Laboratory incubators and ovens

Slímcell®

drying ovens

microbiological incubators

CO_2 cell culture incubators

CE

ílShin® Europe

Slimcell® incubators and ovens

Slimcell® incubators and ovens are designed for a wide range of applications in biomedical, pharmaceutical and clinical laboratories. The Slimcell® family consist of three ranges: CO_2 incubators, microbiological incubators and drying ovens. All systems are designed with the customer in mind and guarantee high performance with low maintenance.

We are proud of the unique fact that the Slimcell® series is manufactured with only selecting the highest quality of components, all made in Europe.

CO155

CO_2 incubator, 155 l with decontamination cycle

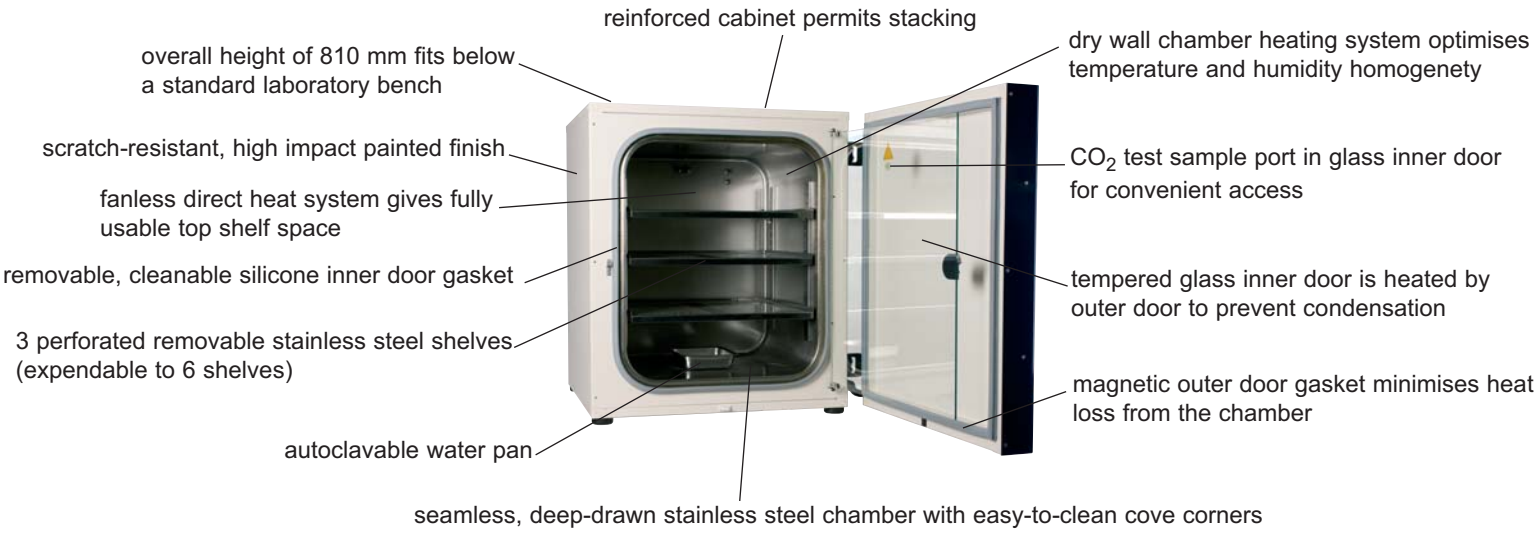
The Slimcell® CO155 CO_2 incubator is specially designed for growing cell and tissue cultures in the most stable and safe conditions possible. This results in our design with superior temperature, CO_2 and relative humidity uniformity on every single spot all over the inner chamber. Regarding safety we highly reduced contamination risk by eliminating all risky 'gadgets' from the inner chamber like the sensor and fans. On top of that we are using a one piece deep-drawn inner chamber without any welding point. Unique in the market is our antibacterial coating of the control display. It is so logical that study proved a control panel is the real start and source of bacteria transfer.

Unique Slimcell® antibacterial control display:
=> the first step in protection against contamination

The performance of our antibacterial protected control display is extensively tested and proven to inhibit the growth of a wide range of bacteria, fungi and moulds including MRSA, Salmonella Enteritidis, Escherichia Coli and Listeria Monocytogenes. Our system works by penetrating the cell wall of microorganisms that come in contact with the substrate surface and disrupting their cell functions, rendering them unable to function, grow or reproduce.

Performance features CO155 CO_2 incubator

- Fan-free design, clean, no vibration, space saving and less contamination;
- Six-sided direct heat system ensures stable homogenous environment;
- Weldless deep-drawn stainless steel inner chamber without joints;
- Drift free dual beam infrared CO_2 sensor strategically placed outside chamber for easy chamber decontamination;
- Chamber with rounded corners and click-off frames/shelves for easy cleaning;
- +90ºC decontamination cycle in a one-touch procedure;
- Multiple audio-visual alarms for high / low temperature, high / low CO_2, low pressure and door open;
- Heated humidity pan creates > 95% relative humidity to prevent cultures from drying out;
- Superior uniformity for both temperature as well as CO_2 values;
- Rapid recovery times after door opening;
- Cabinets are stackable;
- Dry contact for remote alarm;
- Heated inner glass door;
- Low power consumption;
- Reliable Microprocessor control with antibacterial protection display;
- Every unit comes with a Slimcell® testing certificate.



Specifications **Slimcell®** *CO_2 incubator*

Model no:	CO155
Capacity	155 l
Heating System	six-sided direct heat type (dry wall) natural convection
Inner chamber	deep-drawn stainless steel inner chamber without joints
Inner door	standard equipped with inner glass door heated to prevent condense
Door mounted control panel	standard
Temperature range	+5ºC above ambient to +55ºC factory set on +37ºC
Temperature sensor	PT100 class A
Temperature variation	+/- 0.1 ºC
Temperature uniformity	+/- 0.4 ºC at 37ºC
Temperature recovery time	< 6 minutes after door opening of 30 sec.
CO_2 range	0 - 20 % factory set on 5%
CO_2 sensor	drift free dual beam IR (infrared) sensor
CO_2 setting accuracy	0.1 %
CO_2 uniformity	+/-0.05 % at 5% CO_2
CO_2 recovery time	< 6 minutes after door opening of 30 sec.
Inlet pressure for CO_2	1 bar
Relative humidity	95% at 37ºC +/- 5 %
Humidity system	removable heated water pan (1,65 l)
Decontamination	standard equipped with one-touch decontamination program cycle of 9 hours on +90ºC
External dimensions W x D x H mm	690 x 830 x 810
Internal dimensions W x D x H mm	520 x 497 x 630
Shelves **W x D mm**	3 perforated stainless steel shelves standard (max 6) 480 x 480 (maximum load per shelve is 7.5 kg)
Electrical	220-240 V, 50/60 Hz
Average power consumption	0.06 kWh
Net weight	75 kg
Shipping weight and dimensions	93 kg
W x D x H mm	940x825x1070
Stackable	standard manufactured for stacking, assembly bars come standard with unit
Alarm system	high and low temperature, high and low CO_2, door ajar and pressure low dry contact connection for remote alarming

above data is tested with empty CO155 set on +37ºC and 5% CO_2 and ambient temperature of +22ºC with 50% humidity.

Standard fast and independent IR sensor

Our infrared sensor is ideal for applications with frequent door opening because recovery is not affected by changes in temperature or humidity. Our IR sensors continual sample the chamber atmosphere through a spectrophotometer flow cell. In this way our sensor checks wavelength and rectifies an out-of-control condition. CO_2 recovery is rapid and changes in CO_2 concentration are made within seconds.

Standard one-touch decontamination cycle

The Slimcell® CO155 is equipped with a one-touch +90ºC moist heat disinfection system. After the decontamination cycle mycoplasma is 100% eliminated. Because our system has the IR sensor placed outside the chamber and we use fan-less natural convection no sensor or accessories have to be removed from the chamber.

one-touch decontamination cycle

CO155 CO_2 incubator options & accessories

Model no:	Description:
CS100	factory installed cold spot in combination with large water pan to ensure fast RH recovery even in case of extreme frequent door opening
BAC100	CO_2 incubator backup module backups your CO_2 incubator of power for at least 1 hour of power failure
DGD100	divided inner glass door option (4 doors)
ST200	sample throughput hole (18 mm inner diameter) with stopper
SSPP155	additional stainless steel perforated shelve
COU100	automatic CO_2 change over unit
TSR100	two stage CO_2 regulator
COF100	CO_2 inlet filter

Performance features INCU microbiological incubators

INCU54

INCU114

integrated shelf support

- Very easy to clean stainless steel chamber with integrated shelf support system;
- Door mounted microprocessor control with easy to set timer function;
- Direct heat system ensures stable homogenous environment;
- Standard with inner glass door;
- High quality heat insulation with a minimum number of thermal bridges to save energy;
- Over-temperature protection with safety thermostat class 3.1;
- Superior temperature stability and fast recovery after door opening;
- No moving parts make it a reliable and low maintenance unit;
- Adjustable air vent.

Specifications ***Slímcell®*** *microbiological incubators*

Model no:	INCU54	INCU114
Capacity	54 l	114 l
Heating system	direct heat type (dry wall) natural convection	
Inner chamber Inner door	stainless steel interior interior glass door	
Door mounted control panel	standard	
Temperature range	+5ºC above ambient to +70ºC factory set on +37ºC	
Temperature sensor	PT100 class A	
Temperature setting increments	0.1 ºC	
Timer setting	timer 0-999 minutes / 0-99.9 hours or continuous	
Microprocessor controlled	standard microprocessor control with large LED display indications for temperature, heating and timer	
Maximum load per shelve	10 kg	15 kg
Temperature deviation as a function of space	+0.6 ºC	+/- 0.7ºC
Temperature deviation as a function of time	+/- 0.2 ºC	+/- 0.2 ºC
Heating up time to +37ºC	42 minutes	71 minutes
External dimensions W x D x H mm	610 x 670 x 680	810 x 760 x 765
Internal dimensions W x D x H mm	400 x 330 x 410	597 x 398 x 481
Shelves	2 chrome-plated grids standard (max 4)	
W x D mm	395 x 320	595 x 390
Electrical	220-240V, 50/60 Hz	
Average power consumption	0.15 kWh	0.22 kWh
Net weight	47 kg	70 kg
Shipping weight and dimensions W x D x H mm	61 kg 720x780x950	86 kg 830x920x980
Stackable	standard manufactured for stacking assembly bars come standard with unit	
Exhaust / Ventilation	adjustable ventilation flap located at the back of the machine	
Alarm	visual over-temperature protection (safety thermostat class 3.1)	

above data is tested with empty units set on +37ºC and ambient temperature of +22ºC.

Performance features DRYO drying ovens

DRYO54 *DRYO114*

integrated shelf support

- Very easy to clean stainless steel chamber with integrated shelf support system;
- Door mounted microprocessor control with easy to set timer function;
- Direct heat system ensures stable homogenous environment;
- High quality heat insulation with a minimum number of thermal bridges to save energy;
- Over-temperature protection with safety thermostat class 3.1;
- Superior temperature stability and fast recovery after door opening;
- Adjustable air vent;
- Available in natural convection or with fan assisted air circulation.

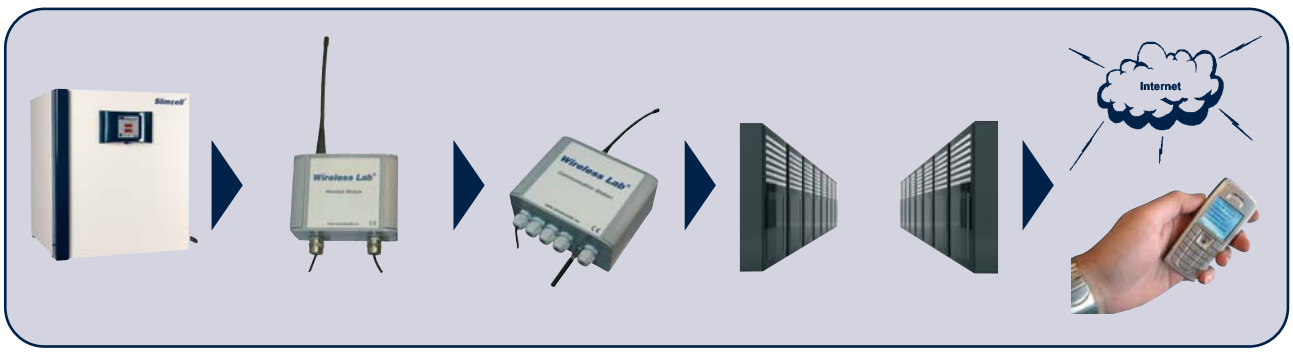
Specifications Slimcell® drying ovens

Model no:	DRYO54	DRYO114	DRYO54F	DRYO114F
Capacity	54 l	114 l	54 l	114 l
Heating system	direct heat type (dry wall) natural convection		direct heat type (dry wall) with fan assistance	
Inner chamber	stainless steel interior			
Door mounted control panel	standard			
Temperature range	+5ºC above ambient to +220ºC factory set on +150ºC			
Temperature sensor	PT100 class A			
Temperature setting increments	1 ºC			
Timer setting	timer 0-999 minutes / 0-99.9 hours or continuous			
Microprocessor controlled	standard microprocessor control with large LED display indications for temperature, heating and timer			
Maximum load per shelve	10 kg	15 kg	10 kg	15 kg
Temperature deviation as a function of space	+/- 3.3 ºC	+/- 3.0 ºC	+/- 2.7 ºC	+/- 2.5 ºC
Temperature deviation as a function of time	+/- 0.4ºC	+/- 0.3 ºC	+/- 0.4ºC	+/- 0.3 ºC
Heating up time to +150ºC	35 minutes	50 minutes	23 minutes	30 minutes
External dimensions W x D x H mm	610x640x680	810x730x765	610x640x680	810x730x765
Internal dimensions W x D x H mm	400x330x410	597x398x481	400x330x410	597x398x481
Shelves	2 chrome-plated grids standard (max 4)			
W x D mm	395x320	595x390	395x320	595x390
Electrical	220-240V, 50/60 Hz			
Average power consumption	0.15 kWh	0.22 kWh	0.15 kWh	0.22 kWh
Net weight	41 kg	63 kg	41 kg	63 kg
Shipping weight and dimensions W x D x H mm	60 kg 780x720x910	80 kg 840x920x1000	60 kg 780x720x910	80 kg 840x920x1000
Stackable	standard manufactured for stacking assembly bars come standard with unit			
Exhaust / Ventilation	adjustable ventilation flap located at the back of the machine			
Alarm	visual over-temperature protection (safety thermostat class 3.1)			

above data is tested with empty units set on +150ºC and ambient temperature of +22ºC.

Wireless Lab® plug & play monitoring & alarm system

Wireless Lab is a wireless and plug & play solution for easy monitoring and safe storage of temperature, CO_2 and relative humidity data. Monitor your incubators and ovens without using any paper, installation time or software. Just check your equipment performance on every PC with internet access. Additional you can receive alarms on your mobile phone or e-mail address.



1. Put sensor (PT1000, CO_2 sensor, RH sensor) inside your incubator or oven. The wireless module is battery powered
2. The wireless modules are sending the data to the main communication station (max 32 per station)
3. All data is collected and transmitted to a secured data server (with LAN or GPRS)
4. Wherever you are: on www.wirelesslab.eu you can check your equipment performance and receive alarms