

2020~2021 Catalog



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# **Lab Essentials**



Lab Essentials

# Lab Companion, Jeio tech

Founded in 1988, JEIO TECH, which started from the dream of localizing experimental equipment, has now reached its 32th anniversary. Thanks to the  $support\ of\ our\ customers, we have\ grown\ into\ a\ leading\ manufacturer\ of\ experimental\ equipment\ in\ Korea\ that\ supplies\ stable\ experimental\ equipment$ all over the world. Main fields are physics and chemistry experimental equipment and reliability testing equipment with technology that allows for excellent control of temperature, humidity, and motion. The company contributes to the entire value chain of laboratory and reliability testing equipment supply, from product development, manufacturing, and sales to validation and after-sales service.



**Sheet Metal Working** Producing a variety of products based on automation equipment.



**Precision Machining** Production of precision parts with state-of-the-art machining



**Powder Painting** Maintaining automated painting facilities and strict quality standards



**Assembly Process** Systematic processes such as instruments. electricity, control, and refrigeration



**Total Inspection** 100% inspection of all products produced

< Highly qualified and large capacity factory can offer any product you want at the favorable times >

JEIO TECH has the production facility of about 29,752 m<sup>2</sup> in Korea and meeting its customers worldwide through five domestic and overseas sales offices (including USA and China branches). It is striving to become a more reliable research/experimental partner by obtaining product certification such as ISO9001 and ISO13485 quality certification, CE, UL, and CSA. From now on, we will do my best to be loved as a leading Korean company in the world, in the field of research and reliability testing machines.



< View of Headquarter >

















< Key certification and memberships >



< Lab Companion Worldwide >



# **Lab Companion**

We are 'Companion in Laboratory' JEIO TECH. We use a brand name 'Lab Companion' embracing the meaning of establishment our company. Lab Companion supplies not only the excellent experimental equipment manufactured by JEIO TECH but also various equipment according to the needs in laboratory at global through cooperation with the other main brand for lab use. Lab companion dreams providing the better the laboratory environment through agonizing and searching for a solution with researchers and experimenters of lab. Lab Companion - Korea representative brands, we accompany you from purchasing the laboratory equipment to building a good lab.

# **Customized Products**

We JEIO TECH is representative manufacturer for experimental equipment and reliability testing equipment. We created Special Product division to supply a custom-made equipment which is optimized for the customer own tests. Special Product division consists of technical sales team providing the technical consultant and design manufacturing team presenting the right solutions to the test requirement of users, so they make service more professional. They has delivered successful results to leading international companies such as Samsung SDI, LG Chem and so on. Our Special Product division is a department of JEIO TECH who has the accumulated manufacturing skill over 32 years, we are growing up with our customers.



Temperature test chamber for fire disaster preventing type



Multi-drawer type oven



Altitude simulation test chamber



Room chamber type temp. & humid. chamber

# **LC Connected**

LC Connected is a system that connects the lab's research equipment to a single network, allowing the experimenter to operate the equipment more efficiently. Experimenters can check the condition of their devices anytime, from any location via the mobile app. They can reduce time taken for device managing thanks to check the operation status of registered devices at once, so it makes concentrate on more important works.

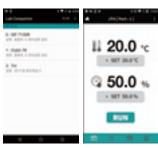


LC GreenBox



Lab Companion Mobile App

- Access to the Cloud Server via Wi-Fi or wired LAN.
- Control devices in real time monitoring and two-way communication via Lab Companion mobile application.
- LC GreenBox is available to connect up to 4 devices via RS-232 port.
- Needs to connect PC when sets the network connection at first only.
- \* We will continue to expand Lab Companion equipment with a PC interface. (Supported from Android 6.0 Marshmallow version and above. iOS devices to be supported in the future)



Real-time mobile monitoring system



Connection up to 4 devices



Power failure notification

# **Bath Circulator**





# **Refrigerated & Heating Bath Circulator**







# ( (

# **Refrigerated & Heating Bath Circulator**

# **Refrigerated & Heating Bath Circulator**

- Programmable temperature control. LCD color touch screen.

- Various temperature range and capacity.
- $\bullet \ {\sf Smart} \ {\sf refrigerating} \ {\sf system}.$

Working Temp. Range	-35 ~ 150°C -25 ~ 150°C	-35 ~ 150°C -25 ~ 150°C
Temp. Stability at -10°C	± 0.05°C	± 0.05°C
Bath Volume	5L / 10L / 20L / 30L	5L / 10L / 20L / 30L
Model	RW3-P	RW3

# **Heating Bath Circulator**









# **Heating Bath Circulator**

Program type

# **Heating Bath Circulator**

General type

- Programmable temperature control.
- LCD color touch screen.

- Suitable for precise temperature testing above ambient temperature.
- Temperature deviation alarm.

Working Temp. Range	Amb. +10-150°C	Amb. +10-150°C
Temp. Stability at 50°C	± 0.05°C	± 0.05°C
Bath Volume	5L / 10L / 20L / 30L	5L / 10L / 20L / 30L
Model	CW3-P	CW3

# Programmable Mode

- · Setting and saving 10 programs.
- · Up to 10 steps can be set per program.
- · Set time up to 99 hours and 59 minutes per step.
- · Program repetition possible up to 99 times.
- $\cdot$  Time set for increasing / decreasing temperature.
- · Pre-heating possible before starting program.
- $\cdot$  Displays and controls the status of the device through the computer interface.



# **Chiller** (Recirculating Cooler)





# Ambient temp. type



# Low temp. type



# Chiller(Recirculating Cooler)

HX general type

- · Representative recirculating cooler suitable for
- Minimized on/off operation of compressor.

# **Chiller (Recirculating Cooler)**

HL low-temperature general type

- Recirculating cooler for low temperature range.
- Easy checking the pump status by pump pressure

Temperature Stability	± 1.0°C	± 1.0°C
Norking Temp. Range	+ 3 ~ 40°C	-20 ~ 40°C
Max. Cooling Capacity	29 kW at 20°C	7.1kW at 20°C
Pump Capacity	Max. 130L /min. , 6 bar	Max. 70 L/min. 6 bar
Model	HX	HL

# Low / High temp. precision type



# **Chiller (Recirculating Cooler)**

HS low-temperature precision type

- Precise temperature control at low temperature range.
- Provide function of control via externaltemperature sensor.

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-		_	
_		_	-
P			-
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	_	-	
	_		
	-		
		_	100
*	4"		
		_	

# **Chiller (Recirculating Cooler)**

HH high-temperature precision type

- Wide temperature range.
- Precise control with +0.1°C stability by PID temperature control.



# **Chiller (Recirculating Cooler)**

Compact type

- Easy installation and moving with compact design.
- · Optimized for use with rotary evaporators.

Temperature Stability	± 0.2°C	± 0.1°C	± 1.0°C
Working Temp. Range	-20 ~ 40°C	-20 ~ 80°C	-10 ~ 30°C
Max. Cooling Capacity	7.1kW at 20°C	6.5kW at 20°C	580W at 20°C
Pump Capacity	Max. 70 L/min. 6 bar	Max. 70 L/min. 6 bar	Max. 26 L/min. 0.7 bar
Model	HS	HH	RC

# Proven reliability & reproducibility

## Made and tested according to international standards.

- · Meets safety requirements, including electrical safety standards for chillers. (Recirculating Cooler)
- · Conduction of device performance tests required as per the standards to provide reliable product performance.
- · Verified test results provided as specification to allow for selection of the suitable model for the user.

# Customized Recirculating Cooler

Customized design, production and installation services with optimized performance for your application.

- · Temperature range and stability.
- · Cooling capacity and heat absorption ability.
- · Pump capacity and configuration in/out.
- · Reasonable convenient safety system.
- · Controller & data processing.

# Heating Bath & Cold Trap Bath



# **Heating Bath**







Н	ea	tir	ıσ	Ba	ith
•••	···				

General type

- Temperature calibration & timer.
- Low solution level limiter.

Temp. Range	Amb. +7 ~ 100°C
Bath Volume	3.5L / 11.5L / 20L
Model	BW3-G

# **Heating Bath** Agitator type

- Circulation of solution by an agitator.
- Independent temperature control for each bath.

Amb. +5 ~ 100°C	
3.5L / 11.5L / 20L	
3.5L & 3.5L / 3.5 & 11.5L / 11.5L & 11.5L / 11.5L &	20L
RW-H	

# **Heating Bath**

Economy type

- Economical water bath for easy use.
- Over temperature limiter.

Amb. +7 ~ 100°C	
3.5L / 11.5L / 20L	
BW-B	

# **Heating Bath, Visible**







# **Heating Bath**

Visible type

- Convenient for internal observation.
- Easy to measure viscosity.

Temp. Range	Amb. +5 ~ 150°C	
Bath Volume	25L / 40L	_
Model	VB	

# **Heating Bath**

Shaking type

BS

- Temperature control and shaking can be set
- Spring wire Rack as standard accessory.
- Amb. +5 ~ 100°C 17L / 25L / 37L / 55L

# **Cold Trap Bath**





- Capture moisture, organic solvents etc. into vacuum pump.
- It can be used in bath that requires low temperature.

Temp. Range	Down to -40°C
Bath Volume	4.8L
Model	CTB-10



Provides optimal choice for diverse experiment needs. Model series according to function classification and usage.

# **Oven & Furnace**





# **Forced Convection**









## **Forced Convection Oven**

Program type

1.1		

		Programmable	temperature	control
--	--	--------------	-------------	---------

• Flogrammable temperature	COILLIC
- LCD color touch coroon	

Amb. +10 ~ 250°C	

60L / 102L / 151L Chamber Volume OF-P / OF-PW

Temp. Range

Model

# **Forced Convection Oven** General type

- Most representative forced convection type.
- Easy to use with computer connection.

Amb. +10 ~ 250°C 50L / 100L / 153L

OF-G/OF-GW

# **Forced Convection Oven**

Economy type

- Stable product that is faithful to the basics.
- Includes safety device as standard.

Amb. +10 ~ 220°C

52L / 100L / 150L

OF-E

# **Forced Convection Oven**

Large type

- Large capacity max. 760L as standard type.
- Max. 300°C temperature control.

OF3, OF3-W, P, PW : Amb. +15 ~ 200°C OF3-H, HP, HW, HPW : Amb. +15  $\sim$  300°C

314L / 450L / 760L

OF3/ OF3-W, P, PW, H, HP, HW, HPW (Large)

# **Forced Convection**





# **Natural Convection**





# **Forced Convection Oven**

2-Chambers type

<ul> <li>Independent temperature control for</li> </ul>
each chamber.
Nentilation hole side of chamber

Temp. Range	Amb. +10 ~ 200°C
Chamber Volume	120L (60L x 2 Chamber)
Model	OF-02G-2C

# Forced Convection Oven

4-Chambers type

- Space saved chamber.
- Built-in casters for easy moving and installation.

Amb. +10 ~ 200°C	
240L (60L x 4 Chamber)	
OF-02G-4C	

# **Natural Convection Oven**

General type

- · Most representative natural convection
- Suitable for drying powder samples.

Amb. +15 ~ 250°C
52L / 91L/ 135L
ON-G / ON-GW

# **Natural Convection Oven**

Economy type

- Stable product that is faithful to the basics
- Includes safety device as standard.

	Amb. +15 ~ 220°C	
Ī	52L / 100L / 150L	
Ī	ON-E	

# **Hybridization Oven**



**1**2/11

Temp. Range Chamber Volume

Model

# **Vacuum Oven**



# **Muffle Furnace**



# **Hybridization Oven**

- · Rocker inside of chamber.
- Suitable for Hybridization experiments with 10 Programs & 10 steps program control.

Туре	Forced Convection
Temp. Range	Amb. +5 ~ 65°C
Chamber Volume	10L
Model	НО

# Vacuum Oven

- NEW
- Product optimized for vacuum oven.
- Structure separating vacuum/release line.

Amb. +5 ~ 250°C	Temp. Range
28L / 65L	Chamber Volume
OV4	Model

# **Muffle Furnace**

- Electric furnace for a high temperature experiment of 1100 /1500°C
- Multiple safety devices for user and sample Protection.

Max.1100°C	Max.1500°C
3.5L / 4.5L / 12.0L	3.5L / 4.5L / 12.0L
MF-GF/ MF-G	MF-HF/ MF-H

# **Incubator**





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# **Incubator**











# Incubator (Air-Jacket)

General type

Amb.+5~80°C

60L / 102L / 151L

- · Versatile air-jacketed natural convection incubators.
- · Glass door for contamination prevention.

ı	ncubator	(Film	Heater)

Economy type

- Stable product that is faithful to the basics.
- · Low noise with film heater-type incubator

Natural Convection	ĺ
Amb. +3~ 60°C	ĺ
65L / 150L / 205L	
IB-E	ĺ

# **Incubator (Forced Convection)**

Mini type

- Compact design.Simple control with touch button.

•
Forced Convection
Amb. +5 ~ 65°C
10L
IM

# **Incubator**

Туре

Temp. Range Chamber Volume



# **Plant Growth Chamber**



# **Incubator (Forced Convection)**

2-chambers type

- $\bullet$  60L capacity for each chamber.
- Independent temperature control for each chamber.

# Incubator (Forced Convection)

4-chambers type

- Independent temperature control for each chamber.
- Built-in casters for easy moving and installation.

rced Convection	Temp. Range
nb. +5 ~ 70°C	Illumination Rang
DL (60L x 4 Chamber)	Chamber Volume
02G-4C	Model
	-

# **Plant Growth Chamber**

- Auto-tuning for temperature/humidity.
- Lighting provided by plant-friendly lamps.

Туре	Forced Convection	Forced Convection	Temp. Range	5 ~ 50°C (10~50°C: Lamp on / 2	0 ~ 50°C: with humidity)
Temp. Range	Amb. +5 ~ 70°C	Amb. +5 ~ 70°C	Illumination Range	0 to 20000 lux	0 to 35000 lux
Chamber Volume	120L (60L x 2)	240L (60L x 4 Chamber)	Chamber Volume	300L / 300L	1000L
Model	IB-02G-2C	IB-02G-4C	Model	GC-300TL/ 300TLH	GC-1000TLH

# **Low Temperature Incubator**











**Low Temperature Incubator** 

# **Low Temperature Incubator**

General type

- Provides low temperature culture environment like BOD experiment.
- Internal power outlet included as standard for easy operation of small products.

Туре	Forced Convection
Temp. Range	0 ~ 80°C
Chamber Volume	150L / 242L
Model	IL3

# **Low Temperature Incubator** Air-Jacket type

• Minimizes medium getting dried by

- air-jacket type.
   Prevention of frost by automatic
- defrosting at all times.

# **Low Temperature Incubator** Personal type

· Low tem electron Module

 Conver vibration and power consumption.

imperature control by using	• 150L capacity for each chamber.
nic cooling element (Peltier	<ul> <li>Independent temperature control for</li> </ul>
e).	each chamber.
nient use by minimized	
on and nower consumption	

Multi type

Natural Convection (Air-Jacket)	Forced Convection	Forced Convection
4 ~ 70°C	10 ~ 40°C (Amb. 25°C)	0 ~ 60°C
156L / 254L	14L / 48L	300L (150L x 2) / 600L (150L x 4)
IL3-A	ILP	IL-11-2C / IL-11-4C

# **Incubated Shaker**





# **Incubated Shaker**









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# **Incubated Shaker**

Tabletop type

- Optimized for use on bench top.
- Convenient internal observation.

# **Incubated Shaker**

Stackable type

- Double-stacked for space saving.
- Also, easy to use as a general incubator.

# **Incubated Shaker**

Floor type

- Strong DD motor for large shaking capacity
  agitation
- agitation.

   Large capacity up to 5ea x 6 L flasks at the same time.

Temp. Range	Amb. +5 ~ 80°C	Amb15 ~ 80°C (min. 15°C)	Amb. +5 ~ 80°C	Amb20 ~ 80°C (min. 4°C)	Amb. +5 ~ 80°C	R: Amb20 ~ 80°C
Max. Speed	20 ~ 500 rpm	20 ~ 500 rpm	20 ~ 500 rpm	20 ~ 500 rpm	30 ~ 300 / 500 rpm	30 ~ 300 / 500 rpm
Motion Type	Orbital	Orbital	Orbital	Orbital	Orbital	Orbital
Max. 250mℓ Flask	~ 20 ea	~ 20 ea	~ 24 ea	~ 24 ea	~ 39 ea	~ 39 ea
Model	IST	IST-R	ISS	ISS-R	ISF	ISF-R

# **Incubated Shaker**







Multi-stackable type

- Maximum triple-stacked for space saving.
- Strong DD motor for large-capacity.

Temp. Range	Amb. +10 ~ 80°C	Amb20 ~ 80°C (min. 4°C)
Max. Speed	30 ~ 300 / 400 rpm	30 ~ 300 / 400 rpm
Motion Type	Orbital	Orbital
Model	ISS	ISS



- Alarm is generated by monitoring difference between actual rpm/ temperature and set rpm/temperature.
- Automatic rpm adjustment when device instability occurs. (high rpm, overload, weight imbalance, etc.)
- Detects abnormal conditions relating to the platform on which the sample is placed and stops the operation.
- Automatic restart as it was operated after power recovery.

# Experience reliable precise temperature control up to 80°C.

Advanced temperature control system by Lab Companion's technology.

# Shaker





# **Open Shaker**









# Shaker

Dual Action type

- Provides powerful shaking.
- Orbital/Reciprocal motion selection.

# Shaker General type

- Stable shaking even with high load
- Structure prevents the sample from flowing into inside.

# Shaker Program type

• Program control mode.

- Mounts the large capacity of samples.
- Shaker Compact type
  - Easy to use as a small shaker.
- It can be used inside of another chamber. (Amb. 2-60°C)

Motion Type
Speed Range
Max. 250ml Flask Capacity
Model

Orbital / Reciprocating		
20 ~ 500 rpm		
~8 ea	~14 ea	~24 ea
OS-2000	OS-3000	OS-4000

Orbital	
30 ~ 500 rpm	30 ~ 300 rpm
~ 39 ea	~ 39 ea
OS-7100	OS-7200

 Orbital	Ì
30 ~ 500 rpm	Ī
~ 51 ea	
SKC	Ī
	f

Orbital
50 ~ 300 rpm
 ~ 9 ea
CMS

# **Shaker**









# Microplate Shaker

- Suitable for sample mixing for microplates, tubes etc.
- Tube rack as optional accessory.

# **Rocking Shaker**

- Easy to adjust angle of motion from
- Up to 99 hours timer function.

# **Waving Shaker**

- Easy to adjust angle of motion from 0° to 13°.
- It can be used inside of another chamber. (Amb. 2-60°C)

# **Rotator**

- Easily adjustable angle up to 90°.
  Large quantities sample could be mixed at once when loading 2-stage

Motion Type	Orbital	Rocking	Waving	Rotating
Speed Range	150 ~ 1200 rpm	5 ~ 100 rpm	8 ~ 100 rpm	2 ~ 70 rpm
Capacity	Microplate x 4 ea	276 x 276 mm	276 x 276 mm	1.5ml Tube x 120 ea (when 2-stage disk loading)
Model	CPS	CRS	CWS	CRT

C €

# **Funnel Shaker**





- Powerful up and down reciprocal motion.

	• 3 quantities on each side (standard), mountable max 3 quantities hask.
Motion Type	Vertical Reciprocating
Speed Range	50 ~ 300 rpm
Capacity	Separated Funnel 500mℓ x 6 ea (max. 10 ea)
Model	RS

# **Heating Shaker**



# **Heating Shaker**

- Rapid and accurate control of temperature.
   Optional block according to kinds of sample.

Temp. Range	Amb. +5~100°C
Motion Type	Orbital
Max. Speed Range	150 ~ 1500 rpm
Model	CBS

# Hotplate & Magnetic Stirrer



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# **Hotplate & Magnetic Stirrer**







# **Hotplate & Magnetic Stirrer** Digital type

Precise temperature control by exte	rnal
temperature sensor.	

- · Multiple overheating protection devices.

		mutaple overneuting protection devices:
Max. Temp. Range		Top Plate, Max. 350°C
Max. Speed		30 ~ 2000 rpm
Timer	Heating	0
rimer	Stirring	0
Model	***************************************	TS

# **Hotplate & Magnetic Stirrer**

Analog type

- Structure prevents the sample from flowing into
- Fast stirring speed control with real time response.

Top Plate, Max. 350°C	
Max. 2000 rpm	
0	
0	
TM	

# Hotplate

Digital type

- Top plate coated with white ceramic for excellent corrosion resistance.
- Warning displayed when top plate is 50°C or more.

Top Plate, Max. 350°C
-
0
-
Т

# **Magnetic Stirrer**







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# **Magnetic Stirrer**

Digital type

Digital

MS-G

30 ~ 2000 rpm

- Maintains accurate speed with feedback control even when sample viscosity and amount change.
- Timer & Program operation function.

# **Magnetic Stirrer**

Analog type-Round

Analog

MS-B

150 ~ 2500 rpm

- Quick control of stirring with real time response.
- Provides Silicon-based top plate cover.

Magnetic Stirrer	
Analog type-Triangle	

- Stable structure even with fast stirring.
- Polypropylene (PP) material with excellent chemical resistance.

	Analog
Ī	150 ~ 2500 rpm
	-
Ī	MS-T

**Multi Position Type** 

Control Type

Speed Range

Control Type

Temp. Range Speed Range

Model

Timer & Program Model



# **Magnetic Stirrer**

Multi Position type

MS-M

- 6 models provided with max. 15 positions.
- 4 kinds of stirring control mode. (All, Column, Row, Point)
- Digital 30 ~ 2000 rpm



# **Hotplate & Magnetic Stirrer**

Multi Position type

- 4 kinds of stirring control mode and timer. (All, Column, Row, Point)
- 2 model provided with 9/15 potion.

Digital
Top Plate, Max. 120°C
30 ~ 2000 rpm
MS-MH

# Overhead Stirrer & Vortex Mixer



# **Overhead Stirrer**



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Prestige touch type

- BLDC motor and color LCD display.
   External controller and PC control for remote operation.

Display	LCD Touch	LCD Touch
Speed Range	50 ~ 1200 rpm	50 ~ 2000 rpm
Viscosity, Max. (cP)	30000 (~1200 rpm) 50000 (~700 rpm)	5000 (~2000 rpm) 50000 (~300 rpm)
Timer	0	0
Program	0	0
Model	MSH-0512	MSH-0520

# **Specialized external controller**

- Device is controlled conveniently apart from fume hood.
- Checking control status in real time and controls start/stop or stirring speed changes.
- Color LCD touch display for intuitive and easy control.





# **Overhead Stirrer**







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# **Overhead Stirrer**

High performance type

- Safety function for over temperature and overload protection.

	Convenient use through the computer interface.	
Display	Digital	
Speed Range	80 ~ 2000 rpm	
Viscosity, Max. (cP)	5000 (~2000 rpm) 50000 (~200 rpm)	
Timer	-	
Program	0	
Model	MSD	

# **Overhead Stirrer**

Easy control type

- Easy control model optimized for simple use.
   Safety function for over temperature and overload protection.

F
Digital
80 ~ 2000 rpm
5000 (~2000 rpm) 50000 (~200 rpm)
-
-
MSA

# **Magnetic Drives**

- Full sealing of reaction container.Cooling line as standard.

Digital
80 ~ 2000 rpm
5000 (~2000 rpm) 50000 (~200 rpm)
-
-
MSA

- Max. Torque: 6 kgf.cm Driving Pressure:  $1\times 10^4$ mmHg to  $5 \text{ kg/cm}^2$  Driving Temp. (with Cooling): Max.  $300^\circ\text{C}$

MD

# **Vortex Mixer**







# **Vortex Mixer**

- Convenient use with easily interchangeable accessories.
- Intuitive and convenient operation.

Motion Type	Orbital	
Speed Range	Max. 3000 rpm	
Operating Mode	Touch, Run	
Model	VM-96T	

# **Vortex Mixer**

- Stable motion by its low-profile with small foot print.
- 3 operation mode according to use.

Orbital
Max. 3000 rpm
Touch, Run-L, Run-H
VM-96A

# Life Science Equipment



# **Heating Block**







# **Hybridization**



# **Heating Block**

- Precise temperature control which can be set in units of 0.1°C.
- · Optional block depend on tube size.
- Temp. Range: Amb. + 5 ~ 130°C Uniformity at 80°C: ± 0.5°C
- Model: CHB

# **Heating & Cooling Block**

- Timer & program operation function.
- · Precise and stable temperature control.
- Temp. Range: Amb. 20 ~ 95°C
- Uniformity at 37°C: ± 0.5°C

Model: CCB

# **Heating Shaker**

- Rapid and accurate control of temperature.
- · Optional block depend on tube size.
- Temp. Range: Amb. + 5 ~ 100°C
- Orbital Type, Max. 1500 rpm

Model: CBS

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# **Hybridization Oven**

- Rocker inside of chamber.
  Suitable for hybridization experiments with 10 programs & 10 steps program control.
- Temp. range: Amb. + 5 ~ 65°C
- Speed range: 5 ~ 50 rpm

Model: HO

# **Electrophoresis**





# **Electrophoresis System**

- Integral structure of transparent polycarbonate material.
- Excellent durability and convenient sample identification.
- Buffer capacity (L): 0.5 / 1 / 1.8

Model: EP

# **Power Supply**

- Power supply for electrophoresis system.
- 4 of output terminal can be used simultaneously
- · Exact output by Microprocessor.
- Output Range: 5~250V, 0.01~3A, Max. 300W
- Type of output: Constant Voltage, Constant Current
- Model: EPS



Comb 27/40 well



Comb 25/34 well



Comb 20/31 well



Comb 16/20 well









# **PCR Workstation**

- High-performance HEPA filter provides a
- Suitable for sensitive experiment like PCR.
- 3 model provided according to size. • UV timer function

Model: PW

## Ice Pan

- Foamed urethane material with excellent thermal insulation.
- Strong structure without damage or transformed.
- Temp range : -196°C ~ 80°C
- Easy movement with top rim structure. Model: IBS

• Aluminum with excellent thermal conductivity.

**On-Ice Rack** 

- Keeps temperature of the sample constant on ice.
- On-Ice Rack: Micro Tube (1.5 ml, 0.2 ml)
  On-Ice Rack (96W): 96 Wellplate, Micro Tube

# Storage Box & Cryo Box

- Material without deformation at low
- No needs for any labeling when using.
- Storage Box (SRB-100): 1.2 ~ 2.0 ml, 100 ea Cryo Box (CRB): 3 models according to size : 1.2~2.0 ml (25 ea), 1.2~2.0 ml (81 ea), 5 ml

# **Autoclave & Others**





# **Autoclave**



# **Pump**







## **Autoclave**

- Convenient use with various operation mode for each usage.
- Sterilization process monitoring ensures reliable sterilization.

- Melting Temperature: 60  $\sim$  100°C Sterilization Pressure at 121°C: 1.1  $\sim$ 1.2 kg/cm² Volume: 50L / 65L / 85L / 105L

Model: ST

# **Electrical Aspirator**

- $\bullet$  Fast formation of low vacuum state via two aspirators.
- Use PP having good chemical-resistance for contact parts of organic solvent.
- Free-air Capacity: 18L /min x 2 ea
- Max. Vacuum Range: 0.0998 Mpa
   Motor Capacity: 150 W
   Bath Volume: 9.5 L

Model: VE

# **Rotary Vacuum Pump**

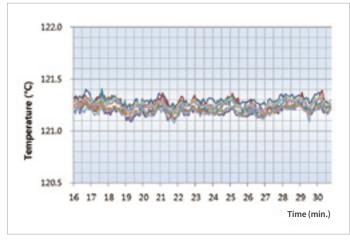
Model: W2V

- Oil vacuum pump for formation of high vacuum state.
- Prevents air reflux, essentially used with vacuum ovens to achieve a higher level of vacuum pressure
- Pump Speed: 100 / 200 / 400 / 600 L/min
- $\bullet$  Ultimate Pressure: 1.3 x 10-1 / 6.7x10-2 Pa

# **Ultrasonic Cleaner**

- Strong cleaning power by high-energy
- BLT Type vibrator.
   Easy drain of cleansing solution through drain valve.
- Frequency: 40 kHz
- Ultrasonic Power: Max. 500 W

Model: UCP / UCS



Model: ST- 85G (measured with 10 of temperature sensors )

# **Aspiration Filter Adapter**

- It can be used between the filtering funnel and the filtering flask during
- Excellent sealing and adhesion with silicone material.

# **Hood & Clean Bench**



# **Clean Bench**









# Clean Bench

Advanced type

HEPA Filter

ВС-Н

- Convenient dual controller (outside and inside of chamber).
- Fully compliant with validation requirements.

Clean Bench
Basic type

HEPA Filter

BC-B

- Pressure gauge at front as standard
- accessory.
   Easy replacement of HEPA filter.

# **PCR Workstation**

- UV blocking about 99.9% with
- transparent acrylic material.
   Essential for sensitive experiment such as PCR.

# **UV Sterilization Cabinet**

• Sterilization using UV lamp. · Count-down timer.

HEPA Filter	-
 0	0
0	0
0	-
 DW	LIVC

# **Fume Hood**

Filter

UV Lamp Fluorescent Lamp Airflow Model









# **Ductless Fume Hood**

- Remove and circulate fume via built-in filter.
- · No need duct. Convenient moving and installation.

Selectable Activated Carbon, Acid,

# **Extraction Arm Hood**

• Filter box type.

and HEPA Filter.

· Various hood and arms.

Selectable Activated Carbon, Acid,

Formaldehyde, Ammonia/Amines

EFS-33 (Dual), EFS-33 (Single)

# **Molded Fume Hood**

- Table top type with compact design.
- Easy use with connecting duct system.

Selectable Activated Carbon, Acid,

Formaldehyde, Ammonia/Amines and HEPA Filter.(EM-33)

PMH-720 + EM-33

# **Molded Observation Fume Hood**

- Easy use with connecting dust system. • Design by transparent windows at the
- front and the rear, making it easy to observe the experiment process from the both side.

Selectable Activated Carbon, Acid,

Formaldehyde, Ammonia/Amines and HEPA Filter.(EM-33)

POH-720 + EM-33

Formaldehyde, Ammonia/Amines and HEPA Filter.
DLH



Lab Companion's compose Hood and Clean Bench in optimized products protecting experimenters, environments and samples.

# Safety Storage & Cabinet





# Safety







# **Fire Safety Storage Cabinet**

- Safe storage of flammable / combustible materials in the event of a surrounding fire.
- Designed according to the strictest European standards EN 14470-1
- Fire proof performance: 30 min / 60 min / 90 min

# **Acid Corrosive Cabinet**

- Acid/Base reagents can be safely stored for a long period of time
- Solid steel structure with corrosion-resistant interior finish.

## **Molded Acid Corrosive Cabinet**

- Durable chemical resistant plastic storage cabinets for Acid/Base materials reagents.
- Easy use with connecting filter or fan modules.

Internal Volume

Model

Stand (90min type): 763L / 357L Stand (30min type): 802L / 375L Under (90min type) : drawer-244L / 110L Under (60min type): 89L / 76L Under (30min type): 252L / 116L

SC2-F / SC3-F + EM-33

Stand Type: 894L / 852L / 445L / 426L Under Type: 314L / 227L / 146L / 115L

SC-C + EM-33

Exterior Dimension: 720 x 450 x 560 mm

PCC-720

# **General**



# **Multipurpose Cabinet**

- Window door type for easy figures out stored samples
- Drawer shelves with PP having good chemical -resistance, makes easy store.
- Fume extraction module & filters. (option)

# **Multipurpose Cabinet**

- Drawer structure with PP having good chemical-
- Suitable for storage in long time with no sunlight
- Fume extraction module & filters. (option)

# **Multipurpose Cabinet**

Tabletop & Under Table

- Good storage efficiency with various drawer sizes.
- Available placing at top of testing bench and under of hood.

Model

DS-OW / DS-TW

DS-S / DS-C

DS-TT / DS-UT

# **Functional**







# **Filtering Storage Refrigerator**

- Optimized air flow for removing fume gas. · Stable uniformity of temperature in upper and
- lower chamber.

FSR



# **Gas Cylinder Cabinet**

- · Safe protection from external shock.
- Convenient folding ramp structure for replacing heavy cylinders.

Feature

- Internal Volume: 604 L / 1317 L

**Filtering Storage Cabinet** 

• Filter installed inside, internal air circulation.

· Easy moving and installation, safety warning alarm.

(Aldehyde, acid and amines are available.)

Model

FSC.

• Capacity (L or 1L Bottle): 140 / 280 • Optional Filter: HEPA Filter, Complex Carbon Filter

# • Internal Volume: 660 L, 1451 L Capacity (L or 1L Bottle): 100 Optional Filter: HEPA Filter, Complex Carbon Filter (Aldehyde, acid and amines are available.)

Gas Cylinder Max. storage capacity (Ø230 mm): 2 ea / 3 ea

DS-GC

# **Dry cabinet & Desiccator**



# **Dry Cabinet**



# **Desiccator**



# **Dry Cabinet** Auto desiccator

- Convenient maintenance with automatic electronic desiccator unit
- Easy humidity set by 1%RH unit

Internal Volume	150 L / 300 L(Vertical, Horizontal type) / 600 L
Control Range	20 ~ 60%RH (1% Scale) / 1 ~ 10%RH (1% Scale)
Model	DC / DCL

- Above (internal) humidity and temperature may temporarily increase when drying the device of the dehumidifying unit.
   Above DCL humidity range is only maintained when 25°C and 60%RH condition.

# Desiccator

- Built-in hygrometer at front.
- Stackable structure for space saving.

35L / 50L		 
-		
SDC	 	 

1) Hygrometer deviation: 10%~20%

# **Vacuum Desiccator**



# **Vacuum Desiccator**

Cubic type

- Keep vacuum of 1 Torr for 72hours.

		Standard vacuum gauge at front.
	Internal Volume	11L / 23L / 35L / 45L
	Material	Body, Shelf: PC / Desiccant Tray, Latch: PP
	Model	VDC, VDC-U



# **Vacuum Desiccator**

Round type

- Durable one-mold design makes no leak.
- UV block models are available.

6L / 10L / 20L	
Lid, Bottom: PC / Desiccant Tray, Locker: PP	
VDR, VDR-U	

# **Vacuum Desiccator**

Cylinder type

- Standard 3-way stopcock valve.
- Transparent for easy observation.

16L / 25L Body, Bottom: PC / Locker: PP VDP, VDP-U







We have intensified the user convenience of Lab Companion Dry Cabinets and Desiccator through configuring outstanding durability and various product lines considering purpose of use.

# Refrigerator & Freezer for Laboratory



# **Laboratory Refrigerator**

# **Laboratory Refrigerator**

- Automatic defrosting function.
- Controller lock & built-in key lock system.
- Safety warning such as temperature deviation, door open and so on.
- 2 kinds of door type (glass/solid), various volume.
- Satisfied required condition of cold storage for pharmaceuticals stability.
- Voice alarm system (option)
- LC Connected system (option, only for CLG3 model)

Temp. Range	2 ~ 10°C
Internal Volume	74L / 156L / 303L / 603L / 805L / 1327L
Model	CLG / CLG3



# **Laboratory Freezer**

# **Laboratory Freezer**

- $\bullet$  Excellent thermal insulation and sealing to make keep stable temperature.
- Dual defrost systems (automatic/manual).
- Controller lock & built-in key lock system.
- Safety warning such as temperature deviation, door open and so on.
- Simultaneously displays set temperature and actual temperature.



Temp. Range	-15 ~ 0°C	-25 ~ -15°C	-35 ~ -25°C	-50 ~ -30°C
Internal Volume	154L / 303L / 647L	154L / 303L / 647L	154L / 303L / 647L	303L / 647L
Model	FHG	FMG	FCG	FDG

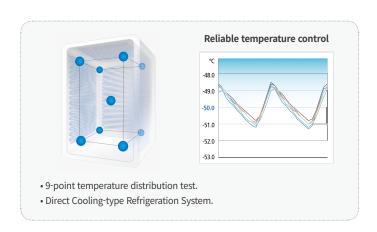
# **Filtering Storage Refrigerator**



# **Filtering Storage Refrigerator**

- $\bullet$  Optimized air flow for removing fume gas.
- Good uniformity of temperature in upper and lower chamber.

Feature	Internal Volume: 660 L, 1451 L Capacity (L or 1L Bottle): 100 Optional Filter: HEPA Filter, Complex Carbon Filter (Aldehyde, acid and amines are available.)
Model	FSR



# Refrigerator & Freezer for Medical





# **Medical Refrigerator**

# **Blood Bank Refrigerator**

- Meets blood and pharmaceuticals storage standards (KS P 6108).
- $\bullet \ \text{Authorized for manufacturing medical devices}.$
- Maintain average temperature  $4^{\circ}\text{C} \pm 1.5\text{K}$  at temperature balance state.
- Maintain 4°C±1.5K temperature in case door is closed after opened for 60sec.
- Temperature is not reached to 10°C within 90min in case power failure.



# **Pharmaceutical Refrigerator**

• Meets blood and pharmaceuticals storage standards (KS P 6108).

- Authorized for manufacturing medical devices.
- Temperature Range: 2~10°C.
- Satisfied required condition of cold storage for pharmaceuticals should maintain 5±3°C regardless of quantities of stored pharmacies.



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Chamber Volume	303L / 614L	74L / 303L / 614L
Temp. Range	0 ~ 20°C (4°C set point)	2 ~ 10°C (4°C set point)
Model	BSR	PSR / PSR3

# **Medical Freezer**

# **Blood Plasma Freezer**

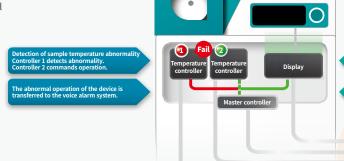
- Satisfied standard condition of freezer for storing frozen plasma under -30°C temperature.
- Under progressing authorized for manufacturing medical devices.
- Maintain temperature -30±3°C at temperature. balance state, also each measured point is not over -27°C.
- $\bullet$  Plasma pack is not over 27°C in case door is closed after opened for 60sec.



Chamber Volume	303L / 647L
Temp. Range	-35 ~ -25°C
Model	BSF

# Dual Management System Patent When the main controller fails, the sub controller

- When the main controller fails, the sub controller automatically operates and remains at the normal temperature until the user recognizes the failure and acts, allowing the sample to be safely stored.
- Separate temperature sensors connected to the display monitor the internal temperature independently.
- Voice alarm system transmits voice messages to designated phone if there is an abnormality in operation. (option)



Voice alarm

# Temperature & Humidity Chamber



# **Tabletop**

Temperature Range **Humidity Range** Airflow type Chamber Volume Model



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# **Floor Standing**



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# **Temperature & Humidity Chamber**

Tabletop type

- Provides maximized performance in limited space.

- Suitable for development step of small samples.			
-40 ~ 150°C	-20 ~ 150°C	0 ~ 120°C	
20 ~ 95 %RH	20 ~ 95 %RH	30 ~ 95 %RH	
Vertical airflow	Vertical airflow	Vertical airflow	
25L / 65L / 100L			
TH3-KE	TH3-ME	TH3-PE	

# **Temperature & Humidity Chamber**

Ultra low temperature (-70°C) type

- Extended temperature range from -70 to 150°C.

Stable temp and namia control up to 35701(1):	
- 70 ~ 150°C	
25 ~ 95 %RH	
Vertical airflow	
189L / 302L / 408L / 800L / 1000L	
TH-KH	

# **Temperature & Humidity Chamber**

Low temperature (-40°C) type

- Representative model with proven reliability.
- Minimized water consumption & maintenance.

-40 ~ 150°C
25 ~ 95 %RH
Vertical airflow
189L / 302L / 408L / 800L / 1000L / 1450L
TH-G

# **Floor Standing**



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# **Temperature & Humidity Chamber**

Low temp. & Low humid. (-40°C) type

• Stable controls for low temperature and humidity

# **Temperature & Humidity Chamber**

General (-5°C) type

- Stable temperature and humidity control for even during long-term continuous use over 1 year.
- · Convenient internal observation with LED lamp and looking glass window.

# **Temperature & Humidity Chamber** Dual type

- Space efficiency model that controls two upper and lower chambers individually.
- Provide optimized experiment environment with precise temp & humid controls.

- 5 ~ 100°C
15 ~ 90 %RH
Vertical airflow
150L x 2 Chamber / 288L x 2 Chamber / 384L x 2 Chamber
TH-DG

		and to oning glass miles	•••
Temperature Range	-40 ~ 150°C	- 5 ~ 100°C	- 5 ~ 100°C
Humidity Range	15 ~ 95 %RH	10 ~ 95 %RH	25 ~ 95 %RH
Airflow Type	Vertical airflow	Vertical airflow	Vertical airflow
Chamber Volume	189L / 302L / 408L	180L / 314L / 419L	770L / 997L / 1540L
Model	TH-I	TH-TG	

# **Floor Standing**





# **Pharmaceutical**







# Temp. & Humid. Chamber

Basic type

- Convenient operation with multifunctional 5.6 inch color touch controller.
- Possible to check the operation status with graphs.

# **Pharmaceutical Stability Test Chamber**

- Satisfies ICH Guideline Q1A (R2) & Q1B (Option 2)
- Dedicated controller for light cumulative dose

		setting/control.
Temperature Range	0~90 °C	-5 ~ 85°C
Humidity Range	35~85%	20 ~ 85 %RH
Airflow Type	Vertical airflow	Vertical airflow
Chamber Volume	201L / 398L	300L / 760L
Model	TH3-E	TH-ICH

# Walk-in Chamber

- Excellent thermal insulation and sealing to ensure reproducibility even for long-term use.
- Stable temp. & humid. controls with optimized inner air circulation.
- Durable door system.
- · Convenience multiple safety system.



# Heating & Cooling Chamber



# **Tabletop**



# **Floor Standing**



# **Heating & Cooling Chamber**

Tabletop type

- Provides maximized performance in limited space.
- Suitable for development step of small samples.

# **Heating & Cooling Chamber**

General type

- Suitable for temperature characteristic test of
- Space-saving vertical structure of dual chamber model.

# **Heating & Cooling Chamber**

- Ultra low (-70°C) / Low temp.(-35°C) type
- Wide range from low to high temperature.
- Provided reliability specification of fluctuation and gradient.

Temperature Range	-40 ~ 150°C	- 20 ~ 150°C	- 20 ~ 100°C	0 ~ 100°C	- 70 ~ 180°C	-35 ~ 180°C
Airflow Type	Vertical airflow	Vertical airflow	Horizontal airflow	Horizontal airflow	Horizontal airflow	Horizontal airflow
Chamber Volume	25L / 65L / 100L	25L / 65L / 100L	150L / 255L / 485L / 150 x 2 Chamber	150L / 255L / 485L / 150 x 2 Chamber	125L / 253L / 420L / 720L / 1000L	125L / 253L / 420L / 720L / 1000L
Model	TC3-KE	TC3-ME	LCH	LCH-G	KBD	KMV

# **Floor Standing**





# **Heating & Cooling Chamber**

Low temp.(-35°C) type

-35 ~ 180°C

Vertical airflow

 Vertical airflow and temperature range from -35 to 180°C.

125L / 253L / 420L / 720L / 990L

• Electronic over temperature protection system.

<b>Heating &amp; Cooling Chamber</b>
Low temp (-25°C) / Ambient temp (-5°

°C) type

- Wide range from low to high temperature.
- Provided reliability specification of fluctuation and gradient.

•	
- 25 ~ 100°C	- 5 ~ 100°C
Horizontal airflow	Horizontal airflow
125L/253L/420L/720L/1000L	125L/253L/420L/720L/1000L
PBV	PMV

# **Industrial Oven**

Temperature Range

Chamber Volume

Airflow Type

Model





# **Heating Chamber**

- Verified 27 point fluctuation and gradient.
- $\bullet$  Excellent insulation, sealing and durable structure.

Clean Oven

Temperature Range		
Airflow Type		
Chamber Volume		
Model		

Amb. + 45 ~ 250°C	Amb. + 45 ~ 350°C
Horizontal airflow	Horizontal airflow
125L/253L/420L/720L/1000L	125L/253L/420L/720L/1000L
LBV	LTV

# • Built-in class 100 HEPA filter-high temperature testing under clean conditions.

Amb. +15 ~ 200°C	Amb. +15 ~ 300°C
Vertical airflow	Vertical airflow
200L / 400L	200L / 400L
OFC / OFC-P	OFC-H / OFC-HP

# **Lab Essentials**

We research and provide a selection of lab essentials steadily suitable for the customer's experiment.



- Easily sprayed solution even when lightly pressed for convenience.
- Vapor pressure self-discharge structure inside the container eliminates the inconvenience of liquid flowing out.
- · Double helical structure increases tightness of both container and cap.
- $\bullet$  Replaceable nozzle tip for effective maintenance.
- Engraved markings for convenient capacity checking.
- 250ml / 500ml





## **Economical Beaker**

- The unique triangular spout structure allows even highly viscous solutions to be poured precisely without any dripping.
- 50ml / 100ml / 250ml / 500ml



# **Plastic Beaker**

- Transparent (PMP), Translucent (PP)
- 500ml / 1000ml / 2000ml



# Carboy

- Excellent chemical resistance, suitable for storage and dispensing of various solutions.
- No leakage even when using for a long time due to spigot.



# **Tubing Connector**

- Structure prevents tubes from dropping.
- Excellent chemical resistance due to PP material.
- Available up to 120°C.



# **Handle Beaker**

- Transparent (PMP), Translucent (PP)
- 500ml / 1000ml / 2000ml



# Ice Pan

- Bucket made of foamed urethane material with excellent thermal insulation.
- Durable structure prevents damage and transformed.



# On-Ice Rack

- Block made of aluminum with excellent thermal conductivity.
- Keeps the temperature of the sample constant when using on ice.

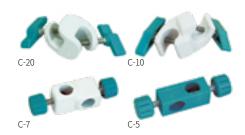


# Handle Beaker

- No transform even at low temperature.
- No need labeling additionally.









# Filter Adapter

- Can be used between the filtering funnel and the filtering flask during vacuum filtration.
- Excellent sealing and adhesion with silicone material.

# **Clamp Holders**

- Clamp holders are ideal for use with overhead stirrers and
- Adjustable to fit support rods up to 5/8 inch diameter.

# **Tube Rack**

- Available stored various sizes for centrifuge tube / Conical Tube / Micro Tube.
   PC material.







Easy simultaneous handling of several flasks.



Using for multi-purpose.



Convenient movement with side handles.



Easy to distinguish samples by name tags and numbers.

# Flask Support

- Safe storage and handling of round flasks.
   Excellent chemical resistance and heat resistance. (-30 to 120°C)





Waste liquid level notification function.



It is possible to configure a container together with flammable cabinets.

# Safety Waste Disposal System

• Easy to collect and store various chemicals and waste liquids generated in the lab.

Model	SF-14C	SF-14P	WT-20C	WT-20P
Description	Anti-static safety funnel	General use safety funnel	Anti-static liquid waste container	General-purpose liquid waste container
Volume	1L	1L	22L	22L





# **Laboratory Equipment**

Bath & Circulator Chiller (Recirculating Cooler) Oven & Incubator Shaker & Incubated Shaker Stirrer & Mixer

Autoclave



# **Storage & Cabinet**

Fire Safety Cabinet
Acid Corrosive Cabinet
Filtering Storage Cabinet
Gas Cylinder Cabinet
Multiple Drawer Cabinet
Dry Cabinet & Desiccator



# **Hood & Clean bench**

Fume Hood, Bypass type Extraction Arm Hood Clean Bench PCR Workstation UV Sterilization Cabinet



# **Refrigerator & Freezer**

Laboratory Refrigerator & Freezer Filtering Storage Refrigerator Blood Refrigerator & Freezer Pharmaceutical Refrigerator



# **Environmental Reliability Test Chamber**

Temperature & Humidity Chamber Heating & Cooling Chamber Heating Chamber, Industrial



# **Lab Essentials**

Plastic Ware Safety Product

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