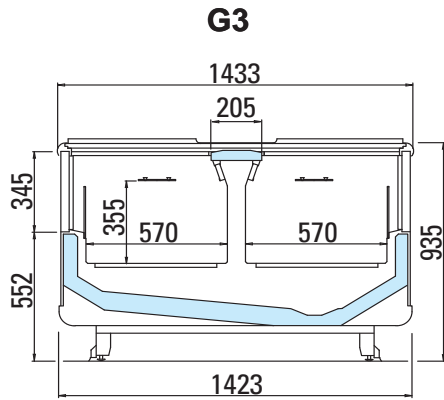
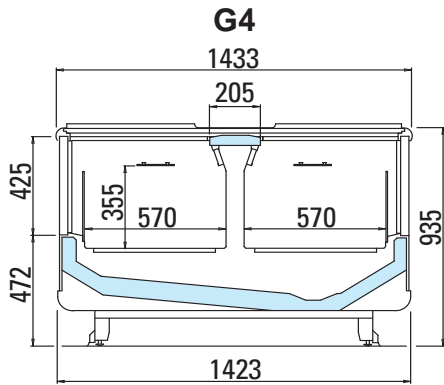
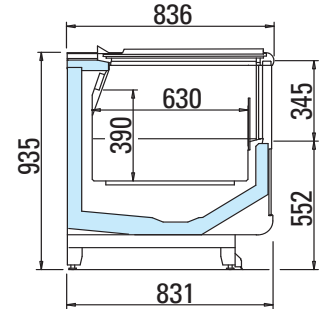
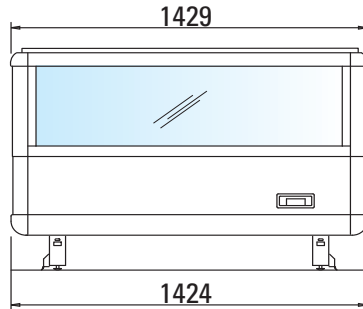


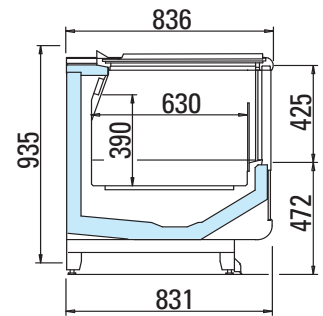
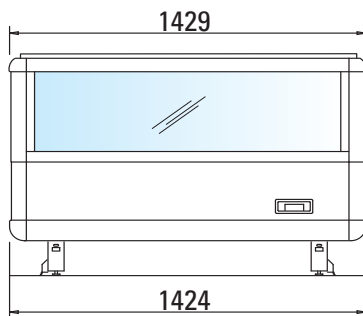
Rif. 1



Testata / Head case G3

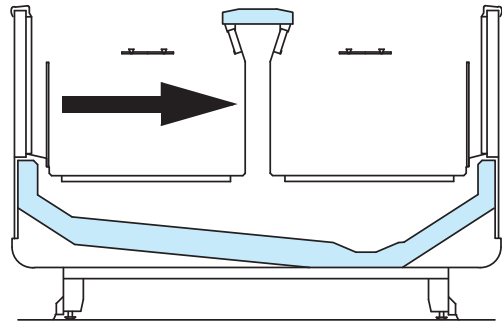


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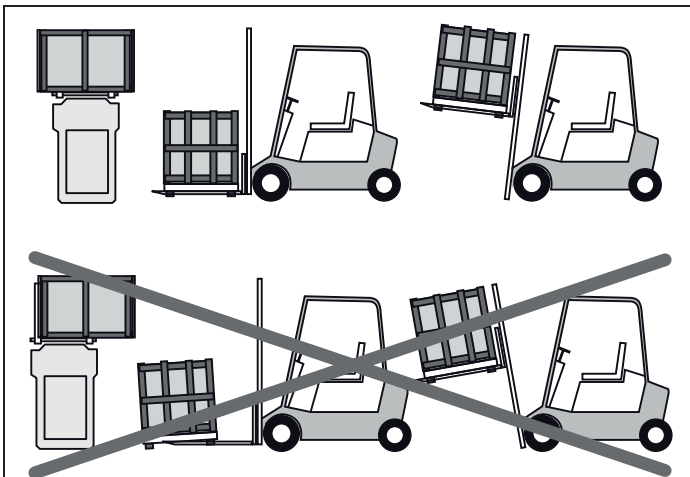


6	10	8	
1	ARNEG S.p.A. VIA VENEZIA 89 - CAMPO SAN MARTINO - PADOVA - ITALY Tel. +39 049 9698333 Fax +39 049 9699444 - info@arneg.it		
2	[]		
3	CODICE ITEM []	MATRICOLA S/N []	4
5	[] V [] Hz	[] W [] A	7
9	SBRINAMENTO DEFROSTING [] W	ILLUMINAZIONE LIGHTING [] W [] IP	15
11	SUPERF.ESP. DISPLAY AREA [] m ²		
12	REFRIGERANTE REFRIGERANT []	MASSA WEIGHT [] kg	13
14	CLASSE CLASS []		
16	COMMESSA W.SCHED []	ORDINE W.ORD. []	ANNO YEAR []
	17	18	

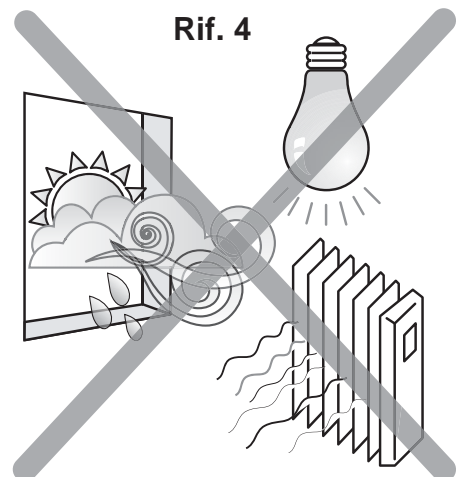
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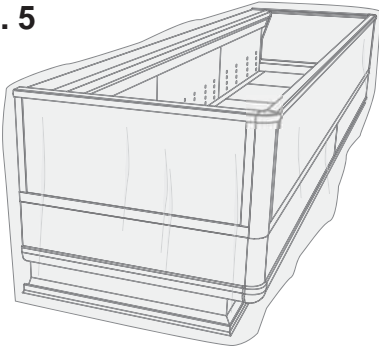
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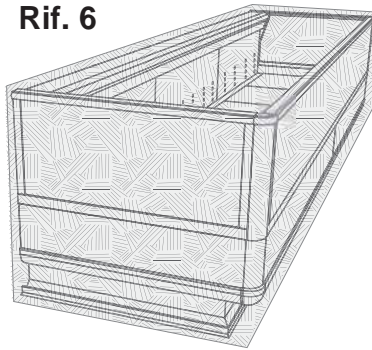
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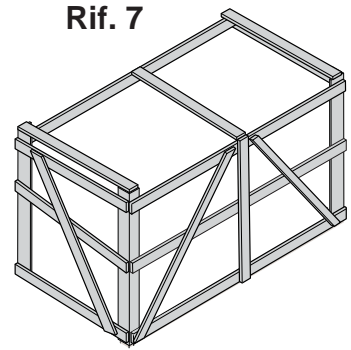
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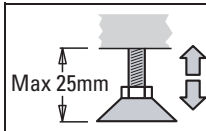
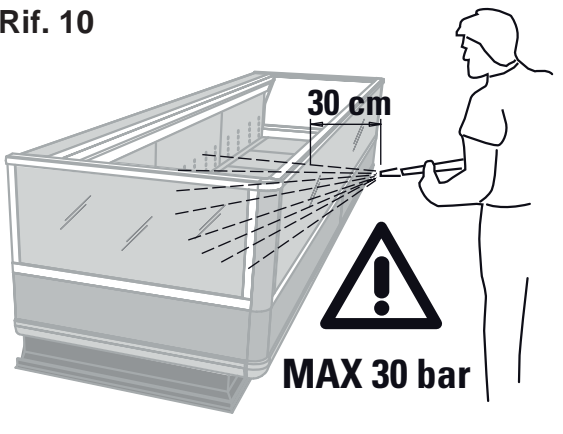
Rif. 6



Rif. 7



Rif. 10



Rif. 8



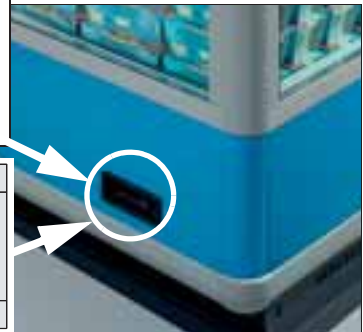
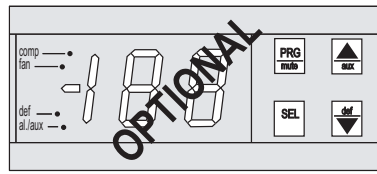
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Rif. 12



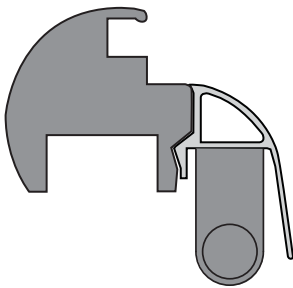
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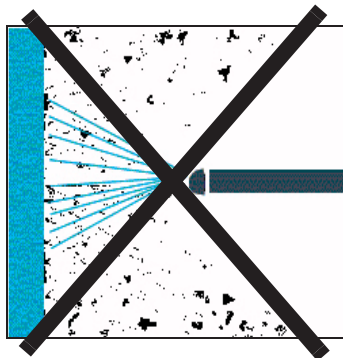
Rif. 11



Rif. 14



Rif. 15



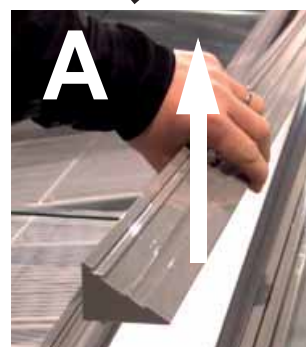
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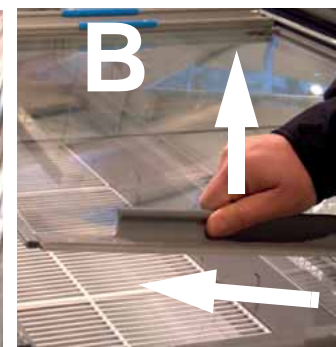
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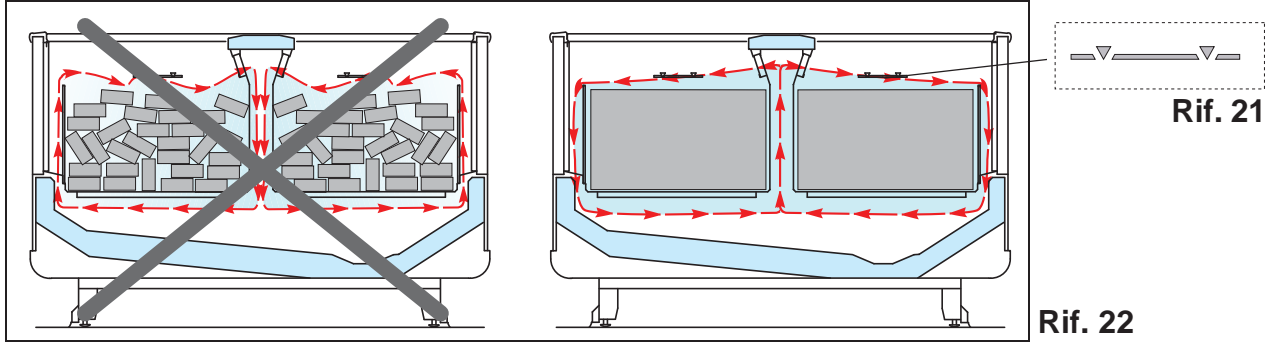
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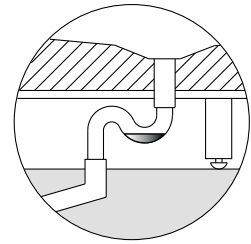
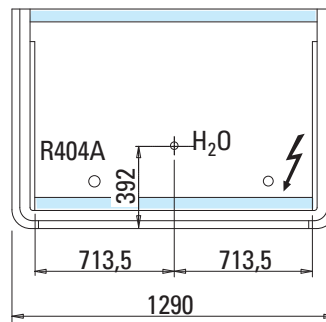
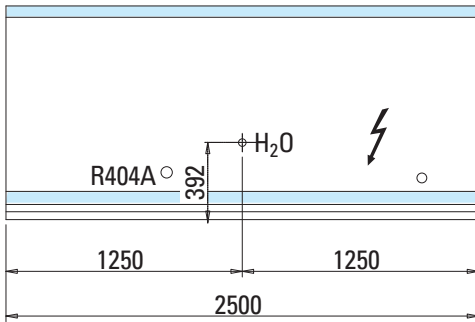
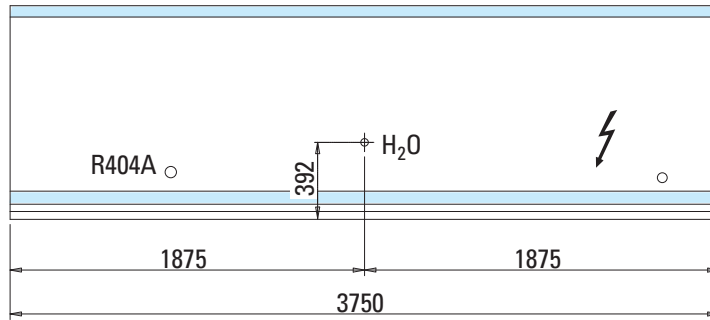
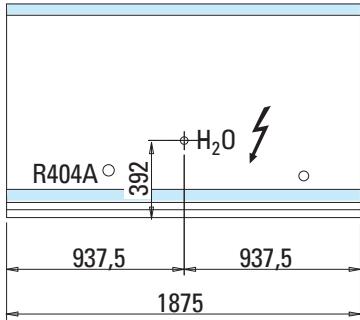
Rif. 19



Rif. 20



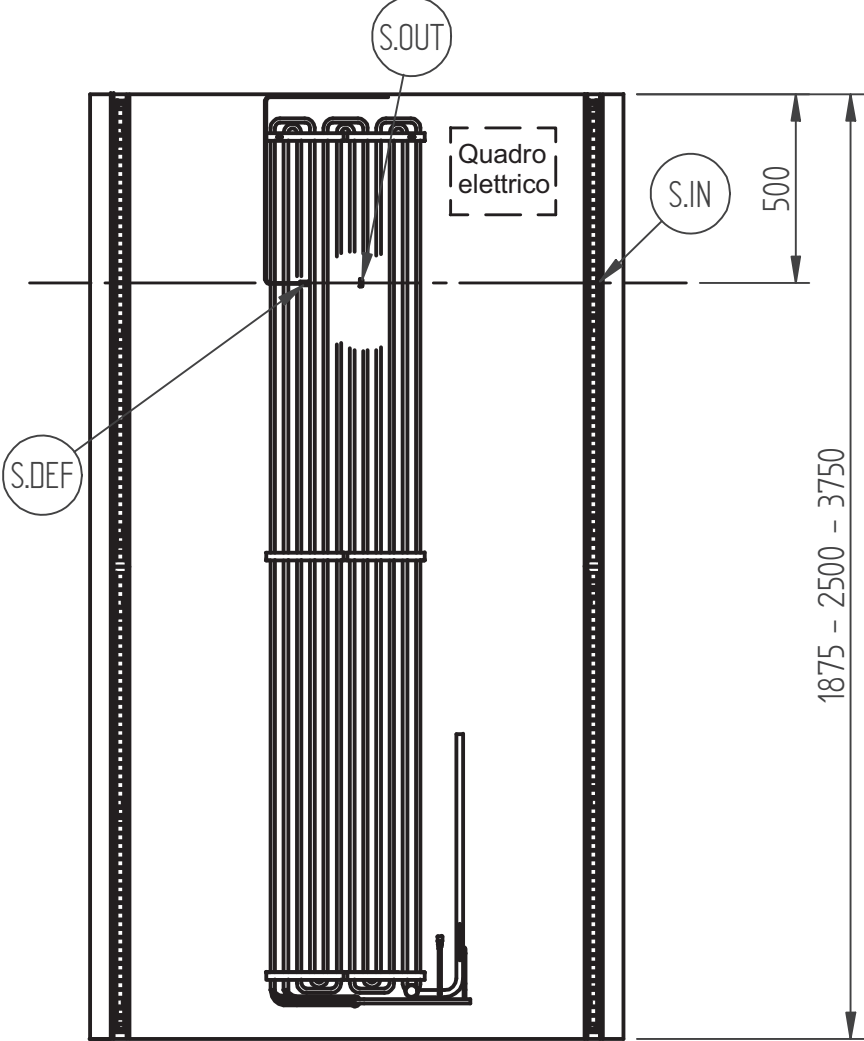
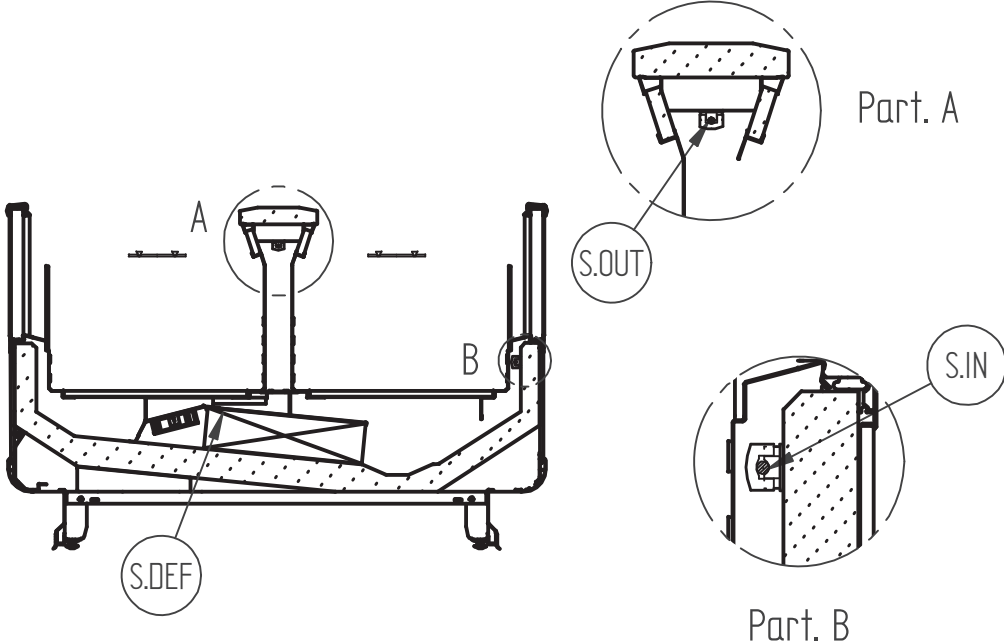
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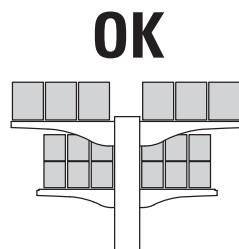
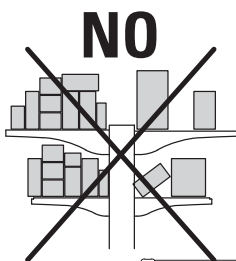
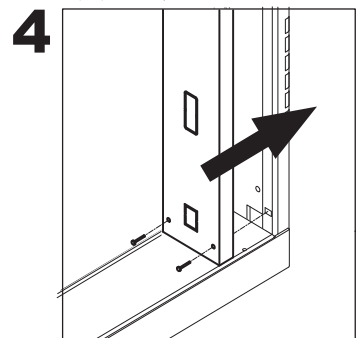
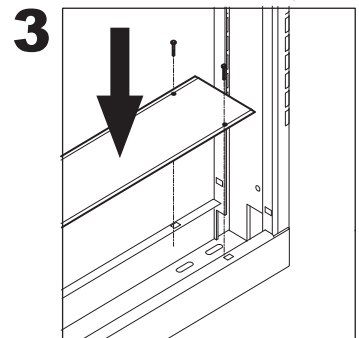
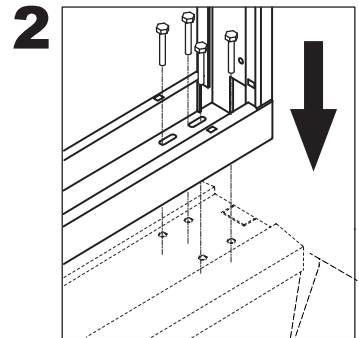
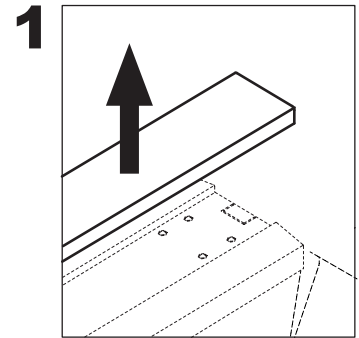
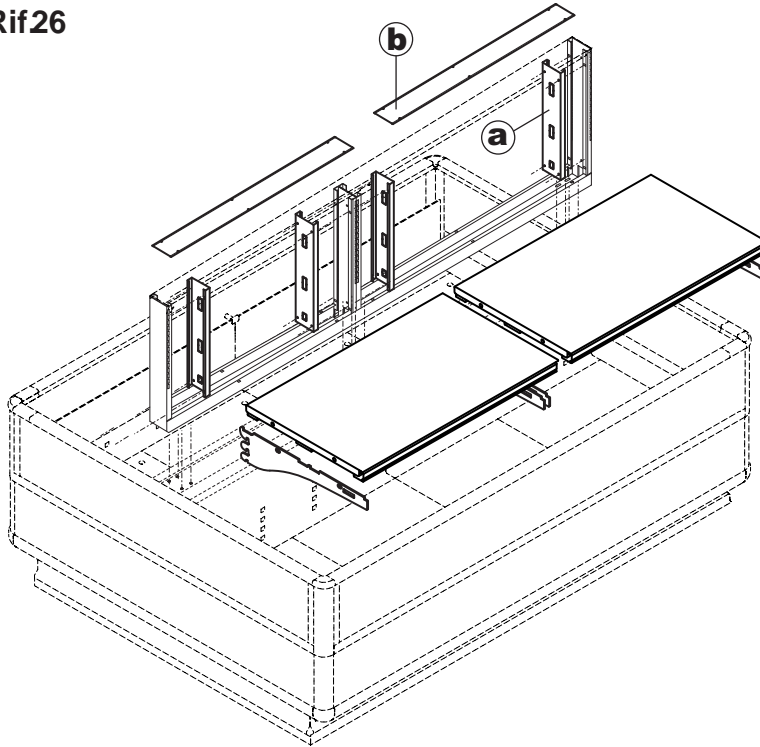
Rif. 24

TESTATA - HEAD CASE

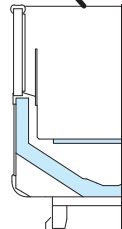
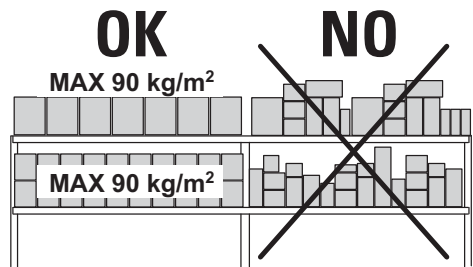
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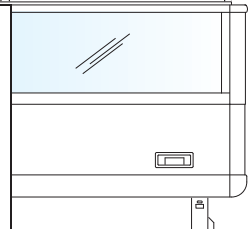
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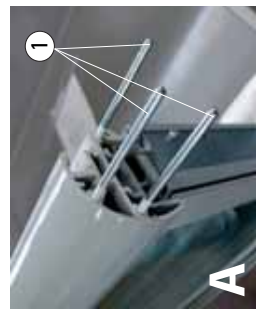
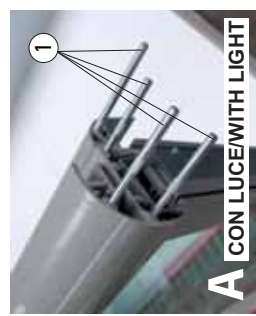
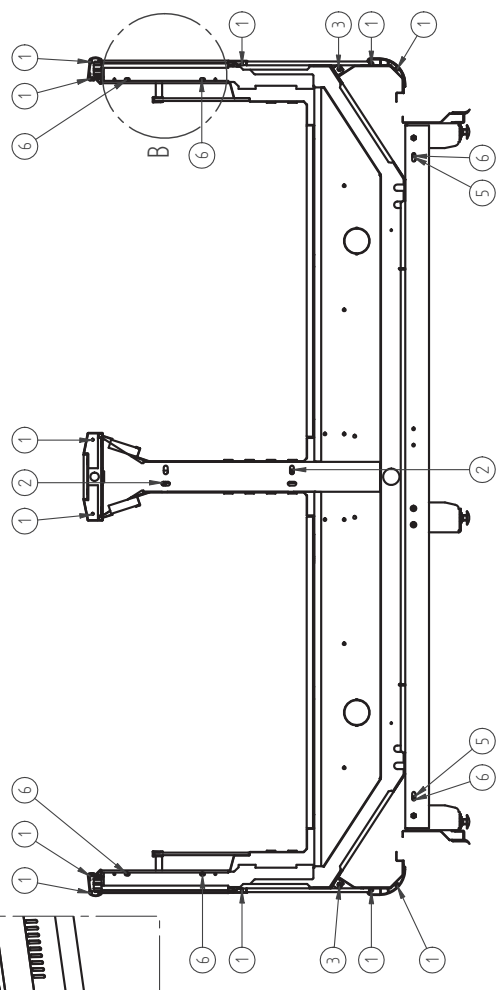
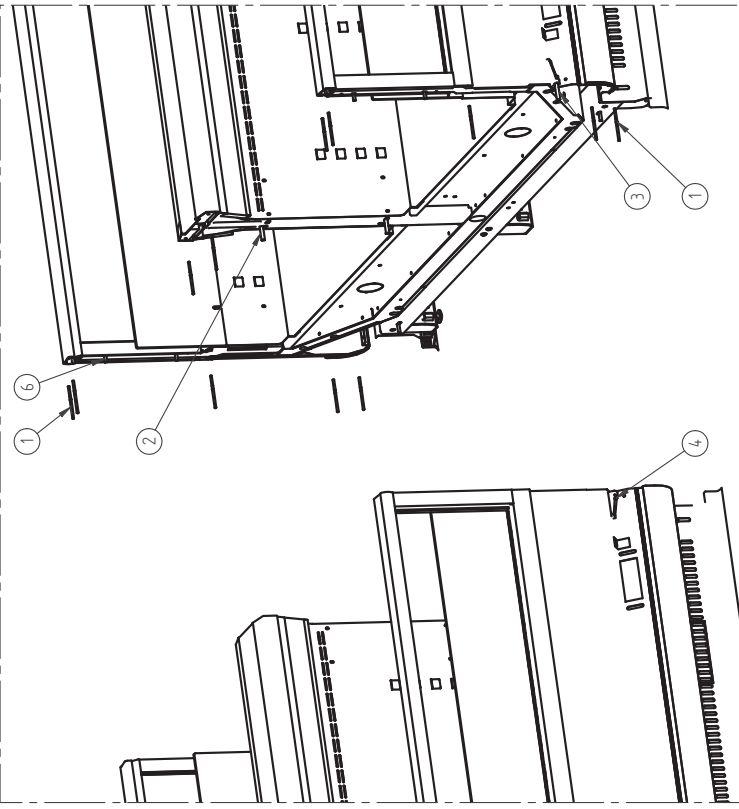
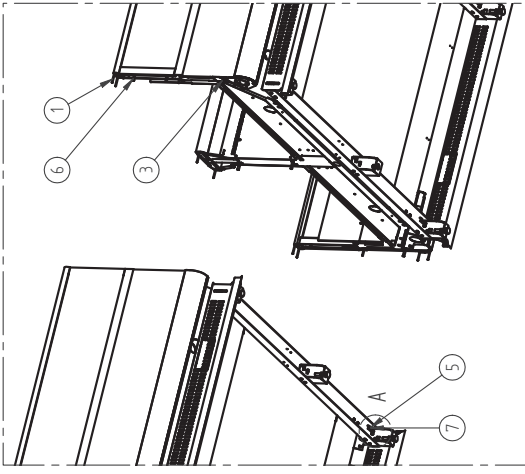
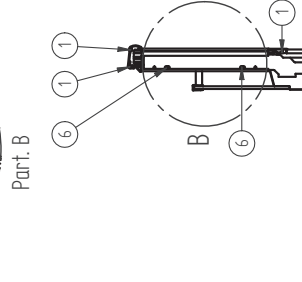
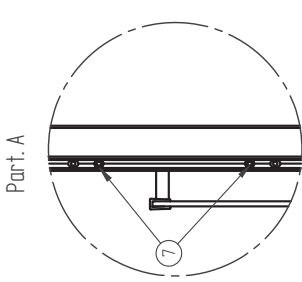
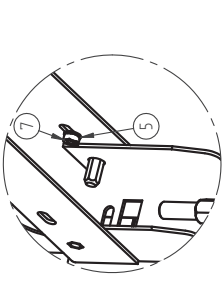
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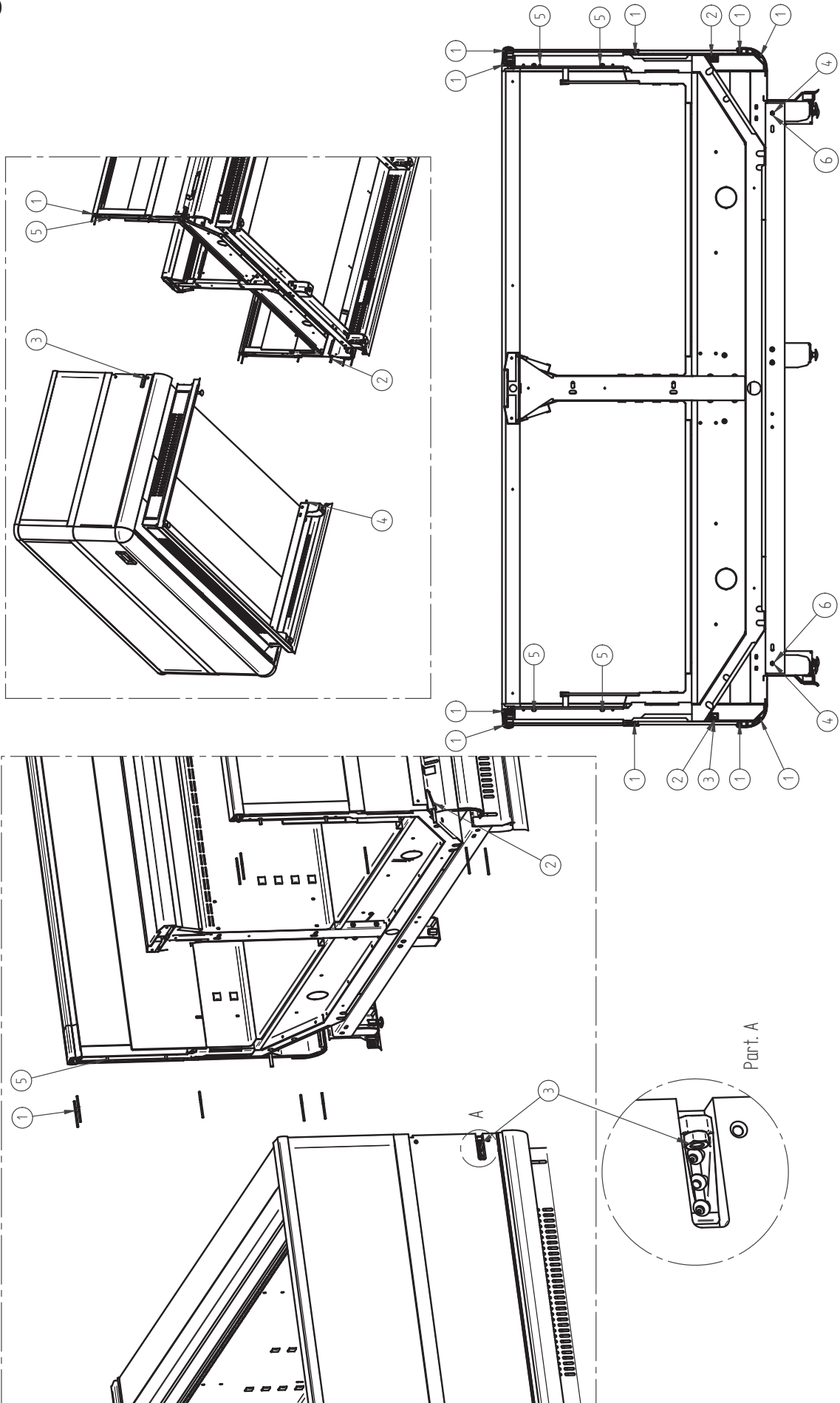
carico uniformemente distribuito
 evenly distributed load
 belastung gleichmässig verteilt
 charge uniformément répartie
 carga distribuida uniformemente
 равномерно распределенная нагрузка



Rif28

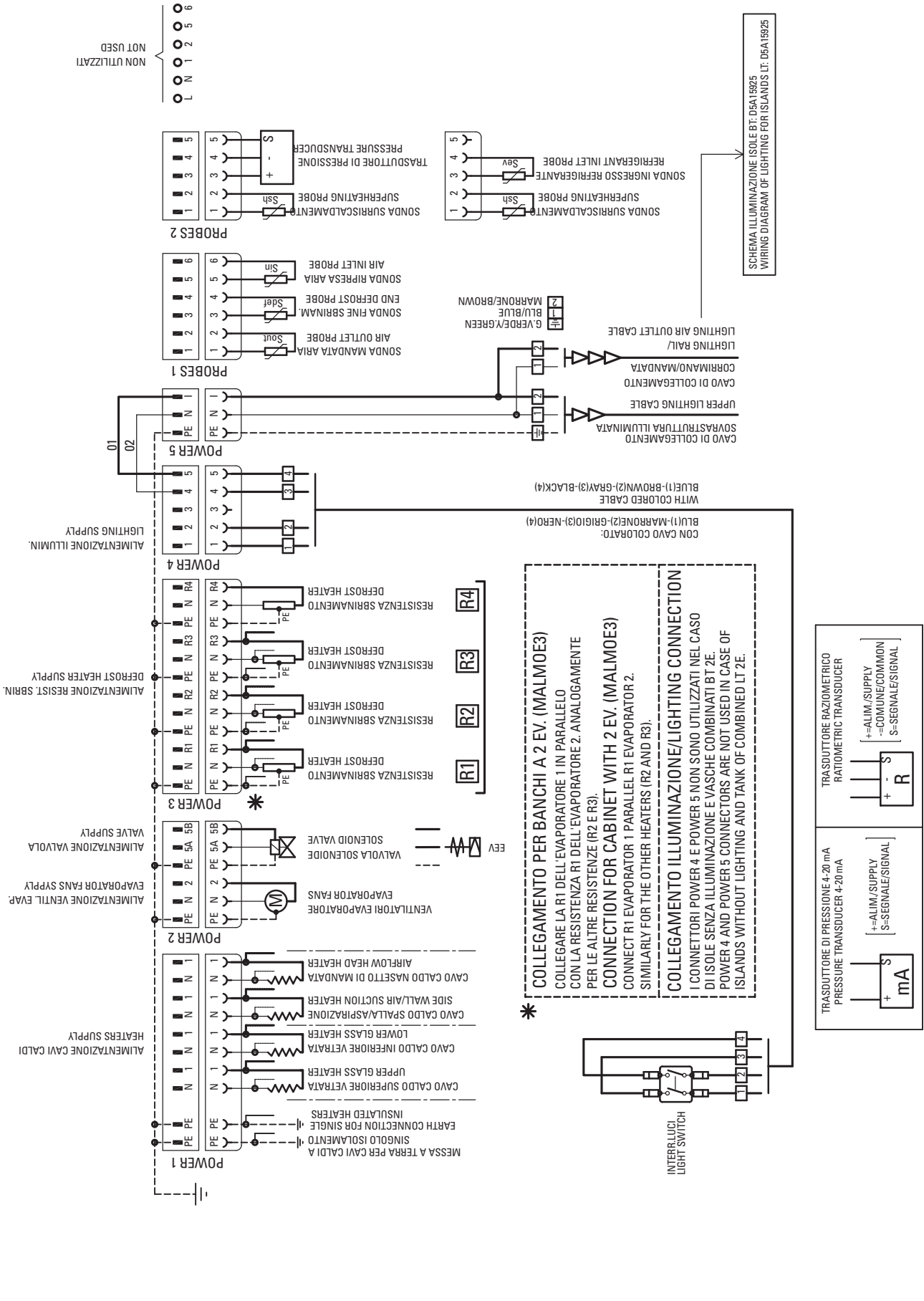


Rif29



Rif30

Schema elettrico standard / standard wiring diagrams



Dati Tecnici, Technical Data, Technische Daten, Données techniques, Datos Técnicos, Технические характеристики

Modello, Model, Modell, Modèle, Modelo, Модель	Minitoronto G3			Minitoronto G4					
	1875	2500	3750	1875	2500	3750			
Lunghezza senza spalle, Length without ends, Länge ohne Seiten, Longueur sans joues, Longitud sin laterales, Длина без боковин	mm			TST					
Temp. di esercizio, Working temperature, Betriebstemperatur, Temp. de fonctionnement, Temperatura de trabajo, Рабочая температура	°C	-18°C / -25°C							
Temperature ammissibili, Allowed temperature, Zulässige Temperaturen, Temperaturas admitidas, Допустимые температуры. - (Ts) 97/23 CE -	°C	Max +32°C / Min -35°C							
Superficie di esposizione orizzontale, Horizontal display surface, Gesamte Ausstellfläche, Surface d'exposition horizontale, Superficie de exposición de arqueo, Горизонтальная площадь экспозиции	m ²	2,14	2,85	4,28	0,81	2,14	2,85	4,28	0,81
Volume netto, Net volume, Netto inhalt, Volumen netto, Чистый вес	dm ³	759	1012	1518	316	759	1012	1518	316
Potenza frigorifera, Refrigeration Power, Kühlleistung, Puissance frigorifique Potencia frigorífena, Холодильная мощность	W	424	565	848	264	441	588	881	275
Refrigerante, Refrigerant, Kühlmittel, Réfrigérant, Refrigerante, Хладагент		R404A							
Massima pressione ammissibile, Max allowed pressure, Maximal zulässiger Druck, Pression maximale admissible, Máxima presión admitida, Максимально допустимое Давление. - (Ps) 97/23 CE -	bar	20 bar							
Valvola espansione, Expansion Valve, Expansion-Ventil, Valve d'expansion, Válvula de expansión, Расширительный клапан	n° x W	TISE-SW T10-000	TISE-SW T10-001	TISE-SW T10-002	TISE-SW T10-000	TISE-SW T10-000	TISE-SW T10-001	TISE-SW T10-002	TISE-SW T10-000
Ventilatori, Fans, Gebläse, Ventilateurs, Ventiladores, Вентиляторы		3 x 6.5	4 x 6.5	6 x 6.5	2 x 6.5	3 x 6.5	4 x 6.5	6 x 6.5	2 x 6.5
Resistenza di sbrinamento, Defrost heater, Abtauwiderstand, Resistencia de degivrage, Resistencias de descongelation, Мощность оттаивания - OPTIONAL -	W	2070	2760	4200	990	2070	2760	4200	990
Tipo di sbrinamento, Defrosting type, Abtautyp, Type de dégivrage, Tipo descongelation, Тип оттаивания		Automatico/Elettrico - Automatic/Electrical - Автоматическое/Электрическое							
Livello di rumorosità, Noise level, Schallpegel, Niveau de bruit, Уровень шума	db (A)	≤ 60							
Contenuto modificabile senza preavviso, Content that could be change without notice, Inhalt Veränderbar ohne Vorankündigung, Contenu modifiable sans préavis, Contenido modificable sin previo aviso, Содержание изменяется без предупреждения									

Installation and User Manual

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1. Informational symbols

Before reading the manual, take a moment to learn the symbols:



This symbol indicates dangers and actions that should **always** be avoided during use, maintenance or in any situation, as they could cause serious injury or death.



This symbol indicates instructions, rules, advice, and communications that each person assigned to use the unit (in reference to their individual responsibilities) must respect during the entire time they are using the unit (installation, use, maintenance, dismantling, etc.).

2. Prohibitions and prescriptions

The Installation and User Manual should be read carefully so that the operator, in the event of malfunction, is able to provide precise information to Technical Support by telephone. Before contacting Technical Support, first check the following:



- ▶ **Before carrying out any maintenance work on the refrigerator unit, please ensure that the electrical supply is disconnected.**
- ▶ **These units are designed for use only in closed environments**
- ▶ **Take great care over all working manoeuvres (loading, unloading, cleaning, counter service, maintenance, etc.) and always apply maximum diligence, using appropriate protective equipment for the various operations.**
- ▶ **The refrigeration unit is intended to maintain the temperature of the goods displayed and not to reduce it. Foodstuffs should only be placed inside if they are already cooled to their respective conservation temperatures. As such, products that have been warmed up must not be placed in the unit.**
- ▶ **The units are designed and built to store and display only fresh and frozen foods, ice creams, cooked and pre-cooked items (canteens). Do not introduce any type of goods other than those specified such as pharmaceutical products, fishing bait, etc.**
- ▶ Check that the temperature and relative humidity values do not exceed specifications. For this reason it is essential that the air-conditioning, ventilation, and heating systems in the sales point are kept at maximum efficiency.
- ▶ Limit airflow speed to less than 0.2 m/s in the proximity of the unit's openings. It is particularly important to avoid air currents and the air conditioning system's air delivery openings being aimed towards the opening of the units.
- ▶ Only introduce merchandise into the unit that has already been cooled to its normal cold-chain temperature.
- ▶ Make sure that the unit is always able to maintain said temperature.
- ▶ Respect the load limit. Do not overload the cabinet.
- ▶ Rotate food products by loading the cabinet in such a way that the goods displayed for longest are sold before new arrivals.
- ▶ With the help of a specialised technician, eliminate any problems found (loose screws, blown bulbs, etc.).
- ▶ Check the flow of defrosted water (unblock drains, clean any filters, check siphons, etc.).



- ▶ Dispose of defrosted water or water used for washing through the drains or purification system in accordance with current legislation as this may come into contact with pollutants due to the nature of the product, any residues, accidental breakages of casing containing liquids and the use of non-permitted detergents.
- ▶ Check for any anomalous condensation. If found, immediately contact your refrigeration technician.
- ▶ Carry out all preventive maintenance operations punctually.



- ▶ **DO NOT** remove protective covers or panels that require the use of tools to be removed. More specifically, do not remove the electrical panel cover. These operations must always be carried out by specialised technicians.
- ▶ **DO NOT** obstruct the air intake openings.
- ▶ Exposed merchandise should not be in direct sunlight. Danger: alteration of merchandise.
- ▶ Limit the temperature of radiating surfaces located in the sales point, e.g. insulating ceilings.
- ▶ **DO NOT** use spotlights with incandescent bulbs aimed directly at the unit. Danger: overheating the merchandise.
- ▶ **IN THE CASE OF A GAS LEAK OR FIRE:**
Do not place your head inside the area in which the unit is located if it is not appropriately ventilated. Disconnect the unit by means of the general switch upstream of the appliance.
DO NOT USE WATER TO PUT OUT THE FLAMES, USE ONLY DRY EXTINGUISHERS.

ANY OTHER USE NOT EXPLICITLY INDICATED IN THIS MANUAL IS TO BE CONSIDERED DANGEROUS. THE MANUFACTURER SHALL NOT BE HELD RESPONSIBLE FOR ANY DAMAGES THAT MAY OCCUR FROM IMPROPER, ERRONEOUS, OR UNREASONABLE USE.

USEFUL TELEPHONE NUMBERS:

SWITCHBOARD +39 0499699333 - FAX +39 9699444 - CALL CENTRE 848 800225

3. Purpose of the Manual/Field of Application - Interested Parties

This instruction manual contains a description of the **Mini Toronto** line of refrigeration units, manufactured by ARNEG Spa.

The following information provides instructions with regard to:

- ▶ using the cabinet
- ▶ technical specifications
- ▶ installation and assembly
- ▶ operator information
- ▶ maintenance operations
- ▶ safety information

The manual should be considered part of the unit and must be kept for its entire working life.

The manufacturer is relieved from all liability in the following situations:

- ▶ improper use
- ▶ incorrect installation - not completed in accordance with the regulations specified
- ▶ power supply faults
- ▶ serious lack of maintenance
- ▶ unauthorised alterations and operations
- ▶ use of non-original spare parts
- ▶ partial or complete lack of compliance with the instructions.

This manual must be the responsibility of an assigned person, stored in an appropriate location, known to all assigned workers and maintenance employees, so that it can be consulted whenever needed.

In the event of transfer to third parties, it must be delivered to the new user or owner, duly informing the suppliers in a timely manner. If lost or damaged, please contact the supplier.

This manual is intended for:

QUALIFIED OPERATORS: qualified individuals, instructed in the use, adjustment, cleaning, and maintenance of the unit.

SPECIALISED TECHNICIANS: trained technicians, authorised to carry out extraordinary maintenance, repair, replacement, and tuning operations who are aware of the risks they are exposed to in carrying out said operations and able to adopt all the measures appropriate to protect themselves and others, minimising damage with respect to the risks that these operators have.

Where not specified, the section is applicable to both types of users

The contents of this manual represent the current technical and technological status used in manufacturing the unit, and valid at the time the unit in question was sold. Therefore, it cannot be considered obsolete in the case of later updates connected to new regulations or knowledge.

Anyone using this unit must read this manual.

4. Presentation - Proper use (Rif. 1)

The unit is intended for use by qualified personnel that have been instructed and trained by their employer with regards to use and the risks that come with it.

The **Mini Toronto** line of closed refrigerated islands are appropriate for preserving and self service sales of **frozen foods and ice creams**.



▶Electrical appliances can be dangerous to health. Current laws and regulations must be respected during installation and use.

▶Removing protective covers or panels requiring tools for removal is prohibited.

DO NOT allow the following types of people to use the unit:

▶children

▶persons unable to use the unit safely without supervision or instructions

▶disabled individuals

▶employees who are not sober or are under the effect of narcotics



▶Carefully read the manual before use and instruct assigned employees with regards to the various operations (transport, installation, maintenance, etc.), in line with their assigned responsibilities, and in accordance with the instructions contained in the manual.

▶The Client or employer assumes full responsibility regarding the qualification and mental and/or physical state of the employees assigned to use and maintain the machine.

▶This documentation CANNOT in any way serve as a substitute for a lack of education or intelligence in the personnel that interacts with the equipment.

▶The units are designed and built to store and display only fresh and frozen foods, ice creams, cooked and pre-cooked items (canteens). Do not introduce any type of goods other than those specified such as pharmaceutical products, fishing bait, etc.

5. Norms and certifications

All the refrigeration unit models described in the usage manual for the **Mini Toronto** series meet the essential requirements for safety, health, and protection required by the following European directives and laws:

► **Machines Directive 2006/42 EC;**

applied EN norms: EN ISO 14121:2007; EN ISO 12100-1:2005; EN ISO 12100-2:2003

► **Electromagnetic Compatibility Directive 2004/108/EC;**

applied EN norms: EN 61000-3-2:2006; EN 61000-3-12:2005; EN 55014-1:2006; EN 55014-2:1997;

► **Low Voltage Directive 2006/95/EC;**

applied EN norms: EN 60335-1:2008; EN 60335-2-89 :2002/A2:2007

European Regulation EC-1935/2004 on materials and articles intended to come into contact with food - standards applied: EN 1672-2

They are excluded from the field of application of Directive **EEC 97/23 (PED)** on the basis of that specified by Article 3 paragraph 3 of the Directive.



In the case that the original copy of the Declaration of Product Conformity provided with the product is lost, it is possible to download a copy by completing the form found at the following website: <http://www.arneg.it/conformity>

The performance of these refrigeration units has been determined using tests carried out in accordance with **UNI EN ISO 23953-2: 2006** regulations, in the environmental conditions corresponding to climate class 3 (25 °C , 60% R.H.)

Environmental climatic classes according to UNI EN ISO 23953 - 2

Climatic class	Temp. dry bulb	Relative humidity	Dew point
1	16°C	80%	12°C
2	22°C	65%	15°C
3	25°C	60%	17°C
4	30°C	55%	20°C
5	40°C	40%	24°C
6	27°C	70%	21°C

6. Identification - Rating plate data (Rif. 2)

A serial plate is affixed behind the unit, stating all characteristic data:

- 1) Manufacturer's name and address
- 2) Unit name and length
- 3) Unit code
- 4) Unit serial number
- 5) Voltage supply
- 6) Supply frequency
- 7) Current used when operating
- 8) Electrical power used when operating during refrigeration phase (fans+hot cables+lighting)
- 9) Electrical power used when operating during defrost phase (armoured resistances+hot cables+fans+lighting)
- 10) Lighting power (where applicable)
- 11) Net display surface
- 12) Type of refrigerant fluid with which the system functions
- 13) Mass of refrigerant gas with which each system has been loaded (only for units with built-in motor)
- 14) Environmental climatic class and temperature of reference
- 15) Humidity protection class
- 16) Unit manufacturing order number

English

17) Unit production order number

18) Unit year of production

In the case of a request for technical assistance, please provide the following information:

- ▶ product name (Rif. 2 - 2); serial number (Rif. 2 - 4); work order number (Rif. 2 - 16).

7. Transport - *specialised technician* -

Loading/unloading operations must always be carried out by qualified personnel able to check weights, exact lifting points, and the most appropriate means of transport, both in terms of safety and capacity. The cabinets are supplied on a wooden platform frame to the base for movement with forklift trucks. Use a manual or electrical forklift truck that is suitable for moving the cabinet in question. It must have a nominal capacity of at least 1,000 kg.



- ▶ Always place the forks at the indicated points in order to avoid the risk of overturning, and always completely insert the forks.
- ▶ No unnecessary personnel should be present in the lifting area.
- ▶ Balance the weight of the unit so as to ensure that the load remains in equilibrium (Rif. 3)

DO NOT use transportation devices to lift:

- ▶ with a capacity of less than 1,000 kg
- ▶ with inappropriate characteristics or that have been affected by use
- ▶ with non-standard or worn wires or cables



Transportation procedures that differ from that indicated are prohibited.

8. Storage

- ▶ **DO NOT** store the units in uncovered areas where they are subject to weathering and direct sunlight. Exposure to ultraviolet rays leads to permanent deformation of the plastic materials and damages the unit's components.
- ▶ The units must be stored in closed areas, at a temperature between **-25°C and +55°C** and with relative humidity between **30% and 90%**.
- ▶ Before storing, check that the packaging is intact and that it doesn't show any defects that could compromise the preservation of the units.

9. Receipt, unpacking, initial cleaning - *qualified operator* -

Before starting any unpacking operations, take all possible precautions to avoid injury to the operator.

The unit may be provided packaged, specifically:

- ▶ With a wooden frame fixed to the base and a nylon covering held in place by straps (standard) (Rif. 5).
- ▶ With cardboard covering (upon request) (Rif. 6).
- ▶ With a wooden cage (upon request) (Rif. 7).

Upon acceptance of the cabinet:

- ▶ Ensure that the packaging is intact and there is no obvious damage;
- ▶ Unpack, ensuring that the unit is not damaged;
- ▶ Check that all parts of the unit are intact;
- ▶ If any damage is found, immediately contact your supplier;
- ▶ Slowly remove the protective film, taking care to not rip it, in order to avoid leaving traces of glue. If this occurs anyway, they can be removed using appropriate solvents.
- ▶ Clean for the first time using neutral products. Dry with a soft cloth. Do not use any

abrasive substances or metal sponges;

For correct disposal of the packaging, note that it consists of: Wood - Polystyrene - Polythene - PVC - Cardboard.



- ▶ **DO NOT use alcohol to clean the methacrylate parts (Plexiglas).**
- ▶ During the unpacking operations, do not leave packaging elements such as nails, wood, staples, nylon, etc. lying around and tools used for the operation such as pliers, scissors, and pincers should not be left in the work area, as they could cause injury or wounds.
- ▶ These items should be removed using appropriate methods and placed in the relevant waste collection locations.

10. Installation and environmental conditions - specialised technician -



Any change to the installation described here must be authorised by ARNEG Spa.

To guarantee that the technicians assigned to install the unit work safely, the use of protective tools and clothing required under the safety regulations or laws in effect in the country where it is installed is recommended. In any case, always use appropriate equipment and clothing, such as: **safety shoes, protective gloves, a level.**

For installation, please proceed as follows:

- ▶ carefully inspect the installation area, removing any danger(s) to the operator:

Do not position the cabinet:

- ▶ in environments with the presence of explosive gaseous substances;
- ▶ outdoors and therefore where there are atmospheric agents;
- ▶ near heat sources (in direct sunlight, near heating systems, incandescent lights, etc.)
- ▶ near air currents (near doors, windows, air-conditioning/heating systems, etc.) exceeding speeds of **0.2 m/sec.**

Remove the wooden supports on the bottom (used for transportation) and attach the adjustable feet (Rif. 8) positioning them so that the unit is horizontal, using a level (Rif. 9) to check the alignment.

Before connecting the unit to the electricity, ensure that the plate data corresponds to the characteristics of the electrical system to which it is to be connected.

For the unit to function properly, the temperature and relative humidity must not exceed the limits for climate class 3 (**+25°C; R.H. 60%**) as established in **EN-ISO 23953 - 2** regulations, under which the unit was tested.



- ▶ **Do not move the unit by putting stress on the side glass surfaces to avoid deforming the support brackets (Rif. 11)**
- ▶ **If the unit is moved, repeat the levelling process, as improper levelling could compromise the unit's operations.**

11. Multiplexing cabinets (Rif. 28- Rif. 29) - specialised technician -

To multiplex two or more units, proceed as follows:

- ▶ Remove the sides
- ▶ Position the cabinets side by side
- ▶ Remove the back panels to gain access to the rise holes
- ▶ Connect the risers and the brackets using the screws and aligning pins provided
- ▶ Replace the back panels.

MULTIPLEX KIT

				HEAD			
Pos.	Name	Code	Ite	Pos.	Name	Code	Ite

7	Nut E M6	04230400	6	6	Washer 6x12 ZN	04480103	2
6	Screw TCEI M6x25	04711098	6	5	Screw TCEI M6x25	04711098	4
5	Washer 6x12 ZN	04480103	4	4	Screw TCEI M6x30	04711068	2
4	Nut E M8	04230600	4	3	Nut E M8	04230600	2
3	Screw TCEI M8x50	04711041	2	2	Screw TCEI M8x50	04711041	2
2	Screw TCEI M8x35	04711040	2	1	All.plug 4x30	02940652	10
1	All.plug 4x30	02940652	12				

12. Electrical connection - *specialised technician* -



BEFORE STARTING ANY OPERATION, FIRST DISCONNECT THE SYSTEM FROM THE POWER SUPPLY! The electrical system must be earthed!



- ▶ The systems must be completed in accordance with the regulations that govern construction, installation, use, and maintenance as envisaged under the norms in effect in the country where the unit is installed.
- ▶ ARNEG Spa declines any responsibility with regards to the user and third-parties for damages caused by breakdowns or malfunctioning of the systems installed upstream to the unit and for damages caused by the same due to causes directly attributable to malfunctioning of the electrical system.
- ▶ The unit must be protected upstream by an automatic omnipolar thermomagnetic switch with appropriate characteristics. This must also act as a general line disconnection switch.

Establishment of the electrical power supply line to the point of where it connects to the unit is the responsibility of the Client. The dimensions of the electrical energy power supply line must be determined in accordance with the electrical power used by the unit (see Technical Specifications).

- ▶ Remove any metal objects worn: rings, watches, bracelets, earrings, etc.
- ▶ Check the electrical diagrams before carrying out the connection
- ▶ Check that the voltage supply is as specified on the plate data.
- ▶ Tell the operator where the switch is so that it can be reached quickly in an EMERGENCY.
- ▶ To guarantee correct operation, the maximum voltage variation must be between +/- 6% of the nominal value.
- ▶ Check that the power line has appropriate section cables, is protected against overcurrent and dispersions towards earth, in compliance with current standards.
- ▶ In the event of an interruption to the electricity supply, check that all store electrical appliances can reboot without causing the overload protections to intervene. If not, alter the system in order to differentiate between the start-up of the various devices.

The installer must supply the anchorage devices for all cables in and out of the unit.



- ▶ Avoid having the casing come into contact with the electrical panel to avoid electric shocks which could cause injury or death.
- ▶ Check that the connectors of the illumination (shelves, ceiling, superstructure) are inserted properly and blocked in their sockets so as to avoid disconnection during cleaning and maintenance operations which could lead to electrical shocks harmful to the operator.

The automatic thermomagnetic switch should be designed so as not to open the neutral circuit without simultaneously opening the phases. In any case, the opening distance for the contacts must be at least 3mm.

13. Probe placement (Rif. 25) - *specialised technician* -

The probes are already placed on the unit and are as follows:

Sout	Air delivery control probe
Sdef	End defrost thermostat control probe
Sin	Air intake control probe

- ▶ Temperature probe: NTC IP67 L=4000 code 04510153.
- ▶ The Sout-Sin probes must be fixed in place using terminals and should not be insulated.
- ▶ The Sdef probe must be fixed in place in contact with the fins of the evaporator, between the 3rd and 4th tube (never in correspondence with the fan) using the stainless steel bulb block spring, code 02230021.

14. Start-up, temperature control and adjustment - *specialised technician* -

The refrigeration temperature is controlled using the digital thermometer (Rif. 12) or with the electronic control device (OPTIONAL) (Rif. 13).

Normally the controller is set in the factory during testing, but it is possible to alter the programming. To do so, please refer to the instructions given by the control device manufacturer.

15. Filling the unit - *qualified operator* -

To refill the unit, you must comply with some important rules:

- ▶ arrange the goods in such a way that the maximum load line is never exceeded (Rif. 21) - exceeding this limit can interfere with correct air circulation (Rif. 22), causing the temperature of the goods to rise and ice to form on the evaporator;
- ▶ the arrangement of goods, without leaving empty areas, guarantees optimum unit function;
- ▶ arrange the goods in a way that does not interfere with the circulation of the refrigerated air (Rif. 22)
- ▶ The maximum allowable load for the tank is about **300 kg/m²**
- ▶ **leave 4-5 cm. of space between the merchandise and the closures to allow normal circulation of the refrigerated air.**



- ▶ The refrigeration unit is designed to maintain the temperature of the product displayed and not to lower it. Food products must only be introduced if already cooled to their respective storage temperatures. **DO NOT** introduce products that have been heated.



We recommend first using up the goods that have been stored in the unit the longest, before adding new arrivals (food stock rotation);

15_1. Loading of cabinets for ice cream and frozen foods

- ▶ reducing the time for which frozen foods are at environmental humidity and temperature to a minimum to avoid the formation of frost on the boxes, which can, once inside the cabinet, stick together and to the base grille.
- ▶ limit door opening time to 2-3 minutes
- ▶ **keep 4-5 cm space between the goods and the air output mouths to allow for**

normal circulation of refrigerated air.



- ▶ Entry of warm air into the unit with closures is inevitable. In the case of high humidity, thin layer of frost will form. This will disappear once the doors have been kept closed for 2 hours.
- ▶ **Do not use the sliding doors as a resting plane for goods when loading. The doors have not been designed to support any loads (Rif. 17).**
- ▶ The refrigeration unit is designed to maintain the temperature of the product displayed and not to lower it. Food products must only be introduced if already cooled to their respective storage temperatures. **DO NOT** introduce products that have been heated.

16. Defrosting and water discharge (Rif. 23)

The Mini Toronto line of refrigeration units is provided with an **electrical** defrost system, that works by stopping the refrigeration cycle and the use of an armoured resistance inserted in the evaporator).

16_1. Water discharge:

To drain the defrost water, you need to:

- ▶ have a floor drain with a slight incline (Rif. 24);
- ▶ install the provided siphon between the unit drainage pipe and the floor connection.
- ▶ hermetically seal the floor drainage area.

This will prevent unpleasant odours from forming within the unit, the dispersion of refrigerated air and possible unit malfunctioning due to humidity.



Periodically check that the hydraulic connections are still efficient, contacting a qualified installer.

17. Lighting

For tank front lighting, a lamp can be installed on the handrail (optional) (Rif. 14).



For greater energy savings, the cabinet can be ordered complete with low consumption LED lighting. This allows for:

- ▶ reduced lighting consumption
- ▶ reduced refrigerator load
- ▶ lifespan of lights: over 6 years
- ▶ uniform light intensity and colour
- ▶ improved lighting as temperature decreases.

18. Superstructure (Rif. 26)

The Mini Toronto line of refrigerator units can be provided with a non-refrigerated superstructure with 1 or 2 shelves. Assemble as follows:

Assemble as follows:

- 1 - Remove the upper snug cover
- 2 - Place the superstructure frame in the snug, attaching it with the screws provided
- 3 - Attach the lower covers (a) using the screws provided
- 4 - Attach the outlet supports (b) using the screws provided



- ▶ Distribute the load uniformly on both sides
- ▶ **DO NOT** load the superstructure on just one side
- ▶ Avoid overloading the shelves in a disorganised way
- ▶ **The load must NEVER exceed 90 kg/m² (Rif. 27)**

19. Anti-condensation and fog resistance

To prevent fogging due to condensation, low voltage electrical resistances are used on

the parts most subject to this, such as: heat-isolating glass on doors, frames and corners, side facing glass surfaces, etc.

20.Maintenance and cleaning- qualified operator -



BEFORE CARRYING OUT ANY MAINTENANCE WORK OR CLEANING, FIRST DISCONNECT THE UNIT FROM THE VOLTAGE SUPPLY BY MEANS OF THE GENERAL SWITCH. ALWAYS WEAR PROTECTIVE GLOVES FOR CLEANING.



- ▶ **DO NOT** use hot water on cold glass surfaces, as the glass could shatter and injure the operator.
- ▶ **DO NOT** use abrasive products or solvents that could alter the unit surfaces
- ▶ **DO NOT** spray water or detergents directly onto the electrical parts of the unit.
- ▶ **DO NOT** touch the unit with wet or damp hands or feet
- ▶ **DO NOT** use the unit barefoot
- ▶ **DO NOT** use alcohol or similar products to clean the methacrylate parts (plexiglass).
- ▶ avoid using excessive force during cleaning operations
- ▶ avoid chlorine-based detergents such as bleach which may corrode surfaces
- ▶ avoid contact with or inhaling vapours emitted from acid, alkaline or ammonia products contained in flooring detergents which may oxidise or corrode stainless steel.
- ▶ if internal cleaning is done with water jet cleaners (Rif. 10), use a LOW PRESSURE system (max 30 bar) with an appropriate capacity to remove any residue present. Excessive pressure could damage the surfaces.
- ▶ **DO NOT** aim the jet directly at painted or plastic-coated surfaces
- ▶ keep a minimum distance of 30 cm from the surfaces being cleaned (Rif. 10).
- ▶ bringing the jet too close to the dirt can cause injury to the operator and contaminate areas that have already been cleaned as well as the environment (Rif. 15).
- ▶ avoid wetting fans, lights, electric cables, and all electrical devices in general during cleaning operations.

Food products can deteriorate due to microbes and bacteria. Respecting hygiene norms is essential in order to guarantee protection of consumer health, as well as respecting the chain of refrigeration, for which the sales point is the last controllable ring.

Cleaning operations must include:

- 1 - **WASHING** (removing grease, removal of about 97% of the dirt)
- 2 - **DISINFECTING** (using appropriate detergents on the surfaces to remove any pathogenic micro-organisms that might remain after washing).
- 3 - **RINSING**
- 4 - **DRYING**

Cleaning the refrigeration units is carried out as follows:

20_1.Cleaning of external parts (Daily/Weekly)

- ▶ On a weekly basis, clean all the external parts of the unit using neutral detergents for domestic use that are compatible with the surfaces to be cleaned, or using warm soapy water, and removing all traces of detergent.
- ▶ Rinse with clean water and dry with a soft cloth.

20_2.Cleaning of internal parts (Monthly)

Cleaning the unit's internal parts is done to destroy pathogenic micro-organisms so as to ensure the protection of the merchandise.

Before beginning to clean the inside of the unit, it is necessary to:

- ▶ Completely remove all merchandise inside;
- ▶ Remove all the removable parts, such as display plates, grills, etc.
- ▶ Wash with warm water (<40°C)
- ▶ Disinfect using a detergent with an antibacterial component;
- ▶ Carefully dry using a soft cloth;

- ▶ Carefully clean the tank, drip, and water discharge protection grill, eliminating all foreign bodies that may have fallen into the suction grill, lifting the fan plate if necessary.
- ▶ If any ice has formed, contact a Qualified Refrigeration Technician for assistance.

20_3.Cleaning the sliding doors

- ▶ lift the price holder profile (fig. A) (Rif. 19)
- ▶ lift up and slide out the covers (fig. B) (Rif. 20)
- ▶ clean as specified for the cleaning of external parts
- ▶ replace the covers
- ▶ reposition the cover profile

20_4.Cleaning the "honeycomb" (Rif. 16)

- ▶ The honeycomb must be cleaned every 6-8 months, based on sales conditions.
- ▶ It can be cleaned using a vacuum cleaner or can be removed and washed using soap and water.
- ▶ It must be completely dry before being re-attached.
- ▶ The honeycomb must be attached at the same angle.

20_5.Cleaning stainless steel parts

Certain situations may lead to the build-up of rust on steel surfaces:

- ▶ steel implements left on surfaces that are damp, lime scaled, not fully rinsed after using chlorine- or ammonia-based detergents, encrusted with pieces of food, salt/saline solutions, or dry residue from evaporated liquids.

Recent marks and rust:

- ▶ clean with shampoo or neutral detergents using a sponge or cloth. When done, remove any detergent residue, rinse well, and carefully dry the surfaces.

Old marks and rust:

- ▶ use chemical substances for stainless steel that contain 25% nitric acid, or similar substances.

Stubborn marks and rust:

- ▶ sand or shine using a stainless steel brush. When complete, wash using detergents and dry carefully. This may produce surface scratches due to abrasive cleaning.



- ▶ All cleaning operations, including disinfection, rinsing and drying must be performed carefully, removing all traces of water or detergent so as to avoid the proliferation of bacteria that is harmful to health.
- ▶ Parts left to dry with residual detergent or disinfectant may be damaged.



Remove any elements such as sponges, clothes, detergent residue, or water from the floor that could cause slipping and accidental falls.

20_6.Inspection parts

Once cleaning, disinfection, rinsing, and drying operations have been completed, carefully check that all the parts are perfectly clean and dry and have not been damaged or excessively worn. If necessary, replace them.

Attach the elements once perfectly dry and restore the electrical power supply. Once internal operating temperature has been reached, the unit can be loaded with the products to be displayed.

21.Dismantling the unit - specialised technician -

The unit must be disposed of in accordance with your country's waste management legislation and in respect of our environment. This product is considered by current legislation as hazardous waste. It must therefore be collected separately and cannot be treated as household waste nor sent to a landfill. Before disposing of the unit, the

coolant must be collected and the lubricant oil removed. This product consists of 75% recyclable materials. Materials used in construction:

- Iron pipe: lower frame
- Copper, Aluminium: refrigeration circuit, electrical system and door frame
- Galvanised sheet metal: motor base, lower varnished panels, base structure
- Polyurethane foam (H₂O): heat insulation
- Tempered glass: doors
- Wood: side frames foamed tank
- PVC: bumper
- Plastic laminate: sides



-
- ▶ The user is responsible for delivering the product for disposal to the collection centre specified by the local authorities or manufacturer for the recovery and recycling of materials.
 - ▶ All these operations , as for transport and waste processing, should be performed by authorised, specialised personnel only.
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