

Drying
Incubators
Sterilization
Shaking
Convection Ovens
Incubators
Water Baths
Circulation
Bath



Incubators



Circulation Baths



Water Baths



Climatic Chambers

Temperature Instruments

Solutions for the Lab

The Idea ...

PHOENIX Instrument started with a new concept to comply customer demands for high-quality but also well-priced laboratory instruments.

The Implementation ...

Absolute customer orientation and satisfaction - is the focus of all activities of **PHOENIX Instrument**.

Your Benefit ...

As our customer you will take advantage of our long market experience, the attractive prices and the short delivery times. We guaranty Wcomprehensive and competent consultations in all aspects and will always listen to your wishes, ideas and suggestions. It goes without saying that **PHOENIX Instrument** offers a technical service, if required.

Temperature Instruments

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Super Series

New generation of color touch screen display with user friendly screens and icons - 8 programs storable with 8 steps each one recordable data on USB support with flash drive supplied for all ovens and incubators (except model TIN-TN30).



All on board

Color touch screen display for the selection of the various functions.

All parameters on a single screen: temperature, fan speed, time, program number and step, USB pendrive presence, date and time.



Easy to use

Simply and intuitive setting of all the operating parameters thanks to icons and symbols easy to understand.

The capacitive display ensures touch sensitivity and precision even when wearing gloves.



Programs

Professional controller equipped with 8 storable programs with 8 steps each one and a further basic program (PROG 0) with a single step.

Simple programming of all work steps in a single screen.



Safety of us

Settings menu with 3 access levels:

1 free and 2 protected by password to avoid accidental changes to "sensitive" machine parameters.



Recording and downloading data

Work cycles are automatically stored inside the instrument, always available for download thanks to the USB port.

With an USB flash drive inserted, registration takes place without capacity limits.

Incubators and Ovens Basic Series

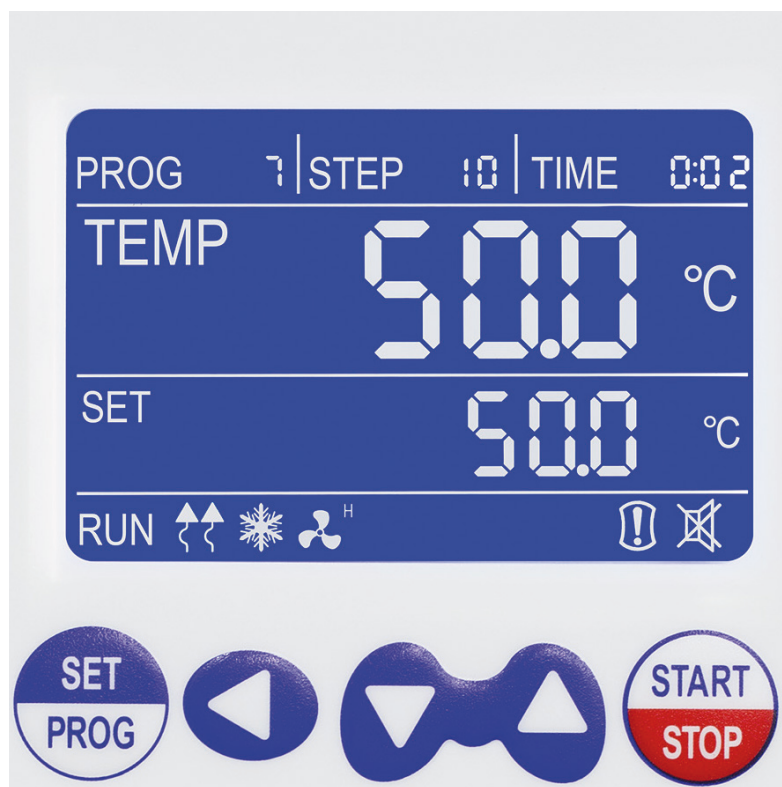
New version of Basic controller - 7 programs with 10 steps each one wide backlit LCD display easy setting of all operating parameter

The Incubator and ovens from Phoenix Instrument allow an easy setting of all operating parameters and 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.

All our instruments are environmental-friendly with reduced power consumption and improved protection. All instruments will be supplied with a calibration report.



Basic version

- 7 programs x 10 steps
- Repeatable working cycles
- Wide backlit LCD display
- Easy to read Icons
- Timer and continuous function
- Visual and sound alarm
- Fan speed control
- Program start delay
- Safety temperature for sample protection

Natural Convection Oven

from RT+5 to 300 °C

Ideal for everyday use in the processes of drying and sterilization, the natural convection ovens are characterized by a high load capacity and by the accurate temperature control.

The possibility to heat the samples up to 300 °C allows any type of sterilization process. The minimum heating times, the heating power properly dimensioned and the perfect tightness of the seals, ensure low energy consumption in every application.



Technical Data	TIN-TN30	TIN-TN50	TIN-TN115	TIN-TN200
Volume	30 Liters	50 Liters	115 Liters	200 Liters
Max. Temperature/Resolution	+200 / 0.1 °C	+300 / 0.1 °C	+300 / 0.1 °C	+300 / 0.1 °C
Temp. homogeneity at 37 °C	±3.5 °C	±3.5 °C	±3.5 °C	±4 °C
Temperature variation at 37 °C	±0.5 °C	±0.5 °C	±0.5 °C	±0.7 °C
Heating time at 37 °C	14 min	16 min	18 min	20 min
Timer	99:59 / continuous operation			
Int. Dimension (WxHxD) in mm	320 x 320 x 285	400 x 420 x 330	520 x 495 x 450	650 x 640 x 495
No. of shelves (standard/max)	2/4	2/5	2/6	2/9
Min. distance between shelves	50 mm			
Max. load of shelves	10 kg	15 kg	20 kg	20 kg
Voltage / Power	230 V / 700 W	230 V / 1,000 W	230 V / 1,900 W	230 V / 2,100 W
Ext. Dimension (WxHxD) in mm	460 x 685 x 530	690 x 635 x 470	815 x 750 x 600	940 x 905 x 660
Weight	40 kg	53 kg	74 kg	103 kg
Safety class	3.1			

Forced Air Oven from RT+10 to 300 °C

The forced air ovens TIN-TF 50, -TF 120, -TF 200 and -TF 400 control very efficiently the temperature starting from 10 °C above ambient temperature up to 300 °C.

The PID controller, with wide backlit color display, clearly shows in every moment the temperature set and that one inside as well as other parameters.

The forced air circulation, adjustable in three levels (High, Medium, Low), guarantees a perfect air replacement and homogeneity of temperature in every parts of the chamber.

A through hole of 5 mm diameter supplied as standard on the top side of the oven permits to introduce an external probe for the check or certification of the temperature.



Technical Data	TIN-TF50	TIN-TF120	TIN-TF200	TIN-TF400
Volume	50 Liters	120 Liters	200 Liters	400 Liters
Max. Temperature/Resolution	+300 / 0.1 °C			
Temp. homogeneity at 37 °C	±2%			
Temperature variation at 37 °C	±0.3 °C	±0.3 °C	±0.4 °C	±0.5 °C
Heating time at 37 °C	20 min	24 min	30 min	50 min
Timer	99:59 / continuous operation			
Int. Dimension (WxHxD) in mm	400 x 415 x 310	520 x 530 x 435	645 x 650 x 495	1000 x 800 x 500
No. of shelves (standard/max)	2/5	2/7	2/9	2/10
Min. distance between shelves	50 mm			
Max. load of shelves	15 kg	20 kg	20 kg	20 kg
Voltage / Power	230 V / 980 W	230 V / 1,900 W	230 V / 2,400 W	230 V / 3,200 W
Ext. Dimension (WxHxD) in mm	690 x 635 x 570	810 x 750 x 690	945 x 870 x 755	1285 x 1060 x 750
Weight	54 kg	74 kg	103 kg	160 kg
Safety class	3.1			

Natural Convection Incubators

from RT+5 to 70 °C

The organic materials used in the typical laboratory application require a constant and gentle heating. The temperature distribution in the 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 check of the status of the samples inside the chamber without opening the door, thereby avoiding unnecessary heat loss and temperature changes.



Technical Data	TIN-IN16	TIN-IN35	TIN-IN55
Volume	16 Liters	35 Liters	55 Liters
Max. Temperature/Resolution	RT+10 to 70 / 0,1 °C		
Temp. 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 time at 37 °C	18 min	22 min	25 min
Timer	99:59 / continuous operation		
Int. Dimension (WxHxD) in mm	270 x 230 x 255	360 x 300 x 320	400 x 360 x 385
No. of shelves (standard/max)	2/6	2/6	2/5
Min. distance between shelves	25 mm	30 mm	50 mm
Max. load of shelves	5 kg	7.5 kg	10 kg
Voltage / Power	230 V / 85 W	230 V / 125 W	230 V / 250 W
Ext. Dimension (WxHxD) in mm	530 x 370 x 400	620 x 440 x 460	660 x 500 x 545
Weight	23 kg	33 kg	42 kg
Safety class	2		

Natural Convection Incubators with higher volumes from RT+10 to 70 °C

Incubators with higher 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.



Double Door



Technical Data	TIN-IN120	TIN-IN200
Volume	120 Liters	200 Liters
Max. Temperature/Resolution	+70/0,1°C	
Temp. homogeneity at 37 °C	±0.5 °C	±0.5 °C
Temperature variation at 37 °C	±0.3 °C	±0.3 °C
Heating time at 37 °C	30 min	35 min
Timer	99:59 / continuous operation	
Int. Dimension (WxHxD) in mm	520 x 460 x 500	610 x 600 x 575
No. of shelves (standard/max)	2/7	2/9
Min. distance between shelves	50 mm	
Max. load of shelves	10 kg	
Voltage / Power	230 V / 350 W	230 V / 600 W
Ext. Dimension (WxHxD) in mm	780 x 610 x 645	875 x 755 x 710
Weight	61 kg	77 kg
Safety class	2	

Forced Air Incubators

from RT+5 to 80 °C

Our new forced air incubators control the temperature up to 80 °C very efficiently. It's possible in addition, set a program at 130 °C which allows the thermally sterilization of the chamber. The full wide internal glass door ensures perfect observation of samples without unnecessary and expensive heat losses.

The forced ventilation, adjustable on three levels (High, Medium, Low) guarantees a perfect air exchange and an excellent temperature homogeneity in all points of the chamber.



Technical Data	TIN-IF55	TIN-IF120	TIN-IF200	TIN-IF400
Volume	57 Liters	120 Liters	200 Liters	400 Liters
Max. Temperature/Resolution	+80 / 0.1 °C			
Temp. homogeneity at 37 °C	±0.2 °C	±0.4 °C	±0.4 °C	±0.5 °C
Temperature variation at 37 °C	±0.1 °C	±0.1 °C	±0.2 °C	±0.3 °C
Heating time at 37 °C	30 min	40 min	45 min	55 min
Timer	99:59 / continuous operation			
Int. Dimension (WxHxD) in mm	400 x 350 x 415	520 x 530 x 435	645 x 650 x 495	1000 x 800 x 500
No. of shelves (standard/max)	2/7	2/7	2/9	2/10
Min. distance between shelves	50 mm			
Max. load of shelves	20 kg			
Voltage / Power	230 V / 350 W	230 V / 600 W	230 V / 700 W	230 V / 1,500 W
Ext. Dimension (WxHxD) in mm	690 x 620 x 650	810 x 750 x 690	945 x 870 x 755	1,285 x 1,060 x 750
Weight	56 kg	74 kg	103 kg	160 kg
Safety class	2		2	

Accessories

... for Ovens

- TIN-1000142 Steel wire shelf for TN 30
- TIN-1000192 Steel holed platform applicable to wire shelf for TN 30
- TIN-1000102 Steel wire shelf for TN 50 / TF 50
- TIN-1000152 Steel holed platform applicable to wire shelf for TN 50 / TF 50
- TIN-1000112 Steel wire shelf for TN 115 / TF 120
- TIN-1000162 Steel holed platform applicable to wire shelf for TN 115 / TF 120
- TIN-1000122 Steel wire shelf for TN 200 / TF 200
- TIN-1000172 Steel holed platform applicable to wire shelf for TN 200 / TF 200
- TIN-1000132 Steel wire shelf for TF 400
- TIN-1000182 Steel holed platform applicable to wire shelf for TF 400



Steel wire shelf and holed platform

... for Incubators

- TIN-1001112 Steel wire shelf for IN 16
- TIN-1001122 Steel wire shelf for IN 35
- TIN-1001132 Steel wire shelf for IN 55
- TIN-1001142 Steel wire shelf for IN 120 / IF 120
- TIN-1001152 Steel wire shelf for IN 200 / IF 200
- TIN-1000132 Steel wire shelf for IF 400
- TIN-1000182 Steel holed platform applicable to wire shelf for IF 400
- TIN-1001172 Wheels for all Incubators and Ovens, Set of 4 pcs.

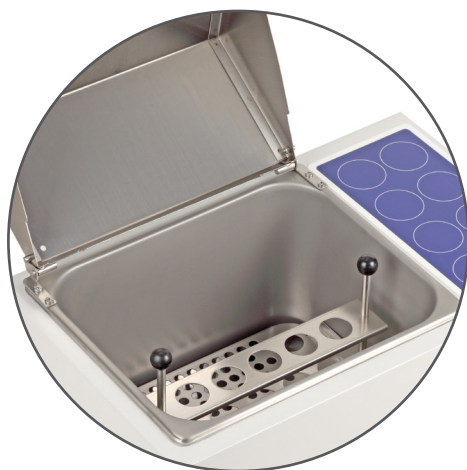
Water Baths WB-5 / WB-12 / WB-22

from RT+5 to 99 °C

The waterbaths are generally used in the laboratory to maintain the temperature of the samples constant. The waterbaths WB series, thanks to the maximum operating temperature of 99 °C, meet the different needs of operators and therefore allow them to be used in numerous applications.

The model WB 22 pump ensures a faster and more uniform temperature distribution due to the recirculation pump which is equipped.

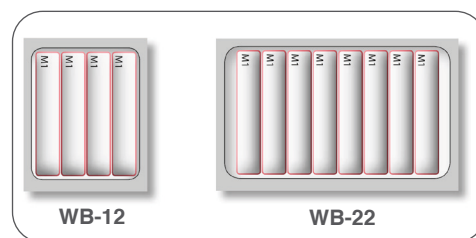
All water baths are equipped with a water drain.



WB-12 with rack TIN-1001822
(max. capacity 4 pcs.)



Water drain



Maximum modules in place

Technical Data	WB-5	WB-12	WB-22
Volume	5 Liters	12 Liters	22 Liters
Max. Temperature/Resolution	RT+5 to 99 °C / 0.1 °C		
Temp. homogeneity at 37 °C	±0.5 °C		
Temperature variation at 37 °C	±0.1 °C		
Overheating protection	yes		
Timer	99:59 / continuous operation		
Bottom plate Dimension (WxD)	270 x 120 mm	290 x 230 mm	470 x 290 mm
Max. number of Modules	4	4	8
Min. height with closed lid	150 mm		
Voltage / Power	230 V / 900 W		230 V / 1,100 W
Ext. Dimension (WxHxD) in mm	480 x 215 x 335	480 x 380 x 310	680 x 390 x 365
Weight	12 kg	12 kg	18 kg
Safety class	2		

Water Bath with Pump from RT+5 to 85 °C

The models WB 22 and WB-40 with pump ensures a faster and more uniform temperature distribution due to the recirculation pump which is equipped.



Technical Data	WB-22-Pump	WB-40-Pump
Volume	22 Liters	40 Liters
Max. Temperature/Resolution	+85 °C / 0.1 °C	+85 °C / 0.1 °C
Temp. homogeneity at 37 °C	±0.2 °C	±0.5 °C
Temperature variation at 37 °C	±0.1 °C	±0.2 °C
Overheating protection	yes	
Timer	99:59 / continuous operation	
Bottom plate Dimension (WxD)	470 x 290 mm	620 x 380 mm
Max. number of Modules	8	16
Min. height with closed lid	150 mm	
Voltage / Power	230 V / 1,100 W	230 V / 2,200 W
Ext. Dimension (WxHxD) in mm	680 x 390 x 365	830 x 390 x 460
Weight	19 kg	28 kg
Safety class	2	



Inside the Chamber

Accessories

... for Water Baths

- TIN-1001802 Rack 1 for tubes Ø13mm / 20 positions 1 Module
- TIN-1001812 Rack 2 for tubes Ø18mm / 20 positions 1 Module
- TIN-1001822 Rack 3 for tubes Ø31mm / 5 positions 1 Module
- TIN-1001842 Rack 4 for tubes Ø56mm / 8 positions (biberon) 3 Modules
- TIN-1001852 Rack 5 for blood bags / 5 positions 3 Modules

Shaking Water Bath

from RT+5 to 99 °C

The new Water bath SB35 with linear shaking function. Bath, lid, spring basket and support surface for samples are made entirely of stainless steel. Thanks to the flexibility of the universal spring support it is possible to insert different types of flasks, beakers, balloons or other recipients of different capacities and shapes.

Electronic regulation of the temperature with PID control and adjustment of the shaking speed by knob.

The instrument comes with a practical emptying tube and quick-fit valve for the periodic replacement of the liquid in the tank.

The practical basket fixing system allows easy cleaning and maintenance of the tub.



Water Drain

Technical Data	SB-35
Tank Volume	35 Liters
Max. Temperature/Resolution	+99 °C / 0.1 °C
Temp. homogeneity at 37 °C	±1.0 °C
Temperature variation at 37 °C	±0.5 °C
Overheating protection	yes
Timer	99:59 / continuous operation
Shaking Speed	0 ... 150 rpm
Amplitude of platform Movement	30 mm
Spring Basket Dimension (WxHxD)	320 x 115 x 200 mm
Min. height with closed lid	150 mm
Voltage / Power	230 V / 1.250 W
Ext. Dimension (WxHxD)	645 x 350 x 355 mm
Weight	28 kg
Safety class	2

Shaking Incubator IS-OS 20

The new shaking incubator IS-OS 20 combines two typical laboratory operations in one instrument: shaking and incubation of samples. Ideal for cell culture, solubility studies, extraction procedures and many other laboratory applications.

The built-in fan guarantees a uniform distribution of the temperature.

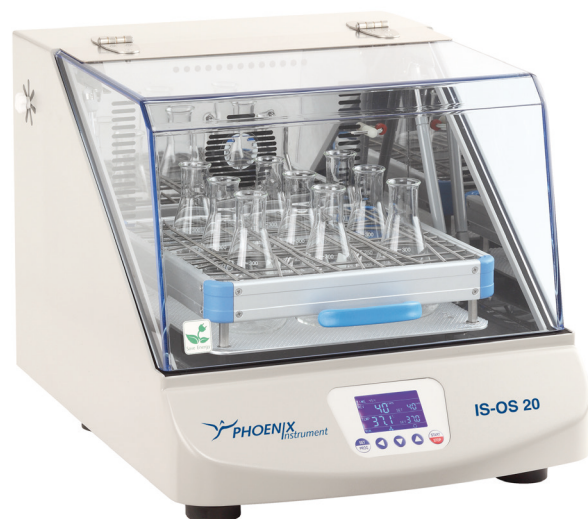
IS-OS 20 will be supplied with a standard platform equipped with flexible springs that can accommodate many types of flasks, beaker, tubes with different sizes.

Possible Load Steel Wire Shelf

	IS-OS 20	IS-OS 30
Erlenmeyer Flasks 250 ml	9	12
50 ml Flacon-Tubes	25	37

Possible Load of Plate

	IS-OS 20	IS-OS 30
Erlenmeyer Flasks 50 ml	28	49
Erlenmeyer Flasks 100 ml	23	36
Erlenmeyer Flasks 250 ml	13	18
Erlenmeyer Flasks 500 ml	8	16
Erlenmeyer Flasks 1,000 ml	4	9
Erlenmeyer Flasks 2,000 ml	1	4



Technical Data	IS-OS 20
Temperature Range/Resolution	RT+5 to 60 °C / 0.1 °C
Temp. homogeneity at 37 °C	±0.5 °C
Temperature variation at 37 °C	±0.1 °C
Adjustable safety temperature	yes
Timer	99:59 / continuous operation
Shaking Speed	40 ... 300 rpm
Amplitude of platform Movement	20 mm
Capacity (Erlenmeyer Flasks)	7 x 500 ml or 4 x 1,000 ml
Dimension Platform (WxD)	320 x 320 mm
Voltage / Power	230 V / 500 W
Ext. Dimension (WxHxD)	500 x 470 x 610 mm
Weight	40 kg
Material hood / thickness	Plexiglas / 8 mm

Shaking Incubator IS-OS 30



IS-OS 30

- forced recirculation
- spring-loaded shelf included
- adjustable safety temperature
- cover made of 8 mm acrylic glass
- extensive range of accessories



IS-OS 30

4 to 60 °C / 0.1 °C

±0.5 °C

±0.1 °C

yes

99:59 / continuous operation

40 ... 300 rpm

20 mm

12 x 500 ml

450 x 450 mm

230 V / 1,300 W

610 x 950 x 540 mm

90 kg

Plexiglas / 8 mm

Accessories for IS-OS 20 and IS-OS 30

ISS-E 200 Attachment with 4 clamping rolls for IS-OS 20

ISS-E 205 Base plate to be used with fixing clips for IS-OS 20

ISS-E 220 Dish attachment with non-slip mat for IS-OS 20

ISS-E 300 Attachment with 4 clamping rolls for IS-OS 30

ISS-E 305 Base plate to be used with fixing clips for IS-OS 30

ISS-E 320 Dish attachment with non-slip mat for IS-OS 30

ISS-E 130 Fixing clip for Erlenmeyer flask 100 ml volume

ISS-E 135 Fixing clip for Erlenmeyer flask 200 / 250 ml volume

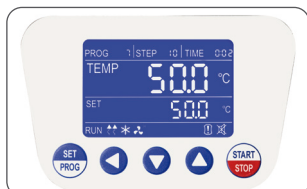
ISS-E 140 Fixing clip for Erlenmeyer flask 500 ml volume

ISS-E 145 Fixing clip for Erlenmeyer flask 1,000 ml volume

ISS-E 150 Fixing clip for Erlenmeyer flask 2,000 ml volume

Circulation Baths

from -30 to +100 °C



All on board

Backlit display for simultaneously displaying of the set temperature, and all other operating parameters.



Precision

Precision PT100 probe and its inlet are standard supplied for an optimal temperature control of the external circuit. The instrument automatically recognizes the presence of the external probe



Ready to use

Pipe fittings, clamps and pipes with insulating material already supplied for an immediate use of the instrument.



External and internal

The instrument is equipped with an useful valve for selection of the external and internal circulation.



Easy maintenance

The frontal grill equipped by magnetic supports allows an easier cleaning and maintenance without the use of tools



Optimal space

The space inside the bath is fully usable thanks to optimal arrangement of the serpentine of cooling

Accessories

- ICB-1002302 Set of two pipes of 2 meter with insulation, working range -40 to +60 °C complete with metal clamps for fastening to the pipe fittings.
- CB-1002312 Set of four swivel wheels, two of which can be braked.
- CB-1002322 Premixed thermal fluid ready for use, working range -30 to +80 °C Tank box 5 litres with plastic tap.
- CB-1000252 Temperature sensor PT100 model PT56 TFE with 3m teflon cable. Working Range -100 to +300 °C (including cable).



Circulation Baths CB-5-10; CB-5-20 and CB-5-30

from -30 to +99,9 °C



The new refrigerated/heating circulating baths are suitable for temperature controlling of samples in a wide range of temperatures.

All the models are designed for external and internal applications, usable for tests in laboratories and industries.

Each instrument is standard equipped with a PT100 probe for temperature control in an external circuit.

The controller automatically recognizes the presence of the probe and determines the type of work inside or outside the tank.



Large Backlit Display



Technical Data	CB 5-10	CB 5-20	CB 5-30
Temperature Range	-10 to 99.5 °C	-20 to 99 °C	-30 to 99 °C
Temperature Resolution/Setting	0.1 °C		
Temperature stability at 20 °C	±0.3 °C	±0.2 °C	±0.2 °C
Timer	99:59 / continuous operation		
Cooling Capacity			
(20 °C)	0.37 KW	0.41 KW	0.44 KW
(10 °C)	0.33 KW	0.37 KW	0.40 KW
(0 °C)	0.30 KW	0.33 KW	0.37 KW
(-10 °C)	0.22 KW	0.28 KW	0.32 KW
(-20 °C)		0.16 KW	0.20 KW
(-30 °C)			0.15 KW
Max. pump pressure	0.35 bar		
Max. pump flow rate	3.2 l/min	6.5 l/min	6.5 l/min
Bath volume	5 liter		
Bath opening depth	150 x 160 x 150 mm		
External Dimension (WxHxD) in mm	290 x 570 x 710	380 x 670 x 840	380 x 670 x 840
Voltage/Power	230 V / 50 Hz		
Weight	34 kg	54 kg	54 kg

Climatic Chambers

Operation Range: 10 °C to 70 °C / 45 to 95 %RH

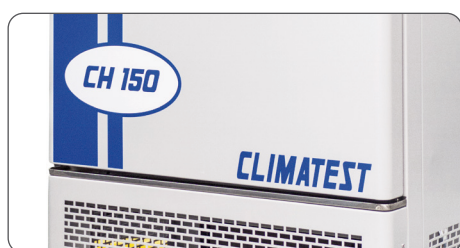
The climatic chambers are the ideal instrument to do stability and aging test on materials, simulation of environmental conditions and stress test in several fields such as: industry, food, textile, packaging, rubber/plastics, etc.

Thanks to the digital control by PID regulator of the temperature and of the humidity percentage, it's possible simulate many environmental situations and use of materials, and moreover test the forced aging effects. The external steel door is equipped of a wide glass window that permits the observation of the materials during test.

The stainless steel chamber with rounded corners, the shelves and their fixing system completely removable, make the chamber perfectly cleanable. A LED inner lamp for observation of the samples is included.

The standard supplied side through hole of 25 mm diameter allows to install probes inside the chamber. Digital backlit alphanumeric LCD screen. Digital timer, clock and date for GLP functions.

Standard supplied mini printer for operating and set parameters output. Safety class 3.1 with double digital limiter of temperature and additional fluid expansion limiter.



Technical Data	CH-150	CH-250
Useable Volume	150 Liters	250 Liters
Temperature Range	-10 to 85 °C (without humidity) +10 to 70 °C (with humidity)	
Temperature Resolution	0.1 °C	
Temp. homogeneity in chamber	± 0.5 °C (without humidity) ± 1.5 °C (10 to 70 °C / 45 to 95% RH)	
Temperature variation on a point	± 0.2 °C (without humidity) ± 0,5 °C (10 to 70 °C / 45 to 95% RH)	
Humidity Range	45 % - 95 %	
Humidity variation on a point	≤ 2% RH (10 to 70 °C / 45 to 95 %RH)	
Timer / programs	continuous mode / Programs 1-100 step	
Safety class	3.1	
Voltage / Power	230V / 2,200 W	
Internal Dimension (WxHxD)	550 x 670 x 405 mm	600 x 830 x 500 mm
Number of shelves (standard/max.)	3/10	3/12
Useful min. distance between shelves	45	
Max. load of shelf	10kg	
External Dimension (WxHxD)	690 x 1520 x 790 mm	740 x 1680 x 885 mm
External water tank dimensions (WxHxD)	370 x 340 x 560 mm	
Weight	145 kg	185 kg

Climatic Chambers

Operation range: 10 °C to 70 °C / 45 to 95 %RH



Accessories

- CH-1001462 Steel wire shelf for climatic chamber CH 150
- CH-1001472 Steel wire shelf for climatic chamber CH 250
- CH-1000152 Hole Ø 25 mm complete of closing caps for climatic chambers CH 150/CH 250
- CH-1000142 Hole Ø 50 mm complete of closing caps for climatic chambers CH 150/CH 250
- CH-1009002 Paper Manual IQ/OQ

Cooled Incubator

Operation range: from 0 °C to 60 °C

The cooled incubator 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 removable shelves and rounded corners of the stainless-steel chamber, make the sonification processes 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.

3 Years
Warranty

Technical Data	IC-150-R
Useable Volume	150 Liters
Temperature Range	0 to 60 °C
Temperature 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 minutes
Timer	99:59 min and continuous mode
Safety class	3.1
Voltage / Power	230 V / 700 W
Internal Dimension (WxHxD)	500 x 800 x 360 mm
Number of shelves (standard/max.)	3/9
Useful min. distance between shelves	50 mm
Max. load of shelf	10 kg
External Dimension (WxHxD)	650 x 1350 x 620 mm
Weight	100 kg



Refrigerator and Freezer TIN-FR / FZ

Professional laboratory refrigerators and freezers, with digital display and electronic control, temperature alarms, door sensor and manual/automatic defrost (automatic only on FR series). Smart refrigerated instruments, the internal parameters can be adjusted according to customers demands. The highly efficient compressors contain "environment friendly" ecological gases, free of CFCs and HCFCs, in compliance with the directive 2014/68 / EU.

The internal dynamic ventilation system guarantees the best conditions for the storage of even the most sensitive materials, in compliance with the EN 60068-3 standard.

Three levels of alarms: acoustic, visual and remote with 0 potential contact. The small-sized models (110 liters internal useful volume) are suitable for environments with limited spaces and can be placed under the counter. All models are equipped with internal Full-LED light and reversible door, blind or glass (only in the FR-G versions) and with key lock. Models with a volume of 260 L are equipped with wheels.



TIN-FZ 110

3 Years
Warranty



TIN-FR110G
with Glass Door

Technical Data	TIN-FR110 / TIN-FR110G	TIN-FR260 / TIN-FR260G	TIN-FZ110	TIN-FZ260
Volume	110 L	260 L	110 L	260 L
Temperature range	+2.0 to +8.0 °C	+2.0 to +8.0 °C	-25 to -10 °C	-25 to -10 °C
Resolution	0.1 °C	0.1 °C	0.1 °C	0.1 °C
Defrost function	Auto and manual	Auto and manual	manual	manual
Temperature variation in space	1.3 °C / 1.7 °C at 5 °C	1.9 °C / 2.2 °C at 5 °C	2.5 °C at 5 °C	2,1 °C at 5 °C
Gradient	1.3 °C / 1.7 °C at 5 °C	1.5 °C / 2.6 °C at 5 °C	1.5 °C at -20 °C	1,4 °C at -20 °C
Refrigeration	Dynamic (force ventilation)	Dynamic (force ventilation)	Dynamic (force ventilation)	Static (natural convection)
Door	closed / glass	closed / glass	closed	closed
Internal dimension	500 x 570 x 420 mm	500 x 1,290 x 420 mm	500 x 570 x 420 mm	500 x 1,290 x 420 mm
No. of shelves (standard/max)	3/3	6/7	3/3	6/7
Min. space between shelves	13 mm	13 mm	13 mm	13 mm
Max. load shelves	15 kg	15 kg	15 kg	15 kg
Ext. dimension	600 x 805 x 560 mm	600 x 1,525 x 560 mm	600 x 805 x 560 mm	600 x 1,525 x 560 mm
Weight	50 kg	75 kg	50 kg	75 kg
Voltage / Power	220-240 V / 120 W	220-240 V / 120 W	220-240 V / 120 W	220-240 V / 120 W

Digital Thermo Shaker RS-TS 5 / RS-TS 10

RS-TS 5 / RS-TS 10

3 Years
Warranty

- Fully programmable (9 programs)
- Precise temperature control for heating and cooling
- Real-time display of speed, temperature and time
- Excellent mixing (200-1,500 rpm)
- Quick interchange of blocks without tools and automatic block recognition
- Block equipped with a lid for heat preservation
- Temperature self-calibration



TSB-10



TSB-25



TSB-40



TSB-15



TSB-30



TSB-45



TSB-20



TSB-35



TSB-50



RS-TS 10

Accessories Thermo Shaker

		Hole (d x h)	Max. Speed	Lid
TSB-10	Heating Block 24 x 0.5 ml	8.1 x 36 mm	1,500 rpm	yes
TSB-15	Heating Block 24 x 1.5 ml	10.9 x 30,8 mm	1,500 rpm	yes
TSB-20	Heating Block 24 x 2 ml	10.9 x 30,8 mm	1,500 rpm	yes
TSB-25	Heating Block 8 x 5 ml	13.6 x 42 mm	1,500 rpm	no
TSB-30	Heating Block 8 x 5 ml, konical	17 x 51.5 mm	1,400 rpm	yes
TSB-35	Heating Block 8 x 15 ml	16.9 x 80 mm	800 rpm	no
TSB-40	Heating Block 4 x 50 ml	29.6 x 80 mm	600 rpm	no
TSB-45	Heating Block 96 well PCR plate borderless		1,500 rpm	yes
TSB-50	Heating Block 96/384 Mikrotiterplate		1,500 rpm	yes

Technical Data	RS-TS 5	RS-TS 10
Movement	orbital	
Amplitude	4 mm	
Temperature range	RT+5 to 99.9 °C	RT-15 to 99.9 °C
Temp. accuracy	0.5 °C	
Max. heating speed	5.5 °C / min	
Max. cooling speed	5 °C / min	
	-	0.5 °C / min
Speed	200 - 1,500 rpm	
Motor	DC, brushless	
Programs	9	
Display	TFT	
Adjustment	digital	
Power	200 W	
Dimension	200 x 235 x 120 mm	
Weight	7.3 kg	
Voltage • Frequency	200 - 240 VAC • 50/60 Hz	

Digital Dry Bath HB-100

Digital Dry Bath HB100 with various interchangeable heating blocks is ideal for molecular biology, histology, clinical, environmental and industrial laboratories, including melting and boiling point determination, enzyme reactions, incubation and activation of cultures, immunoassays, DNA denaturation, culture media tests, coagulation tests, blood-urea-nitrogen determinations and in-situ hybridizations.

HB-100

- A broad temperature range to 120 °C
- for a variety of applications
- Continuous and time operation
- Various types of optional block are available
- Over temperature protection



HB-100



HB-100
with hood and
heating block HB-E110

Technical Data	HB-100
Temperature range	RT+5 to 120 °C
Temperature Setting range	25 - 120 °C
Temperature control accuracy	±0.5°C
Temperature display accuracy	0.1 °C
Temperature uniformity at 37 °C	±0.5 °C
Time setting range	0 min ...99h 59min
Power	160 W
Display	LED
Voltage • Frequency	110/220 V • 50/60 Hz
Dimension (WxDxH)	175 x 290 x 85 mm
Weight	3 kg
Permissible ambient temp.	10 - 40 °C
Power	<80% RH
Dimension	200 x 235 x 120 mm
Weight	7.3 kg
Voltage • Frequency	200 - 240 VAC • 50/60 Hz



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