

Ovens

- Smart-Lab™ system (SWOF, SWON models)
- Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- New Jog-Dial Controller for Users to operate in an easy and Convenient way
- Over Temperature & Over Current Protector and Sensor Error Detector
- UL / CUL Certified - WOF, WON, WOV, SWOF, SWON models
- PL(Product Liability) Insurance

- **General-type Oven P. 114~117**
(Forced Convection, Gravity Convection)
- **Smart-type Ovens P. 118~121**
(Forced Convection, Gravity Convection)
- **High-Clean Air Oven P. 122~123**
- **Industrial Forced Convection Oven P. 124~125**
- **Vacuum Oven P. 126~127**

❖ **Smart Oven**
(SWOF / SWON model)



❖ **Oven**
(WOF / WON model)



❖ **Precise Vacuum Oven**
(WOV model)



Features of witeg Ovens



High Performance Heating Mechanism of witeg accomplishing world's best temperature accuracy and uniformity

The new types of Oven of witeg are outfitted with high performance heating mechanism that is optimized respectively for capacity of chamber, power of heating element and air circulation type (Gravity Convection or Forced Convection).

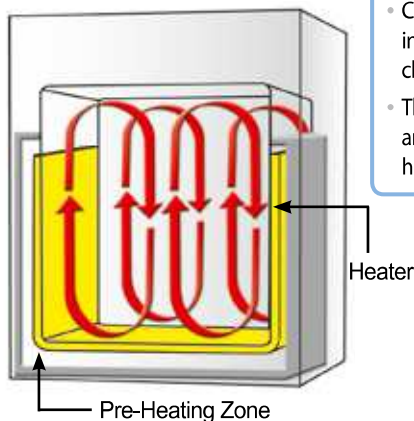
The temperature displayed on the controller is accurately consistent with the actual temperature in the very center of the chamber or the average temperature in the entire area of the chamber, which maintains precisely within fluctuation specification. In addition, the temperature in the entire area of the chamber shows a very high stability keeping within a very slight variation specification in terms of temperature uniformity. Simultaneously, through the optimization of Fuzzy-PID controller, the 'heat-up time' to reach the Set Temperature after operating and the 'recovery time' to get back to the set temperature after opening and closing of the door are very short.

The newly developed high performance heating mechanism has achieved high degree of temperature accuracy and uniformity in the chamber. This is achieved by the heating elements installed on three sides - that is, the left, right and bottom parts of a chamber - which directly heat the stainless-steel chamber. This either enhances its material thermal conductivity to maximum (in case of the Incubator) or the heated air from the pre-heating zone in air-jacket type that is built in the three sides outside a chamber circulates first (in case of the Oven).

» Oven

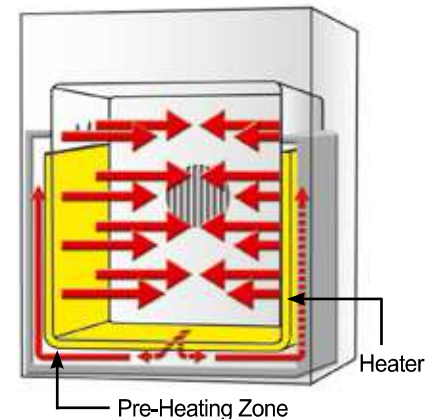
Gravity Convection

- Circulation is made by heating elements that first heat the air in the pre-heating zone which surrounds the three sides of the chamber.
- The effects of both three-side heating and gravity convection are to be maximized via providing the heated air from the pre-heating zone restrictively into the chamber.



Forced Convection

- The same three-side heating elements and pre-heating zone as Gravity Air-Flow model.
- The strong fan installed in the back of the chamber sucks the air inside the chamber, which is provided to the pre-heating zone, while the heated air is uniformly and quickly provided into the chamber through its specially designed side and bottom structure.



■ High Performance Heating Mechanism

The world's best performance and quality coming true via innovative heating mechanism !!

» Minimum

Fluctuation !

Minimization of Fluctuation in Temperature

Variation !

Minimization of spatial variation in temperature inside the chamber

Heat-up Time !

Minimization of reaching the set temperature

Overshoot !

Minimization of overshooting at the time of reaching the set temperature

» Perfect Door Lock by Double Latch

The up-and-down double latch structure pushes the door as closely to the chamber as possible, which leads to the minimization of temperature interference inside the chamber by the outside air.

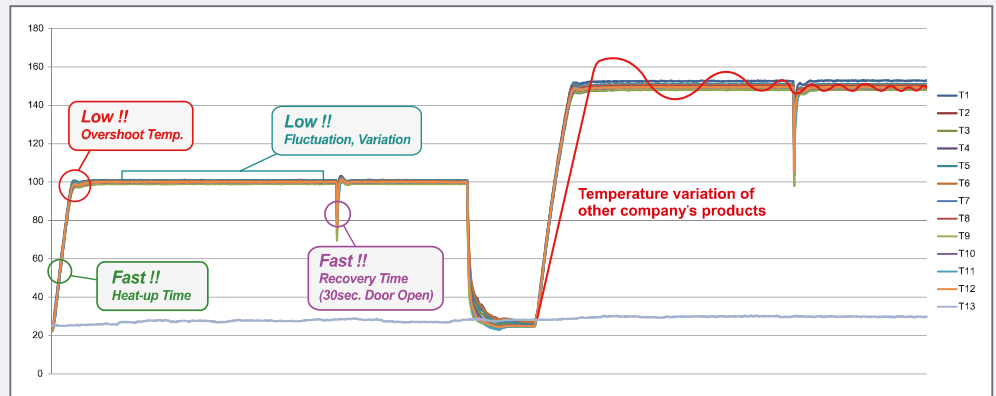
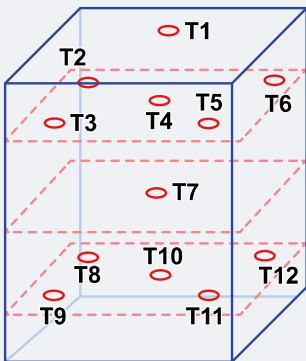


The structure allows the door to adhere firmly and closely to the chamber on both upper and lower sides in a balanced way

- High-performance thermal insulation
- Minimization of thermal losses from heat leak inside the chamber
- Enhancement of temperature accuracy and uniformity

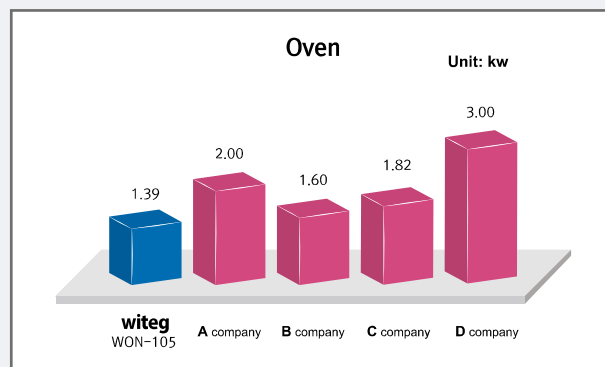
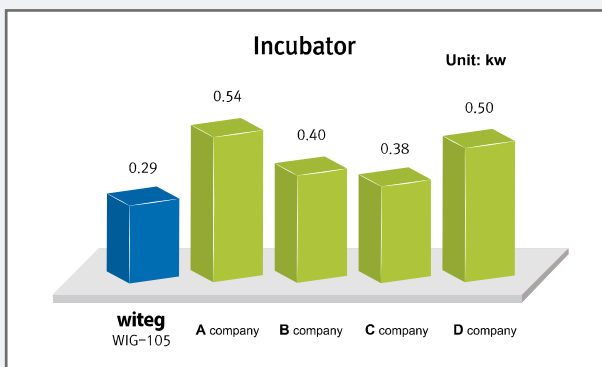
» Temperature Uniformity Completely Tested by ASTM Standards

All the units supplied by witeg Scientific are thoroughly tested, using 12 temperature sensors and the latest instruments to obtain validation, which corresponds to international standards. That is, Fluctuation and Variation (Uniformity) standards described in catalogues are actually guaranteed as the same.



» Green Product

This is an environment-friendly product that achieves minimum power consumption by using heating element consuming minimum power for the capacity and temperature of the chamber, high-quality insulator and insulation structure, and complete door structure that guarantees shielding.



» New Jog-Dial Controller (WOF, WON models)

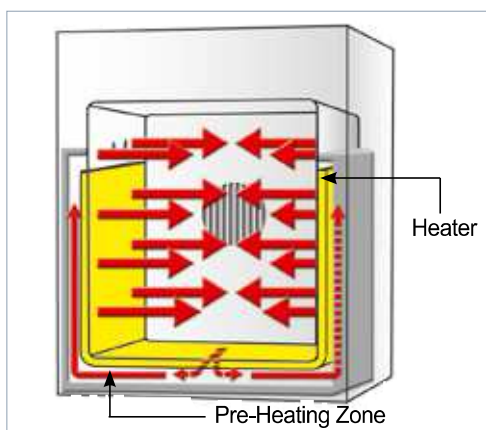


- Provides the user interface with an ergonomic design for users to operate in an easy and convenient way.
- A new 2-way Jog-Dial Knob (Jog Dial + Push Button) and presents excellent durability and mobility.
- High-quality LCD with Back-light function.
- A durable Main Button and a Sub Button that features superb and user-friendly operation.

witeg® Ovens, Forced Convection-type, "WOF", 50-/105-/155-/305 Lit., with Certi. & Traceability with Wire Shelves, Digital Fuzzy Control, Jog-Dial with Push Button, Digital LCD with Backlight, up to 250°C ±0.3°C



Oven, Forced Convection-type, Standard Model, with Wire Shelves "WOF-155"



The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism (Forced Convection-type)

- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- Optimized Air Flow by Forced Convection Mechanism
- Patented Jog-Dial Control System
- CE Certified
- UL/CUL Certified
- PL (Product Liability) Insurance
- * Suitable for Drying, Baking, Conditioning, Curing, Pre-Heating and Aging
- * The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism: 3-Side Heating
- * Optimized Air Flow by Forced Convection Mechanism
- * Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- * New Jog-Dial with Push Button
- * Compact New Body Design
- * 2~3ea of Stainless Steel Wire Shelves Included
- * Alarm Function : Error status and Timer-end
- * RS232C Interface for Monitoring and Controlling with PC
- * Ambient +5°C to 250°C Range with Fluctuation of ±0.3°C at 100°C
- * Storage Function of Temperature and Timer setting values
- * Locking Mode Supported for Experimental Safety (Input to Jog-Dial can be disabled)
- * Corrosion Resistant 304 Stainless Steel Chamber
- * Over Temperature & Over Current Protection, Sensor Error Detection

Specification

Model	Standard Model, without Window			
	"WOF-50"	"WOF-105"	"WOF-155"	
		Built-in Viewing Window Model		
	"WOF-W105"	"WOF-W155"		
Capacity	50Lit	105Lit	155Lit	
Dimension (w x d x h)	Interior (mm)	350x370x420	480x485x535	475x550x600
	Exterior (mm)	518x646x722	653x711x879	718x776x944
Heater Power	650 W	1.4 kW	1.6 kW	
Temp.	Range	Ambient Temperature +5°C to 250°C		
	Fluctuation	±0.3°C at 100°C, ±0.5°C at 150°C		
	Variation	±1°C at 100°C, ±1.8°C at 150°C	±1°C at 100°C, ±2°C at 150°C	
	Sensor	PT 100		
Control Resolution	±0.1°C			
Heat-up Time	25 min. to 100°C, 45 min. to 150°C		25 min. to 100°C, 40 min. to 150°C	
	Recovery Time (Door open 30sec)	8 min. to 100°C, 8 min. to 150°C	6 min. to 100°C, 6 min. to 150°C	
Controller	Digital Fuzzy Control by Advanced Microprocessor Jog-Dial with Push Button			
RS232 Port	Available to connect with PC			
Display	Digital LCD with Back Light			
Timer	99hr 59 min (delay/continuous function)			
Material	Internal	Stainless Steel (#304)		
	External	Powder Coated Steel		
	Insulation	Glass Wool		
Shelves	Stainless steel shelves included 2ea			
Ventilation	Ventilation hole with Stainless Steel Cap, Hole Diameter 40mm			
	1ea	2ea		
Circulation	Forced Air Convection Type			
Safety device	Over Temp. and Over Current Protector, Sensor Error Detector			
Others	UL / CUL Certified, CE Certified Storage Function (Temp. and Time) Locking Mode (Jog-Dial Input Disabled) Alarm (Error Status and Timer-end)			
Net Weight (kg)	44	69	78	
Packing Size (w x d x h) (mm)	622x754x807	743x819x1,068	808x884x1,133	
Shipping Weight (kg)	59	79	92	
Power Consumption	674 W	1390 W	1566 W	
Energy Consumption, at 100°C , at 150°C	117 Wh	187 Wh	204 Wh	
	230 Wh	337 Wh	398 Wh	
Power plug type	Hybrid E+F			
Power Supply	AC 230V, 1N~, 50/60Hz			

* Other Specifications are available upon Customer's Request.

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Cat. No	Description	Articles
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<Continued from... Ovens, Forced Convection-type, "WOF">

Ordering Information

Standard Model, Forced Convection, with Wire Shelves

- DH.WOF05050 Oven, Standard, 230V, 50 Lit., "WOF-50"
- DH.WOF05105 , 105 Lit., "WOF-105"
- DH.WOF05155 , 155 Lit., "WOF-155"

Built in Viewing Window Model, Forced Convection, with Wire Shelves

- DH.WOF07105 Oven, Window, 230V, 105 Lit., "WOF-W105"
- DH.WOF07155 , 155 Lit., "WOF-W155"

Spare Wire Shelves, Stainless Steel

- DH.WON11050 Wire Shelf, for 50 Lit., "ONS050", w340 x d310mm
- DH.WON11105 , for 105 Lit., "ONS105", w455 x d375mm
- DH.WON11155 , for 155 Lit., "ONS155", w520 x d440mm

Validation (IQ, OQ) Service

- DH.WOF31050 Validation Service(IQ, OQ), "OFV1050", for "WOF-50"
- DH.WOF31105 , "OFV1105", for "WOF-105"
- DH.WOF31155 , "OFV1155", for "WOF-155"
- DH.WOF32105 Validation Service(IQ, OQ), "OFV2105", for "WOF-W105"
- DH.WOF32155 , "OFV2155", for "WOF-W155"



Oven, Forced Convection-type, Built in Viewing Window Model, with Wire Shelves "WOF-W155"

WiseRemote® Remote Control Software

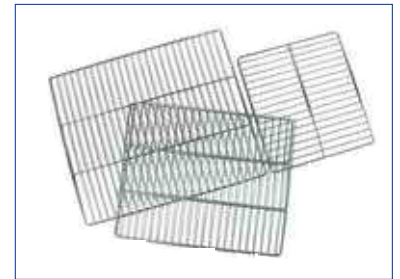
Connection of **Wisd** Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)



Main Screen



RS232C Cable & Software

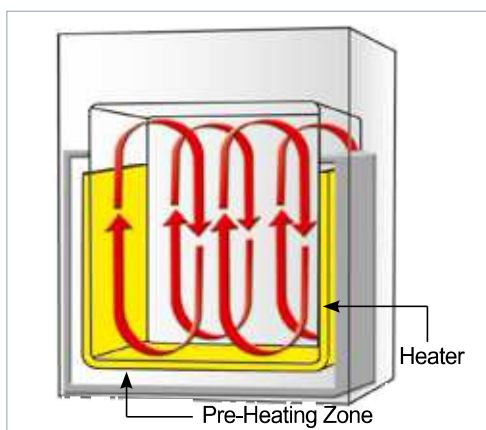


Wire Shelves, Stainless Steel (Included)

witeg® Ovens, Gravity Convection-type, "WON", 32-/50-/105-/155 Lit., with Certi. & Traceability
With 2 x Wire Shelves, Digital Fuzzy Control, Jog-Dial with Push Button, Digital LCD with Backlight, up to 230°C, ±0.5°C



Oven, Gravity/Natural Flow-type, Standard Model, with Wire Shelves "WON-155"



The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism (Gravity Convection-type)

- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- Optimized Air Flow by Gravity Convection Mechanism
- Patented Jog-Dial Control System
- CE Certified
- UL/CUL Certified
- PL (Product Liability) Insurance
- * Suitable for Drying, Baking, Conditioning, Curing, Pre-Heating and Aging
- * The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism : 3-Side Heating
- * Optimized Air Flow by Gravity Convection Mechanism
- * Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- * New Jog-Dial with Push Button
- * Compact New Body Design
- * 2 ea of Stainless Steel Wire Shelves Included
- * Alarm Function : Error status and Timer-end
- * RS232C Interface for Monitoring and Controlling with PC
- * Ambient +5°C to 230°C Range with Fluctuation of ±0.5°C at 100°C
- * Storage Function of Temperature and Timer setting values
- * Locking Mode Supported for Experimental Safety (Input to Jog-Dial can be disabled)
- * Corrosion Resistant 304 Stainless Steel Chamber
- * Over Temperature & Over Current Protection, Sensor Error Detection

Specification

Model		Standard Model, without Window			
		"WON-32"	"WON-50"	"WON-105"	"WON-155"
				Built-in Viewing Window Model "WON-W105"	"WON-W155"
Capacity		32Lit	50Lit	105Lit	155Lit
Dimension (w x d x h)	Interior (mm)	290x310x360	350x370x420	480x485x535	475x550x600
	Exterior (mm)	458x556x662	518x646x722	653x711x879	718x776x944
Heater Power		500 W	650 W	1.4 kW	1.6 kW
Temp.	Range	Ambient Temperature +5°C to 230°C			
	Fluctuation	± 0.5°C at 100°C, ± 0.6°C at 150°C			± 0.5°C at 100°C, ± 0.8°C at 150°C
	Variation	± 1.2°C at 100°C, ± 2.2°C at 150°C			
	Sensor	PT 100			
Control Resolution		±0.1°C			
Heat-up Time		30 min. to 100°C, 43 min. to 150°C	30 min. to 100°C, 45 min. to 150°C	35 min. to 100°C, 50 min. to 150°C	
Recovery Time (Door open 30sec)		8 min. to 100°C, 10 min. to 150°C		12 min. to 100°C, 10 min. to 150°C	
Controller		Digital Fuzzy Control by Advanced Microprocessor Jog-Dial with Push Button			
RS232 Port		Available to connect with PC			
Display		Digital LCD with Back Light			
Timer		99hr 59 min (delay/continuous function)			
Material	Internal	Stainless Steel (#304)			
	External	Powder Coated Steel			
	Insulation	Glass Wool			
Shelves		2ea of Stainless steel shelves included			
Ventilation		Ventilation hole with Stainless Steel Cap, Hole Diameter 40mm			
Circulation		Gravity Convection Type			
Safety device		Over Temp. and Over Current Protector, Sensor Error Detector			
Others		UL / CUL Certified, CE Certified Storage Function (Temp. and Time) Locking Mode (Jog-Dial Input Disabled) Alarm (Error Status and Timer-end)			
Net Weight (kg)		36	44	69	78
Packing Size (w x d x h) (mm)		562x664x747	622x754x807	743x819x1,068	808x884x1,133
Shipping Weight (kg)		43	59	79	92
Power Consumption		502 W	674 W	1390 W	1566 W
Energy Consumption, at 100°C, at 150°C		90 Wh	117 Wh	187 Wh	204 Wh
		181 Wh	230 Wh	337 Wh	398 Wh
Power plug type		Hybrid E+F			
Power Supply*		AC 230V, 1N~, 50/60Hz			

* Other Specifications are available upon Customer s Request.

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<Continued from... Ovens, Gravity Convection-type, "WON">

Ordering Information

Standard Model, Gravity/Natural Flow, with Wire Shelves

- DH.WON05032 Oven, Standard, 230V, 32 Lit., "WON-32"
- DH.WON05050 , 50 Lit., "WON-50"
- DH.WON05105 , 105 Lit., "WON-105"
- DH.WON05155 , 155 Lit., "WON-155"

Built in Viewing Window Model, Gravity/Natural Flow, with Wire Shelves

- DH.WON07105 Oven, Window, 230V, 105 Lit., "WON-W105"
- DH.WON07155 , 155 Lit., "WON-W155"

Spare Wire Shelves, Stainless Steel

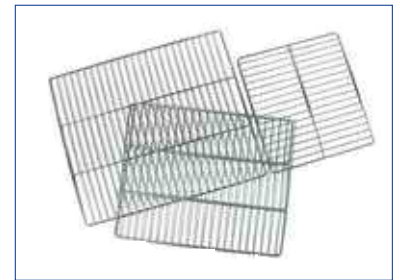
- DH.WON11032 Wire Shelf, for 32 Lit., "ONS032", w280 x d280mm
- DH.WON11050 , for 50 Lit., "ONS050", w340 x d310mm
- DH.WON11105 , for 105 Lit., "ONS105", w455 x d375mm
- DH.WON11155 , for 155 Lit., "ONS155", w520 x d440mm

Validation (IQ, OQ) Service

- DH.WON31032 Validation Service(IQ, OQ), "ONV1032", for "WON-32"
- DH.WON31050 , "ONV1050", for "WON-50"
- DH.WON31105 , "ONV1105", for "WON-105"
- DH.WON31155 , "ONV1155", for "WON-155"
- DH.WON32105 Validation Service(IQ, OQ), "ONV2105", for "WON-W105"
- DH.WON32155 , "ONV2155", for "WON-W155"



Oven, Gravity/Natural Flow-type, Built in Viewing Window Model, with Wire Shelves "WON-W155"



Wire Shelves, Stainless Steel (Included)

WiseRemote® Remote Control Software

Connection of **Wisd** Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)



Main Screen

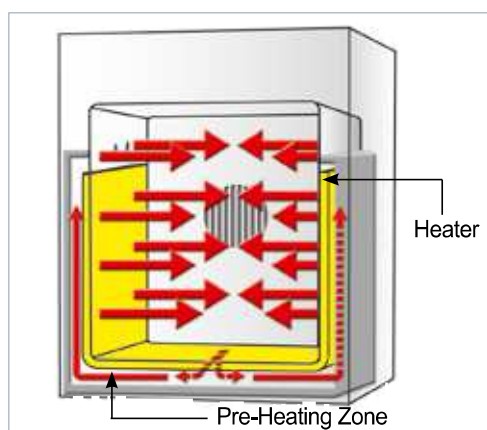


RS232C Cable & Software

witeg® Ovens, Forced Convection-type, "SWOF", 50-/105-/155-/305 Lit., with Certi. & Traceability
with Smart-Lab™ Controller, 4" Full Touch Screen, Fuzzy-PID Control, up to 250°C, ±0.3°C



Oven, Forced Convection-type, Standard Model,
with Wire Shelves "SWOF-155"



The Best Temp. Uniformity & Accuracy by
High Performance Heating Mechanism
(Forced Convection-type)



Display of Smart-Lab™ Controller

✳ See page 8~13 for the Feature
of Smart-Lab System

- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- Optimized Air Flow by Forced Convection Mechanism
- Smart-Lab™ Controller ■ CE Certified ■ UL/CUL Certified
- PL (Product Liability) Insurance
- * Suitable for Drying, Baking, Conditioning, Curing, Pre-Heating and Aging
- * The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism : 3 Side-Heating
- * Optimized Air Flow by Forced Convection Mechanism
- * Ergonomic Design 4" Full Touch Screen TFT LCD (Smart-Lab™ Controller)
- * WiRe™ App & Web Service. * Automatic Data Recording
- * Self-Diagnostic Function * Compact New Body Design
- * Variable Program Setting for Multiple Patterns with Multiple Segments
- * Internet Connectivity with WiFi * Controller SW can be upgraded through USB port.
- * The Recorded Data could be transferred to PC by USB memory
- * 2~3ea of Stainless Steel Wire Shelves Included
- * RS232C Interface for Monitoring and Controlling with PC
- * Ambient to 250°C of Temp. Range, Fluctuation of 0.3°C at 100°C
- * Corrosion Resistant 304 Stainless Steel Chamber
- * Over Temperature & Over Current Protection, Sensor Error Detection

Specification

Model		Standard Model, without Window		
		"SWOF-50"	"SWOF-105"	"SWOF-155"
			Built-in Viewing Window Model	
		"SWOF-W105"	"SWOF-W155"	
Capacity		50Lit	105Lit	155Lit
Dimension (w x d x h)	Interior (mm)	350x370x420	480x485x535	475x550x600
	Exterior (mm)	518x646x722	653x711x879	718x776x944
Heater Power		650 W	1.4 kW	1.6 kW
Temp.	Range	Ambient Temperature +5°C to 250°C		
	Fluctuation	±0.3°C at 100°C, ±0.5°C at 150°C		
	Variation	±1°C at 100°C, ±1.8°C at 150°C		±1°C at 100°C, ±2°C at 150°C
	Sensor	PT 100		
Control Resolution		±0.1°C		
Heat-up Time		25 min. to 100°C, 45 min. to 150°C	25 min. to 100°C, 40 min. to 150°C	
Recovery Time (Door open 30sec)		8 min. to 100°C, 8 min. to 150°C	6 min. to 100°C, 6 min. to 150°C	
Controller		Smart-Lab™ Controller		
RS232 Port		Available to connect with PC		
Display		4" Full Touch Screen TFT LCD		
Timer		99hr 59 min (delay/continuous function)		
Material	Internal	Stainless Steel (#304)		
	External	Powder Coated Steel		
	Insulation	Glass Wool		
Shelves		Stainless steel shelves included 2ea		
Ventilation		Ventilation hole with Stainless Steel Cap, Hole Diameter 40mm 1ea 2ea		
Circulation		Forced Air Convection Type		
Safety device		Over Temp. and Over Current Protector, Sensor Error Detector		
Others		UL / CUL Certified, CE Certified Storage Function (by Program mode) Locking Mode (Jog-Dial Input Disabled) Alarm (Error Status and Timer-end)		
Net Weight (kg)		44	69	78
Packing Size (w x d x h) (mm)		622x754x807	743x819x1,068	808x884x1,133
Shipping Weight (kg)		59	79	92
Power Consumption		674 W	1390 W	1566 W
Energy Consumption, at 100°C		117 Wh	187 Wh	204 Wh
, at 150°C		230 Wh	337 Wh	398 Wh
Power plug type		Hybrid E+F		
Power Supply*		AC 230V, 1N~, 50/60Hz		

* Other Specifications are available upon Customer s Request.

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Cat. No	Description
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Articles

<Continued from... Ovens, Forced Convection-type, "SWOF">

Ordering Information

Standard Model, Forced Convection, with Wire Shelves

- DH.SWOF05050 Oven, Standard, 230V, 50 Lit., "SWOF-50"
- DH.SWOF05105 , 105 Lit., "SWOF-105"
- DH.SWOF05155 , 155 Lit., "SWOF-155"

Built in Viewing Window Model, Forced Convection, with Wire Shelves

- DH.SWOF07105 Oven, Window, 230V, 105 Lit., "SWOF-W105"
- DH.SWOF07155 , 155 Lit., "SWOF-W155"

Spare Wire Shelves, Stainless Steel

- DH.WON11050 Wire Shelf, for 50 Lit., "ONS050", w340 x d310mm
- DH.WON11105 , for 105 Lit., "ONS105", w455 x d375mm
- DH.WON11155 , for 155 Lit., "ONS155", w520 x d440mm

Validation (IQ, OQ) Service

- DH.SWOF31050 Validation Service(IQ, OQ), "SOFV1050", for "SWOF-50"
- DH.SWOF31105 , "SOFV1105", for "SWOF-105"
- DH.SWOF31155 , "SOFV1155", for "SWOF-155"
- DH.SWOF32105 Validation Service(IQ, OQ), "SOFV2105", for "SWOF-W105"
- DH.SWOF32155 , "SOFV2155", for "SWOF-W155"



Oven, Forced Convection-type, Built in Viewing Window Model, with Wire Shelves "SWOF-W155"

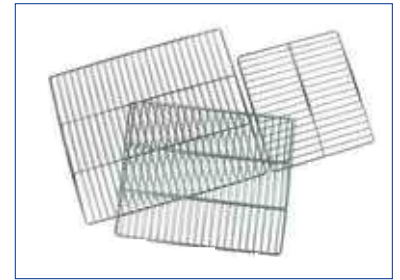


4" Full Touch Screen TFT LCD (Smart-Lab™ Controller)

It is possible to monitor and control the Smart-Lab™ equipment through all smart phone, tablet and web without restraint of time and place.



WiRe™ App & Web Service



Wire Shelves, Stainless Steel (Included)

witeg® Ovens, Gravity Convection-type, SWON , 32-/50-/105-/155 Lit., with Certi. & Traceability with Smart-Lab™ Controller, 4" Full Touch Screen, Fuzzy-PID Control, up to 230°C, ±0.5°C



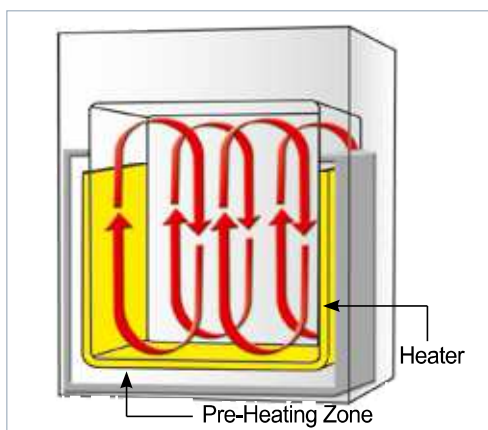
Oven, Gravity/Natural Flow-type, Standard Model, with Wire Shelves "SWON-155"

- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- Optimized Air Flow by Gravity Convection Mechanism
- Smart-Lab™ Controller ■ CE Certified ■ UL/CUL Certified
- PL(Product Liability) Insurance
- * Suitable for Drying, Baking, Conditioning, Curing, Pre-Heating and Aging
- * The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism: 3-Side Heating
- * Optimized Air Flow by Gravity Convection
- * Ergonomic Design 4" Full Touch Screen TFT LCD(Smart-Lab™ Controller)
- * WiRe™ App & Web Service. * Automatic Data Recording
- * Self-Diagnostic Function * Internet Connectivity with WiFi
- * Variable Program Setting for Multiple Patterns with Multiple Segments
- * The Recorded Data could be transferred to PC by USB memory
- * Controller SW can be upgraded through USB port.
- * Compact New Body Design * 2ea of Stainless Steel Wire Shelves Included
- * RS232C Interface for Monitoring and Controlling with PC
- * Ambient to 230°C of Temp. Range, Fluctuation of 0.5°C at 100°C
- * Corrosion Resistant 304 Stainless Steel Chamber
- * Over Temperature & Over Current Protection, Sensor Error Detection

Specification

Model	Standard Model, without Window			
	"SWON-32"	"SWON-50"	"SWON-105" Built-in Viewing Window Model "SWON-W105"	"SWON-155"
Capacity	32Lit	50Lit	105Lit	155Lit
Dimension (w x d x h)	Interior (mm)	290x310x360	350x370x420	480x485x535
	Exterior (mm)	458x556x662	518x646x722	653x711x879
Heater Power	500 W	650 W	1.4 kW	1.6 kW
Temp.	Range	Ambient Temperature +5°C to 230°C		
	Fluctuation	± 0.5°C at 100°C, ± 0.6°C at 150°C		± 0.5°C at 100°C, ± 0.8°C at 150°C
	Variation	± 1.2°C at 100°C, ± 2.2°C at 150°C		
	Sensor	PT 100		
Control Resolution	±0.1°C			
Heat-up Time	30 min. to 100°C, 43 min. to 150°C	30 min. to 100°C, 45 min. to 150°C	35 min. to 100°C, 50 min. to 150°C	
	Recovery Time (Door open 30sec)	8 min. to 100°C, 10 min. to 150°C	12 min. to 100°C, 10 min. to 150°C	
Controller	Smart-Lab™ Controller			
RS232 Port	Available to connect with PC			
Display	4" Full Touch Screen TFT LCD			
Timer	99hr 59 min (delay/continuous function)			
Material	Internal	Stainless Steel (#304)		
	External	Powder Coated Steel		
	Insulation	Glass Wool		
Shelves	2ea of Stainless steel shelves included			
Ventilation	Ventilation hole with Stainless Steel Cap, Hole Diameter 40mm			
	1ea	2ea		
Circulation	Gravity Convection Type			
Safety device	Over Temp. and Over Current Protector, Sensor Error Detector			
Others	UL / CUL Certified, CE Certified			
	Storage Function (Temp. and Time)			
	Locking Mode (Jog-Dial Input Disabled)			
	Alarm (Error Status and Timer-end)			
Net Weight (kg)	36	44	69	78
Packing Size (w x d x h) (mm)	562x664x747	622x754x807	743x819x1,068	808x884x1,133
Shipping Weight (kg)	43	59	79	92
Power Consumption	502 W	674 W	1390 W	1566 W
Energy Consumption, at 100°C, at 150°C	90 Wh	117 Wh	187 Wh	204 Wh
	181 Wh	230 Wh	337 Wh	398 Wh
Power plug type	Hybrid E+F			
Power Supply*	AC 230V, 1N~, 50/60Hz			

* Other Specifications are available upon Customer s Request.



The Best Temp. Uniformity & Accuracy by High Performance Heating Mechanism (Gravity Convection-type)



Display of Smart-Lab™ Controller

※ See page 8~13 for the Feature of Smart-Lab System

<Continued on next page>

Cat. No	Description	Articles
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<Continued from... Ovens, Gravity Convection-type, "SWON">

Ordering Information

Standard Model, Gravity/Natural Flow, with Wire Shelves

- DH.SWON05032 Oven, Standard, 230V, 32 Lit., "SWON-32"
- DH.SWON05050 , 50 Lit., "SWON-50"
- DH.SWON05105 , 105 Lit., "SWON-105"
- DH.SWON05155 , 155 Lit., "SWON-155"

Built in Viewing Window Model, Gravity/Natural Flow, with Wire Shelves

- DH.SWON07105 Oven, Window, 230V, 105 Lit., "SWON-W105"
- DH.SWON07155 , 155 Lit., "SWON-W155"

Spare Wire Shelves, Stainless Steel

- DH.WON11032 Wire Shelf, for 32 Lit., "ONS032", w280 x d280mm
- DH.WON11050 , for 50 Lit., "ONS050", w340 x d310mm
- DH.WON11105 , for 105 Lit., "ONS105", w455 x d375mm
- DH.WON11155 , for 155 Lit., "ONS155", w520 x d440mm

Validation (IQ, OQ) Service

- DH.SWON31032 Validation Service(IQ, OQ), "SONV1032", for "SWON-32"
- DH.SWON31050 , "SONV1050", for "SWON-50"
- DH.SWON31105 , "SONV1105", for "SWON-105"
- DH.SWON31155 , "SONV1155", for "SWON-155"
- DH.SWON32105 Validation Service(IQ, OQ), "SONV2105", for "SWON-W105"
- DH.SWON32155 , "SONV2155", for "SWON-W155"



Oven, Gravity/Natural Flow-type, Built in Viewing Window Model, with Wire Shelves "SWON-W155"

>> witeg WiRe™ App & Web Service



4" Full Touch Screen TFT LCD (Smart-Lab™ Controller)

It is possible to monitor and control the Smart-Lab™ equipment through all smart phone, tablet and web without restraint of time and place.



WiRe™ App & Web Service

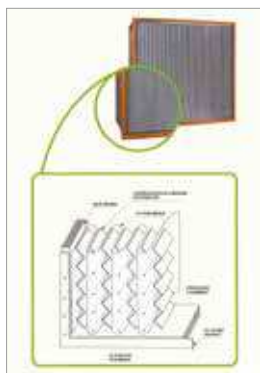
witeg® High Clean Air Oven, "WOC", with Class 100 HEPA Filter, 560-/800- Lit., with Certi. & Traceability with Chrome Coated Steel Wire Shelves, Digital Fuzzy Control System, Clean Air Convection Mechanism, up to 250°C, $\pm 1.0^\circ\text{C}$



High Clean Air Oven, with HEPA Filter
"WOC-560"



High Efficiency and
High Clean Air Convection
Mechanism



High Temp. HEPA Filter

- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Specially Designed Clean Air Convection Mechanism Provides Dynamic Air Flow for Exhaust of Contaminated Air from the Chamber and Supply of Filtered Clean Air into the Chamber
- Digital Fuzzy Control System Implementing Superior Temperature Accuracy.
- Patented Jog-Shuttle Control System ■ CE Certified
- PL (Product Liability) Insurance
- * Suitable for Critical Clean Application such as Electronics, Semiconductor, Pharmaceutical and Clinical Applications - Class 100 HEPA Filter is used.
- * Specially Designed Clean Air Convection Mechanism Provides Dynamic Air Flow for Exhaust of Contaminated Air from the Chamber and Supply of Filtered Clean Air into the Chamber
- * Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- * User's Self-Compensation Function to Control Difference between Real Temp. and Indicated Temp. ($\pm 20.0^\circ\text{C}$)
- * RS232C Interface for Remote Controlling with PC
- * Storage Function : Set Values of Temperature and Timer
- * Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be Disabled)
- * Over Temperature & Over Current Protection, Sensor Error Detection

Specification

Model		560 Lit. "WOC-560"	800 Lit. "WOC-800"
Air Flow-type		High Clean Air Convection Mechanism	
Filter for Clean Air		HEPA Filter Class 100 for High Temperature	
Temp.	Range	Ambient +5°C to 250°C	
	Accuracy	$\pm 1.0^\circ\text{C}$	
	Uniformity	$\pm 2.0^\circ\text{C}$ at 200°C	
	Sensor	PT100 Sensor	
Heating Power/Consumption		6.5 kW	9.4 kW
Timer & Alarm		99hr 59min (with delay / Continuous run.), Error status & Timer-end	
Display		Digital LCD with Back Light	
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn+Push)	
Verification		Timer Operated Verification System	
Resolution		Control: $\pm 1.0^\circ\text{C}$, Display: $\pm 1.0^\circ\text{C}$	
Shelves		3ea of Chrome Coated Steel Shelves of Adjustable Position	
Load per Rack		16 kg	
Permitted Total Load		48 kg (16kg x 3 Shelves)	
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector	
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel, Insulation : Glass Wool	
Others		Storage Function (Temp., Timer) Locking Mode (Jog-Shuttle Input Disabled)	
Dimension (w x d x h)	Interior (mm)	800x700x1,000	1,000x800x1,000
	Exterior (mm)	1,000x1,155x1,735	1,500x1,200x1,900
Packing Size (w x d x h) (mm) & Gross Weight		1,200x1,400x2,120mm, 386 kg	1,700x1,400x2,270mm, 446 kg
Power Consumption		6.5 kW	9.4 kW
Power plug type		5 pole 16A CEE	
Power Supply*		AC 400V, 3N~, 50/60Hz	

* Other Specifications are available upon Customer's Request.

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Cat. No	Description	Articles
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<Continued from... High Clean Air Oven, "WOC">

Ordering Information

High Clean Air Oven, with Hepa Filter/Wire Shelves

DH.WOC03560 High Clean Air Oven, 400V, 3N~, 560 Lit., "WOC-560"

DH.WOC03800 , 800 Lit., "WOC-800"

Spare Wire Shelves, Chrome Coated Steel

DH.WOC10560 (1) Wire Shelf, "OCS560", w780 x d680, for "WOC-560"

DH.WOC10800 , "OCS800", w980 x d880, for "WOC-800"

Optional Device & Cable/Plug

DH.WOCN2GIN N2 Gas Inlet Device, WOC-N2GIN

Validation (IQ, OQ) Service

DH.WOC30560 Validation Service(IQ, OQ), "OCV560", for "WOC-560"

DH.WOC30800 , "OCV800", for "WOC-800"



High Clean Air Oven, with HEPA Filter
"WOC-560"

WiseRemote® Remote Control Software

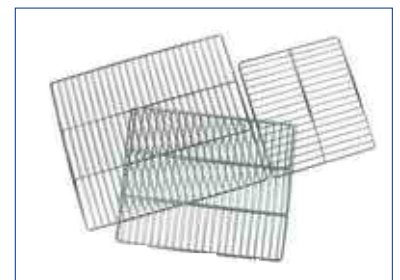
Connection of **Wisdom** Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)



Main Screen



RS232C Cable & Software



(1) Chrome Coated Steel Wire Shelves
(Included)

witeg® Industrial Forced Convection Oven, WOF-L , 486-/840-/1176- Lit., with Certi. & Traceability with Stainless Steel Perforated Shelves, Digital PID Control System, Superior Temp. Accuracy, up to 250°C, ±1.0°C



Industrial Forced Convection Oven "WOF-L800"
with Stainless Steel Perforated Shelves

- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Heavy Forced Air-Circulation by Strong and Reliable Fan System : ideal for Semiconductor and Electronic Parts Baking Purpose
- CE Certified

■ PL (Product Liability) Insurance

- * Heavy Forced Air-Circulation by Strong and Reliable Fan System : Ideal for Semiconductor and Electronic Parts Baking Purpose
- * Voltage and Ampere Meter Equipped for Monitoring Safe Operation of the Machine
- * Digital PID Control System Enables Superior Temperature Accuracy
- * Digital Timer Function with Buzzer Alarm : up to 99 hrs 59 min
- * Locker is Available for Operational Safety Control by an Administrator
- * Over Temperature & Over Current Protection, Sensor Error Detection and Leakage Breaking
- * Multi-Channel Temperature Sensors with Digital Display for Monitoring Temperature Uniformity in the Chamber is available(Optional)
- * Default Damper to Enhance Thermal Efficiency
- * Automatic Gas Exhaust Available (Optional)

Specification

Model		486 Lit. "WOF-L400"	840 Lit. "WOF-L800"	1,176 Lit. "WOF-L1000"
Air Flow-type		Forced Convection-type by FAN		
Air Circulation Fan Motor		1/3 HP	1/3 HP x 2 ea	1/3 HP x 3 ea
Temp.	Range	Ambient +5°C to 250°C		
	Accuracy	± 1.0°C at 150°C		
	Uniformity	± 2.0°C at 150°C		
	Sensor	PT100		
Heating Power/Consumption		3 kW	5 kW	7 kW
Timer & Alarm		99hr 59min (with Continuous run.), Timer-end Alarm		
Display		2 lines LED for Temperature and Timer		
Controller		Digital PID Control		
Resolution		Control : ±1.0°C, Display : ±1.0°C		
Door		Powder coated Steel Door with Silicon Packing		
		1 Door	2 Doors	
Shelves		Included Stainless Steel Perforated Shelves		
		4 ea	5 ea	8 ea
Load per Rack		16 kg		
Permitted Total Load		64 kg (16kg x 4 Shelves)	80 kg (16kg x 5 Shelves)	96 kg (16kg x 6 Shelves)
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel, Insulation : Ceramic and Glass Wool Board		
Dimension (w x d x h)	Interior (mm)	900x600x900	1,250x700x960	1,400x700x1,200
	Exterior (mm)	1,200x750x1,700	1,500x840x1,800	1,650x840x2,150
Net Weight		316 kg	408 kg	478 kg
Others		Over Temp. and Over Current Protector, Sensor Error Detector, Leakage Breaker Locking Mode by Mechanical Locker		
Packing Size (w x d x h) (mm)		1,400x1,220x1,960	1,700x1,310x2,060	1,850x1,310x2,410
& Gross Weight		376 kg	488 kg	568 kg
Power Consumption		3.6 kW	6.2 kW	8.8 kW
Power plug type		5 pole 16A CEE		
Power Supply*		AC 400V, 3N~, 50/60Hz		

* Other Specifications are available upon Customer s Request.

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Cat. No	Description	Articles
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<Continued from... Industrial Forced Convection Oven, "WOF-L">

Ordering Information

Industrial Forced Convection Oven, with Perforated Shelves/Terminal Block

DH.WOFL0402 Industrial Forced Convection Oven, 400V, 3N~, 486 Lit., "WOF-L400"

DH.WOFL0802 , 840 Lit., "WOF-L800"

DH.WOFL1002 , 1176 Lit., "WOF-L1000"

Spare Perforated Shelves, Stainless Steel

DH.WOF10400 (1) Perforated Shelf, "OFLS400", w880 x d580mm, for "WOF-L400"

DH.WOF10800 , "OFLS800", w1230 x d680mm, for "WOF-L800"

DH.WOF11000 , "OFLS1000", w1380 x d680mm, for "WOF-L1000"

Validation (IQ, OQ) Service

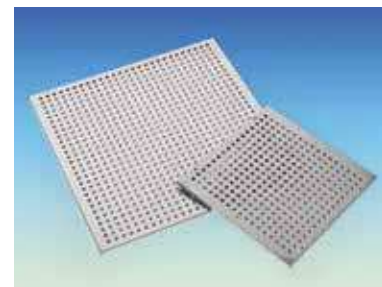
DH.WOF30400 Validation Service(IQ, OQ), "OFLV400", for "WOF-L400"

DH.WOF30800 , "OFLV800", for "WOF-L800"

DH.WOF31000 , "OFLV1000", for "WOF-L1000"



Industrial Forced Convection Oven "WOF-L800"
with Stainless Steel Perforated Shelves



(1) Perforated Shelves, Stainless Steel
(Included)

witeg® Precise Vacuum Oven, WOV , Highly Safety Viewing Window, 30-/69-Lit., up to 200°C with 3 x Al-Shelves, Digital Fuzzy Control, Superior Temp. & Vacuum Accuracy, Highly Safety Viewing Window, 10~750 mmHg,



Precise Vacuum Oven "WOV-30"
Included Aluminum Shelves

- with Certificate & Traceability : Controlled by Serial Number, Certificate, Delivery-information, and Traceable Data Base System
- Suitable for Drying, Baking, Conditioning, Curing, Out-Gassing Solids and Liquids, Vacuum Embedding, Moisture Testing, Plating and Aging Test
- Very Easy and Convenient for Vacuuming and Venting, Easy to read Vacuum Gauge
- Highly Safety Viewing Window (Tempered Safety Glass+ Polycarbonate Window)
- Patented Jog-Shuttle Control System and Back-Light LCD
- UL/CUL Certified ■ CE Certified
- PL (Product Liability) Insurance
- * Suitable for Drying, Baking, Conditioning, Curing, Out-Gassing Solids and Liquids, Vacuum Embedding, Moisture Testing, Plating and Aging Test
- * Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- * RS232C Interface for Remote Monitoring and Controlling with PC
- * Superior Uniformity and Stability
- * Very Easy and Convenient for Vacuuming and Venting, Easy to read Vacuum Gauge
- * High Quality Door Sealing : High Temperature Grade Silicone Molded Gasket
- * Highly Safety Viewing Window (Tempered Safety Glass+ Polycarbonate Window)
- * Over Temperature & Over Current Protection and Sensor Error Detection
- * Storage Function : Alarm & Timer
- * Locking Mode Supported for Experimental Safety (Input to Jog-Shuttle can be disabled)

Specification

Model		18.6 Lit. "WOV-20"	30 Lit. "WOV-30"	70 Lit. "WOV-70"
Vacuum Range		10 ~ 750 mmHg		
Temp.	Range	Ambient +5°C to 200°C		
	Accuracy	± 0.5°C at 100°C		
	Uniformity	±2.0°C at 100°C		
	Sensor	PT100		
Heating Power/Consumption		300W x 2ea	300W x 2ea	400W x 4ea
Heat-up Time		50 min. to 100°C, 90 min. to 150°C		
Timer & Alarm		99hr 59min (with delay / Continuous run.), Error status & Timer-end		
Display		Digital LCD with Back Light		
Controller		Digital Fuzzy Controller with Jog-Shuttle Switch (Turn & Push)		
Resolution		Control : ±1.0°C, Display : ±1.0°C		
Shelves		Included 3ea Aluminum Shelves		
Safety Circuit		Over Temp. and Over Current Protector, Sensor Error Detector, Leakage Breaker		
Material		Internal : Stainless Steel (#304), External : Powder Coated Steel, Window : Tempered Safety Glass 12T, Poly Carbonate 5T for Safety		
Others		Storage Function (Temp and Timer) Locking Mode (Jog-Shuttle Input Disabled)		
Dimension (w x d x h)	Interior (mm)	265x290x265	300x330x300	400x435x400
	Exterior (mm)	472x443x542	507x483x577	570x588x677
Vacuum Inlet Size		OD : 10mm		
Net Weight		48 kg	56 kg	82 kg
Packing Size (w x d x h) (mm)		572x660x840	710x762x970	780x826x1,030
& Gross Weight		67 kg	76 kg	114 kg
Power Consumption		600 W	600 W	1.7 kW
Power plug type		Hybrid E+F		
Power Supply*		AC 230V, 1N~, 50/60Hz		

* Other Specifications are available upon Customer s Request.

WiseRemote® Remote Control Software
Connection of **Wisd** Temperature Devices with Interface RS232C to a PC Export Recorded Data (Excel Spreadsheet)



Main Screen



RS232C Cable & Software

<Continued on next page>

Cat. No	Description
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Articles

<Continued from... Precise Vacuum Oven, "WOV">

Ordering Information

Precise Vacuum Oven, with Aluminum Shelves & Cord/Plug

DH.WOV01020 Vacuum Oven, 230V, 18,6 Lit., "WOV-20"

DH.WOV01030 , 30 Lit., "WOV-30"

DH.WOV01070 , 70 Lit., "WOV-70"

Spare Aluminum Shelves

DH.WOV11120 (1) Upper Shelf, Aluminum, without Sensor Guard, "OVS120",
w295 x d285 x h98mm, for **WOV-20**

DH.WOV11130 (1) Upper Shelf, Aluminum, without Sensor Guard, "OVS130",
w295 x d285 x h98mm, for **WOV-30**

DH.WOV11170 (1) Upper Shelf, Aluminum, without Sensor Guard, "OVS170",
w395 x d395 x h130mm, for **WOV-70**

DH.WOV11020 (2) Standard Shelf, Aluminum, "OVS020", w295 x d285 x h98mm, for "WOV-20"

DH.WOV11030 , "OVS030", w295 x d285 x h98mm, for "WOV-30"

DH.WOV11070 , "OVS070", w395 x d395 x h130mm, for "WOV-70"

DH.WOV20001 (3) Sensor Guard, for Upper Shelf "SG001"

Validation (IQ, OQ) Service

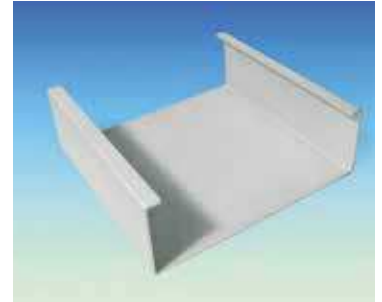
DH.WOV31020 Validation Service(IQ, OQ), "OVV020", for "WOV-20"

DH.WOV31030 , "OVV030", for "WOV-30"

DH.WOV31070 , "OVV070", for "WOV-70"



(1) Upper Shelf, Aluminum(Included) without Sensor Guard



(2) Standard Shelf, Aluminum (Included)



(3) Sensor Guard