

## Model JSBI-420C : Refrigerated BOD Incubator



JSBI-xxxC series Refrigerated BOD Incubator gives excellent incubation conditions below ambient temperature for bacterial, fungal, cell and tissue culture incubation, BOD (Biological Oxygen Demand) Test, QA / QC in pharmaceutical laboratory.

### MAIN FEATURES

#### PERFORMANCE

- Control Temperature Range from +0°C to +70°C
- Forced air circulation for excellent thermal accuracy and uniformity
- Aero-dynamic chamber designed with circulation blower to achieve superior thermal uniformity
- Separate heating compartment located on back wall for contamination free and maintenance free
- Air cooled refrigeration system with hermetically sealed compressor

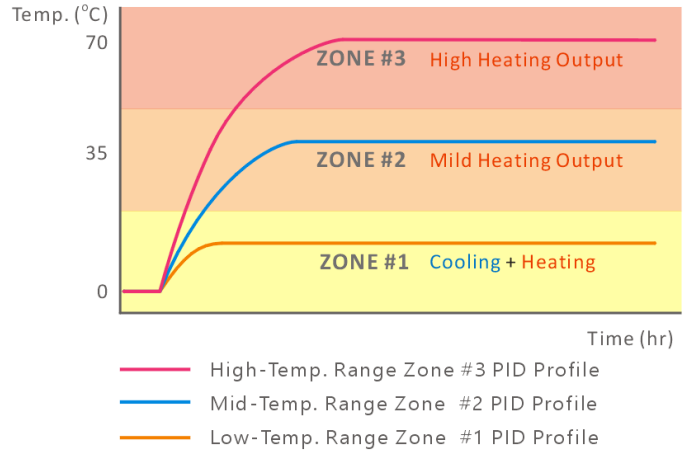
#### CONSTRUCTION

- Durable epoxy powder coated metallic casing
- Corrosion resistant Stainless Steel 304 chamber with seamless round cornered edge allows easy cleaning and prevent leakage
- Tempered safety inner glass door for easy observation of samples

**CONTROLLER**

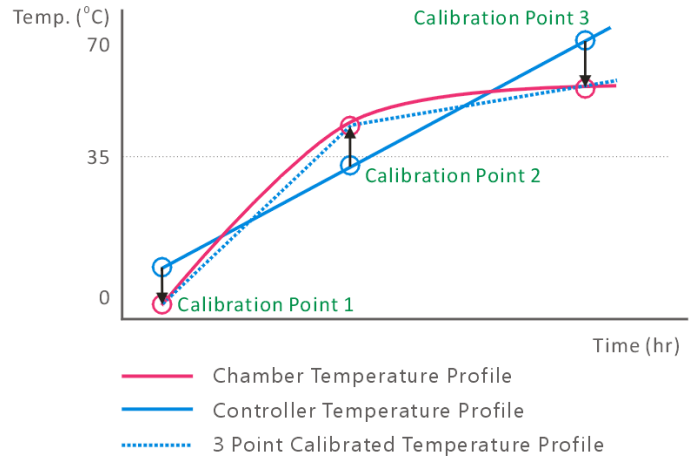
**-3 ZONE PID ALGORITHM**

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



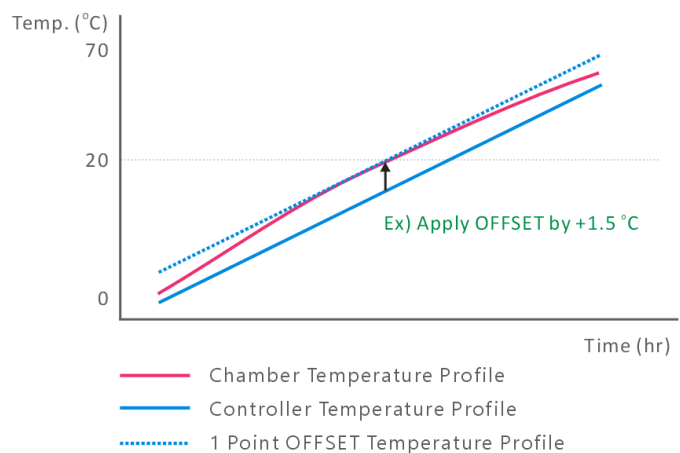
**-3 POINT CALIBRATION FUNCTION**

An excellent calibration tool to calibrate chamber at THREE DIFFERENT TEMPERATURE POINTS to adjust multiple TEMPERATURE BIAS to increase temperature accuracy of whole temperature range.



**- 1-POINT OFFSET FUNCTION**

Provides simple and easy calibration tool to calibrate chamber at ONE SPECIFIC TEMPERATURE POINT of frequent use.



## CONTROLLER

- DIGITAL MICROPROCESSOR PID TEMPERATURE CONTROLLER
  - Integrated Digital Microprocessor Control System
- GRAPHIC LCD DISPLAY
  - Back Light Graphic LCD Display provides user-friendly operating information
- UV COATED POLYCARBONATE TOUCH PANEL
  - Equipped with Capacitive LED Lighting Touch Button provides sensitive touching operation and durability
- ENCODER TYPE JOG DIAL
  - Push to Start and Stop, Rotary turn to change values provides easy and simple user interface
- 0.1 °C CONTROL RESOLUTION
- TURN-ON TIMER up to 99 hour 59 min and alarm
- TURN-OFF DELAY TIMER up to 99 hour 59 min and alarm
- Temperature and Timer Memory Function in frequent use
- 3-ZONE PID ALGORITHM
- 3-POINT CALIBRATION / 1-POINT OFFSET CALIBRATION
- POWER and TIMER RESTORE FUNCTION in case electric power outage
- CLASS A PT-100  $\Omega$  Sensor
- Delay starter to protect compressor.
- RS-232C PC COMMUNICATION INTERFACE [OPTION]

## CONVENIENCE

- Outer door with self-adhesive magnetic packing
- Inner glass door with high density silicone gasket and air-tight door lock
- Removable and height adjustable shelf by 25mm spacing

## SAFETY

- MAXIMUM TEMPERATURE LIMIT SETTING, CUT-OFF HEATER AND AUDIO VISUAL ALARM
- DUAL OVER TEMPERATURE CUT-OFF BY CONTROLLER AND INDEPENDENT THERMOSTAT
  - Controller Program cut-off heater and AUDIO VISUAL ALARM in case +2 °C above set temperature
  - Independent analog thermostat cut-off heater 10% above set temperature
- HIGH TEMPERATURE CUT-OFF AND AUDIO VISUAL ALARM
- LOW TEMPERATURE CUT-OFF AND AUDIO VISUAL ALARM
- PT SENSOR SHORT OR DISCONNECTION AUDIO VISUAL ALARM
- OVER CURRENT CUT-OFF : Electric Circuit Breaker

## SPECIFICATIONS

### DESCRIPTIONS

### MODEL JSBI-420C

#### Dimension Data

Chamber Volume	420 Liters
Inner Dims. (W x D x H mm)	700 x 600 x 1000
Outer Dims. (W x D x H mm)	880 x 925 x 1770
Inner Glass Door (W x H mm)	761 x 1077
No. of Shelf Positions	36 ea by 25mm spacing
No. of Shelf included	3 ea

#### Performance Data

Heating System	Forced Air Convection
Cooling System	Hermetically Sealed Air Cooled Compressor
Temp. Range	+0 °C ~ +70 °C
Accuracy	±0.2 °C at +20.0 °C
Uniformity	±0.5 °C at +20.0 °C

#### Controller

Processor	Digital Microprocessor PID Temperature Controller
Display	Back Light Graphic LCD Display
Panel	UV Coated Polycarbonate Solid Touch Panel
Button	Capacitive touch LED Lighting Touch Button
Interface	Push and Rotary encoder type Jog Dial
Control Logic	3 Zone PID Control
Calibration	1 Point Temperature OFFSET 3 Point Temperature Calibration
Resolution	0.1 °C
Turn-Off Timer	Max. 99 hr 59 min
Turn-On Delay Time	Max. 99 hr 59 min
Sensor	CLASS A PT-100 Ω Sensor
Power Restoration	Power and Timer Restoration Function in case of power outage
PC Communication Interface	RS-232C PC COMMUNICATION INTERFACE [OPTION]

**Safety Data**

Safety Device	Max. Temp. Limit and Cut-Off audio visual alarm Dual Over Temp. Cut-Off by Controller and Thermostat High Temp. Cut-Off audio visual alarm Low Temp. Cut-Off audio visual alarm PT-Sensor Short or Open audio visual alarm Over Current Cut-Off
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**Material Data**

Body	Epoxy Powder Coated Steel
Chamber	Stainless Steel 304 (AISI304)
Inner Glass Door	Tempered Safety Glass, 5 mm thick

**Electrical Data**

Rated voltage	230 ± 10% VAC
Power frequency	50 / 60Hz
Heater Output	1.5 kW
Nominal power	2.4 kW 10.3 amp
Phase	1 Phase
Plug configuration	CEE 7/7 Schuko or BS 1363

**Usable Condition**

Temp. & Humidity	5°C - 40°C, < 80% RH
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**Packaging Data**

Shipping Dims. (W x D x H mm )	1030 x 1070 x 1930 mm
Type of packaging	Carton on a wooden palette
Net Weight	175.0 kg
Shipping Weight	220.0 kg

**ORDERING INFORMATION**

Art. No.	Descriptions	Voltage
JSBI-420C	<p><b>Refrigerated BOD Incubator, 420 L</b></p> <p>including standard accessories</p> <p>3 ea x PVC Coated Wire Shelf</p> <p>12 ea x Shelf Support</p> <p>1 ea x Instruction Manual</p> <p>1 ea x Warranty Certificate</p>	230 VAC 1~ ph 50/60Hz

**OPTIONAL ACCESSORIES**

Art. No.	Descriptions	Component
PHS-A13	Perforated Shelf, Stainless Steel 304, W670 x D580 mm	
PHS-C06	PVC Coated Wire Shelf, W670 x D580 mm	
PHS-A99	Shelf Support, Set of 4 ea	

**JS RESEARCH INC.**

Gongju-City, Korea

TEL +82 41 856 3677

FAX +82 41 856 3679

info@jsresearch.co.kr

www.jsr.kr