EN

Foreword

The installation instruction manual (hereinafter Manual) provides the user with useful information for working correctly and safely, facilitating him in using the machine (hereinafter “machine”, “blast chiller” or “appliance”). The following must not be considered a long and exacting list of warnings, but rather a set of instructions suitable for improving machine performance in every respect and, above all, preventing injury to persons and animals and damage to property due to improper operating procedures.

All persons involved in machine transport, installation, commissioning, use and maintenance, repair and disassembly must consult and carefully read this manual before carrying out the various operations, in order to avoid wrong and improper actions that could compromise the machine’s integrity or endanger persons. Make sure to periodically inform the appliance user regarding the safety regulations. It is also important to instruct and update personnel authorised to operate on the machine, regarding its use and maintenance.

The manual must be available to operators and carefully kept in the place where the machine is used, so that it is always at hand for consultation in case of doubts or whenever required.

If, after reading this manual, there are still doubts regarding machine use, do not hesitate to contact the Manufacturer or the authorised after-sales service centre, to receive prompt and precise assistance for better operation and maximum efficiency of the machine.

During all stages of machine use, always respect the current regulations on safety, work hygiene and environmental protection. It is the user’s responsibility to make sure the machine is started and operated only in optimum conditions of safety for persons, animals and property.

The manufacturer declines any liability for operations carried out on the appliance without respecting the instructions given in this manual.

No part of this manual may be reproduced.

If this manual is divided into separate volumes for organisational needs, the volumes must be kept and consulted as parts of a single instruction manual.

The manual must always be kept in an easily accessed place near the machine.

Machine operators and maintenance personnel must be able to easily find and consult the manual at any time.

THE CUSTOMER’S RESPONSIBILITIES

For information regarding the electrical connection, refer to par. B.2.11 “Electrical connection”;

Check the flatness of the surface on which the machine is placed.

A.1 GENERAL INFORMATION

A.1.1 INTRODUCTION
Given below is some information regarding the machine's intended use, its testing, and a description of the symbols used (that identify the type of warning), the definitions of terms used in the manual and useful information for the appliance user.

A.1.2 INTENDED USE AND RESTRICTIONS
This appliance has been designed for the blast chilling and/or blast freezing and preservation of foods (it rapidly lowers the temperature of cooked foods in order to preserve their initial qualities and guarantee their good condition for several days). Any other use is deemed improper.
The appliance must not be used by people (including children) with limited physical, sensory or mental abilities or without experience and knowledge of it, unless instructed in its use by those responsible for their safety.
ATTENTION: The machine is not suitable for installation outdoors and/or in places exposed to atmospheric agents (rain, direct sunlight, etc.).
The manufacturer declines all liability for any improper use of the product.

ATTENTION!
Do not store explosive substances, such as pressurised containers with flammable propellant ( ), in this appliance.

A.1.3 TESTING AND INSPECTION
Our appliances are designed and optimised, with laboratory testing, in order to obtain high performance and efficiency. The product is shipped ready for use.
The certificates guaranteeing that the tests (visual inspection - electrical test - functional test) have been passed are included in specific enclosures.

A.1.4 DEFINITIONS
Listed below are the definitions of the main terms used in the manual. Carefully read them before using the manual.

Operator
machine installation, adjustment, use, maintenance, cleaning, repair and transport personnel.

Manufacturer
Electrolux Professional SPA or any other service centre authorised by Electrolux Professional SPA.

Operator for normal machine use
an operator who has been informed and trained regarding the tasks and hazards involved in normal machine use.

Technical assistance or specialised technician
an operator instructed/trained by the Manufacturer and who, based on his professional and specific training, experience and knowledge of the accident-prevention regulations, is able to appraise the operations to be carried out on the machine and recognise and prevent any risks. His professionalism covers the mechanical, electrotechnical and electronics fields.

Danger
source of possible injury or harm to health.

Hazardous situation
any situation where an operator is exposed to one or more hazards.

Risk
a combination of probabilities and risks of injury or harm to health in a hazardous situation.

Protection devices
safety measures consisting of the use of specific technical means (guards and safety devices) for protecting operators against dangers.

Guard
an element of a machine used in a specific way to provide protection by means of a physical barrier.
Safety device
a device (other than a guard) that eliminates or reduces the risk; it can be used alone or in combination with a guard.

Customer
the person who purchased the machine and/or who manages and uses it (e.g. company, entrepreneur, firm).

Emergency stop device
a group of components intended for the emergency stop function; the device is activated with a single action and prevents or reduces damage to persons/machines/property/animals.

Electrocution
an accidental discharge of electric current on a human body.

A.1.5 TYPOGRAPHICAL CONVENTIONS
For best use of the manual, and therefore the machine, it is advisable to have good knowledge of the terms and typographical conventions used in the documentation.
The following symbols are used in the manual to indicate and identify the various types of hazards:

ATTENTION!
DANGER FOR THE HEALTH AND SAFETY OF OPERATORS.

ATTENTION!
DANGER OF ELECTROCUTION - DANGEROUS VOLTAGE.

ATTENTION!
RISK OF DAMAGE TO THE MACHINE.

Words and safety warnings further explaining the type of hazard are placed next to the symbols in the text. The warnings are intended to guarantee the safety of personnel and prevent damage to the machine or the product being worked.
The drawings and diagrams given in the manual are not in scale. They supplement the written information with an outline, but are not intended to be a detailed representation of the machine supplied.
The numerical values given on the machine installation diagrams refer to measurements expressed in mm.

A.1.6 MACHINE AND MANUFACTURER'S IDENTIFICATION DATA
A reproduction of the marking or dataplate on the machine is given below:

F.Mod. xxxxxxxxx Comm.Model xxxxxxxxx LW30B
PNC 9VTX xxxxxx xx Ser.Nr. xxxxxxxx Cyclopentane 2015
W Tot. xxx kW Volt xxxV xxHz Total Current xx A

Potenza Sbrinamento / Defrost Power xxx kW Classe / Class x
Resistenza Evaporazione / Evaporation Heater El. x kW Refrigerante / Refrigerant xxxxxx xx Kg
Illuminazione / Lighting x W Cap. x
NF nominal Charge
Rated Pressure xx Mpa
IP23

Electrolux Professional SPA - Viale Treviso, 15 - 33170 Pordenone (Italy)

The dataplate gives the product identification and technical data.

The meaning of the various information given on it is listed below:

F.Mod.	factory description of the product
Comm.Model	trade description
LW30B(*)	certification group
PNC	production code number
Ser.Nr.	serial number
V	power supply voltage
Hz	power supply frequency
kW	max. power input
Cyclopentane	expanding gas used in insulation
Total Current	current absorbed
Defrost Power	defrost power
Evaporation Heater El.	heating element power
Lighting	internal light power
Class	climatic class
Refrigerant	type of refrigerant gas
Cap.	nominal refrigerating capacity
IP23	dust and water protection rating
CE	CE marking
Electrolux Professional SPA Viale Treviso 15 33170 Pordenone Italy	Manufacturer

*** Description of certification group**

LW	Range
30-50-70 (depending on the model)	Capacity
B-R (depending on the model)	Cooling unit B= Version with group on Board R= Remote version

The dataplate is located on the left side at the rear of the unit compartment.
The plate giving the appliance PNC code and serial number is located under the trademark. When installing the appliance, make sure the electrical connection is carried out in compliance that specified on the dataplate.

ATTENTION!
Do not remove, tamper with or make the machine "CE" marking illegible.

ATTENTION!
Refer to the data given on the machine "CE" marking for relations with the Manufacturer (e.g. when ordering spare parts, etc.).

ATTENTION!
When scrapping the machine, the "CE" marking must be destroyed.

A.1.7 APPLIANCE IDENTIFICATION

This manual applies to various blast chiller models. For further details regarding your model, refer to the section A.2.2 DIMENSIONS, PERFORMANCE AND CONSUMPTION.

A.1.8 COPYRIGHT

This manual is intended solely for consultation by the operator and can only be given to third parties with the permission of Electrolux Professional SPA.

A.1.9 RESPONSIBILITY

The Manufacturer declines any liability for damage and malfunctioning caused by:
- non-compliance with the instructions contained in this manual;
- repairs not carried out in a workmanlike fashion, and replacements with parts different from those specified in the spare parts catalogue (the fitting and use of non-original spare parts and accessories can negatively affect machine operation and invalidates the warranty);
- operations by non-specialised technicians;
- unauthorised modifications or operations;
- inadequate maintenance;
- improper machine use;
- unforeseeable extraordinary events;
- use of the machine by uninformed and untrained personnel;
- non-application of the current provisions in the country of use, concerning safety, hygiene and health in the workplace.

The Manufacturer declines any liability for damage caused by arbitrary modifications and conversions carried out by the user or the Customer.
The employer or workplace manager is responsible for identifying and choosing adequate and suitable personal protection equipment to be worn by operators, in compliance with current regulations in the country of use.
Electrolux Professional SPA declines any liability for any inaccuracies contained in the manual, if due to printing or translation errors.
Any supplements to the installation, use and maintenance manual the Customer receives from the Manufacturer will form an integral part of the manual and therefore must be kept together with it.

A.1.10 PERSONAL PROTECTION EQUIPMENT

Give below is a summary table of the Personal Protection Equipment (PPE) to be used during the various stages of the machine's service life. The Customer or after-sales service technician is responsible for identifying and choosing the type and category of such adequate and suitable personal protection equipment.

Stage	Protective garments	Safety footwear	Gloves	Glasses	Ear protectors	Mask	Safety helmet
Transport		X					
Handling		X					
Unpacking		X					
Assembly		X					
Normal use	X	X	X (*)				
Adjustments		X					
Routine cleaning		X	X (*)				
Extraordinary cleaning		X	X				
Maintenance		X					
Dismantling		X					
Scrapping		X					

Key:
- X — PPE REQUIRED
- PPE AVAILABLE OR TO BE USED IF NECESSARY
- PPE NOT REQUIRED

(*) During **Normal use**, gloves protect hands from the cold tray when being removed from the appliance.

NOTE: The gloves to be worn during **Cleaning** are the type suitable for contact with the cooling fins (metal plates).

Failure to use the personal protection equipment by operators, specialised technicians, maintenance personnel or appliance operators can involve exposure to chemical risk and possible damage to health.

A.1.11 KEEPING THE MANUAL
The manual must be carefully kept for the entire life of the machine, until scrapping.
The manual must stay with the machine in case of transfer, sale, hire, granting of use or leasing.

A.1.12 RECIPIENTS OF THE MANUAL
This manual is intended for:
- the carrier and handling personnel;
- installation and commissioning personnel;
- the employer of machine users and the workplace manager;
- operators for normal machine use;
- specialised technicians - after-sales service (see service manual).

A.2 TECHNICAL DATA

A.2.1 MATERIALS AND FLUIDS USED
The areas in contact with the product are made of steel. An HFC refrigerant (R134a(GWP:1430) / R404a(GWP:3922)),in compliance with the current regulations, is used in the refrigeration units. The type of refrigerant gas used is specified on the dataplate.

A.2.2 DIMENSIONS, PERFORMANCE AND CONSUMPTION

1 - GN 1/1 6-tray blast chillers and freezers

External dimensions:		
- width	mm	897
- depth with door closed	mm	1007/994
- depth with door open	mm	1479
- height	mm	1060
Compartment dimensions:		
- width	mm	445
- depth	mm	700
- height	mm	450
Productivity (according to specifications):		
- NF	kg	18
- UK (blast chilling)	kg	30
- UK (freezing)	kg	25
Trays:		
GASTRONORM 1/1		
(325 mm x 530 mm h=65 mm)	No.	6
PATISSERIE		
(400 mm x 600 mm h=65 mm)	No.	6

2 - GN 1/1 10-tray blast chillers and freezers

External dimensions:		
- width	mm	895
- depth with door closed	mm	1009/942
- depth with door open	mm	1480
- height	mm	1730
Compartment dimensions:		
- width	mm	434
- depth	mm	700
- height	mm	900
Productivity (according to specifications):		
- NF	kg	36
- UK (blast chilling)	kg	50
- UK (freezing)	kg	50
Trays:		
GASTRONORM 1/1		
(325 mm x 530 mm h=65 mm)	No.	10
PATISSERIE		
(400 mm x 600 mm h=65 mm)	No.	10

3 - GN 2/1 10-tray blast chillers and freezers

External dimensions:		
- width	mm	1250
- depth with door closed	mm	1160/1093
- depth with door open	mm	1873
- height	mm	1730
Compartment dimensions:		
- width	mm	630
- depth	mm	840
- height	mm	900
Productivity (according to specifications):		
- NF	kg	50.4
- UK (blast chilling)	kg	70
- UK (freezing)	kg	70
Trays:		
GASTRONORM 2/1		
(325 mm x 530 mm h=65 mm)	No.	10
PATISSERIE		
(400 mm x 600 mm h=65 mm)	No.	10

Power supply voltage	V/ph/Hz.	380-400 V/3ph+N/60Hz

Equivalent sound pressure level Leq (*) dB(A) <70
(*) The value could increase depending on the workplace where measured.

A.2.2.1 CLIMATIC CLASS
The climatic class given on the dataplate refers to the following values:
4 = 32°C (IEC/EN 60335-2-89)
4 = 30°C room with 55% relative humidity (IEC/EN ISO 23953)

5 = 43°C (IEC/EN 60335-2-89)
5 = 40°C room with 40% relative humidity (IEC/EN ISO 23953)

A.2.3 MECHANICAL SAFETY CHARACTERISTICS, HAZARDS
The appliance does not have sharp edges or protruding parts.
The guards for the movable and live parts are fixed to the cabinet with screws to prevent accidental access.

B.1 TRANSPORT, HANDLING AND STORAGE

B.1.1 INTRODUCTION
Transport (i.e. transfer of the machine from one place to another) and handling (i.e. transfer inside workplaces) must occur with the use of special and adequate means.
The machine can be transported by road, rail, sea or air. Except for transport by road, the machine is placed inside a container in which there are also other machines. The machines can be positioned inside the container by the Manufacturer or by the forwarder.

ATTENTION!
Due to their size, the machines cannot be stacked on top of each other during transport, handling and storage; this eliminates any risks of loads tipping over due to stacking.

The Manufacturer declines any liability for damage to the packing and the machine.
On receiving the machine, check that the packing and components are not damaged. In case of damage, **immediately** notify the carrier and the Manufacturer. If the appliance received has visible or hidden damage, a claim can be made with the forwarder. Visible losses or damage must be reported in the transport document at the time of delivery. The transport document must be signed by the forwarder's representative (e.g. the driver). If the transport document is not signed, the forwarder can reject the claim.
A request for inspection must be made to the forwarder within 15 days in case of hidden damage or losses detected only after unpacking the appliance. The forwarder will arrange an inspection. Keep all the contents and packing material. Under no circumstances should a damaged appliance be returned to the manufacturer without prior notice and written permission.
The machine must only be transported, handled and stored by qualified personnel, who must have:
- specific technical training and experience;
- knowledge of the safety regulations and applicable laws in the relevant sector;
- knowledge of the general safety rules;
- the ability to recognise and avoid any possible hazard.

The Manufacturer declines any liability whenever transport is undertaken by carriers chosen by the Customer.

ATTENTION!
Machine transport, handling and storage personnel must receive adequate instruction and training in the use of lifting systems and the use of personal protection equipment suitable for the type of operation carried out (e.g. work overalls, safety shoes, gloves and safety helmet).

B.1.2 TRANSPORT: INSTRUCTIONS FOR THE CARRIER
During the journey the tightness of the fixing systems must be checked several times, and in particular:
• a few km after the start of the journey;
• in case of sudden temperature changes;
• in case of intense cold;
• in case of particularly rough roads.
When removing the anchoring systems, make sure the stability of the machine parts does not depend on the anchoring and, therefore, that this operation does not cause the load to fall off the vehicle.

ATTENTION!
Do not stand under suspended loads during loading/unloading operations.
Unauthorised personnel must not enter the work area.

ATTENTION!
The machine's weight alone is not sufficient to keep it steady. The transported load can shift:
- when braking;
- when accelerating;
- in corners;
- on particularly rough roads.

If slings in synthetic fibre are used to secure the machine, protect them against rubbing, abrasion and damage caused by any sharp edges of the load. If there are sharp edges that can damage the sling, use suitable corner protectors or sliding tubes.

ATTENTION!
When removing the anchoring systems, make sure the stability of the machine parts does not depend on the anchoring and, therefore, that this operation does not cause the load to fall off the vehicle. Before unloading the machine components make sure all the anchoring systems are removed.

B.1.3 HANDLING
Arrange a suitable area with flat floor for machine unloading and storage operations.

B.1.4 PROCEDURES FOR HANDLING OPERATIONS
For correct and safe lifting operations:
• use the type of equipment most suitable for characteristics and capacity (e.g. electric pallet truck or lift truck);
• cover sharp edges;

Before lifting:
• send all operators to a safe position and prevent persons from entering the handling area;
• make sure the load is stable;
• make sure no material can fall during lifting. Manoeuvre vertically in order to avoid impacts;
• handle the machine, keeping it at minimum height from the ground.

ATTENTION!
For machine lifting, do not use movable or weak parts such as: casings, electrical raceways, pneumatic parts, etc.

B.1.5 TRANSLATION
The operator must:
• have a general view of the path to be followed;
• stop the manoeuvre in case of hazardous situations.

ATTENTION!
Do not push or pull the appliance to move it, as it may tip over.

B.1.6 PLACING THE LOAD
Before placing the load, make sure the way is free and that the floor is flat and can take the load. Remove the appliance from the wooden pallet, move it to one side, then slide it onto the floor.

B.1.7 STORAGE
The machine and/or its parts must be stored and protected against damp, in a non-aggressive place free of vibrations and with room temperature between -10°C and +50°C.
The place where the machine is stored must have a flat support surface in order to avoid any twisting of the machine or damage to the support feet.

ATTENTION!
Machine positioning, installation and disassembly must be carried out by a specialised technician.

ATTENTION!
Do not make modifications to the parts supplied with the machine. Any missing or faulty parts must be replaced with original parts.

B.2 INSTALLATION AND ASSEMBLY

ATTENTION!
Machine installation and assembly operations must only be carried out by specialised Technicians provided with all the appropriate personal protection equipment (safety shoes, gloves, glasses, overalls, etc.), tools, utensils and ancillary means, with adequate enclosure of the assembly area to keep out unauthorised persons.

To ensure correct operation of the appliance and maintain safe conditions during use, carefully follow the instructions given below in this section.

ATTENTION!
The operations described below must be carried out in compliance with the current safety regulations, regarding the equipment used and the operating procedures.

ATTENTION!
Before moving the appliance make sure the load bearing capacity of the lifting equipment to be used is suitable for its weight.

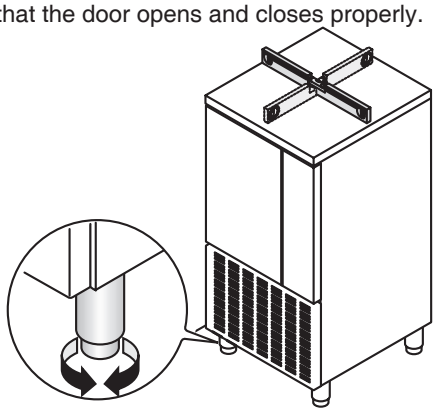
B.2.1 THE CUSTOMER'S RESPONSIBILITIES
The Customer must:
- For information regarding the electrical connection, refer to par. B.2.11 "Electrical connection";
- check the flatness of the surface on which the machine is placed.

B.2.2 MACHINE SPACE LIMITS
A suitable space must be left around the machine (for operations, maintenance, etc.). This space must be increased in case of use and/or transfer of other equipment and/or means or if exit routes are necessary inside the workplace. Make sure to position the appliance at least 50 mm from any other machines present in the room (in fact, close proximity can create problems of condensate forming on the walls of the appliance), also taking into consideration the space needed for door opening.

B.2.3 POSITIONING

Install the appliance, taking all the safety precautions required for this type of operation, also respecting the relevant fire-prevention instructions.
Install the appliance in a ventilated place, away from heat sources such as radiators or air conditioning systems, to allow correct cooling of the refrigeration unit components. Never cover the condenser, even temporarily, as this can compromise proper operation of the condenser and therefore the equipment. If the appliance is installed in a place where there are corrosive substances (chlorine, etc.), it is advisable to go over all the stainless steel surfaces with a rag moistened with paraffin oil in order to create a protective film. To maintain the recommended internal temperatures the room temperature must not exceed +32°C.
The machine must be taken to the place of installation and the packing base removed only when being installed.
Arranging the machine:

- position the machine in the required place;
- adjust the height and level by means of the levelling feet, checking that the door opens and closes properly.



ATTENTION!
The appliance must be levelled; otherwise its operation could be affected.

- wear protective gloves and unpack the machine, carrying out the following operations:
  - cut the straps and remove the protective film, taking care not to scratch the surface if scissors or blades are used;
  - remove the cardboard top, the polystyrene corners and the vertical protection pieces.

For appliances with stainless steel cabinet, remove the protective film very slowly without tearing it, to avoid leaving glue stuck to the surface. Should this happen, remove the traces of glue with a non-corrosive solvent, rinsing it off and drying thoroughly; it is advisable to go over all the stainless steel surfaces with a rag soaked in paraffin oil in order to create a protective film.

B.2.4 DISPOSAL OF PACKING

The packing must be disposed of in compliance with the current regulations in the country where the appliance is used.
All the packing materials are environmentally friendly. They can be safely kept, recycled or burnt in an appropriate waste incineration plant. Recyclable plastic parts are marked as follows:

PE **polyethylene:** outer wrapping, instruction booklet bag

PP **polypropylene:** straps

PS **polystyrene foam:** corner protectors

The parts in wood and cardboard can be disposed of, respecting the current regulations in the country where the machine is used.

NOTE (for models with on board unit): Appliances with on board unit must be handled in the upright position. If the appliance is handled in a horizontal position, make sure to wait a few hours before making it operational.

B.2.5 CONDENSATE TRAY POSITIONING

For models 6 GN 1/1,10 GN 1/1 and 10 GN 2/1 : the condensate tray support guides are fitted externally on the bottom of the appliance; take the tray located inside the compartment and slide it onto the support guides.
The 20 GN 1/1 models do not have condensate trays.

B.2.6 POSITIONING THE SPACER

For models 6 GN 1/1, 10 GN 1/1 and 10 GN 2/1, fit the spacer. The spacer must be positioned on the back of the cabinet (see figures 4 and 5) and secured with M5 x 12 screws, using the holes provided. The spacers are for keeping the appliances at a certain distance from walls and to allow correct cooling of the refrigerating unit elements.
The manufacturer declines any liability for appliance malfunctioning or damage due to failure to use the spacers.

B.2.7 POSITIONING ON THE “Cook&Chill” COLUMN

If the **6 GN 1/1** blast chiller is arranged for the "Cook&Chill" column, follow the instructions given in the installation manual (code 595R068) included in the kit.
Note: When installing the oven on top of the blast chiller, refer to the instructions in the oven handbook.
Attention: If the blast chiller has a top, remove it by following the instructions in section B.2.8. The “Cook&Chill” column kit code is F881049.

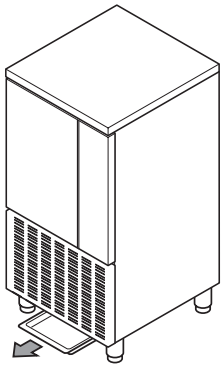
B.2.8 POSITIONING THE TOP

If the **6 GN 1/1** blast chiller is arranged for the "Cook&Chill" column, but is not installed on the column, order the top kit code F880027. Install as shown in the attached diagram code 5897224.

B.2.9 DRAINING WATER

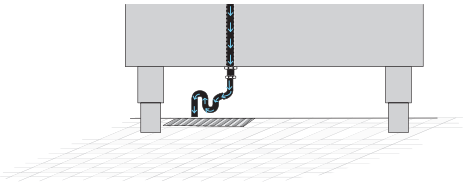
B.2.9.1 Manual draining

The **6 GN 1/1,10 GN 1/1 and 10 GN 2/1** appliances have a drain hole, and when the plug is removed any liquids in the compartment run into the tray located on the bottom of the cabinet. This tray must be emptied periodically. Refit the drain plug immediately after the cleaning.
Note: Make sure the liquid collection tray has been emptied before removing the plug to drain compartment washing liquids.



B.2.9.2 Automatic draining

For models 6 GN 1/1, 10 GN 1/1 ,10 GN 2/1: Instead of having to periodically empty the liquid collection tray, the compartment drain hole “C” on the bottom of the appliance can be connected to a drainage system, or a rubber hose can be connected to the hole to run the water into a floor grate.



For **6 GN 1/1, 10 GN 1/1 and 10 GN 2/1** appliances, the drain diameter is 1½”, therefore it is advisable to use a 1½” drain pipe,or to a diam. 25mm hose.
Emptying must occur through a trap into an open drain, to prevent any backflow from the drainage system reaching the internal pipes of the appliance. Make sure there are no restrictions in the flexible pipes or elbows in the metal pipes, along the entire

drainage path. Avoid horizontal sections that cause water to collect and stagnate.
Note: Before removing the plug to drain compartment washing liquids, make sure the appliance has been connected to a water drain trap system, or that the tray has been emptied.

B.2.10 POSITIONING APPLIANCES ARRANGED FOR REMOTE UNIT AND POSITIONING THE CONDENSING UNIT

ATTENTION!
For the choice of remote condensing unit refer to the unit recommended by the Manufacturer, given on the equipment technical sheet.

ATTENTION!
In case of extraordinary size of the remote condensing unit refer to the technical sheet for the refrigerating capacity data or consult the Manufacturer's website or Local Service Center/Agency authorized by the Manufacturer.

ATTENTION!
Installation of the appliance and the refrigerant fluid condensing unit must only be carried out by the manufacturer's service personnel or by a qualified person.

ATTENTION!
Machine installation and assembly operations must only be carried out by specialised Technicians provided with all the appropriate personal protection equipment (safety shoes, gloves, glasses, overalls, etc.), tools, utensils and ancillary means.

Install the appliance, taking all the safety precautions required for this type of operation.
Place the condenser unit in a well-ventilated room away from heat sources.
If the remote unit is installed outdoors, it must be protected against the action of atmospheric agents with adequate covering, in any case ensuring correct ventilation of the condensing unit.
Choose pipe widths according to that given in the technical data (for recommended units).
Lay the copper piping, choosing the shortest path and avoiding bends, elbows and vertical sections as much as possible, keeping to the following:
- in horizontal sections, the inlet line must slope down towards the condensing unit at an angle of not less than 2%;
- traps must be installed before all upward sections of the inlet line (every 2 metres);
- insulate the inlet line with suitable lagging (min. thickness 9 mm);
- it is advisable to install the remote unit at a distance of not more than 15 m from the appliance and with a maximum height difference of 5 m between the unit and appliance.

• Install on the delivery line, in the following order:
a suitably sized dehydration filter, a liquid flow indicator and a solenoid valve.

Attention!
For the choice of remote condensing unit refer to the unit recommended by the Manufacturer, given on the equipment technical sheet.

Attention!
In case of extraordinary size of the remote condensing unit refer to the technical sheet for the refrigerating capacity data or consult the Manufacturer's website or Local Service Center/Agency authorized by the Manufacturer.

B.2.11 ELECTRICAL CONNECTION

Connection to the power supply must be carried out in compliance with the regulations and provisions in force in the country of use.

ATTENTION!
Work on the electrical systems must only be carried out by a qualified electrician.

During electrical connection, make sure to carefully follow that specified on the data plate and in par. A.2 TECHNICAL DATA. For appliances with remote unit, the connection must be made separately for the unit and the machine.
Before connecting, **make sure:**

- the connection point has an efficient earth contact and the mains voltage and frequency match that given on the data plate. In case of doubts regarding the efficiency of the earth wire, have the system checked by qualified personnel;
- the system power supply is arranged and able to take the actual current absorption and that it is correctly executed according to the regulations in force in the country of use;
- the appliance must be permanently connected to the power supply, respecting the polarities:
  - brown/black/gray: phase
  - yellow/green: earth
  - blue: neutral;
- a differential thermal-magnetic switch (or plug) suitable for the absorption specified on the data plate, with contact gap enabling complete disconnection in category III overvoltage conditions and complying with the regulations in force, is installed between the power cable and the electric line. For the correct sizing of the switch or plug, refer to the absorbed current specified on the appliance data plate. **The chosen device must be lockable in the open position in case of maintenance.**

ATTENTION: When using a plug, it must comply with the national installation rules. The plug must also be:
- **accessible after the appliance has been positioned in the place of installation;**
- **in a position always visible to the operator performing the intervention during maintenance operations.**

- After making the connection, with the appliance running check that the power supply does not fluctuate by ±10% the rated voltage.

Note: With models arranged for operation with remote unit, carry out the condensing unit and solenoid valve electrical connections as shown in the wiring diagram accompanying the machine. The connection must be made with a cable of suitable section. Insert and secure the cables with the special cable clamp. Correctly connect each wire to the corresponding terminal.

If the power cable is damaged, it must be replaced by the After-Sales Service or in any case by qualified personnel, in order prevent any risk.

The manufacturer declines any liability for damage or injury resulting from breach of the above rules or non-compliance with the electrical safety regulations in force in the country where the machine is used.

ATTENTION!
An H07RNF type power cable (code 60245 IEC 66) is used for the permanent connection to the mains; in case of replacement, use a type with at least these characteristics.

ATTENTION!
When replacing the cable, the earth wire must be kept longer than the live and neutral wires.

B.2.12 EVACUATING THE LINES AND CHARGING WITH REFRIGERANT GAS

ATTENTION!
Evacuation and refrigerant gas charging operations must only be carried out by specialised Technicians provided with all the appropriate personal protection equipment (safety shoes, gloves, glasses, overalls, etc.), tools, utensils and ancillary means.

B.2.12.1 Leakage test

- Wash the inlet and delivery pipes with pressurised dry nitrogen.
- Connect a nitrogen cylinder to the high and low pressure connectors, making sure to also install a pressure gauge (using a **"T"** union), and charge the high and low pressure lines with gas to a pressure of approx. 15 bar. Close the cylinder cock and, after at least 1 hour, check that the pressure has not dropped to below the previous reading level.

B.2.12.2 Vacuum

- Empty the circuit manually by opening the cocks on the unions.
- Connect the pipes to a vacuum pump (preferably a two-stage model with vacuum gauge and high and low pressure connectors). Reach a vacuum level equal to or lower than 70mTorr (0.0931 mbar). On reaching this vacuum level, maintain it for **at least 30 minutes** then charge the unit as follows:

B.2.12.3 Refrigerant charging

- Charge the high and low pressure lines with liquid refrigerant for R404A until the pressure between the cylinders and the circuit is balanced (the initial charge of fluid is approx. 20÷30% the total charge).
- Then, shut off the high pressure line, start the compressor and charge with gas slowly until the bubbles in the fluid indicator disappear.

B.2.13 CHECKS WHEN STARTING UP THE APPLIANCE

- Before making the appliance operational, run a complete manual blast chilling or blast freezing cycle.
- Check on the refrigerant fluid flow indicator that the charge is sufficient. Otherwise, complete charging following the instructions in § B.2.13.3.
- Using a digital thermometer, check that the temperature reading on the control panel matches the instrument reading.
- In condensing units, it is advisable to check the correct return of oil to the compressor. The check can be made in the following way:
  1. with the condensing unit off, make sure the oil window on the compressor casing is filled up to at least ¼ its height;
  2. run a complete empty HARD CHILLING (BC) or FREEZING (BCF) cycle;
  3. turn the blast chiller off at the end of the cycle;
     wait at least 15 minutes then check the oil level. The oil must be visible in the window on the casing; otherwise, add oil until the window is filled up to at least 1/2 its height (only use oil with characteristics given on the compressor dataplate).

C.1 GENERAL SAFETY RULES

IF THE APPLIANCE HAS THE NF MARK ON THE FRONT, IT BENEFITS FROM THE RIGHT TO USE THE NF HYGIENE ALIMENTAiRE MARK. This right will be lost if any alterations are made to the appliance. Information on the **NF HYGIENE ALIMENTAiRE mark:**

- certification body:
  AFAQ AFNOR Certification
  11 avenue Francis de Pressensé
  93571 Saint-Denis La Plaine
  Cedex - France
  www.marque-NF.com
- conformity with regulation **NF031**
- the indication that the most important certified characteristics are:
  -cleaning aptitude
  -operation capacity: refrigerating performance

ATTENTION: Compliance with NF regulations is guaranteed by keeping the feet at a height equal to or more than 150 mm.

C.1.1 INTRODUCTION

The machines are provided with electric and/or mechanical safety devices for protectizng workers and the machine itself. Therefore the user must not remove or tamper with such devices.
The Manufacturer declines any liability for damage due to tampering or their non-use.

C.1.2 PROTECTION DEVICES INSTALLED ON THE MACHINE

C.1.2.1 Guards

The guards on the machine are:

- fixed guards (e.g. casings, covers, side panels, etc.), fixed to the machine and/or frame with screws or quick-release connectors that can only be removed or opened with tools;
- interlocked movable guards (front panels) for access inside the machine;
- machine electrical equipment access doors, made from hinged panels openable with tools. The door must not be opened during machine operation.

ATTENTION!
Several illustrations in the manual show the machine, or parts of it, without guards or with guards removed. This is purely for explanatory purposes. Do not use the machine without the guards or with the protection devices deactivated.

C.1.3 SAFETY SIGNS TO BE PLACED ON THE MACHINE OR NEAR ITS AREA

PROHIBITION	MEANING
	**Do not remove the safety devices.**
	**Do not use water to extinguish fires (shown on electrical parts).**

DANGER	MEANING
	**DANGER OF BURNS.**
	**DANGER OF ELECTROCUTION (shown on electrical parts with indication of voltage).**

ATTENTION!
Do not remove, tamper with or make the labels on the machine illegible.

C.1.4 END OF USE
When the appliance is no longer to be used, make it unusable by removing the power supply wiring.

C.1.5 INSTRUCTIONS FOR USE AND MAINTENANCE
Risks mainly of a mechanical, thermal and electrical nature are present in the machine.
Where possible the risks have been neutralised:
• directly, by means of adequate design solutions,
• or indirectly by using guards, protection and safety devices.
Any anomalous situations are signalled on the control panel display.
During maintenance several risks remain, as these could not be eliminated, and must be neutralised by adopting specific measures and precautions.
Do not carry out any control, cleaning, repair or maintenance operations on moving parts.
Workers must be informed of the prohibition by means of clearly visible signs. To guarantee machine efficiency and correct operation, periodical maintenance must be carried out according to the instructions given in this manual. In particular, make sure to periodically check correct operation of all the safety devices and the insulation of electrical cables, which must be replaced if damaged.

ATTENTION!
Machine maintenance operations must only be carried out by specialised Technicians provided with all the appropriate personal protection equipment (safety shoes, gloves, glasses, overalls, etc.), tools, utensils and ancillary means.

ATTENTION!
Never operate the machine by removing, modifying or tampering with the guards, protection or safety devices.

ATTENTION!
Before carrying out any operation on the machine, always consult the manual which gives the correct procedures and contains important information on safety.

C.1.6 REASONABLY FORESEEABLE IMPROPER USE
Improper use is any use different from that specified in this manual. During machine operation, other types of work or activities deemed improper and that in general can involve risks for the safety of operators and damage to the appliance are not allowed.
Reasonably foreseeable improper use includes:
• lack of machine maintenance, cleaning and periodical checks;
• structural changes or modifications to the operating logic;
• tampering with the guards or safety devices;
• failure to use personal protection equipment by operators, specialised technicians and maintenance personnel;
• failure to use suitable accessories (e.g. use of unsuitable equipment or ladders);
• keeping combustible or flammable materials, or in any case materials not compatible with or pertinent to the work, near the machine;
• wrong machine installation;
• placing in the machine any objects or things not compatible with refrigeration, freezing or preservation, or that can damage the machine, cause injury or pollute the environment;
• climbing on the machine;
• non-compliance with the requirements for correct machine use;
• other actions that give rise to risks not eliminable by the Manufacturer.

ATTENTION!
The previously described actions are prohibited!

ATTENTION!
Do not remove or make the safety, danger and instruction signs on the machine illegible.

ATTENTION!
Do not remove or tamper with the machine's safety devices.

C.1.7 RESIDUAL RISKS
The machine has several risks that were not completely eliminated from a design standpoint or with the installation of adequate protection devices.
Nevertheless, through this manual the Manufacturer has taken steps to inform operators of such risks, carefully indicating the personal protection equipment to be used by them.
Sufficient spaces are provided for during the machine installation stages in order to limit these risks.
To preserve these conditions, the areas around the machine must always be:
• kept free of obstacles (e.g. ladders, tools, containers, boxes, etc.);
• clean and dry;
• well lit.
For the Customer's complete information, the residual risks remaining on the machine are indicated below: such actions are to be considered incorrect and therefore strictly forbidden.

RESIDUAL RISK	DESCRIPTION OF HAZARDOUS SITUATION
Slipping or falling	The operator can slip due to water or dirt on the floor.
Burns/abrasions (e.g. heating elements, cold tray, cooling circuit plates and pipes)	The operator deliberately or unintentionally touches some components inside the machine without using protective gloves.
Electrocution	Contact with live parts during maintenance operations carried out with the electrical panel powered.
Falling from above	The operator works on the machine using unsuitable systems to access the upper part (e.g. rung ladders, or climbs on it).
Tipping of loads	When handling the machine or the packing containing it, using unsuitable lifting systems or accessories or with the load unbalanced.
Chemical (refrigerant gas)	Inhalation of refrigerant gas. Therefore always refer to the appliance labels.
Harm to eyesight and skin.	Exposure to U.V. rays for appliances with germicidal lamp, in case of door interlock fault.

C.2 NORMAL MACHINE USE

C.2.1 FORESEEN USE

Our appliances are designed and optimised in order to obtain high performance and efficiency. This appliance has been designed for blast chilling and/or blast freezing and preservation of foods (it rapidly lowers the temperature of cooked foods in order to preserve their initial qualities and guarantee their good condition for several days). Any other use is deemed improper. The appliance must not be used by people (including children) with limited physical, sensory or mental abilities or without experience and knowledge of it, unless instructed in its use by those responsible for their safety.

ATTENTION: The appliance is not suitable for installation outdoors and/or in places exposed to atmospheric agents (rain, direct sunlight, etc.).

The manufacturer declines all liability for any improper use of the product.

C.2.2 CHARACTERISTICS OF PERSONNEL TRAINED FOR NORMAL MACHINE USE

The Customer must make sure the personnel for normal machine use are adequately trained and skilled in their duties, as well as ensuring their own safety and that of other persons.

The Customer must make sure his personnel have understood the instructions received and in particular those regarding work hygiene and safety in use of the machine.

C.2.3 CHARACTERISTICS OF PERSONNEL ENABLED TO OPERATE ON THE MACHINE

The Customer is responsible for ensuring that persons assigned to the various duties:

- read and understand the manual;
- receive adequate training and instruction for their duties in order to perform them safely;
- receive specific training for correct machine use.

C.2.4 OPERATOR FOR NORMAL MACHINE USE

He must have at least:

- knowledge of the technology and specific experience in operating the machine;
- adequate general basic education and technical knowledge for reading and understanding the contents of the manual;
- including correct interpretation of the drawings, signs and pictograms;
- sufficient technical knowledge for safely performing his duties as specified in the manual;
- knowledge of the regulations on work hygiene and safety.

In case of a significant fault (e.g. short circuits, wires coming out of the terminal block, motor breakdowns, worn electrical cable sheathing, etc.) the operator for normal machine use must:

- immediately deactivate the machine.

D.1 MACHINE CLEANING AND MAINTENANCE

For instructions regarding appliance cleaning and routine and extraordinary maintenance, refer to that given the sections D.1 and D.2 of the “USE AND MAINTENANCE” manual supplied together with this manual.

D.1.1 MAINTENANCE INTERVALS

The inspection and maintenance intervals depend on the actual machine operation conditions and ambient conditions (presence of dust, damp, etc.), therefore precise time intervals cannot be given. In any case, to minimise interruptions of the service, careful and periodical machine maintenance is advisable.

It is advisable to stipulate a preventive and scheduled maintenance contract with the after-sales service.

D.1.1.2 Maintenance periodicity

In order to guarantee constant machine efficiency, it is advisable to carry out the checks with the frequency given in the following table:

Maintenance, checks, inspections and cleaning	Periodicità
Routine cleaning General cleaning of machine and surrounding area	**Daily**
Mechanical protection devices Check condition, and for any deformation, loosening or removed parts.	**Monthly**
Control Check mechanical part, for any breakage or deformation, tightening of screws. Check readability and condition of words, stickers and symbols and restore if necessary.	**Yearly**
Machine structure Tightening of main bolts (screws, fixing systems, etc.) of machine.	**Yearly**
Safety signs Check readability and condition of safety signs.	**Yearly**
Electrical control panel Check the electrical components installed inside the Electric Control Panel. Check wiring between the Electrical Panel and machine parts.	**Yearly**
Electrical connection cable and plug Check connection cable (replace it if necessary) and plug.	**Yearly**
Extraordinary machine maintenance Check all components, electrical equipment, corrosion, pipes,…	**Every 10 years (*)**

(*) the machine is designed and built for a duration of about 10 years. After this period of time (from machine commissioning) the machine must undergo a general inspection and overhaul. Some examples of checks to be carried out are given below.

- check for any oxidised electrical components or parts; if necessary, replace them and restore the initial conditions;
- check the structure and welded joints in particular;
- check and replace bolts and/or screws, also checking for any loose components;
- check the electrical and electronic system;
- check the functionality of safety devices;
- check the general condition of protection devices and guards.

ATTENTION!
Machine maintenance, checking and overhaul operations must only be carried out by a specialised Technician or the After-Sales Service, provided with adequate personal protection equipment (safety shoes, gloves, glasses), tools and ancillary means.

ATTENTION!
Work on the electrical equipment must only be carried out by a qualified electrician or the After-Sales Service.

D.1.2 DISASSEMBLY
If the appliance has to be disassembled and then reassembled, make sure the various parts are assembled in the correct order (if necessary mark them during disassembly).
Before disassembling the machine, make sure to carefully check its physical condition, and in particular any parts of the structure that can give or break. Before starting disassembly:
- remove all the pieces, if present, in the machine;
- disconnect the power supply;
- enclose the work area;
- place a sign on the Main Electrical Panel indicating that the machine is undergoing maintenance and not to carry out manoeuvres;
- carry out the disassembly operations.

ATTENTION!
All scrapping operations must occur with the machine immovable and the electrical power supply disconnected.

ATTENTION!
Work on the electrical equipment must only be carried out by a qualified electrician, with the power supply disconnected.

ATTENTION!
To carry out these operations it is necessary to wear: work overalls, safety shoes and gloves.

ATTENTION!
During disassembly and handling of the various parts, the minimum height from the floor must be maintained.

D.1.3 DECOMMISSIONING
If the machine cannot be repaired, carry out the decommissioning operations, signalling the failure with a suitable sign, and request assistance of the manufacturer's after-sales service.

D.2 MACHINE DISPOSAL

ATTENTION!
DISMANTLING OPERATIONS MUST BE CARRIED OUT BY QUALIFIED PERSONNEL.

ATTENTION!
WORK ON THE ELECTRICAL EQUIPMENT MUST ONLY BE CARRIED OUT BY A QUALIFIED ELECTRICIAN, WITH THE POWER SUPPLY DISCONNECTED.

D.2.1 WASTE STORAGE
At the end of the product's life cycle, make sure it is not dispersed in the environment. The doors must be removed before scrapping the appliance.
Special waste materials can be stored temporarily while awaiting treatment for disposal and/or permanent storage. In any case, the current environmental protection laws in the country of use must be observed.

D.2.2 PROCEDURE REGARDING APPLIANCE DISMANTLING MACRO OPERATIONS
Before disposing of the machine, make sure to carefully check its physical condition, and in particular any parts of the structure that can give or break during scrapping. The machine's parts must be disposed of in a differentiated way, according to their different characteristics (e.g. metals, oils, greases, plastic, rubber, etc.). Different regulations are in force in the various countries, therefore comply with the provisions of the laws and competent bodies in the country where scrapping takes place.
In general, the appliance must be taken to a specialised collection/scrapping centre. Dismantle the appliance, grouping the components according to their chemical characteristics, remembering that the compressor contains lubricant oil and refrigerant fluid which can be recycled, and that the appliance's components are special waste assimilable with urban waste.

The symbol  placed on the product indicates that it should **not** be regarded as domestic waste, but must be correctly disposed of, in order to prevent any negative consequences for the environment and the health of persons.
For further information on the recycling of this product, contact the local dealer or agent, the after-sales assistance service or the local body responsible for waste disposal.

ATTENTION!
Make the appliance unusable by removing the power cable and any compartment closing devices, to prevent the possibility of someone becoming trapped inside.

ATTENTION!
When scrapping the machine, the "CE" marking, this manual and other documents concerning the appliance must be destroyed.