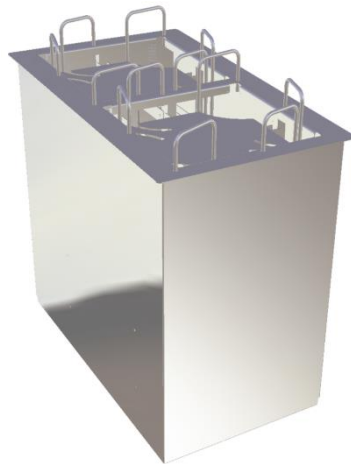


HANDBOOK

DRY BAIN MARIE
TEMPERED GLASS
PLATE LOWERATOR

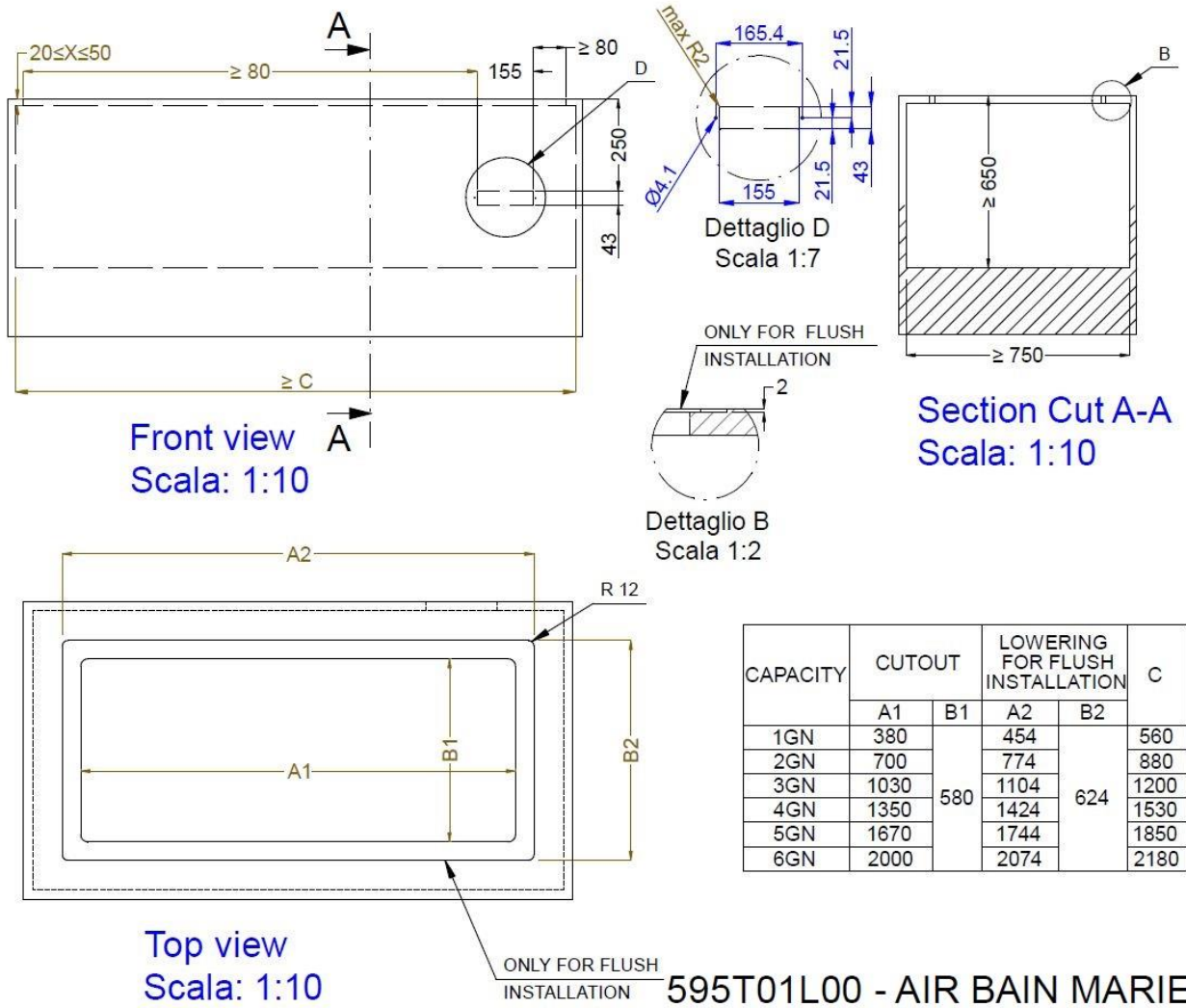


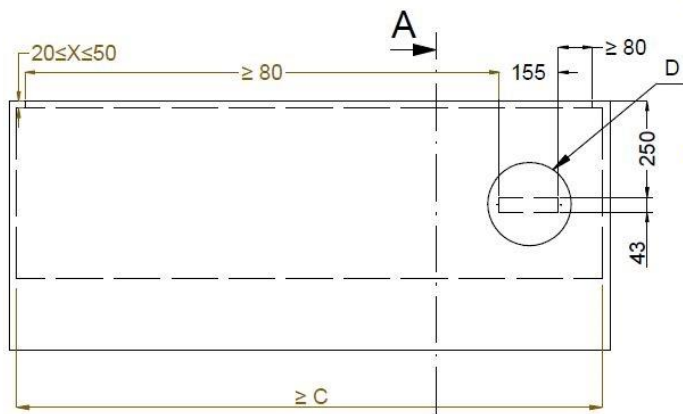
Installation diagram

See the specific sheet included in the documentation of this product.

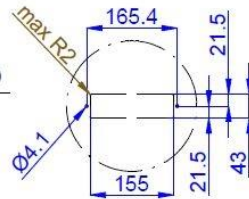
Installation design suggestion (only for drop-in)

See the specific sheet included in the documentation of this product.

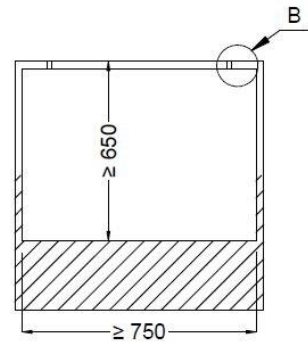




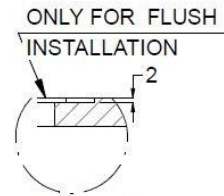
Front view
Scala: 1:10



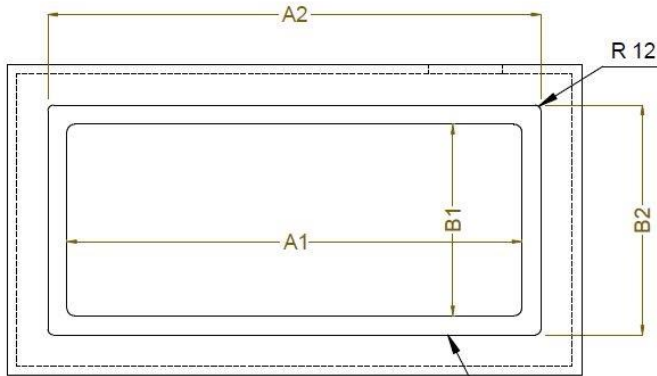
Dettaglio D
Scala 1:7



Section Cut A-A
Scala: 1:10



Dettaglio B
Scala 1:2

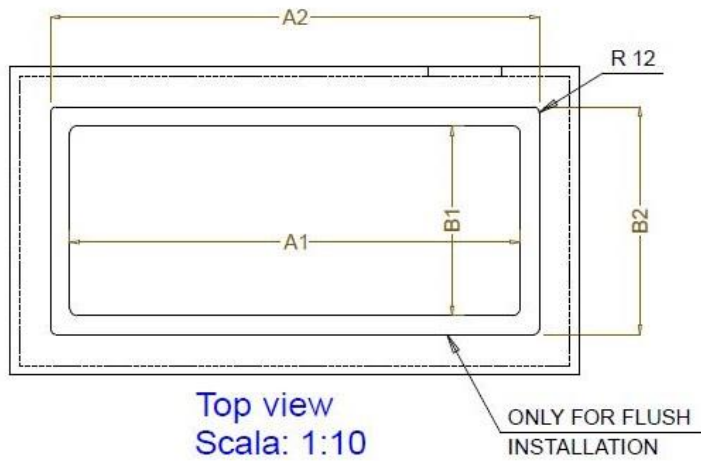
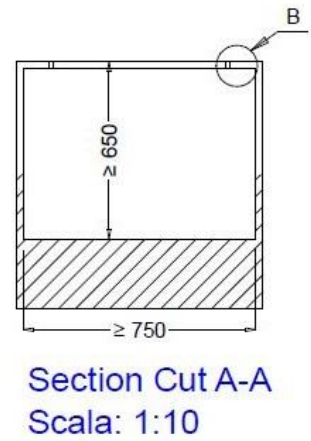
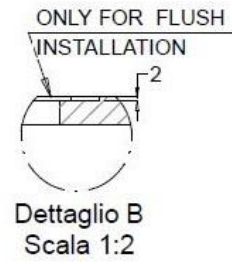
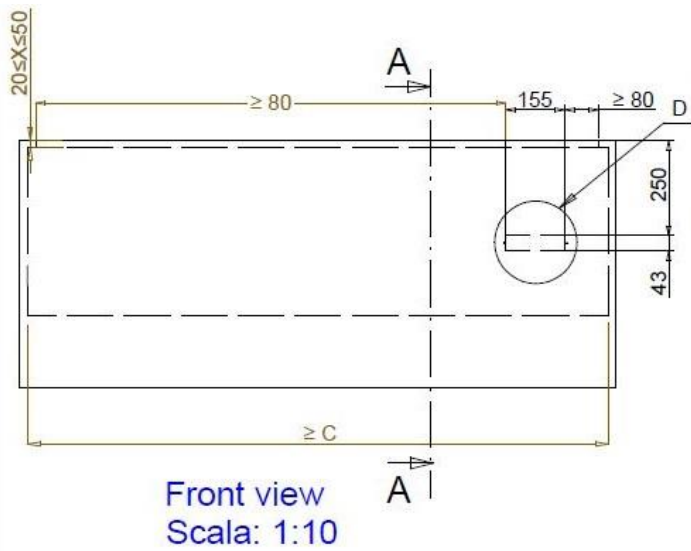


Top view
Scala: 1:10

ONLY FOR FLUSH
INSTALLATION

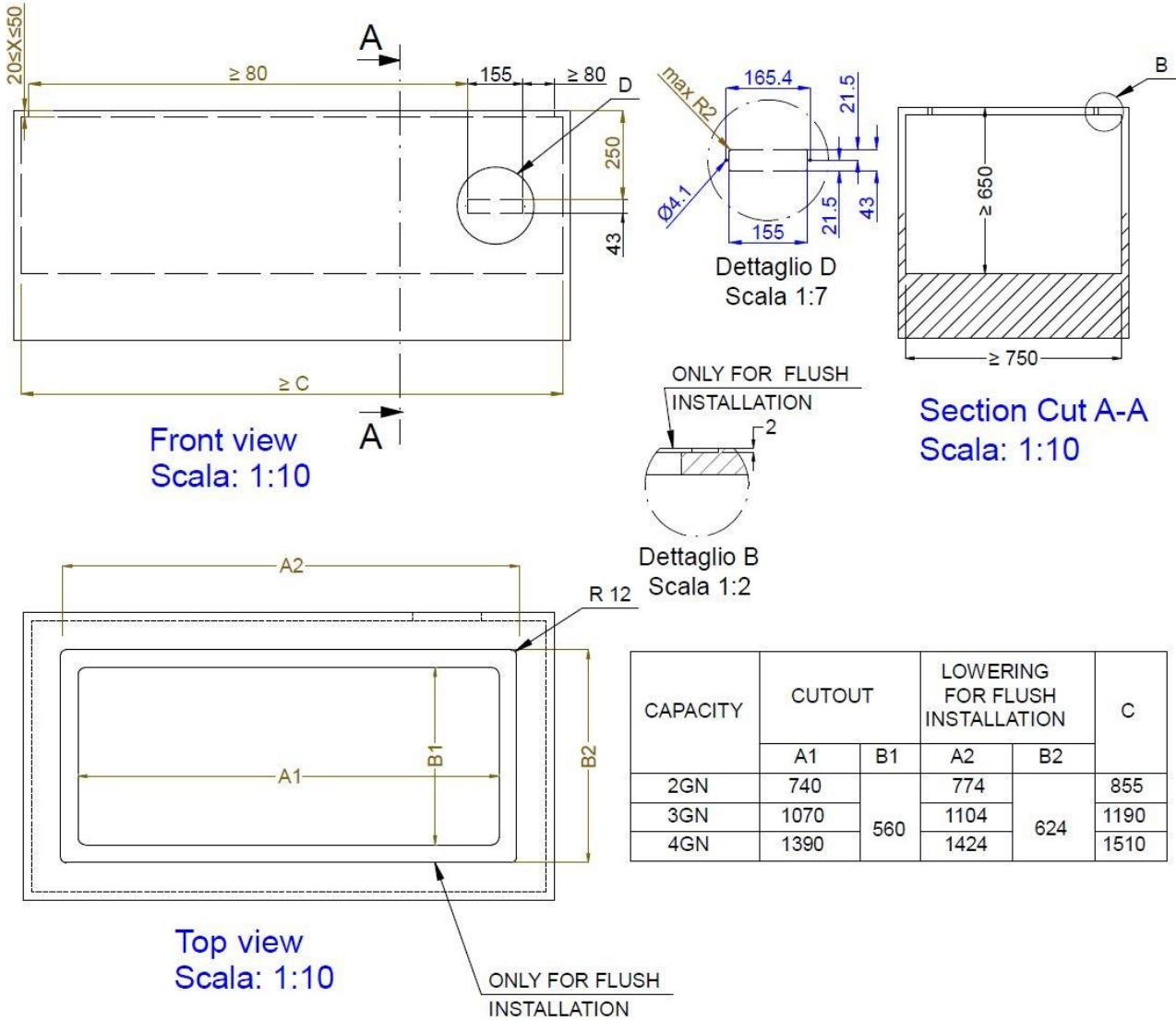
CAPACITY	CUTOUT		LOWERING FOR FLUSH INSTALLATION		C
	A1	B1	A2	B2	
2GN	740	580	774	624	880
3GN	1070		1104		1200
4GN	1390		1424		1530

595T03400 - AIR BAIN MARIE OVERSH. ON THE FRAME

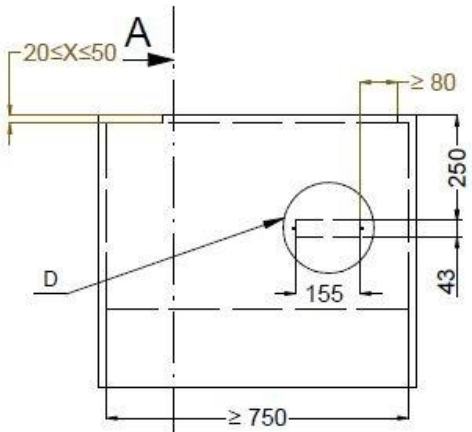


CAPACITY	CUTOUT		LOWERING FOR FLUSH INSTALLATION		C
	A1	B1	A2	B2	
1GN	355	560	454	624	535
2GN	680		774		855
3GN	1010		1104		1190
4GN	1030		1424		1510
5GN	1660		1744		1835
6GN	1985		2074		2165

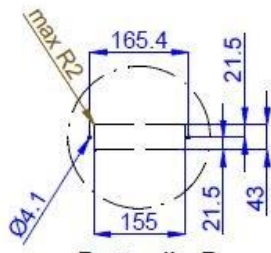
595T01T00 - HOT TEMPERED GLASS



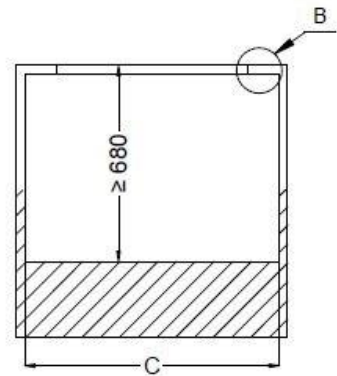
595T03A00 - HOT TEMPERED GLASS OVERSH. ON THE FRAME



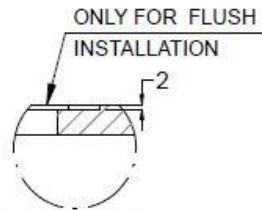
Front view
Scala: 1:10



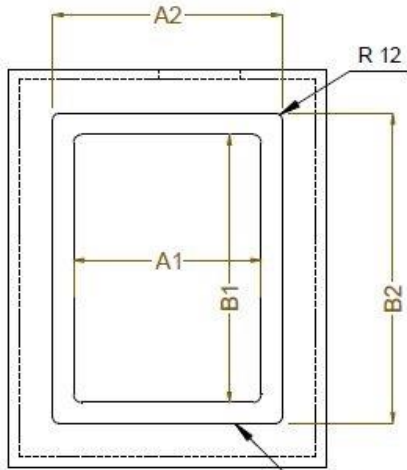
Dettaglio D
Scala 1:7



Section Cut A-A
Scala: 1:10



Dettaglio B
Scala 1:2



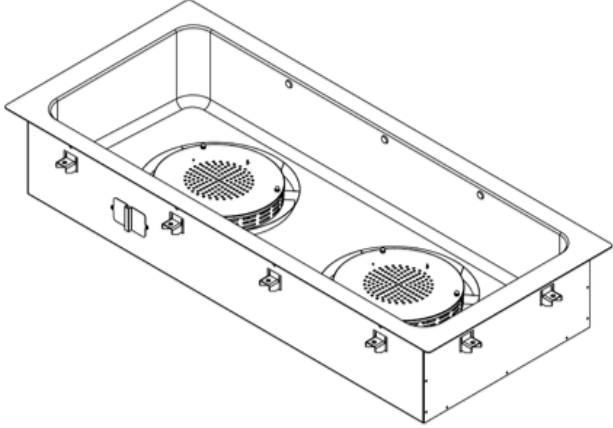
Top view
Scala: 1:10

CODE	CUTOUT		LOWERING FOR FLUSH INSTALLATION		C
	A1	B1	A2	B2	
341158	410	710	454	744	900
341165	350	590		624	570
341166	410	370		409	900
341167	350	310		349	570

595T03F00 - PLATE LOWERATOR HOT 2x 180-300 MM

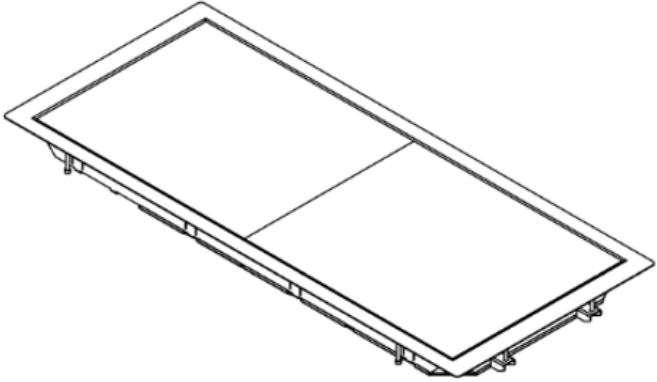
Product values

TECHNICAL DATA TABLE
BAIN MARIE AIR VENTILATED

Type						
Model	1xGN 1/1	2xGN 1/1	3xGN 1/1	4xGN 1/1	5xGN 1/1	6xGN 1/1
Codes	341008	341009	341010	341011	341012	341013
Power Supply Voltage (Volt)	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240	380 - 410
Number of phases	1N	1N	1N	1N	1N	3N
Frequency	50/60	50/60	50/60	50/60	50/60	50/60
Total Power (kW)	1,06	1,06	1,06	2,09	2,09	3,13
Consumption (kWh/24h)	11,23	14,5	18,96	23,95	29,04	35,42
Heating element power (W)	1000	1000	1000	2000	2000	3000
Nominal working temperature (from/to °C)	80/90	80/90	80/90	80/90	80/90	80/90
Noise level (dbA)	58	58	58	58	58	58
Weigh of appliance (kg)	17	23	29	38	43	51

TECHNICAL DATA TABLE

TEMPERED GLASS

Type						
Model	1xGN 1/1	2xGN 1/1	3xGN 1/1	4xGN 1/1	5xGN 1/1	6xGN 1/1
Codes	341014	341015	341016	341017	341018	341019
Power Supply Voltage (Volt)	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240	220 - 240
Number of phases	1N	1N	1N	1N	1N	1N
Frequency	50/60	50/60	50/60	50/60	50/60	50/60
Total Power (kW)	0,31	0,6	0,9	1,18	1,47	1,76
Consumption (kWh/24h)	4,56	9,12	13,68	18,24	22,8	27,36
Heating element power (W)	290	580	870	1160	1450	1740
Nominal working temperature (from/to °C)	80/90	80/90	80/90	80/90	80/90	80/90
Noise level (dbA)	58	58	58	58	58	58
Weigh of appliance (kg)	9	15	21	26	32	38

Contents

Foreword.....	12
A.1. General information.....	13
A.1.1 General safety instructions.....	13
A.1.2 Additional indications.....	13
A.1.3 Introduction.....	13
A.1.4 Intended use and restrictions.....	13
A.1.5 Test and inspection.....	14
A.1.6 Definitions.....	14
A.1.7 Machine and manufacturer's identification data.....	15
A.1.8 Appliance identification.....	16
A.1.9 Copyright.....	16
A.1.10 Responsibility.....	16
A.1.11 Personal protection equipment.....	18
A.1.12 Keeping the manual.....	18
A.1.13 Recipients of the manual.....	18
A.2. Technical data.....	18
A.2.1 Climatic class.....	18
A.2.2 Materials and fluids used.....	19
A.2.3 Dimensions, performance and consumption.....	19
A.2.4 Mechanical safety characteristics, hazards.....	19
B.1. Transport, handling and storage.....	19
B.1.1 Introduction.....	19
B.1.2 Transport: instructions for the carrier.....	19
B.1.3 Handling.....	20
B.1.4 Procedures for handling operations.....	20
B.1.5 Translation.....	20
B.1.6 Placing the load.....	20
B.1.7 Storage.....	20
B.2. Installation and assembly.....	21
B.2.1 Checks on receiving the appliance.....	21
B.2.2 Customer's responsibility.....	21
B.2.3 Unpacking.....	21
B.2.3.1 Disposal of packing.....	21

B.2.4	Positioning.....	22
B.2.5	Fitting the appliance in the cabinet (only Drop-in range).....	22
B.2.5.1	Foreword.....	22
B.2.5.2	Fitting and fixing the cabinet.....	24
B.2.6	Electrical connection.....	24
B.2.7	Plumbing connection.....	25
B.2.8	Fitting the control panel (only drop-in products).....	26
B.2.9	Fitting the main electrical box (only drop-in products).....	27
C.1.	How to use the control panel.....	27
C.1.1	Description of keys and icons.....	27
C.1.2	How to use the keys.....	27
C.1.3	Control panel symbols and screen messages.....	28
C.2.	General safety rules.....	28
C.2.1	Introduction.....	28
C.2.2	Protection devices installed on the machine.....	28
C.2.2.1	Guards.....	28
C.2.3	Safety signs placed on the appliance or near its area.....	29
C.2.4	End of use.....	29
C.2.5	Instructions for use and maintenance.....	29
C.2.6	Reasonably foreseeable improper use.....	30
C.2.7	Residual risks.....	31
C.3.	Normal appliance use.....	31
C.3.1	Characteristics of personnel trained for normal machine use.....	32
C.3.2	Characteristics of personnel enabled to operate on the machine.....	32
C.3.3	Operator for normal machine use.....	32
D.1.	Machine cleaning and maintenance.....	32
D.1.1	Routine maintenance.....	33
D.1.1.1	Precautions for maintenance.....	33
D.1.1.2	Cleaning the cabinet and accessories.....	33
D.1.1.3	Tank cleaning.....	33
D.1.1.4	Precautions in case of long idle periods.....	34
D.1.2	Extraordinary maintenance.....	34
D.1.2.1	Replacing the power cable.....	34
D.1.2.2	Quick troubleshooting guide.....	35
D.1.3	Maintenance intervals.....	35
D.1.3.1	Maintenance frequency.....	35

D.1.4	Disassembly	36
D.1.5	Decommissioning.....	37
D.2.	Machine disposal.....	37
D.2.1	Waste storage.....	37
D.2.2	Procedure regarding appliance dismantling macro operations.....	37



Foreword



The installation, use and maintenance manual (hereinafter Manual) provides the user with information necessary for correct and safe use of the machine (hereinafter “machine” 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 people. Make sure to periodically inform the 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 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 people, 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.

A.1. General information

A.1.1 General safety instructions

To ensure safe use of the machine and a proper understanding of the manual it is necessary to be familiar with 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:



WARNING

Danger for the health and safety of operators.



WARNING

Danger of electrocution - dangerous voltage.



WARNING

Risk of fire / flammable materials

Words further explaining the type of hazard are placed next to the symbols in the text. Warnings serve to ensure the safety of personnel.

A.1.2 Additional indications

In this manual the risks arising from incorrect use will be marked with:



ATTENTION

Risk of damage to the machine or the product.

The parts of the text preceded by the following symbol:



NOTE

Clarifications and explanations

provide recommendations to keep in mind during the entire life cycle of the product.

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 in mm.

A.1.3 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.1.4 Intended use and restrictions

Our appliances are designed and optimised in order to obtain high performance and efficiency. This appliance is designed to keep the food contained in GN containers warm during distribution times (up to 4 hours). 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 supervised or instructed in its use by those responsible for their safety.



ATTENTION

Do not store explosive substances, such as containers with propellant (, in this appliance.



ATTENTION

The machine is not suitable for installation out- doors and/or in places exposed to atmospheric agents (rain, direct sunlight, etc.).

A.1.5 Test 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.

Passing of the tests (visual inspection - electrical test - functional test) is guaranteed and certified by the specific enclosures.

A.1.6 Definitions

Listed below are the definitions of the main terms used in the manual. It is advisable to read them carefully before use.

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.

After-sales service 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 risks.

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).

Electrocution

an accidental discharge of electric current on a human body.

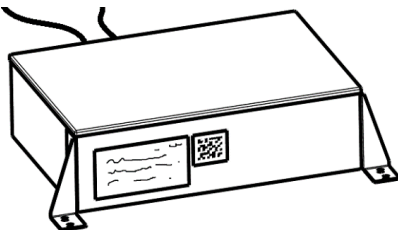
A.1.7 Machine and manufacturer's identification data

A reproduction of the marking or data plate on the machine is given below:

Product Name : Water Bainmarie	F. Mod :
Cert. Code : 3006126111111	PNC :
Operating Frequency : 50/60 Hz.	Comm. Mod :
Declared Operating Voltage: 380-410 V~	Ser. No : 92310001
Declared Power : 5100 W	
Declared Pressure : 150÷300 kPa (1.5 ÷3 bar)	
IPX4	
	
Brand : Elektrolux Professional Spa, V.le Treviso 15 – 33030 Pordenone (IT)	
Producer: Evinoks Servis Ekipmanları San. Tic. A.S. DOSAB Mimoza Street No: 5 16245 Bursa / TURKEY	

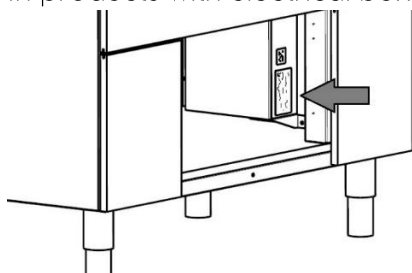
The data plate can be found:

- **Drop-in products**
On the electrical box

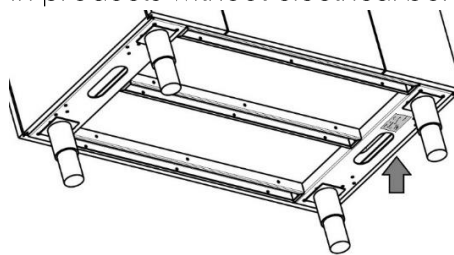


➤ **Mobile products**

In products with electrical box:



In products without electrical box:



The data plate gives the product identification and technical data.

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

- **Product name:** Function type
- **F.Mod:** Factory model
- **Cert.code:** Certification code
- **PNC:** Product number code
- **Operating frequency:** Electrical frequency suitable for this appliance
- **Comm.mod:** Commercial model
- **Declared operating voltage:** Electrical voltage suitable for this appliance
- **Ser.No:** Serial number of the appliance
- **Declared Power:** Electrical power consumption
- **IPX*:** Ingress protection code

When installing the appliance, make sure the electrical connection is carried out in compliance with that specified on the data plate.



ATTENTION

Do not tamper or make the machine's marking illegible.



ATTENTION

Refer to the data given on the machine's marking for relations with the Manufacturer (e.g. when ordering spare parts, etc.).



ATTENTION

The data plate must be destroyed when scrapping the machine.

A.1.8 Appliance identification

This manual applies to various appliance models. For further details regarding your model, refer to par. "A.2.3 Dimensions, performance and consumption".

A.1.9 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.1.10 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 re- placements 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, workplace manager or service technician are responsible for identifying and choosing adequate and suitable personal protection equipment to be worn by operators, in compliance with regulations in force in the country of use. Electrolux Professional SpA declines any liability for 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.1.11 Personal protection equipment

Phase	Protection garments 	Safety footwear 	Gloves 	Glasses 	Ear protectors 	Mask 	Safety helmet 
Transport		●	○				○
Handling		●	○				
Unpacking		●	○				
Installation		●	○				
Normal use	●	●	*●				
Adjustments		●					
Routine cleaning	○	●	*●	○			
Extraordinary cleaning	○	●	●	○			
Maintenance		●	○				
Dismantling		●	○				
Scrapping		●	○				

Legend: ● 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 or users can involve exposure to chemical risk and possible damage to health.

A.1.12 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.1.13 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 Climatic class

The climatic class is written on the product data plate.

A.2.2 Materials and fluids used

Parts subject to use by customers are in stainless steel, aluminium, glass or non-toxic materials. An HFC refrigerant fluid complying with the current regulations is used in the refrigerating units. The type of gas used is given on the data plate.

A.2.3 Dimensions, performance and consumption

For the technical data relevant to the appliances refer to the data plate. For dimensions refer to the installation diagram supplied in the documentation of this product and available in the website.

A.2.4 Mechanical safety characteristics, hazards

The appliance does not have sharp edges or protruding parts.

The guards for the moving 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.



ATTENTION

Due to their size, machines cannot be on top of each other during transport, handling and storage; this eliminates any risk of loads tipping over due to staking.



NOTE: The machine must only be transported, handled and stored by qualified personnel, who must:

- have specific technical training and experience in the use of lifting systems;
- have knowledge of the safety regulations and applicable laws in the relevant sector;
- have knowledge of the general safety rules;
- ensure the use of personal protection equipment suitable for the type of operation carried out;
- be able to recognise and avoid any possible hazard.

B.1.2 Transport: instructions for the carrier



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 rough roads**

B.1.3 Handling

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



ATTENTION

The appliance 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.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.

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

Appliance positioning, installation and disassembly must be carried out by a specialized technician.



ATTENTION

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

B.2. Installation and assembly

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

B.2.1 Checks on receiving the appliance

The appliance is delivered in protective packing. Check the state of the packing and any protective materials before unpacking. Any damage must be reported immediately to the carrier. Under no circumstances should a damaged appliance be returned to the manufacturer without prior notice and written authorisation.



ATTENTION

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



ATTENTION

Before moving the appliance, make sure the capacity of the lifting equipment used is suitable for its weight.

B.2.2 Customer's responsibility

The customer must:

- Arrange the connection to a drain system for the condensation water.
- Check the flatness of the surface on which the machine is placed.

B.2.3 Unpacking

Use a fork-lift truck or pallet truck to handle the equipment, inserting the forks under the pallet, and carry it to the place of installation, making sure that the load is balanced.

Remove the protective film and polystyrene padding, taking care not to scratch the sheet metal with any scissors or blades used.

Cut the straps securing the glass to the cabinet and remove the corners.

Undo the 4 top corner screws fixing the equipment to the pallet and cut the straps.

Lift the product from bottom and/or structural parts. Important: do not lift it from the sheet metal frame in order to avoid bending/deformation.

B.2.3.1 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 burned in an appropriate waste incineration plant. Recyclable plastic parts are marked as follows:

	Polyethylene	Outer wrapping; instruction booklet bag, pluriball
	Polypropylene	Straps

	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.

B.2.4 Positioning



ATTENTION

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

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 refrigerating unit components.

If the appliance is installed in a place where there are corrosive substances (chlorine, etc.), it is advisable to go over all the s/steel surfaces with a cloth moistened with paraffin oil to create a protective film.

Only for Drop-in products: the appliance is designed for fitting in a previously prepared cabinet (refer to the indications given on the installation design suggestions attached to this manual).

Appliance performance characteristics are guaranteed at an ambient temperature of +25°C. The max. ambient temperature at which the machines can operate is +32°C.

Don't install this appliance in rooms where the ambient temperature drops below +5°C.

Before installing the appliance check the flatness of the cabinet in which it is to be fitted.



ATTENTION

Wear safety gloves when carrying out equipment assembly operations.

B.2.5 Fitting the appliance in the cabinet (only Drop-in range)

B.2.5.1 Foreword



ATTENTION

Never install the appliance inside cabinets in wood treated with paints, primers or other flammable materials!

For the appliance to operate correctly the cabinet in which it is fitted must be suitable to house it.

First of all, take into account the weight of the equipment to be placed inside the structure, therefore provide for a cabinet that can take its weight.

For furniture minimum dimensions see the specific sheet included in the documentation of this product.

The product has "remote" controller and electrical box. Please refer both to "Installation design suggestion" and "Installation drawing" to detect their possible installation position.

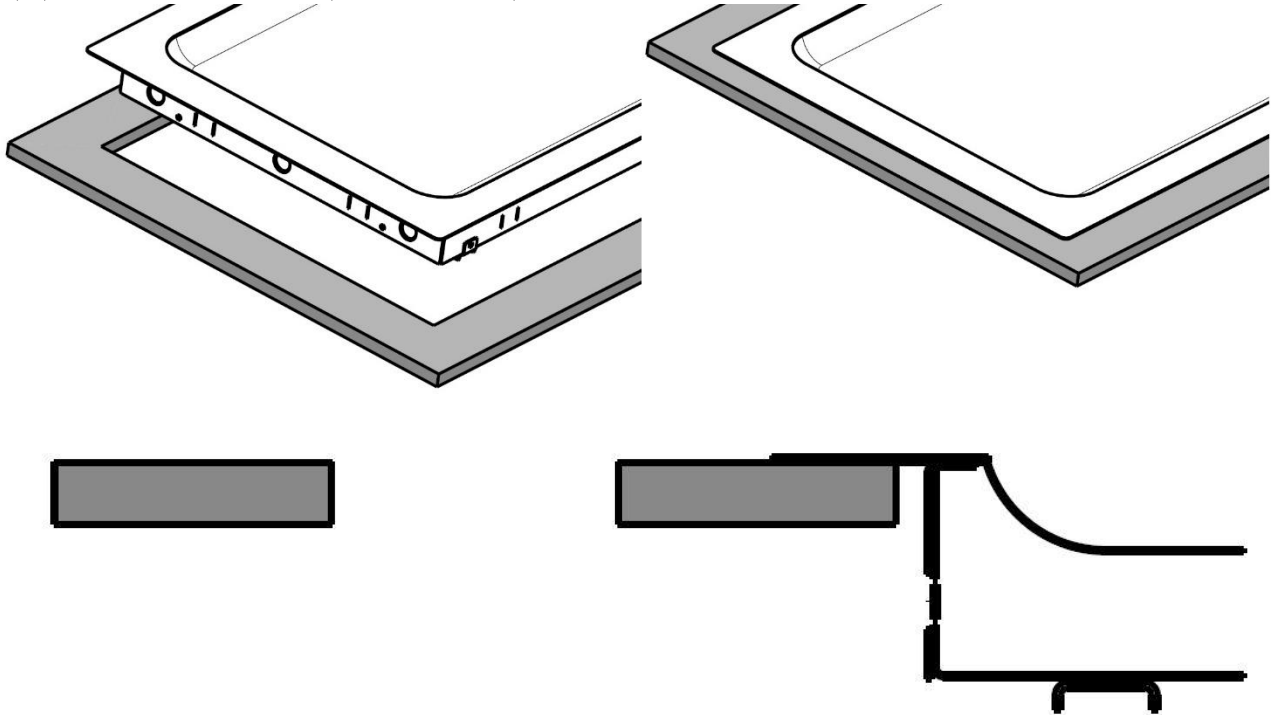


Important:

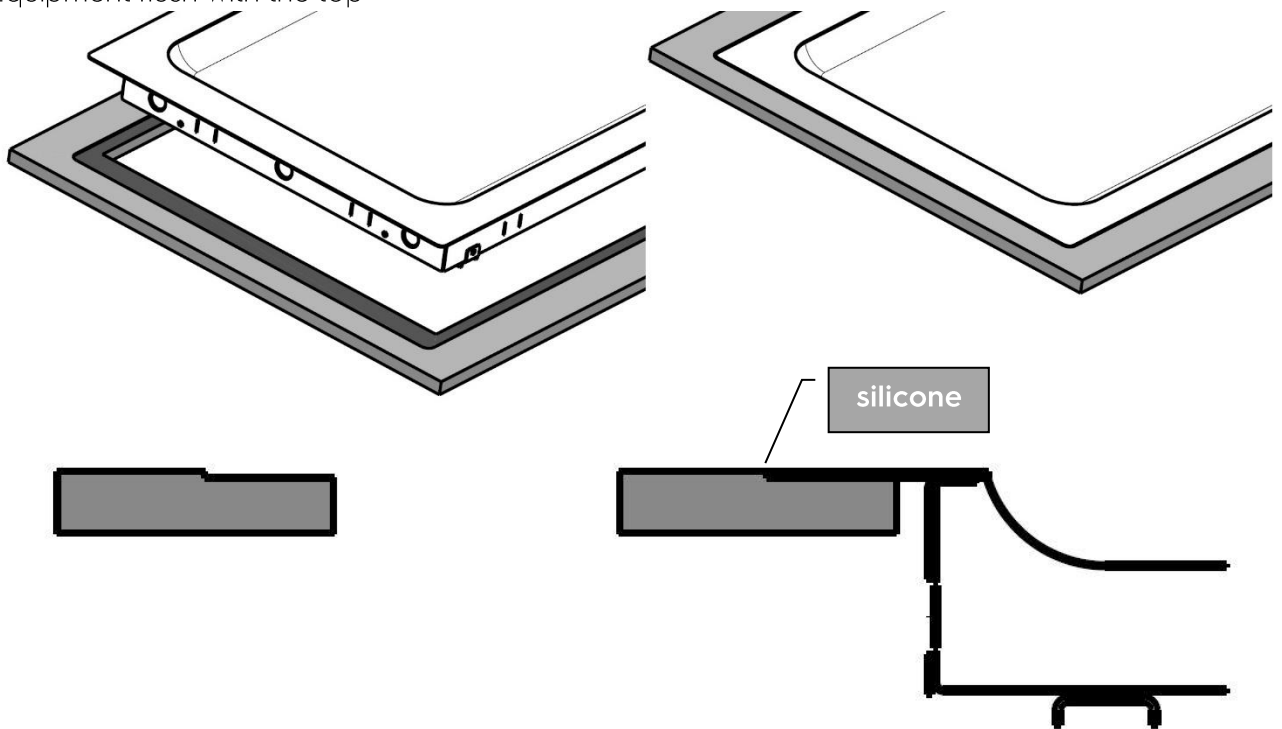
The furniture must assure access to components for maintenance.

Two types of installation are possible:

- 1) Equipment raised with respect to the top



- 2) Equipment flush with the top

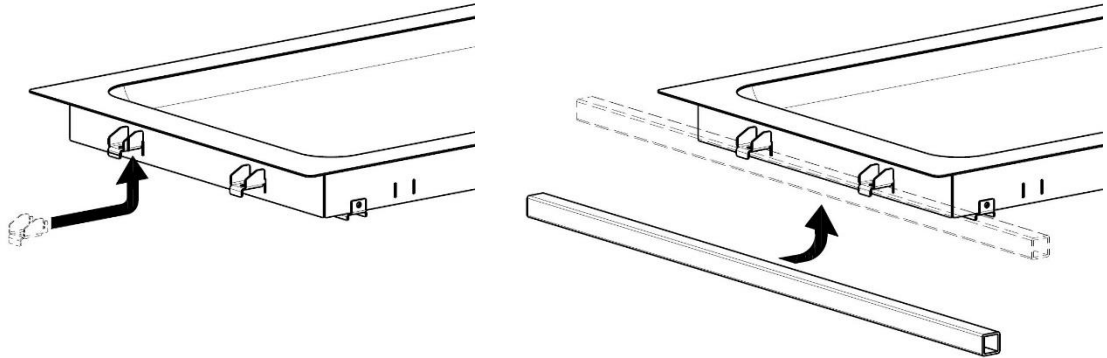


B.2.5.2 Fitting and fixing the cabinet

It is possible to use the provided fixing tabs to lift the product with a pipe (not provided) as shown below.



Make sure lifting pipe is strong enough for the weight of the appliance.



If you used the above described lifting method, make sure to remove the tabs before to insert the function in the furniture.

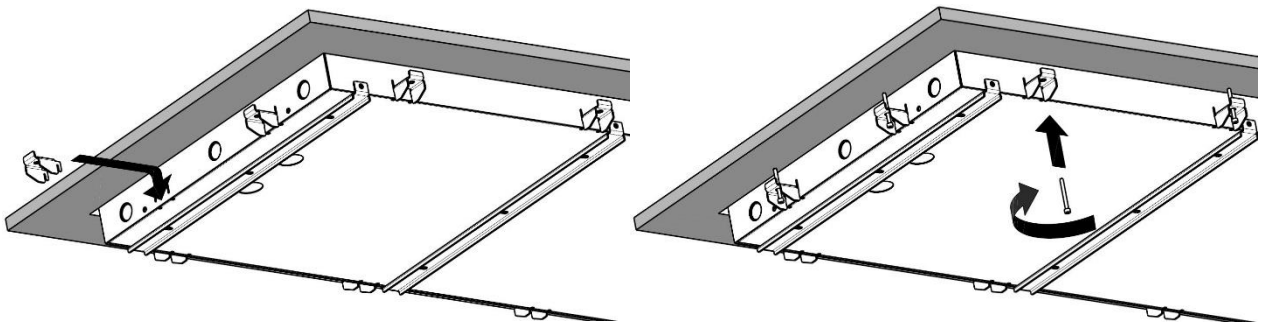
Once the product is inserted in the furniture, insert the provided fixing tabs (rotated 180° compared to the previous position) in the dedicated cuts, then tighten the screws.



ATTENTION

Do not overtighten the screws since this may damage the top and/or create undulations on the visible surfaces.

Be sure the tabs are rotated as shown in the picture below.



B.2.6 Electrical connection



ATTENTION

If the power cable is damaged it must be replaced by 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.

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.

When making the electrical connection, carefully comply with that given on the data plate.

Electrical safety can only be guaranteed if the product is connected to an efficient earth system, in compliance with current electrical safety standards.

The installer is responsible for correct electrical connection according to local regulations.

For connection, first 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: phase
 - green/yellow: earth
 - blue: neutral;
- a differential thermal-magnetic switch 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 size of the switch, refer to the absorbed current specified on the appliance data plate.

The device used must be lockable in the open position in case of maintenance.

After making the connection, with the machine working check that the power supply does not fluctuate by $\pm 10\%$ the rated voltage.



ATTENTION

Do not switch the appliance on before the electrical wiring cover panels have been fitted.

B.2.7 Plumbing connection



ATTENTION

The plumbing connection must be carried out by a specialised technician.

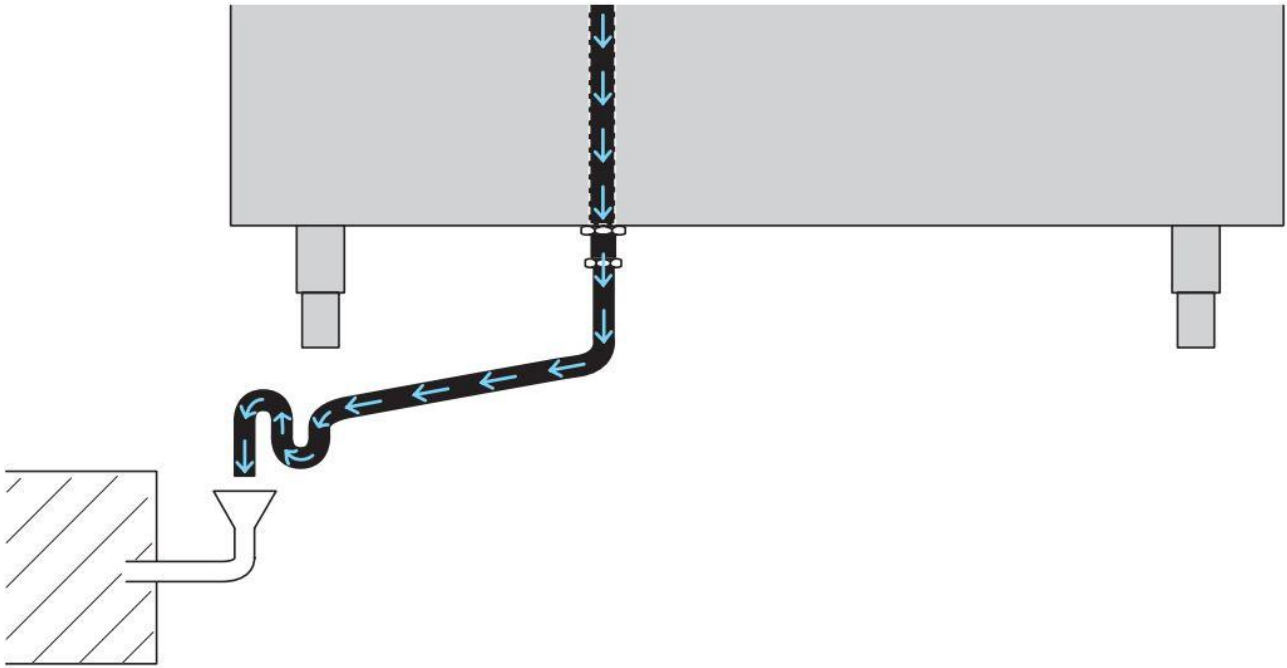


It is possible but not mandatory to connect mobile products to water drain system: the water can be drained into a recipient (not provided).

Please refer to the Installation Diagram included in the documentation of this product to know drain size and position.



Emptying must occur through a trap into an open drain, to prevent any backflow from the drainage system reaching the internal pipes.



B.2.8 Fitting the control panel (only drop-in products)



ATTENTION

Before to proceed, make sure the appliance is not connected to the electrical supply line!

- a. Remove the plastic front cover (if already installed on the controller)
- b. Undo the screws
- c. Remove the protections for the connectors
- d. Pass the connectors through the hole arranged in the furniture and join the components

- e. After fitting the connectors to their places, install the control to the panel with the screws supplied
- f. Install the plastic front cover pushing it in position



For possible position of controller refer to the Installation design suggestion included in the documentation of this product.

B.2.9 Fitting the main electrical box (only drop-in products)

The main electrical box of this appliance can be installed in the most convenient position according to the design of the furniture. An easy access to the electrical box must be provided to allow the service during product lifecycle.

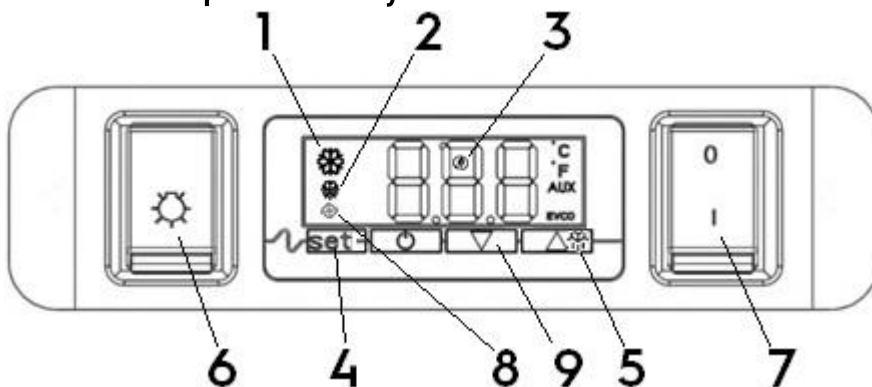


For possible position of electrical box refer to the Installation design suggestion included in the documentation of this product.

IMPORTANT: the electrical box must be installed inside the furniture within 1,5m from the center of the function. Also consider that the cable from electrical box to thermoregulator is 1,5 meters long.

C.1. How to use the control panel

C.1.1 Description of keys and icons



1. Compressor working icon
2. Defrost icon
3. Low energy consumption icon
4. Setting key
5. Manual defrost key (press and hold for 4 seconds) / Up key
6. Lights on/off switch
7. Function on/off switch
8. Evaporator fan icon
9. Down key



C.1.2 How to use the keys

To unlock the keyboard («Loc» text on the screen):

Press any button for more than 2 seconds until «UnL» will appear on the screen. You can use the keys.

Note: For security reasons, if the keys are not pressed within 30 seconds, the display will show the message "Loc" for 1 s and the keyboard will lock automatically.





To set the working temperature:

- Touch the **SET** Key: set value appears on the screen and the indicator ❄ will flash.
- Touch the  or  Key within 20s to change the value.
- Touch the **SET** key or do not operate for 20 s. The new set is now stored

C.1.3 Control panel symbols and screen messages

The meaning of each icon is described in the below table.

In case of alarms displayed on the screen, please refer to **Troubleshooting** chapter.

LEDs/Icons	DESCRIPTIONS
	Compressor LED <ul style="list-style-type: none"> • When the LED is lit continuously the compressor is working • When the LED is blinking <ul style="list-style-type: none"> ○ Setpoint editing ○ protection phase
	Evaporator fan LED <ul style="list-style-type: none"> • When the LED is lit continuously, the fan(s) for the evaporator is on • When the LED is blinking a protection is in progress
	Energy saving LED <ul style="list-style-type: none"> • When the LED is lit continuously, energy saving function is activated • When the display is off, the controller is in "low consumption mode". Press any key to restore the display
°C	LED Celsius degree When lit the temperature shown is in Celsius degrees
°F	LED Fahrenheit degree When lit the temperature shown is in Fahrenheit degrees
	On/stand-by LED When lit the appliance is off

C.2. General safety rules

C.2.1 Introduction

The machines are provided with electric and/or mechanical safety devices for protecting 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.2.2 Protection devices installed on the machine

C.2.2.1 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 (door) for access inside the machine;
- machine electrical equipment access doors, made with hinged panels openable with tools. The door must not be opened when the machine is connected to the power supply.



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.2.3 Safety signs placed on the appliance or near its area

Prohibition	Meaning
	do not remove the safety devices
	do not use water to extinguish fires (placed on electrical parts)
Danger	Meaning
	caution hot surface
	danger of electrocution (shown on electrical parts with indication of voltage)



ATTENTION

Do not remove, tamper with or make illegible the safety, danger and instruction signs and labels on the machine.

C.2.4 End of use

When the appliance is no longer to be used, make it unusable by removing the mains power supply wiring.

C.2.5 Instructions for use and maintenance

- Risks mainly of a mechanical, thermal and electrical nature exist in the machine. Where possible the risks have been neutralized:
 - directly, by means of adequate design solutions.
 - indirectly by using guards, protection and safety devices.
- Any anomalous situations are signaled on the control panel display.

- During maintenance several risks remain, as these could not be eliminated, and must be neutralized by adopting specific measures and precautions.
- Do not carry out any checking, cleaning, repair or maintenance operations on moving parts. Workers must be informed of this 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.
- Make sure to periodically check correct operation of all the safety devices and the insulation of electrical cables, which must be replaced if damaged.
- Repair and extraordinary Maintenance have to be carried out by specialized authorized personnel provided with all the appropriate personal protection equipment, tools, utensils and ancillary means.
- Never operate the machine, removing, modifying or tampering with the guards, protection or safety devices.



ATTENTION

Extraordinary machine maintenance operations must only be carried by specialized technicians provided with all the appropriate personal protection equipment (safety shoes, gloves, glasses, overalls, etc.), tools, utensils and ancillary means.

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

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

C.2.6 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, specialized personnel 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 its use, 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!

C.2.7 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 deemed improper 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 pan, 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 intervenes on the machine using unsuitable systems to access the upper part (e.g. rung ladders, or climbs on it)
Crushing or injury	The specialized personnel may not correctly fix the control panel when accessing the technical compartment. The panel could close suddenly.
Tipping of loads	When handling the machine or the packing containing it, using unsuitable lifting systems or accessories or with the unbalanced load
Chemical (refrigerant gas)	Inhalation of refrigerant gas. Therefore always refer to the appliance labels

C.3. Normal appliance use

At room temperature of 25°C, consider 30 minutes warming up period before serving. Cover the well with the lid while warming up. The food must be contained in GN containers or crockery. The area of the well not used must be covered with GN lids in order to avoid the ambient air to interfere with the performance.

The food preservation to be in compliance with HACCP norms.

Remove the food at the end of distribution phase and clean the appliance.

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

These appliances are intended to be used for commercial applications, for example in kitchens of restaurants, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc., but not for continuous mass production of food

The Manufacturer declines any liability for improper use of the products.

C.3.1 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.3.2 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.3.3 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 anomaly (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



ATTENTION

Before carrying out any cleaning or maintenance operation, disconnect the appliance from the power supply, making sure the device provided is locked in the open position



ATTENTION

During maintenance, the cable and plug must be kept in a visible position by the operator carrying out the work.



ATTENTION

Do not touch the appliance with wet hands or feet or when barefoot.

Do not remove the safety guards.



ATTENTION

Use suitable personal protection equipment (protective gloves)



ATTENTION

Use a ladder with suitable protection for work on appliances with high accessibility.



ATTENTION

Disconnect the power supply before cleaning the appliance.

D.1.1 Routine maintenance

D.1.1.1 Precautions for maintenance

Routine maintenance operations can be carried out by non-specialised personnel, carefully following the instructions given below. **The manufacturer declines any liability for operations carried out on the appliance without following these instructions.**

D.1.1.2 Cleaning the cabinet and accessories

Before using the appliance, clean all the internal parts and accessories with lukewarm water and neutral soap or products that are over 90% biodegradable (in order to reduce the emission of pollutants into the environment), then rinse and dry thoroughly. Do not use solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders for cleaning. It is advisable to go over the stainless steel surfaces with a cloth moistened with paraffin oil to create a protective film.

Check the power cable regularly and replace it in case of signs of wear.

Have the appliance checked periodically (at least once a year).



ATTENTION

Do not clean the appliance with jets of water.



ATTENTION

Do not use steel wool or similar material to clean stainless steel surfaces. Do not use detergents containing chlorine, solvent-based detergents (e.g. trichloro-ethylene) or abrasive powders.



D.1.1.3 Tank cleaning

Clean the tank using lukewarm water and neutral soap or products that are over 90% biodegradable (in order to reduce the emission of pollutants into the environment), then rinse and dry thoroughly. Do not use solvent-based detergents (e.g. trichloroethylene) or abrasive powders. Use vinegar to remove any scale in the tank.

D.1.1.4 Precautions in case of long idle periods

If the appliance is not going to be used for some time, take the following precautions:

- disconnect the power supply;
- remove all food and clean the equipment;
- air the room periodically.



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 and gloves), tools and ancillary means.



ATTENTION

Work on the electrical equipment must only be carried out by a specialised electrician or the After-Sales Service



ATTENTION

Put the machine in safe conditions before starting any maintenance operation.

After carrying out maintenance make sure the machine is able to work safely and, in particular, that the protection and safety devices are efficient.



ATTENTION

Respect the requirements for the various routine and extraordinary maintenance operations. Non-compliance with the instructions can create risks for personnel.

D.1.2 Extraordinary maintenance



ATTENTION

Wear protective gloves and a mask when carrying out any extraordinary maintenance operations.

Extraordinary maintenance must be carried out by specialised personnel, who can ask the manufacturer to supply a servicing manual.

D.1.2.1 Replacing the power cable

To replace the power cable proceed as follows:

- disconnect the power;
- remove the electrical box;
- replace the power cable;
- refit the electrical box;
- switch the power on.



ATTENTION

The cable used for permanent connection to the mains power supply is of the type H07RN-F; when replacing, use a cable having at least these characteristics.

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

D.1.2.2 Quick troubleshooting guide

In some cases, faults can be eliminated easily and quickly by following a brief troubleshooting guide:

- A. The appliance does not switch on:
 - check the correct power supply at the point of connection to the permanent system.
 - make sure the socket is powered.
- B. The inside temperature is too high:
 - check the temperature setting.
 - make sure there is no heat source near the appliance.
 - make sure the condenser is clean.
- C. The appliance is too noisy:
 - make sure the fan and condenser work (bringing a piece of paper near the elements)

If the fault persists after carrying out the above checks, contact the After-Sales Service, remembering to give the following details:

- the type of fault;
- the appliance PNC (production code);
- the Ser. No. (appliance serial number).

Note: The code and serial number are essential for identifying the type of appliance and date of manufacture:

PNC :

9	E	X	T	3	4	1	0	0	6
---	---	---	---	---	---	---	---	---	---

Ser.No:

9	23	1	0001
---	----	---	------

- a. Appliance identification code
- b. Fourth week of the year of production
- c. Week of production
- d. Third week of the year of production
- e. Quantity of products with this PNC produced in this week

The above example means that it is the first product produced in week 23 of year 2019.

D.1.3 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, careful and periodical machine maintenance is advisable in order to minimise interruptions of the service.

It is advisable to stipulate a scheduled preventive maintenance contract with the After-Sales Service.

D.1.3.1 Maintenance frequency

Maintenance, checks, inspections and cleaning	Frequency
Routine cleaning	Daily

General cleaning of machine and surrounding area	
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 Check connection cable (replace it if necessary)	Yearly
General machine overhaul 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 and gloves), tools and ancillary means.



ATTENTION

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

D.1.4 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 stopped and cold 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, appropriate PPE must be used.



ATTENTION

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

D.1.5 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 refrigerator components are special waste assimilable with urban waste.



The symbol placed on the product indicates that it should not be considered as domestic waste, but must be correctly disposed of in order to prevent any negative consequences for the environment and the health of people. For further information on the recycling of this product, contact the local dealer or agent, the aftersales 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 data plate, this manual and other documents concerning the appliance must be destroyed.