Ineltec

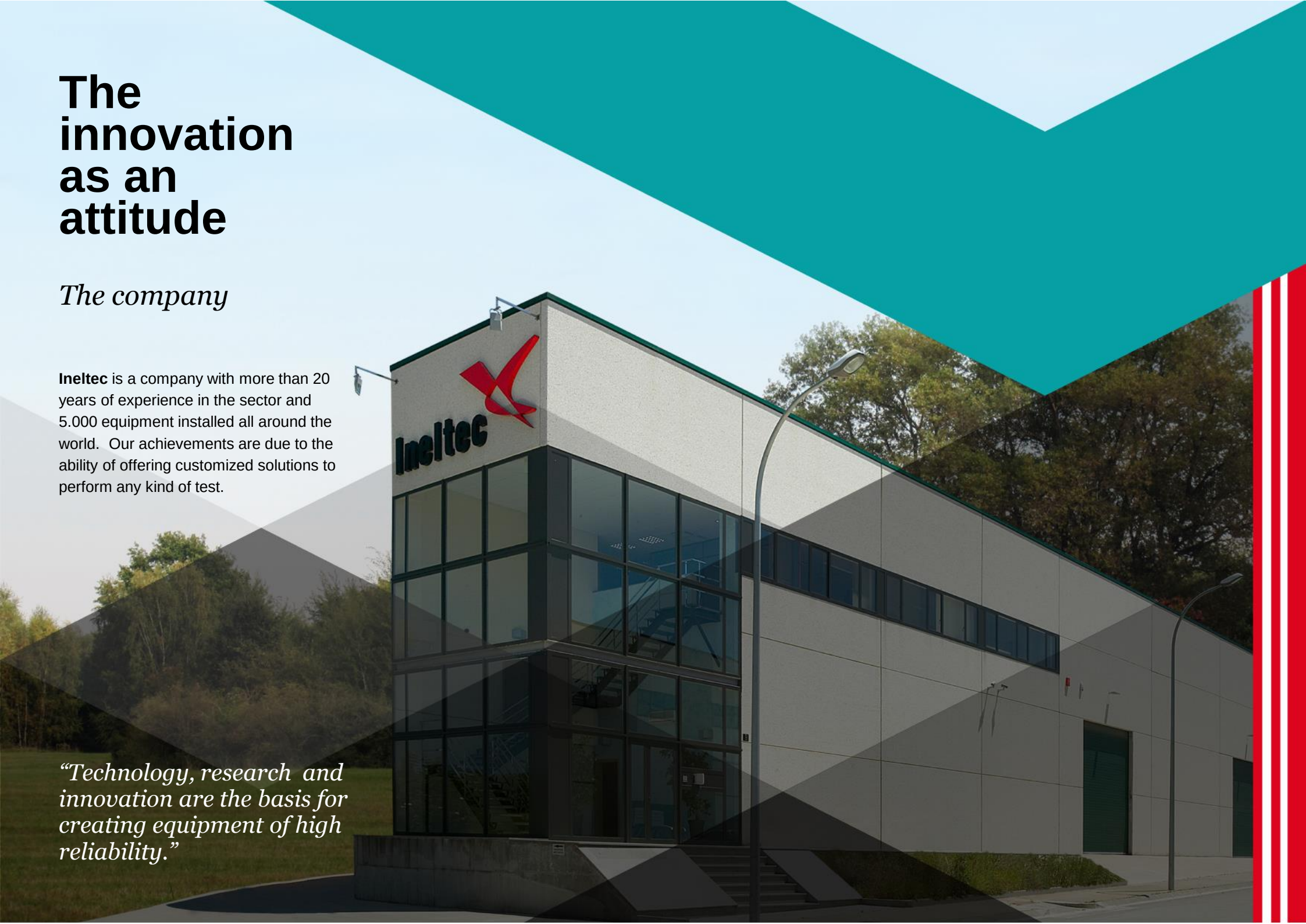
Compact climatic chambers

INECC range

The innovation as an attitude

The company

Ineltec is a company with more than 20 years of experience in the sector and 5.000 equipment installed all around the world. Our achievements are due to the ability of offering customized solutions to perform any kind of test.



"Technology, research and innovation are the basis for creating equipment of high reliability."

Model

Compact climatic chambers of the INECC line.

Climatic chambers of the INECC series have several volumes.

Model

Description of the equipment

Compact Climatic Chambers of the INECC line simulates environmental conditions of heat and cool mixed with humidity.

The maximum temperature range of the standard models are from -70ºC to +180ºC.
We also design customized equipment according to the specifications. By that way, we modify or amplify the standard features.

Climatic chambers are used in all the industrial sectors since they meet with the standards for environmental tests of any product or material.

Volumes

01	150 liters
02	300 liters
03	500 liters
04	750 liters
05	1000 liters
06	1500 / 2000 liters

01

02

03

04

05

06

Sectors

Aerospace,
Aeronautical,
Automotive,
Railway,
Naval

Construction,
Luminary,
Wood,
Cork,
Glass,
Coating,
Wiring,
Ceramics

Pharmaceutical,
Cosmetic,
Veterinarian,
Food industry

Plastic,
Chemical,
Petroleum,
Carton,
Paper,
Rubber

Biologic,
Biotechnologies,
Agrobiologic,
Insects

R+D,
Technological
centers,
Universities,
Laboratories

Electronic,
Appliances,
Telecommu-
nications,
Mechanical
constructions,
Metallurgic

Defense,
Armament

Mineral
Ironwork,
Galvanic,
Metallurgic

Textile

Standards

DIN	**EN**	**UNE**	**NF**	**ICH**	**FDA**	**ISO**	**ASTM**	**MIL**	**STD**	**VDA**
IEC	**BS**	**VG**	**IRAM**	**ETS**	**Telcordia**	**ECSS**	**RTCA**	**TR**	**SAE**	**UL**
GR	**NTS**	**ETSI**	**NEBS**	**NCh**	**SEMI**	**AS**	**NZS**	**ANSI**	**NMX**	**IRAM**
ABNT	**UNIT**	**INTN**	**NTP**	**…**						

Features of the equipment

construction

01

01/ Interior-Exterior

The interior is made of stainless steel and the exterior made of aluminium sheet lacquered in white.

02

02/ Mobility

The machine provides 4 multidirectional wheels with brake devices.

03

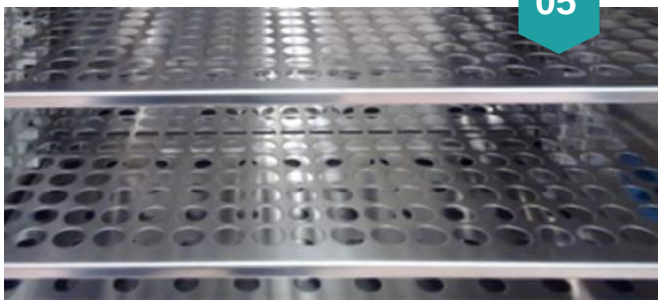
03/ Observation window

On the door ,it is placed a polycrystalline observation window to see inside the chamber.

04

04/ Access holes

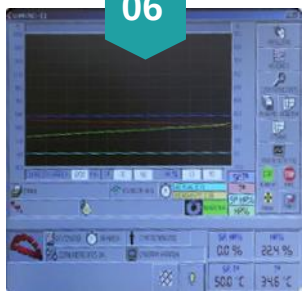
Climatic chambers have access holes for putting the electrical wiring or the calibration probe.



05

05/ Trays

It is included 2 sample holder trays that are adjustable in its height and that are able to stand up to 50Kg.



06

06/ Control system

The touch screen PC comes with a control software that is simple and intuitive and allows the programming, acquisition, recording and controlling of all the variables.

Features of the equipment

Standard functions

INECC Model	Temperature				R.H.	Maximum thermal load at + 20ºC			Gradients According to IEC-60068-3-5		Gradients under request			Dimensions HxWxD (mm)	Approx. weight
	0ºC	-30ºC	-50ºC	-70ºC	10%				Cool	Heat					
Vol. Liters	+150 ºC	+150 ºC	+150 ºC	+150 ºC	98%	3 Kw	4 Kw	7 Kw	3,9ºC min	5,3ºC min	10ºC	15ºC	20ºC	Interior	Kg.
150	*	*	*	*	*	*			*	*	*	*	*	600x500x500	250
300	*	*	*	*	*		*		*	*	*	*	*	700x700x600	300
500	*	*	*	*	*		*		*	*	*	*	*	800x800x800	500
750	*	*	*	*	*			*	*	*	*	*	*	1000x900x850	600
1000	*	*	*	*	*			*	*	*	*	*	*	1000x1000x1000	850
1500	*	*	*	*	*			*	*	*	*	*	*	1500x1000x1000	1350
2000	*	*	*	*	*			*	*	*	*	*	*	2000x1000x1000	1850

In all volumes

Stability
Temp. ±0,3ºC max.
R.H. ±2% max.

Resolution
Temp. 0,1ºC
R.H. 0,1%

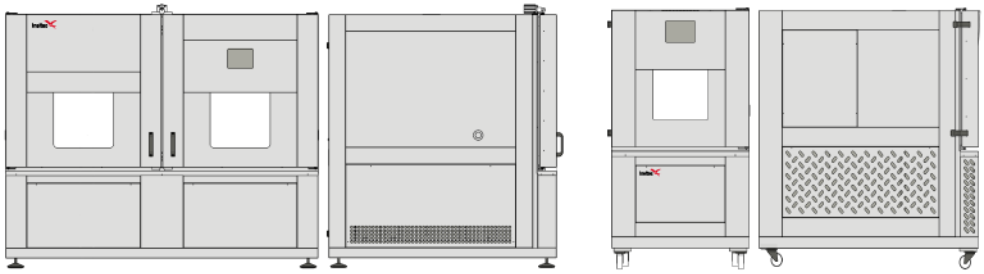
Accuracy
Temp. ±0,5ºC max.
R.H. ±2% max.

Homogeneity
Temp. ±2ºC max.
R.H. ±2% max.

Other features on request

Features of the equipment

External dimensions



**Approximated dimensions*

Volume	Height (mm)	Width (mm)	Depth (mm)	
			0º / -30º	-50º / -70º
150	1785	800	1400	1500
300	1885	1000	1500	1900
500	1985	1100	1500	2000
750	2185	1200	1700	2150
1000	2185	1300	1700	2300
1500	2100	1800	1900	
2000	2100	2300	1900	

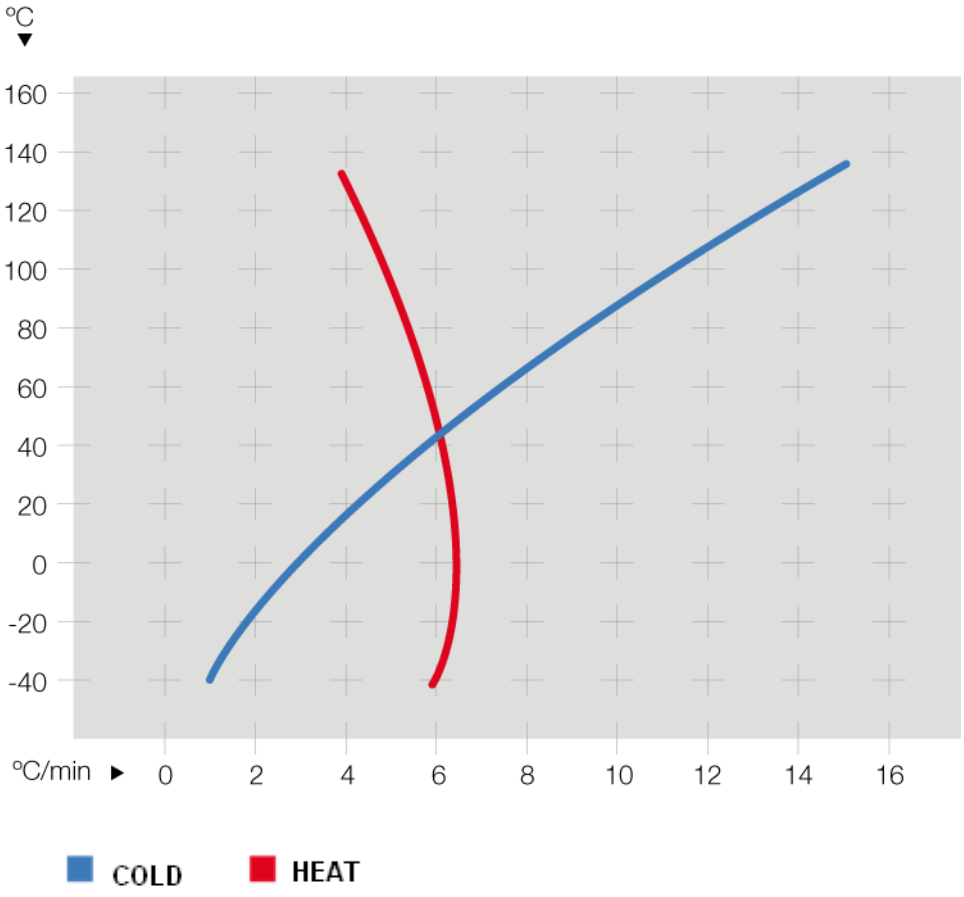
Electrical consumption and noise level

INECC model	Voltage supply and power		Maximum consumed power	Heat power	R.H. Power			Noise level
Vol. Liters	230V II+GND	400V III+GND	Kw	Kw	0,75	1,5	3,5	<65
	50 Hz	50 Hz			Kw	Kw	Kw	dB
150	*	*	5	4,5	*			*
300		*	7,5	4,5	*			*
500		*	7,5	6		*		*
750		*	9	7,5		*		*
1000		*	10	9		*		*
1500		*	18	11,5			*	*
2000		*	20	14			*	*

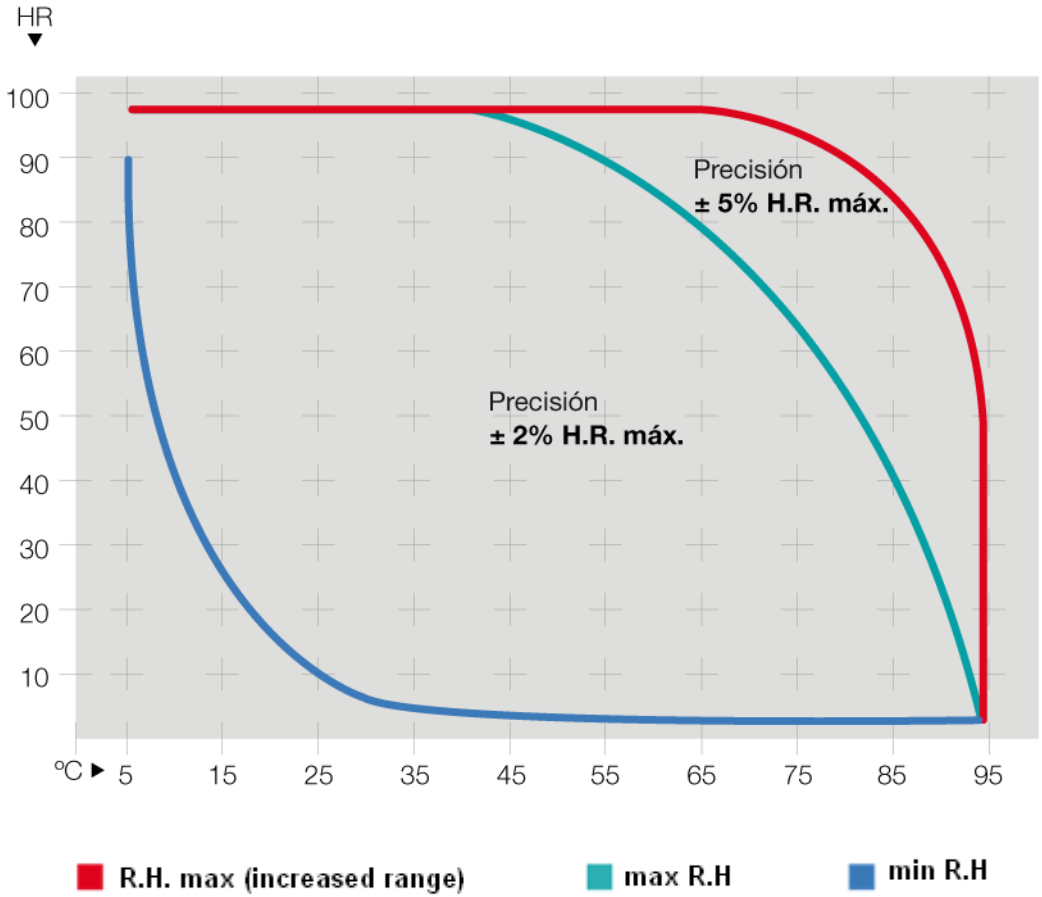
Features of the equipment

graphics

Gradients according to IEC-60068-3-5



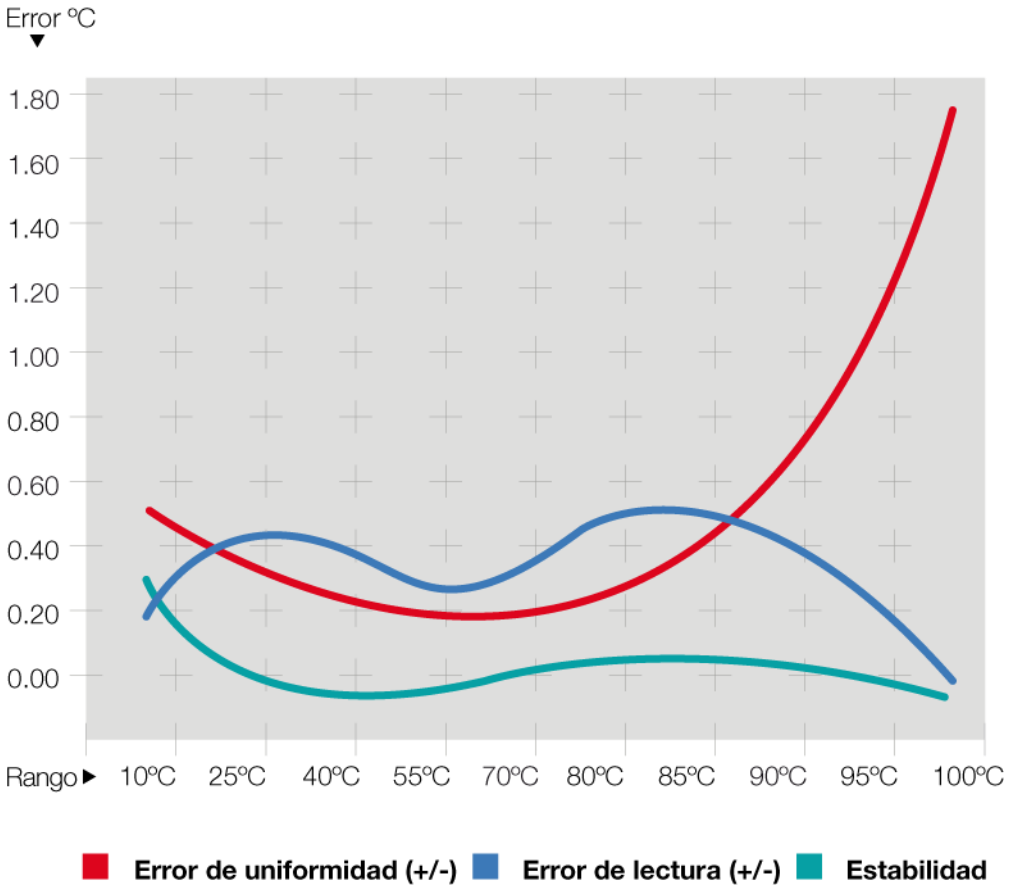
Working range R.H.



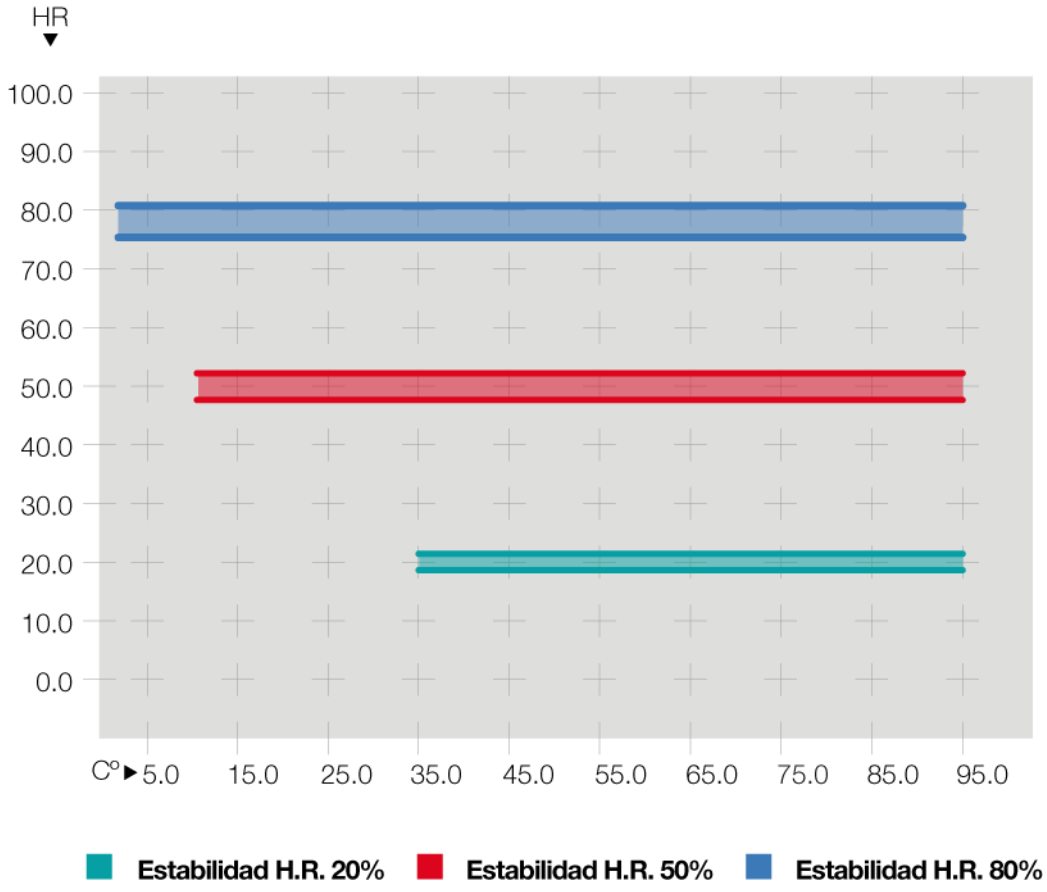
Features of the equipment

graphical

Temperature error

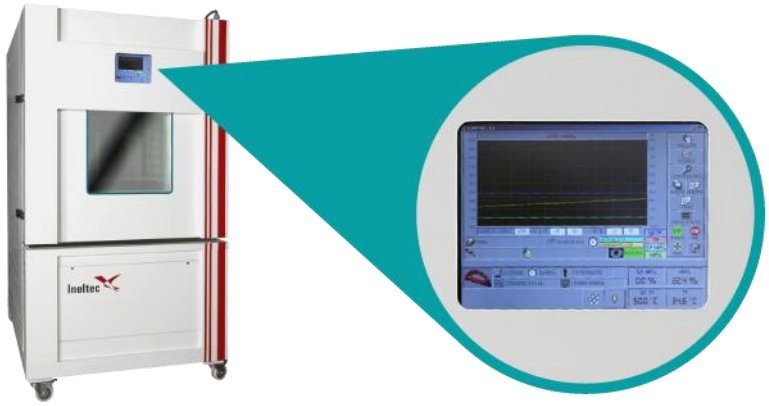


Stability R.H. / Tª



Control system

Touch screen PC



Features

01	USB
02	Ethernet
03	Wi-Fi (optional)
04	CF Socket
05	VGA Com.
06	RS 232 Com.
07	PS/2

software/ use

*With the **PROCAM-WIN** integrated software, it is possible to perform the programming, acquisition, recording, control and analysis of the results.*

software/ features

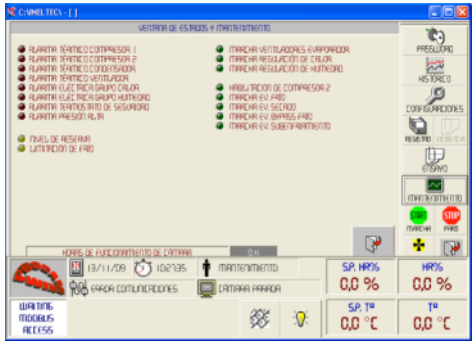
1/ Possibility of automatic or manual programming
2/ Start programming in a specific day and hour
3/ It allows taking / entering notes during the tests
4/ Different access levels
5/ Maximum 11 operators
6/ More than 100 programs
7/ Maximum 100 segments per program
8/ Linking up to 4 programs
9/ 1 to 999999 or infinite programming cycles
10/ Visualization and record of the tests in a graphic or table
11/ Option to export to Excel or similar
12/ Setting of minimum and maximum limits for alarms of temperature and humidity for each cycle.
13/ Controlling from distance through Ethernet, WIFI and WEB

Control system

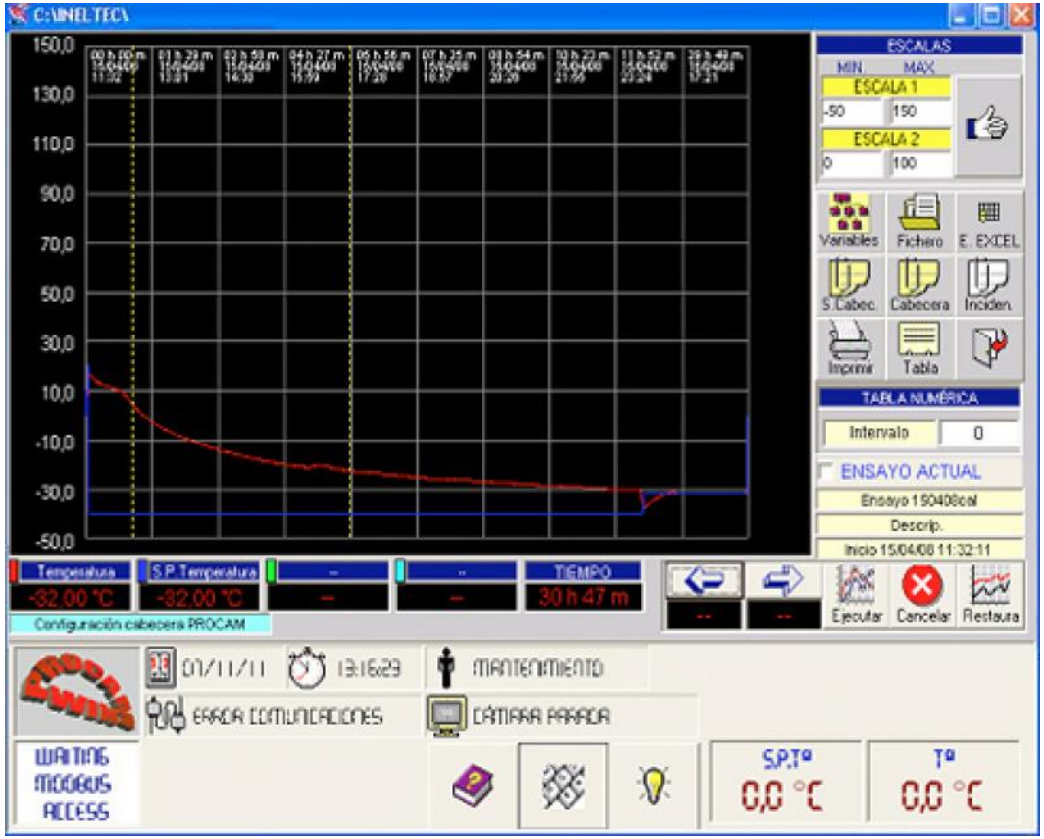
software/
screens

Operators

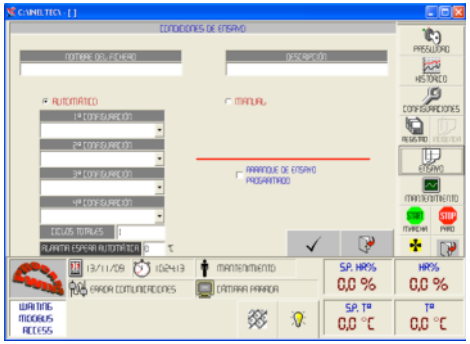
Maintenance screen



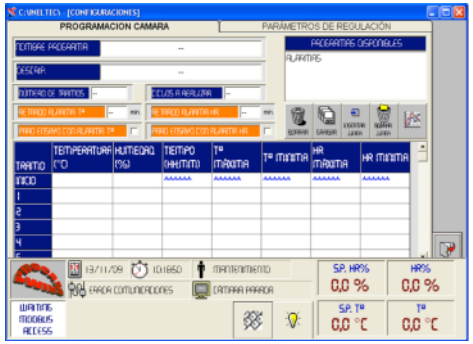
Software Procam-Win / graphics



Testing Conditions



Programming of the chamber



International presence

Range of products

ES
Simulation equipment


Climatic chambers


Modular chambers


Thermal shock


Combined tests


Specials


Stability


Generator groups


Calorimetric


Corrosion - combined


Corrosion


Frost / Defrost


Tightness – rain


Tightness – air/wind


Freezer cabinet

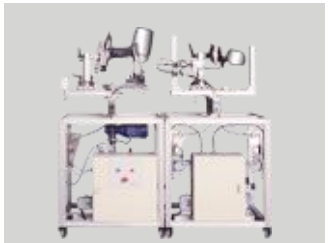

Thermostatic bath


Furnace


Heating

Range of products

BE
Testing bench


Fatigue endurance


Characterization


Pulsing pressure


Rupture


Bursting


Liquid Thermal Shock


Standardization


Resistance to the fire - I


Resistance to the fire - II


Reaction to the fire - I


Reaction to the fire - II

MC
Measurement and control


Artificial vision - I


Artificial vision - II


Artificial vision - III


End of line control - I


End of line control - II

Ineltec
Spain / Barcelona
Headquarters

C/ Metal·lúrgia, 8
Pol. Ind. Les Goules
08551 Tona

T/ 0034 938 605 100
F/ 0034 938 717 463

ineltec@ineltec.es
www.ineltec.es

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Standard annex

BS 2011	DIN 50014	IEC 60068-3-5	MIL-E-5272, Met. 4.4	MIL-T 5422 E, part 4.4	VG 95332
BS 2011, Part 2, Test A	DIN 50016	IEC 60721-4	MIL-STD 202	Telcordia GR1435, Part	VG 95332, page 22
BS 2011, Part 2, Test B	DIN 60068	IEC 61300-2-17	MIL-STD 202 E, Met. 106 D	4.4.3	VG 95332, page 23
BS 2011, Part 2, Test Ca	DIN 72300-4	IEC 61300-2-18	MIL-STD 202 E, Meth. 103B	Telcordia GR1435, Part	VG 95332, page 3
BS 2011, Part 2.1, TEST	DIN/IEC 68-2-30	IEC 61300-2-19	MIL-STD 750 B, Met. 1021.1	4.5.3	VG 95332, page 34
DA	DIN/IEC 68-2-30 DB Var. 1	IEC 61300-2-21	MIL-STD 810 D	Telcordia GR1435, Part	VG 95332, page 4
BS 2011, Part 2.1, Test N	DIN/IEC 68-2-30 DB Var. 2	IEC 61300-2-22	MIL-STD 810 D, Met. 501.2	4.4.1	VG 95332, part 5
CPMP/ICH/279/95	DIN/IEC 68-2-56	IEC 61300-2-46	MIL-STD 810 D, Met. 502.2	Telcordia GR1435, Part	RTCA-DO-160G
CPMP/ICH/380/95	ECSS-Q-70-038	IEC 61300-2-47	MIL-STD 810, Met. 507 Proc. 1-2-	4.4.2	NCh2791.Of2003
DIN 12880 part 1	ECSS-Q-70-08A	IEC 61300-2-48	3	Telcordia GR1435, Part	NCh2802.Of2003
DIN 40046	ETS 300019-2	IEC 62108	MIL-STD 883	4.5.2	NMX-C-228-1984
DIN 40046 part 2	IEC 60068-2-1, Test A	IEC 68-2-1, part A	MIL-STD 883 C, Met. 1004.4	Telcordia GR1435, Part	UNIT 795:1990
DIN 40046 part 3	IEC 60068-2-14 Test Nb	IEC 68-2-14	MIL-STD 883 C, Met. 1008.2	4.4.4	UNIT-IEC 60811-1-4:2004
DIN 40046 part 5, test C	IEC 60068-2-2, Test B	IEC 68-2-14 Nb	MIL-STD-202 E, Meth. 108A	Telcordia GR1435, Part	UNIT-IEC 60811-3-2:2005
DIN 40046, Part 101	IEC 60068-2-3, Test Ca	IEC 68-2-2, test B	MIL-STD-202, Meth. 103B	4.4.5	
DIN 40046, Part 14, Test	IEC 60068-2-30, Test Db,	IEC 68-2-3, TEST	MIL-STD-202, Meth. 106D	Telcordia GR1435, Part	
Nb	Var.1	103B	MIL-STD-331 A, Meth. 105.1	4.5.1	
DIN 40046, Part 14, Test	IEC 60068-2-30, Test Db,	IEC 68-2-3, test Ca	MIL-STD-331 A, Meth. 112.1	Telcordia GR1435, Part	
Nb	Var.2	IEC 68-2-30	MIL-STD-750 B, Meth. 1021	4.5.5	
DIN 40046, Part 3, Test A	IEC 60068-2-38	IEC 68-2-38	MIL-STD-810 D, Meth. 501	Telcordia GR326, Part	
DIN 40046, Part 31	IEC 60068-2-4, Test D	IEC 68-2-4, test D	MIL-STD-810, Meth. 502	4.4.2.1	
DIN 40046, part 4, test 3	IEC 60068-2-56	MIL-E 5272	MIL-STD-810, Meth. 507	Telcordia GR326, Part	
DIN 40046, Part 4, Test B	IEC 60068-2-66	MIL-E 5272, Met. 4.1	MIL-STD-883 C, Meth. 1008	4.4.2.2	
DIN 40046, Part 5	IEC 60068-2-67	MIL-E-5272, Met. 4.2	MIL-STD-883, Meth.1004	UNE-EN 60068	