
		≤15min(from 100 °C to 20 °C)	
Standard Block	See <b>No.2</b> page	See <b>No.2</b> page	
Dimension ( LxWxH) mm	300x220x170	300x220x170	
Net Weight	7 kg	8.5 kg	
Certificate	CE	CE	



## 2. MB100-4P Thermo-Shaker for Microplates

Thermo-shaker is designed for shaking 2-4 standard 96-well micro-plates in the thermostating mode.

### Features

- Microprocessor controlled time, speed and temperature
- Accurately control and display time, temperature and speed
- Heating platform for standard micro-test plate
- Soft start, Easy to setup and use
- Beep-signal and stop of shaking motion after program completion
- LCD display

### Performance:

- Temperature range: RT.+5 °C~60 °C
- Uniformity over the platform:  $\leq \pm 0.5$  °C
- Display Accuracy : 0.1 °C
- Shaking speed: 100-1200 rpm/min ( increment:1 RPM )
- Orbit: 2mm (rotation)
- timer:0 - 100 hrs (increment 1 min)
- Power supply: AC220V or AC120V 50/60Hz
- Platform capacity: 4 micro-test plates
- Platform dimensions: 215x300 mm
- Dimensions: 385x395x190mm
- Weight, not more 9.5Kg





## 3. MX100-4P Shaker

### Features:

- Variable speed between 300 to 1,400rpm
- DC brushless motor for gentle and powerful motion
- Orbital of 3mm for efficient mixing in small sample vessels
- Continuous or timed operation
- Optional rack for 1.5ml centrifuge tube
- Simple spring holders for easy and speed of plate installation

### Performance:

- Speed : 300-1400 rpm/min -- Standard  
300-1000 rpm/min – Deepwell
- Timer : 120min
- Orbit: 3mm
- Weight: 9kg
- Power : 220V 40W
- Dimensions : 290×320×130mm





## 1. Ministar Plus, Minispan Plus Mini-Centrifuge

### Features

- Extremely quiet. Low noise levels
- LCD display. Easy-to-follow digital display
- Capacity: 12 x 1.5/2.0ml tubes
- Separate short-spin key
- Low sample heating (only 12°C after 30 min, at max.speed)
- Autoclavable rotor (121 deg.C, 20min)
- RMP/RCF setting as required
- Includes standard rotor made of anodized aluminum
- Timer can be set up to 99min
- The small size of the unit makes it convenient for use on  
The bench, under a hood or inrefrigerated environments



### Specifications

Type	MiniStar Plus	MiniSpan Plus
Power supply	100V-240V 50/60Hz	100V-240V 50/60Hz
Power requirement	100W	105W
Max. rotational speed	13,400 rpm/min	14,500 rpm/min
Relative centrifugal force (RCF)	12,100 x g	14,000 x g
Timer	20 sec---99min	20 sec---99min
Acceleration time to max. speed	18 s	25 s
Braking time from max. speed	18s	18 s
Dimensions in cm (WxDxH)	24x21.2x13.8	24x21.2x13.8





### 2. Ministar Mini-Centrifuge

#### Features

- Clear cover allows user to view rotor status
- Starts and stops in seconds
- 

#### Specifications

- Maximum Speed: 6,000 rpm
- Maximum RCF : 2.000 g
- 110V, 50/60Hz, 130mA or 220V, 50/60Hz, 65mA
- Rotors : 6 x 1.5/2.0ml fixed-angle rotor; 2 x 8 well 0.2ml strip rotor; Six adapters fitting 0.5ml tubes; Six adapters fitting 0.2ml tubes
- Dimension : (D) 130mm x (L)142mm x (H)102mm
- Weight: 1.5Kg



### 2. 6K/10K Mini-Centrifuge

#### Features

- Elaborate, colorful outer shell
- Low noise
- Carbon fiber rotor
- Safe and durable

#### Specifications—6K

- Relative centrifugal force: 2000g
- Sample capacity: 6×1.5ml/0.5ml or 16×0.2ml
- Speed of rotation: 6000rpm ( 6K )
- Maximum noise: <=48Db
- Dimensions: 189×161×122 ( mm )





## 1. HM-3000 Bacti-Cinerator sterilizer

The Bacti-Cinerator sterilizer sterilizes microorganisms utilizing infrared heat produced by a ceramic core element. The ceramic element contains no asbestos and ensures maximum sterility without splatter across the work surface area. Complete sterilization occurs within 5-7 seconds at optimum sterilizing temperature of 1500°F (815.6°C). The small footprint makes the Bacti-Cinerator sterilizer an ideal instrument for anaerobic and aerobic chambers alike. Several user friendly accessories are also available for the Bacti-Cinerator sterilizer.

### Features

- Sterilizes needles, loops, and culture tube mouths in five to seven seconds at optimum sterilizing temperature of 815.6°C (1500°F);
- Ceramic funnel tube enclosed in stainless-steel perforated guard and stainless-steel support stand;
- For AC220V 50/60Hz;

### Performance

- The center high-temperature: 815°C ± 50°C
- The Max-diameter of sterilizer goods: **14mm**
- The length of sterilizer: 100mm
- Dimension: 130W x 102D x 180H
- Net weigh: 1.3Kg



## 2. HM-3000A Bacti-Cinerator sterilizer

### Features

- Sterilizes needles, loops, and culture tube mouths in five to seven seconds at optimum sterilizing temperature of 815.6°C (1500°F);
- Ceramic funnel tube enclosed in stainless-steel perforated guard and stainless-steel support stand;
- For AC220V 50/60Hz;

### Performance

- The center high-temperature: 815°C ± 50°C
- The Max-diameter of sterilizer goods: **φ14mm**
- The length of sterilizer: 100mm





### 3. HM-3000B Bacti-Cinerator sterilizer

#### Features

- Sterilizes needles, loops, and culture tube mouths in five to seven seconds at optimum sterilizing temperature of 815.6°C (1500°F);
- Ceramic funnel tube enclosed in stainless-steel perforated guard and stainless-steel support stand;
- For AC220V 50/60Hz;

#### Performance

- The center high-temperature: 900°C ± 50°C
- The Max-diameter of sterilizer goods:  $\phi 35\text{mm}$
- The length of sterilizer: 100mm
- Dimension: 150W x 92D x 215H
- Net Weight: 1.6Kg



### 4. UF-2000 Safety Gas Burner sterilizer

#### Features

- Ignite mode: By touch-free IR sensing movement and a wireless foot pedal control
- Gas types: All flammable safety gas (0.28 ~ 0.4MPa)
- Safety Protection: It has overheating protection and gas safety cut-off protection

#### Performance

- Temperature threshold level : 1350°C on liquid
- Supply : 45g/h liquid gas
- Portable: With the rechargeable battery, this unit is truly portable when paired with an optional gas cartridge
- Size: (W x D x H) mm = 100 x 130 x 95
- Weight = 2.5 Kg





## 1. MD200 Sample Concentraion

The instrument consists of a base and stand assembly, sample holder and gas distribution system. Test tubes are held in a block. The gas at 5 to 10 psig passes through the distribution manifold. Depending on the test-tube size and solvent volume they can be individually raised or lowered to the correct height. Needles or glass pipets blow gas onto the surface of the solution resulting in rapid evaporation of the solvent. All materials used are laboratory quality and can withstand contact with organic solvents. Acid resistant models are available for corrosive application

### Features

- High precision and wide range of temp control
- Blowing a large number of samples at one time
- Blowing each sample independently
- Amount of airflow can be adjusted
- Easy operation; safe and reliable to use

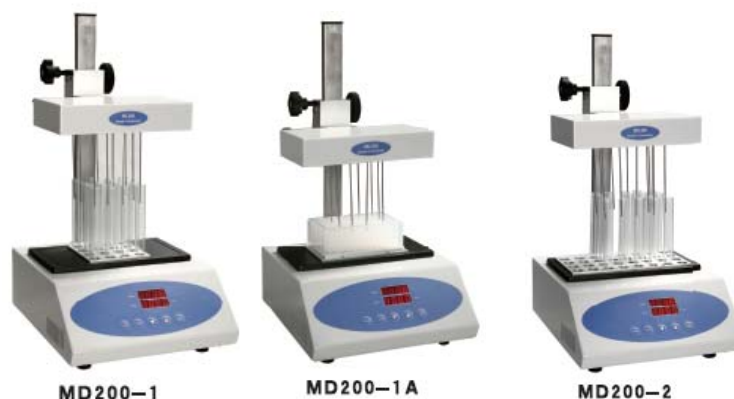
### Specifications

MK200 Block heater	MK200-1	MK200-1A	MK200-2
Temp. Control Range	RT+5°C~150°C	RT+5°C~150°C	RT+5°C~150°C
Timing Range	1min~99h59min	1min~99h59min	1min~99h59min
Temp. Control Accuracy @40°C	±0.3°C	±0.3°C	±0.3°C
Temp. Control Accuracy @40~100°C	±0.5°C	±0.5°C	±0.5°C
Temp. Control Accuracy @100~150°C	±1°C	±1°C	±1°C
Display Accuracy	0.1°C	0.1°C	0.1°C
Heating Time ( 40~150°C )	≤30min	≤30min	≤30min
Number of Sample Blocks	1	1	2
Standard blocks	See No.5 Page	See No.5 Page	See No.5 Page
Power supply	AC220V 200W	AC220V 200W	AC220V 400W

## Sample Concentration



MD200 Gas Distribution System	MD200-1	MD200-1A	MD200-2
Nitrogen consumption	0-10L/min	0-10L/min	0-10L/min
Dimension ( mm )	280 x 240 x 110	280 x 240 x 110	280 x 240 x 110
Needle length	80/150mm	80/150mm	80/150mm



## 2. WD-12 Sample Concentration

The instrument consists of a base and stand assembly, sample holder and gas distribution system. Test tubes are held in place by a spring-loaded sample holder and support tray. Each position is numbered. The gas passes through an adjustable flow meter to the distribution manifold. Flexible tubing leads to valve-tube assemblies at each position. Depending on the test-tube size and solvent volume they can be individually raised or lowered to the correct height. Needles blow gas onto the surface of the solution resulting in rapid evaporation of the solvent. All materials used are laboratory quality and can withstand contact with organic solvents.

The round, stainless steel water bath is thermostatically controlled and will accurately maintain water temperature from ambient temperature to 99°C.

### Features

1. LED display, 12 positions
2. Compact size takes minimal hood space
3. Water bath provides gentle heat
4. Circular stand turns so each sample is accessible from the front
5. Accommodates samples in test tubes 10 to 29mm diameter, Volumes from 1 ml to 50 ml
5. A gas flow meter with valve, controls and indicates gas consumption
6. A needle valve adjusts gas flow at each position
7. Stainless steel 150mm- gauge needles standard

## Sample Concentration



8. All metal parts are made of stainless steel, nickel chromed brass or anodized aluminum
9. Plastic parts are laboratory grade and will withstand contact with common organic solvents
10. Temperature setting range: Ambient temperature ~ 99 °C
11. Temperature control accuracy:  $\pm 1^{\circ}\text{C}$



## 3. HS600 Manual Head Space Sampler

Headspace analysis has generally been limited to costly automated systems — until now! This manual sampler enables you to utilize the headspace technique in a quantitative, economical and precise manner. Analyze up to **six samples at a time** using all popular vial sizes, from 2 - 27ml.

The **accurate oven** reaches stabilization in around 8 minutes and can heat samples up to 120°C ( $\pm 0.5^\circ\text{C}$ ). Safety is guaranteed with an **automatic cut-out** that limits the oven temperature to 150°C

### Applications

- Volatiles in pharmaceuticals
- Flavours analysis
- Alcohol and other toxic compounds in blood
- Screening of volatiles in all type of environmental samples e.g. Soils, waters, plastics, polymers, etc

### Specification

- Heating temperature range:  $\text{RT}+5^\circ\text{C}\sim 150^\circ\text{C}$
- Variable injection: up to 2.5ml
- Temperature accuracy:  $\pm 0.5^\circ\text{C}$
- Holds up to 6 vials of: 2,10,20ml
- Stabilization time from 25°C to 70°C with 1ml syringe and empty 20ml vials: 8minutes



①



②



④



⑤



③