

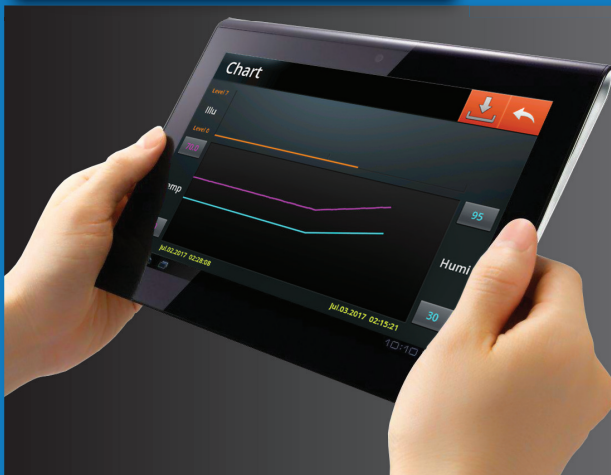
Incubator Oven

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

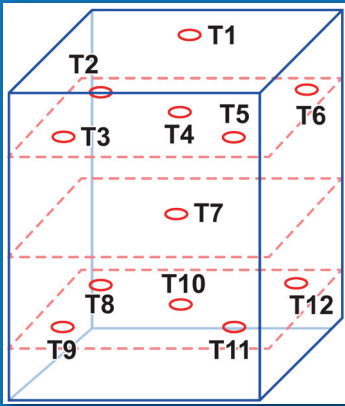
- ergonomic design for easy and convenient usage
- 2-way Jog-Dial knob provides simple setting of required temperature and time
- high quality illuminated LCD
- „MAIN“ and „SUB“ button to access all menus



| 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 |

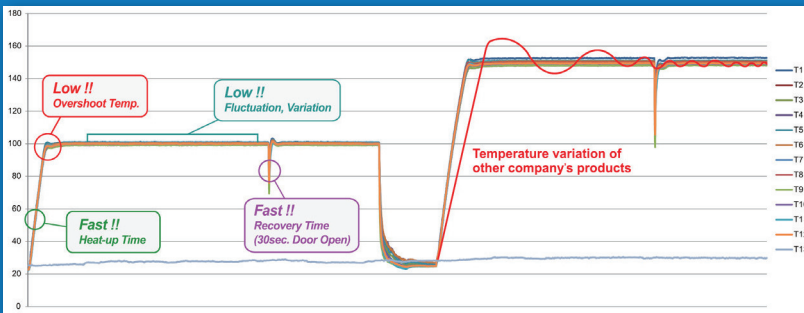
Incubator Oven

General information



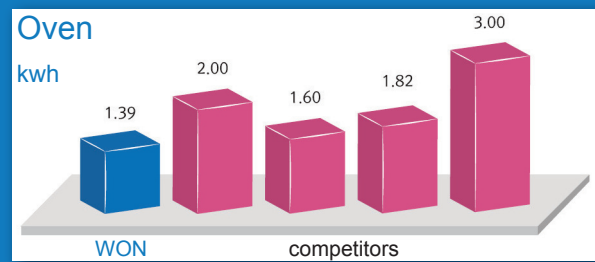
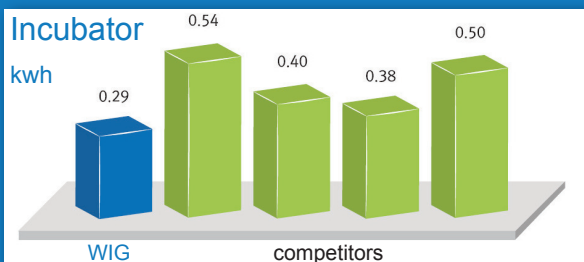
Temperature uniformity successfully tested by ASTM standards

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

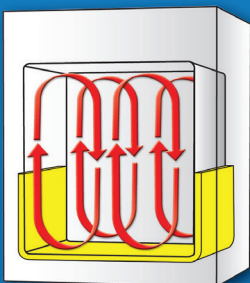
All incubators and ovens achieve minimum power consumption by using heating elements consuming minimum power adjusted for the capacity and temperature of the chamber.



Incubator air-flow

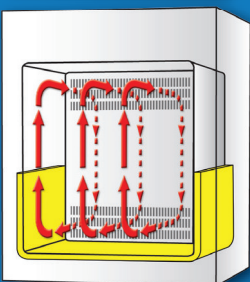
Gravity-air

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

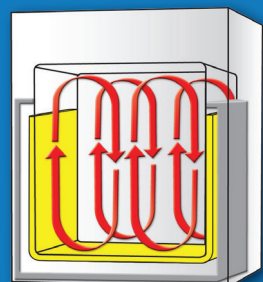
The incubators forced-air flow is established by a three sided heating element in combination with a very effective fan placed in an air-flow room for best temperature uniformity in the whole chamber.



Oven air-flow

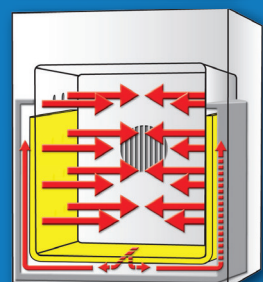
Gravity-air

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.



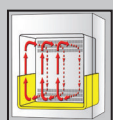
Forced-air

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 | B.O.D.

SMART-Lab™ controller, forced-air convection, 0°C - 60°C (refrigerated), 150 / 250 / 420 / 700 l



Forced-air



SMART-Lab™ controller



WiRe™ app service

SWIR 0-60°C, refrigerated

Ideal for:

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

Features:

- CFC free refrigerant (R-404A)
- intelligent refrigerator control prevents compressor overload
- superior temperature uniformity by forced-air convection
- stainless steel chamber, powder-coated body
- tempered glass door to observe samples during incubation
- 3x PE-coated steel wire shelves included
- 0°C - +60°C (refrigerated)
- CE & UL/CUL certified and unique serial number for tracing

Safety mechanism:

- overheat and over-current protection
- sensor error detection and leakage breaker

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

IQ | OQ
available
page 12 for details



SWIR-150 with SMART-Lab™ controller and 3x PE-coated steel wire shelves (included)

| Model | SWIR-150 | SWIR-250 | SWIR-420 | SWIR-700 |
|---|---|------------------------------|--------------------------------|-------------------------------|
| Capacity | 150 l | 250 l | 420 l | 700 l |
| Temperature range & accuracy | 0°C - +60°C, ±0.2°C at 37°C (refrigerated) | | | |
| Temperature uniformity & sensor | ±0.5°C at 37°C, ±1.4°C at 50°C, PT100 sensor | | | |
| Heat-up time | 20 min to 37°C, 20 min to 50°C | | 35 min to 37°C, 35 min to 50°C | |
| Recovery time (door open 30sec) | 10 min to 37°C, 12 min to 50°C | | 12 min to 37°C, 15 min to 50°C | |
| Heater power | 700 W | 1 kW | 1.2 kW | 2 kW |
| Compressor | 190 W | 250 W | 370 W | 370 W |
| Timer & alarm | 99hr 59 min (delay & continuous run), error status and timer end | | | |
| Shelves | 3 x PE-coated steel wire shelves included, total load 48 kg (16 kg per shelf) | | | |
| Internal dimensions (W x D x H) | 505 x 505 x 610 mm | 505 x 505 x 1000 mm | 705 x 605 x 1000 mm | 800 x 700 x 1250 mm |
| External dimensions (W x D x H), net weight | 640 x 832 x 1313 mm, 118 kg | 640 x 832 x 1703 mm, 157 kg | 840 x 932 x 1753 mm, 202 kg | 935 x 1027 x 2000 mm, 234 kg |
| Packing size & gross weight | 900 x 1000 x 1650 mm, 191 kg | 900 x 1000 x 2040 mm, 217 kg | 1100 x 1100 x 2140 mm, 277 kg | 1220 x 1220 x 2260 mm, 313 kg |
| Power supply | 1 Phase AC 120V, 60 Hz or AC 230V, 50/60 Hz | | | |
| Power consumption | 1,6 kW | 1,8 kW | 2,3 kW | 2,4 kW |
| Order number 230V | DH.SWIR03150 | DH.SWIR03250 | DH.SWIR03420 | DH.SWIR03700 |
| Order number 120V | DH.SWIR04150 | DH.SWIR04250 | DH.SWIR04420 | DH.SWIR04700 |

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