Ineltec

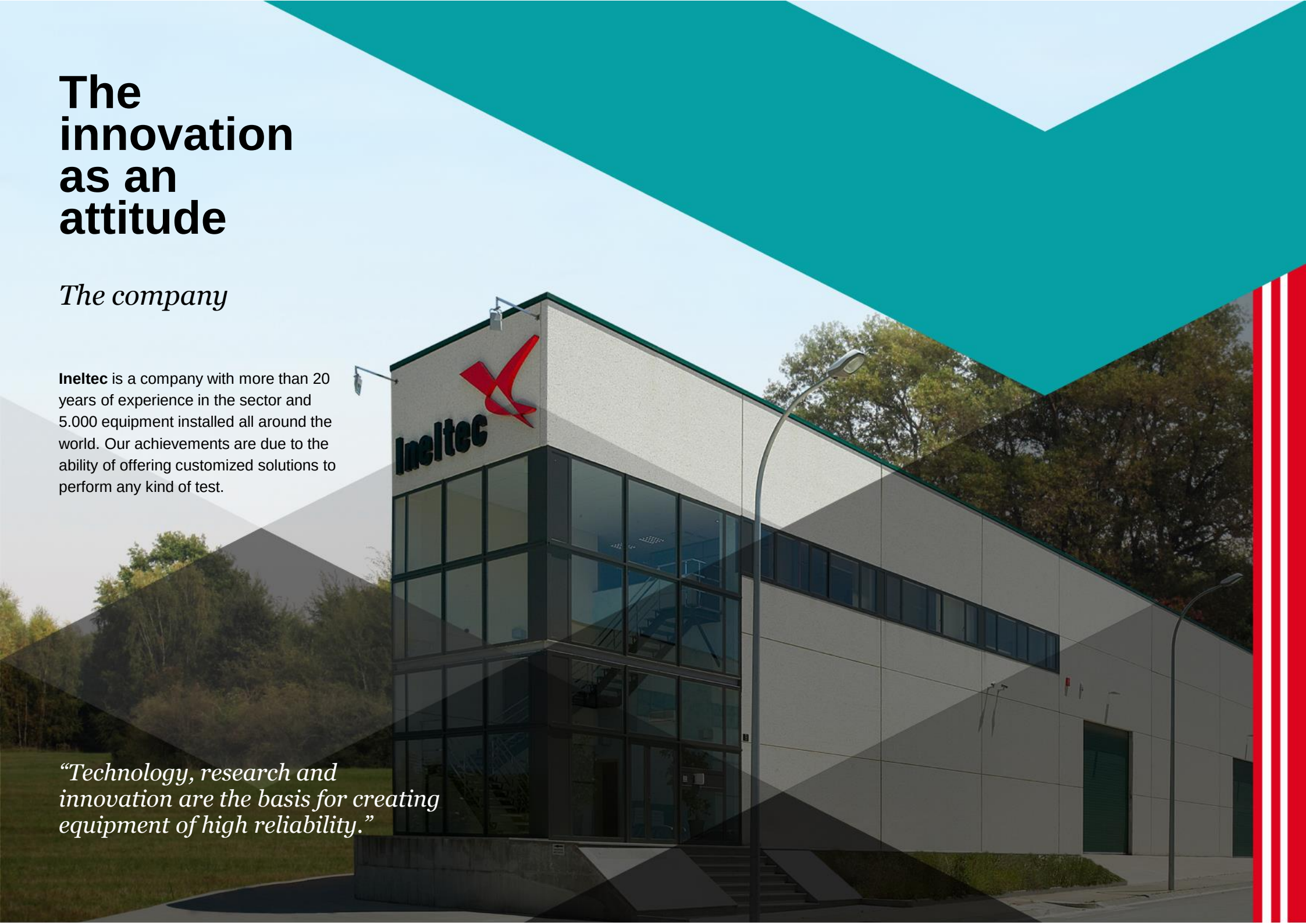
Thermal desktop Chamber

INSMP series

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

Thermal desktop
Chamber
INSMP series

Thermal desktop chambers of INSMP series have different volumes .

Model

Equipment description

Thermal desktop chambers of INSMP series simulate environmental conditions of heat and cold combined with humidity.

The maximum temperature range in standard models are from -10ºC and being able to reach +180ºC.

We also design customized equipment according to the specifications, modifying or broadening the standard characteristics.

Thermal shock chambers are used mainly in the aerospace, electronics and railway sectors among others.

Volumes

01	50 liters
02	100 liters
03	150 liters

01

02

03

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

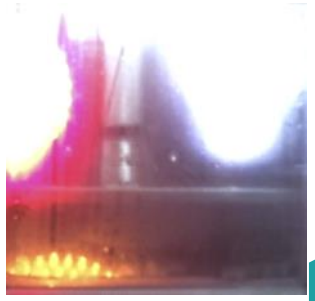
construction

01/ interior/exterior

The interior is built in stainless steel and the exterior in a white aluminum plate.

02/ Adjustable legs

The machine has 4 legs adjustable in height.

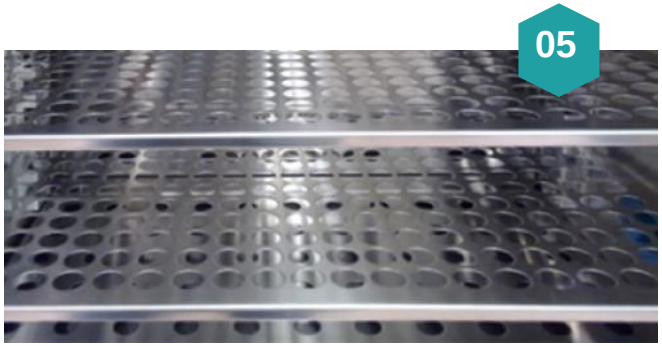


03/ Observation windows

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

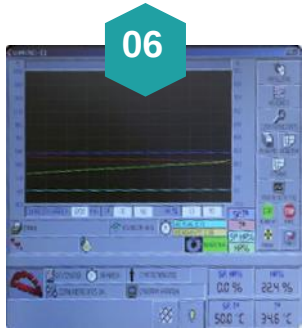
04/ Access holes

Thermal chambers have access ports to introduce the electrical wiring and the calibration sensors.



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/ control system

Touch screen PC is simple and intuitive and allows the programming, acquisition, recording and controlling of all the variables.

Features of the equipment

Functional properties

Modelo INSMP	Temperature				Maximum thermal load at + 20ºC			Gradients According to IEC-60068-3-5		Gradients under request			Dimensions HxWxD (mm)	Approx. weight
Vol. Liters	-10º C									1 Kw	Cold 2,7ºC min	Heat 4ºC min	Interior	Kg.
	+150ºC													
50	*									*	*	*	500x400x250	100
100	*									*	*	*	500x500x400	110
150	*									*	*	*	600x500x500	130

On all the volumes

Stability
Temp. ±0,3ºC max

Resolution
Temp. 0,1ºC

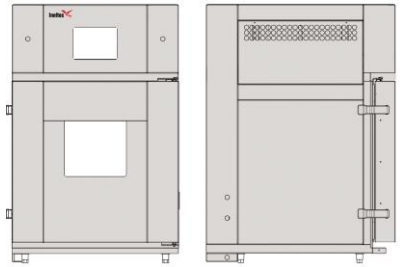
Accuracy
Temp. ±0,5ºC max.

Homogeneity
Temp. ±2ºC max.

Other features under request

Features of the equipment

Exterior dimensions



**Approximated dimensions*

Volume	Height (mm)	Width (mm)	Depth (mm)
50	1150	700	925
100	1150	700	925
150	1400	800	925

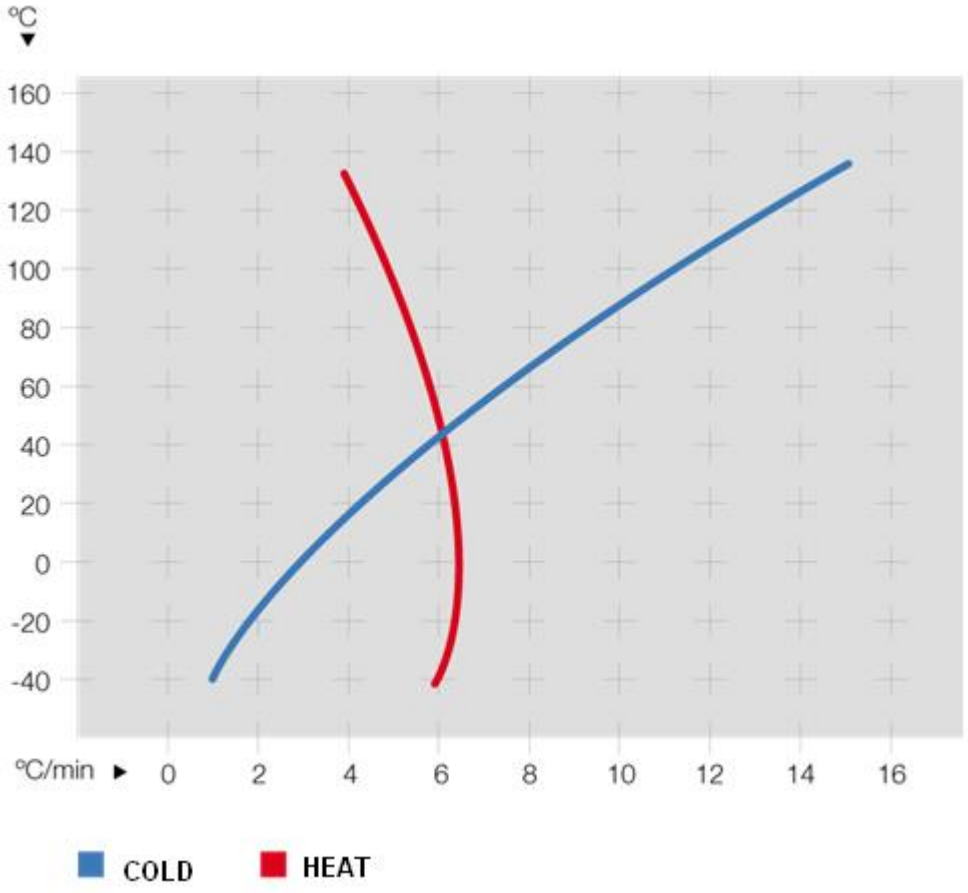
Electrical consumption and noise level

Model INSMP	Voltage supply And power	Maximum Consumed power	Heat power	Noise level
	230V II+TT			<65
Vol. Liters	50 Hz	Kw	Kw	dB
50	*	3	1	*
100	*	4	1,5	*
150	*	5	2	*

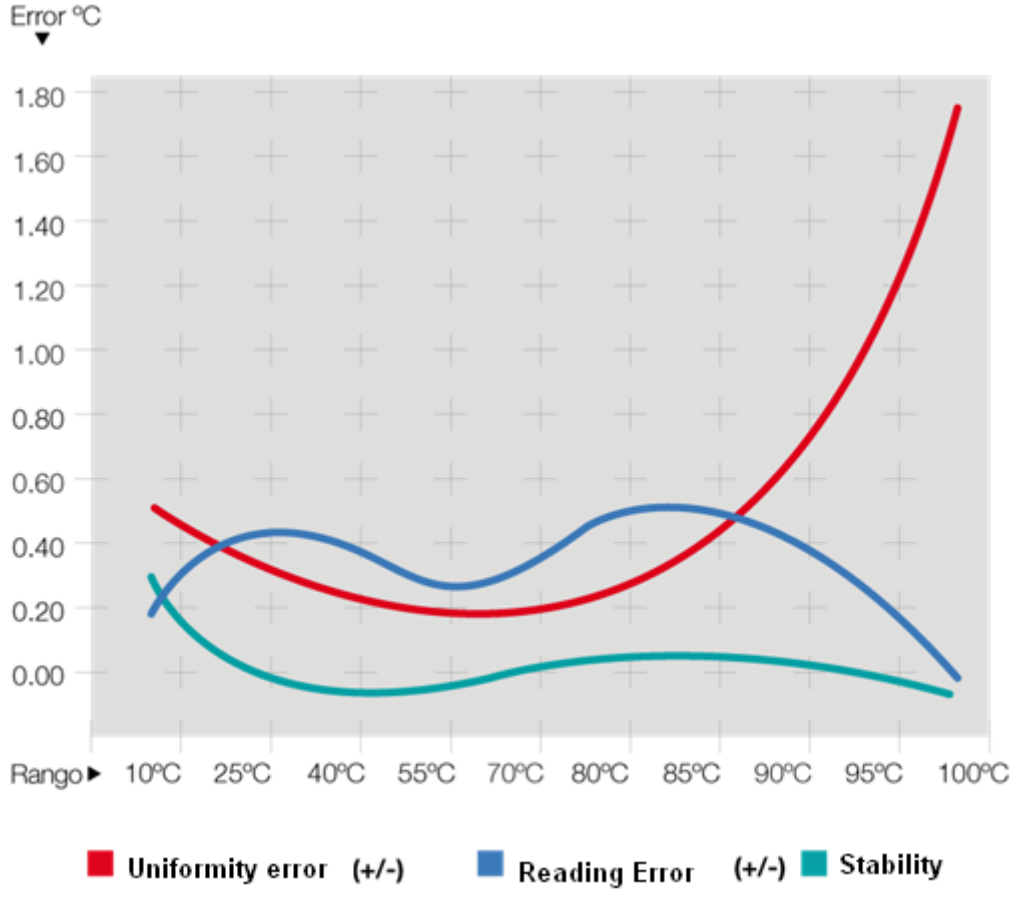
Features of the equipment

graphics

Gradients according to IEC-60068-3-5

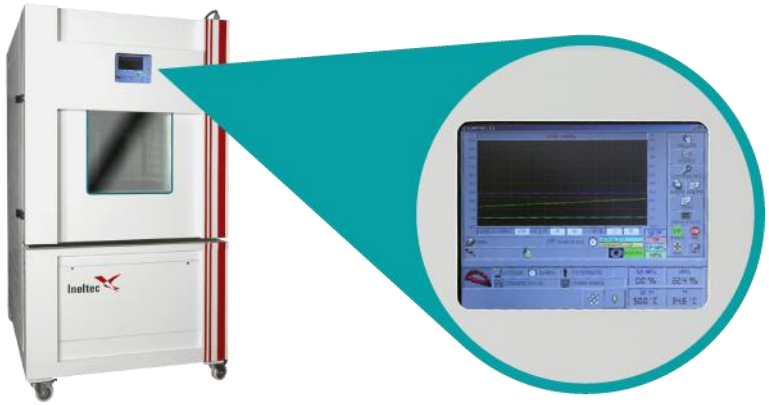


Temperature Error



Control system

Touch screen PC



Characteristics

01	USB	**06**	RS 232 Com.
02	Ethernet – RJ45	**07**	PS/2
03	Wi-Fi (optional)		
04	CF Socket		
05	VGA Com.		

software/ use

*With the integrated **PROCAM-WIN** software, it is possible to make the programming, acquisition, record, control and result analysis.*

software/ characteristics

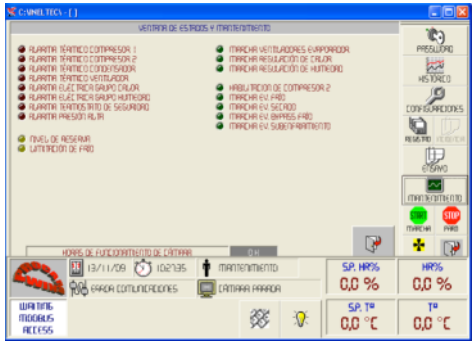
1/ Manual or automatic programming.
2/ Start programming in a specific day and hour
3/ It allows to make notes during the tests.
4/ Different access levels
5/ Maximum 11 operators
6/ More than 100 programs
7/ 100 segments maximum per program
8/ Enchained of up to 4 programs.
9/Number of programming cycles from 1 to 999999 or infinite
10/ Visualization and recording of the done tests by a table or graphic.
11/ Excel or similar export
12/ Configuration of the maximum and minimum alarms, for temperature limits in each segment.
13/ Control in the distance by Ethernet, WIFI and WEB

Control system

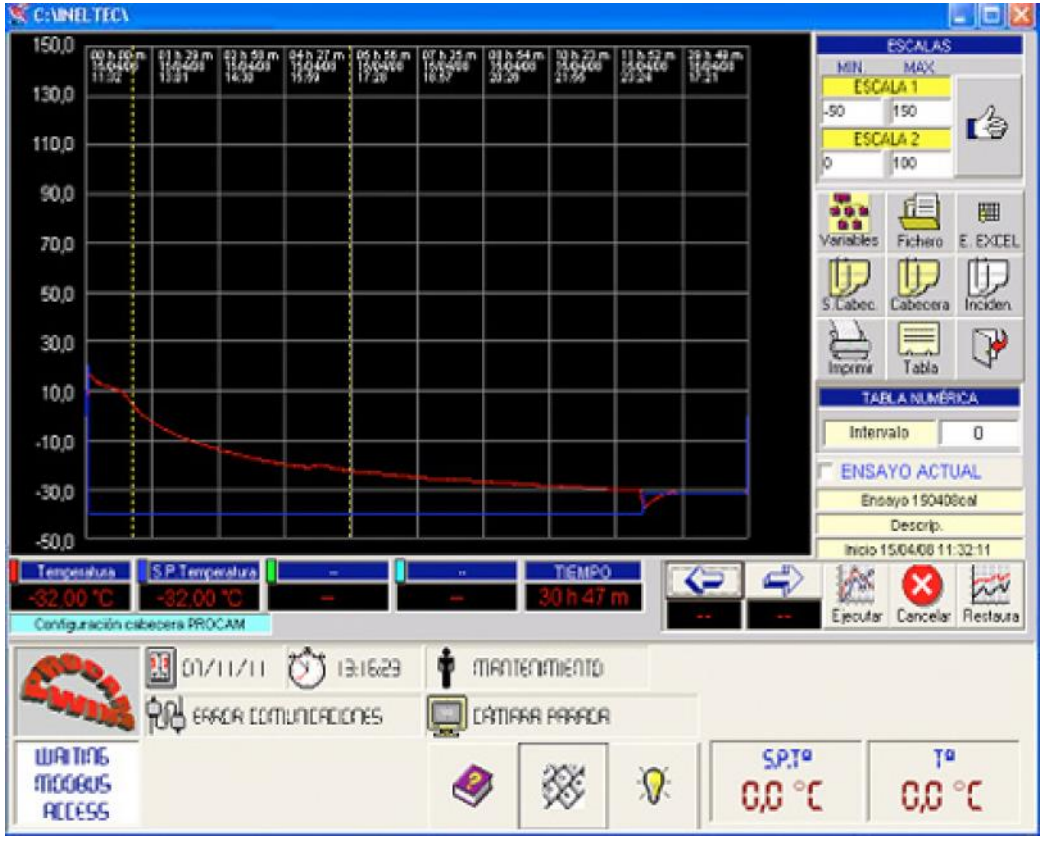
software/ screens

Main menu

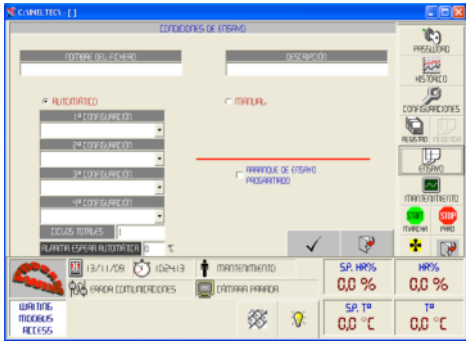
Settings



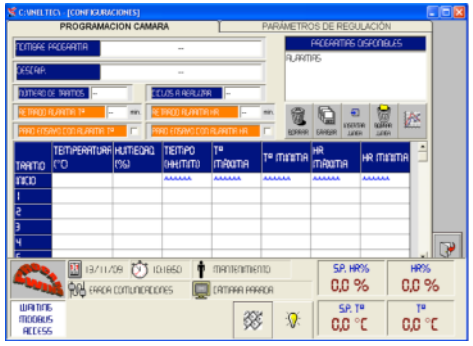
Software 21CFRV3 / historical



Alarms



Access



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

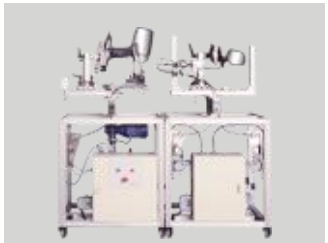

Thermostatic bath


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

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Standards 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	