



**SCIENTIFIC
LABORATORY
INSTRUMENTS**

PRODUCT PORTFOLIO



Oven



Shaking Incubator



Overhead Stirrer



Hotplate Stirrer



Water Bath Circulator



Safety Cabinet



Vortex Mixer

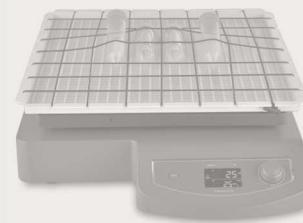


Muffle Furnace

Incubator



Shaker & Rocker



Homogenizer



Autoclave

Growth Chamber

Centrifuge



Climatic Chamber

Dry Block Heater



PRODUCT PORTFOLIO

Featured Controller

JIC-CON 5th GEN

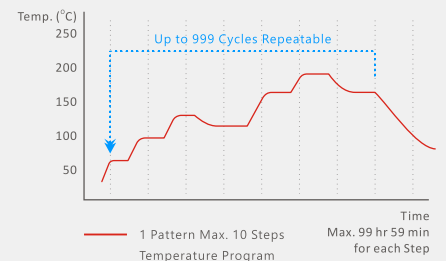
- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step 999-Cycle Program



JIC-CON 5th GEN Controller Highlights

- 16-bit Digital Microprocessor PID Controller.
- High-fidelity clear back light LCD displays complete settings and operating conditions with high readability.
- UV Coated Water-Proof Polycarbonate Touch Panel.
- Easy-to-use Encoder Type Jog Dial for quick and convenient temperature and time setting.
- 0.1 °C control resolution.
- Turn-On and Turn-Off Timer up to 99 hour 59 min.
- Temperature and Timer memory function.
- 10 Step, 999 Cycle Program.
- Temperature and Timer automatically resume after power restoration.
- Class A Pt-100 Ohm Sensor.
- RS-232C PC Communication Interface. [OPTION]

10 Step Program



User can create 10 Steps of varying temperature program and save it in memory for repeated use. Program can be repeated up to Max. 999 Cycles.

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step 999 Cycle Programmable



JSOF-Series Forced Convection Oven

- Max. 250 °C
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- 10 Step 999 Cycle Programmable, Delay Timer, Wait Off Timer
- RS-232C Communication Interface [OPTION]

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSOF-050	48 L	amb. + 10 °C ~ 250 °C	+/- 0.2 °C
JSOF-100	100 L		+/- 0.3 °C
JSOF-150	151 L		+/- 0.3 °C
JSOF-250	252 L		+/- 0.3 °C

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset

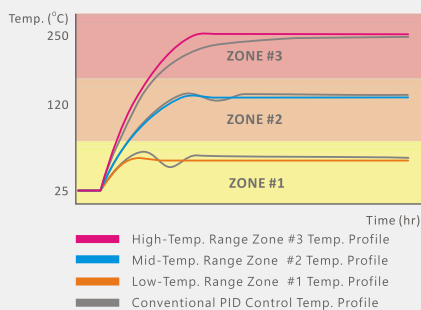


JSON-Series Gravity Convection Oven

- Max. 250 °C
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- RS-232C Communication Interface [OPTION]

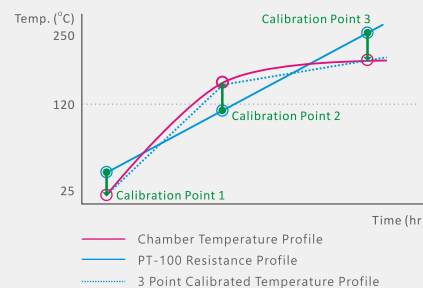
MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSON-050	48 L	amb. + 10 °C ~ 250 °C	+/- 0.3 °C
JSON-100	100 L		+/- 0.3 °C
JSON-150	151 L		+/- 0.5 °C
JSON-250	252 L		+/- 0.5 °C

3-Zone PID Algorithm



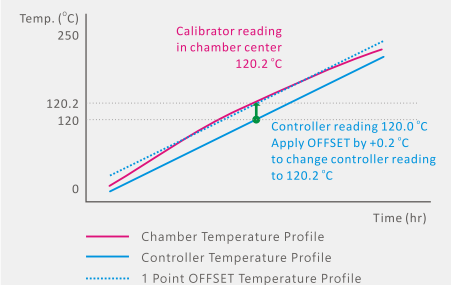
Complete temperature range is divided into three zones (LOW/MIDDLE/HIGH) and each ZONE has its individual PID algorithm to provide precise and superior temperature control characteristic of whole temperature range.

3-Point Calibration



An excellent calibration tool to calibrate chamber with THREE DIFFERENT TEMPERATURE POINTS to adjust multiple temperature bias to increase accuracy of WHOLE TEMPERATURE RANGE.

1-Point Offset



A simple and easy calibration tool that calibrates chamber's temperature at one specific frequently used temperature point.



JSOF-T(P) Series Upright Convection Oven



- Max. 250 °C
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- 10 Step 999 Cycle Programmable, Delay Timer, Wait Off Timer
- RS-232C Communication Interface [OPTION]

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSOF-250T	250 L	amb. + 10 °C ~ 250 °C	+/- 0.3 °C
JSOF-400T	372 L		+/- 0.3 °C
JSOF-700T	655 L		+/- 0.3 °C



JSOF(N)-Series Compact Oven



- Max. 250 °C
- Constant Temperature Control
- Delay Timer, Wait Off Timer

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSOF-030S	33 L	amb. + 10 °C ~ 250 °C	+/- 0.2 °C
JSOF-050S	48 L		+/- 0.2 °C
JSON-030S	33 L		+/- 0.3 °C
JSON-050S	48 L		+/- 0.3 °C



JSOF-H Series 350 °C Hi-Temp Oven



- Max. 350 °C
- Constant Temperature Control
- Delay Timer, Wait Off Timer
- RS-232C or 485 [OPTION]
- Program Controller 5 PTN 80 SEG [OPTION]

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSOF-030H	27 L	amb. + 10 °C ~ 350 °C	+/- 0.2 °C
JSOF-100H	96 L		+/- 0.3 °C
JSOF-150H	150 L		+/- 0.3 °C



JSVO-Series Vacuum Oven

- Max. 250 °C
- Constant Temperature Control
- Delay Timer, Wait Off Timer
- 760 mmHg Vacuum



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSVO-30T	27 L	amb. + 10 °C	+/- 2.0 °C
JSVO-60T	64 L	~ 250 °C	+/- 2.0 °C



JSCO-Series HEPA Filter Clean Air Oven

- Max. 250 °C
- H14 (ISO Class 5) 99.995% efficiency HEPA Filter
- Program Controller 5 PTN 80 SEG [OPTION]
- RS-232C or 485 [OPTION]



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSCO-150T	168 L	amb. + 10 °C ~ 250 °C	+/- 0.3 °C
JSCO-300T	336 L		+/- 0.3 °C
JSCO-1200T	1200 L		+/- 0.5 °C



JSOF-W JSIO-Series Industrial Oven

- Max. 250 °C
- Constant Temperature Control
- Delay Timer, Wait Off Timer
- Program Controller 5 PTN 80 SEG [OPTION]



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSOF-400W	2 x 432 L	amb. + 10 °C ~ 250 °C	+/- 0.3 °C
JSOF-600W	2 x 612 L		+/- 0.3 °C
JSIO-400T	410 L		+/- 0.3 °C
JSIO-960T	960 L		+/- 0.5 °C
JSIO-1400T	1386 L		+/- 0.5 °C

JIC-CON 5th GEN

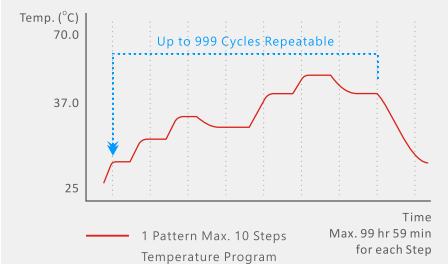
- 3-Zone PID Algorithm**
- 3-Point Calibration**
- 1-Point Offset**
- 10-Step 999-Cycle Program**

Controller Highlights

- ▶ 16-bit Digital Microprocessor PID Controller.
- ▶ High-fidelity clear back light LCD displays complete settings and operating conditions with high readability.
- ▶ UV Coated Water-Proof Polycarbonate Touch Panel.
- ▶ Easy-to-use Encoder Type Jog Dial for quick and convenient temperature and time setting.
- ▶ 0.1 °C control resolution.
- ▶ Turn-On and Turn-Off Timer up to 99 hour 59 min.
- ▶ Temperature and Timer memory function.
- ▶ 10 Step, 999 Cycle Program.
- ▶ Temperature and Timer automatically resume after power restoration.
- ▶ Class A Pt-100 Ohm Sensor.
- ▶ RS-232C PC Communication Interface. [OPTION]

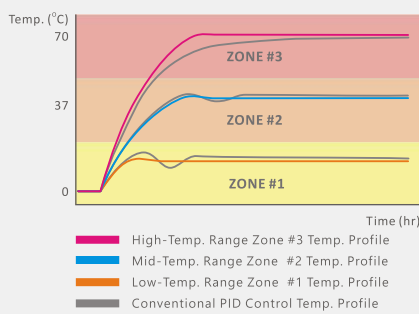


10 Step Program



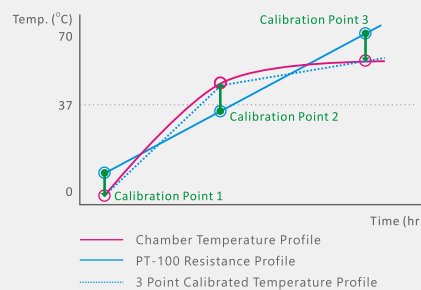
User can create 10 Steps of varying temperature program and save it in memory for repeated use. Program can be repeated up to Max. 999 Cycles.

3-Zone PID Algorithm



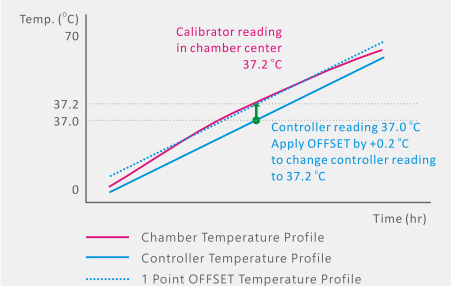
Complete temperature range is divided into three zones (LOW/MIDDLE/HIGH) and each ZONE has its individual PID algorithm to provide precise and superior temperature control characteristic of whole temperature range.

3-Point Calibration



An excellent calibration tool to calibrate chamber with THREE DIFFERENT TEMPERATURE POINTS to adjust multiple temperature bias to increase accuracy of WHOLE TEMPERATURE RANGE.

1-Point Offset



A simple and easy calibration tool that calibrates chamber's temperature at one specific frequently used temperature point.

HEATED / REFRIGERATED INCUBATOR

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step 999 Cycle Programmable



JSGI-Series General Heated Incubator

- amb. +5 °C ~ 70 °C
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- 10 Step 999 Cycle Programmable, Delay Timer, Wait Off Timer
- RS-232C Communication Interface [OPTION]

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSGI-050T	48 L	amb. + 5 °C ~ 70 °C	+/- 0.2 °C
JSGI-100T	96 L		+/- 0.2 °C
JSGI-150T	150 L		+/- 0.2 °C
JSGI-250T	250 L		+/- 0.3 °C
JSGI-250DT	2 x 250 L		+/- 0.3 °C

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset



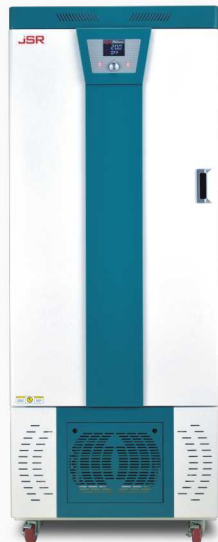
JSBI-C Series Cooled BOD Incubator

- +0 °C ~ 70 °C
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- Delay Timer, Wait Off Timer
- RS-232C Communication Interface [OPTION]

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSBI-050C	50 L	+ 0 °C ~ 70 °C	+/- 0.2 °C
JSBI-100C	100 L		
JSBI-150C	150 L		
JSBI-250C	250 L		
JSBI-420C	420 L		

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step 999 Cycle Programmable



JSBI-CP Series Program Cooled Incubator

- +0 °C ~ 70 °C
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- 10 Step 999 Cycle Programmable, Delay Timer, Wait Off Timer
- RS-232C Communication Interface [OPTION]

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSBI-050CP	50 L	+ 0 °C ~ 70 °C	+/- 0.2 °C
JSBI-100CP	100 L		
JSBI-150CP	150 L		
JSBI-250CP	250 L		
JSBI-420CP	420 L		

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step Program



JSMI-02 Series Dual Chamber Incubator

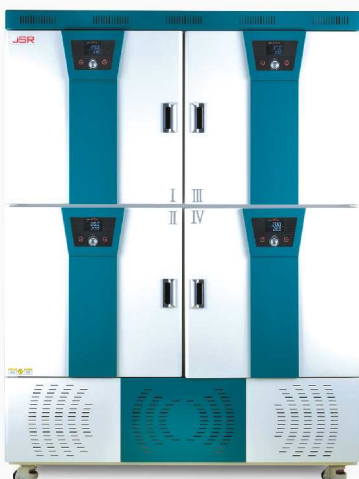
- Dual Chamber Independent Temperature Control
- +0 °C ~ 70 °C
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- 10 Step 999 Cycle Programmable
- RS-232C Communication Interface [OPTION]
- JSMI-02CP Program Controller 5 PTN 80 SEG
- JSMI-02CPL Photoperiodic Light Control



MODEL	CAPACITY	TEMPERATURE	FEATURE
JSMI-02T	2 x 125 L	amb. + 5 °C ~ 70 °C	Constant
JSMI-02C		Constant	
JSMI-02CP		+ 0 °C ~ 70 °C	Program
JSMI-02CPL			Light

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step Program



JSMI-04 Series Multi-Room Incubator

- Four Chamber Independent Temperature Control
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- 10 Step 999 Cycle Programmable
- RS-232C Communication Interface [OPTION]
- JSMI-04CP Program Controller 5 PTN 80 SEG
- JSMI-04CPL Photoperiodic Light Control



MODEL	CAPACITY	TEMPERATURE	FEATURE
JSMI-04T	4 x 125 L	amb. + 5 °C ~ 70 °C	Heated
JSMI-04C		Cooled	
JSMI-04CP		0 °C ~ 70 °C	Program
JSMI-04CPL			Light
JSMI-05C(L)	5 x 44 L	+5 °C ~ 70 °C	Cooled
JSMI-08CP(L)	8 x 26 L	+5 °C ~ 70 °C	Cooled



JSBI-DCP Series Dual Chamber Cooled Incubator

- Dual Chamber Independent Temperature Control
- +0 °C ~ 70 °C
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- 10 Step 999 Cycle Programmable,
Delay Timer, Wait Off Timer
- RS-232C Communication Interface [OPTION]



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSBI-250DC	2 x 250 L	+ 0 °C ~ 70 °C	+/- 0.2 °C
JSBI-250DCP			

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step Program



JSBI-840C Double Door BOD Incubator

- +0 °C ~ 70 °C
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- 10 Step 999 Cycle Programmable
- Delay Timer, Wait Off Timer
- RS-232C Communication Interface [OPTION]



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSBI-840C	840 L	+ 0 °C ~ 70 °C	+/- 0.2 °C



JSJI-10T



JSJI-30T



JSJI-Series Compact Incubator

- amb. +5 °C ~ 50 °C
- Constant Temperature
- Timer On / Off



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSJI-10T	9.3 L	amb. + 5 °C	+/- 0.2 °C
JSJI-30T	31.5 L	~ 50 °C	+/- 0.2 °C



JSSC-Series Cold Lab Storage Chamber

- 4 °C Refrigerator
- On/Off Control
- RS-232C or 485 [OPTION]



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSC-700C	686 L	+ 0 °C ~ 10 °C	+/- 2.0 °C
JSSC-1200C	1176 L	+ 0 °C ~ 10 °C	+/- 2.0 °C

Featured Controller

JIC-CON 5th GEN

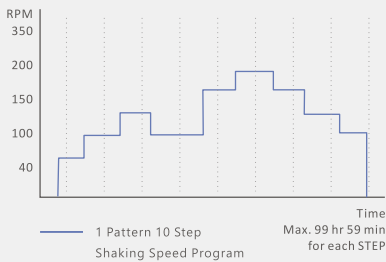
- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step RPM Program

Controller Highlights

- ▶ 16-bit Digital Microprocessor PID Controller.
- ▶ High-fidelity clear back light LCD displays complete settings and operating conditions with high readability.
- ▶ UV Coated Water-Proof Polycarbonate Touch Panel.
- ▶ Easy-to-use Encoder Type Jog Dial for quick and convenient temperature and time setting.
- ▶ 0.1 °C, 1 rpm control resolution.
- ▶ Turn-On and Turn-Off Timer up to 99 hour 59 min.
- ▶ Temperature, RPM and Timer memory function.
- ▶ 10 Step 1 Pattern RPM Program.
- ▶ Temperature and Timer automatically resume after power restoration.
- ▶ Class A Pt-100 Ohm Sensor.

RPM Control

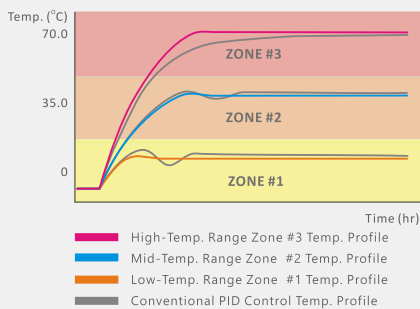
10 Step RPM Program



User can create and save one pattern of shaking speed program in memory for repeated experiment.

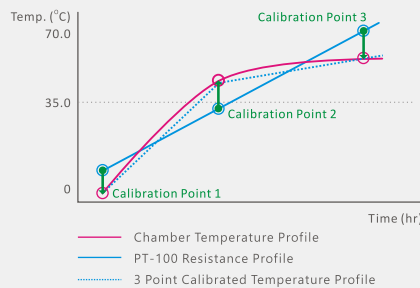
Temperature Control

3-Zone PID Algorithm



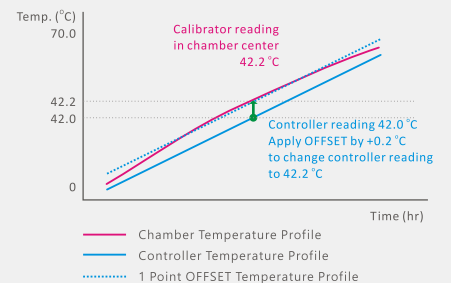
Complete temperature range is divided into three zones (LOW/MIDDLE/HIGH) and each ZONE has its individual PID algorithm to provide precise and superior temperature control characteristic of whole temperature range.

3-Point Calibration



An excellent calibration tool to calibrate chamber with THREE DIFFERENT TEMPERATURE POINTS to adjust multiple temperature bias to increase accuracy of WHOLE TEMPERATURE RANGE.

1-Point Offset



A simple and easy calibration tool that calibrates chamber's temperature at one specific frequently used temperature point.



JSSI-350T Series Programmable Tabletop Shaking Incubator

- ▶ ambient +5 °C ~ +50 °C
- ▶ Orbital Shaking Speed 10 ~ 300 rpm
- ▶ Digital PID Constant Temperature
- ▶ Timer up to 99 hr 59 min
- ▶ Programmable Shaking Speed
10 Step 3 Preset Program Pattern Memory



- ▶ Platform Size W350 x D350 mm
- ▶ Flask Capacity 16 ea x 100 ml
9 ea x 500 ml
5 ea x 1 L

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSI-350T	45 L	amb. + 5°C ~ 50°C	+/- 0.2 °C

Shaking Platforms

PHF-U350T	Universal Spring Rack
PHF-P350T	Universal Flask Holder Platform
PHF-M35	Silicone Mat

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step Program



JSSI-070C Series Tabletop Shaking Incubator

- ▶ JSSI-070T ambient +10 °C ~ +70 °C
- ▶ JSSI-070C +10 °C ~ +70 °C
- ▶ Orbital Shaking Speed 40 ~ 350 rpm



- ▶ 3-Zone PID Constant Temperature Control
- ▶ 3-Point Calibration
- ▶ Timer up to 99 hr 59 min
- ▶ Programmable Shaking Speed
10 Step Program Memory

- ▶ Platform Size W410 x D380 mm
- ▶ Flask Capacity 23 ea x 100 ml
9 ea x 500 ml
6 ea x 1 L

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSI-070T	62 L	amb. + 5°C ~ 70°C	+/- 0.2 °C
JSSI-070C	62 L	+ 10°C ~ 70°C	+/- 0.2 °C

Shaking Platforms

PHF-U40	Universal Spring Rack
PHF-P40	Universal Flask Holder Platform
PHF-M40	Silicone Mat

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step Program



JSSI-100 Compact Series

- JSSI-100T : ambient +10 °C ~+70 °C
- JSSI-100C : +10 °C ~ +70 °C
- Orbital / Reciprocal Shaking Speed 40 ~ 350 rpm
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- Timer up to 99 hr 59 min
- Programmable Shaking Speed 10 Step Program Memory
- Platform Size W500 x D465 mm

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSI-100T	110 L	amb. + 5°C ~ 70°C	+/- 0.2 °C
JSSI-100C	110 L	+ 10°C ~ 70°C	+/- 0.2 °C

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step Program



JSSI-300 Series Floor Standing

- JSSI-300T : ambient +10 °C ~+70 °C
- JSSI-300C(L) : +10 °C ~ +70 °C
- Orbital / Reciprocal Shaking Speed 40 ~ 350 rpm
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- Timer up to 99 hr 59 min
- Programmable Shaking Speed 10 Step Program Memory
- Platform Size W700 x D650 mm

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSI-300T	204 L	amb. + 5°C ~ 70°C	+/- 0.2 °C
JSSI-300C	204 L	+ 10°C ~ 70°C	+/- 0.2 °C
JSSI-300CL	204 L	+ 10°C ~ 70°C	+/- 0.2 °C

JIC-CON 5th GEN

- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset
- 10-Step Program



JSSI-200 Stackable Series

- JSSI-200T : ambient +10 °C ~+70 °C
- JSSI-200C(L) : +10 °C ~ +70 °C
- Orbital / Reciprocal Shaking Speed 40 ~ 350 rpm
- 3-Zone PID Constant Temperature Control
- 3-Point Calibration
- Timer up to 99 hr 59 min
- Programmable Shaking Speed 10 Step Program Memory
- Platform Size W500 x D465 mm

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSI-200T	198 L	amb. + 5°C ~ 70°C	+/- 0.2 °C
JSSI-200C	198 L	+ 10°C ~ 70°C	+/- 0.2 °C
JSSI-200CL	198 L	+ 10°C ~ 70°C	+/- 0.2 °C



JSSI-202C Two-Chamber

- ▶ +10 °C ~ +70 °C
- ▶ Timer On / Off
- ▶ Orbital / Reciprocal Shaking Speed 20 ~ 350 rpm
- ▶ JSSI-202CL for Photoperiodic Illumination Control
- ▶ Platform Size W700 x D650 mm



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSI-202C	2 x 324 L	+ 10°C ~ 70°C	+/- 0.5 °C
JSSI-202CL	2 x 324 L		+/- 0.5 °C



JSSI-xCML Series Multi-Stack

- ▶ +10 °C ~ +70 °C
- ▶ Timer On / Off
- ▶ Orbital / Reciprocal Shaking Speed 20 ~ 350 rpm
- ▶ JSSI-2CM for Two Shaking Platforms
- ▶ JSSI-4CM for Four Shaking Platforms
- ▶ JSSI-2(4) CML for Photoperiodic Illumination Control
- ▶ Platform Size W700 x D650 mm

MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSI-2CM	600 L	+ 10°C ~ 70°C	+/- 0.5 °C
JSSI-2CML	600 L		+/- 0.5 °C
JSSI-4CM	1080 L		+/- 0.5 °C
JSSI-4CML	1080 L		+/- 0.5 °C

JSOS-300 Orbital Shaker



- ▶ W275 x D345 mm
- ▶ Timer On / Off
- ▶ Speed 20 ~ 350 rpm
- ▶ Orbital Motion



JSOS-500 Orbital/Reciprocal Shaker



- ▶ W495 x D495 mm
- ▶ W700 x D650 mm
- ▶ Timer On / Off
- ▶ Speed 20 ~ 350 rpm
- ▶ Orbital / Reciprocal Motion



MODEL	DESCRIPTIONS	Platform Size	Flask Capacity	Max. Load	
JSOS-300	Orbital Shaker	W275 x D345 mm	8 ea x 100ml Flask	15 kg	230 VAC 1 ph 50/60 Hz
JSOS-500	Orbital Shaker	W495 x D495 mm	25 ea x 100ml Flask	35 kg	230 VAC 1 ph 50/60 Hz
	Optional Platform	W700 x D650 mm	40 ea x 100ml Flask	35 kg	

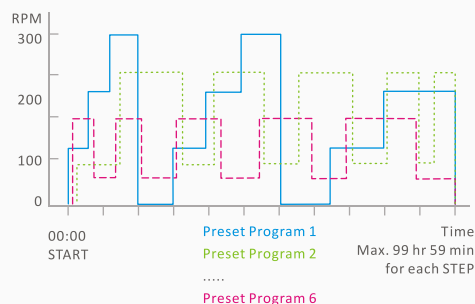
JSOS-350Q(R)

6 Patterns 10 Step Programmable SHAKER

10 ~ 300 rpm

20 mm Stroke Length

350 x 350 mm Platform



Controller

- Advanced MCU processor for precise speed control.
- 6 Preset Patterns 10 Steps for each program with varying rpm.
- Touch-Sensitive Multi-Functional Capacitive Button compatible to all kinds of latex gloves as well as finger touch.
- Easy-to-use Jog Dial for quick and convenient rpm and timer setting. Push to Run and Stop control.
- High-fidelity clear back light LCD displays complete settings and operating conditions with high readability.
- Easy to monitor set values, present speed and time.

Performance

- Speed range 10 to 300 rpm
- 20 mm orbital stroke
- Digital Timer sets up to 99hr 59min, increment by 1 min
- W350 x D350 mm standard shaking platform
- Powerful driving mechanism with Slow-Start Function
- Silent BLDC motor provides long shelf life and maintenance free
- Maximum loading capacity up to 10 kgs



PHF-P35SET
Universal Platform SET



PHF-P35
Universal Flask Holder Platform
[Flask Holder not included]



PHF-U35
Universal Spring Rack



MODEL	DESCRIPTIONS	Platform Size	Speed Range	Stroke Length	
JSOS-350Q	Orbital Shaker	W350 x D 350 mm	10 - 300 rpm	20 mm	230 VAC 1 ph 50/60 Hz
JSOS-350R	Reciprocal Shaker	W350 x D 350 mm	10 - 300 rpm	20 mm	230 VAC 1 ph 50/60 Hz
PHF-P35SET	Universal Platform Set <i>includes...</i> PHF-P35 Universal Flask Holder Platform, W370 x D370 mm PHF-M35 Silicone Mat, W350 x D350 mm PHF-S35 Elastic String Band with Stopper x 2 sets				
PHF-P35	Universal Flask Holder Platform, W370 x D370 mm				
PHF-U35	Universal Spring Rack, W350 x D350 mm				

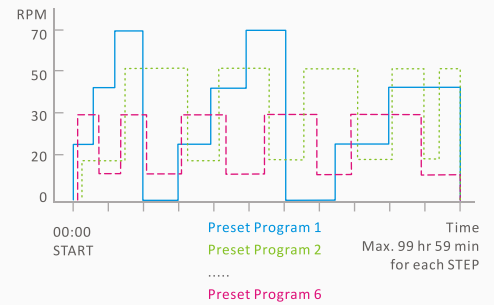
3D ROCKER

6 PATTERN 10 STEP PROGRAM



JSSK-3D PROGRAMMABLE 3D ROCKER

10 ~ 70 rpm
9° Tilt Angle Motion
350 x 350 mm Platform



Controller

- Advanced MCU processor for precise speed control.
- 6 Preset Patterns 10 Steps for each program with varying rpm.
- Touch-Sensitive Multi-Functional Capacitive Button compatible to all kinds of latex gloves as well as finger touch.
- Easy-to-use Jog Dial for quick and convenient rpm and timer setting. Push to Run and Stop control.
- High-fidelity clear back light LCD displays complete settings and operating conditions with high readability.
- Easy to monitor set values, present speed and time.

Performance

- Speed range 10 to 70 rpm
- 9° Tilt Angle 3D motion
- Digital Timer set up to 99hr 59min, increment by 1 min
- W350 x D350 mm standard shaking platform
- Powerful driving mechanism with Slow Start Function
- Silent BLDC motor provides long shelf life and maintenance free
- Maximum loading capacity up to 10 kgs

PHF-P53SET
Universal Platform Set



PHF-U35
Universal Spring Rack



MODEL	DESCRIPTIONS	Platform Size	Speed Range	Rocking Angle	
JSSK-3D	3D Rocker	W350 x D 350 mm	10 - 70 rpm	9° Tilt	230 VAC 1 ph 50/60 Hz
	3D Orbital Rocking Motion				
	Digital Fuzzy Control with Capacitive Touch Button and Jog Dial				
	Digital Back Light Graphic LCD Display				
	99 hr 59 min Timer				
	6 Preser Program, 10 Steps for each Program				
PHF-P35SET	Universal Platform Set <i>includes...</i>				
	PHF-P35 Universal Platform, W370 x D370 mm				
	PHF-M35 Silicone Mat, W350 x D350 mm				
	PHF-S35 Elastic String Band with Stopper x 2 sets				
PHF-U35	Universal Spring Rack, W350 x D350 mm				

JSMS-xxxD(A) OVERHEAD STIRRER



Digital Fuzzy Control

Digital Fuzzy Logic Controller precisely controls Stirring Speed by 1 rpm resolution
Digital Timer from 1 min to 99 hour 59 min



Touch Button

Touch-sensitive Multi-Functional Capacitive Button compatible to all kinds of latex gloves as well as finger touch



Jog Dial

Easy-to-use Jog Dial for quick and convenient setting of stirring speed and timer
Push to Run, Stop and Save Set RPM and TIMER



Hi-Fidelity LCD

High-fidelity clear back light LCD displays complete operating conditions at a glance
Easy to monitoring set values, present stirring speed and timer.



Powerful DC Motor

DC Drive motor for powerful torque, steady speed control and long shelf life



Rust Free Chuck

Corrosion and rust free chrome plated chuck for long shelf life



	Model	RPM	Torque	Viscosity	
High Speed	JSMS-070D(A)	100 ~ 2000 rpm	200 Ncm	70,000 mPas	Low Viscosity
▼	JSMS-100D(A)	80 ~ 1200 rpm	300 Ncm	100,000 mPas	▲
Low Speed	JSMS-150D(A)	50 ~ 800 rpm	450 Ncm	150,000 mPas	High Viscosity

MODEL	DESCRIPTIONS	Speed Range	Max. Torque	Max. Viscosity	
JSMS-070D	Digital Overhead Stirrer	100 - 2,000 rpm	200 Ncm	70,000 mPas	230 VAC 1 ph 50/60 Hz
JSMS-100D	Digital Overhead Stirrer	80 - 1,200 rpm	300 Ncm	100,000 mPas	230 VAC 1 ph 50/60 Hz
JSMS-150D	Digital Overhead Stirrer	50 - 800 rpm	450 Ncm	150,000 mPas	230 VAC 1 ph 50/60 Hz
JSMS-070A	Analog Overhead Stirrer	~ 2,000 rpm	200 Ncm	70,000 mPas	230 VAC 1 ph 50/60 Hz
JSMS-100A	Analog Overhead Stirrer	~ 1,200 rpm	300 Ncm	100,000 mPas	230 VAC 1 ph 50/60 Hz
JSMS-150A	Analog Overhead Stirrer	~ 800 rpm	450 Ncm	150,000 mPas	230 VAC 1 ph 50/60 Hz

OPTIONS & ACCESSORIES

PV, SV RPM, Time
Power Indicator



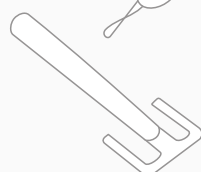
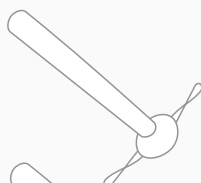
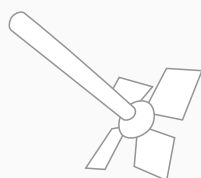
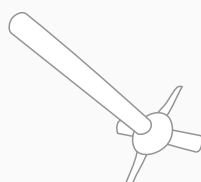
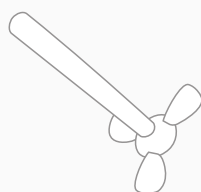
DIGITAL

Capacitive Touch Button



ANALOG

Push Button Jog Dial



Art. No.

Descriptions

PHA-04S

Standard Plate Stand, 25 x 37 cm with Rod and Silicone Pad

PHA-05C

Clamp, Hold up to 23 mm

PHA-P30850

Impeller, Propeller, 3 x blade, Rod : 8 mm Blade Dia. : 50 mm

PHA-P30860

Impeller, Propeller, 3 x blade, Rod : 8 mm Blade Dia. : 60 mm

PHA-P30880

Impeller, Propeller, 3 x blade, Rod : 8 mm Blade Dia. : 80 mm

PHA-P30810

Impeller, Propeller, 3 x blade, Rod : 8 mm Blade Dia. : 100 mm

PHA-P31060

Impeller, Propeller, 3 x blade, Rod : 10 mm Blade Dia. : 60 mm

PHA-P31080

Impeller, Propeller, 3 x blade, Rod : 10 mm Blade Dia. : 80 mm

PHA-P31010

Impeller, Propeller, 3 x blade, Rod : 10 mm Blade Dia. : 100 mm

PHA-P40870

Impeller, Propeller, 4 x blade, Rod : 8 mm Blade Dia. : 70 mm

PHA-P40890

Impeller, Propeller, 4 x blade, Rod : 8 mm Blade Dia. : 90 mm

PHA-P40810

Impeller, Propeller, 4 x blade, Rod : 8 mm Blade Dia. : 100 mm

PHA-P41090

Impeller, Propeller, 4 x blade, Rod : 10 mm Blade Dia. 90 mm

PHA-P41010

Impeller, Propeller, 4 x blade, Rod : 10 mm Blade Dia. 100 mm

PHA-D40890

Impeller, Diamond, 4 x blade, Rod : 8 mm Blade Dia. : 90 mm

PHA-D40810

Impeller, Diamond, 4 x blade, Rod : 8 mm Blade Dia. : 100 mm

PHA-D41010

Impeller, Diamond, 4 x blade, Rod : 10 mm Blade Dia. : 100 mm

PHA-C20810

Impeller, Centrifugal, 2 x blade, Rod : 8 mm Blade Dia. : 100 mm

PHA-C2890F

Impeller, Centrifugal, 2 x blade, Rod : 8 mm Blade Dia. : 90 mm, Teflon Coated

PHA-C2812F

Impeller, Centrifugal, 2 x blade, Rod : 8 mm Blade Dia. : 120 mm, Teflon Coated

PHA-A20870

Impeller, Anchor, 2 x blade, Rod : 8 mm Blade Dia. : 70 mm

PHA-A20890

Impeller, Anchor, 2 x blade, Rod : 8 mm Blade Dia. : 90 mm

PHA-A21090

Impeller, Anchor, 2 x blade, Rod : 10 mm Blade Dia. : 90 mm

PHA-A21014

Impeller, Anchor, 2 x blade, Rod : 10 mm Blade Dia. : 140 mm



JSHR-270D(A)

HOMOGENIZER

Max. 27,000 rpm



Digital RPM Display

3-Digit Digital FND Display and Stepless Speed Control up to maximum 27,000 rpm



Universal Motor

High speed and long shelf life Universal Motor



Aluminum Casting Body

Rugged aluminum casting body with epoxy powder coating
Durable and rust free engineering plastic case



Dispensing Tools

High quality stainless steel dispersing tool with Teflon bearing
Dispensing volume : 1 ml to 2500 ml

MODEL	DESCRIPTIONS	Speed Range	Max. Dispensing Volume	
JSHR-270D	Digital Homogenizer	2,000 ~ 27,000 rpm	2.5 Liter H ₂ O	230 VAC 1 ph 50/60 Hz
JSHR-270A	Analog Homogenizer	2,000 ~ 27,000 rpm	2.5 Liter H ₂ O	230 VAC 1 ph 50/60 Hz
PHA-04S	Standard Plate Stand, 25 x 37 cm with Rod and Silicone Pad			
PHA-05C	Clamp, Hold up to 23 mm			
PHA-T0680	Dispensing Tool, Rotor Dia. 6.1 mm,	Stator Dia. 8 mm for	1 ~ 50 ml liquid volume	
PHA-T0710	Dispensing Tool, Rotor Dia. 7.5 mm,	Stator Dia. 10 mm for	1 ~ 100 ml liquid volume	
PHA-T1218	Dispensing Tool, Rotor Dia. 12.7 mm,	Stator Dia. 18 mm for	10 ~ 1000 ml liquid volume	
PHA-T1725	Dispensing Tool, Rotor Dia. 17.0 mm,	Stator Dia. 25 mm for	50 ~ 2500 ml liquid volume	





JSAT-Series AUTOCLAVE STEAM STERILIZER

JSAT-Series Autoclave, Steam Sterilizer is for sterilization of bacteria, microorganism and virus with steamed hot air usually at 121°C, 0.12 Mpa. Sterilization for laboratory ware such as flask, bottle, pipet, animal cage, plastic ware, broth or agar media for bacterial culture before use or disposal of biohazard wastes such as syringe, cloth, gloves or petri dish after use..






Specifications


Temp. Range	Maximum 123 °C
Accuracy	± 0.5 °C at 121°C
Pressure	Up to 0.12 Mpa
Control	Fully Automatic PID Control Auto START / STOP Timer
Sensor	Class A Pt-100 Ω Sensor
Safety	Over-Temperature Cut-Off Over-Pressure Cut-Off Over Current Cut-Off
Material	Body : Epoxy Powder Coated Steel Chamber : Stainless Steel 304
Electric	220 +/- 10% VAC 50/60Hz 1-Phase

Plug config.



-  Max. 121 °C 0.12 Mpa

-  Timer On / Off 

-  Safety Door Lock

Control

- ▶ 0.1 °C Digital PID Controller
- ▶ Automatic START/STOP timer Max. 99min 59sec
- ▶ DUAL LED displays temperature and remaining time
- ▶ Temperature calibration and auto-tuning function
- ▶ Class A Pt-100 Ω sensor

JSAT-Series Autoclave, Steam Sterilizer
is an innovative replacement for conventional laboratory autoclave by providing reliable performance, up-to-dated design and safety door inter-lock system integrated with temperature and pressure detection technology for perfect user safety.

Performance

- ▶ Vertical loading type chamber with 2 EA service basket
- ▶ Maximum sterilization temperature and pressure up to 121°C at 0.12 Mpa
- ▶ Automatic sterilization cycle starts just by setting sterilization temperature and time
- ▶ Chamber, lid and top plate made with Stainless Steel 304 to protect from corrosion by water and steam
- ▶ Special plated heating element is resistant to dry-burn, corrosion and guarantees long life in repeated use

Convenience

- ▶ Vertical opening chamber lid with safety door lock for easy access to chamber
- ▶ Steam collection bottle removes most of the steam during operation for comfortable laboratory environment
- ▶ Equipped with drain valve for cleaning or refilling fresh water
- ▶ Metallic body with durable epoxy powder coating
- ▶ High temperature and pressure resistant silicone gasket
- ▶ Built-in analog pressure gauge
- ▶ Manual pressure release valve
- ▶ Four casters for easy transport

Safety

- ▶ **SAFETY DOOR LOCK**
Door interlocking system integrated with high temperature, high pressure and electric cut-off
- ▶ **TRIPLE OVER TEMP. CUT-OFF**
 - 1) Controller cut-off heater, and AUDIO VISUAL ALARM in case +2°C above set temp. or +1°C above max. temp. 123°C
 - 2) Analog System cut-off heater in case 10% above set temp.
- ▶ **DUAL OVER PRESSURE CUT-OFF**
 - 1) Controller open pressure valve and AUDIO VISUAL ALARM in case +2°C above set temp. or +1°C above max. temp. 123°C
 - 2) Mechanical over pressure valve release pressure automatically in case over maximum pressure limit
- ▶ **ANALOG PRESSURE GAUGE**
0 ~ 0.3 Mpa pressure gauge indicating actual pressure
- ▶ **MANUAL PRESSURE RELEASE VALVE**
Electrical Leakage Breaker : Over current cut-off



	JSAT-45	JSAT-65	JSAT-85	JSAT-105
Chamber Volume (Capacity)	45 Liter	65 Liter	85 Liter	105 Liter
Dimensions Inner	Dia. 350 x H490	Dia. 350 x H680	Dia. 450 x H535	Dia. 450 x H665
Dia. X H mm Usable	Dia. 350 x H410	Dia. 350 x H620	Dia. 450 x H480	Dia. 450 x H610
W x D x H mm Outer	555 x 670 x 955	555 x 670 x 1105	655 x 780 x 1010	655 x 780 x 1110
Basket x 2 ea	Dia. 330 x H190	Dia. 330 x H280	Dia. 430 x H220	Dia. 430 x H270
Temperature Range	Up to 123 °C			
Accuracy	+/- 0.5 °C			
Uniformity	+/- 2.0 °C			
Heater Capacity	2.0 kW	2.5 kW	3.0 kW	4.0 kW
Power Rating	9.2 amp	11.4 amp	13.6 amp	18.2 amp
Electric	220 VAC 50/60 Hz 1P			
Power Plug	CEE 7/7 Schuko	CEE 7/7 Schuko	CEE 7/7 Schuko	30 AMP

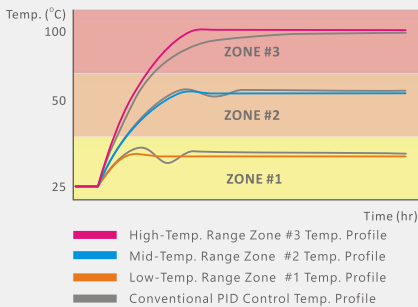
JWB-CON 5th GEN

Controller Highlights

3-Zone PID Algorithm 3-Point Calibration 1-Point Offset

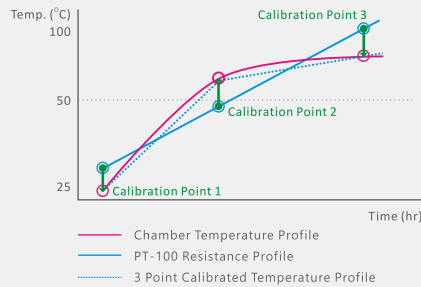
- ▶ 16-bit Digital Microprocessor PID Controller.
- ▶ High-fidelity clear back light LCD displays complete settings and operating conditions with high readability.
- ▶ UV Coated Water-Proof Polycarbonate Touch Panel.
- ▶ Easy-to-use Encoder Type Jog Dial for quick and convenient temperature and time setting.
- ▶ 0.1 °C control resolution.
- ▶ Turn-On and Turn-Off Timer up to 99 hour 59 min.
- ▶ Temperature and Timer memory function.
- ▶ Temperature and Timer automatically resume after power restoration.
- ▶ Class A Pt-100 Ohm Sensor.

3-Zone PID Algorithm



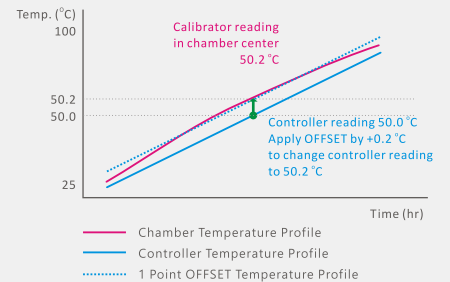
Complete temperature range is divided into three zones (LOW/MIDDLE/HIGH) and each ZONE has its individual PID algorithm to provide precise and superior temperature control characteristic of whole temperature range.

3-Point Calibration



An excellent calibration tool to calibrate chamber with THREE DIFFERENT TEMPERATURE POINTS to adjust multiple temperature bias to increase accuracy of WHOLE TEMPERATURE RANGE.

1-Point Offset



A simple and easy calibration tool that calibrates chamber's temperature at one specific frequently used temperature point.



JWB-CON 5th GEN

JSWB-xxT Series

DIRECT HEATED
DIGITAL
WATER BATH

amb. +5 °C ~ 99 °C
6, 11, 22, 30 LITER



Construction

- ▶ Durable epoxy powder coated metallic casing
- ▶ Corrosion resistant Seamless Electro-Polished Stainless Steel 304 Bath
- ▶ Corrosion resistant Stainless Steel 304 sheath immersion heater for JSWB-xxT
- ▶ Corrosion resistant Stainless Steel 304 flat lid
- ▶ Ceramic surface heating element for JSWB-xxTL
- ▶ Perforated heater cover (bottom plate)



JSWB-22T(L) Digital Water Bath, 22 liter

JWB-CON 5th GEN

JSWB-xxTL Series

INDIRECT HEATED
DIGITAL
WATER BATH

amb. +5 °C ~ 70 °C
6, 11, 22, 30 LITER



Convenience

- ▶ Easy to clean Electro-Polished seamless SS 304 Bath
- ▶ Drain valve for easily emptying bath fluids (JSWB-22T, JSWB-30T only)
- ▶ Supplied with stainless steel Flat Lid to help reduce heat losses and evaporation



JSWB-11T(L) Digital Water Bath, 11 liter

		JSWB-06T(L)	JSWB-11T(L)	JSWB-22T(L)	JSWB-30T(L)
Bath Volume (Capacity)		6 Liter	11 Liter	22 Liter	30 Liter
Dimensions	Inner	300 x 155 x 150	300 x 240 x 150	500 x 300 x 150	500 x 300 x 190
	W x D x H mm Usable	300 x 155 x (140)	300 x 240 x (140)	500 x 300 x (140)	500 x 300 x (180)
		Outer	340 x 220 x 300	340 x 305 x 300	545 x 365 x 300
Temperature	Range	Amb. +5 °C ~ 99.0 °C (70.0 °C)			
	Accuracy	+/- 0.1 °C			
	Uniformity	+/- 0.5 °C			
Heater Capacity		600 (620) W	1.0 (1.1) kW	1.5 (1.5) kW	2.0 (2.0) kW
Power Rating		2.7 (2.8) amp	4.6 (4.8) amp	6.8 (6.8) amp	9.2 (9.2) amp
Electric		220 VAC 50/60 Hz 1P			
Power Plug		CEE 7/7 Schuko	CEE 7/7 Schuko	CEE 7/7 Schuko	CEE 7/7 Schuko



JSIB-Series Circulation Bath

- amb. +5 °C ~ 99 °C
- Constant Temperature
- Timer On / Off
- Internal and external Circulation Pump
- Flow Rate : 8 L/min
- Pressure : 0.3 bar



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSIB-11T	11 L	amb. +5 °C ~ 99 °C	+/- 0.2 °C
JSIB-22T	22 L		
JSIB-50T	48 L		
JSIB-100T	100 L		

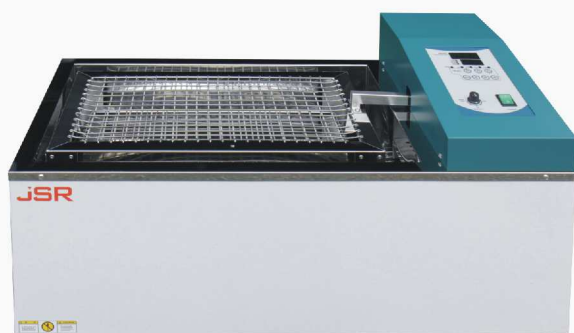


JSRC-C(L) Series Refrigerated Circulation Bath

- - 20 (- 40) °C ~ 120 °C
- Constant Temperature
- Timer On / Off
- Internal and external Circulation Pump
- Flow Rate : 10 L/min
- Pressure : 0.5 bar



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSRC-06C(L)	7 L	JSRC-C	+/- 0.1 °C
JSRC-13C(L)	11 L	-20 °C ~ 120 °C	
JSRC-22C(L)	20 L	JSRC-CL	
JSRC-30C(L)	30 L	-40 °C ~ 120 °C	



JSSB-Series Shaking Water Bath

- amb. +5 °C ~ 99 °C
- Constant Temperature
- Timer On / Off
- Shaking Speed 20 ~ 120 rpm
- 25 mm stroke reciprocal motion



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSSB-30T	30 L	amb. +5 °C ~ 99 °C	+/- 0.2 °C
JSSB-50T	50 L		

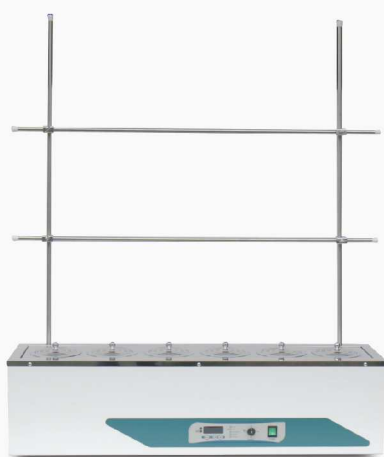


JSOB-Series Digital Oil Bath

- amb. +10 °C ~ 250 °C
- Constant Temperature
- Timer On / Off



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSOB-100T	11 L	amb. + 10 °C ~ 250 °C	+/- 1.0 °C
JSOB-200T	20 L		
JSOB-300T	33 L		



JSEB-Series Extraction COD Bath

- amb. +5 °C ~ 99.9 °C
- Constant Temperature
- Timer On / Off
- 6 to 10 Multi-Extraction Ports



MODEL	CAPACITY	TEMPERATURE	ACCURACY
JSEB-60T	6 Ports	amb. +5 °C ~ 99.9 °C	+/- 0.5 °C
JSEB-62T	2 x 3 Ports		
JSEB-82T	2 x 4 Ports		
JSEB-102T	2 x 5 Ports		



JSCT-Series Ultra-Low Cold Trap

- Minimum Temperature
-35 °C ~ - 85 °C
- On/Off Temperature Control



MODEL	CAPACITY	MINIMUM TEMPERATURE
JSTC-35C	7.2 L	- 35 °C
JSCT-55ULT		- 55 °C
JSCT-85ULT		- 85 °C

Controller Highlights

▶ JSC-4CP Programmable Controller



- ▶ High precision Digital PID Microprocessor controls temperature, humidity, lighting and CO₂ concentration in one integrated unit with easy to use 4-line back-light LCD display interface
- ▶ Constant temperature, humidity, lighting and CO₂ conc. operation with automatic OFF timer
- ▶ Programmable operation capability of various climatic conditions of temperature, humidity, lighting and CO₂ conc. with time duration up to 11 Segments with 999 cycles or unlimited repeating operation
- ▶ Calibration and auto-tuning function
- ▶ Class A Pt-100 Ω temperature sensor
- ▶ Precision electronic humidity sensor
- ▶ Built-in LUX Meter in chamber to measure light intensity
- ▶ Most accurate NDIR-Diffusion (Infra Red) CO₂ Sensor
- ▶ Automatic defrost cycle



Performance & Convenience

▶ Light Bank System

- ▶ Light Bank System with HQI and Fluorescent lamps
- ▶ Combination of 8-Level Lamp Control creates over 16 light intensity gradation
- ▶ Lamp-on-Delay System turn on lamp one by one which provides gradual increase of light intensity



▶ Chamber

- ▶ Stainless Steel 304 chamber
- ▶ Removable and height adjustable shelf
- ▶ Internal LUX meter sensor
- ▶ Built-in humidifier and automatic water supply
- ▶ Low water level sensor and alarm



▶ Maintenance

- ▶ Easy access to Light Bank System for convenient maintenance
- ▶ Easy to maintain refrigeration system



▶ Infrared CO₂ Sensor

- ▶ High precision Dual wavelength NDIR Diffusion sensor to measure and control CO₂ concentration



JSPC-200CO2

JSPC-300CO2



JSPC-420CO2

JSPC-960CO2

3-SIDE ILLUMINATION PLANT GROWTH CHAMBER

JSPC-Series 30,000 Lux 3-Side Illumination Plant Growth Chamber



-  Temp. +0 °C ~ 60 °C
-  Humidity 30 ~ 85% RH
-  Lighting 0 ~ 30,000 Lux
-  CO₂ Conc. amb. ~ 5000 ppm (%)
-  Program Controller
-  Timer On / Off 
-  Photoperiodic Control 



JSPC-200C



JSPC-420C



JSPC-960C

MODEL	CAPACITY	TEMPERATURE	HUMIDITY	LIGHTING	CO ₂ conc.	TEMP ACCURACY	RH ACCURACY
JSPC-200C(CO ₂)	200 L	+0 °C ~ +60 °C	30 ~ 85% RH	0 ~ 30,000 Lux	amb. ~ 5000 ppm	+/- 0.3 °C	+/- 3.0% RH
JSPC-300C(CO ₂)	300 L						
JSPC-420C(CO ₂)	432 L						
JSPC-960C(CO ₂)	864 L						

Select Model JSPC-xxxCO₂ for CO₂ concentration control

JSGC-Series 40,000 Lux Top Illumination Plant Growth Chamber



	Temp. +0 °C ~ 60 °C
	Humidity 30 ~ 85% RH
	Lighting 0 ~ 40,000 Lux
	CO ₂ Conc. amb. ~ 5000 ppm (%)
	Program Controller
	Timer On / Off
	Photoperiodic Control

MODEL	CAPACITY	TEMPERATURE	HUMIDITY	LIGHTING	CO ₂ conc.	TEMP ACCURACY	RH ACCURACY
JSGC-420C(CO ₂)	432 L	+0 °C ~ +60 °C	30 ~ 85% RH	0 ~ 40,000 Lux	amb. ~ 5000 ppm	+/- 0.3 °C	+/- 3.0% RH
JSGC-960C(CO ₂)	972 L						
JSGC-1500C(CO ₂)	1512 L						

Select Model JSGC-xxxxCO₂ for CO₂ concentration control

JSPG-Series 50,000 Lux 3-D Illumination Plant Growth Chamber



	Temp. +0 °C ~ 60 °C
	Humidity 30 ~ 85% RH
	Lighting 0 ~ 50,000 Lux
	CO ₂ Conc. amb. ~ 5000 ppm (%)
	Program Controller
	Timer On / Off
	Photoperiodic Control

MODEL	CAPACITY	TEMPERATURE	HUMIDITY	LIGHTING	CO ₂ conc.	TEMP ACCURACY	RH ACCURACY
JSPG-1500C(CO ₂)	1512 L	+0 °C ~ +60 °C	30 ~ 85% RH	0 ~ 50,000 Lux	amb. ~ 5000 ppm	+/- 0.3 °C	+/- 3.0% RH

Select Model JSPG-1500CO₂ for CO₂ concentration control

TISSUE CULTURE CHAMBER CULTURE RACK

JSCC-Series Tissue Culture Chamber






-  Temp. +0 °C ~ 70 °C
-  Program Controller
5 Patterns 80 Segments
-  Lighting 0 ~ 7,000 Lux
-  Photoperiodic Control 
-  [OPTION] RS-232C Serial
Computer Interface

MODEL	CAPACITY	TEMPERATURE	LIGHTING	TEMP ACCURACY
JSCC-150CP	150 L	+0 °C ~ 70 °C	0 ~ 6,500 Lux	+/- 0.2 °C
JSCC-250CP	250 L		0 ~ 7,000 Lux	
JSCC-460CP	432 L			

JSCR-Series Culture Rack



-  Lighting 0 ~ 4,500 Lux
-  Photoperiodic Control 

MODEL	JSCR-1200
No. of Shelves	Four (4)
Dimensions	
Shelf Surface	W1400 x D600 mm
Outer	W1500 x D610 x H2020 mm
Max. Intensity	4,500 Lux
Control	ON/OFF Switch for each lamp ON/OFF Switch for each Shelf
Photoperiodic Timer	24-hr analog timer by 10 min. interval
Lamp Options	LED White, 4 x 15 W / shelf LED Red LED Green LED Blue

JSCB-xxxxSB BIOLOGICAL SAFETY CABINET CLASS II TYPE A2

HEPA Filter 99.993 % for > 0.3 um
ULPA Filter 99.999 % for > 0.12 um

Cabinet enclosure designed Class II Type A2 provides personnel, product and environment protection from hazardous particles such as bacteria, viruses, genetically manipulated materials and nucleic acids that require Biosafety Level 1, 2 or 3 containments. Various applications in medical, biomedical, biotechnology, pharmaceutical, cell culture, tissue culture, virology and pathology applications using pathogens, genetic materials, carcinogens, allergens may generate hazardous airborne particles.



JSCB-1200SB Biological Safety Cabinet
Class II Type A2, 1200 mm (4 ft)



Biological Safety
Class II Type A2



HEPA Filter
99.993 % for 0.3 um particles



ULPA Filter
99.999% for 0.12 um particles



9 Step Air Velocity Control
0.3 m/sec ~ 0.6 m/sec



Cold White
Fluorescent Work Lamp



Germicidal UV Lamp
/w Timer



JSCB-CON 5th GEN



CLASS II TYPE A2

Model

JSCB-900SB

JSCB-1200SB

JSCB-1500SB

JSCB-1800SB

Dimension Data

Working Width	830 mm (3 ft)	1205 mm (4 ft)	1490 mm (5 ft)	1790 mm (6 ft)
Inner Dims. (WxDxH) mm	830 x 550 x 585	1205 x 550 x 585	1490 x 550 x 585	1790 x 550 x 585
Outer Dims. (WxDxH) mm	900 x 800 x 1290	1275 x 800 x 1290	1560 x 800 x 1290	1860 x 800 x 1290
including Stand (WxDxH) mm	900 x 800 x 1970	1275 x 800 x 1970	1560 x 800 x 1970	1860 x 800 x 1970

Performance Data

Safety Class	BSC Class II Type A2			
Air Flow Type	70% Re-circulation / 30% Exhaust			
Down Flow	0.3 m/sec.			
In-Flow	0.5 m/sec.			
Filtration Efficiency (nominal)	HEPA Filter 99.993 ~ 99.995 % for particles > 0.3 um ULPA Filter 99.999 % for particles > 0.12 um			
Noise Level	< 65 dB			
Work Light (LED Lamp)	11 watt x 2 ea	15 watt x 2 ea	20 watt x 2 ea	20 watt x 2 ea
Germicidal UV Lamp 253.7 nm	20 watt	30 watt	30 watt	40 watt
UV Intensity	7.5 W	13.4 W	13.4 W	19.8 W

Controller

Digital Microprocessor Control System with Graphic LCD Display
Soft Touch Capacitive Button with Indication Light
10-Step Air Velocity Control
Fan ON/OFF, Working Lamp ON/OFF, UV Lamp ON/OFF
Adjustable UV Sterilization Timer
Total HEPA Filter usage time
HEPA Filter Replacement Alarm

Material Data

Working Plate	Removable, Stainless Steel 304 (AISI304)
Body	SPCC /w Epoxy Powder Coating
Front Sash Door	5.0 mm Thick Tempered Safety Glass

Safety Data

Over Current Protection
Automatic UV Lamp Cut-Off on Door Open
HEPA Filter Replacement Alarm

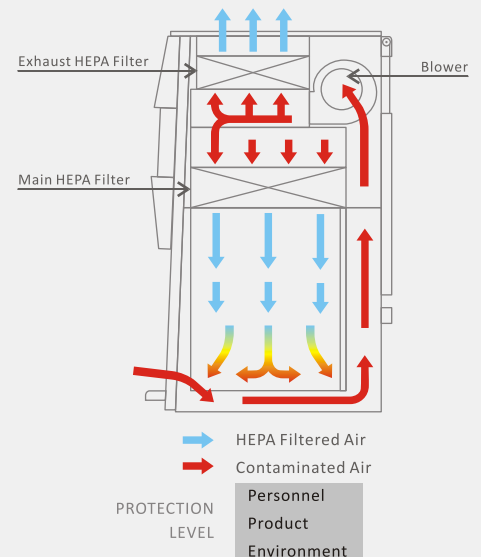
Utility Accessories

Power Receptacle for 220V European Plug x 2 ea
Gas Cock x 1 ea, Air Cock x 1 ea

Electrical Data

Power Requirement	220 +/- 10% VAC 50/60 Hz 1 Phase			
Power Consumption	200 W 0.9 amp	350 W 1.6 amp	350 W 1.6 amp	375 W 1.7 amp
Plug Configuration	CEE 7/7 Schuko or BS 1363			

BSC Cabinet Class II Type A2



JSCB-xxxxSL VERTICAL LAMINAR FLOW SAFETY CABINET

ISO CLASS 5 (CLASS 100)

HEPA Filter 99.993 % for > 0.3 μ m

ULPA Filter 99.999 % for > 0.12 μ m

Vertical Laminar Flow Cabinet enclosure is designed to maintain ISO Class 5 (formerly Class 100) clean air. HEPA filtered laminar air flows down over the work area to protect products or samples being handled in the cabinet from dust or biological contaminants such as bacteria, fungus and genetic materials.

Various applications in plant tissue culture, microbial inoculation, media preparation, PCR, electronic or medical parts inspection and assembly where dust particles and contaminants should not be present in the air of working area essentially needed.



JSCB-1200SL Vertical Laminar Flow
Safety Cabinet



Vertical Laminar Flow
ISO Class 5 (Class 100)



HEPA Filter
99.993 % for 0.3 μ m particles



ULPA Filter
99.999% for 0.12 μ m particles



9 Step Air Velocity Control
0.3 m/sec ~ 0.6 m/sec



Cold White
Fluorescent Work Lamp



Germicidal UV Lamp
/w Timer



JSBS-5000 Bio-Suction Pump

MODEL	JSBS-5000
Bottle Volume	4000 cc
Pump Displacement	40 liter / min
Max. Vacuum	650 mmHg

VERTICAL LAMINAR FLOW

Model

JSCB-900SL

JSCB-1200SL

JSCB-1500SL

JSCB-1800SL

Dimension Data

Working Width	830 mm (3 ft)	1205 mm (4 ft)	1490 mm (5 ft)	1790 mm (5 ft)
Inner Dims. (WxDxH) mm	830 x 550 x 585	1205 x 550 x 585	1490 x 550 x 585	1790 x 550 x 585
Outer Dims. (WxDxH) mm	900 x 800 x 1290	1275 x 800 x 1290	1560 x 800 x 1290	1860 x 800 x 1290
including Stand (WxDxH) mm	900 x 800 x 1970	1275 x 800 x 1970	1560 x 800 x 1970	1860 x 800 x 1970

Performance Data

Safety Class	Biosafety Level 1 for Product Protection Only			
Air Flow Type	Vertical Laminar Flow			
Down-Flow	0.3 m/sec.			
Filtration Efficiency (nominal)	HEPA Filter 99.993 ~ 99.995 % for particles > 0.3 um ULPA Filter 99.999 % for particles > 0.12 um			
Noise Level	< 65 dB			
Work Light (LED Lamp)	11 watt x 2 ea	15 watt x 2 ea	20 watt x 2 ea	20 watt x 2 ea
Germicidal UV Lamp 253.7 nm	20 watt	30 watt	30 watt	40 watt
UV Intensity	7.5 W	13.4 W	13.4 W	19.8 W

Controller

Digital Microprocessor Control System with Graphic LCD Display
Soft Touch Capacitive Button with Indication Light
10-Step Air Velocity Control
Fan ON/OFF, Working Lamp ON/OFF, UV Lamp ON/OFF
Adjustable UV Sterilization Timer
Total HEPA Filter usage time
HEPA Filter Replacement Alarm

Material Data

Working Plate	Removable, Stainless Steel 304 (AISI304)
Body	SPCC /w Epoxy Powder Coating
Front Sash Door	5.0 mm Thick Tempered Safety Glass

Safety Data

Over Current Protection
Automatic UV Lamp Cut-Off on Door Open
HEPA Filter Replacement Alarm

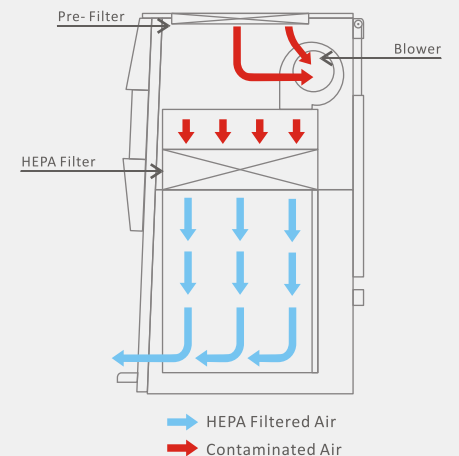
Utility Accessories

Power Receptacle for 220V European Plug x 2 ea
Gas Cock x 1 ea, Air Cock x 1 ea

Electrical Data

Power Requirement	220 +/- 10% VAC 50/60 Hz 1 Phase			
Power Consumption	200 W 0.9 amp	350 W 1.6 amp	350 W 1.6 amp	375 W 1.7 amp
Plug Configuration	CEE 7/7 Schuko or BS 1363			

Vertical Laminar Flow



PROTECTION LEVEL **Product Only**

JSCF-M8 MICRO CENTRIFUGE

MAX 6,200 rpm
RCF 1,800 x g

JSCF-M8 Micro Centrifuge is designed for quick spin down applications up to 6,200 rpm / RCF 1,800 x g tool-free interchangeable rotors and adaptors for 0.2 ml and 0.5 ml tubes.



Rotor for 4 PCR Strips



2.0ml Tube Rotor
with 0.2ml, 0.5ml Tube Adaptors

Performance

Max. 6,200 rpm / RCF 1,800 x g
Fixed Angle Rotor for 1.5 ml or 2.0 ml x 8 holes
Fixed Angle PCR Rotor for 0.2 ml x 32 tubes, or 4 PCR Strips

Convenience

Tool free one-touch rotor replacement
Multiple use for 1.5 / 2.0 ml and 0.2 ml tubes
Spring hinged lifting lid

Construction

Silent DC motor
Clear polycarbonate dome lid
ABS plastic body with low gravitational centered design
Rubber bottom base

Safety

Two way safety door switch

MODEL	DESCRIPTIONS
JSCF-M8	Micro Centrifuge 6,200 rpm 230 VAC 1 ph 50/60 Hz
	includes ...
	PHC-R08 Fixed Angle Rotor, 8 x 1.5 / 2.0ml tubes
	PHC-R32 Fixed Angle Rotor, 32 x 0.2ml tubes or 4 Lines x PCR Strips
	PHC-A02 Tube Adapter, 8 x 0.2ml
	PHC-A05 Tube Adapter, 8 x 0.5ml
Optional Accessories	
PHC-R08	PHC-R08 Fixed Angle Rotor, 8 x 1.5 / 2.0ml tubes
PHC-R32	PHC-R32 Fixed Angle Rotor, 32 x 0.2ml tubes or 4 Lines x PCR Strips
PHC-A02	PHC-A02 Tube Adapter, 8 x 0.2ml
PHC-A05	PHC-A05 Tube Adapter, 8 x 0.5ml

JSVX-7R
VORTEX MIXER

MAX 3,300 rpm
including
Pop-Off Cup Head
3" Rubber Platform
Remove Applicator



Interchangeable

Supplied with Interchangeable attachments
- 3 inch Rubber Platform Head
- Pop-Off Cup Head
- Easy Remove Applicator



Three Way Switch

Multi-Function Switch
- Continuous ON
- Touch ON
- OFF



Brushless Motor

Brushless shade motor for strong power
and long shelf life



Functional Design

Suction-Cup type foot provides strong and stable
attachment on the table surface and
reduces vibration



Aluminum Casting Body

Rugged aluminum casting body with
epoxy powder coating
Durable and rust free engineering plastic base



PHA-01V 3" Rubber Platform Head



PHA-02V Pop-Off Cup Head



PHA-03V Removal Applicator



MODEL	DESCRIPTIONS
JSVX-7R1	Vortex Mixer, Orbital, 4mm Stroke, 3,300 rpm 230 VAC 1 ph 50 Hz
JSVX-7R2	Vortex Mixer, Orbital, 4mm Stroke, 3,300 rpm 230 VAC 1 ph 60 Hz
	<i>both model includes ...</i>
	PHA-01V 3 inch Rubber Platform Head
	PHA-02V Pop-Off Cup Head
	PHA-03V Head Remove Applicator
Optional Accessories	
PHA-01V	3 inch Rubber Platform Head
PHA-02V	Pop-Off Cup Head
PHA-03V	Head Removal Applicator

JSC-1500 JSRH-Basic Control

JSC-2500 JSRH-Optional Control



5.6" TFT-LCD

- ▶ High Resolution 640 x 480
- ▶ 64 MB internal memory SD/SDHC Card (FAT32) stores trend data, set up parameters



5.7" TFT-LCD

- ▶ High Resolution 640 x 480
- ▶ SD Memory Card Data in internal memory including trend data, set up parameter saved in SD memory Card



Programming

- ▶ 120 Patterns 1200 Segments up to 999 hour 59 min 59 sec
- ▶ 9 Zone PID Groups



Programming

- ▶ 120 Patterns 1200 Segments up to 999 hour 59 min 59 sec
- ▶ 9 Zone PID Groups



Data Transfer

- ▶ Uploading data, pattern, parameter from memory to PC
- ▶ Data monitoring PC Software



Monitoring

- ▶ Displays real time trend graph
- ▶ Displays recorded trend graph
- ▶ Records data into memory



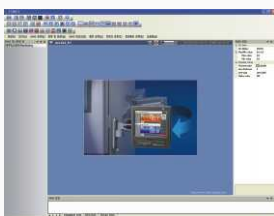
Pattern Editing

- ▶ Saved patterns can be recalled with graphical interface
- ▶ Easy upload and download of parameters and patterns



Easy-to-Use

- ▶ User interface allows easy pattern editing
- ▶ Displays graphical pattern



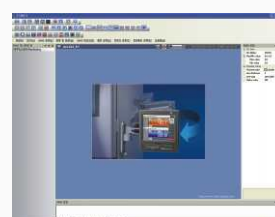
PC Software

- ▶ Control and Monitoring software
- ▶ RS-232C or RS-485 Multi-Drop Communication



Pattern Editing

- ▶ Saved pattern can be recalled as graphical interface
- ▶ Easy uploading and downloading parameters and patterns



PC Software

- ▶ Control and Monitoring software
- ▶ SD Memory Card Data Handling
- ▶ RS-232C or RS-485 Multi-Drop Communication

TEMPERATURE & HUMIDITY CLIMATIC CHAMBER

JSRH-Series

- 20 °C ~ 150 °C / 35 % ~ 98 % RH
- 40 °C ~ 150 °C / 35 % ~ 98 % RH



Premium Climatic Chamber



Temperature Range
- 40 °C ~ 150 °C



Humidity Range
35 % ~ 98 % RH



Touch Screen
5.6" Color TFT Display
120 Patterns 1200 Segments



RS-232C or 485 Serial Interface
Multi-Drop up to 31 Instruments



Data Storage
SD or MMC Card



MODEL	CAPACITY	TEMPERATURE	HUMIDITY
JSRH-150CP	150 L	-20 °C ~ 150 °C	35 - 98 % RH
JSRH-250CP	252 L		
JSRH-500CP	448 L		
JSRH-800CP	800 L		
JSRH-150CPL	150 L	-40 °C ~ 150 °C	35 - 98 % RH
JSRH-250CPL	252 L		
JSRH-500CPL	448 L		
JSRH-800CPL	800 L		

JSTH-Series

10 °C ~ 80 °C / 60 % ~ 90 % RH
- 20 °C ~ 120 °C / 50 % ~ 95 % RH



Economic Climatic Chamber



Temperature Range
- 20 °C ~ 120 °C



Humidity Range
35 % ~ 98 % RH



Program Controller
LCD Display
10 Patterns 100 Segments



[OPTION] RS-232C or 485
Serial Interface
Multi-Drop up to 31 Instruments







MODEL	CAPACITY	TEMPERATURE	HUMIDITY
JSTH-150CP	150 L	10 °C ~ 80 °C	60 - 90 % RH
JSTH-250CP	252 L		
JSTH-500CP	448 L		
JSTH-800CP	800 L		
JSTH-150CPL	150 L	-20 °C ~ 120 °C	50 - 95 % RH
JSTH-250CPL	252 L		
JSTH-500CPL	448 L		
JSTH-800CPL	800 L		

JSCH-Series

10 °C ~ 80 °C / 60 % ~ 90 % RH
 - 20 °C ~ 120 °C / 40 % ~ 95 % RH



Tabletop Climatic Chamber

-  Temperature Range
- 20 °C ~ 120 °C
-  Humidity Range
40 % ~ 95 % RH
-  Program Controller
LCD Display
10 Patterns 100 Segments
-  [OPTION] RS-232C or 485
Serial Interface
Multi-Drop up to 31 Instruments








MODEL	CAPACITY	TEMPERATURE	HUMIDITY
JSCH-070CP	70 L	10 °C ~ 80 °C	60 - 90 % RH
JSCH-100CP	100 L		
JSCH-070CPL	70 L	-20 °C ~ 120 °C	40 - 95 % RH
JSCH-100CPL	100 L		

Battery Test Chamber



JSDS - Drug Stability Chamber



-  Temperature Range
+0 °C ~ 70 °C
-  Humidity Range
30 % ~ 85 % RH
-  Program Controller
LCD Display
10 Patterns 100 Segments
-  RS-232C or 485 Serial Interface
Multi-Drop up to 31 Instruments
-  Touch Screen
5.6" Color TFT Display
120 Patterns 1200 Segments



MODEL	CAPACITY	TEMPERATURE
JSBS-520C	552 L	0 °C ~ 70 °C

MODEL	CAPACITY	TEMPERATURE	HUMIDITY
JSDS-300C	300 L		
JSDS-420C	420 L	+10 °C ~ 70 °C	30 - 85 % RH
JSDS-960C	964 L		

ELECTRIC MUFFLE FURNACE

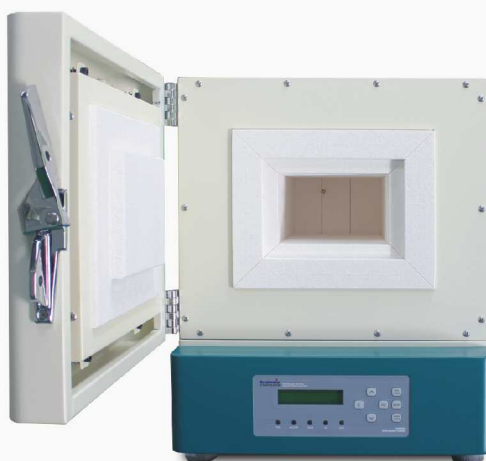


Specifications

Heating	KANTHAL A-1
Temp. Range	Max. 1,200 °C
Accuracy	± 3.0 °C at 500°C (JSMF-30T)
Uniformity	± 3.0 °C at 500°C (JSMF-30T)
Control	Programmable PID Control 3 Pattern Memory 9 ramps and 9 dwells segments
Sensor	CA-Type Sensor
Safety	Over-Temperature Cut-Off Over Current Cut-Off
Material	Body : Epoxy Powder Coated Steel Chamber : Ceramic Fiber
Electric	220 +/- 10% VAC 50/60Hz 1-Phase 380 +/- 10% VAC 50/60Hz 3-Phase 4-Wire



-  Max 1200 °C
-  Program Controller
3 Patterns Memory



JSMF-xxxT
Max. 1,000 °C



JSMF-xxxH
Max. 1,100 °C



JSMF-xxxHT
Max. 1,200 °C



MODEL	JSMF-30T	JSMF-45T	JSMF-120T	JSMF-140T	JSMF-270T
Temperature Max. / Operating	1,000 / 800 °C				
MODEL	JSMF-30H	JSMF-45H	JSMF-120H	JSMF-140H	JSMF-270H
Temperature Max. / Operating	1,100 / 1,000 °C				
MODEL	JSMF-30HT	JSMF-45HT	JSMF-120HT	JSMF-140HT	JSMF-270HT
Temperature Max. / Operating	1,200 / 1,100 °C				
Accuracy at 500°C	+/- 3.0 °C	+/- 4.0 °C	+/- 5.0 °C	+/- 6.0 °C	+/- 7.0 °C
Uniformity at 500°C	+/- 3.0 °C	+/- 4.0 °C	+/- 5.0 °C	+/- 6.0 °C	+/- 7.0 °C
Heat-up Time to 800°C	30 min	30 min	30 min	30 min	35 min
Chamber Volume (Capacity)	2.9 L	4.5 L	12.0 L	14.0 L	27.0 L
Dimensions Inner	130 x 250 x 90	150 x 300 x 100	200 x 300 x 200	250 x 350 x 160	300 x 300 x 300
W x D x H mm Outer	435 x 480 x 560	465 x 535 x 580	525 x 565 x 690	575 x 605 x 650	625 x 605 x 790
Heater Capacity	1.4 kW	1.6 kW	3.3 kW	4.0 kW	4.6 kW
Power Rating	6.5 Amp	7.4 Amp	15.2 Amp	18.3 Amp	20.2 Amp
Power Plug	CEE 7/7 Schuko	CEE 7/7 Schuko	30 AMP	30 AMP	30 AMP

JSBL-01T, 02T, 04T MULTI-BATH HEATING BLOCK



amb. +10 ~ 180 °C, +/- 0.1 °C Resolution
1 min. to 99 hr 59 min Timer



JSDB-01T DRY BATH HEATING BLOCK



amb. +10 ~ 150 °C, +/- 0.1 °C Resolution
1 min. to 99 hr 59 min Timer



MODEL	DESCRIPTIONS
JSBL-01T	Dry Bath Heating Block 1 BLOCK
JSBL-02T	Dry Bath Heating Block 2 BLOCK
JSBL-04T	Dry Bath Heating Block 4 BLOCK
Accessories	Aluminum Blocks
PHA-02B	0.2ml PCR Tubes, 48 holes
PHA-05B	0.2ml PCR Tubes, 24 holes
PHA-15B	1.5/2.0ml Tubes, 20 holes
PHA-16B	Dia. 16mm Tubes, 12 holes
PHA-24B	Dia. 24mm Tubes, 6 holes

MODEL	DESCRIPTIONS
JSDB-01T-PK	Dry Bath Heating Block PACKAGE PHB-20 Microtube Block 1.2/2.0ml x 48 holes
JSDB-01T	Dry Bath Heating Block Main Unit Only
Accessories	Aluminum Blocks
PHB-02	0.2ml Tubes, Dia.6 x 96 holes (H16mm)
PHB-05	0.5ml Tubes, Dia.7.7 x 63 holes (H29.5mm)
PHB-20	1.5/2.0ml Tubes, Dia.11 x 48 holes (H36mm)
PHB-15	15ml Tubes, Dia.16 x 15 holes (H47mm)
PHB-50	50ml Tubes, Dia.28.7 x 8 holes (H47mm)
PHB-1248	Tube Dia.12 x 48 holes (H35mm)
PHB-1330	Tube Dia.13 x 30 holes (H47mm)
PHB-1530	Tube Dia.15 x 30 holes (H47mm)
PHB-1624	Tube Dia.16.5 x 24 holes (H47mm)
PHB-1824	Tube Dia.18 x 24 holes (H47mm)
PHB-100	Block Extraction Knob



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and we reserve the right to alter specifications
without prior notice.*