

# JSOF-Series

## PROGRAMMABLE FORCED CONVECTION OVEN

amb. +10 °C ~ 250 °C



JSOF-Forced Convection Oven  
with OPTIONAL Cabinet Stand

JSOF-Series Programmable Forced Convection Oven provides 10 Steps of temperature programming as well as constant temperature operation from ambient +10 °C to +250 °C for more versatile use. Circulation fan allows consistent temperature distribution for better temperature uniformity and/or faster heat up. Thus, this is suitable for application needs various temperature simulation with high accuracy and uniformity.

### # Features

#### Performance

Temperature Range : amb. +10 °C to 250 °C

Temperature Accuracy : within +/- 0.3 °C

Temperature Uniformity : within +/- 2.0 °C

Forced air convection for fast drying application.

Aero-dynamic chamber designed with circulation blower to achieve superior thermal uniformity.

Separated heating compartment located on the back wall for contamination free and maintenance free.

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

#### Construction

Durable epoxy powder coated metallic casing.

Ventilation damper.

Corrosion resistant Stainless Steel 304 chamber with seamless round cornered edge allows easy cleaning and prevents leakage.

Double layered glass window for easy observation of samples.

#### Convenience

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

Stainless Steel 304 Chamber with seamless round cornered edge allows easy cleaning.

Removable and 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 and blower to protect user from exposure to hot air.

#### Safety

DOOR SENSOR WITH DOOR OPEN AUDIO VISUAL ALARM  
DUAL OVER TEMPERATURE CUT-OFF BY CONTROLLER  
AND INDEPENDENT THERMOSTAT

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 : Electrical Leakage Breaker

# 10-Step Program

## 3-ZONE PID Algorithm

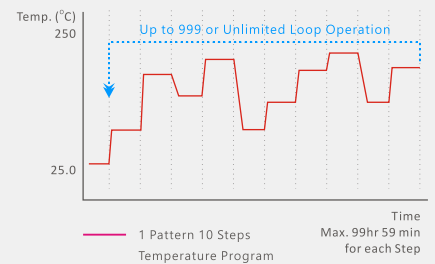
## 3-Point Calibration

## 1-Point Offset

### Temperature Control

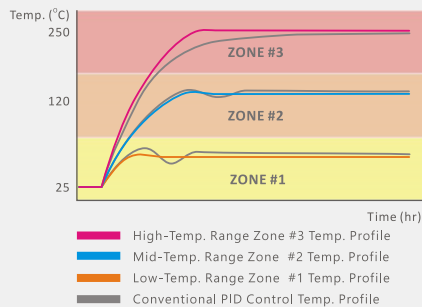
- Digital Microprocessor PID Controller
- High-fidelity clear back light LCD displays complete setting and operating condition at a glance
- UV Coated Polycarbonate Touch Panel
- Easy-to-use Encoder Type Jog Dial for quick and convenient setting of temperature and timer
- 0.1 °C Control resolution
- 10 Step Programmable, 999 timers loop operation
- AUTO-START, AUTO-STOP Timer up to 99 hour 59 min.
- Temperature and Timer memory function in frequent use
- 3-Zone PID Algorithm
- 3-Point Calibration
- 1-Point Offset Calibration
- Power Outage and Restore Function
- Class A Pt-100 Ohm Sensor
- RS-232C PC Communication Interface [OPTION]

### 10 Step Program



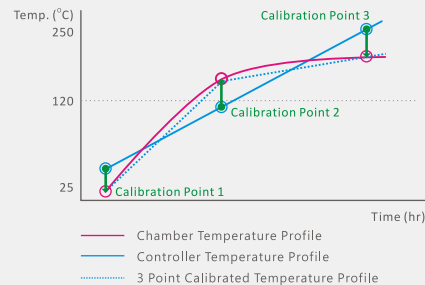
User can create 10 Steps of varying temperature program and save it in a memory for repeated use. Program can be repeated up to 999 times

### 3-ZONE PID Algorithm



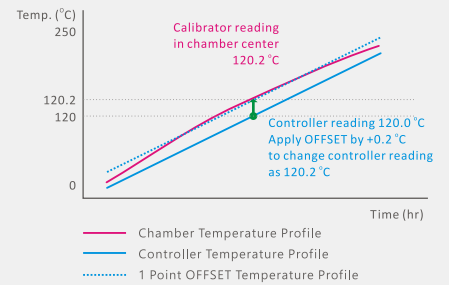
Complete temperature range is divided into three zones (LOW/MIDDLE/HIGH) and each ZONE has its individual PID algorithm to provide precise and superior temperature control characteristic of whole temperature range.

### 3-Point Calibration



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

### 1-Point Offset



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



# # Specifications

Model	JSOF-050	JSOF-100	JSOF-150	JSOF-250
<b>Dimension Data</b>				
Chamber Volume	50 Liters	100 Liters	150 Liters	250 Liters
Inner Dims. (WxDxH) mm	400 x 300 x 400	500 x 400 x 500	560 x 450 x 600	600 x 600 x 700
Outer Dims. (WxDxH) mm	560 x 605 x 710	660 x 705 x 810	720 x 755 x 910	760 x 905 x 1010
Window Dims. (WxH) mm	150 x 290	150 x 360	150 x 410	150 x 460
No. of Shelf Positions	12 ea	16 ea	20 ea	24 ea
No. of Shelf Included	2 ea	2 ea	2 ea	3 ea
No. of Ventilation Damper	1 ea	1 ea	1 ea	1 ea
<b>Performance Data</b>				
Heating System	Forced Convection			
Temperature Range	ambient +10 °C to 250 °C, 0.1 °C resolution			
Temperature Accuracy at 120 °C	+/- 0.2 °C	+/- 0.3 °C	+/- 0.3 °C	+/- 0.3 °C
Temperature Uniformity at 120 °C	+/- 1.0 °C	+/- 1.3 °C	+/- 1.5 °C	+/- 1.8 °C
Heat-up Time to 120 °C	10 min.	12 min.	13 min.	13 min.
<b>Controller</b>				
Type	Digital Microprocessor PID Programmable Controller with Capacitive Touch Button and Jog Dial			
Display	Full Size Digital Back Light Graphic LCD Display			
Control Logic	3 Zone PID Control			
Calibration	1 Point Temperature Offset 3 Point Temperature Calibration			
Temp. Program	1 Pattern, 10 Steps, 1 ~ 999 Loop Cycle			
Auto-Stop Timer	Max. 99 hr 59 min by 1 min resolution			
Auto-Start Timer	Max. 99 hr 59 min by 1 min resolution			
Sensor	Class A Pt-100 Ohm Sensor			
Power Restoration	Power and Timer Restoration Function in case of power outage			
Communication Interface	RS-232C Communication Interface [OPTION]			
<b>Material Data</b>				
Body	Epoxy Powder Coated Steel			
Chamber	Stainless Steel 304 (AISI304)			
Insulation	50 mm Woven Mineral Wool with Aluminum Barrier			
<b>Safety Data</b>				
Safety Device	Door Open / Over Temperature / Over Current Protection Audio Visual Alarm			
<b>Electrical Data</b>				
Power Requirement	220 +/- 10% VAC   50/60 Hz   1 Phase			
Power Consumption	1.1 kW 4.7 amp	1.6 kW 6.0 amp	1.8 kW 7.9 amp	2.6 kW 11.5 amp
Plug Configuration	CEE 7/7 Schuko or BS 1363			
<b>Usable Condition</b>				
Temp. & Humidity	5 °C - 40 °C, 80% RH Max.			

**JSR**

**JS Research Inc.**  
 Gongju-City, KOREA  
 info@jsresearch.co.kr  
 www.jsr.kr

## # Ordering Information

### Art. Number

### Descriptions

JSOF-050	Forced Convection Oven 50 Liter	220 VAC 1 ph 50/60Hz
JSOF-100	Forced Convection Oven 100 Liter	220 VAC 1 ph 50/60Hz
JSOF-150	Forced Convection Oven 150 Liter	220 VAC 1 ph 50/60Hz
JSOF-250	Forced Convection Oven 250 Liter	220 VAC 1 ph 50/60Hz

## JSOF-Series

### PROGRAMMABLE FORCED CONVECTION OVEN

amb. +10 °C ~ 250 °C

### Accessories

### Shelves

PHS-A03	Perforated Shelf, Stainless Steel 304 for JSOF-050	W370 x D280 mm
PHS-A05	Perforated Shelf, Stainless Steel 304 for JSOF-100	W470 x D380 mm
PHS-A07	Perforated Shelf, Stainless Steel 304 for JSOF-150	W530 x D430 mm
PHS-A09	Perforated Shelf, Stainless Steel 304 for JSOF-250	W570 x D580 mm
PHS-B03	Wire Shelf, Stainless Steel 304 for JSOF-050	W370 x D280 mm
PHS-B05	Wire Shelf, Stainless Steel 304 for JSOF-100	W470 x D380 mm
PHS-B07	Wire Shelf, Stainless Steel 304 for JSOF-150	W530 x D430 mm
PHS-B09	Wire Shelf, Stainless Steel 304 for JSOF-250	W570 x D580 mm

PHS-A99	Shelf Support, Set of 4 ea
---------	----------------------------

### Accessories

### Cabinet Stands

PHC-050	Cabinet Stand with Caster for JSOF-050
PHC-100	Cabinet Stand with Caster for JSOF-100
PHC-150	Cabinet Stand with Caster for JSOF-150
PHC-250	Cabinet Stand with Caster for JSOF-250



DISTRIBUTOR

# JSR

**JS Research Inc.**

69, Gumsanggogae-Gil,  
Gongju-City, KOREA

Phone: +82-41-856-3677

Fax: +82-41-856-3679

info@jsresearch.co.kr

www.jsr.kr