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Users Manual

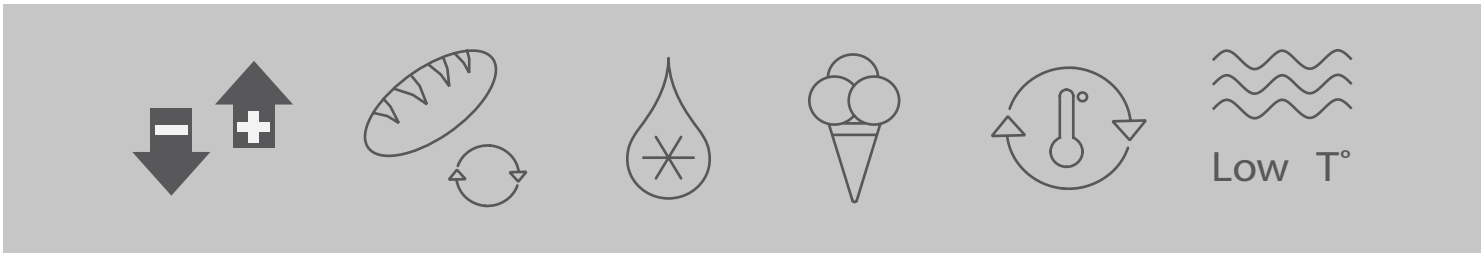
Models : CT10.35 - CT15.65 - CT15-2.70
Models : BT10.35 - BT15.65 - BT15-2.70

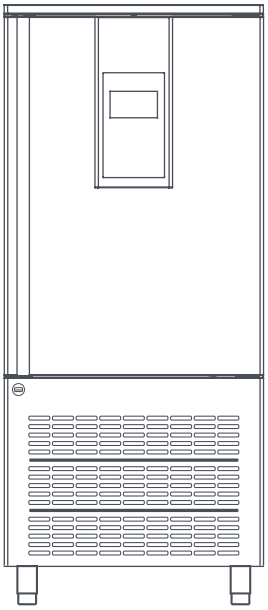
Multifunction Blas Chillers

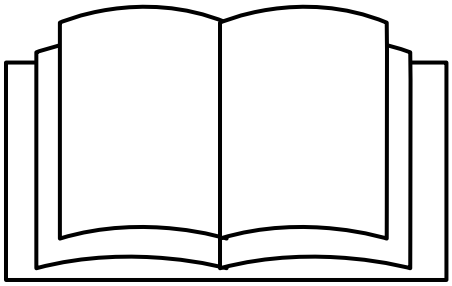
EN

- Blast Chiller
- Retarder prover
- Thawing
- Low temperature cooking
- Conservation
- Ice cream hardening cycle

Translation of the Original Instructions







LEGGERE ATTENTAMENTE IL MANUALE
READ THIS MANUAL CAREFULLY
DAS HANDBUCH AUFMERKSAM LESEN
LEER ATENTAMENTE EL MANUAL
LIRE ATTENTIVEMENT LE MANUEL
NATANČNO PREBERITE PRIROČNIK

Gentile Cliente,

La ringraziamo per aver preferito uno dei nostri prodotti, frutto di lunga esperienza e di una continua ricerca per un prodotto superiore in termini di affidabilità, prestazioni e sicurezza. In questo manuale troverà tutte le informazioni ed i consigli per poter utilizzare il suo prodotto nel massimo della sicurezza ed efficienza.

Il presente manuale costituisce parte integrante del prodotto, e fornisce tutte le indicazioni necessarie per una corretta installazione, un corretto uso e manutenzione della macchina.

È obbligatorio, da parte dell'utilizzatore, leggere attentamente il manuale e fare sempre riferimento ad esso per l'utilizzo della macchina. Inoltre deve essere conservato in luogo noto e accessibile a tutti gli operatori autorizzati (installatore, utilizzatore, manutentore).

Dear Customer,

Thank you for choosing one of our products, the result of lengthy experience and continuous research for a product that is superior in terms of reliability, performance and safety. In this manual you will find all the information and advice needed to use your product ensuring utmost safety and efficiency.

This manual is an integral part of the product and provides all the necessary information for correct installation, proper use and maintenance of the machine.

The user must read the manual and refer to it when using the machine. It must also be kept in a place known and accessible to all authorised operators (installer, user, maintenance technician).

Sehr geehrter Kunde,

Wir danken Ihnen für Ihre Wahl eines unserer Produkte, welches das Ergebnis einer langen Erfahrung und stetiger Forschungsarbeit ist. Dank dieser konnte ein Produkt entwickelt werden, das ein hohes Maß an Verlässlichkeit, Leistungsfähigkeit und Sicherheit bietet. In diesem Handbuch finden Sie alle Informationen und Ratschläge, damit Sie das Produkt mit maximaler Sicherheit und Effizienz nutzen können.

Das vorliegende Handbuch ist ein wesentlicher Bestandteil der Maschine und liefert alle erforderlichen Informationen für die korrekte Installation, den sachgemäßen Gebrauch und die Wartung der Maschine.

Der Benutzer ist verpflichtet, das Handbuch aufmerksam zu lesen und sich beim Gebrauch der Maschine an die darin enthaltenen Anweisungen zu halten. Außerdem ist das Handbuch an einem für alle Bediener zugänglichen und bekannten Ort aufzubewahren (Installateur, Bedienungs - und Wartungspersonal).

Estimado Cliente,

Le agradecemos haber elegido uno de nuestros productos fruto de una larga experiencia y de una continua investigación para obtener un producto superior en términos de fiabilidad, prestaciones y seguridad. En este manual encontrará todas las informaciones y las sugerencias para poder utilizar su producto con la máxima la seguridad y eficiencia,

El presente manual es parte integrante del productor y suministra todas las indicaciones necesarias para una correcta instalación, un correcto uso y mantenimiento de la máquina.

Es obligatorio, por parte del usuario, leer atentamente el manual y hacer siempre referencia al mismo para el uso de la máquina. Además se debe conservar en un lugar conocido y accesible para todos los operadores autorizados (instalador, usuario, encargado del mantenimiento).

Cher Client,

Nous vous remercions d'avoir choisi l'un de nos produits, qui est le fruit d'une longue expérience et d'une recherche continue pour un produit supérieur en termes de fiabilité, de prestations et de sécurité. Vous trouverez dans ce manuel toutes les informations et les conseils pour pouvoir utiliser le produit dans des conditions maximales de sécurité et de performance.

Ce manuel fait partie intégrante du produit et fournit toutes les indications nécessaires à l'installation, l'utilisation et l'entretien corrects de la machine.

L'utilisateur a pour obligation de lire attentivement le manuel et de toujours y faire référence lors de l'utilisation de la machine. Il doit par ailleurs être conservé dans un endroit connu et accessible à tous les opérateurs autorisés (installateur, utilisateur, agent de maintenance).

LE OPERAZIONI EVIDENZATE CON QUESTO SIMBOLO SONO STRETTAMENTE RISERVATE AL TECNICO PATENTATO.

In particolare lo sono :
- Allacciamenti elettrici
- Allacciamenti idrici
- Installazione della macchina
- Collaudo della macchina
- Interventi di riparazione su tutti i componenti e organi della macchina
- Smontaggio della macchina e/o dei suoi componenti
- Interventi di regolazione e taratura
- Manutenzione e pulizia della macchina relativa a parti e componenti (elettrici, elettronici, meccanici, frigoriferi)
- Ricarica gas refrigerante

IL TESTO EVIDENZIATO CON QUESTO SIMBOLO È DI PARTICOLARE IMPORTANZA O SEGNALA POTENZIALE PERICOLO

Nota: chiarisce le operazioni in corso

OPERATIONS HIGHLIGHTED WITH THIS SYMBOL ARE STRICTLY RESERVED TO CERTIFIED TECHNICIANS.

In particular these include:
- Electrical connections
- Hydraulic connections
- Machine installation
- Testing of the machine
- Repairs on all the components and parts of the machine
- Dismantling of the machine and/or of its components
- Operations of adjustment and calibration
- Maintenance and cleaning of the machine for parts and components (electrical, electronic, mechanical, chilling)
- Recharge refrigerant gas

THE TEXT HIGHLIGHTED WITH THIS SYMBOL IS OF PARTICULAR IMPORTANCE OR SIGNALS POTENTIAL DANGER

Note: it clarifies operations in progress

DIE MIT DIESEM SYMBOL GEKENNZEICHNETEN VORGÄNGE SIND STRENGSTENS FACHTECHNIKERN VORBEHALTEN.

Insbesondere handelt es sich um:
- Elektrische Anschlüsse
- Wasseranschlüsse
- Installation der Maschine
- Abnahmeprüfung der Maschine
- Reparatureingriffe auf allen Komponenten und Teilen der Maschine
- Demontage der Maschine und/oder ihrer Komponenten
- Eingriffe der Einstellung und Eichung
- Wartung und Reinigung der Maschine bezüglich ihrer Teile und Komponenten (elektrische, elektronische, mechanische, des Kühlsystems)
- Kühlmittel auffüllen

DER MIT DIESEM SYMBOL GEKENNZEICHNETE TEXT IST BESONDERS WICHTIG ODER ZEIGT MÖGLICHE GEFAHR AN

ANMERKUNG: Erläutert die im Gang befindlichen Vorgänge

LAS OPERACIONES EVIDENCIADAS CON ESTE SÍMBOLO ESTÁN EXTRICTAMENTE RESERVADAS AL TÉCNICO HABILITADO.

En particular son :
- Conexiones eléctricas
- Conexiones hídricas
- Instalación de la máquina
- Prueba de la máquina
- Operaciones de reparación en todos los componentes y órganos de la máquina
- Desmontaje de la máquina y/o de sus componentes
- Operaciones de ajuste y de calibrado
- Mantenimiento y limpieza de la máquina relativa a partes y componentes (eléctricos, electrónicos, mecánicos, frigoríficos).

Recarga gas refrigerante

EL TEXTO EVIDENCIADO CON ESTE SÍMBOLO ES DE PARTICULAR IMPORTANCIA O SEÑALA POTENCIAL PELIGRO

NOTA: aclara las operaciones en curso

LES OPERATIONS SIGNALEES PAR CE SYMBOLE SONT STRICTEMENT RESERVEES AU TECHNICIEN QUALIFIE.

Notamment :
- Raccordements électriques
- Raccordements au réseau d'eau
- Installation de la machine
- Essai de la machine
- Interventions de réparation sur tous les composants et les organes de la machine
- Démontage de la machine et/ou de ses composants
- Interventions de réglage et d'étalonnage
- Entretien et nettoyage de la machine relatifs à des parties et des composants (électriques, électroniques, mécaniques, frigorifiques)
- Recharge de gaz réfrigérant

LE TEXTE SIGNALE PAR CE SYMBOLE EST D'UNE IMPORTANCE PARTICULIERE OU SIGNALE UN DANGER POTENTIEL

NOTE : donne des précisions sur les opérations en cours

1 - WARNINGS AND IMPORTANT ADVICE

The user must carefully read the manual and always refer to it when using the machine. Moreover, it must be stored in a place known and accessible to all authorised operators (installer, user, maintenance technician). Be sure to use only the supplied or specified installation components.
In the event of sale or transfer of the appliance, this manual must be handed over to the new user.

Any contractual and non-contractual liability of the manufacturer is excluded regarding damage caused by errors in installation or operation and, moreover, by non-compliance with current National and Local regulations and with the instructions provided by the manufacturer.

The appliance has been designed to operate inside the cell at a temperature between -40°C and 85°C. It can also reach maximum relative humidity values of up to 100%. Moreover, it has been designed exclusively for use with food. The manufacturer shall not be held responsible for temperature adjustment, which, even within the specifications, may damage the food, due to a careless choice of parameters by the user.

The appliance mainly performs cooling, heating and humidification functions, within the ranges described.

- **Do not operate the appliance before technician assistance.**
- **The machine is designed for professional use and therefore only qualified persons may use it.**
- **The manufacturer declines any responsibility for any damage caused by improper and unreasonable use, such as improper use by unskilled personnel, technical modifications or interventions not specific for the models or even partial non-compliance of the instructions hereof.**
- **The machine is only intended for the use for which it was designed, namely for the freezing or storage of foodstuffs. Excluded are products that require constant temperature monitoring and recording, such as thermo-reactant chemicals, medicines and blood products.**
- **The GWP (Global Warming Potential) of R452A gas is 2141.**
- **The equivalent CO2 data is indicated on the serial number plate (see para. 2.1).**
- **According to the ISO 817 standard, R452A gas is not a flammable gas.**
- **In high concentrations it can be asphyxiating. Contact with liquid can cause burns and frostbite.**
- **The gas in the system is pressurised; it may explode if heated.**
- **Do not store explosive substances in this unit, such as aerosol cans with a flammable propellant.**
- **ATTENTION: Do not use electrical appliances inside the appliance compartments for the storage of frozen foods if they are not of the type recommended by the manufacturer**
- **ATTENTION: Keep the ventilation openings in the casing of the equipment or in the recessed structure free from obstructions.**
- **ATTENTION: Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the producer.**
- **ATTENTION: do not damage the refrigerant circuit.**
- **ATTENTION: when positioning the appliance make sure that the power cord is not trapped and damaged.**
- **ATTENTION: Do not place multiple portable sockets or portable power supplies on the back of the appliance.**
- **This appliance was designed to be used for household and similar applications, such as:**
  - the kitchen area intended for commercial personnel, offices and other working environments;
  - factories and by customers in hotels, motels and in other residential environments;
  - bed and breakfast establishments;
  - non-retail catering services and similar applications.
- **Check that the identification plate data and the electrical line characteristics match(V, KW, Hz, phase number and available power)**
- **Do not pull the power cord to disconnect the machine from the power supply.**
- **If the power cord is damaged, it must be replaced by the manufacturer or by its**

technical assistance service or in any case by a person with similar qualification, such as to prevent any risk.

- The appliance can be used by children of at least 8 years old and by persons with reduced physical, sensitive or mental capabilities, or who do not have proper experience and knowledge, unless they are supervised or instructed on the use of the appliance and provided they understand the related hazards. The cleaning and maintenance intended to be performed by the user must not be performed by unsupervised children. Children should not play with the appliance.
- Loading and unloading of the appliance from the means of transport can be performed with a forklift truck or with a pallet truck with lengths greater than half of the unit. The lifting vehicle must be selected based on the dimensions of the packed machine/ components and with proper capacity.
- When handling the appliance, all necessary precautions must be taken to avoid damaging it.
- After removing the packaging, make sure that the machine/sub-assemblies are intact. If in doubt, do not use it and contact the reseller.
- All the components of the packaging must be disposed of according to the regulations in force in the country where the appliance is being used. In any case, nothing must be disposed of in the environment.

The appliance:

- must be installed in places where it can be checked by qualified personnel.
- must not be installed outdoors or in dusty environments.
- must not be placed in areas where there are jets of water, and it must not be washed with jets of water.
- must be installed and tested in full compliance with accident prevention regulations, traditional regulations and current regulations.
- must be positioned at least 300 mm away from the rear wall
- must have a free space of at least 150 mm on both sides
- there must be a minimum distance of 300 mm between the appliance and the ceiling
- Avoid places exposed to the direct sun rays, closed spaces with high temperatures and poor ventilation and avoid installing the machine close to any source of heat
- The installer should check any fire prevention requirements (contact the local fire brigades for proper indications).
- Place the machine in its final location making sure it is perfectly level
- Before carrying out any cleaning or maintenance operations, disconnect the machine from the power supply by operating the main switch and unplugging it. If the socket is at a distance or in a position that cannot be controlled by the operator or the appliance is not equipped with a plug, a device for electrical padlocking must be installed to avoid accidental connection of the appliance.
- ordinary and extraordinary maintenance operations must only be performed by qualified installers.
- We decline any liability for damages to persons, animals or things resulting from failure to ground the equipment and the performance of an electrical system which is not compliant with applicable regulations.
- In case of maintenance requiring the replacement of parts of the machine, the use of original spare parts is mandatory. For information contact the seller or the technical assistance of the manufacturer.
- The sound pressure level is lower than 70 dB (A).
- Do not touch and operate the machine with wet or damp hands or feet.
- Do not insert screwdrivers, kitchen utensils or anything between the guards and the moving parts.
- The maximum load permissible per shelf is 20 kg and in total 100 kg.
- It is forbidden to use the equipment in an environment where flammable gas is present or in an environment where there is a risk of explosion.
- In case of anomalous operation of the appliance or with the appearance of alarms on the display, see chap. 17 (depending on the model) for the explanation and resolution of the problems.
- In the event of alarms that stop the machine, disconnect the electrical power supply and the water supply and call a qualified technician

- **Removal of the pallet requires the presence of at least two persons. Remember that the heaviest part of the product is at the top.**
- **For appliances with a water condenser unit, the water supply temperature must be between 10°C (50°F) and 30°C (86°F) and the operating pressure must range between 0.1 MPa (1 bar - 14 psi) and 0.5 MPa (5 bar - 72 psi)**
- **Check the tightness of the straps, nuts and bolts, screws and clamps that may have come loose during transportation to avoid water leaks or other problems during machine operation.**
- **Appliances that are out of order must be disposed of in compliance with the local laws and regulations in force.**
- **The minimum frequency of the various ordinary and extraordinary maintenance operations must be as follows: daily cell cleaning (by user), cleaning of the condenser shaft and evaporator coil every 30 days (by qualified technicians)**

This appliance and its accessible parts can become very cold or very hot during use. Wait for the internal surfaces of the appliance return to room temperature before touching them.

In blast chillers without a power plug, a differential switch and a circuit breaker must be installed upstream.
There must also be a power supply disconnector, which disconnects it from the omnipolar network, with a contact distance that allows for complete disconnection in category III overvoltage conditions. For the AS/NZS market, the requirement is met if performed as per the AS/NZS 3000 installation standard.
All installed devices must comply with the regulations in force in the country of installation.
For installation operations, refer to chapter 3; for operation refer to chapters from 5 to 16; for maintenance and adjustment refer to chapter 4; for the meaning of the alarms refer to chapter 17.

Connect only to the drinking water network and use the new set of mobile fittings (water inlet/drain pipe) supplied with the appliance. The old set of fittings should not be reused.

For the characteristics of the models and their weights, see Table 1.0.

In the case of low temperature baking cycles, since it is not possible to exclude the spillage of hot food during handling, protective measures must be taken against burns due to hot food, for temperatures that can reach 100°C.

In addition to this, appropriate footwear must be worn and precautions must be taken to prevent accidental falls caused by slippery floors near the appliance.

- **We summarise the parameters that define the climatic class, which appears on the identification plate.**

Environmental climate classes (ISO 23953-2)		
Climate class	Temperature	Humidity
1	16°C	80%
2	22°C	65%
3	25°C	60%
4	30°C	55%
5	40°C	40%
6	27°C	70%

REGOLAMENTO (UE) 2015/1095 **REGULATION (EU) 2015/1095** **REGLAMENTO (UE) 2015/1095** **VERORDNUNG (EU) 2015/1095** **RÈGLEMENT (UE) 2015/1095** **PRAVILNIK (EU) 2015/1095**

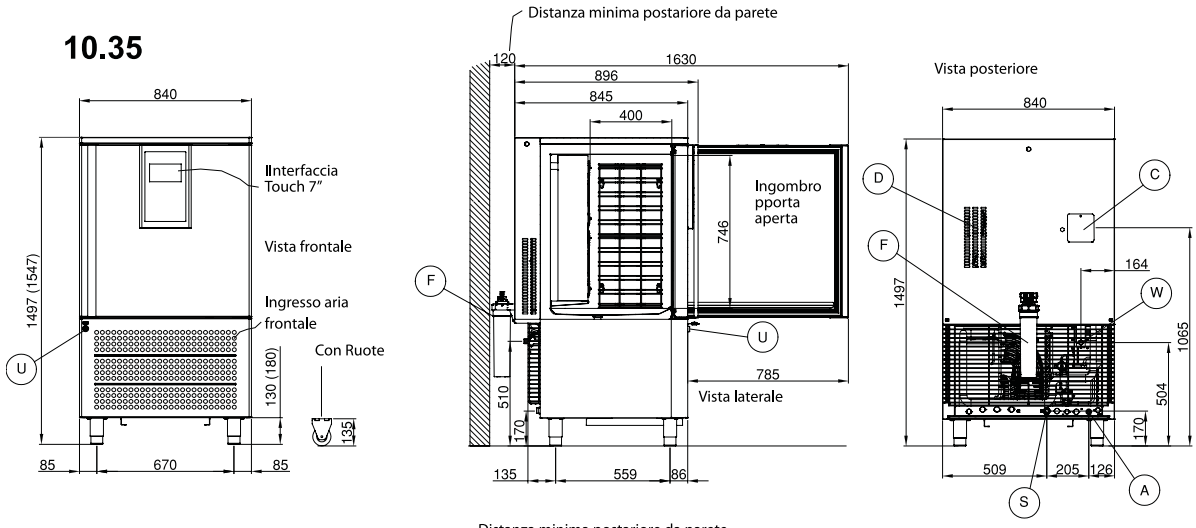
Modelli Models Modelle Modelos Modèles Modeli		Peso Weight Poids Gewicht Peso Teža -kg-	Alimentazione Power supply Source de courant Energieversorgung Fuente de alimentación Napajanje	Refrigerante Refrigerant Kältemittel-Fluidtyp Fluido refrigerantes Fluide frigorigène Hladilne tekočine /GWP	Carica refrigerante Refrig. charge Charge de fluide frigorigène Kältemittelfüllung Carga de refrig. Hladilni naboj -kg-	CO2 eq. -Ton-	Ciclo Abbattimento Positivo - Chilling Cycle - Cycle Chilling - Pozitivni hladilni cikel - Kühlzyklus - Ciclo de enfriamiento				Ciclo Abbattimento Negativo - Freezing Cycle - Cycle de Congélation - Gefrierzyklus - Ciclo de congelación - Negativni hladilni cikel			
							Ciclo temperat. Temp. Cycle Cycle de temp. Temperaturzyklus Ciclo de temperat. Temperaturni cikel (°C)	Capacità Capacity Capacité Kapazität Capacidad kapaciteta (Kg)	Durata ciclo Cycle time Temps de cycle Taktzeit Tiempo de ciclo Trajanje cikla (min)	Consumo Energia Energy Consumpt. Conso. Energie Energieverbrauch Cons. de energía poraba energije (kWh/Kg)	Ciclo temperat. Temp. Cycle Cycle de temp. Temperaturzyklus Ciclo de temperat. Temperaturni cikel (°C)	Capacità Capacity Capacité Kapazität Capacidad kapaciteta (Kg)	Durata ciclo Cycle time Temps de cycle Taktzeit Tiempo de ciclo Trajanje cikla (min)	Consumo Energia Energy Consumpt. Conso. Energie Energieverbrauch Cons. de energía poraba energije (kWh/Kg)
10.35	A	186	400V/3N/50Hz	R452a / 2141	2,300	4,92	+65°C / +10°C	37,60	93,00	0,121	+65°C / -18°C	27,1	269,00	0,330
10.35	W	186	400V/3N/50Hz	R452a / 2141	1,800	3,85	+65°C / +10°C	37,60	93,00	0,121	+65°C / -18°C	27,1	269,00	0,330
15.65	A	259	400V/3N/50Hz	R452a / 2141	2,200	4,71	+65°C / +10°C	62,40	109,00	0,101	+65°C / -18°C	50,6	268,00	0,302
15.65	W	257	400V/3N/50Hz	R452a / 2141	2,000	4,28	+65°C / +10°C	62,40	109,00	0,101	+65°C / -18°C	50,6	268,00	0,302
15.2/70	A	279	400V/3N/50Hz	R452a / 2141	2,200	4,71	+65°C / +10°C	72,00	105,00	0,086	+65°C / -18°C	55,2	267,00	0,284
15.2/70	W	279	400V/3N/50Hz	R452a / 2141	2,000	4,28	+65°C / +10°C	72,00	105,00	0,086	+65°C / -18°C	55,2	267,00	0,284

L'apparecchio contiene gas fluorurati ad effetto serra disciplinati dal protocollo di Kyoto
The equipment contains greenhouse effect fluoride gas governed by the Kyoto protocol
L'appareil contient des gaz fluorés à effet de serre règlementés par le protocole de Kyoto
Das Gerät enthält fluorierte Treibhausgase durch das Kyoto-Protokoll fallen
El aparato contiene gases fluorados de efecto invernadero regulados por el protocolo de Kioto

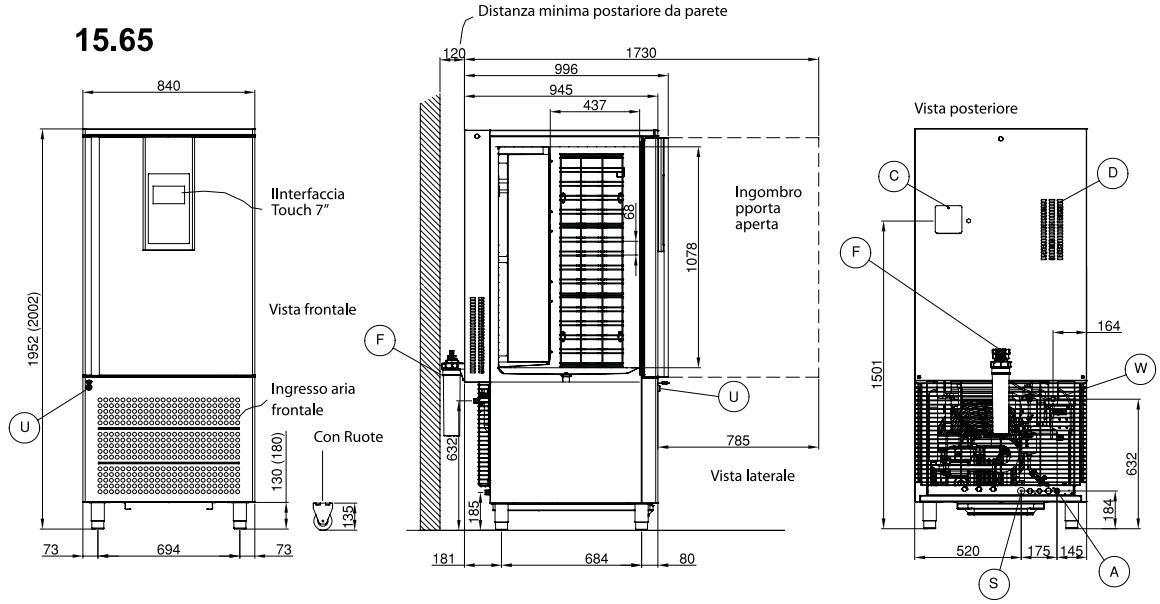
Tab. 1.0

DIMENSIONS

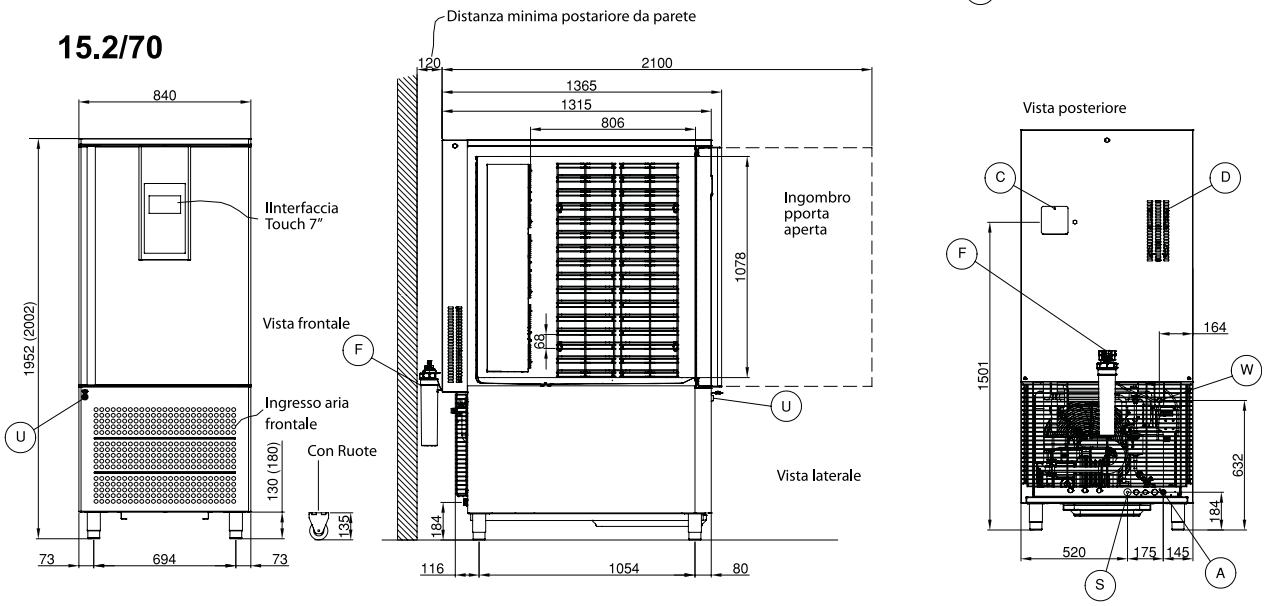
10.35



15.65



15.2/70



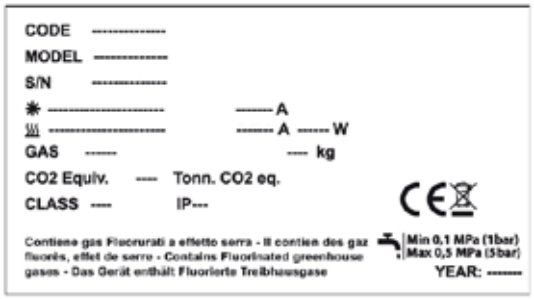
- (A) Electrical cable supply / Cavo alimentazione elettrica
- (W) Drainage Discharge 20 mm / Connessione scarico acqua 20mm
- (U) USB connection / Porta USB
- (S) Water inlet connection 3/4"gas / Connessione ingresso acqua 3/4" gas
- (C) Cleaning sprayer access / Accesso pulizia spruzzatore
- (F) Filtro acqua spruzzatori / Filtro anticalcare acqua
- (D) Dehumidification output / Uscita aria deumidificatore

INDEX

2 TECHNICAL DATA

2.1 - Identification plate

The identification plate providing information on the characteristics of the equipment is applied to the rear side of the machine and/or on the electrical cabinets.



The climate class of the equipment is indicated on the identification plate

Environmental climate classes (ISO 23953-2)		
Climate class	Temperature	Humidity
1	16°C	80%
2	22°C	65%
3	25°C	60%
4	30°C	55%
5	40°C	40%
6	27°C	70%

Furthermore the following symbols indicate the power absorbed by:

Blast chilling cycle

Baking cycle

2.2 - Load limits

Operators must strictly observe the maximum loads shown in the tables below

2.2.1 Maximum load of the internal structure

	Maximum load (kg)	
Model	Internal structure	Load by shelf
10 T	45 kg	20 kg
15 T	80 kg	20 kg
30 T	85 kg	20 kg

2.2.2 Tray capacity

(68 mm step)

	Model		
Tray dimensions	10 T	15 T	30 T
600x400 mm	10	15	30
530x325 mm	10	15	30
600x800 mm	n/a	n/a	15
530x650 mm	n/a	n/a	15

2.3 Refrigerant

The appliance contains fluorinated greenhouse gas regulated by the Kyoto Protocol, in the quantities indicated in the serial number plate.
The type and quantity of refrigerant gas from the cooling circuit of the equipment is given in the serial number plate
The GWP (Global Warming Potential) of HFC gas: R134a= 1430 - R404A= 3922 - R452A= 2141
The equivalent CO_2 gas is present in the serial number plate

According to Regulation (EC) 1272/2008, the R-134a, R-404A and R-452A gases are non-flammable and non-toxic. They can be asphyxiating in high concentrations. Contact with the liquids can cause burns and frostbite.
The gas in the system is pressurised; it may explode if heated.

3 INSTALLATION

ALL STAGES OF INSTALLATION MUST BE CARRIED OUT IN COMPLIANCE WITH THE NATIONAL STANDARDS IN FORCE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND BY PROFESSIONALLY QUALIFIED PERSONNEL

Installation of the appliance and of the refrigerating unit must only be carried out by technicians of the manufacturer or by skilled personnel.
If the machine was supplied with a remote condensing unit, it is the installer's responsibility to check all the connections in accordance with the instructions provided for the installation of systems and machinery.
The installer is advised to use the appropriate personal protective equipment necessary for processing and in compliance with the regulations in force

3.1 Transportation and handling

The net and gross weight of this appliance can be found on the external packaging.
Loading and unloading of the appliance and/or of the subsystems from the means of transport can be performed using a forklift truck or fork pallet truck, the length of which is more than half that of the unit or using cranes where the appliance/subsystem is fitted with eyebolts. The lifting equipment must be chosen according to the size of the packaged machine/components and with sufficient capacity.
For handling of the appliance/subsystems, every precaution must be taken not to damage them, respecting the indications on the packaging.

3.2 Unpacking and disposal

Remove all cardboard or the wooden crate from the base on which the machine is placed. Then lift the machine/sub-assemblies with a suitable means (forklift truck); remove the wooden base and position the machine/sub-assemblies in the place provided.
After removing the packaging, verify the integrity of the machine/sub-assemblies In case of uncertainty do not use it and contact the distributor.

Remove the protective PVC film on the stainless steel panels from all sides both internally and externally.

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Note: *all the various components of the packaging must be disposed of according to the regulations in force in the country where the appliance is being used. In any case nothing must be disposed of into the environment.*

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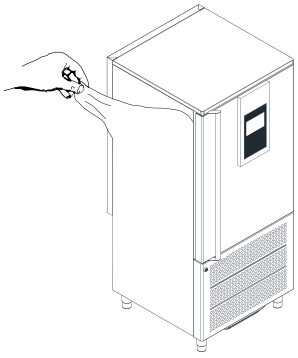


3.3 Positioning

The appliance:

- **must be installed in places where it can be checked by qualified personnel.**
- **it must not be installed outdoors.**
- **it must not be installed in dusty environments.**
- **it must not be placed in locations with the presence of water jets.**
- **it must not be washed with water jets.**
- **It must be installed and tested in full compliance with safety laws, traditional systems and with the regulations in force.**
- **it must be positioned at a minimum distance of 300 mm from the rear wall, and lateral of 150 mm.**

The installer must verify any requirements for fire safety (refer to the command of the local fire department for the relevant indications).

Level the appliance through adjustment of the feet. For the setting up of heavier machines, use dedicated hoists (fig. A - Chap. 3.1).
If the appliances are not levelled their functioning and the flow of condensates could be impaired.

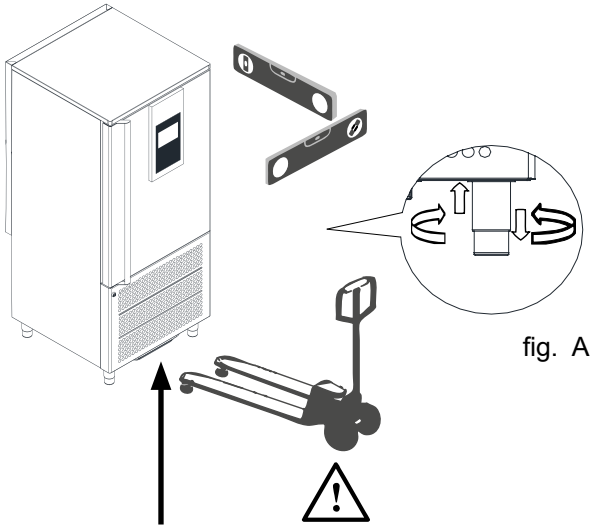
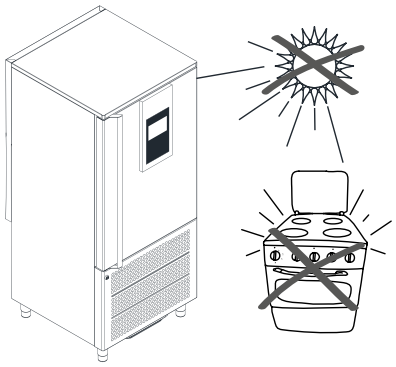


fig. A

Pay attention to the presence of the condensate drain pan and its supports

Avoid locations exposed to direct sunlight, indoor environments at high temperatures and poor air circulation and avoid installing the machine near any heat sources



3.4 Ambient temperature and air exchange

For air cooled liquid chillers, the ambient operating temperature must not exceed 32°C. Above this temperature the declared performance is not guaranteed. The machine can operate safely up to a temperature that is referred to by the climatic class indicated on the serial plate. Remote condensing units must be installed in special rooms or, if outdoors, in a place protected from direct sunlight, from adverse weather conditions and from heavy wind (above 5 m/sec. Where circumstances so require, it is the responsibility of the installer to evaluate the use of a cover or canopy (costs to be borne by the purchaser). In any case sufficient air circulation must be guaranteed
Any soundproofing works are charged to the customer.

3.5 Hydraulic connection for water cooled condensing units

It is advisable to install a valve between the mains and the appliance's inlet hose in order to be able to stop the passage of water if necessary.
For appliances with water cooled units the water supply temperature must be between 10°C (50°F) and 30°C (86°F) and the operating pressure must be between 0.1 MPa (1 bar - 14psi) and 0.5 MPa (5 bar - 72 psi)

3.6 Electrical connection

⚠ **No responsibility is accepted for damage to persons, animals or property caused by failure to earth the appliance and the creation of an electrical installation that does not comply with current standards.**
The mains connection must be made according to existing national rules and by experienced, qualified personnel.
Before connecting the appliance to the mains make sure that the mains voltage corresponds to the voltage indicated on the data plate.
Verify that the electrical installation is adequate to the maximum power of the appliance, as indicated on the plate.
Upstream of each device it is mandatory to install a differential thermal breaker according to current regulations in the country of installation.
The electric connecting cables must be dimensioned in accordance with the rules in force in the country of installation.
In cases where the power cord of the appliance is damaged, it must be replaced with another with characteristics that comply with the rules in force in the country of installation and performed by qualified personnel in order to prevent any risk to persons.
The earthing conductor must be correctly connected to an efficient earthing system.

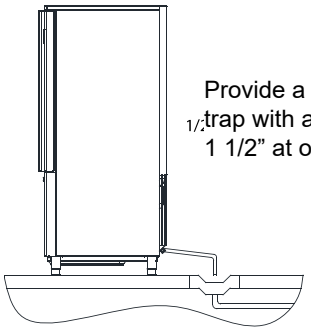
The manufacturer declines any responsibility and any warranty obligation in the event of damage to the equipment, to persons and to property caused by incorrect installation and/or failure to respect the applicable laws.

3.7 Remote group refrigerator connection

The diameters of the supply lines of the equipment are sized for distances of up to 10 meters.
Contact the manufacturer for longer distances..

3.8 Condensate drainage connection (if applicable)

It is necessary to provide a drainage pipe for the condensation and washing water of a minimum diameter of 1".
It is advisable to dispose of the condensate through an open drain at ground level and fitted with a siphon with a minimum diameter of 1/2 "



3.9 Notes for the installer

- Verify the correct installation and system testing before starting up the machine (test report)
- Check for any gas leaks from the welds or joints made during the installation phase.
- Check the efficient insulation of the connecting pipes between the condenser and the remote condensing unit.
- Check the electrical connection
- Check the electrical input
- Verify the standard pressures of the refrigerating system.
- Check the water connections with adjustment of the pressure valve during operation and good circulation of the condensation water (water cooled groups).
-

⚠ Double check the firm tightness of all hose-clamps on piping, nuts and bolts, and fasteners, that might come loose with the transport, to prevent water dripping or leakages, or other damages, during the machine's operation.

3.10 Commissioning

⚠

Commissioning must be carried out by authorised and qualified personnel.

Perform at least one complete cycle of rapid storage freezing (to reach the SET temperature), and a manual defrost cycle.
If the equipment or the remote condensing units were delivered in an upright position (e.g. on their back) or were overturned during installation, do not turn on immediately but wait at least 4 hours before use.
Inform the customer of the exact use of the equipment with specific reference to the use and to customer requirements.

3.11 Safety and control systems

- Door microswitch: this locks operation of the fans in the cell when the door is opened
- General protection fuses: they protect the entire power circuit against short circuits and possible overloads.
- Compressor thermal relay: this intervenes in case of overloads or malfunctions
- Safety pressure switch: this operates in the case of excess pressure in the refrigerant circuit
- Fusible plug: this intervenes in the case of overpressure and failure of the afore-mentioned safety pressure switch
- Chamber temperature control: this is operated by the electronic card via the probe positioned inside the cell
- Defrost termination temperature control: this is managed by the electronic card via the probe located on the evaporator.

3.12 Stop modes

In an emergency, to stop the machine remove power from the main panel using the earthing switch or by removing the plug from the socket making sure hands are not wet or damp.

3.13 Signalling/reports of malfunctioning

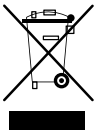
In cases of malfunction of the machine and for report signalling concerning the blast chillers supplied:

Assembled
You are requested to communicate to the retailer/service centre the machine model, code and the serial number shown on the registration plate located on the rear of the machine and inside the door.

Dismantled (with condensing units/remote condensers)
You are requested to communicate to the retailer/service centre the machine model and the code shown on the registration plate located above the control panel.

3.14 Waste electrical and electronic equipment - WEE (not valid for fixed installations)

The following information applies to EU Member States.
The crossed out wheelie bin symbol indicates that this product cannot be disposed of as household waste.
Ascertaining that this product is disposed of correctly will help prevent potential negative consequences for the environment and human health that might otherwise be caused by incorrect disposal of the same.



4 - ORDINARY MAINTENANCE

4.1 Operations by the user (that do not require the assistance of a qualified technician)

4.1.1 Room cleaning

In order to ensure hygiene and protection of the quantity of the food being processed, internal cleaning of the cell must be performed frequently, depending on the type of food stored.

Suggested frequency: weekly cleaning.

-The shape of the cell and of the internal components allow its cleaning using a cloth or sponge.

-Clean with water and non-abrasive neutral detergents.

Rinsing is possible with a cloth or sponge soaked in water or with a moderate water jet (not exceeding the system pressure). Do not scrape the surfaces with sharp or abrasive items.

4.1.2 Outer casing cleaning

For cleaning of the casing simply use a cloth dampened with a chlorine-free product, suitable for stainless steel.

4.1.3 Defrost water drainage

The system was designed for automatic and manual defrosting when needed.
Check for correct water drainage of the evaporator on the drip tray (if supplied), avoiding the occurrence of obstructions of the drainage pipe.

4.1.4 Ozone sanitation (optional)

⚠ ATTENTION: Free ozone, if reaches the respiratory tract, can be harmful to health.
During the ozone sterilisation cycle, do not open the door or however do not sniff directly inside the cabinet.
During the entire sterilisation cycle and, above all, in case of ozone leakage (pungent odour), ensure a ventilated environment with proper air recirculation.
During the ozone cycle, there should be no food products inside the cabinet.

The Ozone cycle (if installed), provides a fixed-term cycle in which ozone is introduced into the cell, to achieve sanitization, killing bacteria, molds etc.

This cycle must be started after cleaning the machine with the recommended detergents.

4.2 Operations that must be performed by an authorised installer

⚠

Below are listed the routine maintenance operations that must only be performed by qualified installation technicians. The manufacturer declines all liability for accidents caused by non-compliance with this requirement.

Below is a list of operations useful to preserve the efficient operation of the appliance with related recommended frequencies.
Detailed maintenance operations are described in the Service Manual kept by installers and qualified technicians.

4.2.1 Condenser cleaning
(for air cooled models only)

For the correct and efficient operation of the condenser, the air cooled condenser must be kept clean to allow the circulation of air.

Recommended frequency: operation to be performed every 30 days or in any case according to the working conditions of the appliance (the presence of dust and flour in the work environment of the appliance significantly affects dirt accumulation of the condenser thus making it less efficient).

4.2.2 Condenser filter cleaning
(for air cooled models only)

Recommended frequency: operation to be performed every 15 days. or in any case according to the working conditions of the appliance (the presence of dust and flour in the work environment of the appliance significantly affects dirt accumulation of the condenser thus making it less efficient).

4.2.3 Evaporator cleaning

For the correct and efficient operation of the appliance, the evaporator battery must be kept clean to allow free air circulation and especially to remove food residue and grease that can be a source of bacteria harmful to human health.

Suggested frequency: operation to be performed every 30 days. or depending on the type of food being processed.

4.2.4 Ozonator maintenance

Dirty and dusty environments reduce efficiency of the ozonator: for longer lamp life and for greater efficiency, the bulb of the ozonator should be cleaned periodically. To ensure maximum functionality the bulb must be replaced every 12 months.
For the correct maintenance and cleaning practices comply with the instructions in the service manual.

Suggested frequency: clean the lamp of the ozonator at least every 3 months .
Replacement of the lamp every 12 months (only genuine spare parts).

5 ADVICE FOR PROPER OPERATION

5.1 Operating instructions

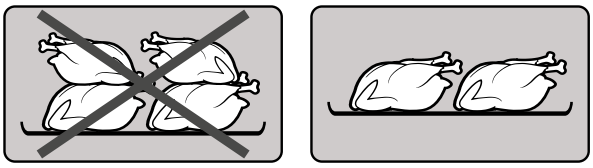
Before operating the machine it is necessary to perform thorough cleaning inside the cell.

5.2 Pre-cooling

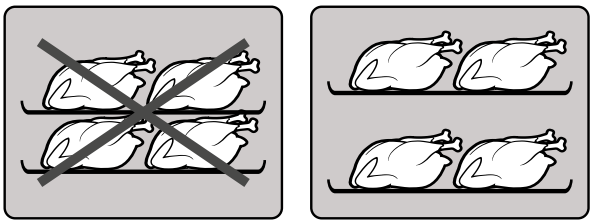
Before using the machine for blast chilling for the first time or after a period of inactivity, pre-cool the cell by running the machine unladen until the set operating temperature has been reached.
To obtain good performance of the machine and to avoid food alterations, it is advisable to:
• stack the products in order to promote the circulation of cold air in the entire cell;
• avoid prolonged and frequent door openings.

5.3 Loading of the machine

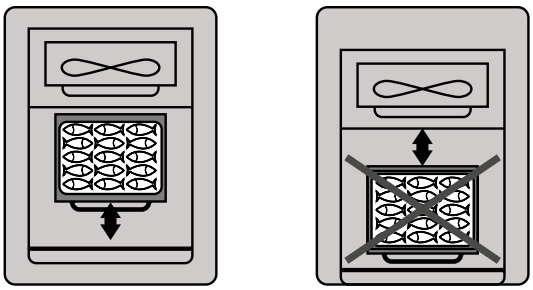
a) Make sure that the food to be blast chilled and/or deep-frozen does not overlap an in any case that it does not have thicknesses greater than 50-80 mm. Do not overload the machine beyond what is stated by the manufacturer.



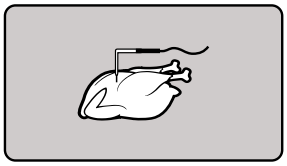
b) Ensure a sufficient distance is maintained between the trays to allow adequate air circulation.
If the machine is not completely loaded, distribute the trays and the load over the entire useful height avoiding concentrations.



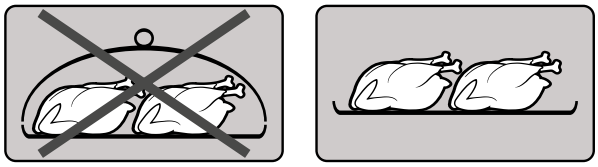
c) Place the trays in the inner part of the door, making sure that they are as close as possible to the evaporator.



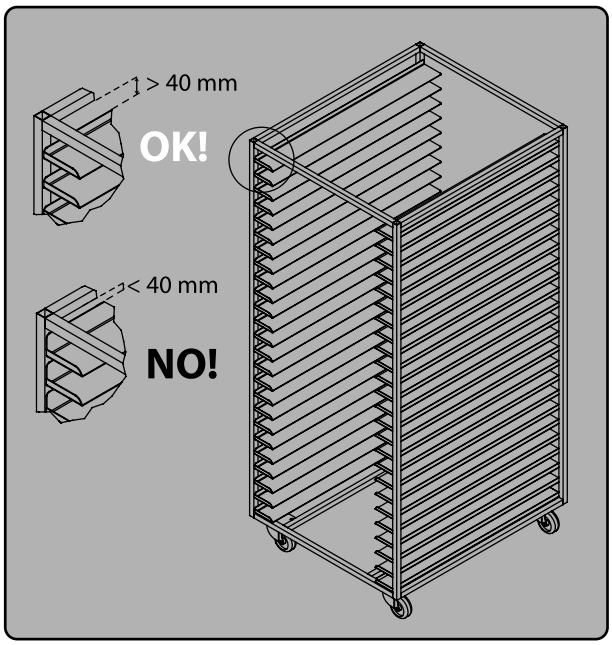
d) The core probe must be positioned correctly in the centre of the product with the largest cut or piece, making sure that the tip of the probe does not protrude out or touch the tray.
The probe must be cleaned and sanitised before each new cycle (work) in order to avoid undesirable contamination.



e) Do not cover the trays and/or container with lids or insulating films: the more the food is insulated the greater the time required for blast chilling and rapid freezing.
Packaging of the trays must be performed when the product is already frozen, before it is put into storage.



For wheeled blast chillers, it is important to guarantee that the air flow hits the product as much as possible. Therefore, the trolley guides, which support the trays, must not obstruct the flow and there must be a space between them greater than 40 mm.



6 MACHINE START-UP AND SHUT DOWN

6.1 General information

Up to 160 programmes of various type can be saved.

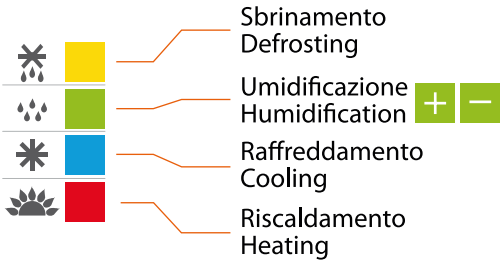
During all cycles, the humidification-dehumidification will be used, it will be active only if the cell temperature is higher than 3°C.

The Touch interface accepts only pressing with the fingers, ***avoid using tools or other mechanical devices which might damage the interface***

During the cooking cycles, the retarder proving cycles and in general in all cases in which high humidification values are used, it is recommended **removing the steel cap placed on the internal back discharge.**

Identification of operation in progress

Icons positioned in the top right



If the DFC logo appears, then the Dynamic Frost Control algorithm is active.

6.2 Entry and exit from Stand-by

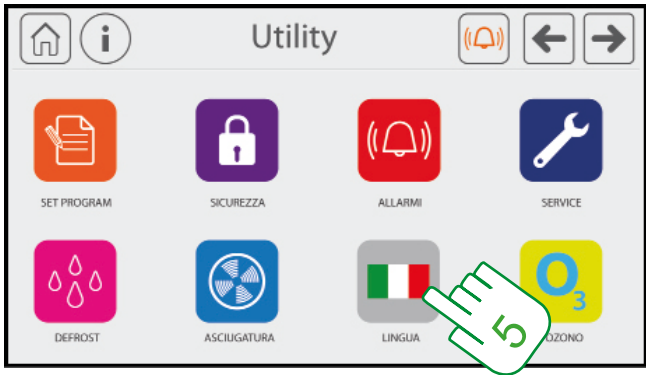
Upon the machine start-up, after a few seconds, the screen represented above will appear.
In order to access the main screen, press the key [1]. By pressing key [2], you can access the machine information.

In order to return to the initial stand-by screen, just press the key [3]

7 INITIAL SETTINGS

7.1 Language

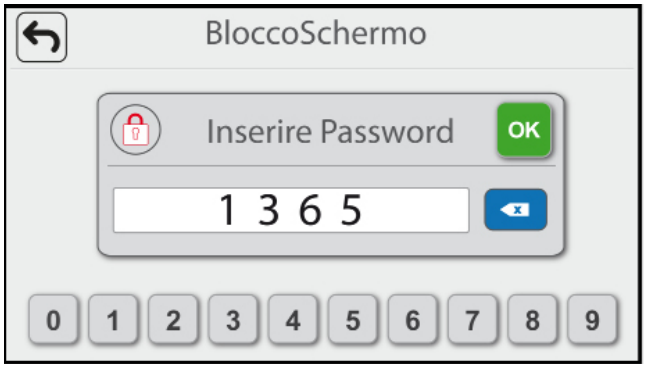
In order to access the language setting from the main menu, press the key **[4]**



Once the Utility window is accessed, press the key **[5]**

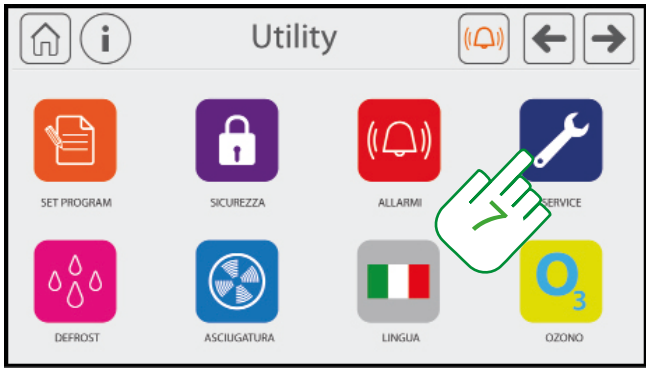
Select the preselected language by pressing the key representing it with the flag **[6]**

7.2 Unlocking the display

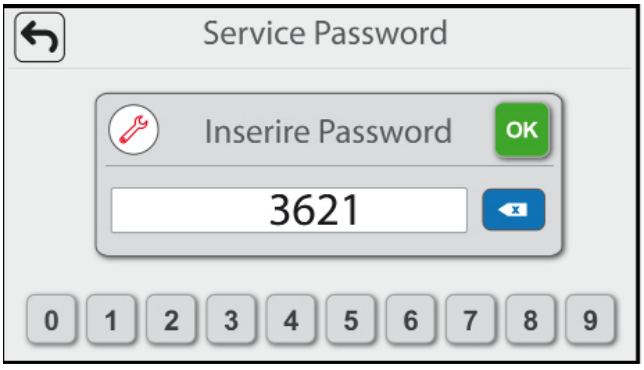


If the keyboard is blocked, type the password 1365 in order to unlock it

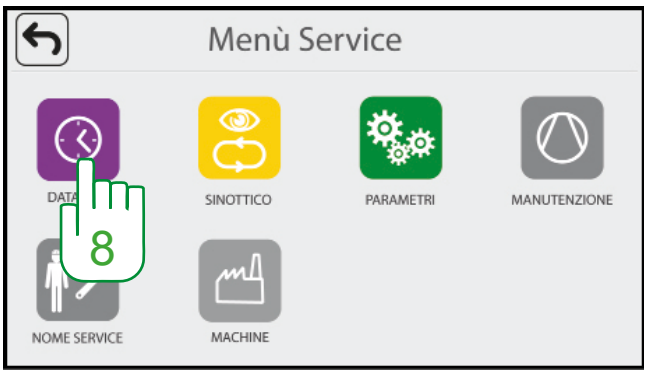
7.3 Date and time setting



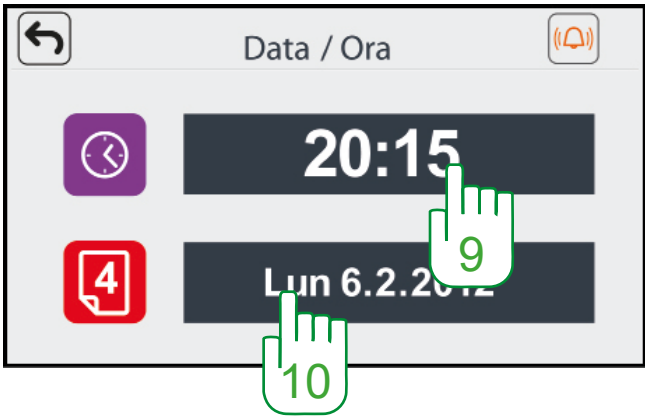
In order to set or change the date/time, access the Utility page and press the key **[7]**



Access the service area with the password **3621**



In order to access the date and time setting, press the key **[8]**



In order to change the date, press above the date field **[10]**

Once the window opened, use the keys +/- to change the day, month and year and confirm using the OK key to save the changes

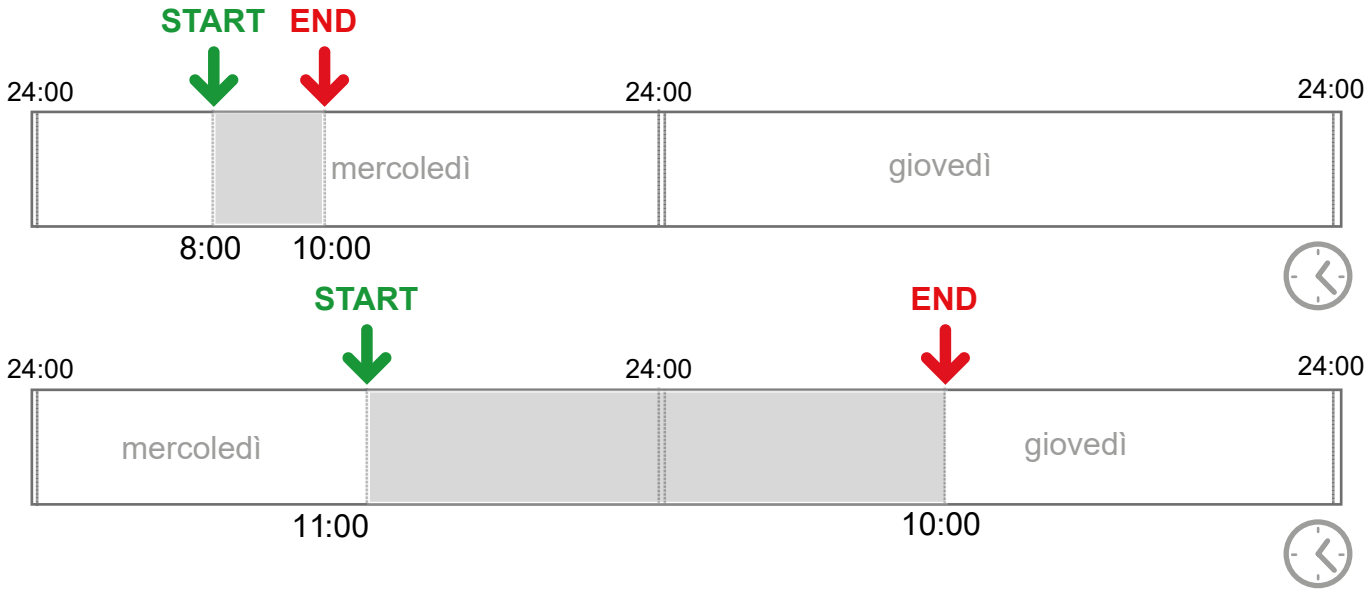
In order to change the time, press above the time field **[9]**

Once the window is opened, use the keys +/- to change the hour and minutes and confirm using the OK key to save the changes

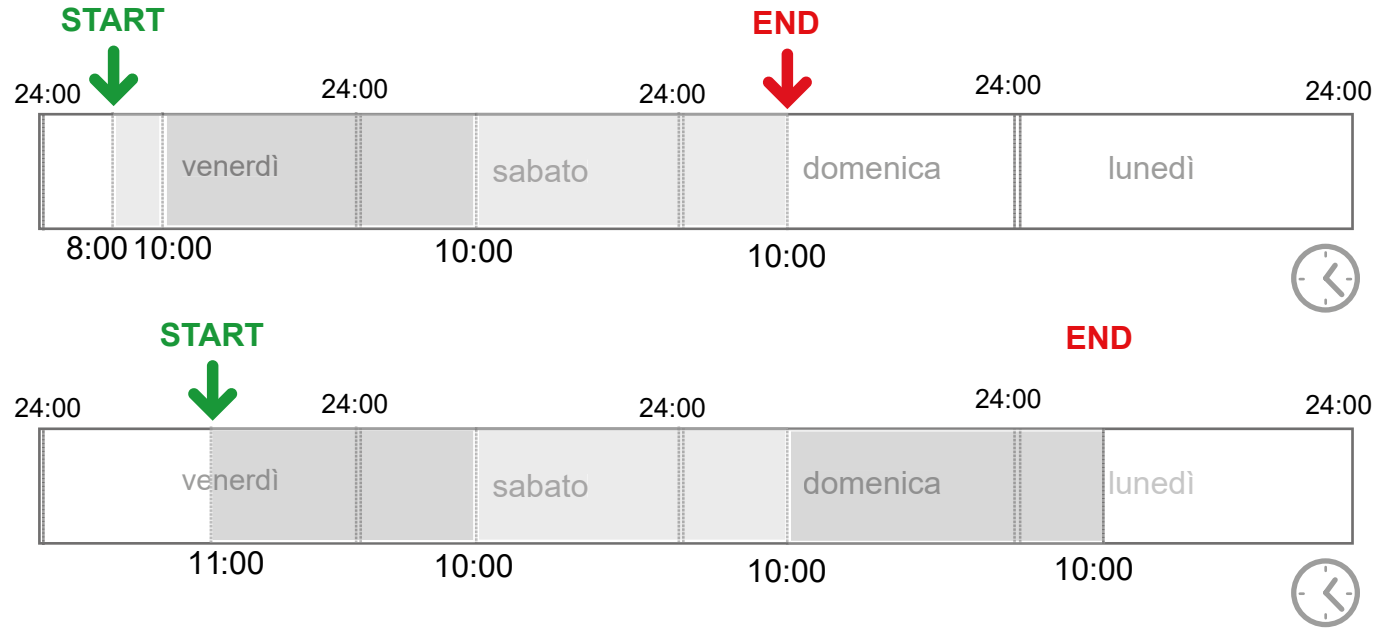
7.4 Setting the 24-48-72 H cycle duration

All cycles that provide the programming of the cycle end date, adopt the following duration setting method, based on the time ranges that fall within the 24, 48 or 72 hour ranges following the cycle start.
We present hereinafter a few examples that represent the setting logic.

1st example: 24H cycle ending at 10:00.



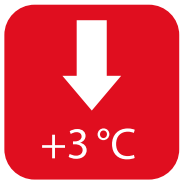
2nd example: 72H cycle ending at 10:00.



8 CHILLING / FREEZING CYCLES

8.1 Summary of Positive chilling cycles

The Positive chilling cycle is set to bring the temperature of a food item under 10°C, normally to +3°C. Hereinafter, we list the available chilling programmes.



1 LIGHT

Da utilizzare con prodotti particolarmente delicati.

Suitable for delicate products.

2 SOFT

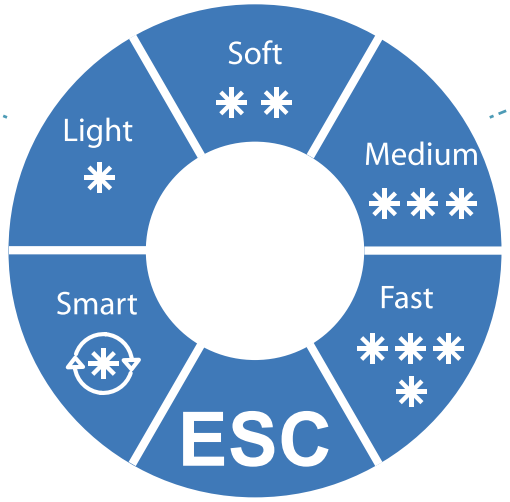
Per prodotti che non temono basse temperature.

Standard blast chilling cycle.

3 MEDIUM

Per prodotti grassi e delicati.

For fat and delicate products.



5 SMART

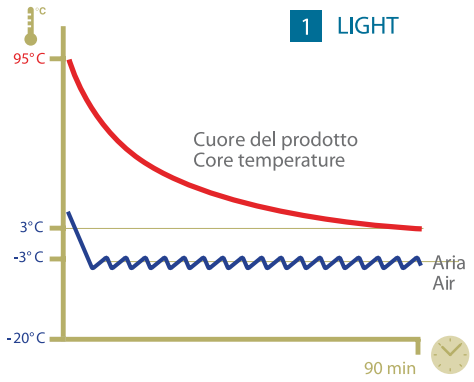
Sceglie automaticamente il ciclo migliore, in base al prodotto.

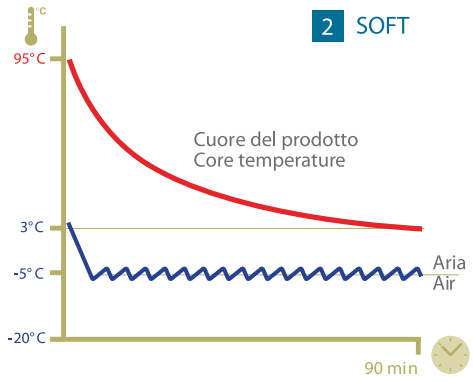
The system selects automatically the most suitable cycle.

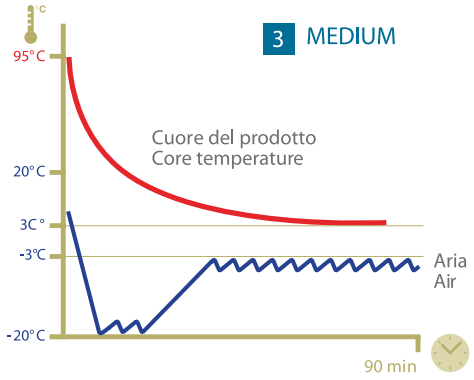
4 FAST

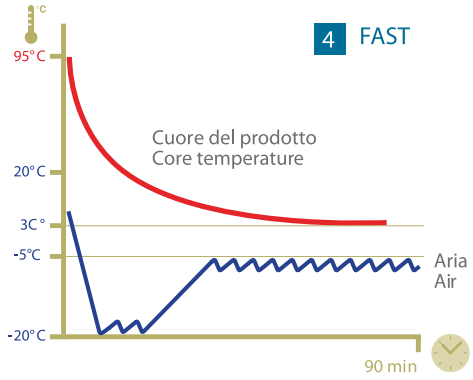
Ideale per carichi importanti.

Ideal for massive loads.









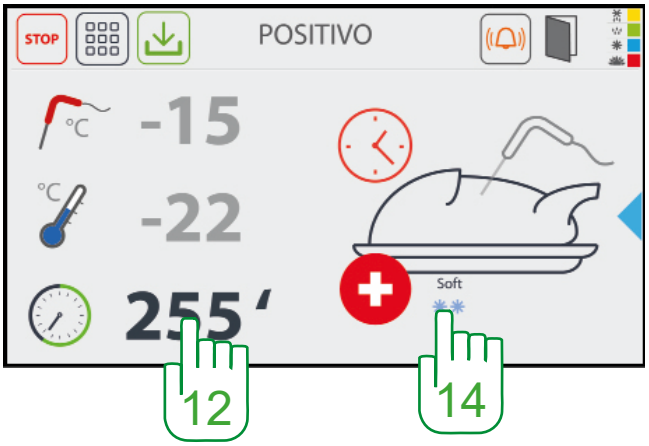
8.2 Starting the MANUAL Positive Chilling

In order to start the Manual positive chilling cycle, press the icon **[10]** from the main screen. In order to stop at any time the chilling, just press the key STOP **[11]**

While, in the case of a temperature cycle, in order to change the chilling end temperature set point, just press above the value **[13]**

Upon the first start-up, the blast chiller will execute a SOFT temperature cycle and check, during the first two minutes, if the needle is inserted. If inserted, it will continue to execute a temperature cycle or it will execute a time cycle. During the insertion control, the needle will flash. Afterwards, at any time, by pressing the symbols [11a] and [11b], you can change the operation type (time or temperature).

If you want to select another type of chilling cycle, just press above the name of the execution cycle **[14]** and a selection wheel will appear with the selectable cycles, once the preselected cycle **[15]** is selected and ESC **[16]** **is pressed,** the programme will acquire a new cycle.

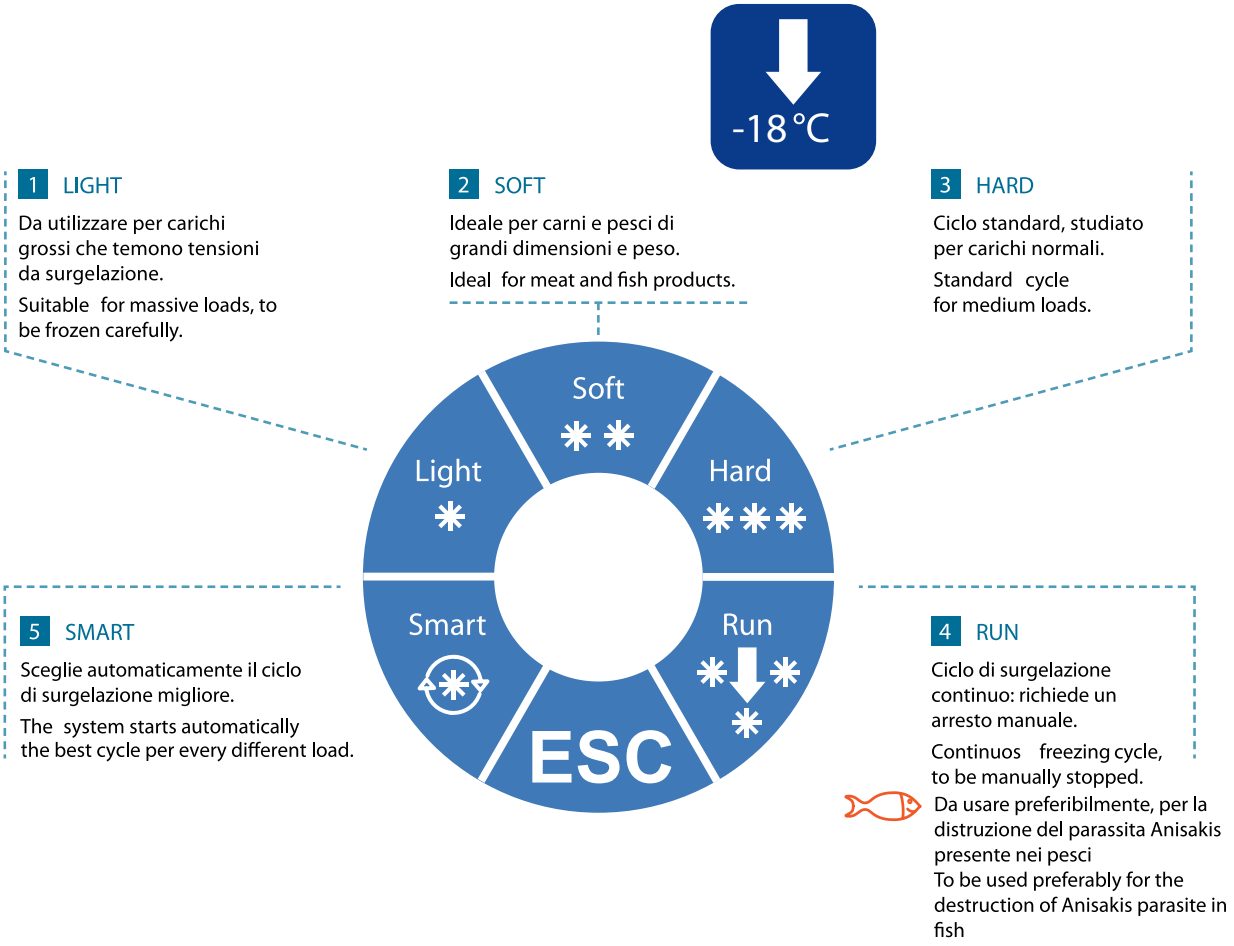


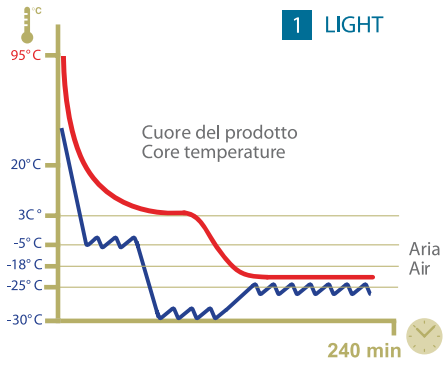
If the test is NOT exceeded, it will perform the execution of a time cycle represented in the figure. If you want to change the chilling time, just press above the countdown value **[12]**

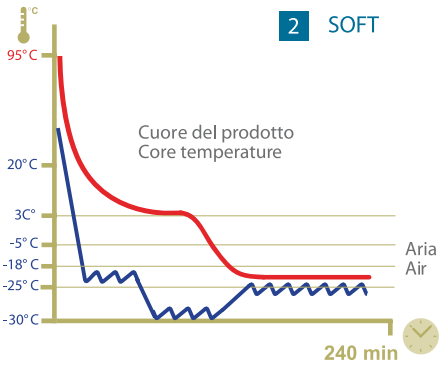
Once the chilling time has elapsed or the chilling end temperature is reached, the programme will pass automatically to the preservation phase. In the centre, the value read by the cell probe and in the lower part, the summary of the performed chilling type and its duration, used to set the dedicated chilling programmes, will be displayed. In order to stop the cycle, press the key **[11]**

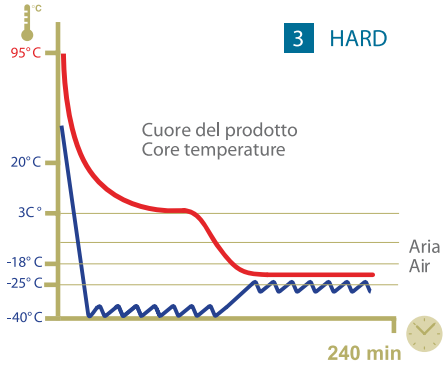
8.3 Summary of Negative chilling cycles

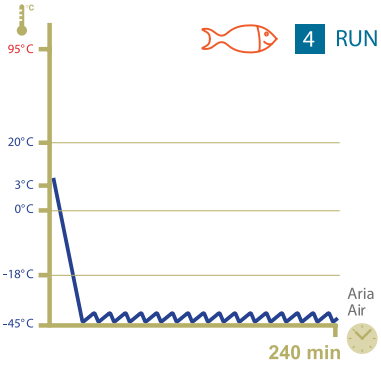
The negative chilling cycle is set to bring the temperature of a food item under -18°C, in the shortest time possible. Hereinafter, we list the available freezing programmes.





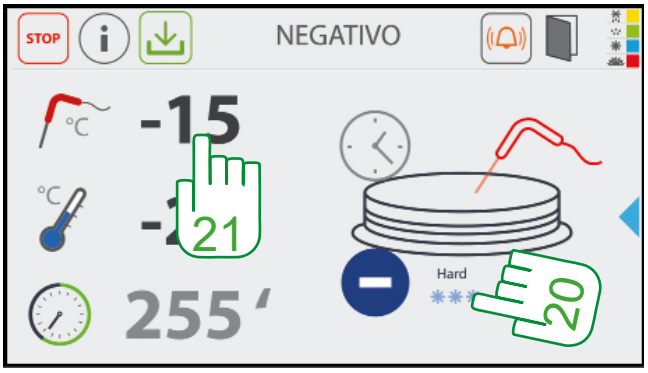




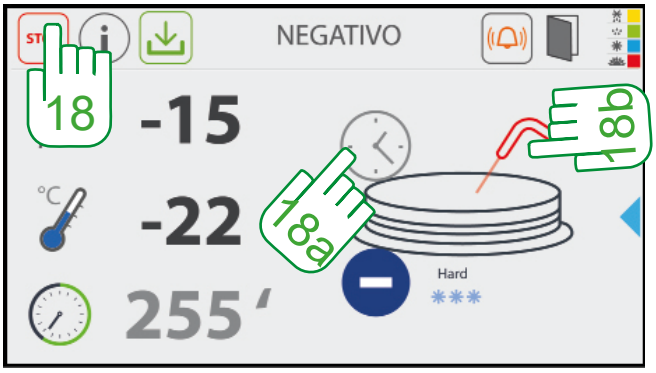


8.4 Starting the MANUAL Negative Chilling

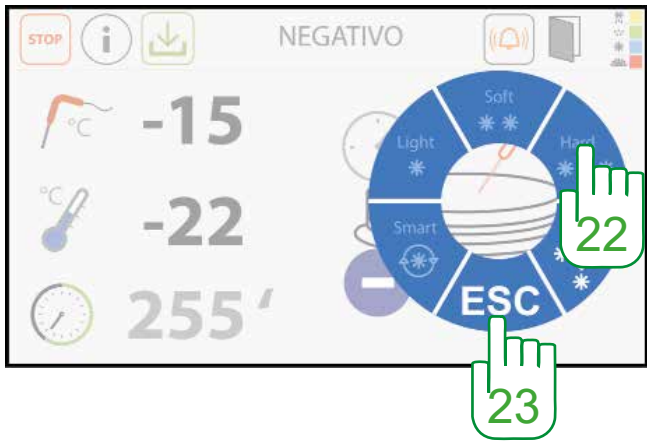
In order to start the Manual negative chilling cycle, press the icon **[17]** from the main screen. In order to stop at any time the freezing, just press the key STOP **[18]**



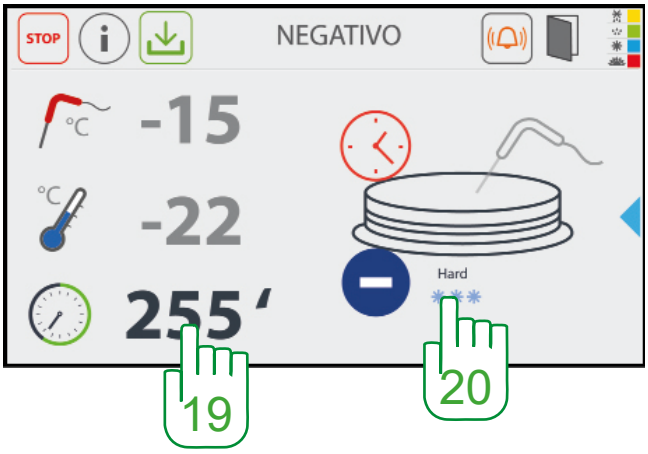
While, in the case of a temperature cycle, in order to change the freezing end temperature set point, just press above the value **[21]**



Upon the first start-up, the blast chiller will execute a HARD temperature cycle and check, during the first two minutes, if the needle is inserted. If inserted, it will continue to execute a temperature cycle or it will execute a time cycle. During the insertion control, the needle will flash. Afterwards, at any time, by pressing the symbols [18a] and [18b], you can change the operation type (time or temperature).



If you want to select another type of chilling cycle, just press above the name of the execution cycle **[20]** and a selection wheel will appear with the selectable cycles, once the preselected cycle **[22]** is selected and ESC **[23]** is pressed, the programme will acquire a new cycle.

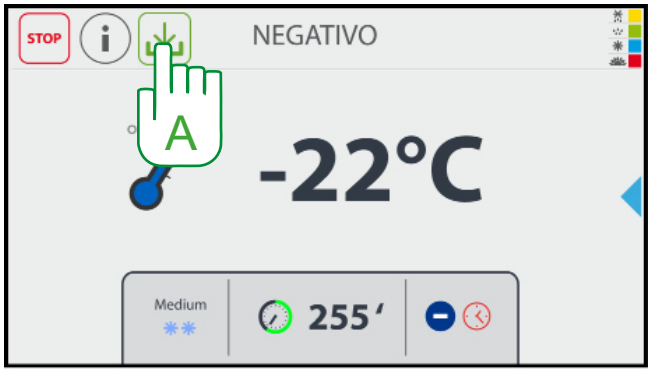


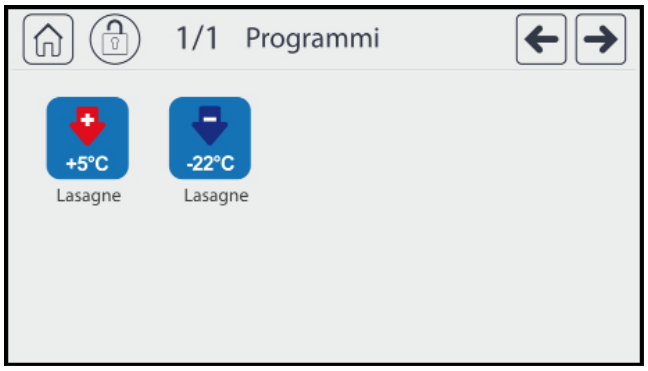
If the test is NOT exceeded, it will perform the execution of a time cycle represented in the figure. If you want to change the chilling time, just press above the countdown value **[19]**

Once the chilling time has elapsed or the chilling end temperature is reached, the programme will pass automatically to the preservation phase. In the centre, the value read by the cell probe and in the lower part, the summary of the performed chilling type and its duration, used to set the dedicated chilling programmes, will be displayed. In order to stop the cycle, press the key **[24]**

8.5 Saving the Positive / Negative chilling cycle

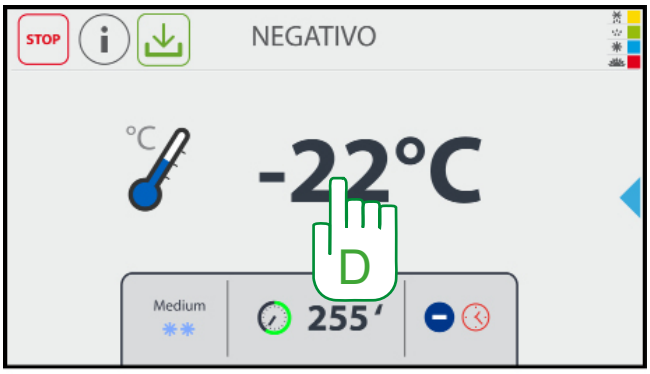
If you want to save the just executed cycle, press the key **[A]**, then type the Name of the programme on the keyboard **[B]** and finally confirm using the OK key **[C]**. Once the programme is saved, it will be found in the programmes window.





8.6 Change the preservation cell set point

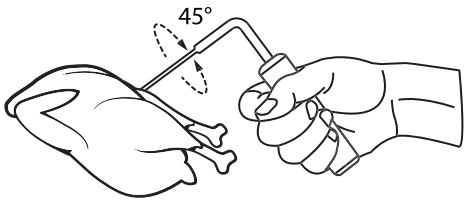
Both in the case of a chilling or a freezing, and possibly during the preservation phase, change the cell set point, it will be enough to press above the represented cell temperature value **[D]**, and a change window will appear. At the end of the change, just confirm using the OK key **[E]**, if you do not want to change, just press the **ESC** key.



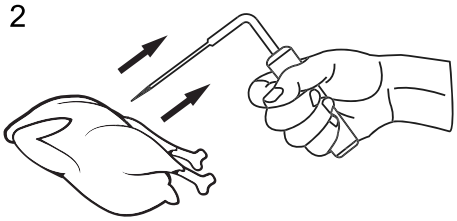
8.7 Needle probe removal

⚠ **The correct procedure to remove the needle probe from the product and to turn the probe around on itself by 45° (1) and afterwards extracting/removing it from the product (2). It is important to perform this operation in order to avoid wearing the probe**

1



2



9 THAWING CYCLE

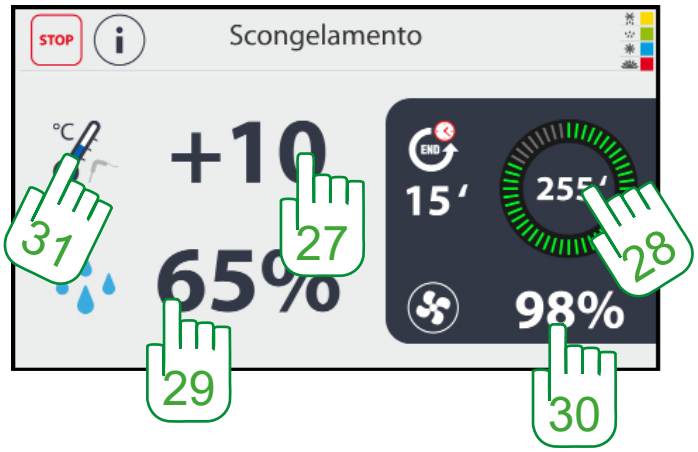
9.1 Manual Thawing

The defrost cycle has as its purpose to defrost a frozen food item, guaranteeing health and therefore being below the temperatures at which bacterial growth occurs (above 10°C).

The cycle is composed of a first pre-set time phase, during which the cell temperature, the humidity and the speed of the fans can be adjusted; and of a second preservation phase with undetermined time.

In order to start the defrost cycle, press the key **[25]**
The following window will appear:

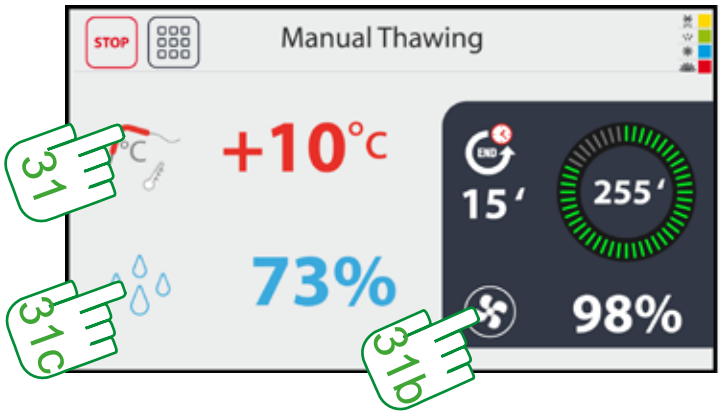
In order to execute a manual cycle, press the bottom key of the manual cycle **[26]**, once pressed, the following window will appear:



In order to change the set points, the window for changing the value appears, it will be enough to press above the displayed values. In order to change the cell set point, just press above the value **[27]**, in order to change the humidity set point, press instead above the value **[29],** in order to change the defrosting time, press above the value **[28]** and finally, in order to change the speed of the fans, press above the value **[30].**
You can also choose if the ventilation should be continuous or discontinuous, just press the symbol **[31b]** which will change the graphics with the following meaning:

Non-continuous ***Continuous***

The cycle is executed only according to the set time, however if, by any chance, the product has the needle probe inserted, by pressing the key **[31]**, you can go from the display of the cell probe to the display of the needle probe or vice versa.



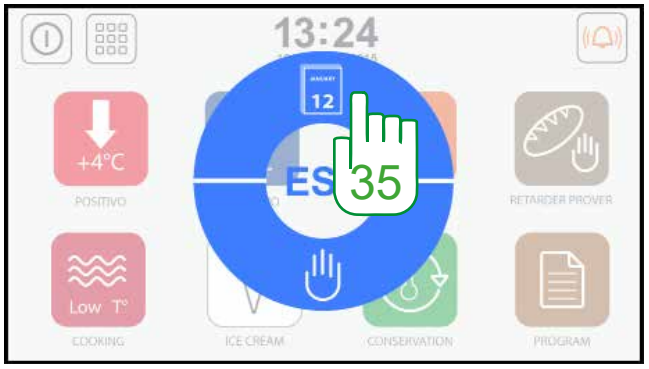
For a few seconds, you will be able to see the value read by the humidity probe by pressing the symbol [**31c**].

Once the time has elapsed, you will go to the preservation phase (next window), where you can change the cell temperature set point, the humidity and fan speed, by pressing above the corresponding values (in order for the humidity and fan speed values to appear or disappear, press the arrow [33].
At any moment, in order to stop the cycle, press the key [32]

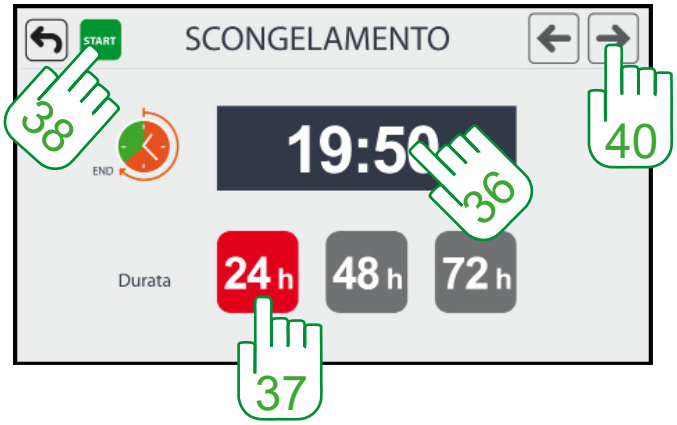
9.2 Programmed Thawing

The programmed defrost cycle consists of three phases: a first preservation phase, a second phase of defrosting with a defined time, and a final post-defrosting indefinite time preservation phase. The purpose of the cycle is to obtain defrosting within a particular date and time set by the user, keeping the food in the blast chiller before the defrosting process. To obtain this, the user must in any case know the time necessary to defrost the product

In order to start the Programmed defrost cycle, press the key **[34]**, the following window will appear:

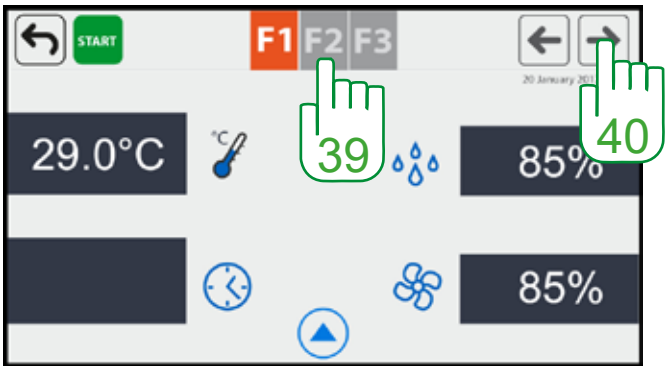


In order to execute a cycle on a date, press the top key **[35]**, once pressed, the following window will appear:



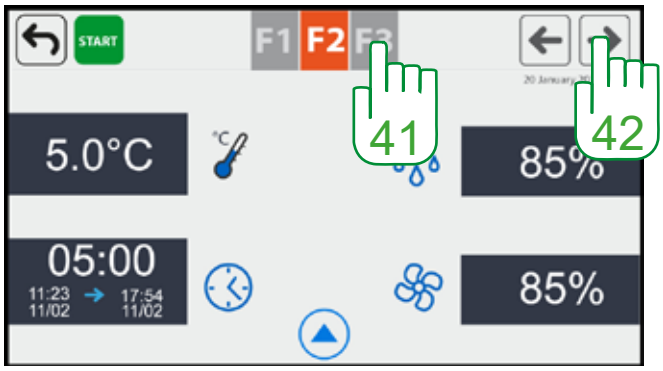
Now you have to set the final time by pressing above the values of the hours and minutes **[36],** and select the duration in days of the programme **[37].**

Should the duration of the programmed defrost cycle be higher than the defrosting phase, if the set time and duration in days which determines a period of time is lower than the duration provided for defrosting, the programme cannot be executed and the top left START key [38] will have a **grey background**, and it will not execute any programme. In order to enable it and making it green, just change either the cycle end time or the duration days.
In this page, the cycle can be started by pressing the key [38], or you can continue changing the default parameters of the 3 phases which compose the programme starting from phase F1 (pre-defrosting preservation) which is accessed by pressing the top right arrow **[40]**. In order to change the values, it is enough to press above and access again the change window.



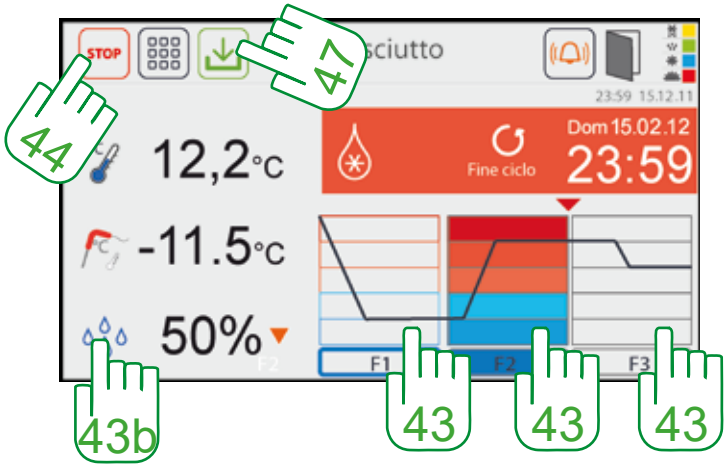
Naturally, the first phase does not have a time to set for the duration, such value being obtained for the difference between the total time which is missing at the end and the provided defrosting duration.

Phase F2 (Defrost) allows the setting or modifying of this duration, together with the other variables that can be set. It can be accessed by pressing on F2 **[39]** or on the right arrow **[40].**

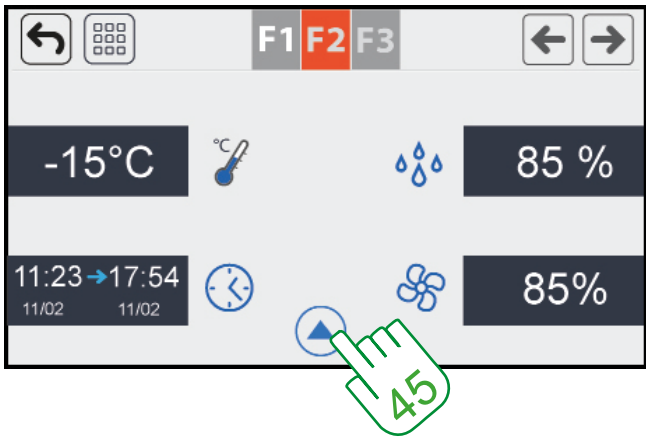


The phase F3 (preservation) allows setting the parameters of this phase of indefinite duration. It can be accessed, by pressing the keys **[41]** or **[42].**

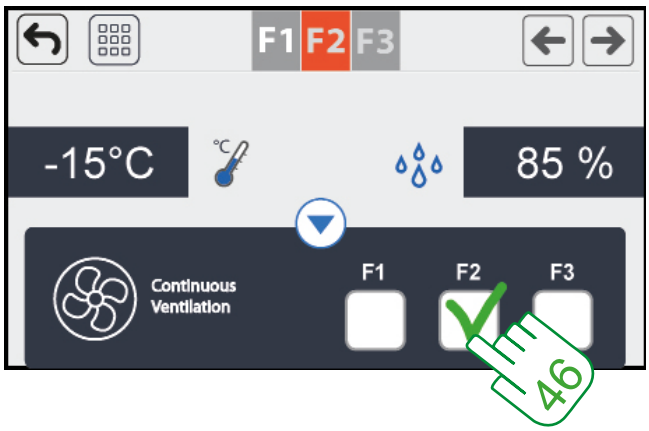
At any time, you can start the cycle by pressing the START key **[38]**, and the following screen will appear:



On the left, the read elements are represented: cell temperature, needle temperature and set cell humidity. For a few seconds, you will be able to see the value read by the humidity probe by pressing the symbol [**43b**].The screen represents a scheduled defrosting cycle, the coloured phase



(e.g. F2) will be the one in progress. You can access the temperature, humidity and fan speed settings, by pressing above the area of the phase you want to change.
If instead, the lower arrow **[45]** is pressed, you can access the setting, for every single phase, of the continuous ventilation (**this can be performed even during the setting phase of the cycle programme**).



In order to set the continuous ventilation, just press in the white boxes provided for each phase **[46]** until the green flag appears. In order to stop at any time the cycle, just press the key **[44].**
If you want to save the set programme, press the key **[47]**, and the following window will open to name the programme. If you confirm the name with the key **[48]**, the programme will be found in the programmes window. If you want to exit without saving, just press the key **[49].**

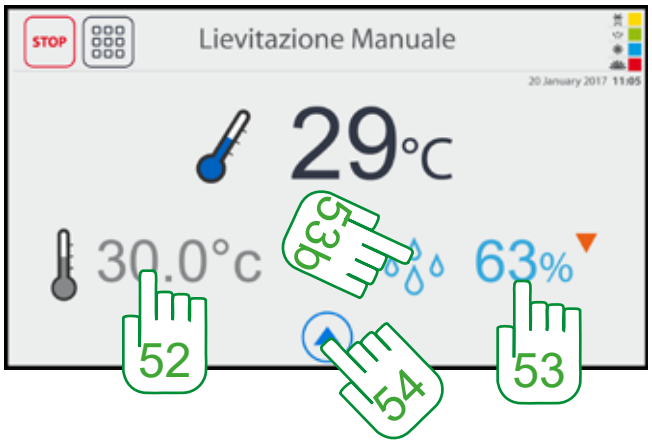
10 RETARDER PROVING CYCLES

10.1 Manual retarder proving cycle

The manual retarder proving cycle is a single phase cycle and of ***indefinite*** duration, during which the following elements can be set: Cell temperature, cell humidity, fan speed.

In order to start a manual cycle, press the icon **[50].** The following menu will appear, and you will have to select the MANUAL symbol **[51].**

The manual retarder proving programme will start, and the following screen will appear:



To change the cell temperature set point, push the value**[52]** keys, while in order to change the humidity set point, push the value **[53]**.For a few seconds, you will be able to see the value read by the humidity probe by pressing the symbol [**53b**].

Instead by pressing the arrow **[54]** you can access the

EXPERT configuration of the manual cycle where you can set the speed of the fans (by pressing above the value **[55]**, you can access a set point setting window), presence or absence of dehumidification **[56]** and finally the continuous or discontinuous ventilation **[57].**

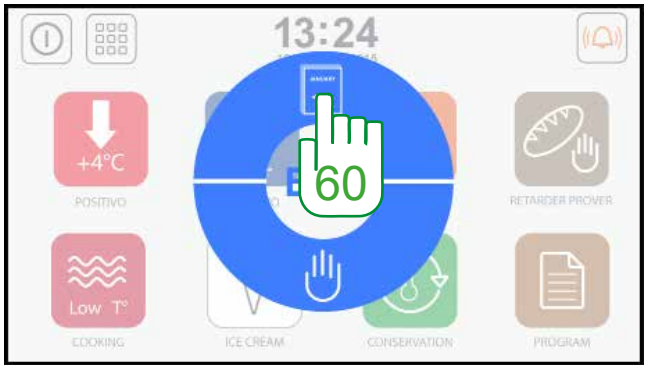
At any time, you can stop the cycle by pressing the STOP key **[58]**.

10.2 Programme retarder proving cycle

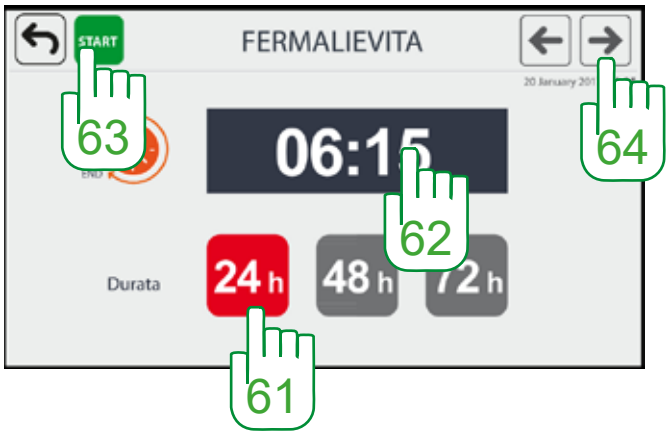
The programme retarder proving cycle is a 4+1 phase cycle and it has a definite duration, passing then to an indefinite duration conservation, in which the following elements can be set for every single phase: Cell temperature, cell humidity, fan speed and duration (starting from Phase 2).

In order to start a SCHEDULED cycle, press the icon **[59].** The following menu will appear, and you will have to select the SCHEDULED symbol **[60].**

The PROGRAMME retarder proving programme will start, and the following screen will appear:



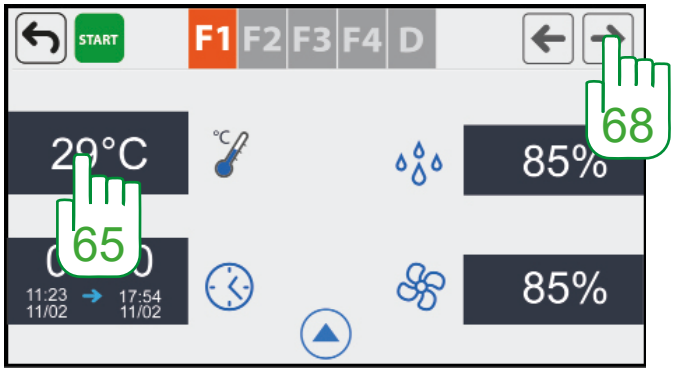
Select the current programme mode using the key **[60]** and access the next window:



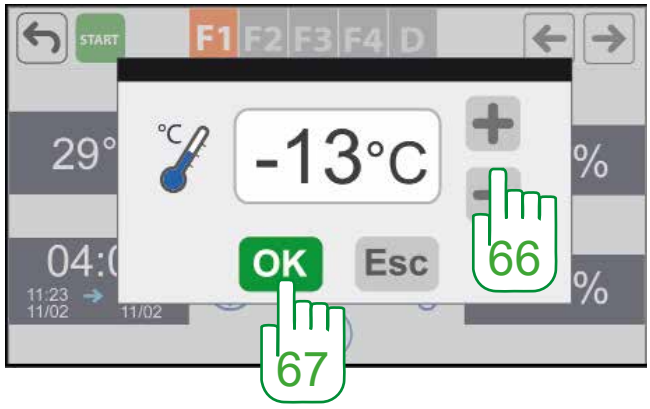
In this window, you can set the time range (24-48-72h see paragraph 2.4) by pressing above the represented values **[61]** (the selected one will become red), and the time at which the retarder proving programme will end **[62].**

If the sum of the duration of the phases F1+F3+F4 exceeds the TOTAL duration of the set cycle, the START key will remain grey and inactive, in order to indicate that you must POSTPONE the cycle end time and thus increase the duration.

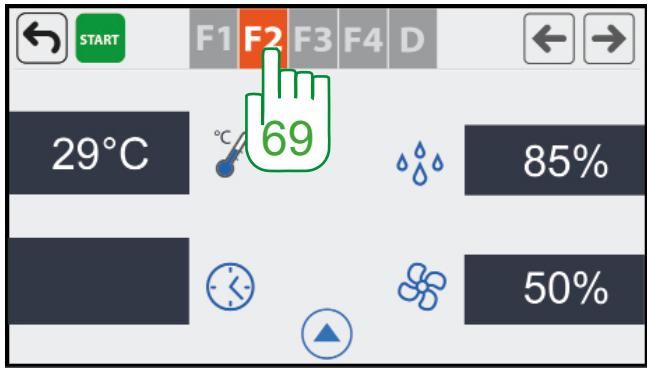
Now, the cycle can be started by pressing the START key [63] if enabled. Otherwise, continue with the settings of phase F1 by pressing the key [64].



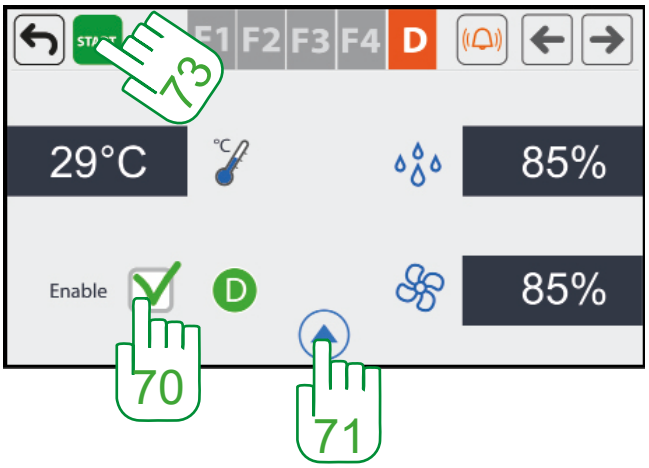
Different set point values can be set by pressing above the displayed values **[65]**, and causing the set point edit window to open. Act on the +/- keys **[66]** to change the value and to confirm with the key **[67]**.



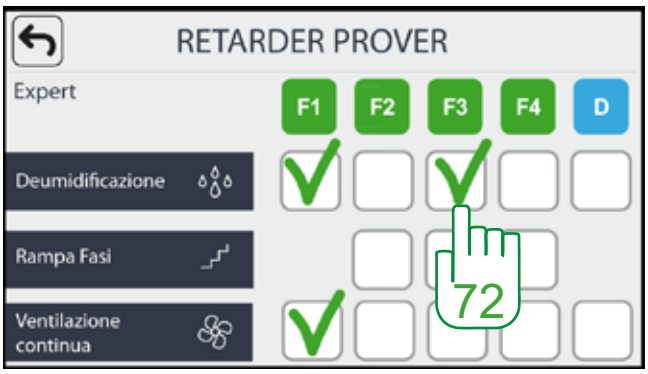
Similarly, proceed with the other phases, by pressing the key **[68]**. In order to access directly the phase of interest, press the phase **[69]**. The only phase during which the duration cannot be set is phase F2, since this duration is obtained by the difference between the total time and the sum of phases F1, F3 and F4.



The last optional phase that can be set is the SLEEP one, which is an indefinite time mode, which guarantees a preservation phase. In this case, in order to enable it, check the FLAG **[70]**.

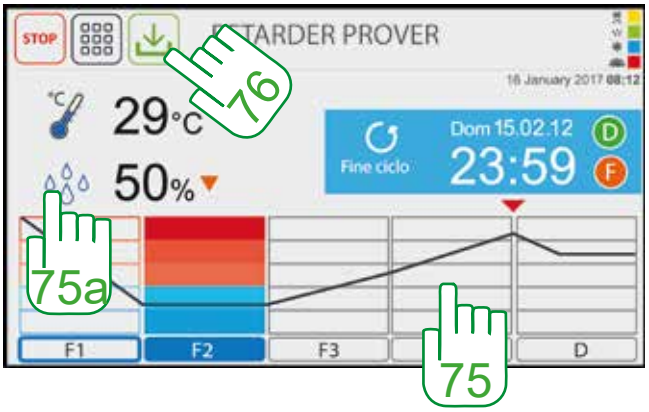


If you also want to set the parameters of the EXPERT mode, press the key **[71]**, and the following screen will appear:



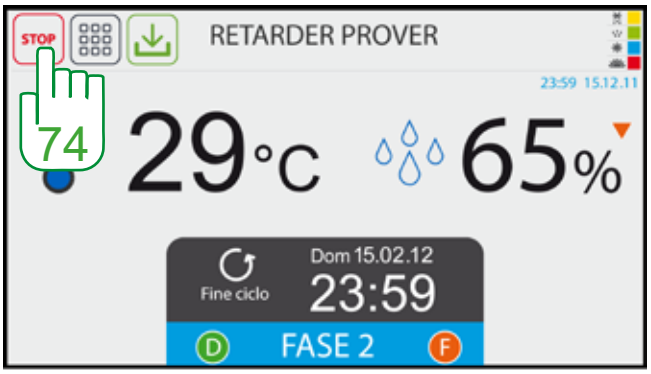
Enable using the Flags **[72]** the advanced functions during the individual phases.

Now, it is possible to start the programme by pressing the START key **[73]**. The following window will appear:



In order to change the set points during the cycle, just access the phase of interest, by pressing above the area which marks the phase **[75]**. For a few seconds, you will be able to see the value read by the humidity probe by pressing the symbol [**75a**]. Once the cycle has reached the Cycle End time it will move, if provided, to the sleep preservation phase or phase D. In this case as well, by pressing key **[76]**, it is possible to save the cycle in progress for future use, associating it with a specific name.

If you do not touch the screen, after a few seconds the screen will fade to this summarised view, where you have the main information:



Upon the first touch of the screen, you will return to the previous general screen.

In order to stop the cycle, just press the STOP key **[74],** and you will return to the main menu.

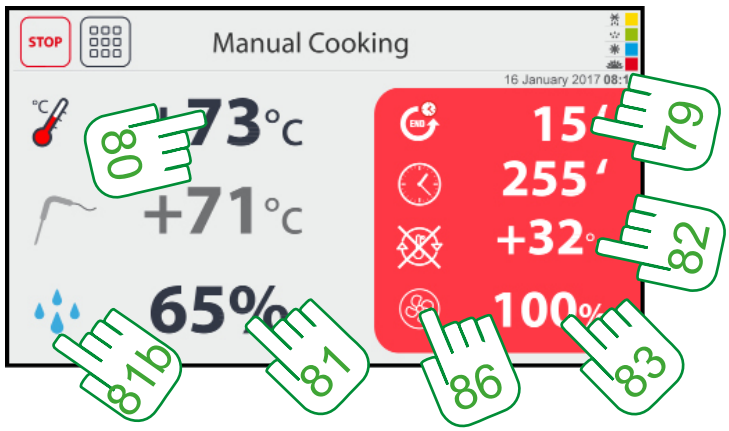
11 LOW TEMPERATURE COOKING CYCLES

11.1 Timed Manual Cooking Cycle

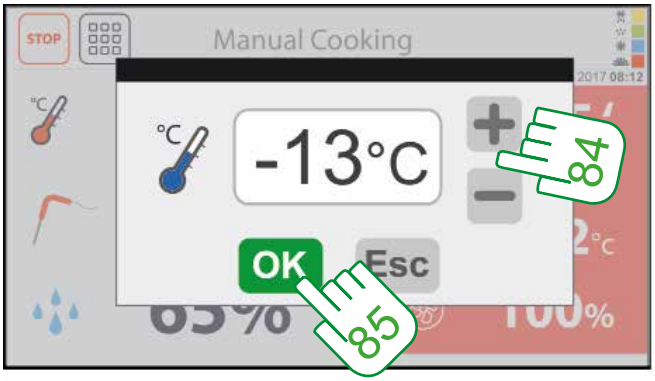
The timed manual cooking cycle is a cycle consisting of two phases: the first of defined duration for cooking, the second phase of indefinite duration, for post-cooking preservation. The low temperature cooking phase is basically a constant temperature cycle having the possibility to set the humidity and the ventilation. Using lower temperatures requires a longer cooking time than a normal oven.

In order to access the manual cooking, press the key **[77]** from the main menu:

The following window will appear and you must press the manual selection **[78]**. Then the following screen will appear, which will start in "timed" mode (needle probe temperature in grey) and the cooking cycle will start with default values.



For a few seconds, you will be able to see the value read by the humidity probe by pressing the symbol [81b]. In order to change the duration of the manual cycle, press the value **[79]**, while in order to change the cell temperature set point, press the value **[80]**, in order to change the set point of the relative humidity in the cell, press the value **[81]**. In all these cases, a value changing window will appear, for example in the case of the temperature, we will have:

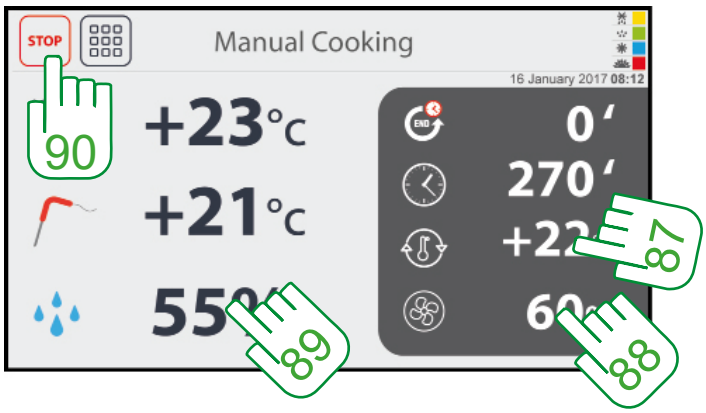


Using the keys **[84]** the value will be changed, while if using the key **[85]**, the modification made will be saved. Then, you can set the PRESERVATION temperature set point, i.e. of the second phase. In order to change it, simply press on the value **[82].** While, in order to change the speed of the fans, just press the value **[83]**. Then, by pressing on the preservation symbol, it is possible to enable or disable the preservation step. The graphics will change as follows:

DISABILITATA ABILITATA

Then, you have the possibility to set the CONTINOUS ventilation, in this case, just press above the ventilation symbol **[86]** which will change the graphics in the following way:

Non-continuous ***Continuous***



The countdown will only start once the temperature set point determined for the cooking has been reached.
Once the cooking time has elapsed, the appliance will go into preservation mode, displaying the following screen on a background that is grey and no longer in red.

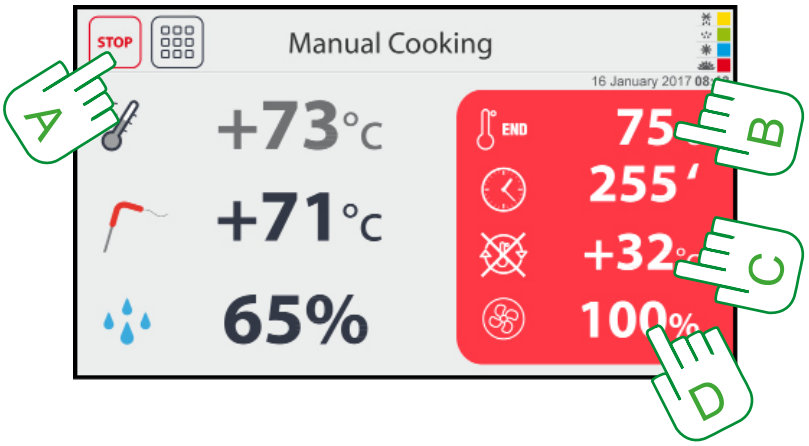
In this case as well, you can change the cell set point **[87]**, the speed of the fans [88] and the humidity set point **[89]**.

In order to stop the cycle at any time, just press the key STOP **[90]**

11.2 Manual Temperature cooking cycle

The manual temperature cooking cycle is also a cycle consisting of two phases: the first for cooking, the second a phase of indefinite duration, for preserving after cooking. The low temperature cooking phase is basically a constant temperature cycle having the possibility to set the humidity and the ventilation. **In this case, however, the end of cooking is not determined by a pre-set elapsed time, but by the reaching of a temperature set by the needle probe**.

After inserting the needle in the food to be cooked, the cooking phase starts as in the case of timed mode, then, pressing the needle symbol [A] the temperature mode is activated:

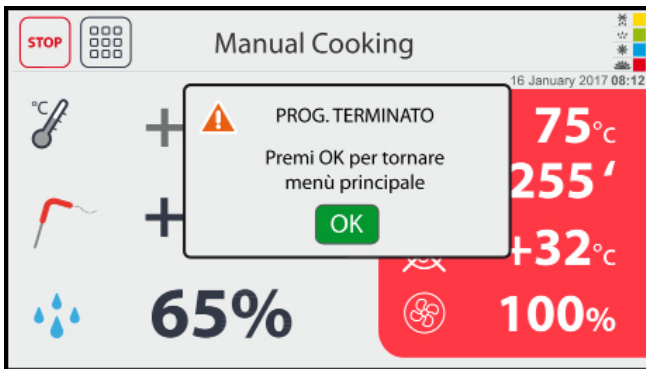


In this mode the thermometer symbol will be grey, but it will always be possible to set the cell temperature set point for cooking by pressing above the cell probe value.

In the first 5 minutes a check of the insertion of the needle probe will be carried out (the needle symbol will flash). If it is detected that the probe is not inserted, it will pass to timed cooking. However, it is possible to force temperature cooking by pressing the symbol [A]

The end of cooking temperature is represented by the value [B]. To change, it simple press above the value. Below it will appear the elapsed time, and in this case also it is possible to set the temperature determined for the storage phase [C] (if enabled) and the fan speed [D].

For both timed and temperature cooking, if preservation is disabled, at the end of the cooking cycle, the cycle will stop and the following message will appear:

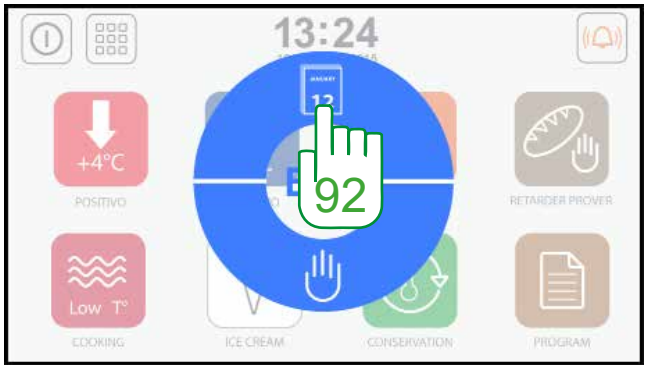


11.3 Programme Cooking Cycle

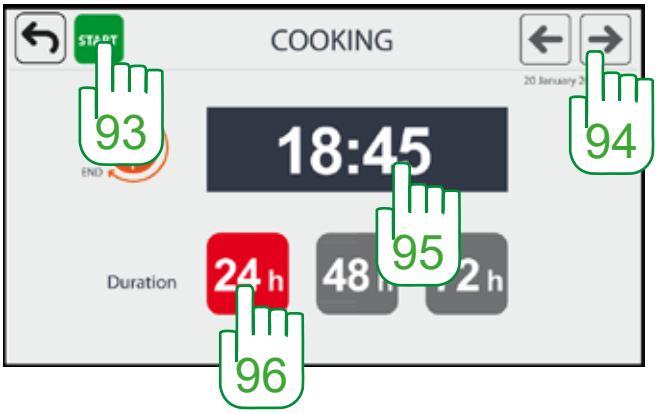
The programme cooking cycle (i.e. with a pre-set cooking end date and time) is a 3-phase cycle, the first two having a definite duration, and the third one with an indefinite duration preservation period. The following elements can be mainly set for every single phase: Cell temperature, cell humidity, fan speed and **only in the case of phase F2**, the duration.

In order to access the scheduled cooking, press the key [91] from the main menu:

The following window will appear and you must press the key [92]:



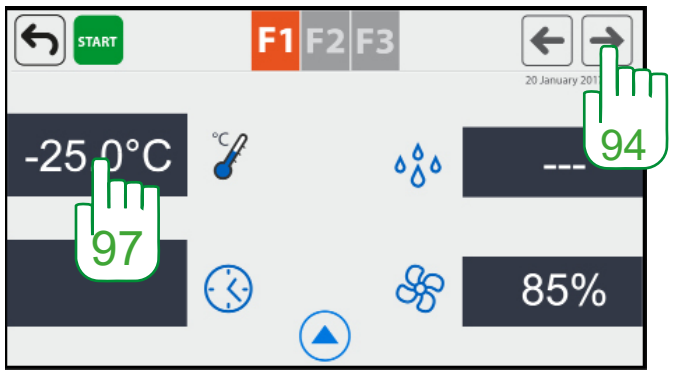
The following window will appear, which provides the initial setting of the duration:



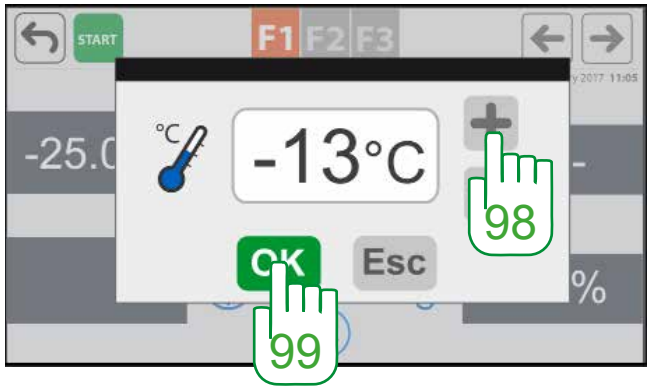
In this screen, you can set the duration (24-48-72h, see paragraph 2.4) by pressing above the represented values **[96]** (the selected one will become red), and the time at which the cooking programme will end **[95].**

If the duration of phase F2 exceeds the TOTAL duration of the set cycle, the START key will remain grey and inactive, in order to indicate that you must POSTPONE the cycle end time and thus increase the duration.

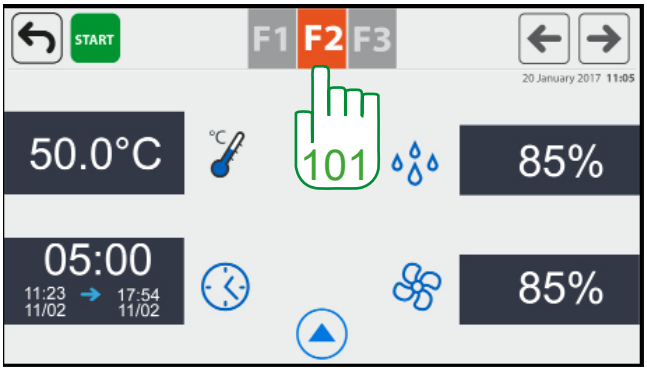
Now, the cycle can be started by pressing the START key **[93]** if enabled. Otherwise, continue with the settings of phase F1 by pressing the key **[94].**



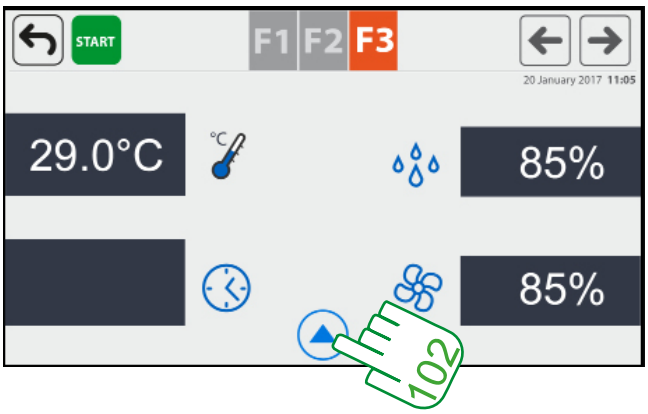
Different set values can be set by pressing above the displayed values **[97]**,, and causing the set edit window to open. Act on the +/- keys **[98]** to change the value and to confirm with the key **[99]**.



Similarly, proceed with the other phases, by pressing the key **[94]**. In order to access directly phase of interest, press the phase **[101]**. The only phase during which the duration can be set is phase F2, since this duration is the same with the low temperature cooking time.



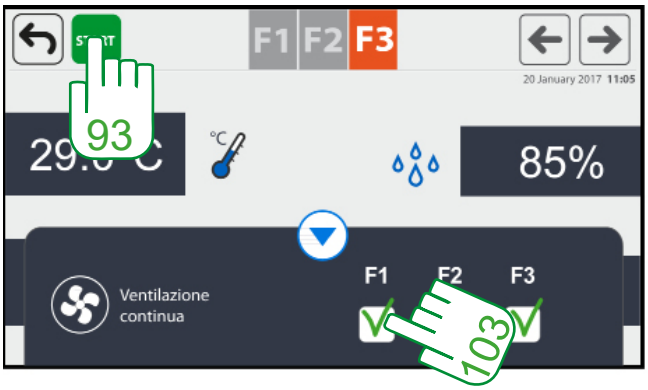
If the duration of phase F2 exceeds the TOTAL duration of the set cycle, the START key will remain grey and inactive, in order to indicate that you must POSTPONE the cycle end time and thus increase the duration.



Now, the cycle can be started by pressing the START key **[93]** if enabled. Otherwise, continue with the settings of phase F3 by pressing the key **[94].**

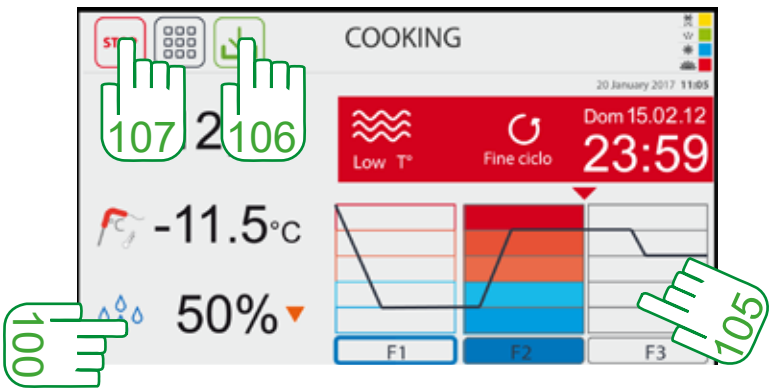
The last phase that can be set is the F3 one, which is an indefinite phase, which guarantees a preservation phase after cooking.

If you also want to set the parameters of the EXPERT mode, press the key **[102]**, and the following screen will appear:



Enable, using the Flags **[103]**, the continuous ventilation during the individual phases.

Now, it is possible to start the programme by pressing the START key **[93]**. The following window will appear:



In order to change the set points during the cycle, just access the phase of interest, by pressing above the area which marks the phase **[105]**. The cooking cycle, once ended, will move, if provided, to the F3 preservation phase.

For a few seconds, you will be able to see the value read by the humidity probe by pressing the symbol [**100**].

In this case as well, by pressing the key **[106]**, you can save the on-going cycle for a future use, associating to it a specific name.

In order to stop the cycle, just press the key STOP **[107]**

12 ICE CREAM CYCLE

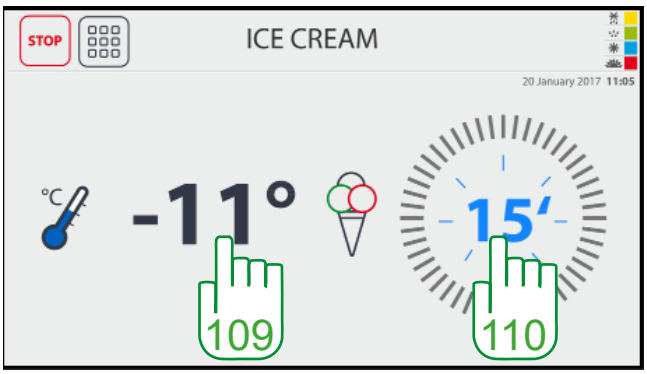
12.1 Ice Cream Manual cycle

The Ice Cream cycle is a single phase cycle and of ***indefinite*** duration, during which the following elements can be set: Cell temperature and the timer.

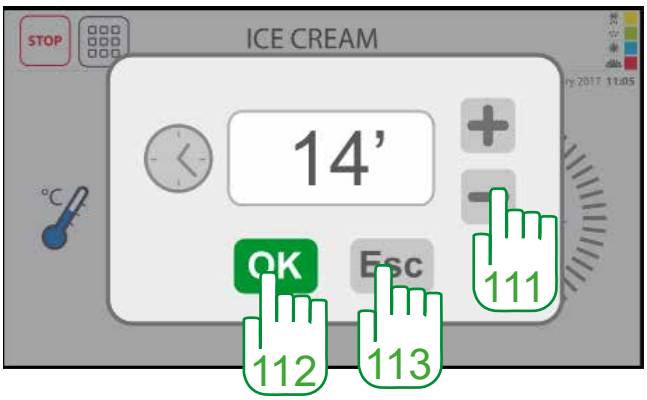
This cycle is aimed to quickly harden the surface of an ice cream just made and as soon as it leaves the whisker, or with a reverse process, softening it as it is already frozen.

In order to access the ice cream cycle, press the key [108] from the main menu:
The following window will appear, where the cell tem-

perature reading **[109]** and the flashing Timer value are displayed **[110].** The appliance will start to cool down right away.

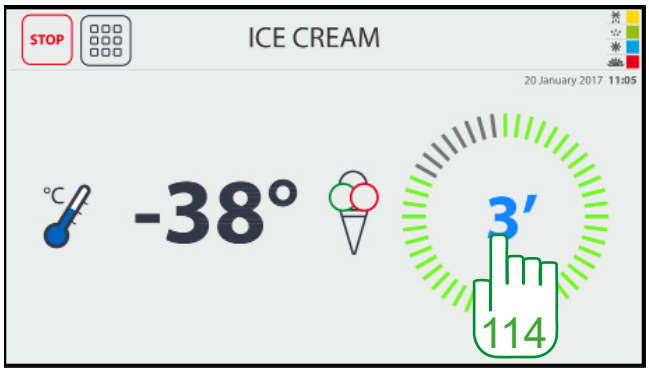


During this phase, but also subsequently, you can change the initially set value of the timer by pressing above the value [110] and the following value changing window will appear:

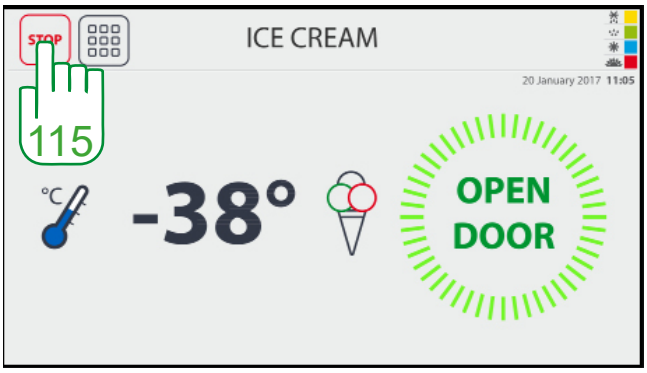


Using the keys +/- **[111]**, you can change the value, afterwards, you can save the change by pressing the OK key **[112]**, or you can exit without saving using the ESC key **[113].** Similarly, by pressing above the cell temperature **[109]**, you can change the cell temperature set point.

By simply opening and closing the cell, the countdown will start, the following window will appear, in which the value **[114]** indicates the remaining time.



Once the countdown ends, the following window appears with the flashing message:



This message will notify you that you must remove the hardened ice cream and you must insert a new bucket of ice cream.

However, you can at any time restart the timer by opening and closing the door.

To leave the cycle, just press the STOP button [115] at any time.

13 PRESERVATION CYCLE

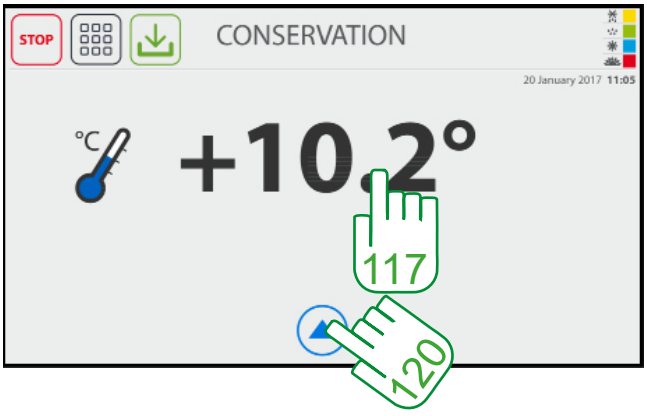
13.1 Manual preservation cycle

The preservation cycle is a single phase cycle and of ***indefinite*** duration, during which the following elements can be set: Cell temperature, relative humidity and fan speed.

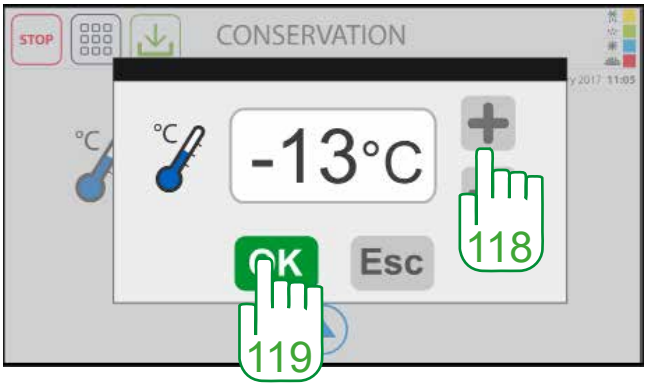
This cycle aims to perform the preservation of food items under optimum air temperature, humidity and flow conditions.

In order to access the preservation cycle, press the key **[116]** from the main menu:

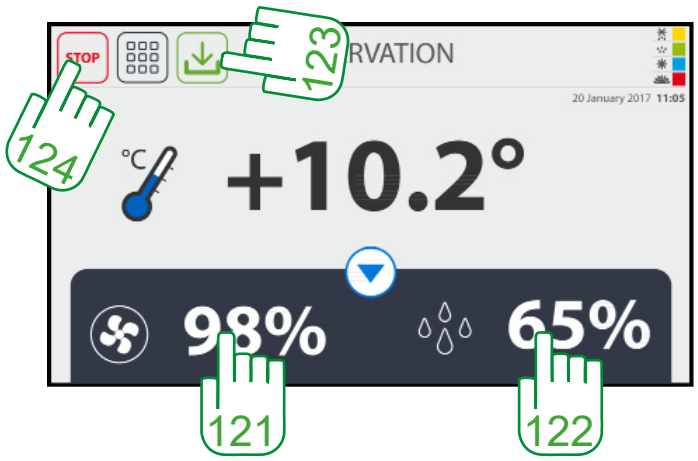
The following window will appear, in which, upon start-up, only the reading of the set temperature is represented **[117].** The appliance will start to cool down right away, if the conditions exist.



In order to change the set temperature, just press above the temperature value **[117]** and the following window for changing the temperature will appear, in which, using the keys +/- **[118]** you can change the value and using the OK key OK **[119]** you can confirm it.



If you want to change the set points of the fan speed or of the relative humidity, first of all, the pop-up window appears which contains the adjustment set points, by pressing the arrow **[120],** the following window will thus appear:



By pressing the value of the fan speed value **[121]** and of the relative humidity **[122]**, the windows for changing the value will appear.

If you want to save the new configuration as a programme with a name, press the key **[123]**. You will access the window which allows typing the name of the programme and save it.

You can end at any time the preservation cycle, by pressing the STOP key **[124].**

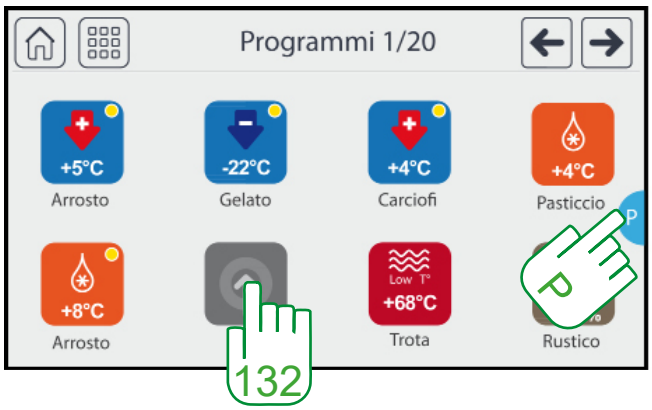
14 PROGRAMME WRITING

14.1 Access to programme set-up

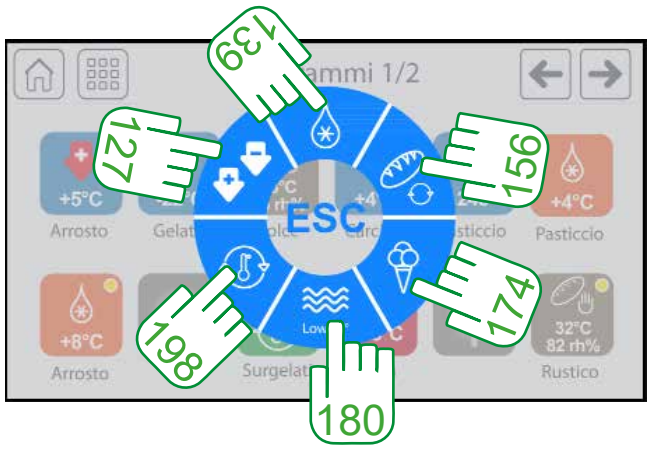
In addition to saving programmes from the selected cycles, you can register a programme without starting a cycle. In order to select a programme to store, press the icon **[125]** from the main menu.

Which will allow accessing the following Utility window:

Now, by pressing the icon **[126]** you can access the following library of created or to create programmes



To modify a programme already created, simply press on the icon of the programme concerned. The icons of the programmes created with the yellow circle at the top right, are also visible in the User programme collection.
If instead you want to create a new programme, press above the grey icon **[132]**, afterwards, the following circular menu will appear which allows selecting the type of programme to create:



Upon pressing one of the represented symbols, a specific programme setting will follow.
To exit, press ESC.

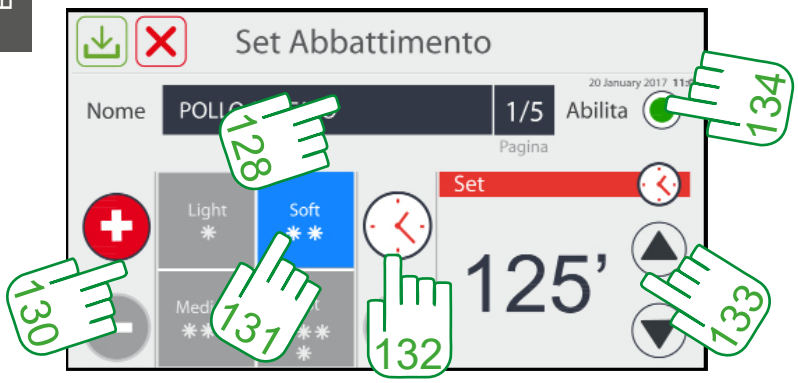
To scroll through the pages quickly, instead of using the arrows in the top right, it is possible to recall the pages by pressing the key [P].

The following screen will appear, in which the green pages will be those that have at least one programme set, the white ones will be the ones with no programme set (wait a few seconds for the green pages to be updated).

Pressing on a page will send to the screen containing the programs of the selected page.

14.2 Creation of a Chilling Programme

If you select the icon of chilling cycles **[127]** from the wheel, you will access the following window:



As a first action, press in the programme name area **[128]** and the following keyboard will appear for typing the name of the programme to confirm using the OK key **[129]**:

After saving the name and returning to the setting window, define the type of blast chilling by pressing above one of the Chilling/Freezing symbols **[130],** afterwards select one of the 4 modes **[131]**, finally select the mode, TIME or TEMPERATURE **[132],** and afterwards change the value **[133].**

Up until this moment, the programme remains visible during the collection of USER programmes. In order to make it visible, ONLY in the CREATED programmes window, you must disable the view by pressing the flag [134].

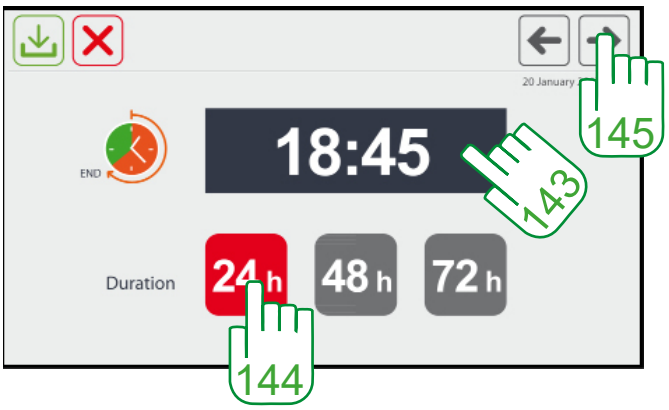
Hereinafter, there is an example of selection with TEMPERATURE chilling.

Now, if you want to save the set programme, press the key **[135],** while if you want to delete or if you do not want to save the new programme, press the key **[136]**, a message to confirm appears **[137]** or otherwise **[138]** to delete.

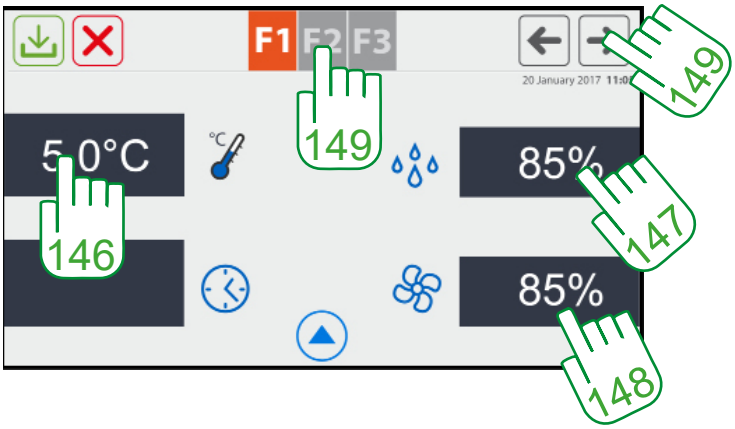
14.3 Creation of a Thawing programme

If you select the icon of defrosting cycles **[139]** from the wheel, you will access the following window:

By pressing on the area of the programme name **[140]**, the usual keyboard will appear which will allow typing the name of the desired programme. During this phase, you can decide if you want that this programme be displayed in the User programmes collection by pressing the flag **[141].** By pressing the OK key or the arrow **[142]**, you will go to the next setting window.

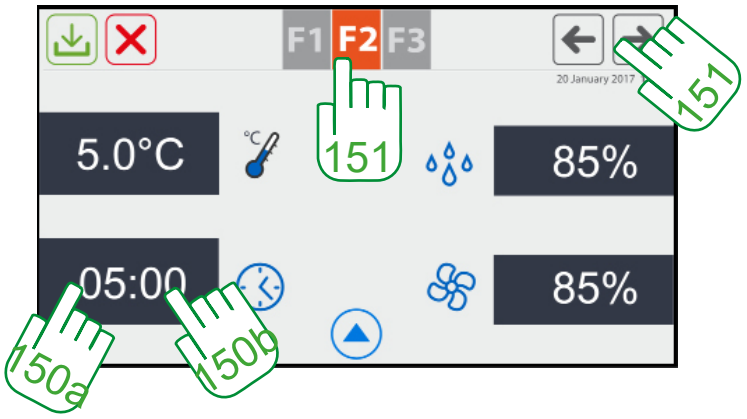


Now you have to set the final time by pressing above the values of the hours and minutes **[143],** and select the duration in days (24-48 and 72h, see paragraph 2.4) of the programme **[144].** To continue in the settings, press the arrow **[145].**

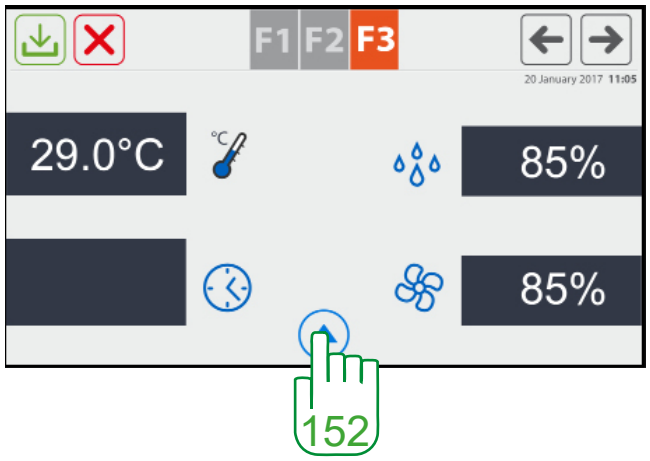


This is a phase the duration of which is obtained by difference and therefore, the time will not be set. You can change the set temperatures **[146]**, the set humidity **[147]** and the set fan speed for phase F1 **[148]**. Simply press above the value you want to change, and the set point changing window will open.

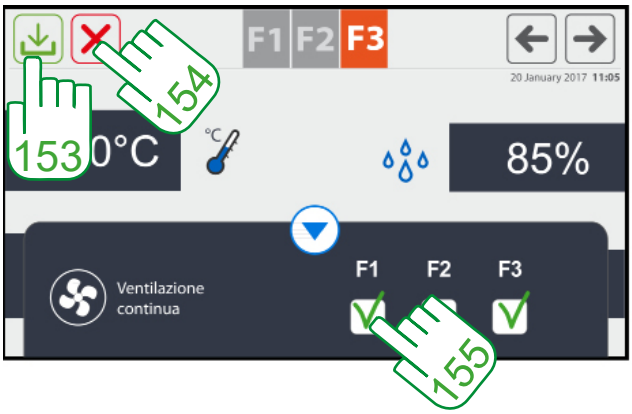
In order to perform the F2 phase setting, press one of the icons **[149]** and the following window will appear:



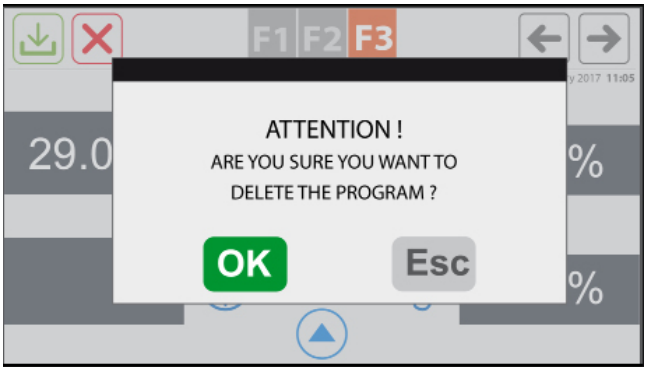
In this case, besides the already mentioned elements for the previous phase, it is possible to change and set the duration of the F2 defrosting phase by pressing the area **[150a-b]**, the time changing and setting window will appear (hours-minutes). Also in this case, to go to phase F3, press one of the icons **[151]**.



Also in phase F3, you can change the set points in the same way as for phase F1. In any of the 3 phases, you can access the **EXPERT** configuration which will allow deciding if the ventilation in the phase should be continuous or discontinuous. Just press the arrow symbol [152] and the following pop-up window will appear, you must enable or disable the continuous ventilation using the flag for every single phase **[155].**

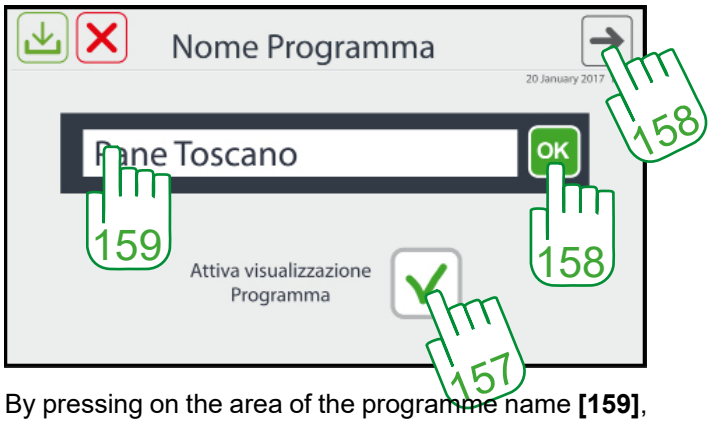


At any moment or at the end of the programme configuration, you can decide if you want to save the programme by pressing the icon **[153]**, or if you want to delete it by pressing the icon **[154]**. In case of deletion, a confirmation message is displayed, otherwise a deletion one.

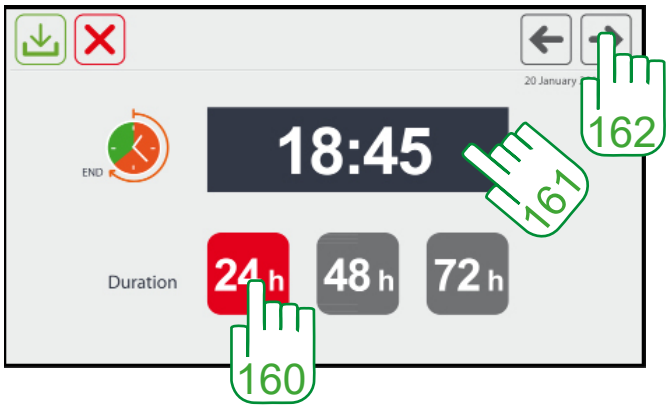


14.4 Creation of a retarder proving programme

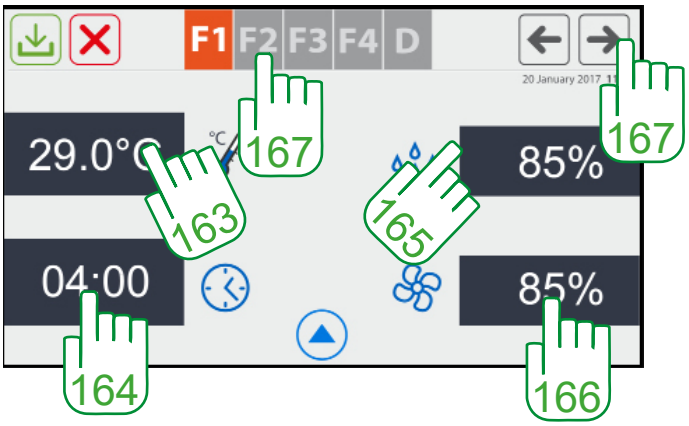
If you select the icon of retarder proving cycles **[156]** from the wheel, you will access the following window:



By pressing on the area of the programme name **[159]**, the keyboard will appear which will allow typing the name of the desired programme. During this phase, you can decide if you want that this programme be displayed in the USER programmes collection by pressing the flag [157]. By pressing the OK key or the arrow [158], you will go to the next setting window.



Now you have to set the final time by pressing above the values of the hours and minutes **[161],** and select the duration in days (24-48 and 72h, see paragraph 2.4) of the programme **[160].** To continue in the settings, press the arrow **[162].**

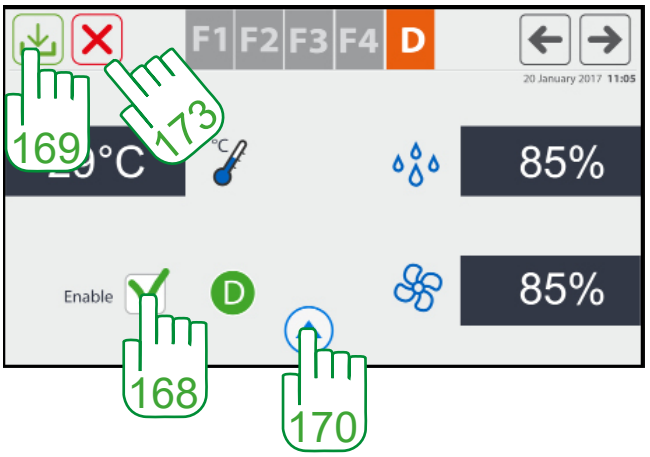


During this phase, by pressing above the value, you can access the modification of the set points of: the cell temperature of phase F1 [163], the duration of phase F1 [164], the cell relative humidity of phase F1 [165] and the fan speed of phase F1 [166], in order to go to the next phase, just press one of the icons [167].

Phases F1, F3 and F4 are similar with the setting of the set points; phase F2 is different only because the phase duration is absent, which is obtained with the difference between the total time and the duration of phases F1, F2 and F3.

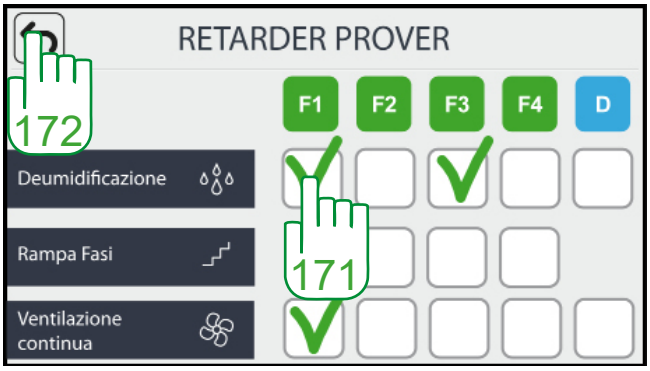
When a stored programme is started, if the duration of phase F2, obtained by difference, appears to be negative, then the programme cannot be started, only by changing the durations of the phases or by postponing the end time of the programme.

Once the setting of phase F4 is completed, you can perform the setting of phase D (sleep) and the following window will appear:



This phase has an indefinite duration and it is used, if the operator is not present at the end of phase F4, to guarantee a preservation. For this reason, the setting of a duration is not provided, while, you can set the set points of the cell temperature, humidity and fan speed.

This phase will be performed only if the flag **[168]** is checked. Moreover, during this phase, but also during the previous ones, you can access the EXPERT configuration, by pressing the key **[170]**, and the following window will be displayed:



In this window, you can enable or disable, during the indicated phases, the dehumidification, the rise of the gradual temperature (Phase ramp) and also the continuous ventilation, just press in the blank areas of interest and the flag **[171]** will be displayed, afterwards, return to the phase F1 page by pressing **[172]**

During every phase, you can save the programme by pressing the key [169] or delete it by pressing the key [173] (in this case, a deletion confirmation request message appears).

At this point, if the flag [157] was enabled, the programme will be found in the user programme window

14.5 Creation of an ice cream programme

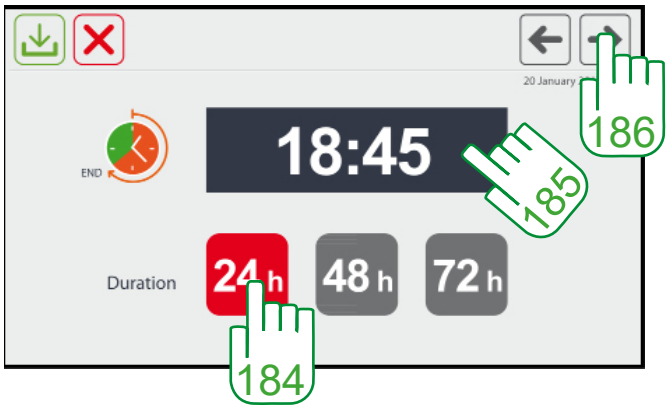
If you select the icon of the Ice Cream cycle **[174]** from the wheel, you will access the following window:

There, you can access the keyboard by pressing above the programme name area **[177]**, set different cell temperature set points by pressing the arrows **[174]**, set the duration of the Ice-Cream cycle Timer by pressing the arrows **[175]**, and show the user programme by checking the flag **[176].**
Afterwards, you can save the programme by pressing the key **[178]** or delete it by pressing the key **[179]** (in this case, a deletion confirmation request message appears).

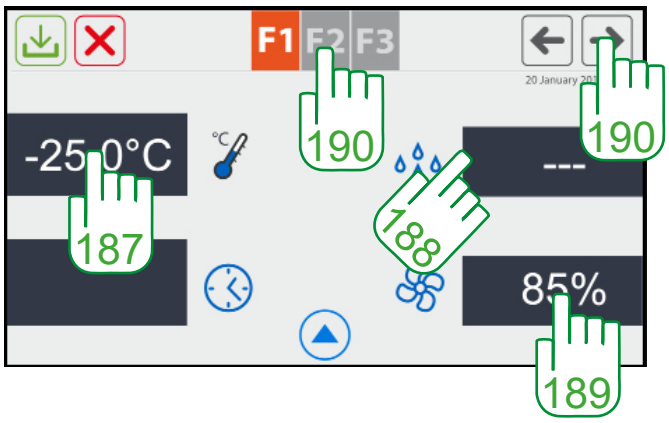
14.6 Creation of a cooking programme

If you select the icon of cooking cycles **[180]** from the wheel, you will access the following window:

By pressing on the area of the programme name **[181]**, the keyboard will appear which will allow typing the name of the desired programme. During this phase, you can decide if you want that this programme be displayed in the user programmes collection by pressing the flag [182]. By pressing the OK key or the arrow **[183]**, you will go to the next setting window.



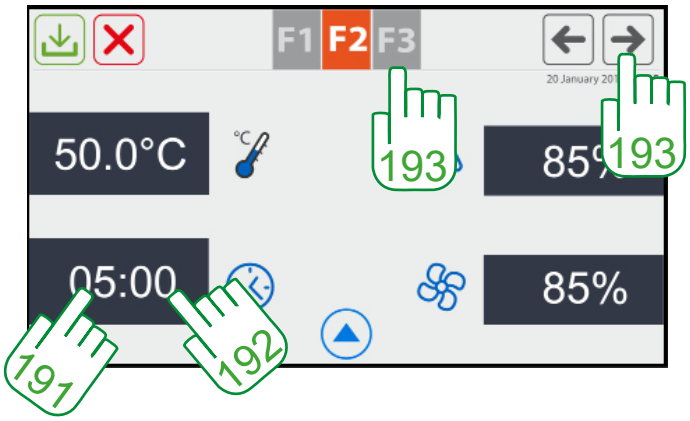
Now you have to set the final time by pressing above the values of the hours and minutes **[185],** and select the duration in days (24-48 and 72h, see paragraph 2.4) of the programme **[184].** To continue in the settings, press the arrow **[186].**



During this phase, by pressing above the value, you can access the modification of the set points of: the cell temperature of phase F1 [187], the cell relative humidity of phase F1 [188] (if enabled) and the fan speed of phase F1 [189], in order to go to the next phase, just press one of the icons [190].

Phase F1 will have a duration that will result from the difference of the total time minus the fixed time of phase F2.

During phase F2, the cooking duration will be established by setting the HOURS and MINTUES values, pressing above [191] and respectively [192].



In order to change the set points of the cell temperature, the humidity and the fan speed, proceed as in the case of phase F1. By pressing one of the icons [193], the setting window of phase F3 will be accessed.

Phase F3 is the post-cooking preservation phase, as it has an indefinite duration and it does not have a duration to set, while the other set points can be set as for phase F1.

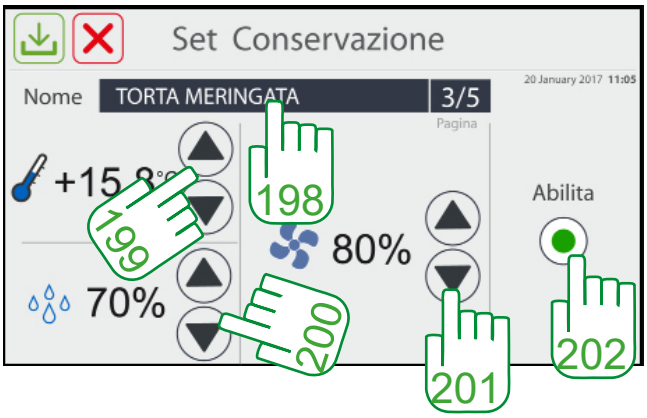
During every phase, you can set the ventilation mode (continuous or discontinuous), by pressing the key [194], the following screen will appear:

By checking the flags of the individual phases [195], you can decide whether to enable or disable the continuous ventilation.

Afterwards, you can save the programme by pressing the key [196] or delete it by pressing the key [197] (in this case, a deletion confirmation request message appears).

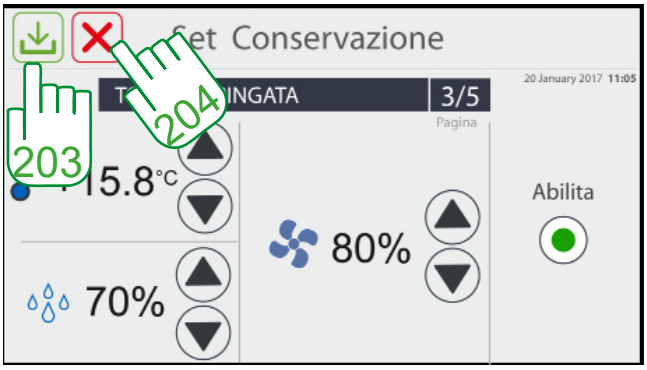
14.7 Creation of a preservation programme

If you select the icon of preservation cycles **[198]** from the wheel, you will access the following window:



There, you can access the keyboard by pressing above the programme name area **[198]**, set different cell temperature set points by pressing the arrows **[199]**, set the humidity set point by pressing the arrows [200], set the fan speed by pressing the arrows **[201]**, and show the user programme by checking the flag **[202].**

Afterwards, you can save the programme by pressing the key **[203]** or delete it by pressing the key **[204]** (in this case, a deletion confirmation request message appears).



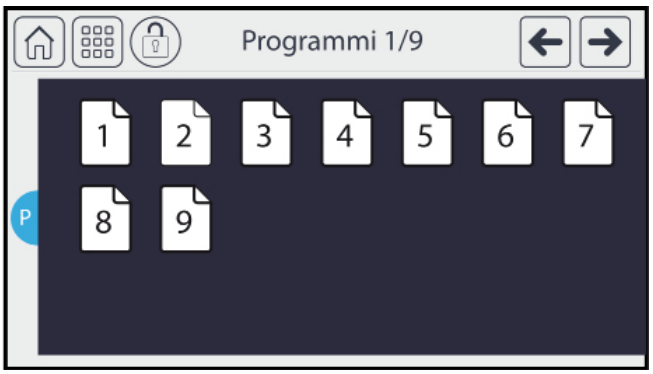
15 STARTING UP STORED PROGRAMMES

15.1 Access to stored programmes

In order to access the archive of stored programmes and visible to the user, press the icon **[205]** from the main menu.

You will access the following window where you can start the preselected cycle by pressing the relative icon and browsing all available pages by pressing the icons [206]

Or to move between pages quickly, press [P]. The following page summary will appear. Having pressed on the relevant page, the screen will show the programmes of that page.
The number of pages represented depends on the number of programmes set and made visible. A maximum of 20 pages may appear.



Please bear in mind that the modification, deletion, creation of programmes can be made only by accessing the set programmes icon [126].

15.2 Starting up from stored programmes

If, upon the machine start-up, after pressing the stand-by key **[1] ,** you want to directly access the programmes pages, you must enable the padlock function, pressing above the icon [207].

Afterwards the icon will turn red, representing a closed padlock as in the following screen.

In order to return to the previous condition, just press again above the icon [208].

16 STARTING THE UTILITY FUNCTIONS

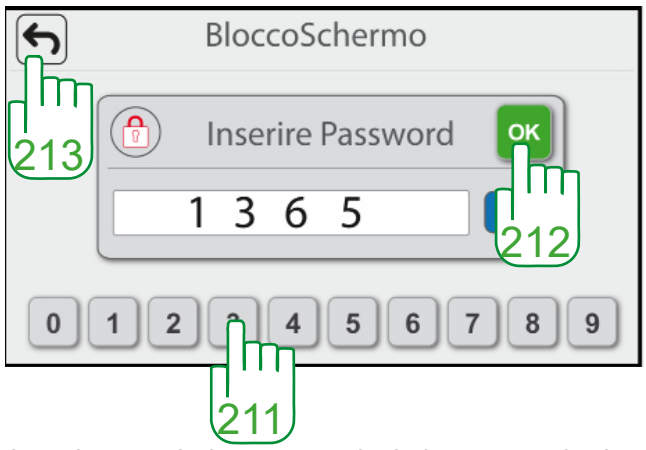
16.1 Access to UTILITY window

In order to access the Utility window, press the icon **[209]** from the main menu.

16.2 Display LOCK function

If you want to lock the typing on the display, even after starting a cycle, in order to avoid unauthorised access during operation, press the icon **[210]**

Type on the keyboard [211], the password ***1365***, and confirm using the OK key [212]. From now on, the display can no longer be used, unless you type again the Password ***1365***, which will unlock the display.

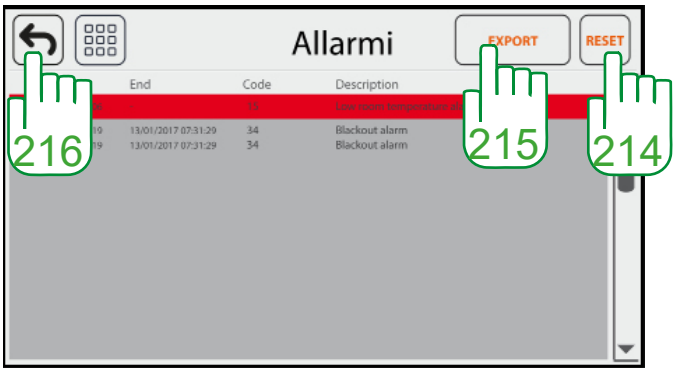


In order to exit the password window, press the icon [213]. If you enter an incorrect password, you will be prompted by a message, and you will be prompted again to enter it.

16.3 List/Export of alarms

If you want to view the list of stored alarms and current alarms, press the icon **[213]**

The triggered alarms will have a grey background, the current alarms will have a red background (the date and time of the alarm end will not be present). In order to reset the triggered alarm situations, press the Reset key **[214].**

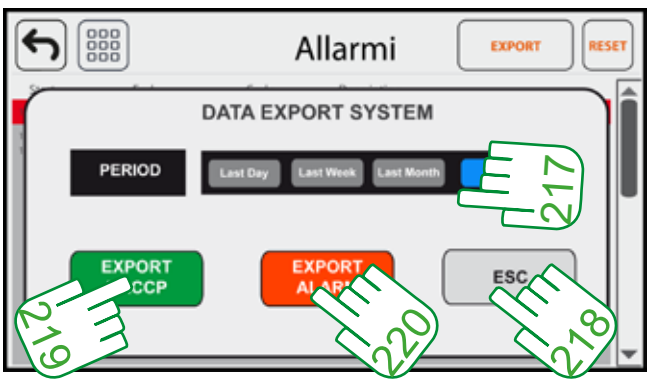


in order to exit the alarms window, press the icon **[216].**

From every alarm, you can export a txt file which will be stored on flash drive, entered in the USB port. The stored files will have the following name:

20170331-14.11-AL13.txt

The first part of the txt file name contains the year+month+day separated by a "-" and followed by the hour and minute of registering of the alarm, then followed by the type of alarm. In order to export the alarm or HACCP files, press the key [215], which will allow opening the following window:

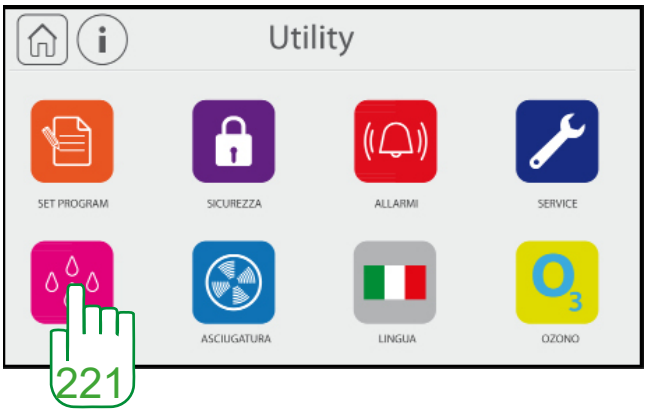


Once the window is opened, insert the USB flash drive in the provided connecter (on the blast chiller air panel), select the time period [217], then select the type data that you want to download , and finally press the corresponding Export key [218 or219] and afterwards, after the export completed message appears, you can exit by pressing the ESC key [220].

The TXT file stores the statuses of the board inputs and outputs at the beginning and the ending of the alarm.

16.4 Starting the manual defrosting

If you want to start a manual defrosting, press the icon **[221]**

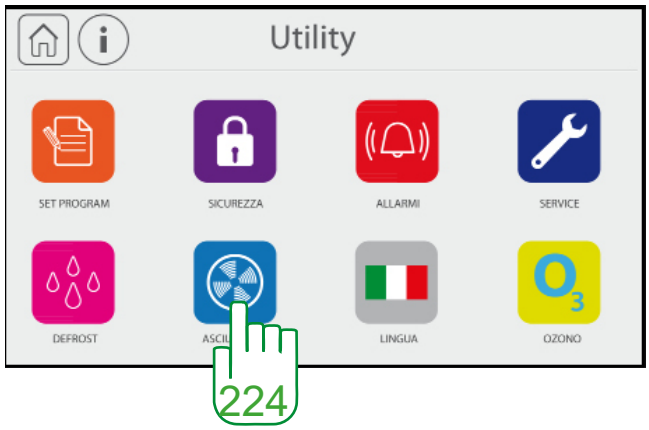


If there are no minimum temperature conditions, in order to perform a defrosting, the following message will appear:

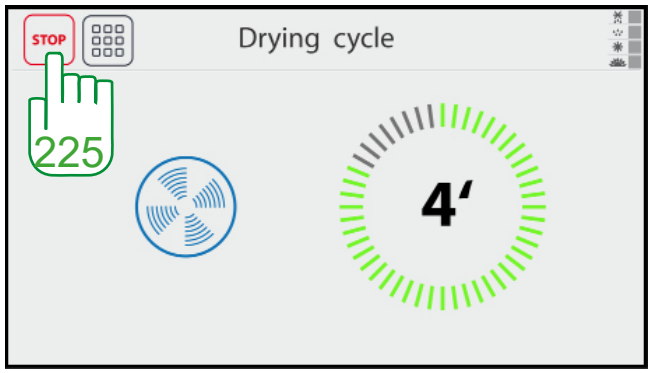
In order to exit, just press the key ESC [222]. While if the defrosting can be performed, the following message will appear and the defrosting can be interrupted in advance by pressing the key STOP [223].

16.5 Starting the Drying cycle

The drying cycle is used either to remove the humidity from the cell after cleaning or to perform a defrosting using only the ambient air ventilation.
If you want to start a drying cycle, open the door of the chiller and then press the icon **[224]**
A window will open with a timer that will start from 20 minutes and proceed with the countdown. At the



end of the time the cycle will end. If you want to end earlier, just press the key STOP [225]. Please bear in mind that during this cycle, the door switch will not have any impact on the ventilation.



16.6 Starting the OZONO cycle (optional)

The Ozone cycle (if installed) involves a definite time cycle during which ozone is inserted into the cell, to achieve sanitisation, killing bacteria, mould, etc.

Such cycle must be started after performing a machine cleaning using the recommended detergents.

ATTENTION! : Ozone being an aggressive gas, you must try not to come into contact with it, however, immediately after opening the door with a running cycle, the cycle will end, and even if the door is closed back, it will not start again.

If you want to start an Ozone cycle, close the door of the chiller and then press the icon **[226]**

The cycle will start and the following screen will appear, with the countdown being displayed in the centre (starting from 120 minutes).

If you want to join the action of the ozone with the one of cooling down or of the humidity, check the flags [227] and respectively [228].

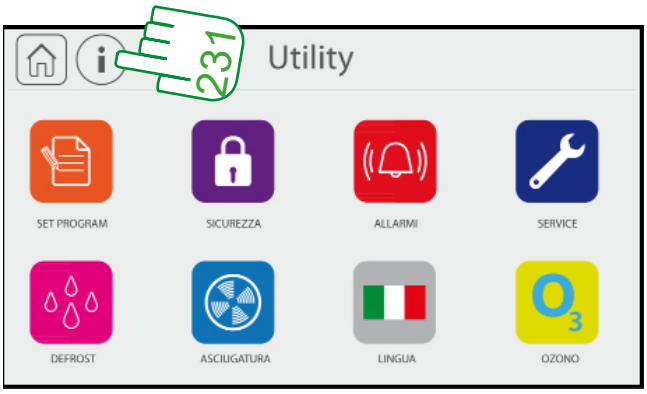
At the end of the countdown you will exit the cycle that will end. To end earlier press the STOP [229] key.

If you are using Temperature and humidity, it is recommended to perform a drying cycle afterwards.

16.7 Configuration of the main menu

Upon start-up, the main menu has 8 icons represented in the following window, if you want to change the number of icons present, press the key [230]:

You will access the Utility window, at this point press the key [231].



The following window will appear and by checking the green flags, the main menu icon will be shown or hidden.

The disabled icons will disappear from the main menu, but you will be able to find them in the second page of the UTILITY menu.

If all icons are disabled by mistake, when accessing the main menu, a warning will be displayed which will send you back to the icon setting page.

17 Alarm statuses

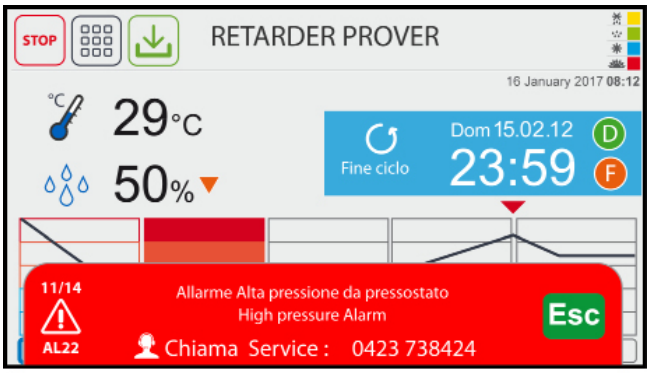
17.1 Alarm warnings

If the machine is under alarm, a pop-up window appears at the bottom, with the description of the type of alarms in progress.

Normally, the alarms appear with an ascending seriousness warning according to the background colour.

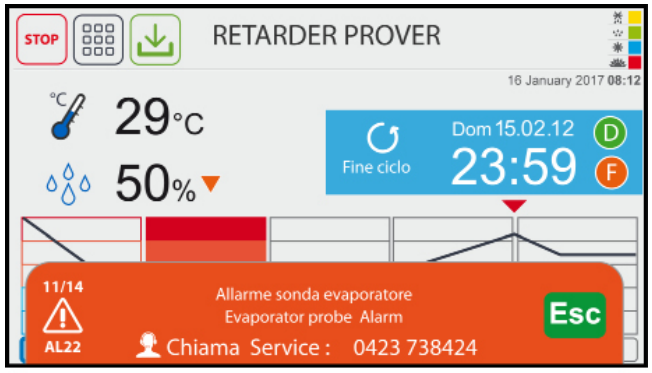
17.2 Warnings for SERIOUS alarms

The alarm warnings, such as the one represented hereinafter, which cause the immediate interruption of the running cycle, are represented by a RED background warning and are to be deemed serious. The **assistance service** is called and the machine will be disconnected from the power and hydraulic supply and secured.



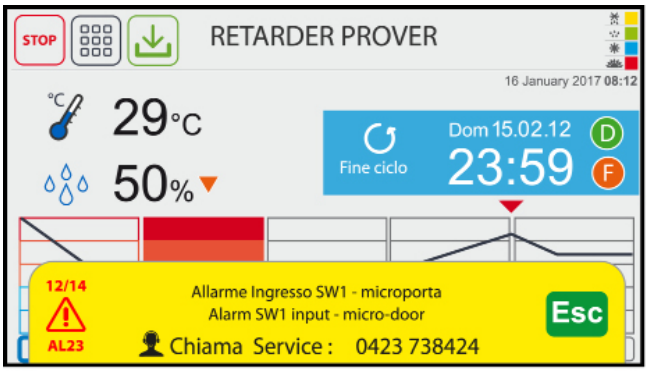
17.3 Warnings for AVERAGE alarms

The AVERAGE alarm warnings, as the ones represented below, which do **not** cause the immediate interruption of a running cycle, and represented by a ORANGE background warning, are to be deemed important, even if they enable an automatic maintenance operation. If the alarm persists, the assistance service will be contacted and the machine will however be disconnected from the power and hydraulic supply.



17.4 Pre-alarm warnings

The pre-alarm warnings, as the ones represented below, which do **not** cause the immediate interruption of a running cycle, and represented by a YELLOW background warning, normally predict either an AVERAGE alarm or they indicate operation conditions which are not compliant with the set values. Only if the event is repeated several times without justification, the service is called.



17.5 Machine information/data

Before contacting the assistance service, retrieve the machine data by pressing the info key [232] from the input screen

17.6 Alarm list

	Cause	Effect	Solution
AL04	*Defective cell probe, for more than 30 "(U1 card input).*	*Displaying of the wording "Cell temperature probe alarm" in the alarm window. The alarm symbol will appear, the buzzer will sound and any program that is running will be exited, returning to the main menu.*	*Check the cell probe connections, check the configuration parameters (Service) and replace if necessary.*
AL05	*Defective cell humidity probe, for more than 30 "(U2 card input).*	*Displaying of the wording "**Cell humidity probe alarm**" in the alarm window. The alarm symbol will appear, the buzzer will sound and the humidification and dehumidification functions will be deactivated*	*Check humidity probe connections, check correct positioning and dry sensor, check configuration parameters (Service), replace it if necessary.*
AL06	*Defective product 1 probe, for more than 30" (U4 card input).*	*Displaying of the wording "**Product 1 temperature probe alarm**" in the alarm window. The alarm symbol will appear, the buzzer will sound and in the case of a temperature-controlled program, it will switch to timed mode*	*Check the product probe connections, check the configuration parameters (Service) and replace it if necessary.*
AL07	*Defective product 2 probe, for more than 30" (U5 card input).*	*Displaying of the wording "**Product 2 temperature probe alarm**" in the alarm window. The alarm symbol will appear, the buzzer will sound and in the case of a temperature-controlled program, it will switch to timed mode*	*Check the product probe connections, check the configuration parameters (Service) and replace it if necessary.*
AL08	*Micro-door entry (ID4) active.*	*When the door opening is detected by the micro-switch, the evaporator fans stop, after 120" the compressor stops. In the case of a blast chilling cycle, after 5 minutes, to verify that the door is really open and the micro-door is not simply broken, a 15-minute cooling cycle is started in which both the compressor and the evaporator fans start. At the end of the test if the temperature drops, the cycle continues, otherwise the machine stops and the door opening alarm is triggered.*	*Check the micro-door functionality and replace it if necessary.*
AL09	*Circuit breaker input (ID5) active.*	*Displaying of the wording "**Circuit breaker alarm**" in the alarm window. The alarm symbol will appear, the buzzer will sound and any program that is running will be ended.*	*Check the condenser state of cleanliness, that the condenser fan is working, that the room is sufficiently ventilated. Check to see if the circuit breaker setting is correct, and if the compressor is blocked (Service)*
AL10	*Oil pressure switch input, if any, (ID6) active.*	*Displaying of the wording "**Oil pressure alarm**" in the alarm window. The alarm symbol will appear, the buzzer will sound and any program that is running will be ended.*	*Check whether the oil level if sufficient. Check if the setting of the ID6 input is correct, and if the pressure switch is faulty (Service)*
AL11	*Hydrostat Input, if present, (ID7) active.*	*Displaying of the wording "**Hydrostat Alarm**" in the alarm window. The alarm symbol will appear, the buzzer will sound and any program that is running will be ended **upon the third appearance of this alarm in a cycle**.*	*Check if the water supply is guaranteed. Check if the setting of the ID6 input is correct, and if the Hydrostat is faulty (Service)*
AL12	*Humidifier Alarm Input, if present, (ID8) active.*	*Displaying of the wording "**Humidifier alarm**" in the alarm window. The alarm symbol will appear, the buzzer will sound and the Humidifier output will be deactivated.*	*Check the power supplies of the external humidifier (if it exists). Check if the setting of the ID8 input is correct, and if the humidifier is faulty (Service)*
AL13	*If the cell temperature exceeds the temperature defined by the parameter A7.*	*Displaying of the wording "**Cell maximum temperature alarm**" in the alarm window. The alarm symbol will appear, the buzzer will sound and heating-humidification-dehumidification and compressor will be deactivated*	*If the alarm repeats several times, stop the machine and contact the Support Service.*
AL14	*If the cell temperature exceeds the set temperature determined, by the value in degrees defined by parameter A2, in the positive preservation case and A4 in the negative preservation case.*	*Displaying of the wording "**Cell high temperature alarm**" in the alarm window. The alarm symbol will appear, the buzzer will sound and heating-humidification will be deactivated until return to below the necessary limit.*	*If the alarm repeats several times, stop the machine and contact the Support Service to update the parameters.*

	Cause	Effect	Solution
AL15	*If the cell temperature is less than the set temperature determined, by the value in degrees defined by parameter A2, in the positive preservation case and A4 in the negative preservation case.*	*Displaying of the wording **"Cell low temperature alarm"** in the alarm window. The alarm symbol will appear, the buzzer will sound and compressor outlet will be deactivated until return to below the necessary limit.*	*If the alarm repeats several times, stop the machine and contact the Support Service to update the parameters.*
AL16	*If the cell humidity is higher than the set determined, by the value defined by the UAL parameter for more than UAT minutes.*	*Displaying of the wording **"Cell high humidity alarm"** in the alarm window. The alarm symbol will appear, the buzzer will sound and the humidification will be deactivated.*	*If the alarm repeats several times, contact the Support Service to update the parameters.*
AL17	*If the cell humidity is lower than the set determined, by the value defined by the UBL parameter for more than UBT minutes.*	*Displaying of the wording **"Cell low humidity alarm"** in the alarm window. The alarm symbol will appear, the buzzer will sound and the dehumidification will be deactivated.*	*If the alarm repeats several times, contact the Support Service to update the parameters.*
AL18	*Maximum pressure sensor input (if present) (ID1) active.*	*Displaying of the wording **"High pressure of pressure switch alarm"** in the alarm window. The alarm symbol will appear, the buzzer will sound and the compressor output will be switched off **upon the third appearance of this alarm in a cycle it will be ended**.*	*Check the condenser state of cleanliness, that the condenser fan is working, that the room is sufficiently ventilated. Check to see if the input setting of alarm ID1 is correct (Service) is correct.*
AL19	*Minimum pressure switch input (if present) (ID2) active.*	*Displaying of the wording **"Pressure switch low pressure alarm"** in the alarm window. The alarm symbol will appear, the buzzer will sound, the compressor will stop, the cycle will be terminated **upon the third appearance of this alarm in a cycle**.*	*Check whether the ambient temperature is too low. Check if the parameter setting of input ID2 is correct, or if there are any leaks in the circuit (Service)*
AL20 AL21	*Kriwan compressor input (ID3) active.*	*With the first two alarms the message **"Compressor 1 Circuit Breaker Warning"** will appear on the alarm window, with the third alarm the message **"Compressor 1 Circuit Breaker Alarm"** will appear, the alarm symbol will appear, the buzzer will sound and any program running will be exited, returning to the main menu.*	*Check the condenser state of cleanliness, that the condenser fan is working, that the room is sufficiently ventilated. Check that the compressor is not jammed (Service).*
AL24	*Defective evaporate probe, for more than 30" (U3 card input).*	*Displaying of the wording **"Suction temperature probe alarm"** in the alarm window, the alarm symbol will appear, the buzzer will sound, the defrost cycles will not be performed and the evaporator fan will depend on parameter F2.*	*Check the evaporator probe connection, and check the configuration parameter setting and replace it if necessary (service).*
AL31	*If the power failure duration exceeds the time defined by the UL parameter, and there was a cycle in progress*	*Displaying of the wording **"Blackout alarm"** in the alarm window. The alarm symbol will appear, the buzzer will sound and the cycle in progress before the blackout will resume.*	*Check electrical connection upstream of the equipment (service).*

If periodic maintenance activities have been set up, maintenance warnings may appear that do not affect the operation of the equipment. In this case, however, contact technical assistance.

NOTE

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