

Temperature Project



ARGO LAB



After many years in the Italian market and with a big experience in heating system for laboratory with high performance instruments, we decided to introduce new instruments more simple with lower price and less power consumptions.

Instruments for everyday use, more efficient and more environment friendly, able to contrast the effects of the crisis and ensure the necessary savings of environmental and economic resources.

We present thus the new line of ovens and incubators **ARGO LAB**, faithful companions in your laboratory for a modern challenge of sustainable progress.

We do not want to forget these words!

"We didn't inherit the Earth on which we live from our ancestors, but we borrow it from our children."

These words, taken from a speech of Chief Indian tribe Seattle, are one of the more used citations in field of ecology, but despite being mentioned more and more often, with the same easiness and frequency it is forgot.

We do not want to forget these words!

It's now clear to all that we have to work globally to repair the damage that our planet is suffering and continues to suffer since too many years and it's a common responsibility pursuit a sustainable development.

The crisis that pervades for years all the economic sectors should not be an obstacle, but rather constitutes a stimulus for research, technological innovation, development of industrial processes and quality of products.

Efficiency, low energy consumptions and precise control of temperature, these are the key characteristics of the new ovens and incubators ArgoLab.

Single test for each instrument

All the ovens and incubators ArgoLab are supplied with calibration report executed by instrument Accredia certificated.

The incubators are tested at 37 °C, the ovens at 150 °C.



The PT100 probe installed inside the chamber ensures a precise control of the temperature. However all the instruments are provided with a pass through hole diameter of 5 mm in order to install inside the chamber one or more probes for checking the temperature.



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CERTIFICATO DI TARATURA DELLO STRUMENTO CERTIFICATE OF CALIBRATION OF THE INSTRUMENT

STRUMENTO DI RIFERIMENTO - REFERENCE INSTRUMENT
Datatore SPY RT Referenz (mat. A8449), più sonda PT100 (mat. 31218)
Datatore SPY RT Referenz (mat. A8449), più sonda PT100 (mat. 31218)

Calore termometrico di riferimento, certificato ACCREDIA presso il Centro LAT n°123.
Certificato di taratura DAT-4072 del 05/10/2013
Riferimento strumentale: sistema, certificato ACCREDIA presso il Centro LAT n°123.
Certificato di taratura: 13.07.0272 del 01/02/2013

MODALITÀ OPERATIVA / OPERATING MODE

Verifica dell'eventuale differenza tra la temperatura interna all'apparecchio e la temperatura impostata, svolta secondo le modalità operative imposte dalla normativa per gli strumenti tarati da laboratori ISO 17025.

CONDIZIONI AMBIENTALI DI MISURA / CONDITION OF MEASUREMENT

Temperatura: 20 °C
Umidità relativa: 50 %
Bilancio termico: 30 %

RISULTATI DEL TEST / TEST RESULTS

Strumento controllato / Checked instrument:	Matricola / Serial no.:	Data / Date:	Accertatore / Inspector:
IGN 35	03060266	06/11/2012	Mario Rossi
Temperatura impostata / Set temperature [°C]	Temperatura visualizzata / Displayed temperature [°C]	Temperatura misurata del riferimento / Measured temperature by reference [°C]	Differenza / Difference [°C]
37.0	37.0	37.0	0.0
Conformità: SI / YES			



New controllers for each application

Basic and **Professional**, the new versions of the **ARGO LAB** line regulators, allow an easy setting of all operating parameters and an optimal temperature control.

The large backlit display clearly shows in every moment the temperature set and that one inside as well as other parameters.

The introduction of user friendly icons makes interpretation of the functions and commands extremely intuitive. Moreover the limited number of adjustment keys ensures operability very simple and intuitive.

ARGO LAB new controllers, user friendly interface for each application!

Basic



- Wide backlit LCD display
- Icons easy to read
- Timer and continuous function
- Visual and sound alarm
- Fan speed control (High, Medium, Low)
- Delay of starting
- Safety temperature limiter for samples protection

Professional



- **7 programs x 10 steps**
- Wide backlit LCD display
- Icons easy to read
- Visual and sound alarm
- Fan speed control (High, Medium, Low)
- **Repeatable work cycles**
- Delay of program starting
- Safety temperature limiter for samples protection



Safety class 3.1 (refer to normative DIN 12880)

Double safety switch. In case of exceeding of the set temperature with the primary switch, the safety control of the temperature is carried out by the secondary one, which operates at a variable temperature slightly higher than that of work. A further upper limit is controlled by a switch with fluid expansion.



- 1 Maximum temperature limit with fluid expansion adjustable controller
- 2 Maximum settable temperature
- 3 Maximum settable work temperature (Setting Menü)
- 4 Set temperature
- 5 Safety range (+10 °C)
- 6 Current temperature

Natural convection incubators

from +5 °C over room temperature to +70 °C

ICN 16 - ICN 35 - ICN 55



ICN 16



ICN 35



ICN 55

The organic materials used in the typical laboratory applications require a constant and soft heating. The temperature distribution in the Argolab incubators is obtained without forced air circulation but using only the natural convection, which does not stress the sample and allows its uniform growth.

The wide door glass window allows a constant monitoring of the status of the samples inside the chamber without opening the door, thereby avoiding unnecessary heat loss and temperature changes.

Natural convection incubators	ICN 16	ICN 35	ICN 55
Usable volume	16 liters	35 liters	55 liters
Max temperature / Resolution	+70 / 0,1 °C	+70 / 0,1 °C	+70 / 0,1 °C
Temperature homogeneity at 37 °C	± 0,4 °C	± 0,4 °C	± 0,5 °C
Temperature variation at 37 °C	± 0,3 °C	± 0,3 °C	± 0,3 °C
Heating up time at 37 °C	18 min.	22 min.	25 min.
Timer	99:59 hh:min and ∞	99:59 hh:min and ∞	99:59 hh:min and ∞
Safety class	2	2	2
Power supply / Nominal wattage	230 V / 85 W	230 V / 125 W	230 V / 250 W
Internal dimensions (W x H x D)	270x 230 x 255 mm	360 x 300 x 320 mm	400x 360 x 385 mm
Number of shelves (standard/max)	2/6	2/6	2/5
Useful min. distance between shelves	25 mm	30 mm	50 mm
Max load for shelf	5 kg	7,5 kg	10 kg
External dimensions (W x H x D)	505 x 370 x 400 mm	595 x 440 x 460 mm	635 x 500 x 545 mm
Weight	23 kg	33 kg	42 kg
Part number - BASIC version	41101002	41101012	41101022
Part number - PROFESSIONAL version	41101202	41101212	41101222



Overlapping incubators



For a better uniformity of the temperature, the wireheating system is positioned on all the internal walls of the chamber.



Natural convection incubators

from +5 °C over room temperature to +70 °C

ICN 120 - ICN 200



ICN 120



ICN 200

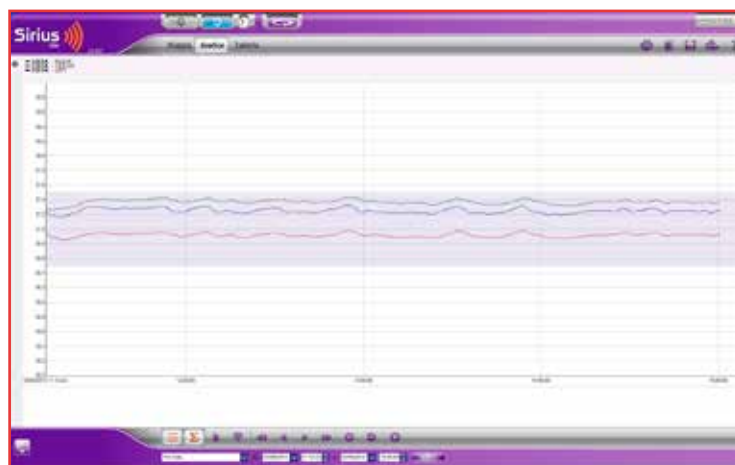
Argolab incubators with greater volume, thanks to the optimal placing of the heating elements, ensure high performance in homogeneity and stability of temperature and the proper incubation of the samples.

The difference from the smaller models is the presence of the double door, with the inner glass full-width, which ensures a perfect observation of the samples in the chamber without unnecessary heat losses.

Natural convection incubators	ICN 120	ICN 200
Usable volume	120 liters	200 liters
Max temperature / Resolution	+70 / 0,1 °C	+70 / 0,1 °C
Temperature homogeneity at 37 °C	± 0,5 °C	± 0,5 °C
Temperature variation at 37 °C	± 0,3 °C	± 0,3 °C
Heating up time at 37 °C	30 min.	35 min.
Timer	99:59 hh:min and ∞	99:59 hh:min and ∞
Safety class	2	2
Power supply / Nominal wattage	230 V / 350 W	230 V / 600 W
Internal dimensions (W x H x D)	520 x 460 x 500 mm	610 x 600 x 575 mm
Number of shelves (standard/max)	2/7	2/9
Useful min. distance between shelves	50 mm	50 mm
Max load for shelf	10 kg	10 kg
External dimensions (W x H x D)	755 x 610 x 645 mm	850 x 755 x 710 mm
Weight	61 kg	77 kg
Part number - BASIC version	41101032	41101042
Part number - PROFESSIONAL version	41101232	41101242



Internal glass door



Graphic example of the stability and homogeneity of the temperature in the incubator ICN16. It was obtained positioning three PT 100 probes equidistant on the shelf at the centre of the chamber

Cooled incubator

from 0 °C to +60 °C

IC 150-R



IC 150-R

The cooled incubator Argolab IC 150-R is ideal for every application in microbiological field.

The wide range of temperature allows the growth of microorganisms in every environmental situation.

The stainless steel chamber with rounded corners and removable shelves, make the sanification operations easy.

The PID regulator guarantee an excellent control by microprocessor and the limited number of setting keys ensures an extremely simple and intuitive operability.

The instrument is standard equipped with a side through-hole diameter of 25 mm in order to install one or more temperature sensors inside the chamber.

The inner lamp for observation of the samples is standard supplied.



Chamber and shelves in stainless steel. Inner lamp standard supplied

Cooled incubator

IC 150-R

Usable volume	150 liters
Temperature range	0 ~ +60 °C
Resolution	0,1 °C
Temperature homogeneity at 25 °C	± 0,5 °C
Temperature variation at 25 °C	± 0,1 °C
Recovery time at 25 °C	4 min.
Timer	99:59 hh:min and ∞
Safety class	3.1
Power supply / Nominal wattage	230 V / 700 W
Internal dimensions (W x H x D)	500x 800 x 360 mm
Number of shelves (standard/max)	3/11
Useful min. distance between shelves	45 mm
External dimensions (W x H x D)	650 x 1350 x 620 mm
Weight	100 kg
Part number - BASIC version	41101512
Part number - PROFESSIONAL version	41101522



Easy access user interface



Wide LCD display backlit



Shaking incubator

from +5 °C over room temperature to +60 °C

SKI 4



SKI 4



The SKI 4 combines in one instrument two typical laboratory operation: shaking and incubation of samples. Combining the convenience of a benchtop incubator and a shaker, it is ideal for cell culture, solubility studies, extraction procedures and many other laboratory applications. The SKI 4 is supplied with a standard platform equipped of flexible springs that can accommodate many type of flasks, becker, tubes with different sizes.

Shaking incubator	SKI 4
Max temperature / resolution	+60 / 0,1 °C
Temperature homogeneity at 37 °C	± 0,5 °C
Temperature variation at 37 °C	± 0,1 °C
Timer	99:59 hh:min and ∞
Air circulation	Forced
Speed	40...300 rpm
Amplitude of movement of platform	20 mm
Capacity of standard platform	7 flasks of 500 ml / 4 flasks of 1000 ml
Usable size of standard platform	320 x 320 mm
Safety class	3.1
Nominal wattage	500 W
External dimensions (W x H x D)	500 x 470 x 610 mm
Thickness of hood / material	8 mm / plexiglass
Weight	40 kg
Safety temperature control	yes
Safety control opening door	yes
Part number	41102012



Holed platform for clips fixing with 9 clips for 500 ml flasks

Part n.	Description
41102112	Holed platform for fixing clips
41102132	Clips for flasks of 100 ml (max 16 for platform)
41102142	Clips for flasks of 200 / 250 ml (max 9 for platform)
41102152	Clips for flasks of 500 ml (max 9 for platform)
41102162	Clips for flasks of 1000 ml (max 4 for platform)



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