Model JSON-150 : Natural Convection Oven

Cabinet stand with caster [option]

JSON-Series Natural (Gravity) Convection Ovens heat up chamber by mild gravity air convection with heating element located on the chamber bottom. Ideal for drying fine powders, general and conventional laboratory drying applications.

MAIN FEATURES

PERFORMANCE

-Control Temperature Range from ambient+10 $^{\circ}$C to 250 $^{\circ}$C

-Natural (Gravity) air convection for drying applications of fine powder and/or glassware

-Asymmetrically designed heating system enhances mild and uniform hot air circulation for better temperature uniformity

-50mm thick high thermal efficiency mineral wool with woven aluminum barrier sheet saves energy and less dust
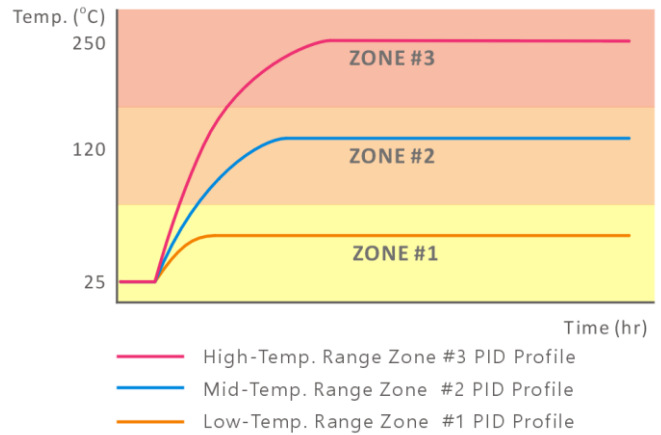
CONSTRUCTION

-Durable epoxy powder coated metallic casing

-Corrosion resistant Stainless Steel 304 chamber

-Double layered glass window for easy observation of samples

-Ventilation damper
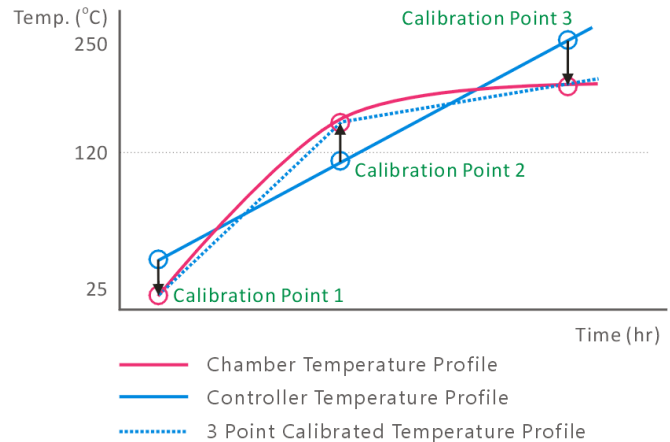
CONTROLLER

-3 ZONE PID ALGORITHM

Usable temperature range divided into three zones (LOW/MIDDLE/HIGH) and each ZONE has its individual PID parameters optimized to the range, and it provides precise and superior temperature control characteristic to whole temperature range.
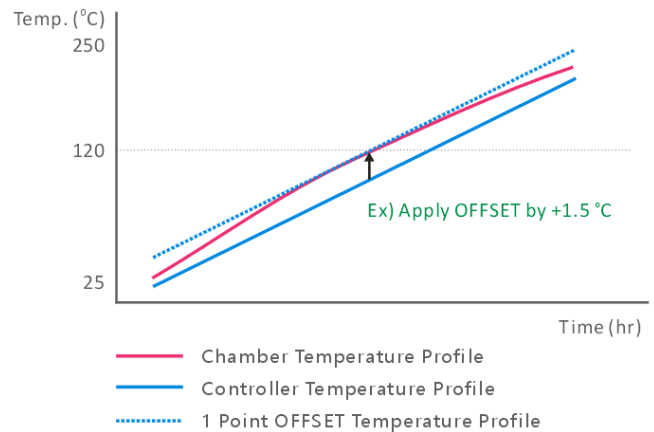

-3 POINT CALIBRATION FUNCTION

A perfect calibration tool to calibrate chamber at THREE DIFFERENT TEMPERATURE POINTS to adjust multiple temperature bias to increase the temperature accuracy of WHOLE TEMPERATURE RANGE.

- 1-POINT OFFSET FUNCTION

Provides simple and easy calibration tool to calibrate chamber at ONE SPECIFIC TEMPERATURE POINT in 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 $^{\circ}$C CONTROL RESOLUTION

-Auto-Stop Timer   1 min ~ 99 hour 59 min and alarm

-Auto-Start Timer   1 min ~ 99 hour 59 min and alarm

-Temperature and Timer Memory Function in frequent use

-3 GROUP ZONE PID ALGORITHM

-3-POINT CALIBRATION

-1-POINT OFFSET CALIBRATION

-Operating temperature and remaining timer resume in case power outage and restoration

-CLASS A PT-100 Ω Sensor

-RS-232C PC COMMUNICATION INTERFACE [OPTION]

CONVENIENCE

-Double layered tempered safety glass window for easy observation of samples

-Removable and height adjustable shelf by 25mm spacing

-Easy-to-open and air-tight one touch door latch

-Opening size adjustable ventilation damper

-Door switch cut-off heater to protect user from exposure to hot air

SAFETY

-PT SENSOR SHORT OR DISCONNECTION AUDIO VISUAL ALARM

-DUAL OVER TEMPERATURE CUT-OFF BY CONTROLLER AND INDEPENDENT THERMOSTAT

  Controller cut-off heater and AUDIO VISUAL ALARMS

      ALARM HIGH : +10 $^{\circ}$C above set temp.

      ALARM LOW : -10 $^{\circ}$C below set temp.

-Independent analog thermostat cut-off heater above set temperature

-DOOR OPEN AUDIO VISUAL ALARM

-OVER CURRENT CUT-OFF : Electric Circuit Breaker

JS RESEARCH INC.   Technical Data

SPECIFICATIONS

Art. No.	JSON-150
Dimension Data	
Chamber Volume	151 Liters
Inner Dims. (W x D x H mm)	560 x 450 x 600
Outer Dims. (W x D x H mm)	720 x 675 x 910
Window Dims. (W x H mm)	150 x 410
No. of Shelf Positions	20 ea
No. of Shelf included	2 ea
No. of Ventilation Damper	1 ea
Performance Data	
Heating System	Natural (Gravity) Air Convection
Temp. Range	Amb. +10 °C ~ +250 °C
Accuracy at 120 °C	±0.5 °C
Uniformity at 120 °C	±3.0 °C
Heat up time to 120 °C	15 min.
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
Auto-Stop Timer	1 min. ~ 99 hr 59 min
Auto-Start Time	1 min. ~ 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]

Technical specifications are subject to change without prior notice

Safety Data

Safety Device	Sensor short or disconnection AUDIO VISUAL ALARM
	Controller cut-off heater and AUDIO VISUAL ALARM in case
	HI-ALARM : +10 $^{\circ}$C above set temp.
	LO-ALARM : -10 $^{\circ}$C below set temp.
	Independent analog thermostat cut-off heater above set temperature
	Door sensor Cut-Off heater AUDIO VISUAL ALARM
	Over Current Cut-Off

Material Data

Body	Epoxy Powder Coated Steel
Chamber	Stainless Steel 304 (AISI304)
Insulation	50 mm Woven Mineral Wool

Electrical Data

Rated voltage	220 ± 10% VAC
Power frequency	50 / 60Hz
Heater Output	1.7 kW
Nominal power	1.8 kW 7.7 amp
Phase	1 Phase
Plug configuration	CEE 7/7 Schuko or BS 1363

Usable Condition

Temp. & Humidity	5°C - 40°C, < 80% RH

Packaging Data

Type of packaging	Carton on a wooden palette
Shipping Dims. (W x D x H mm)	750 x 760 x 1060
Net Weight	70.0 kg
Shipping Weight	87.0 kg

JSR

ORDERING INFORMATION

Art. No.	Descriptions	Voltage
JSON-150	**Natural Convection Oven, 151 L**	220 VAC 1~ ph 50/60Hz
	including standard accessories	
	2 ea x Wire Shelf, Stainless Steel 304	
	8 ea x Shelf Support	
	1 ea x Instruction Manual	
	1 ea x Warranty Certificate	

OPTIONAL ACCESSORIES

Art. No.	for	Descriptions
Shelf		
PHS-A07	JSON-150	Perforated Shelf, Stainless Steel 304, W530 x D430 mm
PHS-B07	JSON-150	Wire Shelf, Stainless Steel 304, W530 x D430 mm
Shelf Support		
PHS-A99		Shelf Support, Set of 4 ea
Cabinet Stand with Caster		
PHC-150	JSON-150	Cabinet Stand with Caster

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