

ilShinBioBase

Since 1988



Product Inquiry

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ilShinBioBase Locations

Base	Address	Telephone	Fax
본사 및 생산	경기도 동두천시 삼육사로 548번길 84	031-867-1384	070-7950-3911
서울/경기지사	서울특별시 중랑구 중랑천로 77	1577-4053	02-491-4073
수원지사	경기도 화성시 봉담읍 갈담초교길 113	031-298-8147	031-298-8149
대전지사	대전시 유성구 학하북로 25	042-824-1145/6	042-824-1147
영남지사	대구광역시 동구 동호로 75, 4F	070-4354-3977/5000	070-7950-3941
호남지사	전라북도 전주시 덕진구 안전로 108-4(중동)	063-237-5122	063-237-5123

Global website: www.1sbb.com

KOSDAQ

ULTRA LOW TEMPERATURE FREEZERS -90°C

DEEP FREEZER

QUICK FREEZER

BLOOD BANK REFRIGERATOR

PHARMACEUTICAL REFRIGERATOR

ICE MAKER

SHAKER



iShinBioBase
Since 1988

DEEP FREEZER

JABA SERIES

[JABA] Series

New JABA series of Cryo-Pride is equipped with cutting edge COSCOM (Combination Of Single Compressor Operation Mode) technology by two independent compressor mechanisms.

Combination of VIP (Vacuum Insulation Panel) and insulation by high pressure injection enable maximum insulation as well as lowest energy consumption for keeping your valuable samples with maximum safety. Auto Cascade system with COSCOM technology protects your samples from any risk other than blackout. With low noise and all time monitoring "Blackbox" service, our JABA series shall be successful companion of your comfortable research.



Main Features

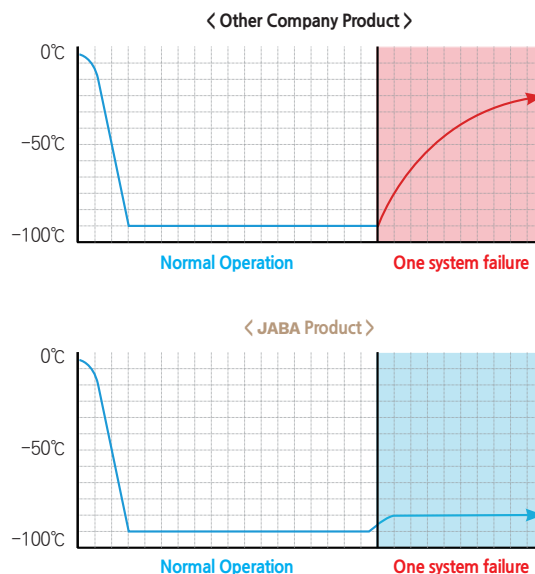
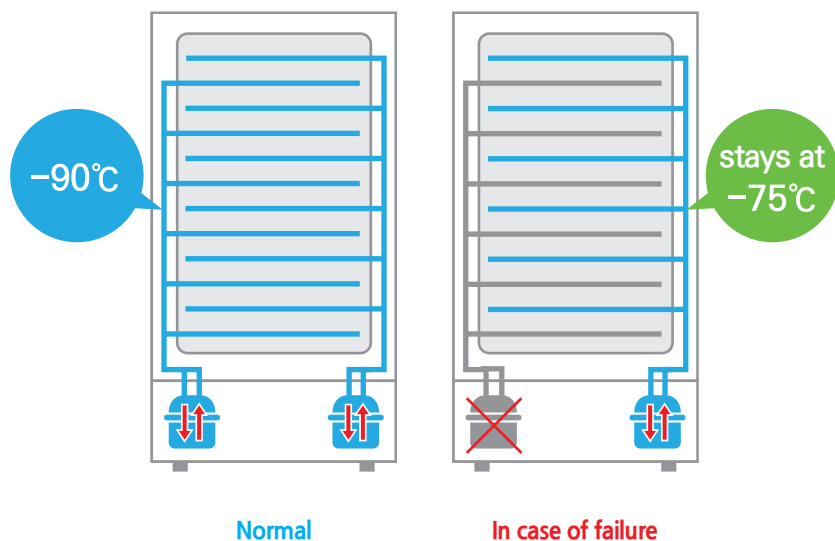
JABA SERIES

No worries, No hassles in any emergency—

1. INDEPENDENT COOLING SYSTEM

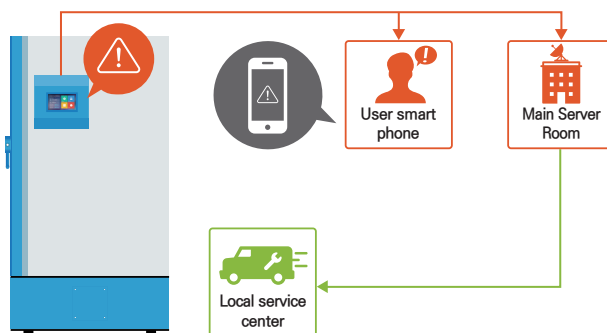
◆ COSCOM System

Two independent cooling mechanisms. One cooling systems maintains -75°C in case of system failure.



2. 24/7 real time monitoring **BLACK BOX** service

GLOBAL REAL TIME CARE SERVICE



Remote monitoring by Internet of things technology

Manufacturer's central monitoring server gives 24/7 real time monitoring by IoT technology. In case of any event, server gives notices to user and designated service team.

Central server monitoring data

1. **Temperature:** Chamber temperature of the freezer
2. **Trend information:** Temperature variation for last 24 hours
3. **Alarm event:** Compressor over temperature, compressor over current, system overheat, temperature sensor failure, power off, low voltage, cold alarm, warm alarm and door open alarm.

Prompt and proactive action

User can find any events by application of smart phone. Diagnosis and corrective action are noticed.

*App. OS: Android 2.3 (Gingerbread) or above, IOS 9.2 or above

Any event alarm goes to user's smart phone and to main server. Main server shall review history data of the unit and prompt diagnosis is executed. Service action is instructed proactively!

< Conventional service protocol >

Step	Processing details
1	Checking symptoms
2	Service request
3	Engineer field visit and diagnosis
4	Service parts request
5	Engineer visit for repair
6	System reactivated

Complication, time consumption

< New JABA service protocol >

Step	Processing details
1	Event happens, service instruction provided
2	
3	
4	
5	
6	Completion of service

No hassle, Non-Stop service!

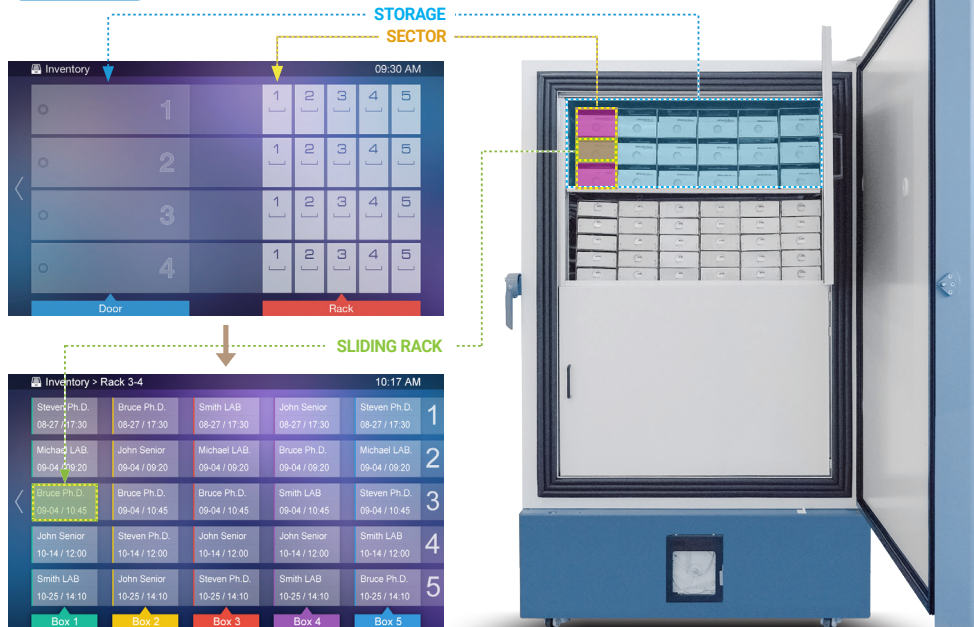
No need for searching your samples!

3. INVENTORY MANAGING SYSTEM



Inventory system

- Digital memo function for sample storage location.
- Energy saving with minimized door open time.



4. Without loss of cold air- 5-LAYERED GASKET



5-LAYERED GASKET

- 5 layer gasket (3 at body, 1 at inner door, 1 at external door) enhances energy saving by preventing chamber from loss of cold air.



5. data review by touch and scroll- TREND DATA

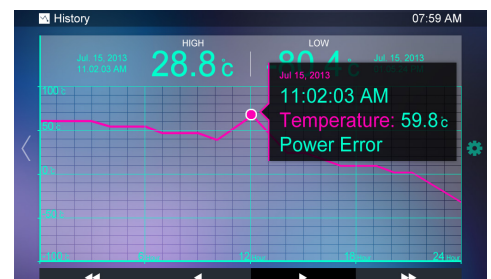
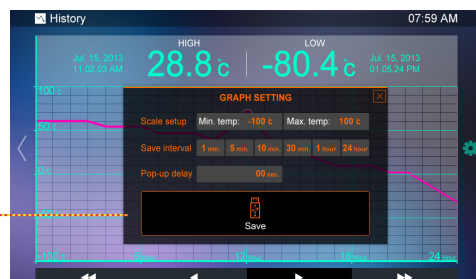


Graph

- Review on the screen over 43,000 hours past trend.
 - USB download of data is available.
- *Recommended specification: Please use usb memory less than 16GB, FAT32 format.



SAVE



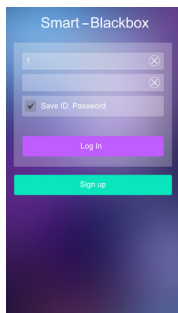
6. monitoring in your hand- MOBILE CONTROL

Mobile remote control

Monitoring and control by mobile application is available with your computer, Lap top, smart phone or tablet PC.

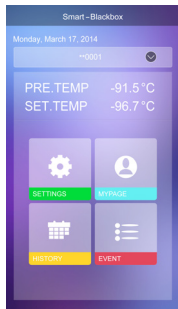


CONTROL SYSTEM MOBILE APPLICATION



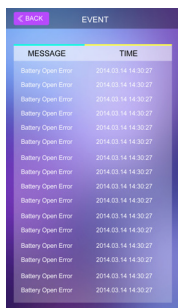
* Log in

Mobile App account open and log in.



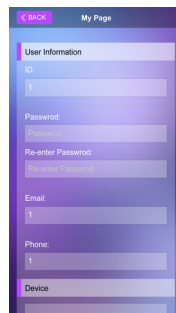
* Main

Setup, My page, Temperature graph, Event menu. Real time monitoring page.



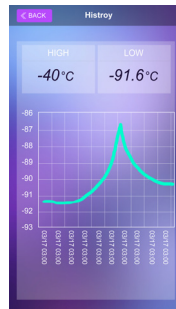
* Event

Alarm events display and review.



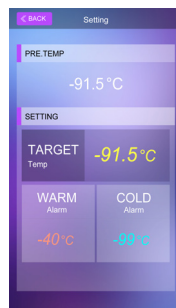
* My page

Registration of user unit. Service authorization.



* History

Present data and trend data for last 43,000 hours on screen.



* Setting

Parameter setup, password setup and authorization control.

Better protection and lower energy consumption!

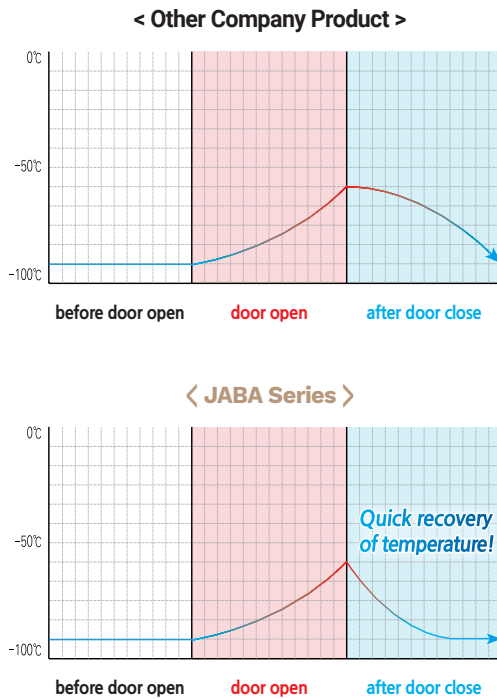
7. POWERFUL INSULATION



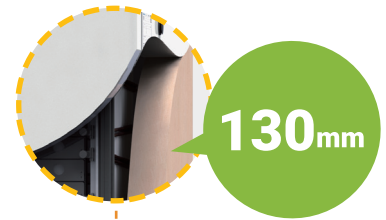
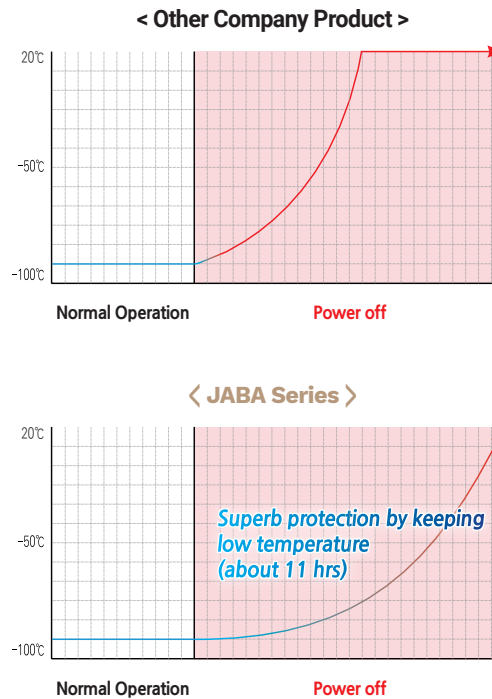
Improved insulation

Combination of VIP and PU provides better insulation that enables fast recovery of chamber temperature.

Temperature change before and after door open/close



Temperature variation during power off



< Other Company Product >



< JABA >

Only 1 minute for reopening the door –

8. AUTOMATIC VACUUM RELEASE DEVICE



Automatic Vacuum Release Device

Formed vacuum after door closing is automatically released to shorten the lead time for reopening the door from 2~30 min to 1 min.



Don't get bothered by loud noise anymore

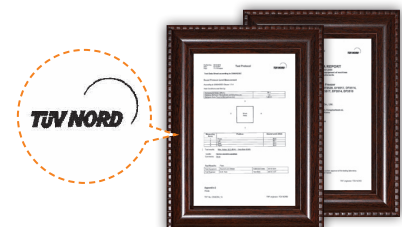
9. LOW NOISE STRUCTURE



Designed for low noise

Comfortable work environment is provided.
Noise level is as low as home refrigerator.

Low noise below 55.1dB(A)



< TUV NORD Performance Certificate >

DEEP FREEZER

GUDERO PLUS SERIES

[GUDERO PLUS] Series

Gudero Series was introduced in 1988 and has been upgraded since then. New Gudero Plus Series is equipped with COSCOM technology for double safety and robust quality. Easy user interface is beneficial for long term depository by simplified control parameters with only 3 buttons.



Main Features

GUDERO PLUS SERIES



Independent cooling mechanisms

1. DOUBLE SAFETY

*COSCOM system

Even with failure of one compressor, temperature is still maintained at -80°C.

Easy Control by 3 Buttons

2. SIMPLIFIED CONTROL SYSTEM

*Micro process control system

Gudero Plus is optimal for long term bio-depository with easy user interface and simplified performance.

No worries about overheat or dust accumulation!

3. PIN-LESS CONDENSATION SYSTEM

*Pin-less

No need for cleaning, no need for filter replacement. Compressor overheat is prevented.

DEEP FREEZER

GUDERO CHEST SERIES

[GUDERO CHEST] Series

Gudero Chest Series is optimal for long term storage of large size samples at the range of $-90^{\circ}\text{C} \sim -120^{\circ}\text{C}$.

$-10^{\circ}\text{C} \sim -120^{\circ}\text{C}$ Gudero Chest lineup is with reliable cascade refrigeration technology. With accumulated know-how, micro process control system provides easy and hassle free long term bio-depository solution.



Main Features

GUDERO CHEST SERIES

Light and handy

1. POLYETHYLENE INNER DOOR

Light and handy inner doors make your research more comfortable.



Self-diagnosis function, smart & easy maintenance

2. SELF-DIAGNOSIS FUNCTION

Temperature and voltage parameters are monitored and alarm is generated at any emergency situation.

Temperature check by one glance

3. MONITORING SYSTEM

RS-232 and 485 communication port allows real time monitoring by personal computer.



GUDERO - CHEST

DEEP FREEZER

POCKET SERIES

[POCKET] Series

New compact Pocket series is suitable for your private sample storage. VIP and simple economic design allow you to enjoy comfortable and convenient storage with energy efficiency.

Easy stacking is possible with optional choice of moving wheels. Service port for back up device is available.



Main Features

POCKET SERIES

1. COMPACT DESIGN

Convenient access

Table top or under counter storage is possible even with small space. Fast and easy access is privilege of Pocket series.



2. 2nd STACKING

If you need more storage?

Easy build up without need of more space.

POCKET TYPE



QUICK FREEZER

QDF SERIES

[QUICK FREEZER]

General use of deep freezer is long term storage of samples but special samples such as blood and specific reagents need prompt freezing for keeping their properties.

QDF Series is optimal solution for fast and reliable freezing without chance of any damage on your samples.



Main Features

QUICK FREEZER

Powerful & fast freezing system

1. FAST FREEZING SYSTEM

Specially designed refrigeration system and powerful ventilation pull down from 20°C to -40°C within 1 hour.

Perfect insulation

3. 4 LAYER GASKET

3 layers on chamber side and 1 on door side, minimizing loss of cold air.

Rail type air hole drawer with enough space

2. REMOVABLE RAIL DRAWER

Rail type drawer with air hole enables good circulation of cold air. Convenient way of categorized sample storage.



DETAIL & FEATURES

DEEP FREEZER



Smart Monitoring Application

24/7 monitoring available on your smart phone. Proactive notice from command room in case of alarm event.

Optional



Finger Print Door Lock

Enhanced security: by finger print registration or by card key.



Inner door for compartment

Minimizing cold air loss by HDPE inner door with each compartment.



Powerful insulation

High pressure injected POLY URETHANE with 130mm thickness keeps temperature less than 3°C between chamber inside and outer wall.



Control panel

- 1) TFT LCD 7" Touch Screen
- 2) Smart Microprocessor control



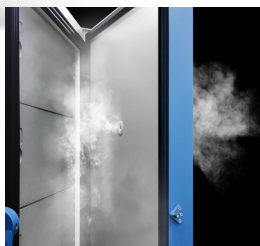
Sliding Rack

Convenient storage by separated racks with sliding mode.



Anti-explosion door lock

Auto relief system(open & close) works in case of high pressure formed inside of chamber. Key set is provided for locking function.



Vacuum release device

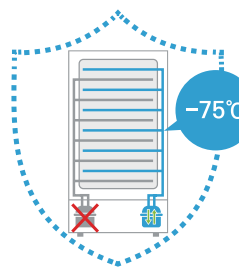
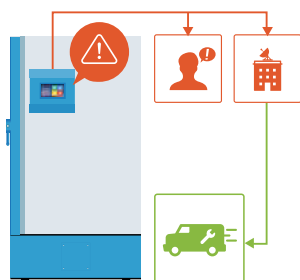
Saving vacuum release time from 20~30 minutes to 1 minute for re-opening the door.

Black Box

Manufacturer's central monitoring server gives 24/7 real time monitoring by IoT technology. In case of any event, server gives notices to user and designated service team.

< CENTRAL SERVER MONITORING DATA >

1. **Temperature:** chamber temperature of the freezer.
2. **Trend information:** temperature variation for last 24 hours.
3. **Alarm event:** compressor over temperature, compressor over current, system overheat, temperature sensor failure, power off, low voltage, cold alarm, warm alarm and door open alarm.



Coscom system (Combination of single compressor operation mode)

Even with failure of one compressor, temperature is still maintained at -75°C. Fast pull down to -90°C and energy efficient ECO mode.

SPECIFICATIONS

DEEP FREEZER SERIES

JABA Series

Series	DF8510	DF8514	DF8517	DF8520	DF8524	DF8530
Capacity	276 liters	369 liters	484 liters	605 liters	730 liters	832 liters
Ext. Dimensions (WxDxH mm)	920 x 805 x 1660	920 x 805 x 1980	920 x 955 x 1980	1070 x 955 x 1980	1227 x 957 x 1980	1227 x 985 x 1980
Int. Dimensions(WxDxH mm)	600 x 480 x 970	600 x 480 x 1290	600 x 630 x 1290	750 x 630 x 1290	890 x 635 x 1290	890 x 725 x 1290
Temperature Range (°C)	-60°C ~ -90°C					
Shelf	2 ea	3 ea(hdpe)			3 ea(sts)	
Insulation	130 mm Non CFC, foamed in place polyurethane with VIP					
Electrical	110V, 220V 60Hz, 230V 50Hz					
Certification	ISO9001 / ISO14001 / ISO13485 / CE / KGMP / ETL					
Weight (kg)	256	279	307	340	378	410
Refrigeration	2 x 1.25 HP					
2" Cryo Boxes	15 boxes x 12 racks	15 boxes x 16 racks	20 boxes x 16 racks	20 boxes x 20 racks	20 boxes x 24 racks	25 boxes x 24 racks
3" Cryo Boxes	9 boxes x 12 racks	9 boxes x 16 racks	12 boxes x 16 racks	12 boxes x 20 racks	12 boxes x 24 racks	15 boxes x 24 racks
2" Boxes/Freezer	180 boxes	240 boxes	320 boxes	400 boxes	528 boxes	660 boxes

*Voltage range: 110V(100-120), 220V(208-230), 230V(220-240)

GUDERO UPRIGHT Series

Series	DF3510	DF3514	DF3517	DF3520	DF3524	DF3530
Capacity	276 liters	369 liters	484 liters	605 liters	730 liters	832 liters
Ext. Dimensions (WxDxH mm)	920 x 805 x 1660	920 x 805 x 1980	920 x 955 x 1980	1070 x 955 x 1980	1227 x 957 x 1980	1227 x 985 x 1980
Int. Dimensions(WxDxH mm)	600 x 480 x 970	600 x 480 x 1290	600 x 630 x 1290	750 x 630 x 1290	890 x 635 x 1290	890 x 725 x 1290
Temperature Range (°C)	-10°C ~ -35°C					
Shelf	2 ea	3 ea(hdpe)			3 ea(sts)	
Insulation	130 mm Non CFC, foamed in place polyurethane with VIP					
Electrical	110V, 220V 60Hz, 230V 50Hz					
Certification	ISO9001 / ISO14001 / ISO13485 / CE / KGMP					
Weight (kg)	212	233	260	291	326	360
Refrigeration	1 x 1.25HP					
2" Cryo Boxes	15 boxes x 12 racks	15 boxes x 16 racks	20 boxes x 16 racks	20 boxes x 20 racks	20 boxes x 24 racks	25 boxes x 24 racks
3" Cryo Boxes	9 boxes x 12 racks	9 boxes x 16 racks	12 boxes x 16 racks	12 boxes x 20 racks	12 boxes x 24 racks	15 boxes x 24 racks
2" Boxes/Freezer	180 boxes	240 boxes	320 boxes	400 boxes	528 boxes	660 boxes

GUDERO PLUS-UPRIGHT Series

Series	DF8510	DF8514	DF8517	DF8520	DF8524	DF8530
Capacity	276 liters	369 liters	484 liters	605 liters	730 liters	832 liters
Ext. Dimensions (WxDxH mm)	920 x 805 x 1660	920 x 805 x 1980	920 x 955 x 1980	1070 x 955 x 1980	1227 x 957 x 1980	1227 x 985 x 1980
Int. Dimensions(WxDxH mm)	600 x 480 x 970	600 x 480 x 1290	600 x 630 x 1290	750 x 630 x 1290	890 x 635 x 1290	890 x 725 x 1290
Temperature Range (°C)	-60°C ~ -90°C					
Shelf	2 ea	3 ea(hdpe)			3 ea(sts)	
Insulation	130 mm Non CFC, foamed in place polyurethane with VIP					
Electrical	110V, 220V 60Hz, 230V 50Hz					
Certification	ISO9001 / ISO14001 / ISO13485 / CE / KGMP / ETL					
Weight (kg)	240	262	289	320	355	390
Refrigeration	2 x 1.25HP (1 x 1.25HP)					
2" Cryo Boxes	15 boxes x 12 racks	15 boxes x 16 racks	20 boxes x 16 racks	20 boxes x 20 racks	20 boxes x 24 racks	25 boxes x 24 racks
3" Cryo Boxes	9 boxes x 12 racks	9 boxes x 16 racks	12 boxes x 16 racks	12 boxes x 20 racks	12 boxes x 24 racks	15 boxes x 24 racks
2" Boxes/Freezer	180 boxes	240 boxes	320 boxes	400 boxes	528 boxes	660 boxes

*Feature in parenthesis is optional and selectable by customer.

GUDERO-CHEST Series

Series	DF4510	DF4517	DF9010	DF9017	DF12010
Capacity	295 liters	492 liters	295 liters	492 liters	295 liters
Ext. Dimensions (WxDxH mm)	1590 x 790 x 1030	2180 x 790 x 1030	1590 x 790 x 1030	2180 x 790 x 1030	1590 x 790 x 1030
Int. Dimensions (WxDxH mm)	870 x 500 x 670	1470 x 500 x 670	870 x 500 x 670	1470 x 500 x 670	870 x 500 x 670
Temperature Range (°C)	-10°C ~ -45°C		-40°C ~ -90°C		-80°C ~ -120°C
Insulation	130 mm Non CFC, foamed in place polyurethane with VIP				
Electrical	110V , 220V 60Hz , 230V 50Hz				
Certification	ISO9001 / ISO 14001 / ISO 13485 / CE		ISO9001 / ISO14001 / ISO13485 / CE / KGMP		
Weight (kg)	207	257	236	286	280
Refrigeration	1 x 1.25HP		2 x 1.25HP		2 x 1.5HP
2" Cryo Boxes	12 boxes x 18 racks	12 boxes x 30 racks	12 boxes x 18 racks	12 boxes x 30 racks	12 boxes x 18 racks
3" Cryo Boxes	8 boxes x 18 racks	8 boxes x 30 racks	8 boxes x 18 racks	8 boxes x 30 racks	8 boxes x 18 racks
2" Boxes/Freezer	216 boxes	360 boxes	216 boxes	360 boxes	216 boxes

POCKET Series

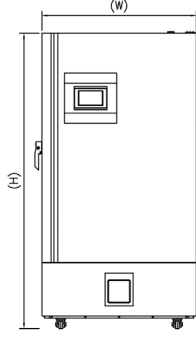
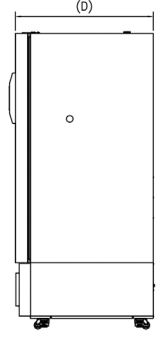
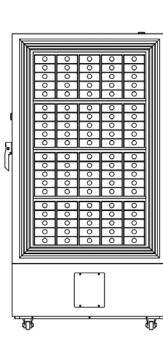
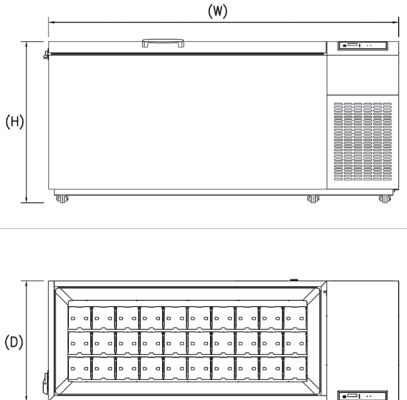
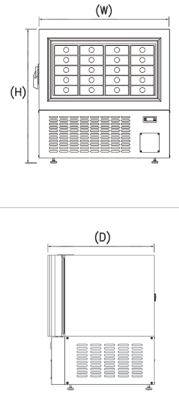
Series	DF8502	DF8503
Capacity	40 liters	80 liters
Ext. Dimensions (WxDxH mm)	470 x 620 x 780	770 x 620 x 780
Int. Dimensions (WxDxH mm)	300 x 440 x 300	600 x 440 x 300
Temperature Range (°C)	-60°C ~ -80°C	
Insulation	High Density polyurethane with VIP	
Electrical	110V, 220V 60Hz, 230V 50Hz	
Certification	ISO9001 / 14001 / 13485 / CE / ETL	
Weight (kg)	79	99
Refrigeration	3/8 HP	5/8 HP
2" Cryo Boxes	15 box x 2 racks	15 box x 4 racks
3" Cryo Boxes	9 box x 2 racks	9 box x 4 racks
2" Boxes/Freezer	30 boxes	60 boxes

QUICK FREEZER

Series	QDF4517
Capacity	484 liters
Ext. Dimensions (WxDxH mm)	920 x 955 x 1980
Int. Dimensions (WxDxH mm)	600 x 630 x 1290
Temperature Range (°C)	-10°C ~ -40°C
Insulation	130 mm Non CFC, foamed in place polyurethane with VIP
Electrical	380V, 3Ph, 60Hz
Certification	ISO9001 / 14001 / 13485 / KGMP
Weight (kg)	307
Refrigeration	5 HP
Drawers/Freezer	total 11 Drawers

*Voltage range: 220/380V, 3Ph, 50/60Hz

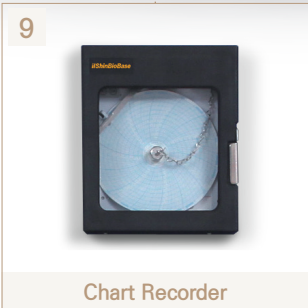
DIMENSIONS & STORAGE CAPACITY Preview

UPRIGHT - FRONT	UPRIGHT - SIDE	UPRIGHT - CAPACITY	CHEST	POCKET
				

*Stainless steel option: All models have the option for a stainless steel interior. Please add "S" behind the model number to order stainless steel interior, (for example DF 8524S)

CONFIGURATION

for FREEZER SYSTEM



ACCESSORIES

for FREEZER SYSTEM



Rack Series

Item NO.	Boxes Size	Quantity	Purpose
CR0060	2"	12	for Chest Freezer
CR0061	3"	8	
SR0062	2"	15	Upright Freezer xx02, xx03, xx10, xx14
SR0063	3"	9	
SR0064	2"	20	Upright Freezer xx17, xx20, xx24
SR0065	3"	12	
SR0066	2"	25	Upright Freezer xx30
SR0067	3"	15	



Storage Box & Divider

Series NO.	Boxes Supplied
FB0060	2" Fiberboard
FB0061	3" Fiberboard
PP0060	2" Plastic, 81 cell divider
PP0061	3" Plastic, 49 cell divider
DV0049	16mm 49 cell
DV0064	14mm 64 cell
DV0081	13mm 81 cell
DV0100	12mm 100 cell



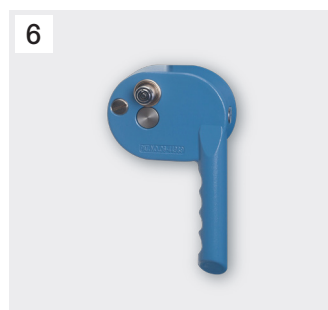
Security Finger Print & Card Access Control System

Series NO.	Description
SCA0002	Enhanced security by finger-print and access card key to improve D.A.S function.



CO₂ / LN₂ Back-up & CO₂ Bombe

Series NO.	Description
LC0070	CO ₂ back-up system with battery and temperature display
LN0070	LN ₂ back-up system for protection of samples from emergency situation (black out, temperature drop)
CO2000	Carbonic Acid gas tank 20KG/CAN: Siphon included, Unit: 20KG/CAN



Safety Door Lock Device

Series NO.	Description
SD4989	Auto relief system(open & close) works in case of high pressure (above 0.0008kg/cm ²) formed inside of chamber. Key set is provided for locking function.



Voltage Booster

Series NO.	Description
VB0081	Boosting voltage under low voltage environment (AC15V)



Dialing System

Series NO.	Description
DS0119	Wireless sensor based emergency protection by giving alarms up to 5 points telephone numbers or messages.



Chart Recorder

Series NO.	Description
CH0067	Temperature recorder. 24/7 day circular chart recorder



Digital Recorder

Series NO.	Description
KRN50	Digital recorder for temperature trend



Safety Glove

Series NO.	Description
GL0005	Protection from frost bite



AVR Device

Series NO.	Description
AVR0003 AVR0005	Regulating voltage supply under unstable voltage environment

REFRIGERATOR BLOOD BANK

BB0123, 0150 SERIES

[BLOOD BANK]

Introducing Blood Bank complying with medical instrument regulation, with reliability by precise Micro-process control and comfortable space with easy handling drawers, this is essential solution for blood storage with ultimate credibility.



Main Features

BLOOD BANK SERIES



BLOOD BANK - BB0123

Carrying sample with it

1. REMOVEABLE RAIL DRAWER

Inner space is separated by compartment, available for classified storage of various blood backs. Air holes at the bottom of each drawer allow effective air circulation. Removable drawer is convenient for sample transfer with minimal door open time.

Maintain temperature by two fan system

2. AIR CIRCULATION SYSTEM

Built-in two fans keep strong circulation and quickly recover target temperature even after numerous times of door open.



REFRIGERATOR PHARMACEUTICAL

CC0123, 0150 SERIES

[PHARMACEUTICAL REFRIGERATOR]

CC series with strong refrigeration system is optimal for safe storage of reagents and pharmaceutical products such as vaccines that require regulated storage compliance. CC series comply with high standard medical grade requirements.

High quality stainless steel exterior/interior prevents from any chance of contamination. Stable management on temperature by micro-process controller is the essence of CC series and low noise and convenient user interface are other advantages. Visibility on temperature variation, blackout and voltage problem and various event/alarm features enhance safety of your storage.



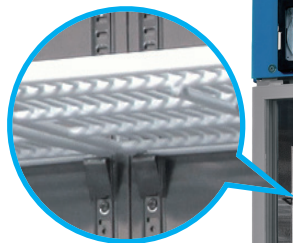
Main Features

PHARMACEUTICAL SERIES

Up and down as you wish

1. REMOVABLE COATING SHELF

Storage compartment is adjustable by removable shelves for various heights of container. Every shelf has air circulation holes for keeping temperature uniformity.



Safety for you without hazardous chemical!

2. HAZARDOUS CHEMICAL REMOVER DEVICE

Specially designed device removes all unpleasant smells and hazardous chemicals for keeping comfortable working environment.



< Test Certificate >



PHARMACEUTICAL - CC0123

DETAIL & FEATURES

REFRIGERATOR SERIES

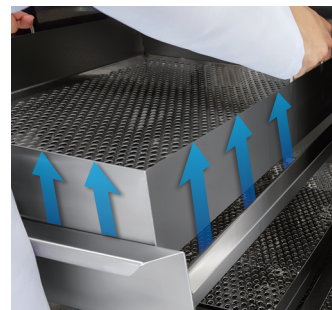


Air circulation system

Built-in two fans keep strong circulation and quickly recover target temperature even after numerous times of door open.

Rail type air hole drawer

Cold air can pass through the holes of drawer from the top to bottom for keeping uniform temperature inside of chamber. Removable drawer is convenient for sample transfer with minimal door open time.



Inner light

Light is controlled by button to enhance visibility of chamber inside.



Control system

Digital sensor control by Micro-processor for temperature and alarm setup.

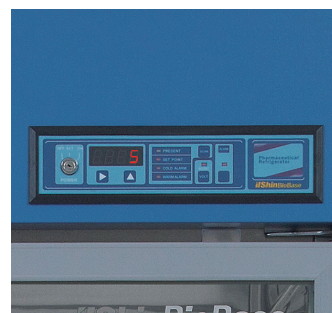


Chart recorder

Record keeping for verification of temperature variation.



Deodorizer

Comfortable work environment by removing unpleasant smell and hazardous chemicals.

***OPTIONAL** - Stainless Steel Door



SPECIFICATIONS

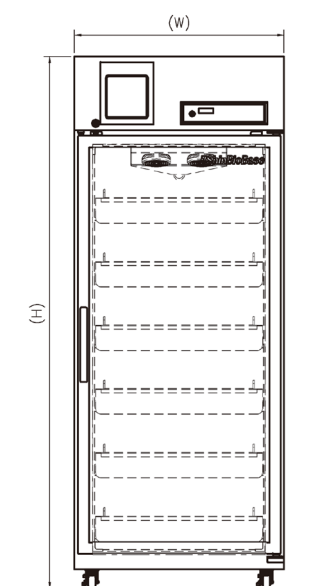
REFRIGERATOR SERIES

BLOOD BANK Series

Series	BB0123	BB0150
Capacity	557 liters	1251 liters
Ext. Dimensions (WxDxH mm)	740 x 803 x 1910	1500 x 803 x 1910
Int. Dimensions (WxDxH mm)	610 x 630 x 1450	1370 x 630 x 1450
Weight (kg)	135	221
Drawer	6 EA solid stainless slide drawers	12 EA solid stainless slide drawers
Door	1 Double-paned tempered glass doors	2 Double-paned tempered glass doors
Temperature Range	Temperature is factory set at 4°C with a 0°C ~10°C	
Material	Interior all stainless steel	
Electrical	110V, 220V 60Hz, 230V 50Hz	
Certification	ISO9001 / 14001 / 13485 / KGMP	
Refrigeration	1/3 HP Hermetic comp	

DIMENSIONS

Preview
- Front -

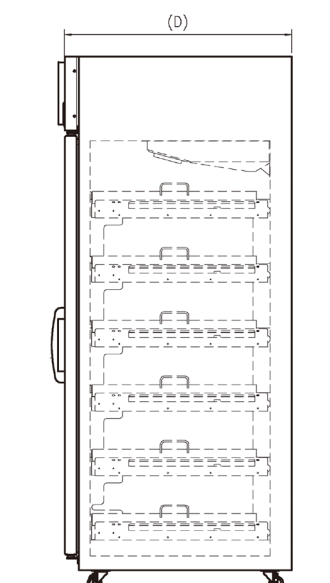


PHARMACEUTICAL Series

Series	CC0123	CC0150
Capacity	557 liters	1251 liters
Ext. Dimensions (WxDxH mm)	740 x 803 x 1910	1500 x 803 x 1910
Int. Dimensions (WxDxH mm)	610 x 630 x 1450	1370 x 630 x 1450
Weight (kg)	119	173
Shelf	4 EA	8 EA
Door	1 Double-paned tempered glass doors	2 Double-paned tempered glass doors
Temperature Range	Temperature is factory set at 4°C with a 0°C ~13°C	
Material	Interior all stainless steel	
Electrical	110V, 220V 60Hz, 230V 50Hz	
Certification	ISO9001 / 14001 / 13485 / KGMP	
Refrigeration	1/3 HP Hermetic comp	

DIMENSIONS

Preview
- Side -



ICE MAKER

FLAKE TYPE

[ICE MAKER]

Flake type ice maker has automatic water supply system and overflow protection system. Purification filter with NSF certificate guarantees maximum safety and convenience. Twin screw design provides prompt and uniform ice flake.



Main Features

ICE MAKER

◆ Specification

1. Dimension:

- 1) Ext: 700(W) × 700(D) × 975(H) mm
- 2) Int: 600(W) × 300(D) × 500(H) mm

2. Production capacity: 120Kg/Day

3. Storage capacity: 90Kg

4. Production method: revolution of twin screw shaft mechanism

5. Refrigeration system:

- 1) Compressor: 1/3Hp, Hermetic type
- 2) Condenser: forced circulation, air cooled 1/3Hp motor condensing

6. Shaft RPM: 20RPM

7. Material:

- 1) Body: high pressure injected Urethane, blower forming
- 2) Door: high pressure injected Urethane

8. Insulation: 50mm polyurethane

9. Voltage: 220 Voltage, 60Hz, single phase

2. Storage time is extended at -15℃ by high density urethane insulation.

3. Easy and convenient operation by one touch control.

4. Overload protection against incoming current, self control on water supply and overflow.

5. Anti-corrosion design by HDPE interior

6. ISO 9001

7. ISO 14001

Storage Box & Divider

Model	IF300-150
Capacity	90 kg
Ice Production	120 kg/day
Ext. Dimensions	700(W) x 700(D) x 975(H) mm
Int. Dimensions	600(W) x 300(D) x 500(H) mm
Cabinet Material	Blower Molded (HDPE)
Electrical	220V 60Hz, 230V 50Hz
Refrigeration	1/3 HP/Non CFC
Weight	114 kg

◆ Characteristic

1. Flake type ice produced by Twin screw shaft mechanism is optimal and economical for laboratory use because ice particle stays for a long time.

DETAIL & FEATURES

ICE MAKER



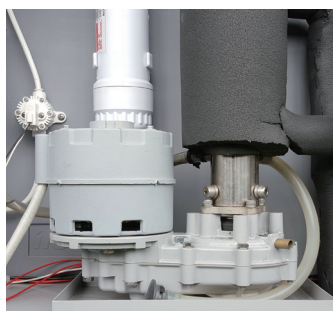
High performance freezing system

Superior device and screws produce highly purified flake type ice as hard particles.



Automatic system from water supply to ice production

Self control of water supply and its level, protecting from overflow.



Twin screw shaft mechanism

Fast and efficient production of flake ice with uniformity.



Automatic Ice Control System

Ice amount is controlled by sensor for protecting from over-production.



High standard purification filter

Water is filtered for high level purification and longer life time of equipment.

Adiabatic effects of bin storage

Combination of high density polyethylene and polyurethane provide effective insulation for keeping ice flake with best condition.



SHAKER BBT-1, 2

BBT SERIES

[MECHANICAL SHAKER]

Shaker BBT Series is for mixing and extraction of various compounds. No motor, No belt structure Shaker(BBT) has adjustable flask holder. Specially designed electromagnetic shaking mechanism has precise revolution without even 1rpm error.

No chance of mechanical failure because conventional components such as driving motor and V-belt are not used for BBT series.



Main Features

BBT SERIES

◆ Specification

1. **Dimension:** 1) 480(W) x 610(D) x 90(H) mm
2) 800(W) x 610(D) x 90(H) mm
2. **Material:** Aluminum mold & Plastic mold cover
3. **Capacity:** 250 ml flask x 23EA, 39EA
4. **Revolution system:** Electromagnetic revolution
5. **Revolution speed:** 15 to 350 rpm
6. **Control system:** Auto tuning processor
7. **Operational voltage:** 220/230 Voltage, 1Ph, 50/60 Hz

◆ Characteristic

1. Auto-tuning process minimizes deviation of revolution
2. Flask holder adjustment
3. Electromagnetic revolution system (no motor)
4. Robust and neat appearance by injection and extrusion molding
5. Casting molded fly wheels are strong against weight and load
6. No vibration and no noise by Special design without motor and V-belt
7. Timer setup is available



*MBB rack for shaker

SPECIFICATIONS

SHAKER SERIES

SHAKER Series

Model	BBT-1	BBT-2	BB-1	BB-2
Dimensions (WxDxH mm)	480 x 610 x 90	800 x 610 x 90	480 x 610 x 90	800 x 610 x 90
Installed Plate	250ml x 23EA 500ml x 16EA 1,000ml x 9EA	250ml x 39EA 500ml x 20EA 1,000ml x 15EA	250ml x 23EA	250ml x 39EA
Platform (WxD mm)	460 x 465	770 x 465	460 x 465	770 x 465
Control System	Time & Speed Microprocess controller		Speed controller	
Speed Range	20 to rpm			
Material	Al modeled & plastic mold cover			
Shaking stroke	Adjustable 25, 30, 35 mm orbit			
Electrical Equipments	220/230V , 1Ph, 50/60Hz			
Gross weight (kg)	32	55.3	32.5	55.8

RACK OF MULTI SHAKER

Model	MBB-1	MBB-2
Dimensions (WxDxH mm)	680 x 640 x 1950	1000 x 640 x 1950

*Above models are subject to change or to modify for R&D purpose without notice.