



# Hybridization Incubator Constant temperature Chambers

9

- Model selection guide.....132
- Hybridization Oven
  - Hybridization Incubator HB-80/100.....134
- Constant temperature Defrost Shaking incubator
  - Hybridization Defrost incubator HB-60N.....135
- Small-size Incubator for Microplates
  - Incubation Box M-055N.....137
- Constant temperature Chambers(Small / Middle size)
  - In vitro Box iB-130/230.....138
- Constant temperature Chambers(Middle size / LED irradiation-type)
  - Incubation Box M-210FN/M-210FNLED irradiation-type.....139
- Constant temperature Chambers(Large / for Chromatographic column)
  - TAITEC Chromatographic Chamber M-600FN.....140

## Selection guide

Constant temperature incubator shaker  
OD-MonitorCO<sub>2</sub> incubator shaker

Shaker

Mixer  
Rotator  
StirrerBead beater  
homogenizer  
Ultrasonic  
homogenizerAluminum  
block bath  
Minimize bathWater bath  
Shaking water bath  
Immersion coolerHybridization oven  
Constant temperature  
chamberCentrifugal  
concentrator  
Cold trap

Freeze dryer

Electrophoresis  
and  
blotting apparatusConstant temperature  
water circulating  
system [Chiller]

Appendix

## Hybridization Oven

## Hybridization Incubator HB-80



## Hybridization Incubator HB-100



## Constant temperature Defrost Shaking incubator

## Hybridization Defrost incubator HB-60N



## Small-size Incubator for Microplates

## Incubation Box M-055N



## Constant temperature Chambers

## Small size In vitro Box iB-130



## Middle size In vitro Box iB-230



## Middle size Incubation Box M-210FN



## Constant temperature Chambers (LED Irradiation-type)

## Middle size Incubation Box M-210 FN irradiation-type



## Constant temperature Chambers (for Chromatographic column)

## Middle size Incubation Box M-210FN Chromatographic Set



## Large size TAITEC Chromatographic Chamber M-600FN



Compatible with four kinds stirring method of various vessels by changing five kinds Kit.

Page	Model	Features	Applications
P.134	HB-80	•Four stirring method of vessels by easy replaceable platform •The height 135cm even in Three layers stacked.	<ul style="list-style-type: none"> <li>•Various Hybridizations</li> <li>•Decoloration of Gel and Membrane</li> <li>•Cultivation of Enzyme reaction and Thermophilic bacteria at High temp.</li> </ul>
	HB-100		

Low vibration, CFC Free, Energy saving Incubator. Maintains 37°C stable even in a room where A/C turned off. Used for various Hybridization, also Thawing at room temp. of samples and reagents.

Page	Model	Features	Applications
P.135	HB-60N	<ul style="list-style-type: none"> <li>•CFC Free by Electronic heating and cooling with Peltier element</li> <li>•Excellent Storage temp stability, Energy saving and Low vibration</li> <li>•Four stirring method of vessels by easy replaceable platform</li> </ul>	<ul style="list-style-type: none"> <li>•Various Hybridizations</li> <li>•Thawing at room temp of samples and reagents</li> <li>•Stain and destain of gel, enzyme reaction</li> </ul>

Benchtop-size Incubator for Microplates that does not occupy limited lab space. Useful for Reaction promoting such as ELISA.

Page	Model	Features	Applications
P.137	M-055N	<ul style="list-style-type: none"> <li>•Space saving, Compact size while Large storage space</li> <li>•Six (6) Microplates put together in and out with rack</li> <li>•Easy operation. Up to 5 of frequently used temp. can be memorized</li> </ul>	<ul style="list-style-type: none"> <li>•Incubation in ELISA</li> <li>•Incubation of Testing sample</li> <li>•For applications using Microplates</li> </ul>

High quality and Energy saving as Refrigerator or Incubator. Flagship model Small/Middle-size Constant temp. chambers.

Page	Model	Features	Applications
P.138	iB-130	<ul style="list-style-type: none"> <li>•Most interior and exterior made of stainless steel. High quality Constant temp. Chamber</li> <li>•Possible for operation of small devices inside chamber</li> </ul>	<ul style="list-style-type: none"> <li>•Storage of Samples and Reagents</li> <li>•Cultivation and Immunoprecipitation putting Shaker or Rotator</li> </ul>
	iB-230	<ul style="list-style-type: none"> <li>•Most interior and exterior made of stainless steel. High quality Constant temp. Chamber</li> <li>•Possible for operation of small devices inside chamber</li> <li>•Three position temp. control method adopted</li> </ul>	<ul style="list-style-type: none"> <li>•Storage of Samples and Reagents</li> <li>•Cultivation and Immunoprecipitation putting Shaker or Rotator</li> <li>•Protein Purification putting Chromatographic Column and Pump</li> </ul>

The double glass door both heat insulation and visibility that makes it easy to use. LED irradiation-type and Chromatographic column rack available as an option.

Page	Model	Features	Applications
P.139	M-210FN	<ul style="list-style-type: none"> <li>•Most interior and exterior made of stainless steel. High quality Constant temp. Chamber</li> <li>•Possible for operation of small devices inside chamber</li> </ul>	<ul style="list-style-type: none"> <li>•Storage of Samples and Reagents</li> <li>•Cultivation and Immunoprecipitation putting Shaker or Rotator</li> </ul>
	M-210FN LED irradiation-type		
	M-210FN Chromatographic Set	<ul style="list-style-type: none"> <li>•Most interior and exterior made of stainless steel. High quality Constant temp. Chamber</li> <li>•Possible for operation of small devices inside chamber</li> <li>•Three position temp. control method adopted</li> </ul>	<ul style="list-style-type: none"> <li>•Storage of Samples and Reagents</li> <li>•Cultivation and Immunoprecipitation putting Shaker or Rotator</li> <li>•Temperature control of Chromatographic column</li> </ul>

The double glass door both heat insulation and visibility. Stores Samples and Reagents on shelves while holds Chromatographic column utilizing the large capacity.

Page	Model	Features	Applications
P.140	M-600FN	<ul style="list-style-type: none"> <li>•Most interior and exterior made of stainless steel</li> <li>•Comes with Shelf net and Chromatographic column Rack (holders)</li> <li>•Possible for operation of small devices inside chamber</li> </ul>	<ul style="list-style-type: none"> <li>•Temperature control of Chromatographic column</li> <li>•Storage of Samples and Reagents</li> <li>•Cultivation and Immunoprecipitation putting Shaker or Rotator</li> </ul>

	Temperature range	Temp. control accuracy	Shaking motion	Shaking speed	Page
●	•8°C above RT to 80°C	•±0.1°C to 0.2°C	•Seesaw •Reciprocal •Rotation (Bottle rotated and Inversion stirring of Microtubes)	•5 to 60r/min	P.134
●	•8°C above RT to 100°C				

	Temperature range	Temp. control accuracy	Shaking motion	Shaking speed	Page
●	•15°C to 60°C (10°C below RT to 35°C above RT)	•±0.1°C to 0.2°C	•Seesaw •Reciprocal •Rotation (Bottle rotated and Inversion stirring of Microtubes)	•5 to 60r/min	P.135

	Temperature range	Temp. control accuracy	Irradiation-type	Chamber volume	Page
●	•5°C above RT to 65°C	•±0.1 to 0.5°C	—	6pcs x Microplates	P.137

	Temperature range	Temp. control accuracy	Irradiation-type	Chamber volume	Page
●	•3°C to 45°C	•±1.0°C to 2.0°C	—	Approx. 90L	P.138
●				Approx. 230L	

	Temperature range	Temp. control accuracy	Irradiation-type	Chamber volume	Page
●	•0°C to 45°C	•±1.0°C to 2.0°C	—	Approx. 392L	P.139
●	•10°C to 45°C		√		
●	•0°C to 45°C		—		

	Temperature range	Temp. control accuracy	Irradiation-type	Chamber volume	Page
●	•0°C to 45°C	•±1.0°C to 2.0°C	—	Approx. 642L	P.140

### Stackable up to Three levels.

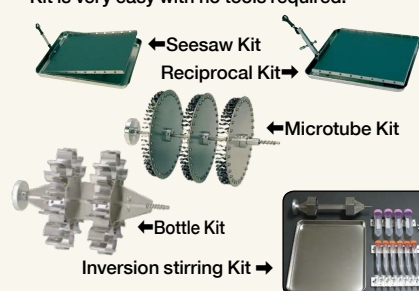
Stackable up to Three levels in HB series enables powerful support for Lab space saving. Simultaneous use of multiple persons by exchanging Kits. Mass processing used with Bottle kit in a limited space can be realized.

HB-60N, HB-80 and HB-100N stacked is shown below. The height 135cm even in Three levels stacked.



### Use depending among four kinds stirring method of vessels and various vessels by changing five kinds Kit.

Changing Shaking Kit enables to perform "Seesaw shaking/Reciprocal shaking/Orbital shaking". "Rotation" is applied for Bottle Kit and inverting stirring of Microtube. Replacement of Kit is very easy with no tools required.



### Possible for operation of small devices inside chamber.

When combined with small shaker or Rotator the scope of experiment will widen. Equipped with outlet inside changer for operation of devices. Plus power code can be drawn outside through Connection hole (Each device verified with operating it inside chamber by us/TAITEC).



Connection hole for small device (operation)

### Various mechanisms enable to raise usability

Equipped with functions/mechanisms such as Door locking and air volume control for stirring air inside chamber.



Door lock (iB-130/230)



Air flow Control (iB-130)



Solar cell-type temp. indicator (M-210FNseriesM-600FN)



Drip tray (Built in among some models)



# Hybridization Incubator HB-80/HB-100

**Enables to use depending between four kinds stirring method of vessels and various vessels by easy replaceable shaking platform. Two models by different temp. Stackable and Space saving.**

Bioshaker for High temp. Small size --> P.018, Middle size --> P.022 Shaking water bath for High temp. --> P.120  
Electrophoresis and Blotting devise --> P.160-164 Optional accessories --> P.136



Optional Seesaw Kit inside  
HB-80



Optional Bottle Kit inside  
HB-100

## Features

- Four stirring method of vessels by easy replaceable platform
- Stackable up to Three levels. The height 135cm even in Three levels stacked.
- HB-80 up to 80°C and HB-100 up to 100°C

## Applications

- Various Hybridizations
- Decoloration of Gel and Membrane
- Cultivation of Enzyme reaction and Thermophilic bacteria at High temp.

### 2-action Kit exchanging (Common in HB series)



Reciprocal/Seesaw Kit

Fix the platform at the bottom and Insert the drive shaft into the two holes on left side.  
See ①②③④ on page 136

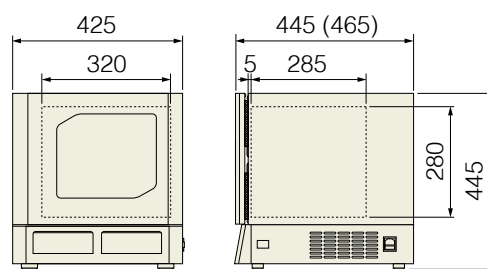


Bottle/Microtube Kit

Insert the shaft into the hole on right side and adjust the disk of shaft to the disk on left side.  
See ⑤⑥⑦ on page 136

### Dimensions (Common in HB series)

( ) : HB-60N



Model	HB-80	HB-100
Temperature range	8°C above RT to 80°C	8°C above RT to 100°C
Temp. control accuracy (*1)	±0.1°C to 0.2°C	
Shaking motion	Seesaw, Reciprocal and Rotation (Bottle rotated and Inversion stirring of Microtubes) by changing to Optional Shaking Kit.	
Shaking speed	5 to 60r/min	
Platform effective dim.	260 x 230mm	
Temp./Speed display	Digitally	
Timer	-	ON/OFF/ON-OFF (1min to 99min)
Heater	300W	
Circulating method inside chamber	Flow-type	Semi-Air jacket and Flow-type
Safe devices/protections	Fuse, Heater overheat double safety device, Motor overload stop, Electrical circuit over voltage/over current protection function (power supply cuts off), Temp. controller error self-diagnosis, Sensor error display, Notification when maintenance required (HB-100)	
Dimensions (W x D x H)	425 x 445 x 445mm	
Weight	Approx. 30kg	
Power supply	AC100V/4A	
Standard accessories	1 x Stackable bracket	

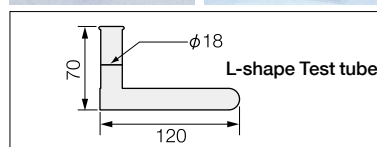
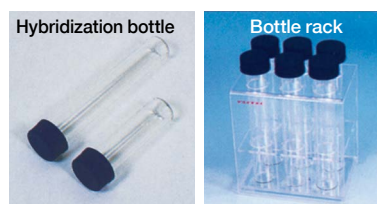
(\*1) The value under ambient temperature 25°C.

(\*2) Shaking Kit sold separately. Purchase any Shaking Kit separately (Any as a set can be sold. See page 136 for details).

### Optional accessories (Common in HB series) : L-shape Test tube, Hybridization bottle etc.

Product name/Model	Remarks	Qty
<b>Hybridization bottle (small) BT-3515</b>	Inner diameter $\phi 33 \times 150$ mm (Cap not included)	1pc
<b>Hybridization bottle (large) BT-3525</b>	Inner diameter $\phi 33 \times 250$ mm (Cap not included)	1pc
<b>Nylon mesh sheet 230</b>	230 x 230mm (*)	5pcs
<b>Bottle rack BL-4106</b>	Acrylic-made Stand for 6pcs of Bottle.	1pc
<b>Bottle rack BL-4108</b>	Acrylic-made Stand for 8pcs of Bottle.	1pc
<b>L-shape Test tube (10pcs included)</b>	Inner diameter $\phi 33 \times 120 \times 70$ mm with Lim	10pcs

(\*)Used as a spacer between membranes. Used by cutting it any size.



See page 136 for optional accessories

# Hybridization Defrost incubator HB-60N

**Low vibration, CFC Free, Energy saving Incubator. Maintains 37°C stable even in a room where A/C turned off. Used for various Hybridization, also Thawing at room temp. of samples and reagents.**

Electrophoresis and Blotting devise --> P.160-164 Optional accessories --> P.134, P.136

## Features

- CFC Free by Electronic heating and cooling with Peltier element
- Excellent Storage temp stability, Energy saving and Low vibration
- Four stirring method of vessels by easy replaceable platform

## Applications

- Various Hybridizations
- Thawing at room temp of samples and reagents
- Decoloration of Gel and Membrane

### TAITEC VOICE

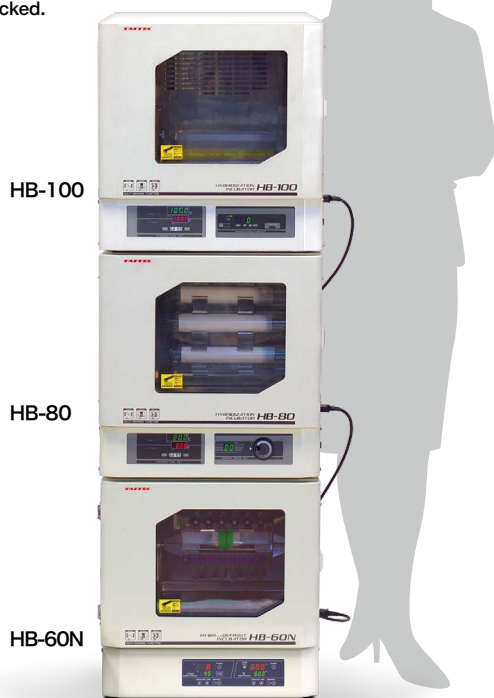
No compressor makes it Low vibration. Suitable for Constant temp. thawing of delicate solvents.



### Stackable up to Three levels. (Common in HB series)

Stackable up to Three levels in HB series enables powerful support for Lab space saving. Simultaneous use of multiple persons by exchanging Kits. Mass processing used with Bottle kit in a limited space can be realized.

HB-60N, HB-80 and HB-100N stacked is shown below  
The height 135cm even in Three levels stacked.



Optional Inversion stirring Kit inside HB-60N

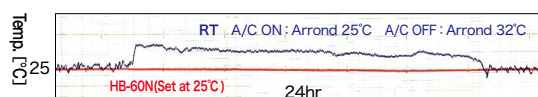
### CFC Free by Electronic heating and cooling with Peltier element

Peltier element enables heating and cooling from 15°C to 60°C. Use it for Hybridizations and Thawing at room temp of samples and reagents that can be done at this temp. range. ※ HB-80 (Up to 80°C) and HB-100 (Up to 100°C) recommended for Higher temp applications.

### Maintains 37°C stable even in a room where A/C turned off.

Peltier element enables heating and cooling from 15°C to 60°C. Use it for Hybridizations and Thawing at room temp of samples and reagents that can be done at this temp. range. As below line graph shows, room temp with air conditioner turned off fluctuates greatly (Blue line). Even under such circumstances, HB-60N maintains the set temp (Red line).

■ The chamber inside temp stability of HB-60N (set at 25°C) under change of room temp.



Model	HB-60N
Temperature range (*1)	15°C to 60°C (RT-10°C to RT+35°C)
Temp. control accuracy (*1)	±0.1°C to 0.2°C
Shaking motion	Seesaw, Reciprocal and Rotation (Bottle rotated and Inversion stirring of Microtubes) by changing to Optional Shaking Kit.
Shaking speed	5 to 60r/min
Platform effective dim.	260 x 230mm
Temp./Speed display	Digitally
Heating/Cooling method	Peltier element: 300W
Circulating method inside chamber	Flow-type
Safe devices/protections	Fuse, High temp., Overvoltage protection, Temp. error diagnosis, Breaking device when Hood open, Motor overload protection, Temp. controller error self-diagnosis, Sensor error display
Dimensions (W x D x H)	425 x 445 x 445mm
Weight	Approx. 32kg
Power supply	AC100V/4A
Standard accessories	1 x Stackable bracket

(\*1) The value under ambient temperature 25°C.

(\*2) Shaking Kit sold separately. Purchase any Shaking Kit separately (Any as a set can be sold. See next page for details).

See page 136 for optional accessories

● Protuberances not included in Dimensions. ● Vessels of photo not included.

We contribute to the development of research and industry.  
[ 2019-2020 General Catalog ] **TAITEC**

Selection guide

Constant temperature incubator shaker

CO<sub>2</sub> incubator shaker

Shaker

Mixer Rotator Stirrer

Bead beater homogenizer

Aluminum block bath Minimize bath

Water bath Shaking water bath Immersion cooler

Hybridization oven Constant temperature chamber

Centrifugal concentrator Cold trap

Freeze dryer

Electrophoresis and Blotting apparatus

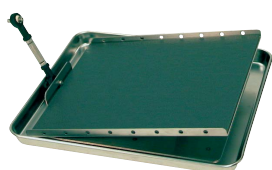
Constant temperature circulating system [Chiller]

Appendix

## HB Series optional accessories

● Main unit of Hybridization Oven/Constant temperature Defrost Shaking incubator → P.134/135  
● Monode Shaking with L-shape Test tube in Shaking Water bath → P.121/125

### ● Seesaw Shaking such as Hybridization Bag and L-shape Test tube



① Seesaw Kit



② Seesaw Kit + Monod Shaking platform

Enables Seesaw Shaking. The moving distance of liquid of Seesaw Shaking larger than that of Reciprocal Shaking when the same size. Seesaw Shaking better than Reciprocal Shaking when Hybridization Bag used. L-shape Test tube (sold separately) can be combined with Monod Shaking Platform (sold separately).

### ● Rotation of Hybridization Bottles

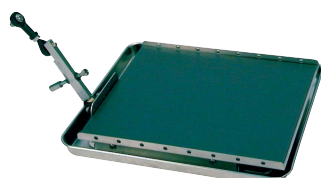


⑤ Bottle Kit

8pcs of Optional Hybridization Bottle (small/large) can be attached.

Even Commercial vessels that can be attached if the diameter and length can be fit.

### ● Reciprocal Shaking with Plastic containers and Petri dishes



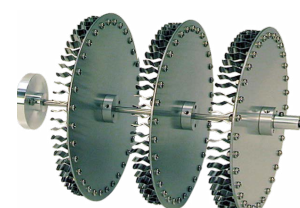
③ Reciprocal Kit



④ Reciprocal Kit +  
Reciprocal Multistage Shaking platform

Enables versatile Reciprocal Shaking. Can be widely used for Plastic containers and Petri dishes etc. It can be combined with Multistage Shaking platform (sold separately) that enables processing multiple samples simultaneously.

### ● Inversion stirring of Microtubes



⑥ Microtube Kit

Up to 96pcs of Commercial 1.5/2.0 ml Microtubes can be attached. Microtubes will be fixed in the direction being Inversion stirring.

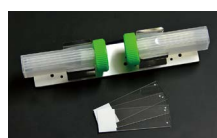
### ● Inversion stirring and Rotation of Micro Vials and Disposable Centrifuge tubes.

#### ⑦ Inversion stirring Kit

(Vessels not included)



Kit configuration  
Comes with 3 kinds and 3pcs of Tube holder.



The nails can be attached  
with changing in direction.

(Vessels and Slide glass  
not included)



Example of use

Shaking Kit			HB-80 set	HB-100 set
Product name	Model	Vessels/Capacity/Shaking angle etc.		
① Seesaw Kit	S-2623	Plastic container, Hybrid Bag etc. Angle : 4-step variation 7/8/11/15 °	HB-80S set	HB-100S set
② Seesaw Kit + Monode Shaking platform	S-2623 +MD-1818	Dedicated for L-shape Test tube (See page134) 16pcs (2-row x 8pcs) Angle : 4-step variation 7/8/11/15 °	HB-80SMD set	HB-100SMD set
③ Reciprocal Kit	R-2623	Plastic containers, Petri dishes etc. Shaking width : 4-step variation 18/25/30/40 mm	HB-80R set	HB-100R set
④ Reciprocal Kit + Reciprocal Multistage Shaking platform	R-2623 +WR-2520	Plastic containers, Petri dishes etc. Shaking width : 4-step variation 18/25/30/40 mm	HB-80RWR set	HB-100RWR set
⑤ Bottle Kit	B-4008	8pcs x Bottle In large sized Membranes, curl it off and put it in.	HB-80B set	HB-100B set
⑥ Microtube Kit	M-1596	96pcs(32pcs x 3) x 1.5/2.0mL Microtube (Tubes easy being attached just pinching it to the claw.)	HB-80 M set	HB-100M set
⑦ Inversion stirring Kit (*)	M-4000	Rotary shaft, Tray, 3pcs x M-0500, 3pcs x M-0150 and 3 x M-0150 come as a set. Capacity of vessels below(*)	HB-80M4 set	HB-100M4 set

(\*) Each Tube holder can be singly sold for additional. [M-0500 (for 4pcs of 50 ml Disposable Centrifuge tube: 3 pcs)] [M-0150 (for 6pcs x 15 ml Disposable Centrifuge tube: 3 pcs)] [8pcs x M-0015 (1.5/2.0 ml Microtubes etc.: 3 pcs)]. Up to 6pcs of Tube holders can be attached on the rotating shaft when no interference the vessels.



# Incubation Box HB-60N

**Benchtop-size Incubator for Microplates that does not occupy limited lab space. Useful for Reaction promoting such as ELISA.**

"Constant temperature Incubator shaker for Well plates/Microtubes" when shaking required. --> P.016

## Features

- Space saving, Compact size while Large storage space
- Six Microplates whole put in and out with rack
- Easy operation. Up to 5 of frequently used temperature can be memorized

## Applications

- Incubation in ELISA
- Incubation of Testing sample
- For applications using Microplates

### Applicable vessels

Comes with Aluminum Rack that can Six Microplates whole put in and out. Other vessels can be put inside when the rack not used.



### Memory Temperature setting

Up to Five frequently use temp. can be memorized. The set up more quick than djusting that of the numbers by up and down keys because just invoking it when using it.

### USER'S VOICE

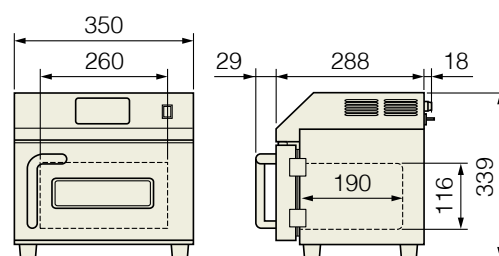
There was almost no handy air bath-type Incubator like this when I was a student. I think this one will help you Incubation work.



Model	M-055N
Temperature range	5°C above RT to 65°C
Temp. control accuracy (*1)	±0.1°C to 0.5°C
Capacity	6pcs x Microplate (2pcs x 3 levels)
Temp. setting method	UP/DOWN keys
Min. temp. setting unit	0.1°C
Temperature display	Digitally (Switchable Chamber temp./ Preset temp.)
Heater	190W
ON/OFF Timer	1 min to 99H59min
Memory Temp. setting	5 Memories + Set-Off Memory (6 Memories in total)
Safe devices/protections	Temperature Fuse (3A: Back of body), Thermostat, Sensor error (Cable breaking/Short circuit), High/Low temp. alarm (can be arbitrary setting), Memory error, DI error, Auto tuning error
Chamber Dimensions (W x D x H)	260 x 190 x 116 mm (Sensor part included)
Dimensions (W x D x H)	350 x 288 x 339mm
Weight	Approx. 13kg
Power supply	AC100V/3A
Standard accessories	1 x Aluminum Rack for Microplate (Capacity 6pcs)

(\*1) The value under ambient temperature 25°C.

### Dimensions



# In vitro Box iB-130/iB-230

**High quality and Energy saving as Refrigerator or Incubator. Flagship model Small/Middle-size Constant temp. chambers. Possible for operation of small devices inside chamber.**

Benchtop Compact Shakers --> P.054-059 Small-size Shakers --> P.062 Middle-size Shakers --> P.064  
Small-size Rotary Incubator (Rotator) --> P.081



Combination of  
iB-130/230, Shakers and Rotators



**Connecting hole**  
There are holes on both  
sides of the body for  
sensors, liquid delivery  
tubes etc. through.



**Drip tray**  
Comes with  
Drip tray for  
condensation water.  
Put under the unit.

## Features

- Most interior and exterior made of stainless steel. High quality Constant temp. Chamber
- Possible for operation of small devices inside chamber
- Three position temp. control method adopted [iB-230]

## Applications

- Storage of Samples and Reagents
- Cultivation and Immunoprecipitation putting Shaker or Rotator
- Protein Purification putting Chromatographic Column and Pump [iB-230]



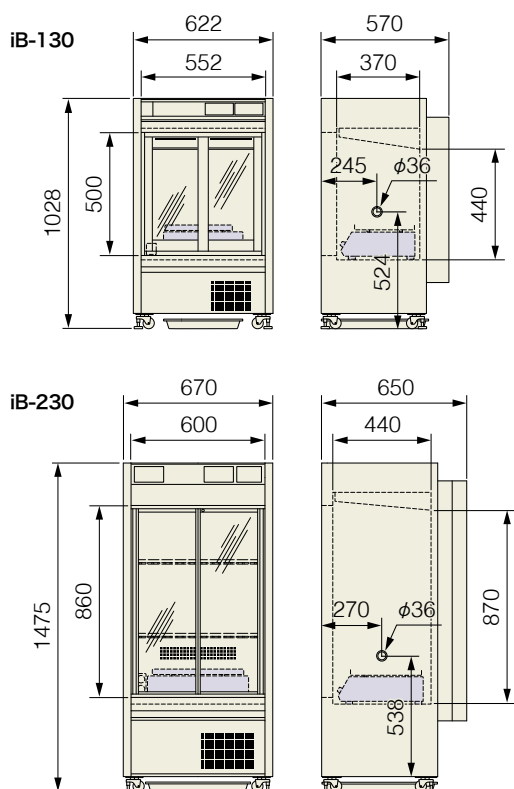
**Door lock**  
The door can be  
locked with the  
provided key.



**Air flow Control**  
Strengthen it when there  
is a lot of condensation  
and Weaken it when the  
sample dried (iB-130).

## Dimensions

The gray pars in the figure show Shaker NR-1/2/3 in iB-130 and Shaker NR-10/20/30 in iB-230. Reference for when it put inside chamber.



Model	iB-130	iB-230
Temperature range (*1)	3°C to 45°C	
Temp. control accuracy (*2)	±1.0°C to 2.0°C	
Chamber volume	Approx. 90L	Approx. 230L
Heater/Compressor	500W/80W	700W/130W
Outlet inside chamber	1 x 1-Socket (3A)	1 x 2-Socket (3A in total)
Connecting hole	On both sides (Each φ36 mm) Lid included.	
Circulating method inside chamber	Forced circulating-type (Manually adjustable on the operation part in iB-130 (*3))	
Num. of Shelf/Allowable weight	1 level/35kg (Equal weight)	2 levels/60kg each (Equal weight)
Interior/Exterior material	Stainless steel (SUS304) except for some part	
Safe devices/protections	Overload relay, Temp. sensor error diagnosis, Temp. range over alarm, Memory error alarm, Compressor High temp. cut circuit	
Dimensions inside chamber	552(W) x 370(D) x 440(H)mm	600(W) x 440(D) x 870(H)mm
Int. Dimension	622(W) x 570(D) x 1028(H)mm	670(W) x 650(D) x 1475(H)mm
Weight	Approx. 60kg	Approx. 90kg
Power supply (*4)	AC100V/8A	
Standard accessories	1 x Shelf (iB230: 2 Shelves), 1 x Pallet, 1 x Drip tray, 1 x Door key (iB230: 2 Door keys)	

(\*1) Defrosting required once a week when continuous operation at 3°C in iB-130.

(\*2) Useable ambient temperature 5°C to 30°C. The accuracy not include fluctuation when switching the solenoid valve not included.

(\*3) Strengthen it when there is a lot of condensation and Weaken it when the sample dried.

(\*4) When the outlet inside chamber used the power will increase according to the power supply capacity of device used.

● 1 set of Shaker NR-1/2/3 can be put on the bottom of chamber in iB-130 and 1 set of Shaker NR-1/2/3 can be put there in iB-230. There is a limitation on shaking speed for use. Described for details in the manual of these products. Any devices that not generate large vibrations such as Rotor or Seesaw shaker can be used on the shelf (Each device verified with operating it inside chamber by us/TAITEC).

## Optional accessories: Shelves (for addition)

Product	Remarks
<b>Shelf Set for iB-130</b>	Shelves and Shelf holders for i-130 : 1 set
<b>Shelf Set for iB-230</b>	Shelves and Shelf holders for i-230 : 1 set

● Number of mounting are up to 2 pcs in iB130 and up to 3pcs in iB-230 for practical use.



# Incubation Box M-210FN/M-210FN Light irradiation

*The double glass door both heat insulation and visibility that makes it easy to use. Light irradiation-type and Chromatographic column rack available as an option.*

Incubator Shaker with LED irradiation --> P.024 LED irradiation unit --> P.037 Benchtop Compact Shakers --> P.054-059 Small-size Rotary Incubator (Rotator) --> P.081

## Features

- Most interior and exterior made of stainless steel
- Fluorescent light irradiation-type and Chromatographic column rack available
- Possible for operation of small devices inside chamber

## Applications

- Storage of Samples and Reagents
- Cultivation and Immunoprecipitation putting Shaker or Rotator
- Temperature control of Chromatographic column [Option]

The display of temp. inside chamber (Solar cell-type temp. indicator)



The temp. inside chamber displayed on the solar battery-type indicator (a button battery built in). The temp. can be seen even when power failure.

Model	M-210FN	M-210FN Light irradiation
Temperature range	0°C to 45°C	10°C to 45°C
Temp. control accuracy (*1)	±1.0°C to 2.0°C	
Illuminance	-	Approx. 8000 lx (*2)
Number of Fluorescent lamp	-	4pcs x 32W
Chamber volume	Approx. 392L	
Heater	200W	
Compressor	200W (Automatic defrosting function, ON/OFF can be arbitrary turned)	
Outlet inside chamber/Connecting hole	Outlet: 1 x 2-socket (Drip-proof-type, 5A in total) Connecting hole: Left side (φ36 mm)	
Circulating method inside chamber	Forced circulating-type	
Num. of Shelf/Allowable weight	3 levels/50kg each (Equal weight)	
Interior/Exterior material	Stainless steel (except for some part)	
Shelf Dimensions	460 x 615mm (The deep of shelf of Light irradiation type narrow: 330mm)	
Dimensions inside chamber	494(W) x 646(D) x 1416(H)mm	
Int. Dimension	600(W) x 800(D) x 1905(H)mm	
Weight	Approx. 103kg	Approx. 112kg
Power supply (*3)	AC100V/6.5A	AC100V/9A
Standard accessories/Others	3 x Shelf, 1 x Pallet, 1 x Drip tray, Drainage trap on the bottom	

(\*1) The value under ambient temperature 25°C. Useable ambient temperature is 5°C to 30°C.

(\*2) The value under 50Hz about 200mm away from fluorescent lamp. Timer for fluorescent lamp can be installed as an option.

(\*3) When the outlet inside chamber used the power will increase according to the power supply capacity of device used.

● The specs of M-210FN LED irradiation subject to change depending on the production date.



M-210FN

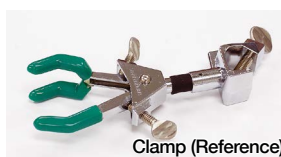


M-210FN  
Light irradiation-type

Fixing Chromatography column to Chromatographic stand (sold separately)



Chromatographic  
Rack installed

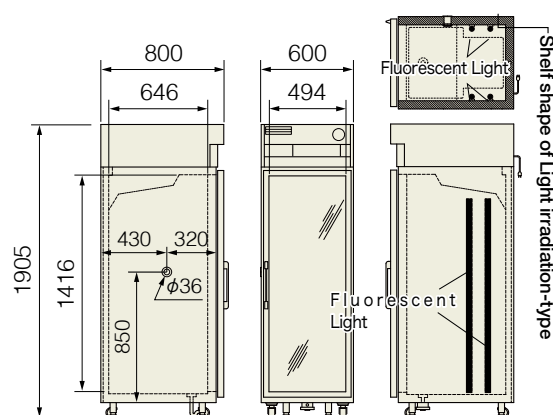


Clamp (Reference)

Optional Chromatographic column Rack consists only self-supporting column. Prepare Clamps etc. separately to fix Chromatographic column.

## Dimensions

Right side figure and Top view figure show Chamber inside shape of M-210FN Light irradiation.



## Optional accessories: Rack for Chromatographic column

Product	Remarks
<b>Chromatographic Rack</b>	Holders that install Clamps to fix Chromatographic column. Prepare Clamps separately.
<b>M-210FN Chromatographic Set</b>	The set for Main unit and Chromatographic column Rack.

# TAITEC Chromatographic Chamber M-600NF

*The double glass door both heat insulation and visibility. Stores Samples and Reagents on shelves while holds Chromatographic column utilizing the large capacity. Possible for operation of small devices inside.*

Benchtop Compact Shakers --> P.054-059 Small-size Rotary Incubator (Rotator) --> P.081



## Features

- Most interior and exterior made of stainless steel
- Comes with Shelf net and Chromatographic column Rack (holders)
- Possible for operation of small devices inside chamber

## Applications

- Temperature control of Chromatographic column
- Storage of Samples and Reagents
- Cultivation and Immunoprecipitation putting Shaker or Rotator

**Fixing Chromatographic column to Chromatographic Rack (sold separately)**



Clamp (Reference)

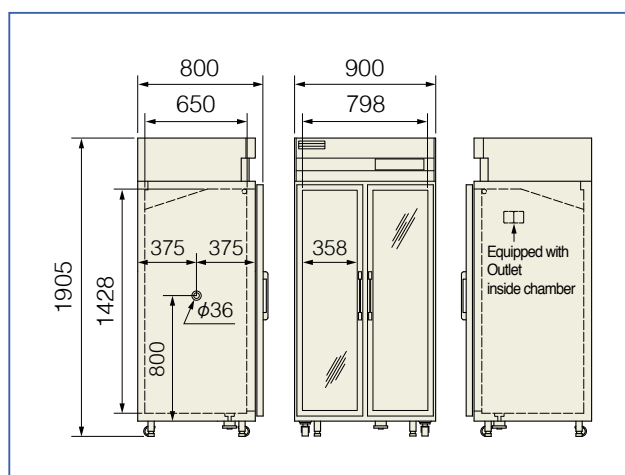
Included Chromatographic column Rack consists only self-supporting column. Prepare Clamps etc. separately to fix Chromatographic column.

**The display of temp. inside chamber (Solar cell-type temp. indicator)**



The temp. inside chamber displayed on the solar battery-type indicator (a button battery built in). The temp. can be seen even when power failure.

## Dimensions



Model	M-600NF
Temperature range	0°C to 45°C
Temp. control accuracy (*1)	±1.0°C to 2.0°C
Chamber volume	Approx. 642L
Heater	200W
Compressor	200W (Automatic defrosting function, ON/OFF can be arbitrary turned)
Outlet inside chamber	Outlet: 1 x 2-Socket (Drip-proof-type, 5A in total)
Connecting hole	Left side (φ36 mm)
Circulating method inside chamber	Forced circulating-type
Num. of Shelf/Allowable weight	2 rows x 3 levels/50kg each (Equal weight)
Interior/Exterior material	Stainless steel (except for some part)
Dimensions inside chamber	798(W) x 650(D) x 1428(H)mm
Shelf Dimensions	330 x 615mm (2 pcs can be installed per one level)
Int. Dimension	900(W) x 800(D) x 1905(H)mm
Weight	Approx. 120kg
Power supply (*2)	AC100V/6.5A
Standard accessories/ Others	6 x Shelf, 2 x Pallet, 1 x Drip tray, 1 x Assembly-type Chromatographic Rack, Drainage trap on the bottom

(\*1) The value under ambient temperature 25°C. Useable ambient temperature is 5°C to 30°C.

(\*2) When the outlet inside chamber used, the power will increase according to the power supply capacity of device used.

● Short circuit breaker etc. can be installed as an option.