

# ZERO TOUCH



T5

T8

T8 OR

T12

T16

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The manual contains symbols to attract the reader's attention and highlight particularly important aspects. The table below illustrates the meaning of the various symbols used.

	Read the instructions manual		Use of protective clothing
	Danger: Live electrical parts		Requests for maintenance or operations must be carried out by qualified staff or technical after-sales centres.
	Attention / Danger		Important information
	Information		Operations that must be performed by two persons.
	Visual observation		Notes / Important notes
	Condensing unit on board		Remote condensing unit

## 1. NOTES / IMPORTANT NOTES



The content of this manual is of technical nature and is owned by **ISA**. It is forbidden to reproduce, circulate or modify all or part of its content without written consent. Any infringement will be legally pursued.

The manual and the conformity certificate are an integral part of the equipment and should always accompany the product in the event of a transfer to a new location or to a new owner. The user is responsible for the integrity of these documents, for their consultation and during the whole life cycle of the equipment itself. Keep this manual in a safe place. It should be available for consultation near the equipment at all times. If lost or destroyed, you can request a copy of the manual from **ISA** by specifying the exact model, serial number and year of manufacture. The manual reflects the manufacturing technology at the time of supply. The manufacturer reserves the right to modify its products in any way it deems necessary, with no obligation to update manuals and machines relating to previous manufacturing batches.

This equipment is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or by persons lacking the necessary experience and knowledge, unless they are supervised by a person responsible for their safety who has instructed them on how to use the equipment. Children should be supervised to ensure that they do not play with the equipment. Always refer to this manual before going ahead with any operation. Before doing any type of work, disconnect the equipment from the power supply. Any work on electric and electronic parts or cooling system components should only be carried out by trained personnel in compliance with current laws.

Always refer to this manual before taking any action. Before attempting any intervention disconnect the equipment from the power supply. Work on parts, electronic components or the refrigeration system must be carried out by qualified personnel, in full compliance with the regulations.

The Manufacturer cannot be held liable for any injury to persons or animals, or damage to the product itself in the event of:

- Improper use of the equipment or use of the appliance by unqualified or unauthorised personnel.
- Failure to comply with current legislation.
- Incorrect installation and/or power supply faults.
- Failure to observe the instructions contained in this manual.
- Failure to follow the maintenance programme.
- Unauthorised modifications.
- Installation of non-original spare parts in the equipment.

## 1. NOTES / IMPORTANT NOTES

- Installation and use of the equipment for purposes other than those for which the appliance was designed and sold.
- Tampering with or damage to the power supply cable.

Liability for applying the safety instructions contained in this manual is held by the technical personnel responsible for the intended use of the equipment, who should ensure that authorised personnel:

- Are qualified to carry out the requested activity.
- Are aware of, and carefully comply with, the instructions contained in this document.
- Are aware of, and apply, the general safety standards applicable to the equipment.

The buyer is responsible for training personnel using the appliance on the risks, safety devices and general health and safety rules required by the laws of the country where the appliance is installed.

Users/operators should be aware of the position of all the controls and how they work, as well as of the features of the appliance.

They should also read this manual in its entirety.

Maintenance work should be conducted by qualified personnel after the appliance has been prepared adequately.



### Danger

Unauthorised tampering or replacement of one or more parts of the appliance, use of accessories that modify the use of the same and use of spare parts different to those recommended, can become the cause of injury.



### Danger

Any work conducted on the on the appliance **must** involve disconnection from the power socket and in any case, none of the protective elements (grid, casing) should be removed by non-qualified staff. The appliance should not be operated when these protective elements have been removed.



### Note

In order not to compromise functionality and safety of the appliance, the particularly complex installation and maintenance activities are not documented in this manual and are performed by specialised **ISA** technicians.

## 1. NOTES / IMPORTANT NOTES

Never use electric devices inside this appliance. Do not use mechanical or other means to accelerate the defrosting process, other than recommended by the manufacturer. Keep the air vents in the casing of the appliance or in the structure built into the wall free of obstructions. Do not damage the refrigerant circuit.

### RISK OF EXPLOSION

Do not store in the equipment products which contain flammable propellants and explosives.

## R744 - REFRIGERANT (WHERE APPLICABLE)

The refrigerant **R744** is a gas that is compatible with the environment. Pay close attention during transport, installation and that the destruction not to damage the refrigerant pipelines.

### IN THE EVENT OF DAMAGE:

Keep away from the flame or ignition sources. Properly ventilate the premises for a few minutes. Turn the unit off, pull the plug. Inform customer support service.



### WARNING

The refrigerant system is **High Pressure**.



Do not tamper with the system, but call a specialised and qualified technician before disassembly.



### ATTENTION

Maintenance must be performed exclusively by qualified staff.

## 1. NOTES / IMPORTANT NOTES

### R290 - REFRIGERANT (WHERE APPLICABLE)



The refrigerant **R290** is a gas that is compatible with the environment, but **highly flammable**.

Pay close attention during transport, installation and that the destruction not to damage the refrigerant pipelines.

#### IN THE EVENT OF DAMAGE:

Keep flames or sources of ignition away from the appliance. Properly ventilate the premises for a few minutes. Turn the unit off, pull the plug. Inform customer support service. The more refrigerant containing an appliance, the greater must be the environment in which there is the unit. In areas too small, in the event of leakage can form a flammable mixture of air and gas. **The volume of the room where the appliance is installed must be at least 19 m<sup>3</sup> for each cooling system present in the room.**



#### ATTENTION

Maintenance must be performed by qualified personnel that has been to work with flammable refrigerants.

### R600a - REFRIGERANT (WHERE APPLICABLE)



The refrigerant **R600a** is a gas that is compatible with the environment, but **highly flammable**.

Pay close attention during transport, installation and that the destruction not to damage the refrigerant pipelines.

#### IN THE EVENT OF DAMAGE:

Keep flames or sources of ignition away from the appliance. Properly ventilate the premises for a few minutes. Turn the unit off, pull the plug. Inform customer support service. The more refrigerant containing an appliance, the greater must be the environment in which there is the unit. In areas too small, in the event of leakage can form a flammable mixture of air and gas. **The volume of the room where the appliance is installed must be at least 17 m<sup>3</sup> for each cooling system present in the room.**



#### ATTENTION

Maintenance must be performed by qualified personnel that has been to work with flammable refrigerants.

## 1. NOTES / IMPORTANT NOTES

### STAFF TRAINING

The buyer is responsible for ensuring personnel who will use the appliance and maintenance technical staff are instructed and trained adequately. The manufacturer is available for advice, clarifications, etc. so that the operator and technical staff can use the appliance correctly. To ensure the operator's safety, appliance devices should be kept in constant working order. This manual is intended to illustrate the use and maintenance of the appliance. The operator has a responsibility and duty to carefully observe the instructions contained within it.

Failure to comply with safety standards may result in injury to personnel and damage to the equipment components and control unit. The user can contact the dealer to request additional information not contained in this document, or suggest improvements, at any time.



Before the product is delivered to the customer, it is essential that a **trained technical member of staff** checks that the appliance is operating correctly in order to achieve maximum performance.

### INTRODUCTION

**ISA** employs materials of the best quality and as they enter the company, we constantly monitor their storage and the use as part of the manufacturing process to prevent damage, deterioration and failure. All manufacturing elements are designed and manufactured in order to guarantee reliability and high safety standards. All appliances are subjected to a strict testing procedure before delivery. However, please bear in mind that product performance over time depends on correct use and adequate maintenance. This manual contains the necessary instructions to maintain the appliance's initial appearance and functions over time.

The Use and Maintenance manual contains the necessary information for understanding how the appliance works and how to use it properly, namely: the technical description of the various operational units, equipment and safety systems, operations, how to use the instruments and the interpretation of any diagnostics reports, main procedures and information relating to routine maintenance. For correct use of the appliance, the working environment should comply with current health and safety standards.



## 1. NOTES / IMPORTANT NOTES

The safety requirements, indications, standards and notes illustrated in the various chapters of the manual are aimed at establishing a code of conduct and a series of obligations to be observed when performing the various activities, in order to create safe conditions for personnel, the equipment and the surrounding environment. The safety standards reported in this document are intended for trained, authorised personnel responsible for:

- Transport
- Installation
- Operation
- Management
- Maintenance
- Cleaning
- Putting out of order
- Disposal



### Attention

Reading this manual, albeit in full, is no substitute for adequate user experience. therefore it should only be considered a useful reminder of the technical features and the main operations to perform.



### Note

The installers and users must read and understand the instructions contained herein before any operation on the appliance.



## 2. MANUFACTURER

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## 3. WARRANTY TERMS AND CONDITIONS



The seller's warranty on the equipment is valid for **12 (TWELVE) months from the date of delivery.**

The warranty includes repairs or replacements of any faulty parts due to manufacturing processes or installation after written communication has been received, stating the appliance serial number and date of installation.

Not included in the warranty:

- all defects caused by incorrect use of the appliance
- all defects caused by incorrect electrical connection
- all defects caused by normal wear (for instance compressor failure and fluorescent lamp malfunctioning that is not due to manufacturing defects)
- calls for installation, technical instructions, adjustments and cleaning the condenser

If the seller's technical staff detect any tampering, unauthorised repairs or inappropriate use of appliance the warranty will be invalidated.


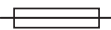







Shipment of components covered by the warranty is freight collect only.

Any damage to the appliance detected at the time of delivery due to transport must be reported on the same shipping note to claim compensation from the carrier.

The seller cannot be held liable in the event of damage to the preserved product due to appliance failure

## 4. EQUIPMENT IDENTIFICATION

- Find the label affixed on the machine to read the technical data.
- Check the machine model and the power supply voltage before you perform any operation.
- If you uncover mismatches, contact the manufacturer or the company that supplied the machine immediately.

1		2			
Tip. 3		Mod. 4			
Art. 5					
Data prod. - Prod. Date 6	Ordine prod. - Prod. Order 7	Ord. cliente - Cust. Order 8	Classe Prodotto - Product Class (En23953) 9		
Matricola - Serial Number 10				Matr. di Proprietà - Property Number 11	
12 V~	13 Hz		14 A		15 W
			16 W		
Potenza nominale - Rated Power  17 W	Potenza in Sbrinam. - Defrosting Power  18 W	Psig min 19	Psig max 20	Classe Sicur. - Safety Class (EN 60335-2-89) 21	
Corrente nominale - Rated Current  22 A	Corrente in Sbrinam. - Defrosting Current  23 A	Carico rip. - Shelf load 24 Kg/m2		Carico vasca - Tank load 25 Kg/m2	
Tipo Refrigerante Refrigerant Type 1 . 2 . 26 3 .	Peso Refrigerante Refrigerant Weight 27 Kg Kg Kg	Volume Lordo - Gross Volume 28 L		30 	
		Espandente - Foaming Agent 29			
CONTIENE GAS FLUORURATI AD EFFETTO SERRA DISCIPLINATI DAL PROTOCOLLO DI KYOYO; SISTEMA ERMETICAMENTE SIGILLATO CONTAINS FLUORINATED GREENHOUSE GASES COVERED BY THE KYOTO PROTOCOL; SYSTEM HERMETICALLY SEALED					

1	Manufacturer's address	16	Absorption of Heating Elements
2	Symbols of Compliance	17	Rated power
3	Type	18	Defrosting power
4	Model Name	19	Min pressure
5	Article	20	Max pressure
6	Production Date	21	Safety Class
7	Production Order	22	Rated current
8	Customer Order	23	Defrosting current
9	Product Class	24	Shelf load
10	Serial Number	25	Tank load
11	Property Number	26	Refrigerant type (compressor)
12	Power supply voltage	27	Refrigerant weight
13	Frequency	28	Gross Volume
14	Fuse value	29	Foaming agent
15	Lamp power	30	RAEE Mark

## 5. USE

This appliance is exclusively intended to:

### PRODUCT BLAST CHILLING AND FREEZING

The manufacturer is not liable for injury to persons or damage to property or the appliance itself caused by the displaying of products other than those described above.



#### THE APPLIANCE IS INTENDED FOR PROFESSIONAL USE.

##### Uses not allowed

- Food preservation.
- Displaying and/or preserving non-food products (chemicals, pharmaceuticals, etc...).

### 5.1 COMPOSITION

The appliance is made up from a unique cabinet, onto which all devices necessary to make it a professional and efficient product for its declared use, are installed.

The appliance is made up from:

- Cooling system at Ventilated Refrigeration (RV)
- Condensing unit on board (UCA)
- Electrical system
- Electronic control board
- Insulated monolithic structure in ecological polyurethane
- Door openable at 180° with automatic closure
- Automatic defrost
- Adjustable telescopic feet
- Heated probe
- Opening door sensor
- Tray collection of condensed water

#### OPTIONAL

- Swivel drive wheels with locking brake
- Germicidal light
- Pan kit depth 25 mm
- Gastronorm trays
- Kit probe support for liquids



## 5.2 LOAD / UNLOADING OF PRODUCTS

### LOAD

It recommends the use of kitchen gloves to avoid burns during contact with hot trays and trolleys.

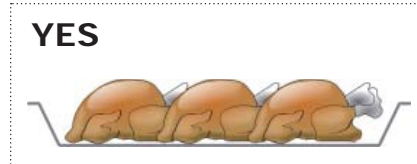
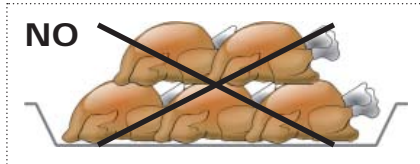


### UNLOADING

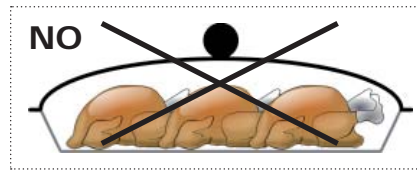
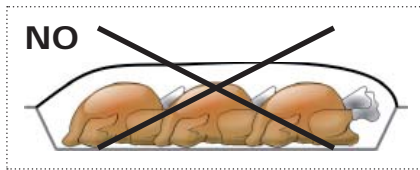
We recommend the use of gloves suitable for trays and cold trucks.

## 5.3 LOAD OF PRODUCTS

- Avoid overlapping of foods.



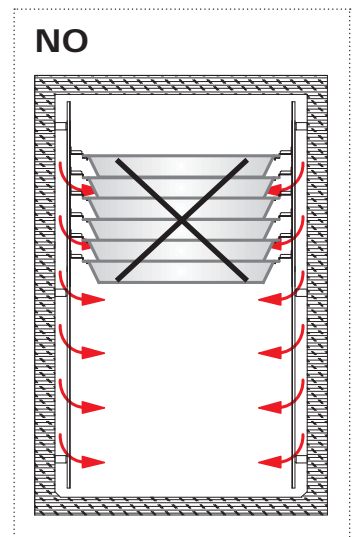
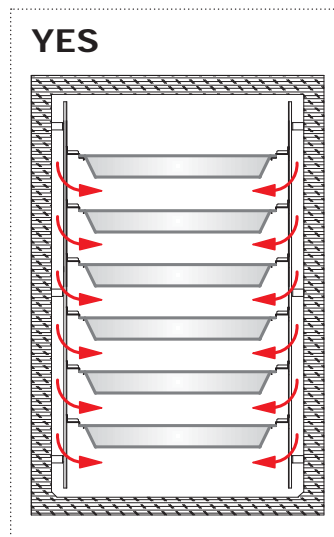
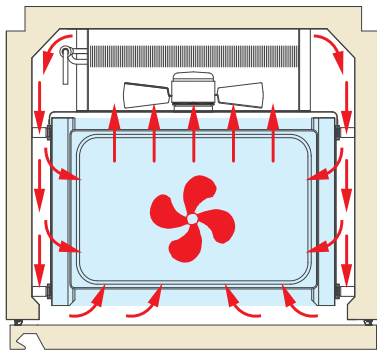
- Do not cover the containers with insulating films or lids.



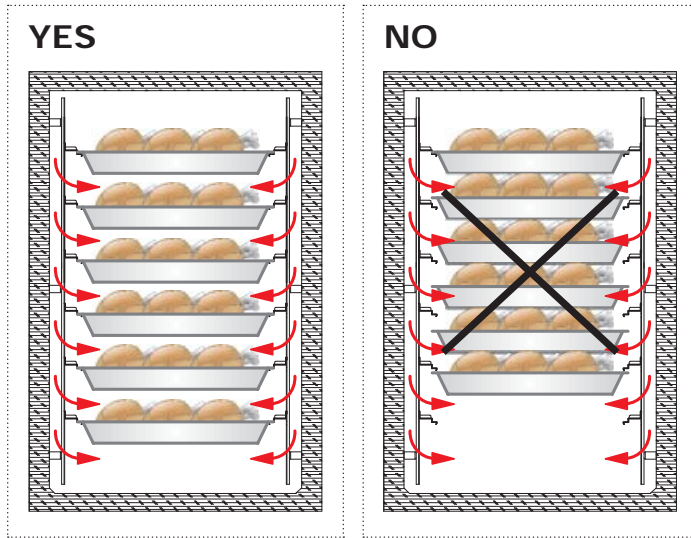
We recommend the use of trays and containers, the less deep as possible but no greater than 6.5 cm; In addition to better performance it is recommended to load the containers with a maximum 3.5 kg of the product and with a maximum thickness of 8 cm rapid reduction or 5 cm for rapid freezing.

**Note** For compact products with a high fat content, or large pieces, to reduce the thickness further.

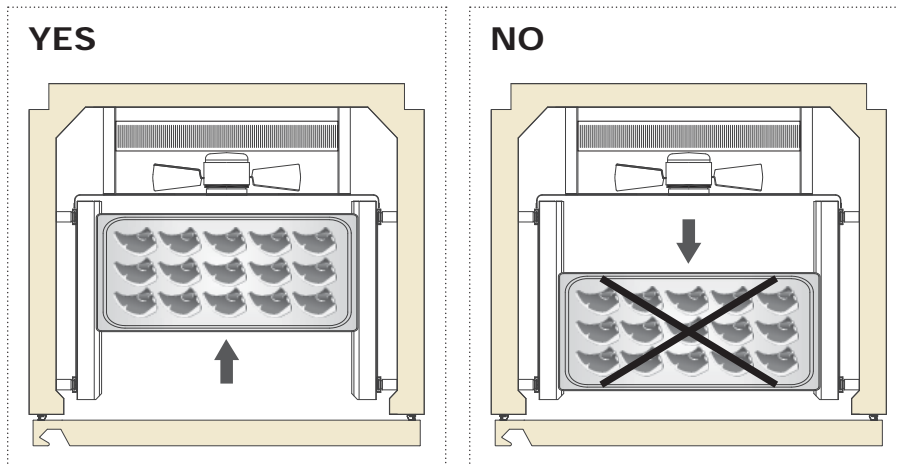
- Maintain a sufficient gap between the trays to allow proper circulation of air.



- In the event that the machine is not fully loaded, distribute the tins and trays evenly inside the machine and avoid overcrowding one area.



- Position the trays and tins as far inside the refrigerated chamber as possible, making sure they are as close to the evaporator as possible.



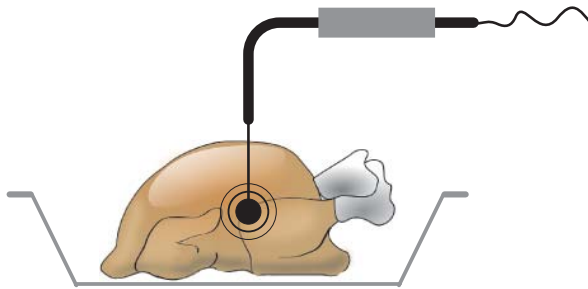
## 5.4 USING THE SPIKE TEMPERATURE PROBE

The spike probe should only be used by authorised personnel trained in blast chilling techniques. Keep out of the reach of children.

The probe should only be used for the purpose for which it was designed; reading the temperature at the heart of a food product which requires blast chilling or freezing. Please handle with care as the device has a sharp tip to facilitate its insertion into products which require blast chilling or freezing.

The spike probe should be positioned accurately in the centre of larger-sized product portions, ensuring that it does not exit or touch the tray.

To avoid contamination, the probe should be cleaned and sanitized after each work cycle.



### CORRECT USE OF SPIKE PROBE HEATING FUNCTION



#### Attention

This probe heating function should only be used when the probe is inserted in products due to be frozen.

To avoid the risk of burns, do not touch the probe when the heating function has been activated or when has been removed from the product.

## 5.5 USE OF THE LAMP UV (OPTIONAL)



The UV lamp sterilizing function (optional) must only be used for the purpose for which it was designed: **sterilize internal unit surfaces**.

### Attention

Avoid exposure and / or observation of UV lamps.

## PRE-COOLING

Prior to carrying out either fast blast chilling or freezing operations, it is necessary to pre-cool the system in order to further reduce operating times.

Therefore, carry out a Soft/Hard unloaded cycle before inserting products for blast chilling.



### Warning

To avoid damaging the machine, do not leave hot products inside the chamber for periods of time. Start the blast chilling or freezing cycle as soon as the product has been introduced into the machine.

## TEMPERATURE

Avoid leaving cooked products due to be blast chilled or frozen for long periods at room temperatures. The more water content lost, the less succulent the product will be following treatment. It is recommended to begin the fast blast chilling or freezing cycle as soon as the product preparation /cooking has ended. The food can be inserted in the blast chilling chamber even at relatively high temperatures (>100 °C) as long as the unit has been pre-cooled. It should be remembered that blast chilling cycle times range from +90 °C (from +90 °C to +3 °C for the fast blast chilling cycle: from +90 °C to -18 °C for the fast freezing cycle).

## PRESERVATION

Blast chilled or frozen foods should be appropriately covered and protected (with cling-film, sealed lid or, better still, vacuum sealed). They should be identified by an adhesive label, detailing in indelible ink contents, preparation date and expiry date.

Blast chilled foods must be kept in a refrigerated environment at a constant temperature of +2 °C.

Frozen foods must be kept in a refrigerated environment at a constant temperature of -20°C.



### Attention

Do not use the blast chiller as a standard refrigerator.



## 6. SAFETY

The equipment is fitted with safety devices. Purchaser must instruct the user to staff about the risks, the safety devices and the general rules regarding safety provided for by the legislation of the country where the equipment is installed. Users / operators must be aware of the position and operation of all controls and of the equipment characteristics; they shall also have fully read this manual.

### 6.1 SAFETY DEVICES PRESENT

Devices whose operation prevents the occurrence of risk situations in operating conditions (e.g. fuses, pressure switches, protections, magnet circuit breakers, etc.).

### 6.2 FIXED PROTECTIONS

Fixed protective devices consist of fixed perimeter shields, which are used to prevent external parts from entering the equipment.



#### **Danger**

It is prohibited to re-start the appliance following maintenance without having correctly restores the panels.



#### **Visual Check**

You should check the integrity of fixed panels and corresponding fixings to the frame, focussing in particular on the protective panels.

### 6.3 ISOLATING THE ELECTRIC POWER SUPPLY

Before conducting any maintenance work on the equipment or part of it, it is necessary to section the power supply that powers it.



#### **Danger**

In the event of maintenance operations in which the operator cannot prevent accidental closure of the circuit by others, to totally disconnect the appliance from the mains electricity.

### 6.4 RESIDUAL RISKS

During design the manufacturer examined all the areas or parts at risk. Therefore, all necessary precautions have been taken to prevent risks to persons and damage to the appliance.



#### **Attention**

Periodically check that all safety devices are operating correctly.  
Do not remove the fixed guards.  
Do not introduce objects or tools into the work area.

Although the appliance is fitted with the safety devices prepared, there are still some risks that cannot be eliminated, but reduced via corrective actions by the final integrator and correct operational procedures.

Below is a summary of the risks that remain in the equipment in the following stages:

- Normal operation
- Adjusting and set up
- Maintenance
- Cleaning

### 6.5 RISKS OF CONTACT WITH LIVE PARTS

Risk of breaking or damaging the electrical components of the appliance, with a possible reduction in safety levels, following a short circuit.

Before connecting the electricity supply, make sure there is no ongoing maintenance work.



#### **Attention**

Before making the connection, check that the d.c. current in the installation point does not exceed that indicated on the protections switches present in the electric control board. If this is not the case, the user must envision the relevant limiting devices.  
It is strictly forbidden to conduct any electrical modification, in order to prevent additional unforeseen hazards and risks.

## 6.6 FIRE



### **Danger**

In the event of a fire, immediately disconnect the master switch from the main power supply line.

## 6.7 EXPLOSIVE ATMOSPHERE

The equipment must not be located in an area classified as an explosion risk according to 1999/92/EC such as:

### **Zone 0**

An area in which there is a permanent, long-lasting or frequently explosive atmosphere made up of a mixture of air and flammable substances in the form of gases, fumes or steam.

### **Zone 1**

An area in which the formation of an explosive atmosphere, made up of a mixture of air and flammable substances in the form of gases, fumes or steam is occasionally probable during normal activities.

### **Zone 20**

An area in which there is a permanent, long-lasting or frequently explosive atmosphere in the form of clouds of combustible dust in the air.

### **Zone 21**

An area in which the formation of an explosive atmosphere in the form of clouds of combustible dust is occasionally probable during normal activities.

## 6.8 SLIPPING



Any leaks in the areas surrounding the appliance may cause personnel to slip. Check that there are no leaks and keep these areas clean at all times.

## 6.9 TRIPPING



Generally untidy deposits of material may constitute a tripping hazard and a total or partial obstruction of emergency exit routes.

Ensure that operating and transit areas and emergency exit routes are free from obstacles in compliance with current legislation.

## 6.10 CIRCUIT FAULTS

Owing to potential faults, safety circuits may become less effective, which results in lower safety levels. You should check the operational condition of the appliance devices regularly.

## 6.11 WARNING SIGNS (IF ANY)

The appliance is fitted with warning danger, warning and obligation signs defined in agreement with the Standard relative to the graphical signs to be used on plants.

The signs are located in clearly visible positions.



### **Attention**

The warning plates present on the appliance must not be removed.

The user is responsible for replacing warning signs that, owing to wear, become unreadable.

## 6.12 FALLING OBJECTS

Positioning of the cabinet display parts (i.e. counters, rods and hooks), as also product arrangement inside the cabinet can be the source of potential hazards if not properly performed.

Follow the positioning instructions described in this Manual before you place products inside the cabinet, check that the counters are properly fastened, as also the hooks, etc. Do not exceed the maximum load limit. Do not tilt the shelves. Do not place any goods and in general, do not load the tank sliding element closing devices with any load, while open or closed.

Do not place any goods and in general, do not load the tank sliding element closing devices with any load, while open or closed.

## 6.13 COOLING

During different operations to perform on the counter, such as cleaning or loading goods, it is necessary to handle products and/or counter parts at a low temperature with the risk of "cold injury" for the operators and/or accidental slipping hazard.

Follow the safety regulations in the place where the cabinet is installed; more specifically, be sure to always use the right PPE (especially gloves).

## 6.14 FOODSTUFFS SAFETY (PACKAGED PRODUCTS)

The refrigerator cabinet described herein is meant to be used to display packaged products. As such, it is not designed for direct contact between the foodstuffs and display surfaces. If the foodstuffs do accidentally make contact with the surfaces and for a rather long time, the product may be contaminated. Follow the guidelines on how to use the cabinet. If a product package breaks, remove it from the cabinet and clean, if necessary.

## 7. DISPOSAL OF WASTE MATERIAL

During normal operation, the appliance does not generate any environmental contamination. At the end of its life cycle, or if it is necessary to proceed to permanent decommissioning, we recommend following the procedures below:

### DISPOSAL (USER)



The symbol, applied to either the product or its packaging, indicates that the product should not be considered as normal domestic waste, but should be taken to a waste collection point for the recycling of electrical and electronic appliances. The correct disposal of this product helps to prevent potential negative consequences that might derive from inadequate product disposal. For detailed information about recycling this product, contact your council, your local waste collection service or the store where you purchased the product.

### PROCEDURE FOR DISPOSAL and RECYCLING AT THE END OF APPLIANCE LIFE SPAN (AUTHORISED BODIES)

- Switch off the equipment and unplug the power supply cable.
- Remove the lamps (if installed). These should be disposed of separately.
- Remove the power units and the electronic cards. These should be disposed of separately.
- Remove all the independent parts (grids, casings, profiles, etc.) and group them according to shared features in order to access the heat exchangers, pipes, cables, etc. and be careful not to damage the cooling circuit.
- Remove all mobile parts (doors, sliding doors, glass parts, etc.) and group the various materials according to their features.
- Check the type of refrigerant on the plate positioned inside the counter; extract the refrigerant and dispose of it through authorised services.
- Disconnect the evaporator, the condenser, the compressor, the pipes and fans. These are made of copper, aluminium, steel and plastic and should therefore be disposed of separately.
- On removal of all guards and the various components from the frame, separate the different types of material making up the appliance (plastic, sheet steel, polyurethane, copper, etc) and collect them separately.



All recyclable materials and waste should be processed and recycled by professionals, in compliance with the laws in the country in question. The company responsible for recycling the materials should be registered and certified as a waste disposal service in accordance with the country in question.



#### Attention

Illegal disposal of the product by the owner will result in administrative sanctions as required by current laws. Disposal of the product should comply with current laws on the disposal of coolant liquids and mineral oils.



#### Important

If the crossed wheelie bin sign is not present on the appliance, it means that the disposal of the product is not the manufacturer's responsibility. In this case, the Regulations regarding the disposal of waste in force are valid.



#### Additional information

Further information on the disposal of liquid coolant, oils and other substances is available on the safety data sheet corresponding to the substance itself.

In order to dispose of foamed assemblies, remember that the polyurethane foams used are CFC, HFC and HCFC free.

## 8. INSTALLATION

This manual supplies the information necessary for correct unpacking, procedures for positioning and connection to mains electricity.

### 8.1 STORAGE AND UNPACKING

The appliance, with or without the packaging, should be carefully stored inside warehouses or in areas away from the elements and direct sunlight, at a temperature between **0** and **+40 °C**.



The appliance should only be moved by qualified personnel operating forklift trucks, the power of which should be suited to handling the weight of the product.

During said operation the appliance **MUST** be placed on the special pallet supplied.



Unpack the appliance by removing the screws fixing it to the pallet.  
All packaging materials are recyclable and should be disposed of in accordance with local regulations.  
Please destroy "plastic" bags to prevent them from becoming hazardous to children (suffocation).

### 8.2 INSTALLATION - POSITIONING - ENVIRONMENTAL CONDITIONS



#### Attention

A dry room that can be ventilated is the suitable location for the appliance's installation. There should be a good air flow around the compressor/condensing unit. Therefore the area around the unit should not be obstructed by boxes or other objects. Position the appliance away from heat sources (radiators, stoves of all types, etc.) and away from the effects of continuous currents of air (e.g. caused by fans, air conditioning vents, etc.). If it is unavoidable to install near a heat source, use a suitable insulating plate. Also avoid exposure to direct sunlight; all of this causes the temperature inside the refrigerated compartment to rise with negative consequences on operation and energy consumption. Do not use the appliance outdoors and do not leave it exposed to rain.

### 8.3 ELECTRIC CONNECTION



#### Attention

Check that the network voltage matches the one displayed on the identification plate of the appliance, and that the power is adequate.  
Check on the socket that the power supply voltage provides rated voltage ( $\pm 10\%$ ) when you start up the compressor.  
The plug should be directly connected to the electrical socket.  
It is forbidden to connect the plug to the socket by means of multiple socket extensions or adaptors.  
The plant power supply socket must be fitted with a disconnection device from the mains electricity (dimensioned to the load and in compliance with Standards in force), which guarantees complete disconnection in category III (3) over-voltage conditions and therefore protects the circuits against earth faults, overloads and short circuits.  
Do not route the electricity cable in passageways.





#### Attention

Earthing is necessary and mandatory by law.



## 9. MAINTENANCE

The **Staff in charge of the appliance** must control and respect the expiry dates for maintenance, given in the table below, calling the authorised **Technical After-sales assistance** when indicated.


OPERATION	FREQUENCY				ORDINARY	EXTRAORDINARY	AUTHORISED PERSONNEL
	Depending on the Use and Necessity	Monthly	six-month	Annual			
CLEANING THE EXTERNAL SURFACES	X				X		USER
CLEANING THE ACCESSIBLE INTERNAL PARTS (without the use of tools)	X				X		
CONTROL POWER SUPPLY CABLE, PLUGS AND / OR ELECTRICAL SOCKETS			X		X		
INTEGRITY CONTROL SEAL		X			X		
FILTER CLEANING CONDENSING UNIT (whenever present)			X		X		
CLEANING THE DEFROSTING WATER COLLECTION TRAY	X				X		 TECHNICAL ASSISTANCE SERVICE
CONDENSER CLEANING	X			X	X		
CHECK COMPRESSORE OIL LEVEL (whenever present)			X		X		
AIR TANK DRAINING (whenever present)			X		X		
CONTROL PNEUMATIC CONNECTIONS (whenever present)			X		X		
INTEGRITY CONTROL PIPE COOLING SYSTEM			X		X		
INSPECTION OF CABLES INTERNAL CONNECTIONS AND POWER			X		X		
CLEANING CONDENSATE DRYING SPONGES (whenever present)			X		X		
LAMP / LED REPLACEMENT (whenever present)						X	
CONTROL PANEL REPLACING (electronic control unit - thermostat - etc)						X	
REPLACEMENT POWER SUPPLY CABLE, PLUGS AND / OR ELECTRICAL SOCKETS						X	
<b>Attention</b>  After all maintenance it is <b>mandatory</b> to perform all electric safety tests in agreement with the IEC EN 50106 Standard.							

## 10. FAULTS - TECHNICAL AFTER-SALES ASSISTANCE

If the appliance is not working properly or stops working, **before contacting** the **Customer support centre**, check the following:

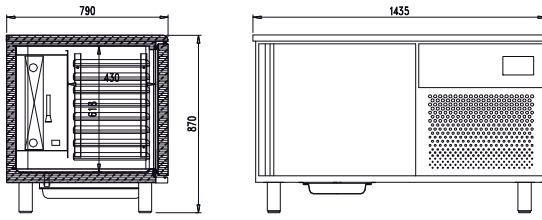
THE APPLIANCE IS NOT WORKING		
CAUSE	SOLUTION	AUTHORISED PERSONNEL
Blown protective fuse	Previously find the cause of the intervention of the switch, and then re-introduce the new fuse.	USER
The master switch is open	Close the master switch.	
The plug is not inserted	Insert the plug.	
Electric black-out	If the black-out should be prolonged, transfer the product into an appropriate cold storage container.	
THE INTERNAL TEMPERATURE IS NOT LOW ENOUGH		
CAUSE	SOLUTION	AUTHORISED PERSONNEL
Evaporator/s obstructed completely by ice	Carry out an additional defrosting cycle.	USER
Wrong setting temperature	Set the appropriate temperature.	
The appliance is affected by draughts or is exposed to direct or reflected sunlight	Remove any draughts and prevent any direct or reflected sunlight.	
Insufficient cooling air flow rate of the air condenser	Remove anything that may affect air flow inside the condensing unit (paper sheets, cardboard, grids with an insufficient number of holes, etc.).	
Internal fans at standstill or with fans damage		TECHNICAL ASSISTANCE 
Internal ventilation is too high		
Thermostat / Electronic control unit is not efficient	Replace the electronic control board. If the control unit is set up especially for must <b>R290</b> refrigerant, it must only be replaced with an original replacement from ISA. Replace the temperature probes only after checking which of the two is not operating efficiently.	
Air condenser blocked by dust or dirt in general	Clean the condensing unit thoroughly. The air condenser or MAINTENANCE FREE, in particular heavy environments (eg presence of dust, the presence of excessive moisture, oiled vapours etc..) in order to avoid performance loss, needs accurate cleaning.	
Insufficient refrigerant load in the cooling system	Find the cause behind the lower amounts of coolant and eliminate it. Top up the coolant. If necessary, empty the system before topping up.	
THE COMPRESSOR DOES NOT START-UP OR OPERATES		
CAUSE	SOLUTION	AUTHORISED PERSONNEL
No electric power supply to the appliance	Check if there is a power cut. Close the various switches on the power supply line.	USER
The power supply voltage is too low	Check that the network voltage of the power supply cable is 220V +/- 10%.	
Temperature set too high	If the set temperature is higher than that of the air in the display area, the compressor does not activate itself. Set a more suitable temperature if the current value is not low enough	
The pressure switch (if any) was activated at maximum pressure	Check the reasons why the pressure switch is operating at maximum pressure levels, such as: air condensing unit blocked, condensing unit fan stopped, ambient temperature too high, pressure switch broken.	TECHNICAL ASSISTANCE 

## 10.1 ALARMS LIST (WHERE PRESENT)

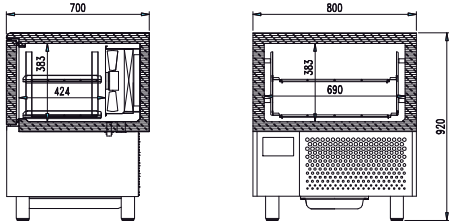
ALARM	DESCRIPTION	OUTPUTS	AUTHORISED PERSONNEL
			
<b>P1</b> <b>E0</b>	Broken thermostat probe. Compressor output according to "CO <sub>n</sub> " and "CO <sub>F</sub> " parameters	<ul style="list-style-type: none"> <li>The alarm starts a few seconds after the probe breaks down; it stops a few seconds after the probe starts working again properly.</li> <li>We recommend checking the probe connections before replacing it.</li> </ul>	
<b>P2</b> <b>E1</b>	Broken evaporator probe. Set time for defrosting.	<ul style="list-style-type: none"> <li>The alarm starts a few seconds after the probe breaks down; it stops a few seconds after the probe starts working again properly.</li> <li>We recommend checking the probe connections before replacing it.</li> </ul>	
<b>HA</b> <b>HI</b>	High temperature alarm.	<ul style="list-style-type: none"> <li>The alarm stops automatically on reaching the temperature set.</li> <li>Check programming.</li> </ul>	
<b>LA</b> <b>LO</b>	Low temperature alarm.	<ul style="list-style-type: none"> <li>The alarm stops automatically on reaching the temperature set.</li> <li>Check programming.</li> </ul>	
<b>EA</b> <b>IA</b> <b>CB</b>	External alarm.	<ul style="list-style-type: none"> <li>The external alarm stops after the digital infeed is deactivated, it is restored automatically.</li> <li>The alarm is linked to the intervention of the pressure switch and/or the compressor circuit breaker, when present.</li> </ul>	
<b>ETc</b> <b>RTF</b>	Real time clock is broken.	<ul style="list-style-type: none"> <li>Reset the clock.</li> <li>If the alarm does not stop, replace the clock.</li> </ul>	
<b>EE</b>	Machine parameter error.	<ul style="list-style-type: none"> <li>The instrument is damaged. It must be replaced.</li> </ul>	
<b>EF</b>	Operating parameters error.	<ul style="list-style-type: none"> <li>The instrument is damaged. It must be replaced.</li> </ul>	



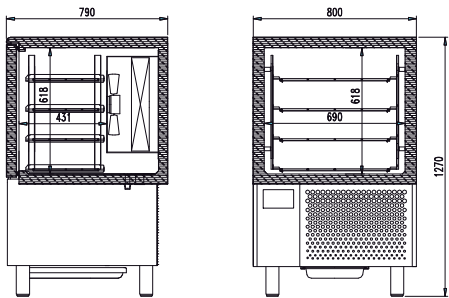
# 11. TECHNICAL SPECIFICATIONS



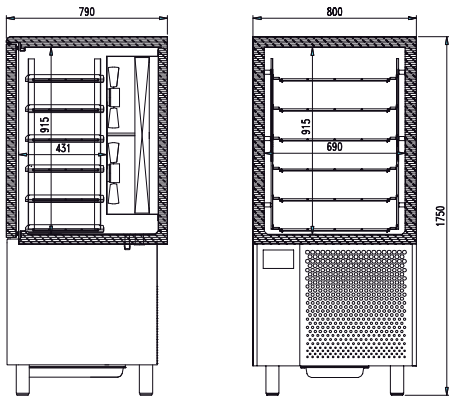
		<b>T8 OR</b>	
External dimensions	Lenght	mm	1435
	Depth	mm	790
	Height	mm	870
Weight (net)		Kg	190



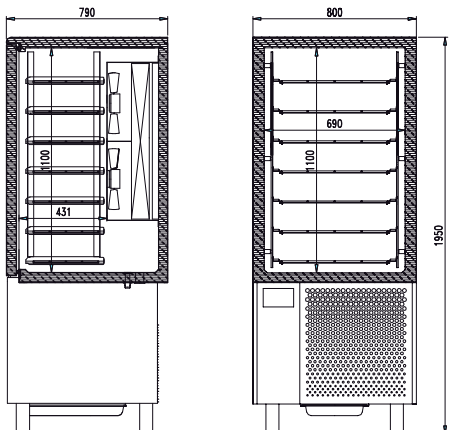
		<b>T5</b>	
External dimensions	Lenght	mm	800
	Depth	mm	700
	Height	mm	920
Weight (net)		Kg	120



		<b>T8</b>	
External dimensions	Lenght	mm	800
	Depth	mm	700
	Height	mm	1270
Weight (net)		Kg	180

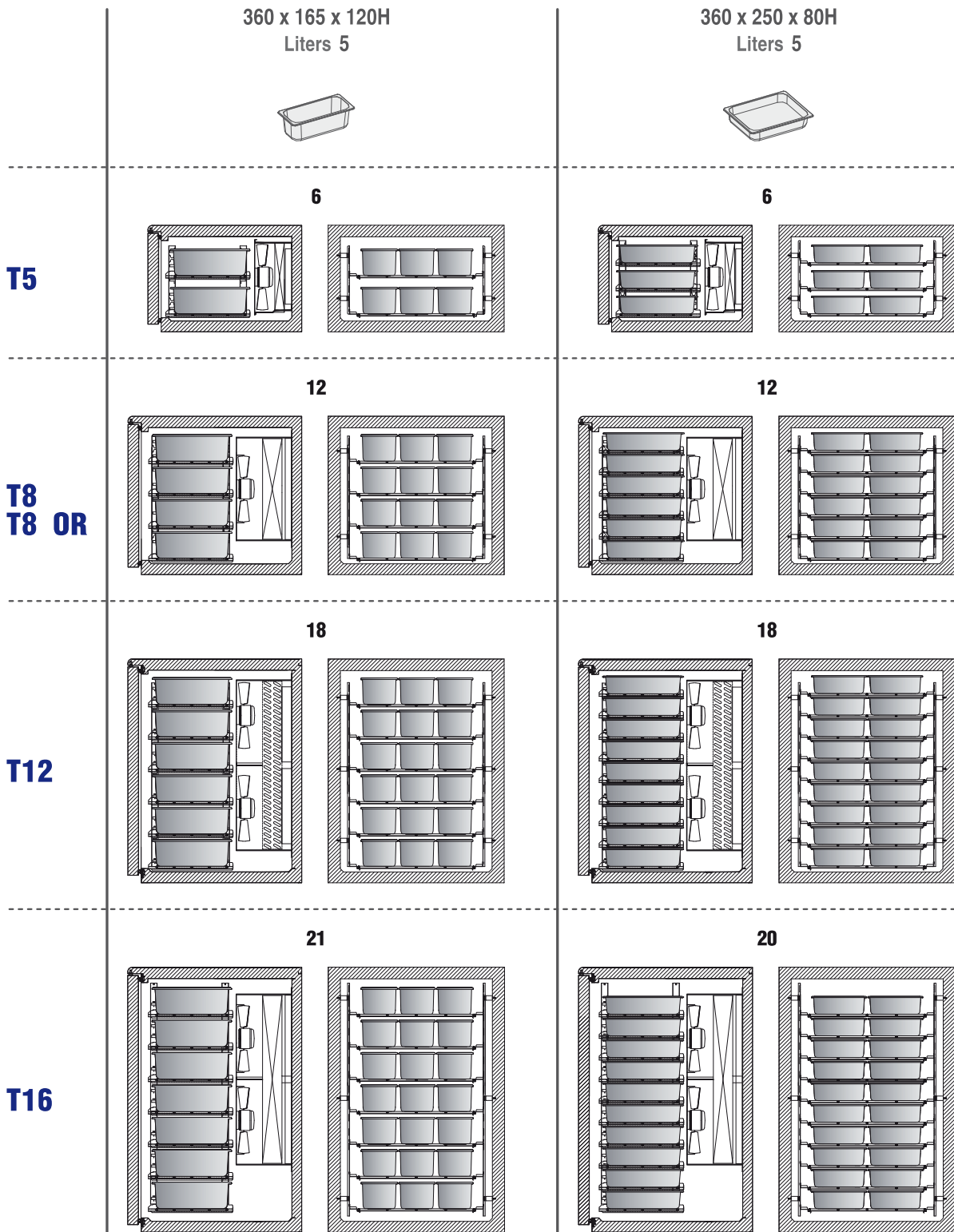


		<b>T12</b>	
External dimensions	Lenght	mm	800
	Depth	mm	700
	Height	mm	1750
Weight (net)		Kg	210



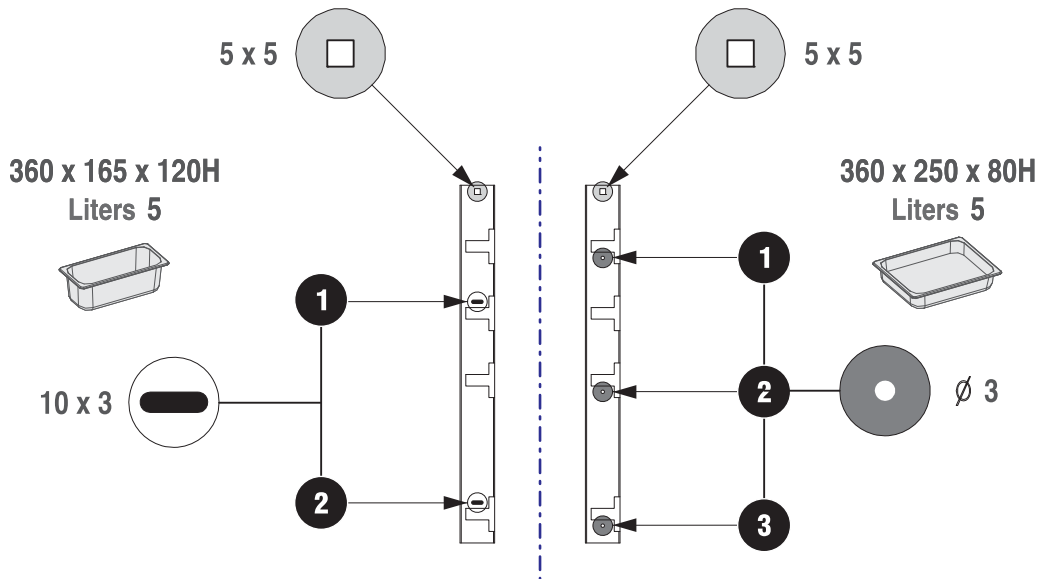
		<b>T16</b>	
External dimensions	Lenght	mm	800
	Depth	mm	700
	Height	mm	1950
Weight (net)		Kg	240

# 11.1 CONTAINERS ARRANGEMENT

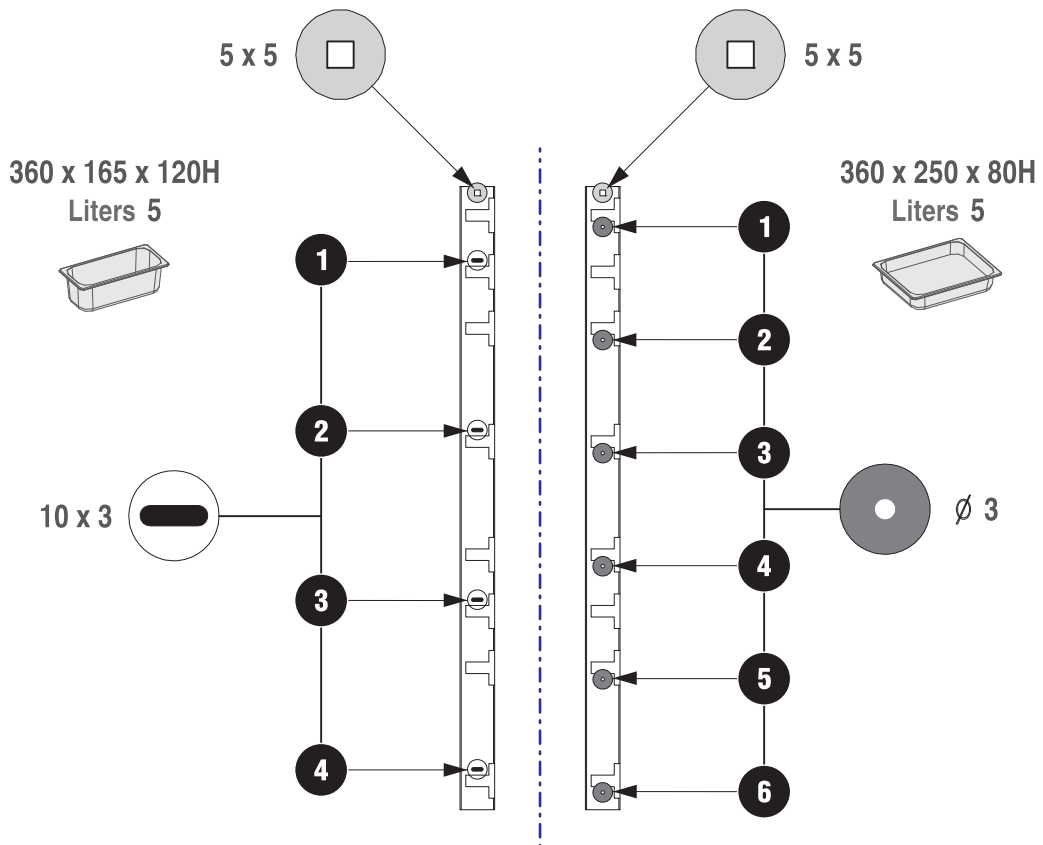


## 11.2 KIT SUPPORTS ICE CREAM

### T5

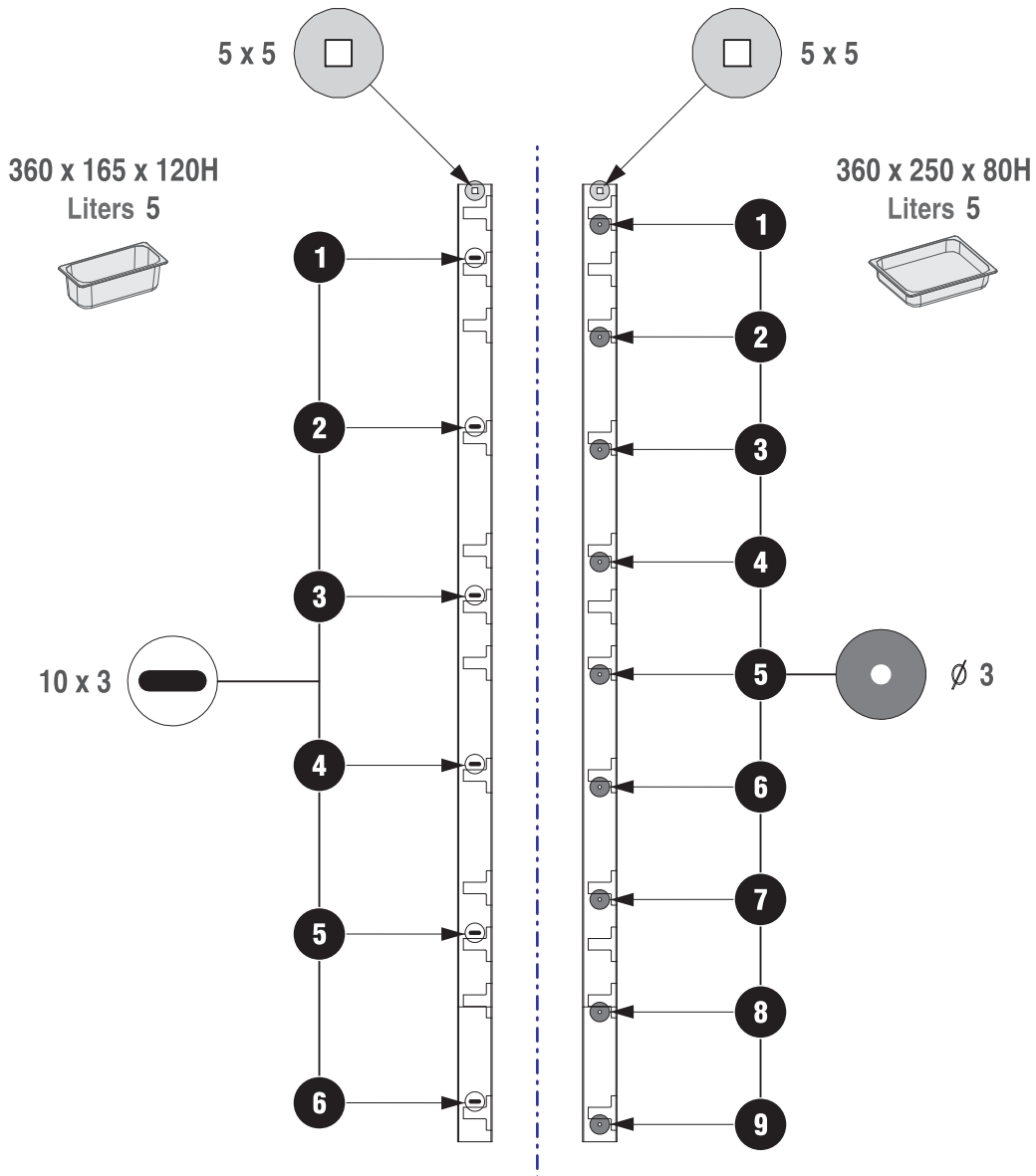


### T8



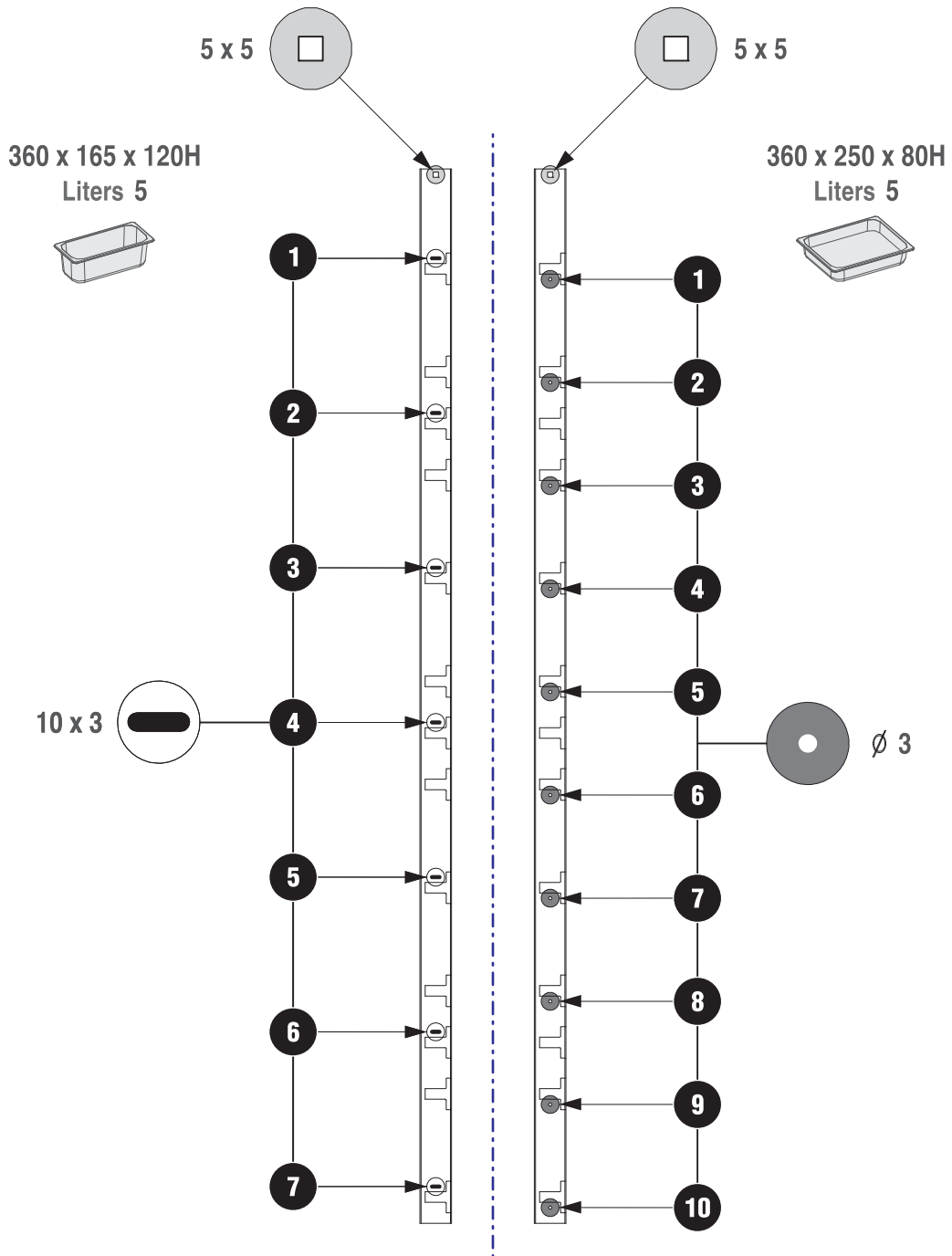
## 11.2 KIT SUPPORTS ICE CREAM

### T12



## 11.2 KIT SUPPORTS ICE CREAM

### T16

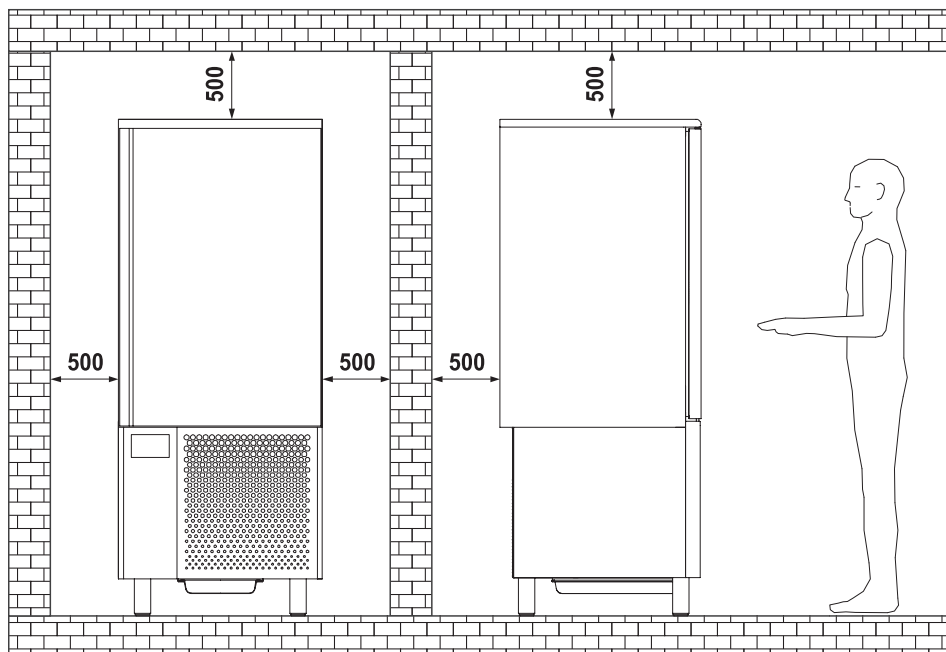


### 11.3 INSTALLATION



#### Attention

It is fundamental to respect the distances indicated (mm) for correct installation of the appliance.



### 11.4 LOAD LIMITS



#### Attention

It is fundamental **not to exceed** the load limits indicated in order not to alter the correct air circulation and thus prevent a high product temperature.



The limits given refer to a static load and evenly distributed. Are therefore excluded dynamic overloads due to loading operations violent, ranging absolutely avoided for safety reasons.

## 11.5 POSITIONING/LEVELLING



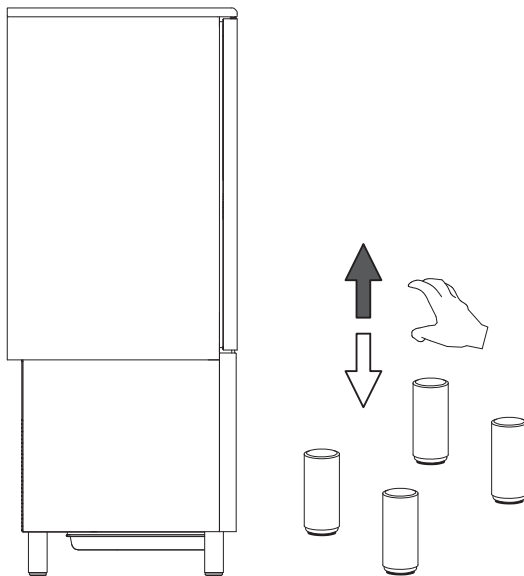
### Attention

#### ADJUSTABLE LEVELING FEET

The equipment is set up with adjustable leveling feet in height.

#### LEVELLING

It is absolutely necessary after placement level the equipment to the floor.

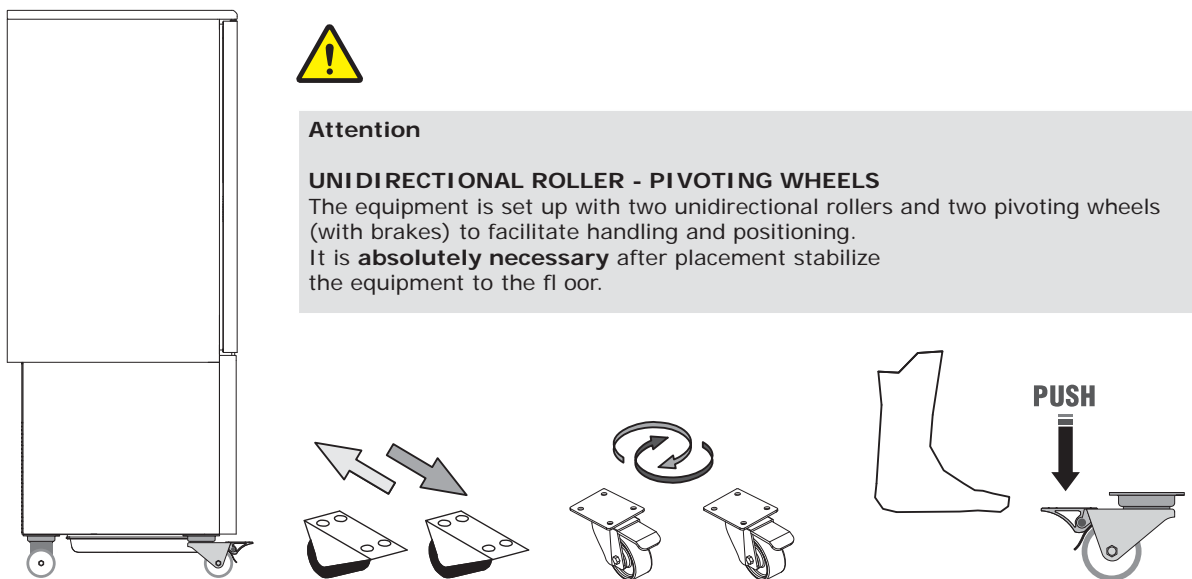


### Attention

#### UNIDIRECTIONAL ROLLER - PIVOTING WHEELS

The equipment is set up with two unidirectional rollers and two pivoting wheels (with brakes) to facilitate handling and positioning.

It is **absolutely necessary** after placement stabilize the equipment to the floor.



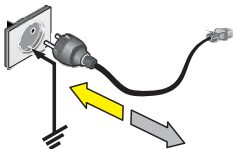
## 12. CONTROL PANEL



### START-UP

Press the master switch network.

Plug the appliance in at the socket supplied by the customer, ensuring that the plug is fitted with an earth contact and that there are no multiple sockets connected to it; the equipment automatically starts.



The equipment starts automatically.

### USER INTERFACE



The equipment is equipped with an electronic control unit which is equipped with a manual in itself to which reference is made for every detail.




#### Attention

The electronic control board is installed already programmed.  
Any changes to the control board settings can be carried out exclusively by qualified technical personnel.



## 13. CLEANING

EXTERNAL	
<b>STAINLESS STEEL</b>	Only use warm water and non-aggressive detergents and then rinse and dry using a soft cloth.
<b>ACRYLIC OR POLYCARBONATE</b>	Wash with lukewarm water, using a soft cloth or a chamois cloth. Do not use detergents, alcohol, acetone or solvents. Do not use abrasive cloths or sponges.
<b>GLASS</b>	Only use products specifically designed for cleaning glass. We do not recommend using tap water, which may leave calcium deposits on the surface of the glass.

INTERNAL
 <p><b>Attention</b> Do not scrape the ice from the walls with pointed tools, the surfaces will be ruined. Do not use high pressure appliances (e.g. steam generators).</p> <ol style="list-style-type: none"> <li>1. Remove the product contained in the refrigerated compartment and place it immediately in a special refrigerator conservative to ensure proper storage.</li> <li>2. Turn off the equipment.</li> <li>3. Remove accessories manually removable (eg. Sliding, grills, ice cream containers, etc).</li> <li>4. Wait at least 4 to 6 hours for the possible presence of ice on the evaporator is fully dissolved before proceeding with cleaning of 'equipment. We suggest in this regard, you wait for the next day to make sure that the defrosting is completely done. Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.</li> <li>5. Remove (if present) the drain plug of the tank bottom to drain the defrost water.</li> <li>6. Clean the side panels and the bottom of the tank using a mild detergent, warm water and a cloth or sponge. Do not use sharp tools. Rinse thoroughly and dry with an absorbent cloth.</li> <li>7. If the equipment was joined to a floor drain, slide lukewarm water containing a sanitizing solution suited to the specific application. The amount of solution to be used should be such as to ensure a perfect removal of any residual product and proper sanitation along the entire path of the drainage.</li> <li>8. If the equipment is not joined to a floor drain, follow the procedure referred to above. The rinse water collected in the tank will be positioned inside the base of the apparatus. Proceed also to cleaning and sanitizing of the drip tray.</li> <li>9. Fit the accessories that were removed (step 3).</li> <li>10. Turn on the equipment and allow to cool on the bench until it reaches the desired temperature before reintroducing foods.</li> </ol>

## 13. CLEANING

### CONDENSING UNIT



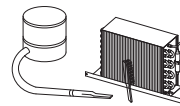
#### Attention



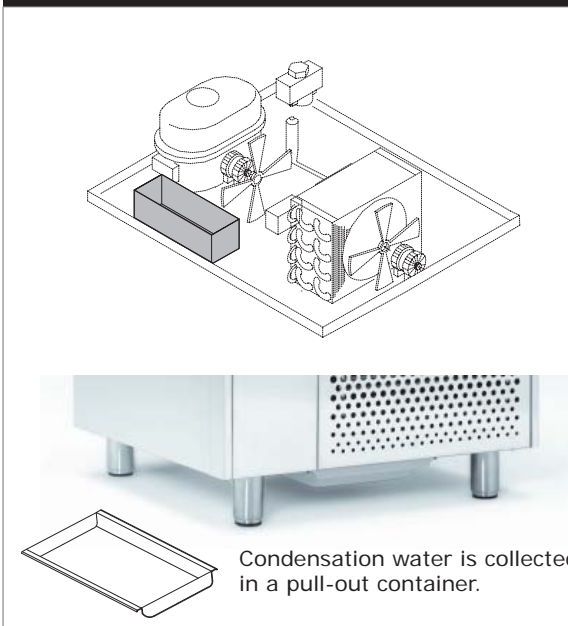
Turn off the product, wait a few hours until the equipment of the condensing unit has reached a temperature close to that of the environment.

Remove the screws fixing the protection grid (front and rear) and remove them as shown.

Clean the condensing unit using a suction brush.  
Clean the **condenser** with a soft bristle brush; make sure you do not bend the condensing unit springs whilst cleaning it.



### DEFROST WATER COLLECTION TRAY (IF PRESENT)



Condensation water is collected in a pull-out container.

#### Attention



Clean based on use and as needed and in certain environmental conditions (e.g., high humidity, low environmental temperature, presence of dust, etc.) in order to avoid the incorrect and complete evaporation of the water and/or the presence of unpleasant odours.

Sanitize the tray with specific products.

## 13. CLEANING

### SEAL DOOR



#### Attention



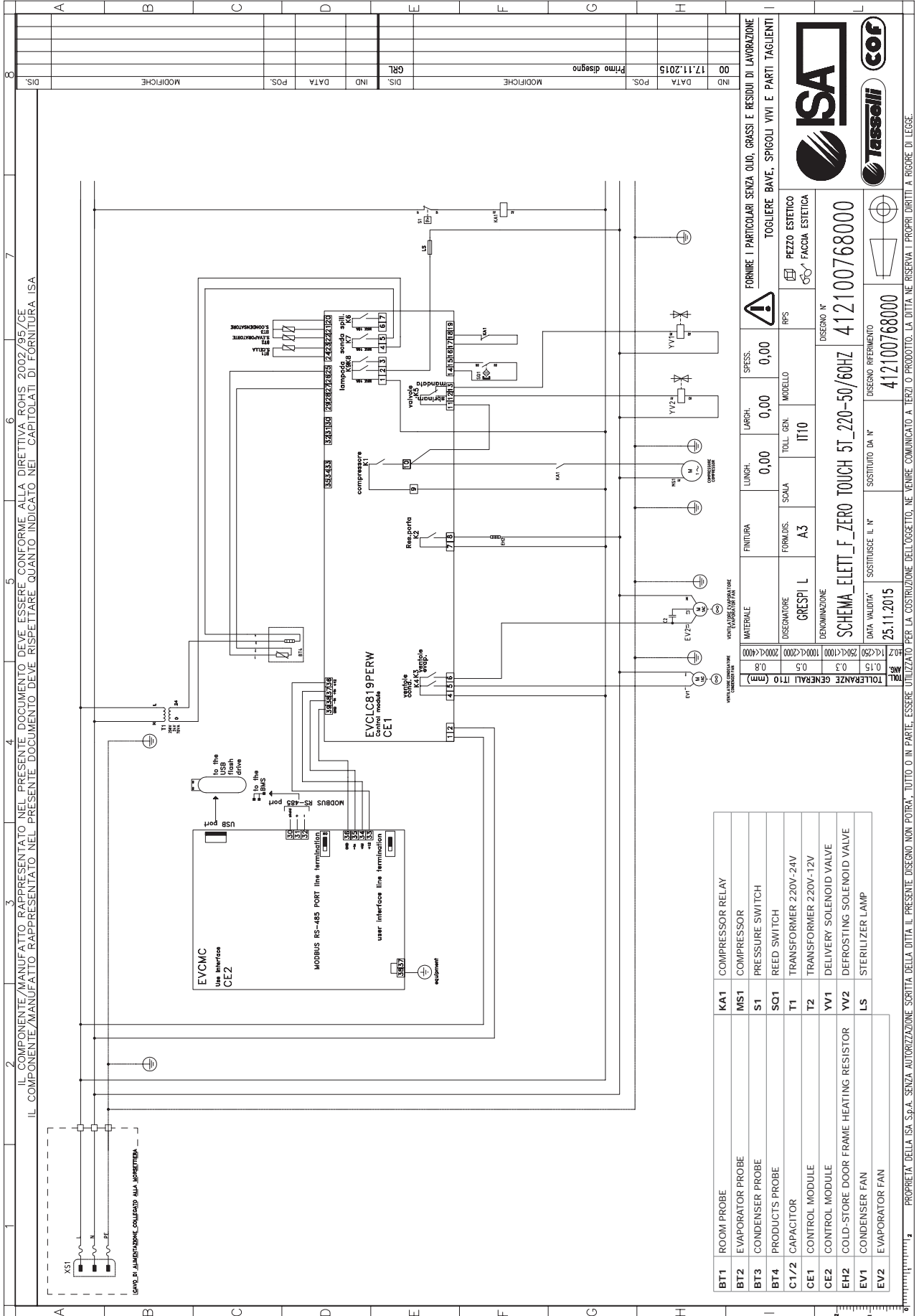
Clean the door gaskets every three months, the seals must be kept clean and flexible to ensure the perfect fit.

A light application of "Vaseline" on the zipper seals help keep them flexible and ensure good adhesion.

## 14. PROLONGED APPLIANCE SWITCH-OFF

- Remove the product contained in the cabinet and put it immediately in a relevant cold storage container in order to guarantee correct preservation.
- Open the equipment and wait for it to reach room temperature and then clean it.
- Leave the door/sliding panels open by 2-3 cm so as to guarantee circulation of the air and prevent the formation of mould and bad smells inside the appliance.
- The appliance, with or without the packaging, should be carefully stored inside warehouses or in areas away from the elements and direct sunlight, at a temperature between **0** and **+40** °C.

1 - WIRING DIAGRAM - 412100768000



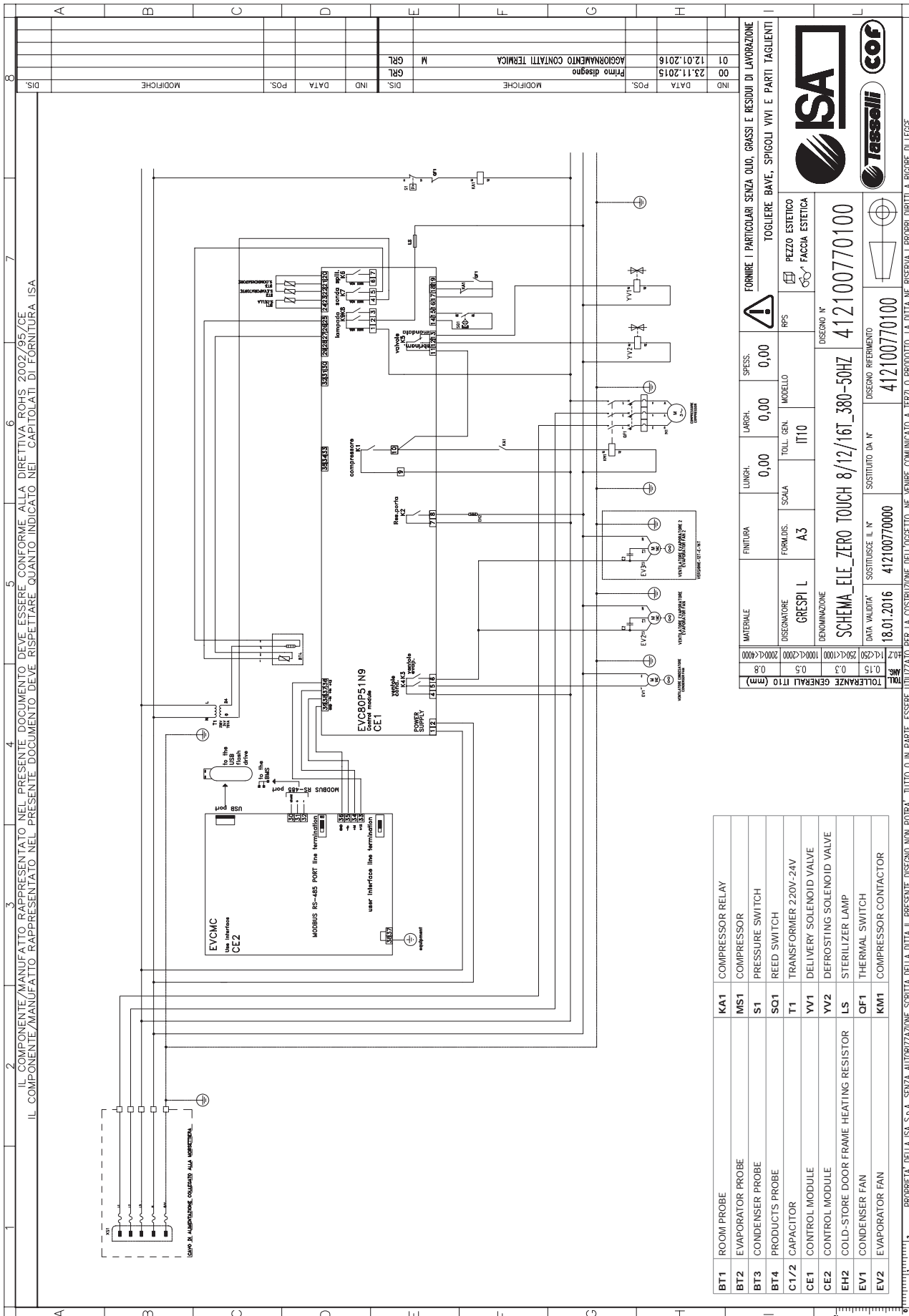
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 IL COMPONENTE/MANUFATTO RAPPRESENTATO NEL PRESENTE DOCUMENTO DEVE RISPETTARE QUANTO INDICATO NEL CAPITOLATO DI FORNITURA ISA

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<p>FORMARE I PARTICOLARI SENZA QUO, GRASSI E RESIDUI DI LAVORAZIONE                  TOGLIERE BAVE, SPIGOLI VIVI E PARTI TAGLIENTI</p>													
<p>FINITURA LUNGH. 0,00 LARGH. 0,00 SPESSE. 0,00</p>													
<p>FORMIDIS. A3 TOLL. GEN. IT10 MODELLO RPS</p>													
<p>DEGNAZIONE SCHEMA_ELETT_F_ZERO TOUCH 5T_220-50/60HZ 412100768000</p>													
<p>DATA VALIDITA' 25.11.2015</p>													
<p>SOSTITUISCE IL N° SOSTITUITO DA N°</p>													
<p>DESIGNO N° 412100768000</p>													
<p>PEZZO ESTETICO FACCIA ESTETICA</p>													



PROPRIETA' DELLA ISA S.p.A. SENZA AUTORIZZAZIONE SCRITTA DELLA DITTA IL PRESENTE DISEGNO NON POTRA' TUTTO O IN PARTE, ESSERE UTILIZZATO PER LA COSTRUZIONE DELL'OGGETTO, NE VENIRE COMUNICATO A TERZI O PRODOTTO. LA DITTA NE RISERVA I PROPRI DIRITTI A RIGORE DI LEGGE.

2 - WIRING DIAGRAM - 412100770100



BT1	ROOM PROBE	KA1	COMPRESSOR RELAY
BT2	EVAPORATOR PROBE	MS1	COMPRESSOR
BT3	CONDENSER PROBE	S1	PRESSURE SWITCH
BT4	PRODUCTS PROBE	SO1	REED SWITCH
C1/2	CAPACITOR	T1	TRANSFORMER 220V-24V
CE1	CONTROL MODULE	VW1	DELIVERY SOLENOID VALVE
CE2	CONTROL MODULE	VW2	DEFROSTING SOLENOID VALVE
EH2	COLD-STORE DOOR FRAME HEATING RESISTOR	LS	STERILIZER LAMP
EV1	CONDENSER FAN	OF1	THERMAL SWITCH
EV2	EVAPORATOR FAN	KM1	COMPRESSOR CONTACTOR

**FORMARE I PARTICOLARI SENZA OLIO, GRASSI E RESIDUI DI LAVORAZIONE**  
**TOGLIERE BAYE, SPICCOLI VIVI E PARTI TAGLIANTI**

**ISA**  
**TASSOILL**  
**COF**

**PEZZO ESTETICO**  
**FACCIA ESTETICA**

**DESIGNO N°**  
**SCHEMA\_ELE\_ZERO TOUCH 8/12/16T\_380-50HZ 412100770100**

**DESIGNO RIFERIMENTO**  
**412100770100**

**FORMIDIS:** GRESEPI L A3  
**SCALE:** IT10  
**TOGL. GEN.:** IT10

**FINITURA:** LUNGH. 0,00 LARGH. 0,00 SPESS. 0,00  
**MODELLO:** IT10

**FORMIDIS:** GRESEPI L A3  
**SCALE:** IT10  
**TOGL. GEN.:** IT10

**DESIGNO N°**  
**SCHEMA\_ELE\_ZERO TOUCH 8/12/16T\_380-50HZ 412100770100**

**DESIGNO RIFERIMENTO**  
**412100770100**

**FORMIDIS:** GRESEPI L A3  
**SCALE:** IT10  
**TOGL. GEN.:** IT10

**FORMIDIS:** GRESEPI L A3  
**SCALE:** IT10  
**TOGL. GEN.:** IT10

**FORMIDIS:** GRESEPI L A3  
**SCALE:** IT10  
**TOGL. GEN.:** IT10





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**Controller for top-class blast chillers, with colour TFT touch-screen graphic display, in split version that can be built into the unit**

# Important

Read this document carefully before installation and before using the device and take all the prescribed precautions.

Keep this document with the device for future consultation.

The following symbols are used in this document:

💡 indicates a suggestion

⚠ indicates a warning.

The device must be disposed of according to local regulations governing the collection of electrical and electronic waste.



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# 1 USER INTERFACE

## 1.1 Status and black-out

The interface has the following operating modes:

- "off" (device is not powered);
- "stand-by" (the device is powered but switched off);
- "on" (the device is powered, switched on and awaiting start-up of an operating cycle);
- "run" (the device is powered, switched on and running an operating cycle).

"switch on or the device" means from "stand-by" to "on" and reverse mode.

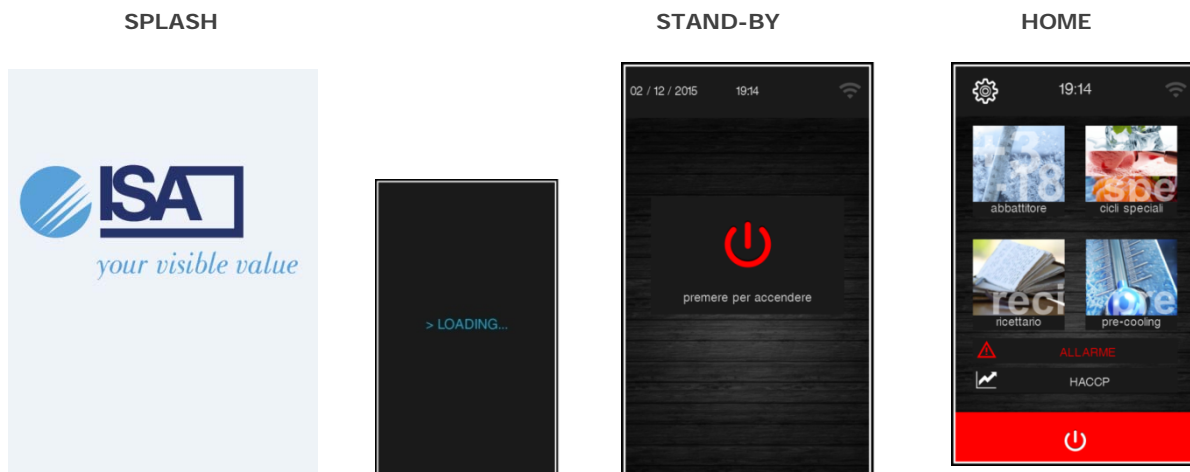
**BLACK-OUT** If the power supply fails and restores during "stand-by" or "on", the unit back to its previous status.

If the power supply fails and restores during "run" mode, the device will operate as follows:

- if blast chilling or freezing was in progress, the cycle will resume, taking into account the duration of the power loss;
- if a conservation cycle was running, this will continue using the same settings;
- if a proofing or slow cooking cycle was running, the cycle will continue where it left off.

## 1.2 Prima accensione del dispositivo

After connecting the power supply, the Splash page is on for some seconds. Then the unit loads the STAND-BY page, Push the "on" button to access to the HOME PAGE



**RTC ALARM** For long blackout the "RTC" clock alarm indicates that the data adjustment is necessary under Service menu.

## 1.3 Switching the device on and off

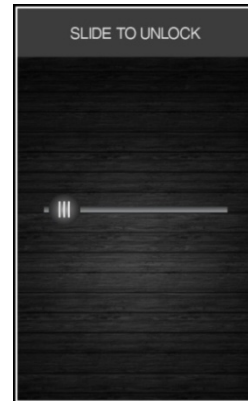
	<p>To switch the device off, press the red area at the bottom of the Home screen.</p>
	<p>To switch the device on, press the central area in the On/Stand-by screen and the Home screen will open.</p>

## 1.4 Lock/unlock keypad

---

The keypad can be locked by setting parameter E7 to 1, locking the keypad after the period of inactivity set by parameter E8.

If the keypad is locked, a pop-up will appear when it is touched indicating that it is locked and how to unlock it. It can be unlocked by dragging a finger to the right.



## 1.5 Silencing the buzzer

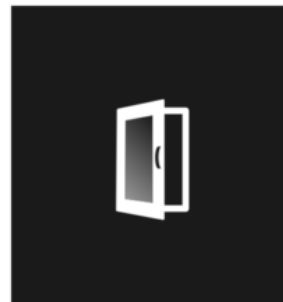
Press any key while the buzzer is sounding.

## 1.6 Door-open signal

---

When the door is opened the signal shown below will appear on the display.

Press any area on the display to remove this signal.



## 2 FUNCTION MODES

### 2.1 Initial information on operating cycles

The device is capable of operating in the following modes:

- temperature controlled blast chilling and conservation
- hard temperature controlled blast chilling and conservation
- time controlled blast chilling and conservation
- hard time controlled blast chilling and conservation
- temperature controlled blast-freezing and conservation
- soft temperature controlled blast-freezing and conservation
- time controlled blast-freezing and conservation
- soft time controlled blast-freezing and conservation
- multineedle probe continuous cycle
- multi-timer continuous cycle
- pre-cooling
- proofing
- slow cooking

The following functions are also available:

- fish sanitation
- thawing
- defrosting
- ice cream hardening
- sterilisation
- heating the needle probe
- drying

For more information see the subsequent sections.

### 2.2 Initial information on the needle probe

This device is capable of managing multipoint needle probes (with up to three sensors) or multineedle probes (up to three probes).

To set the type of probe to be used, configure parameter P3:

- P3=0 no needle probe;
- P3=1 a single needle probe;
- P3=2 multi needle probe (multiple independent needle probes);
- P3=3 multipoint needle probe (multiple sensors in the same probe).

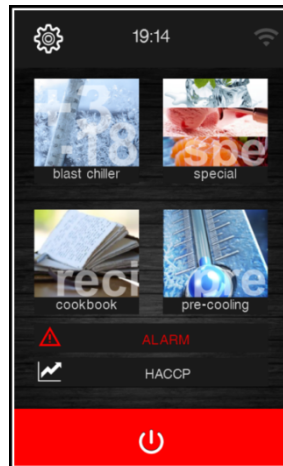
Once the type of probe has been set, parameter P9 sets:







- the number of probes, when P3=2 (multiprobe);
- the number of sensors, when P3=3 (multipoint).

If a multipoint probe is to be used for running temperature controlled blast chilling, blast-freezing and sanitation cycles, the hottest sensor will be used as the reference point. For slow cooking cycles and for heating the probe, the coldest sensor will be used.

## 2.3 Selecting the operating mode

All the operating functions can be accessed from the Home screen by selecting the desired area.



	<p>Enables the blast chilling mode in which it is possible to select/set a standard blast chilling/blast-freezing cycle, a multineedle probe or multi-timer cycle, see chapter 7.</p>
	<p>Enables special cycles in which it is possible to select one of the special cycles available according to the configuration of the machine, see chapter 4.</p>
	<p>Enables recipe mode to be selected, with recipes saved in the memory, see chapter 9.</p>
	<p>Makes it possible to select a cabinet pre-cooling cycle, see chapter 6.</p>
	<p>This area is displayed if an alarm is in progress.</p>
	<p>Pressing this area enables the historical data stored during operation to be seen. See sections 7.6.2 and 12.1.</p>

### 3 BLAST-CHILLING MODE



Press on this area to open the screen shown below.

Each areas allows you to reach the following cycles:

- blast chilling,
- blast-freezing,
- continuous cycle and customized cycle,
- details below.




	<p><b>CHILLING</b> Enables selection of a standard blast chilling cycle, uploading the relevant pre-settings. On the same screen it is possible to select hard mode when blast chilling consists of two phases with different set points. When blast chilling is complete the corresponding conservation phase is run, with the set points established by the blast chilling mode selected. See sections 7.1 and 7.2.</p>
	<p><b>FREEZING</b> Enables selection of a standard blast-freezing cycle, uploading the relevant pre-settings. On the same screen it is possible to select soft mode when blast-freezing consists of two phases with different set points. When blast-freezing is complete the corresponding conservation phase is run, with the set points established for the blast-freezing mode selected. See sections 7.1 and 7.2.</p>
	<p><b>CONTINUOUS CYCLE</b> Enables selection of a continuous blast chilling/blast-freezing cycle, where it is possible to set multiple operating timers. For more detail see section 7.3.</p>
	<p><b>CUSTOM</b> Press on this area to start up the procedure for setting a customized cycle. This cycle makes it possible to set up to four phases. Once the phases are set they can be started up or the program set can be saved in the recipe book. See section 7.4</p>
	<p>This area is displayed if an alarm is in progress.</p>





### 3.1 Blast chilling/blast-freezing and conservation

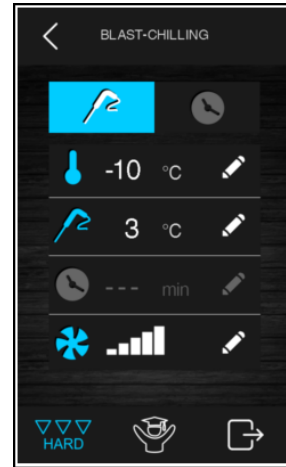


Pressing one of these areas redirect you to blast chilling or blast-freezing cycle setup.

**TEMPERATURE CONTROL** If enabled, the needle probe key  lights up blue by default. With needle probe error the cycle always run with time control.

**TIME CONTROL** press timer area  time controlled area will light up blue.

**CHANGE SETTINGS** pressing  area allows you to change each value shown on the display.



**HARD and SOFT** phases can be included or removed by touching the low left icon.

**EXPERT** to change extra data, press  area:

- Hard or Soft parameters
- Holding (Conservation) Setpoint
- Fan Speed if using a fan driver

**SETTING READY** push  area to proceed.

**SUMMARY** Before starting the cycle setting list is reported as shown aside. Check the configuration.

**SAVE CUSTOM SETTINGS** Press area  save.


**START CYCLE** press lower green  area.

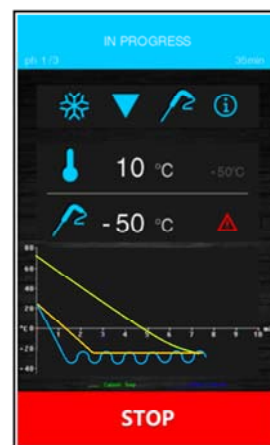


**RUNNING CYCLE** The unit starts checking the insert probe if enabled. If the test fails the cycle automatically switches to time control, and an alarm appears.

The display will show the main set points and a temperature trend in graph.

**INFORMATION** press **(i)** if you want to know the probe run time values, the relay status and the alarms.

**STOP** The cycle can be stopped at any time by pressing the  key.



When a cycle is properly finished, the needle probe has reached the right temperature or the time period is finished, the buzzer sounds and the conservation phase begins.

The conservation phase is not timed and is only terminated when the **STOP** key is pressed.

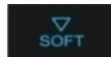
**WARNING** The graph available only during the run time.  
Power fail reset the screen.



### 3.2 Hard chilling, soft freezing phase and Holding

The standard cycles are selectable by configuration:

1. CHILLING
2. CHILLING + HOLDING
3. HARD+CHILLING+HOLDING
4. FREEZING
5. FREEZING + HOLDING
6. HARD+FREEZING +HOLDING



#### CHILLING CYCLES

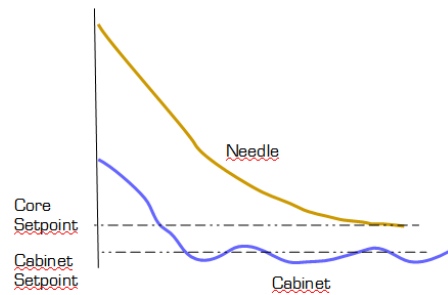
Enabling the HARD phase the additional low temperature cabinet and core setpoints are included, see difference between A and B graphs.

#### FREEZING CYCLES

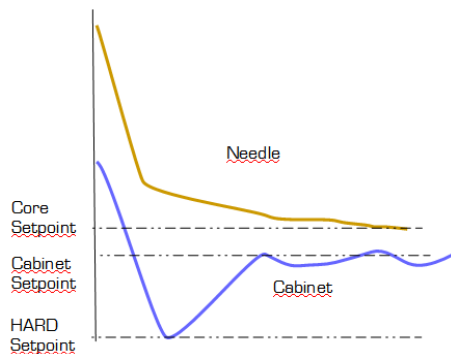
Enabling the SOFT phase the additional medium temperature cabinet and core setpoints are included, see C graphs.

Infinite HOLDING phase starts at the end of the CHILLING or FREEZING cycles.

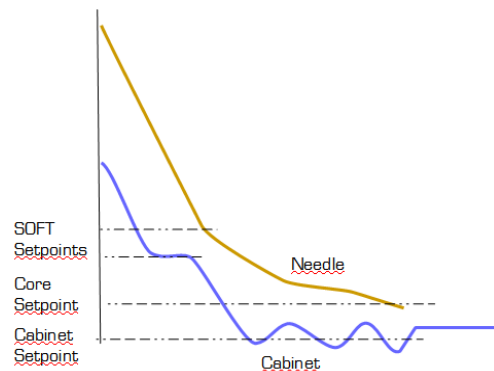
A) CHILLING



B) HARD + CHILLING



C) SOFT+ FREEZING

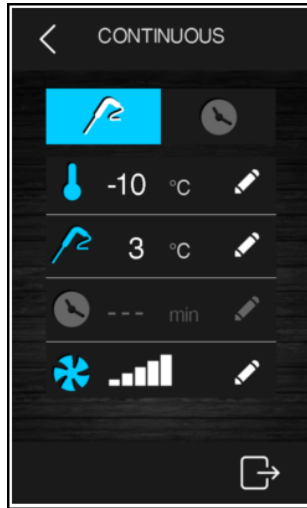


### 3.3 Continuous cycle

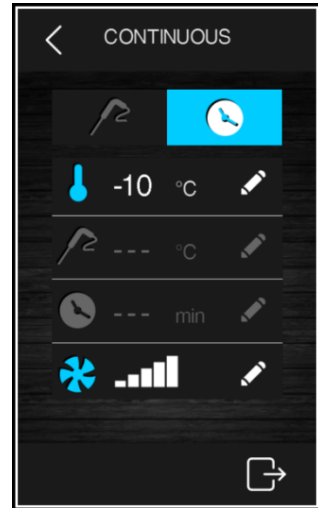


Pressing on this area enables selection of a continuous cycle and it can be run in multi needle probe mode if a temperature controlled cycle has been selected, or in multi-timer mode if a time controlled cycle has been selected. If only a single needle probe has been selected, only the multi-timer mode can be used.


Once the cycle has been selected, a screen opens up on which the cabinet temperature values and fan speed can be set, as well as the product temperature values (in the multineedle probe cycle).



needle probe



time control

Press the  key to start up the cycle and this will only finish when all the needle probes have reached the set temperature or all the timers have elapsed, after which the controller moves on automatically to the conservation phase.

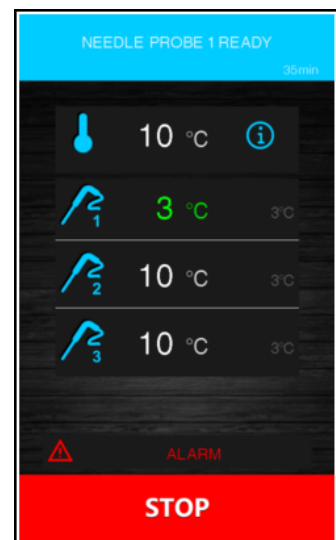
#### 3.3.1 Multi needle probe mode

The continuous cycle using multineedle probes can be run provided the parameter for the type of needle probe has been correctly set (P3=2).

The controller can manage up to three needle probes, using parameter P9 to set these up.

While the cycle is in progress, each time the door is opened and closed the controller checks that the various needle probes have been properly inserted and the cycle is only terminated when all the probes inserted have reached the desired temperature.

When each needle probe has reached the set temperature, the buzzer sounds and the display indicates this, showing the temperature of the probe in question in green. The diagram below shows an example of the display when only one probe has reached the set temperature.



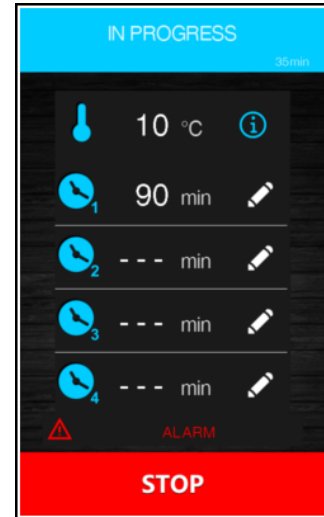
### 3.3.2 Multi-timer mode

The time controlled cycle makes it possible to set up to four timers.

The cycle starts up activating only the first timer with its pre-set values. The other timers and their pre-set values can be enabled by pressing the pencil icon and setting a time once the cycle is underway.

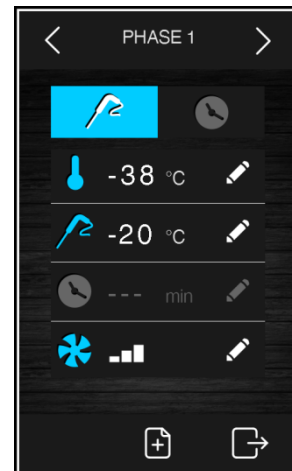
When the time period is set and the timer setting confirmed, the timer count starts up immediately. Each timer operates independently and on completion of the period it can be reset, starting the timer count up again.

The cycle only terminates when all the set timers have elapsed. When the timer count is complete the buzzer sounds and the display shows in green the value "0 min" for the relevant timer.






### 3.4 Custom cycle



The customized mode makes it possible to set up a cycle consisting of a maximum of 4 phases (3 blast chilling and 1 conservation) and these can be temperature or time controlled or a mixture of both.

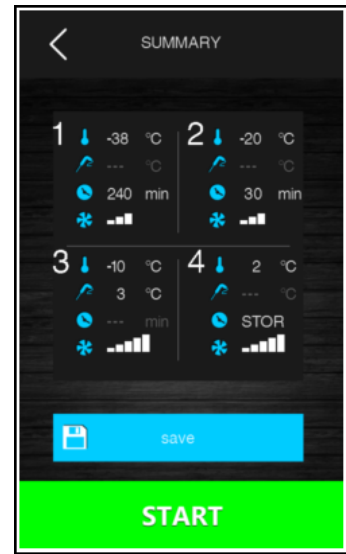


The customized cycle starts up and activates the first phase, which by default is a needle probe phase. It is possible to change the probe phase to a time controlled phase and to set the relative set points.

To add any more phases press area , while to eliminate any phase previously set in the program, press area . It is possible to move between the various phases using the arrows at the top of the screen.


Once the desired phases have been selected and set up, press area  to confirm that the settings are complete and a summary screen will be displayed.






Press area  to start up the cycle or area  to save it in the recipe book.



### 3.5 Setting the set points


#### 3.5.1 Setting the cabinet temperature set point

When selecting a continuous or customized blast chilling or blast-freezing cycle, the pre-set cabinet temperature, product temperature, time and fan speed values when the parameters were set are loaded. These can be modified by the user within the permitted range for the parameters. To make a modification press the  key and the screen shown below will appear.


Set the desired value using the   key or the  key. Once set-up is complete press the  key to confirm the value and return to the previous screen, or press the  key to reload the pre-set values and return to the previous screen.




#### 3.5.2 Setting the product temperature set point





Proceed as described for the cabinet set point, after pressing area  for the product temperature (or the temperature indicated by the needle probe).

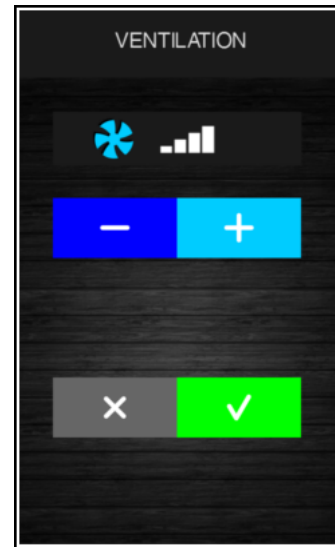
### 3.5.3 Setting the cycle duration

Proceed as described for the cabinet set point, after pressing area  for the cycle duration.


### 3.5.4 Setting the fan speed

To modify this, press area  for the fan speed and the screen shown below will open.


Set the desired value pressing the   key. Once set-up is complete press the  key to confirm the value and return to the previous screen, or press the  key to reload the pre-set values and return to the previous screen.




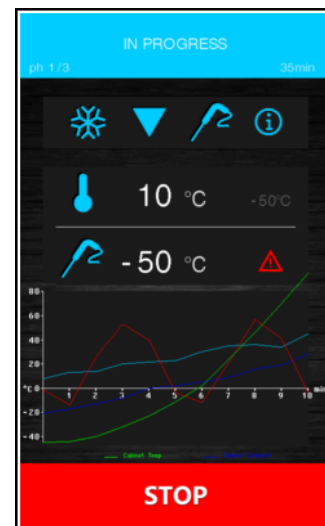
## 3.6 Running the cycle

Pressing the  key starts up the cycle as it has been set. If it is a temperature controlled cycle, the blast chilling/blast-freezing phases terminate when the needle probe, or probes, reach the set temperature. If it is a time controlled cycle, it ends when the timer period, or periods, have elapsed.

The screen shows a summary of the features of the cycle in progress and a chart with the various values required (cabinet temperature and product temperature for temperature controlled cycles and cabinet temperature and time period for time controlled cycles).

Press area  to see the probe values, input and output status and any alarms underway.

Press area  which is only active when an alarm is underway, to see the type of alarm in progress.



### 3.6.1 Needle probe insertion test

If the needle probe is enabled or if parameter P3 is set to a value other than 0, temperature controlled cycles are preceded by a two-phase test to check that the needle probe is correctly inserted. If the needle probe is not enabled or if parameter P3 is set at 0, only time controlled cycles can be selected.

The test consists of two phases, the second only carried out if the first was not successfully completed. Phase one is successfully completed if the gap between the "temperature detected by the needle probe" and the "cabinet temperature" is greater than the value set by parameter r17 in at least three out of five checks, these checks being performed at ten-second intervals. The second phase is successfully completed if the gap between the "temperature detected by the needle probe" and the "cabinet temperature" is greater than 1°C/1°F, as compared to the check previously carried out, in at least six out of eight checks, these checks being performed at intervals corresponding to 1/8 of the time set by parameter r18.

If a multineedle probe is being used, the test is performed for each probe.

If a multipoint probe is being used, when the test is concluded with a positive result for at least one of the sensors, the device will function as follows.

- The sensor showing the lowest temperature is then used as the point of reference for heating the needle probe.
- The sensor showing the highest temperature is then used as the reference point for the end of the temp. cycles.
- Any sensors for which the test is not completed with a successful outcome are not subsequently used.

If the test fails to record a positive outcome, or if the needle probe is not inserted, the buzzer sounds and the cycle automatically changes to time-controlled.

### 3.6.2 Recording historical data

While a cycle is in progress, records are kept of the temperature values of any probes enabled, output activations, input status, defrosting cycles carried out and any alarms. Type of logged data can be configured in Service menu, data are available for subsequent download to a USB device.

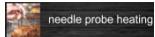
### 3.6.3 End of a cycle

When the temperature controlled cycle is successfully completed, the core temperature is reached before maximum time, the conservation phase is activated:



If the temperature controlled cycle is not completed in the allotted time, this problem will be signalled by the appearance of the alarm icon, but the blast chilling cycle will still continue.

In temperature controlled cycles, pressing the  key will bring up the screen granting access to the following functions.



heat needle probe to remove it from the product;



record the cycle just performed in the memory.

At the end of a time controlled cycle, the initial screen for the blast chilling/blast-freezing modes will appear.

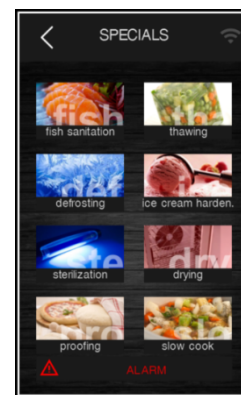
## 4 SPECIAL CYCLES MODE












Press this area on the Home page to Special cycles.

Some functions are available only via parameter configuration or HW optional.

**Note** If both the sterilisation and the needle probe heating cycles are enabled, two alternatives will appear on the special cycles page, according to the temperature indicated by the needle probe: if this temperature is below  $-1^{\circ}\text{C}$ , an icon will appear to select the needle probe heating option, if it is above  $0^{\circ}\text{C}$ , the sterilisation icon will appear.



	Pressing this area enables selection of a fish sanitation cycle (a function always shown); see section 4.1.
	Pressing this area enables selection of a thawing cycle (a function always shown); see section 4.2.
	Pressing this area enables selection of a manual defrost cycle (a function always shown); see section 4.3.
	Pressing this area enables selection of an ice cream hardening cycle (a function always shown); see section 0.
	Pressing this area enables selection of a sterilisation cycle (a function activated by parameter); see section 4.5.
	Pressing this area enables selection of a needle probe heating cycle (a function activated by parameter if at least one needle probe is being used); see section 4.6.
	Pressing this area enables selection of a drying cycle (a function activated with the door closed); see section 8.7.
	Pressing this area enables selection of a proofing cycle (a function activated by parameter); see section 4.8. Parameter E12, with optional module
	Pressing this area enables selection of a slow cooking cycle (a function activated by parameter); see section 4.9. Parameter E12, with optional module



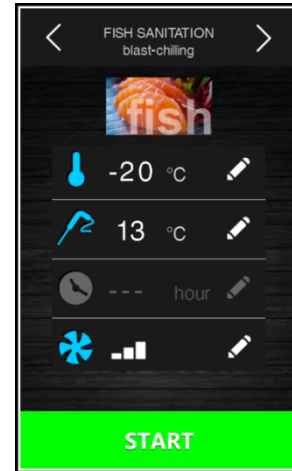
## 4.1 Fish sanitation



Pressing this area enables selection of a fish sanitation cycle.

This special cycle consists of the following phases:

- blast chilling with the cabinet set point set by parameter r19 and with the product temperature set point set by parameter r20;
- holding for the time period set by parameter r21 and the cabinet set point given by r20;
- conservation with the cabinet set point given by r22.

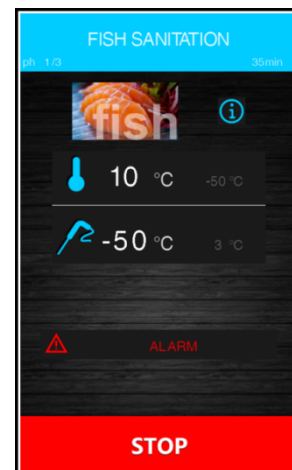


The arrows at the top make it possible to move between the various sanitation phases to see/modify the set points.

After the function is selected, the screen with the pre-settings will be shown, that can be modified.

Pressing the  key starts up the sanitation.

While a sanitation cycle is in progress the device will show the temperature to end blast chilling, the working set point during blast chilling and the duration of the holding phase.




The sanitation cycle starts with the blast chilling phase. When the temperature recorded by the needle probe reaches the temperature to end blast chilling, the device will move on automatically to holding.

The temperature to end blast chilling (set by r20) is also the working set point during holding.

When the holding period has elapsed, the device will move on automatically to conservation.

The probe insertion test is always carried out at the beginning of the cycle: if the test is not completed, the buzzer sounds and the cycle is interrupted.

During blast chilling the device shows the temperature recorded by the needle probe, the cabinet temperature and the time elapsed since the start of the blast chilling process.

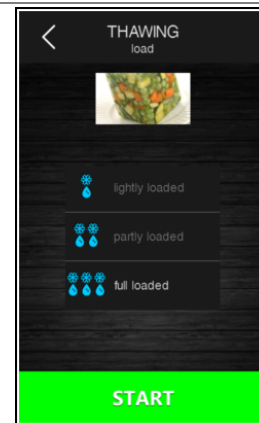
The cycle may be interrupted early by pressing the  key.

## 4.2 Thawing



Pressing this area enables selection of a thawing cycle, managed according to the load of product to be thawed, in compliance with the maximum quantity stated by the manufacturer.

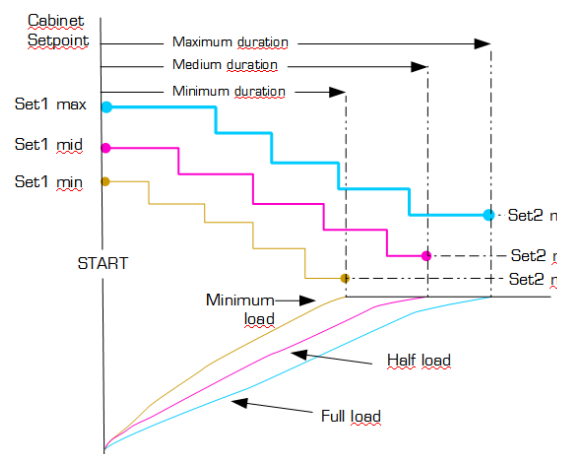
To make it easy, the quantity of product to be selected is divided into three load bands for each of which the controller will load three different sets of parameters, according to the following framework.



Load band	Initial cabinet set point	Final cabinet set point	Cycle duration
Light loaded cabinet	r25	r28	r32
Half loaded cabinet	r26	r29	r33
Full loaded cabinet	r27	r30	r34

These parameters control the set points and the duration of the thawing cycle, equally divided into five phases following on from each other as shown.

- Phase 1 set = initial set point
- Phase 2 set = phase 1 set point +  $[(\text{initial set point} - \text{final set point}) / 4]$
- Phase 3 set = phase 2 set point +  $[(\text{initial set point} - \text{final set point}) / 4]$
- Phase 4 set = phase 3 set point +  $[(\text{initial set point} - \text{final set point}) / 4]$
- Phase 5 set point = final set point

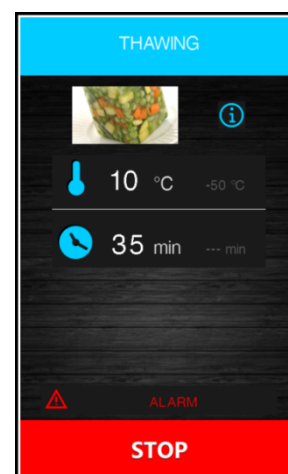


**THAWING FAN CONTROL** the parameters F29, F30, F31, F32, F33 control the ventilation, one for each phase 1..5.

**END CYCLE** the buzzer sounds and the holding phase is ON, the set point is **r31** for an indefinite period. The fan speed set parameter **F34**.

**DEFROST** is not available, while during the holding phase the defrost can be set at intervals.

**DOOR** With open door the unit runs as in normal working cycles.



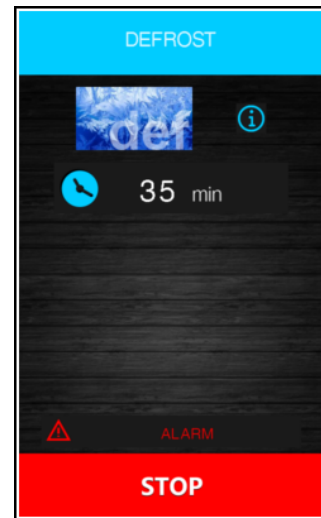
## 4.3 Defrosting



Pressing this area enables selection of a manual defrosting cycle, which is started up by pressing area **START**. When the cycle starts up the

following page is displayed.

INTERVAL OF DEFROST during the holding phase the defrost interval is defined with poarameter  $d0 < > 0$ .



Regardless of how have been started up, defrosting cycles are managed by the following parameters.

- d0 Interval between two consecutive defrosts
- d1 Type of defrost
- d2 Evaporator temperature to end defrost (can be set if P4 is set to 1)
- d3 Defrost duration
- d4 Defrost start-up at the beginning of a blast chilling/blast-freezing cycle
- d5 Defrost start-up delay from the start of conservation after blast chilling/blast-freezing
- d7 Drip duration
- d15 Minimum compressor switch-on duration for starting hot gas defrost
- d16 Pre-drip duration (can be set if hot gas defrost is selected)

The type of defrost can be selected by parameter d1. There are four ways of performing a defrost cycle.

- d1=0 Electric defrost
- d1=1 Hot gas defrost
- d1=2 Air defrost
- d1=3 Air defrost with door open

**DEFROST BEFORE A CYCLE** can be enabled with **d4=1**.

**DEFROST DELAY** defrost can be delayed (at start cycle o at beginning of conservation) by parameter d5.

**EVAPORATOR PROBE CONTROL** with evaporator probe control to start a defrost the temperature value must be lower than parameter **d2**.

**END DEFROST CONTROLS** Defrosting stops when evaporator temperature reaches d2 or d3 timer is expired. In this case there is an maximum defrost duration alarm signal.

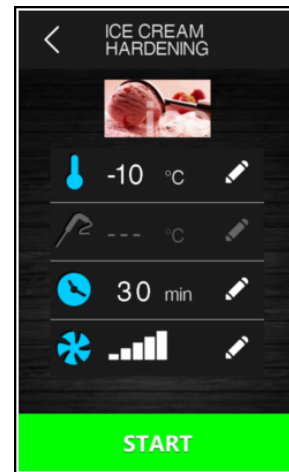
## 4.4 Ice cream hardening



Pressing this area enables selection of an ice cream hardening cycle.

This is a time controlled blast-freezing cycle with the set point provided by parameter r8 and the duration by parameter r24. At the end of the time set by r24, there is no move to a conservation phase, the hardening cycle continues until the **STOP** key is pressed.

If the door is opened the time count stops and restarts when the door is closed.



## 4.5 Cabinet sterilisation



Pressing this area enables selection of a sterilisation cycle.

This function can be activated by parameter and can only be used if u1=1. If the needle probe heating function has also been enabled, the sterilisation icon is shown if the temperature recorded by the needle probe is above 0°C .

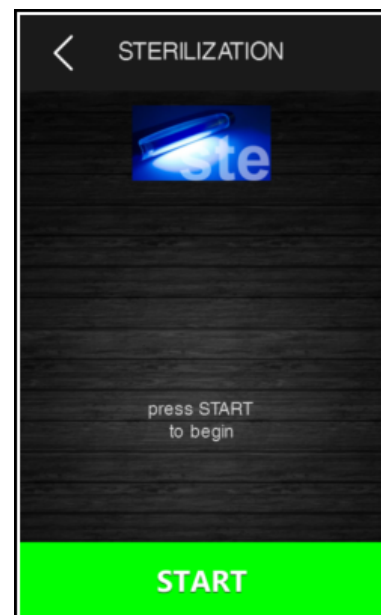
The cabinet door must be closed to start up a sterilisation cycle.

Pressing the **START** key starts up the sterilisation cycle.

Sterilisation ends when the time set by parameter u6 has elapsed, after the **STOP** key has been pressed or if the door is opened.

During sterilisation the cabinet sterilisation relay is active. If parameter u11 is set to 1, the evaporator fans are also active. If the fans are run at variable speeds, there will be 100% ventilation during sterilisation.

The display will show the count-down for the remaining time. At the end of the cycle the buzzer sounds and the screen returns to the Home screen.



## 4.6 Heating the needle probe



Pressing this area enables selection of a needle probe, or probes, heating cycle.

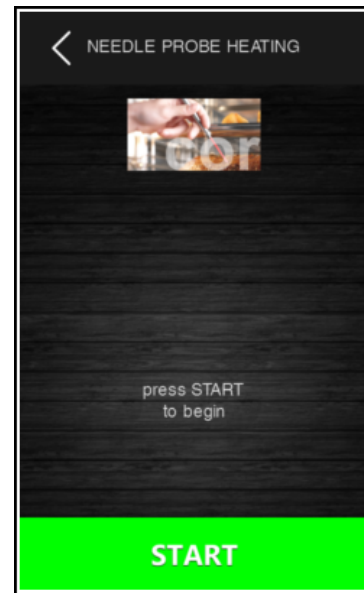
This cycle can also be run automatically if the **STOP** key is pressed during conservation, following a blast chilling/defrosting cycle.

The function can be activated by parameter and can only be used if u1=2 or u3=1. If cabinet sterilisation has also been enabled, the needle probe heating icon is shown if the temperature recorded by the needle probe is above 0°C .

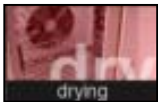
The needle probe heating output is activated at maximum for the time set by parameter u8 or until the temperature indicated by the needle probe has reached that set by parameter u7.

At the end of heating, the buzzer sounds.

Heating can be stopped by pressing the **STOP** key.



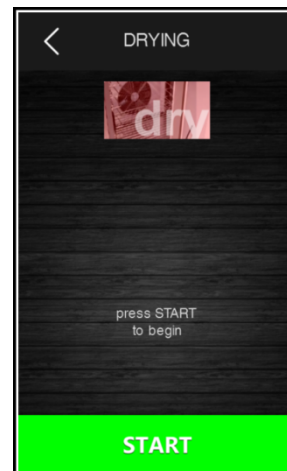
## 4.7 Drying



Pressing this area enables selection of a drying cycle.

This is a cycle of forced-air ventilation that can be activated with the door closed and for a duration set by parameter u13. If the door is opened during drying this does not affect the cycle.

The cycle stops when the prescribed time has elapsed or when the **STOP** key is pressed.



## 4.8 Proofing




Pressing this area enables selection of a proofing cycle. This function can only be enabled if an expansion has been set (parameter E12=1).

### 4.8.1 Description of proofing

It provides a complete control for retarding-proofing cabinets for bread or pastry.

A proofing cycle consists of four phases with different temperatures, relative humidity and time periods, one following on from the other, as in the sequence described below.

- 1 **Blast chilling phase:** block the leavening agents in freshly prepared dough to retard proofing.
- 2 **Re-awakening phase:** This “wakes up” the leavening agents in the dough by raising the temperature.
- 3 **Proofing phase:** This completes the dough proofing process making it oven-ready.
- 4 **Conservation phase:** it keeps the dough in a waiting state before being removed. Press  key to end the whole cycle.

### 4.8.2 Setting up a proofing cycle

The controller always loads the pre-set values of each phase as in the table below. The settings can be modified before the starting under Special menu.

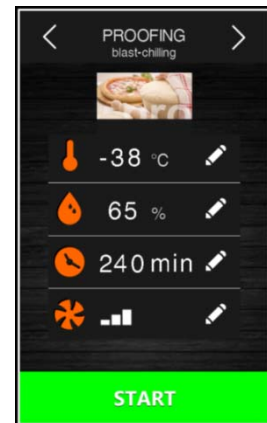
**START** Press  key to run the proofing cycle.

It is not possible to modify the set points while the cycle is in progress.

**BYPASS A PHASE** Set a phase timer to 0.

**BLAST CHILLING** and **HUMIDITY** humidity control can be omitted using parameter rU4.

**HOLDING** The conservation may be omitted by setting the time to “---”.



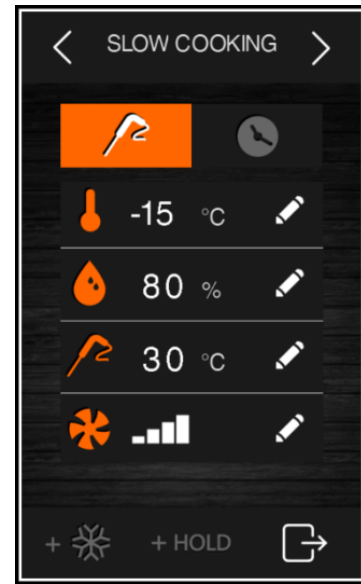
<b>Blast chilling</b>	Cabinet setting (rC3)	5°C
	Humidity setting (rU5, only if rU4=1)	---
	Duration setting (rH7)	120 min
	Ventilation setting (F42)	5
<b>Re-awakening</b>	Cabinet setting (rH3)	20°C
	Humidity setting (rU6)	60 %rH
	Duration setting (rH8)	240 min
	Ventilation setting (F43)	5
<b>Proofing</b>	Cabinet setting (rH4)	30°C
	Humidity setting (rU7)	80 %rH
	Duration setting (rH9)	180 min
	Ventilation (F44)	5
<b>Conservation</b>	Cabinet setting (rH5)	25°C
	Humidity setting (rU8)	80 %rH
	Enable phase	Yes (inf)
	Ventilation setting (F45)	5

## 4.9 Slow cooking





Pressing this area enables selection of a slow cooking cycle. This function can only be enabled if an expansion has been set (parameter E12 = 1).

After selection of the slow cooking function, a screen will appear on which it is possible to view and modify the relevant set points and to decide whether to set up a temperature or time controlled process. It is not possible to modify the set points while the cycle is in progress.



The slow cooking pre-settings use the following parameters:

rH10	cabinet set point
rH11	product temperature set point
rH12	cycle duration
rU9	% humidity
F40	fan speed

Two areas at the bottom of the screen make it possible to add a subsequent blast chilling/blast-freezing phase  and a product holding/conservation phase .

For blast chilling or blast-freezing, the pre-settings are those for the cycle, whereas the following parameters are used to set up a holding or conservation phase:

rH13	cabinet set point for holding phase
rU10	% humidity in holding
F41	fan speed

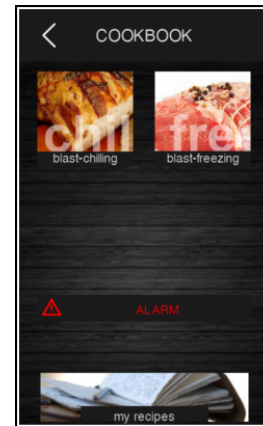
If a holding phase has been enabled following a slow cooking cycle, this will be activated at the set temperature and humidity and it will have an indefinite duration. If blast chilling or blast-freezing has been enabled, this will be performed according to the procedures for the cycle in question (blast chilling/blast-freezing and moving on automatically to conservation).

## 5 RECIPE BOOK MODE



Pressing this area on the Home page opens the following screen.

This screen grants access to a recipe book divided into four categories: blast chilling, blast-freezing, proofing and slow cooking. The icons representing the last two categories are only displayed if the functions have been enabled using the relevant parameters.



Chilling recipes.




PROOFING recipes.



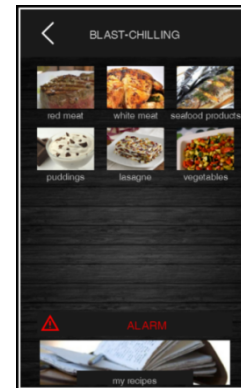
Freezing recipes.



SLOW COOKING recipes.

An example of a blast chilling recipe book, showing the icons for the 6 recipes pre-set by the manufacturer. Pressing area  enables selection of a further list of personalised recipes saved by the user.

Pressing the relevant recipe area opens a summary screen showing the settings for the various phases of the recipe.








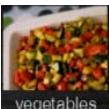
The recipe can be started up from this screen, or the set points can be modified by pressing the area relating to the phase. After the settings have been modified, the following options are available:

- start up the cycle without saving the changes
- save the changes and over-write the program
- save the changes under a different name






## 5.1 Pre-set blast chilling recipes

	Phase 1	Cabinet setting	-25°C
		Needle probe setting	20°C
		Ventilation setting	5
	Phase 2	Cabinet setting	-5°C
		Needle probe setting	3°C
		Ventilation setting	5
Conservation	Cabinet setting	5°C	
	Needle probe setting	2°C	
	Ventilation setting	5	
	Phase 1	Cabinet setting	-25°C
		Duration setting	27 min
		Ventilation setting	5
	Phase 2	Cabinet setting	-5°C
		Duration setting	63 min
		Ventilation setting	5
	Conservation	Cabinet setting	2°C
		Ventilation setting	5
	Phase 1	Cabinet setting	-25°C
		Duration setting	27 min
		Ventilation setting	5
	Phase 2	Cabinet setting	-5°C
		Duration setting	63 min
		Ventilation setting	5
	Conservation	Cabinet setting	2°C
		Ventilation setting	5
	Phase 1	Cabinet setting	-5°C
		Duration setting	90 min
		Ventilation setting	2
	Conservation	Cabinet setting	2°C
		Ventilation setting	2
	Phase 1	Cabinet setting	-5°C
		Duration setting	90 min
		Ventilation setting	5
	Conservation	Cabinet setting	2°C
		Ventilation setting	5
	Phase 1	Cabinet setting	-5°C
		Duration setting	90 min
		Ventilation setting	5
	Conservation	Cabinet setting	2°C
		Ventilation setting	5

## 5.2 Pre-set blast-freezing recipes

	Phase 1	Cabinet setting	0°C
		Needle probe setting	3°C
		Ventilation setting	5
	Phase 2	Cabinet setting	-12°C
		Needle probe setting	-3°C
		Ventilation setting	5
	Phase 3	Cabinet setting	-30°C
		Needle probe setting	-18°C
		Ventilation setting	5
	Conservation	Cabinet setting	5°C
		Needle probe setting	-20°C
		Ventilation setting	5

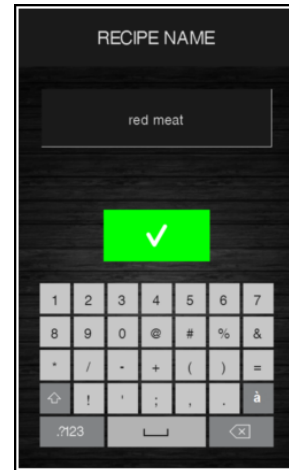
## 5.3 Saving a recipe

It is possible to save both time and temperature controlled cycles. In the latter case the time required to reach the core temperature is saved.

Recipes can be saved in the following ways.

- During conservation after a customized blast chilling/blast-freezing cycle. When the **STOP** key is pressed the device will offer to save the recipe used.
- Save a recipe starting from a customized cycle.
- Select a recipe already present, modify it and save it.

While saving is in progress the screen displayed will ask for the recipe category, and then show the positions free and occupied. If an occupied position is selected, the device will ask if the recipe is to be over-written, otherwise the screen shown below will open allowing the name of the recipe to be entered.



### Over-writing a recipe

It is possible to over-write a recipe but not to delete it. When a recipe is being over-written the screen below will be displayed requesting confirmation of the choice.




## 6 PRE-COOLING MODE

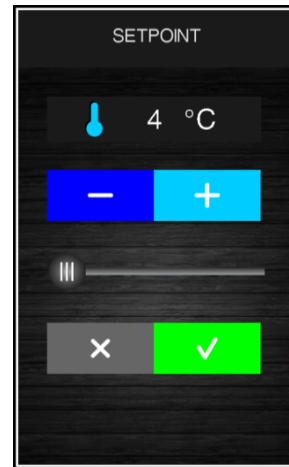



Pressing this area on the Home page enables selection of a pre-cooling cycle. This cycle is similar to a normal blast chilling cycle and it may precede all operating cycles.


Pressing the area in question opens the following screen.

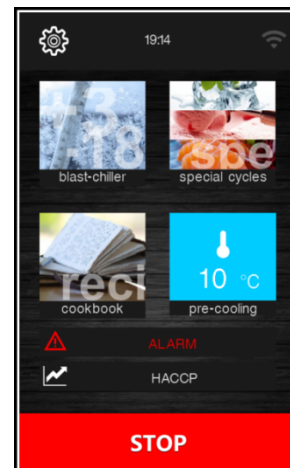
Set the required set point value and press area  to start the cabinet pre-cooling cycle. The screen below will be displayed showing the pre-cooling cycle in process.

**FAN SPEED** The fan speed is fixed and set by parameter F28.



This screen makes it possible to select further cycles or the  key can be pressed to stop pre-cooling.

Once the required cabinet set point has been reached, the buzzer sounds and the cycle continues maintaining the cabinet temperature achieved until the  key is pressed or until a blast chilling/blast-freezing cycle starts up. If pre-cooling is underway, it will be automatically stopped when another cycle is selected and started.



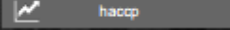
# 7 ALARM LIST

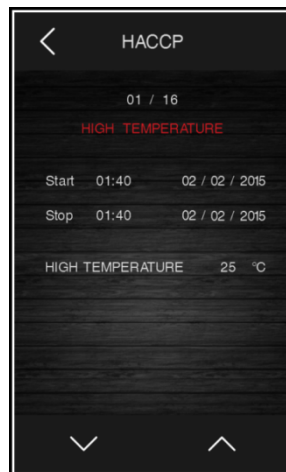
#	CODE	REASON	INFORMATION	LINKS
1	RTC	Clock Error	Date lost for long black-out.	<ul style="list-style-type: none"> <li>- Date and time of HACCP alarms are not log.</li> <li>- Alarm output activated.</li> </ul>
2	CABINET PROBE	Cabinet probe error.	<ul style="list-style-type: none"> <li>- Check the parameter P0 value.</li> <li>- Check probe damages.</li> <li>- Check probe connection.</li> <li>- Check the cabinet temperature..</li> </ul>	<ul style="list-style-type: none"> <li>- during stand-by, it not possible to set or start any cycle.</li> <li>- during blast chilling or freezing, the cycle runs with the compressor always ON.</li> <li>- conservation, compressor will operate according to parameters C4 and C5 or C9.</li> <li>- during proofing, slow cooking thawing the cycle is interrupted.</li> <li>- The minimum and maximum temperature alarms are unavailable.</li> <li>- Door heaters not available.</li> <li>- Alarm output activated.</li> </ul>
3	EVAPORATOR PROBE	Evaporator probe error.	<ul style="list-style-type: none"> <li>- Check the parameter P0 value.</li> <li>- Check probe damages.</li> <li>- Check probe connection.</li> <li>- Check the cabinet temperature..</li> </ul>	<ul style="list-style-type: none"> <li>- With P4=1 the defrost runs only by maximum time d3.</li> <li>- Fan F1 have no effect.</li> <li>- Alarm output activate.</li> </ul>
4	CONDENSER PROBE	Condenser probe error	<ul style="list-style-type: none"> <li>- Check the parameter P0 value.</li> <li>- Check probe damages.</li> <li>- Check probe connection.</li> <li>- Check the cabinet temperature..</li> </ul>	<ul style="list-style-type: none"> <li>- Condenser fan runs with the compressor.</li> <li>- Condenser overheat alarm not available.</li> <li>- Compressor locked alarm not available.</li> <li>- Alarm output activate.</li> </ul>
5	NEEDLE PROBE SENSOR 1	Needle probe/sensor 1 error.	<ul style="list-style-type: none"> <li>- Check the parameter P0 value.</li> <li>- Check probe damages.</li> <li>- Check the probe connection.</li> <li>- Check the cabinet temperature..</li> </ul>	<p>IF P3=to 1 (single needle probe)</p> <ul style="list-style-type: none"> <li>- during stand-by, the cycles runs as time.</li> <li>- during blast chilling: cycle will last for the time in r1</li> <li>- during blast-freezing: cycle will last for the time in r2</li> <li>- during needle probe heating, heating is interrupted.</li> <li>- Alarm output Activated.</li> </ul> <p>If P3= 2 or 3 (multi needle or multi-sensor)</p>

				- The input sensor is bypassed.
6	<b>NEEDLE PROBE SENSOR 2</b>	Needle probe/sensor 2 error.	<ul style="list-style-type: none"> <li>- Check the parameter P0 value.</li> <li>- Check probe damages.</li> <li>- Check the probe connection.</li> <li>- Check the cabinet temperature..</li> </ul>	<p>Needle probe/sensor 2 error.</p> <ul style="list-style-type: none"> <li>- The input sensor is bypassed.</li> </ul>
7	<b>NEEDLE PROBE SENSOR 3</b>	Needle probe/sensor 3 error.	<ul style="list-style-type: none"> <li>- Check the parameter P0 value.</li> <li>- Check probe damages.</li> <li>- Check the probe connection.</li> <li>- Check the cabinet temperature..</li> </ul>	<p>Needle probe/sensor 2 error.</p> <ul style="list-style-type: none"> <li>- The input sensor is bypassed.</li> </ul>
8	<b>THERMAL SWITCH</b>	Thermal switch alarm	<ul style="list-style-type: none"> <li>- Compressor overheating problem. Check the thermal switch input state.</li> <li>- Check parameter i11.</li> </ul>	<ul style="list-style-type: none"> <li>- A running cycle is interrupted</li> <li>- Alarm output Activated.</li> </ul>
9	<b>HIGH PRESSURE SWITCH</b>	High pressure alarm.	<ul style="list-style-type: none"> <li>- Check the state of the high pressure input.</li> <li>- Check parameter i6.</li> </ul>	<ul style="list-style-type: none"> <li>- A running cycle is interrupted</li> <li>- Alarm output Activated.</li> </ul>
10	<b>LOW PRESSURE SWITCH</b>	Low pressure alarm.	<ul style="list-style-type: none"> <li>- Check the state of the low pressure input.</li> <li>- Check parameter i9.</li> </ul>	<ul style="list-style-type: none"> <li>- A running cycle is interrupted</li> <li>- Alarm output Activated.</li> </ul>
11	<b>DOOR OPEN</b>	Door open alarm.	<ul style="list-style-type: none"> <li>- Check the door status.</li> <li>- Check parameters i0 and i1.</li> </ul>	<ul style="list-style-type: none"> <li>- Cooling configuration i0.</li> <li>- Alarm output activated.</li> </ul>
12	<b>HIGH TEMPERATURE</b>	High temperature alarm (HACCP).	<ul style="list-style-type: none"> <li>- Check the cabinet temperature.</li> <li>- Check parameters A4 and A5.</li> </ul>	<ul style="list-style-type: none"> <li>- Alarm log.</li> <li>- Alarm output activated.</li> </ul>
13	<b>LOW TEMPERATURE</b>	Low temperature alarm (HACCP).	<ul style="list-style-type: none"> <li>- Check the cabinet temperature.</li> <li>- Check parameters A1 and A2.</li> </ul>	<ul style="list-style-type: none"> <li>- Alarm log</li> </ul>
14	<b>CYCLE DURATION</b>	Too Long cycle duration (HACCP)	<ul style="list-style-type: none"> <li>- Check parameters r5 and r6.</li> </ul>	<ul style="list-style-type: none"> <li>- Alarm log.</li> </ul>
15	<b>BOARD COMMUNICATIONS</b>	Communication Error	<ul style="list-style-type: none"> <li>- Board and interface do not communicate</li> <li>- Check the user interface-control module connection.</li> </ul>	<ul style="list-style-type: none"> <li>- A running cycle is interrupted</li> </ul>
16	<b>BOARD COMPATIBILITY</b>	User interface-control module compatibility error	<ul style="list-style-type: none"> <li>- Check that the user interface and the control module are compatible.</li> </ul>	<ul style="list-style-type: none"> <li>- A running cycle is interrupted</li> </ul>
17	<b>NEEDLE PROBE</b>	Needle probe alarm	<ul style="list-style-type: none"> <li>- All the needle probe sensors enabled are in alarm status</li> </ul>	<ul style="list-style-type: none"> <li>- Any temperature controlled cycle are interrupted</li> </ul>
18	<b>POWER FAILURE</b>	Power failure alarm (HACCP alarm).	<ul style="list-style-type: none"> <li>- Check the device-power supply connection.</li> </ul>	<ul style="list-style-type: none"> <li>- Alarm log.</li> <li>- Last cycle status restored.</li> <li>- Alarm output activated.</li> </ul>
19	<b>SANITATION PROBE INSERTION</b>	Sanitation alarm.	<ul style="list-style-type: none"> <li>- Check that the needle probe has been correctly inserted and check the value of parameters r17 and r18.</li> </ul>	<ul style="list-style-type: none"> <li>- The sanitation cycle will be interrupted.</li> </ul>
20	<b>SANITATION DURATION</b>	Sanitation has not been completed within the	<ul style="list-style-type: none"> <li>- Check the value of parameter r23</li> </ul>	<ul style="list-style-type: none"> <li>- Alarm Log.</li> <li>- A running cycle is interrupted</li> <li>- Alarm Output Activated.</li> </ul>

		maximum duration (HACCP alarm).		
21	<b>CONDENSER OVERHEAT</b>	High Condenser temperature alarm.	- Check the condenser temperature. - Check parameter C6.	- Condenser fan are forced ON. - Alarm output activated.
22	<b>COMPRESSOR LOCKED</b>	Compressor locked alarm for high condenser temperature.	- Check the condenser temperature - Check parameter C7 - Turns power supply off and clean the condenser.	- during "stand-by" it prevents to select and start a cycle. - A running cycle is interrupted - Alarm output activated.
23	<b>NEEDLE PROBE INSERTION</b>	Needle probe not inserted alarm.	- Check needle probes are properly inserted and parameters value r17 and r18.	- A temperature cycle in progress is converted to a time controlled cycle.
24	<b>EXPANSION COMMUNICATIONS</b>	The expansion module do not communicate.	- Check the user interface-expansion module connection.	- Any proofing or slow cooking running cycle is terminated.
25	<b>EXPANSION COMPATIBILITY</b>	expansion module compatibility error	- Check the user interface and expansion module are compatible.	- Any running cycle is terminated.

## 7.1 HACCP alarms

To access the HACCP alarm area, press area  in the Home screen. The screen below will be displayed.



The following HACCP alarms are listed.

- Blast chilling/blast-freezing cycle duration
- Power failure
- Door open
- High temperature alarm
- Low temperature alarm





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