

Incubator Oven

Controller SMART-Lab™ Jog-Dial

Anytime - Anywhere connected laboratory



SMART-Lab™ Controller



- full touch screen TFT LCD:
- WiRe™ app service, remote control system
- variable program settings
- self-diagnosis and interactive temperature graph
- automatic data recording and password protection
- data transfer to PC by USB memory
- digital calibration (offset function)
- min-/max-temperature memory & program function
- push-alarm service to smartphone or tablet PC

more information on 8 - 11

SMART-Lab devices

Incubator	Oven
SWIG 70°C, 32 / 50 / 105 / 155 l - page 59	SWON 230°C, 32/50/105/155 l - page 77
SWIF 70°C, 50/105/155 l - page 61	SWOF 250°C, 50/105/155 l - page 79
SWIR 0-60°C, refrigerated - page 65	SWOV 200°C, 18.6/30/70 l, 750mmHg - page 81
STH -20/-40°C, 98% rel. hum. - page 72	
STH-E -20°C, 95% rel. hum. - page 73	
SWGC Illumination, 95% rel. hum. - page 74	

Jog-Dial controller

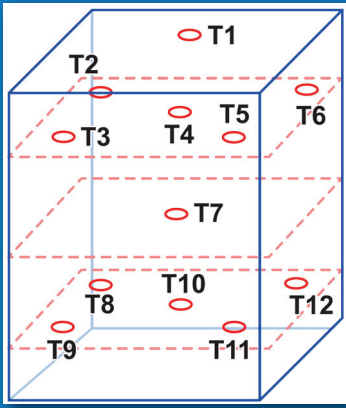
- ergonomic design for easy and convenient usage
- 2-way Jog-Dial knob provides simple setting of required temperature and time
- high quality illuminated LCD
- „MAIN“ and „SUB“ button to access all menus



Incubator	Oven
WIG 70°C, 32 / 50 / 105 / 155 l on page 58	WON 230°C, 32/50/105/155 l on page 76
WIF 70°C, 50/105/155 l on page 60	WOF 250°C, 50/105/155 l on page 78
WIR 0-60°C, refrigerated on page 64	WOV 200°C, 18.6/30/70 l, 750mmHg on page 80

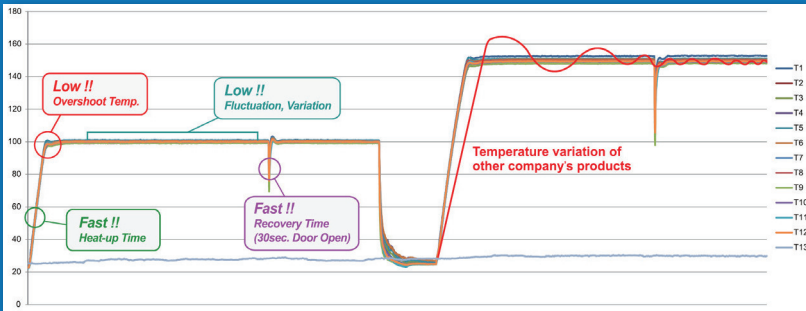
Incubator Oven

General information



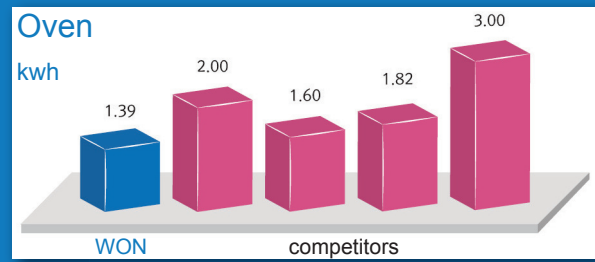
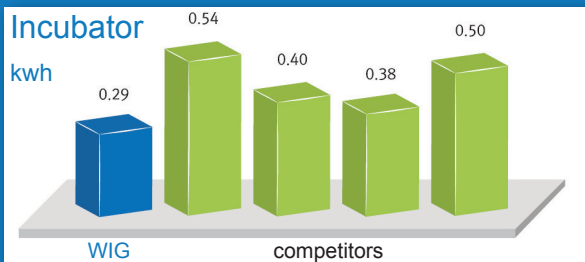
Temperature uniformity successfully tested by ASTM standards

All incubators and ovens are thoroughly tested, using 12 temperature sensors and the latest instruments to obtain validation, which corresponds to international standards.



Green product

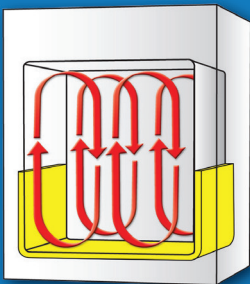
All incubators and ovens achieve minimum power consumption by using heating elements consuming minimum power adjusted for the capacity and temperature of the chamber.



Incubator air-flow

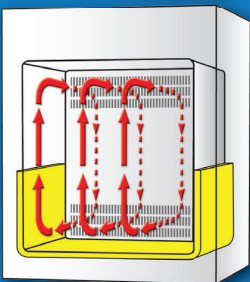
Gravity-air

The incubators gravity-air flow is established by creating radiant and conductive heat on three sides of the chamber (bottom, left and right side).



Forced-air

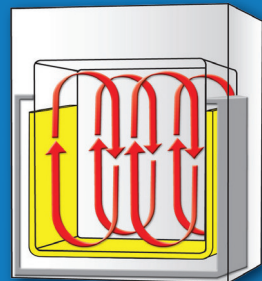
The incubators forced-air flow is established by a three sided heating element in combination with a very effective fan placed in an air-flow room for best temperature uniformity in the whole chamber.



Oven air-flow

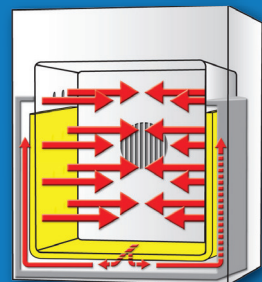
Gravity-air

The ovens gravity-air flow is established by heating up air in a pre-heating zone by heating elements on the bottom, left and right side. The pre-heated air will be restrictively provided into the chamber.



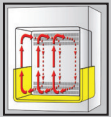
Forced-air

The ovens forced-air flow is established by a very effective fan installed in the rear of the chamber sucking air from the chamber into the pre-heating zone where heating elements on the bottom, left and right side heat up air. The pre-heated air is uniformly and quickly provided into the chamber by a special side and bottom structure.



Incubator | forced-air

SMART-Lab™ controller, forced-air convection, up to 70°C, 50 / 105 / 155 l



Forced-air
3-sided heating zone



SMART-Lab™ controller



WiRe™ app service

IQ | OQ
available
page 12 for details

SWIF 70°C, 50/105/155 l

Ideal for:

- microorganism culture, animal and plant cell culture, constant temperature, germination, etc.

Features:

- optimized air flow by forced-air mechanism
- temperature uniformity and accuracy by high performance 3-sided heating mechanism
- 2x PE-coated steel wire shelves included
- corrosion resistant stainless steel chamber, powder-coated body
- inner tempered glass door with silicone packing offers easy observation without door opening
- ambient to 70°C of temperature range, accuracy of $\pm 0.2^\circ\text{C}$ at 37°C, $\pm 0.3^\circ\text{C}$ at 50°C
- storage function for the set values of temperature and timer
- alarm function: error status and timer end
- CE & UL/CUL certified and unique serial number for tracing

Safety mechanism:

- overheat and over-current protection
- sensor error detection

Controller:

- **Smart-Lab™ controller** with 4" full touch screen TFT LCD:
 - ◆ WiRe™ app service, remote control system
 - ◆ variable program settings
 - ◆ self-diagnostic function
 - ◆ automatic data recording
 - ◆ data transfer to PC by USB memory
 - ◆ Internet connectivity with WiFi



SWIF-105 with SMART-Lab™ controller
and 2x PE-coated steel wire shelves (included)

Model	SWIF-50	SWIF-105	SWIF-155
Capacity	50 l	105 l	155 l
Temperature range & control resolution	room temperature +5°C - +70°C, $\pm 0.1^\circ\text{C}$		
Temperature fluctuation & sensor	$\pm 0.2^\circ\text{C}$ at 37°C, $\pm 0.3^\circ\text{C}$ at 50°C, PT 100 sensor		
Temperature variation	$\pm 0.5^\circ\text{C}$ at 37°C $\pm 0.9^\circ\text{C}$ at 50°C		$\pm 0.4^\circ\text{C}$ at 37°C $\pm 0.7^\circ\text{C}$ at 50°C
Heater power	200 W	300 W	400 W
Heat-up time	17 min to 37°C, 28 min to 50°C		17 min to 37°C, 30 min to 50°C
Recovery time (door open 30sec)	3 min to 37°C, 4 min to 50°C		
Timer & alarm	99hr 59 min (delay & continuous run)		
Shelves	2 x PE-coated steel wire shelves included, total load 32 kg (16 kg per shelf)		
Ventilation hole	1 ventilation hole (inner \varnothing 35 mm) with stainless steel cap		
Internal dimensions (W x D x H, mm)	370 x 350 x 419 mm	485 x 410 x 533 mm	550 x 475 x 600 mm
External dimensions (W x D x H, mm), net weight	518 x 637 x 700 mm, 46 kg	635 x 695 x 841 mm, 66 kg	700 x 760 x 906 mm, 81 kg
Packing size & gross weight	628 x 752 x 775 mm, 58 kg	710 x 731 x 1018 mm, 74 kg	731 x 810 x 1018 mm, 92 kg
Power supply	1 Phase AC 120V, 60 Hz or AC 230V, 50/60 Hz		
Power consumption	216,3 W	302,9 W	438,1 W
Energy consumption at 37°C/ at 50°C	28 Wh/ 84 Wh	43 Wh/ 129 Wh	58 Wh/ 145 Wh
Order number 230V	DH.SWIF03050	DH.SWIF03105	DH.SWIF03155
Order number 120V	DH.SWIF04050	DH.SWIF04105	DH.SWIF04155

Accessories: Suitable stainless steel and PE-coated shelves can be found on page 67