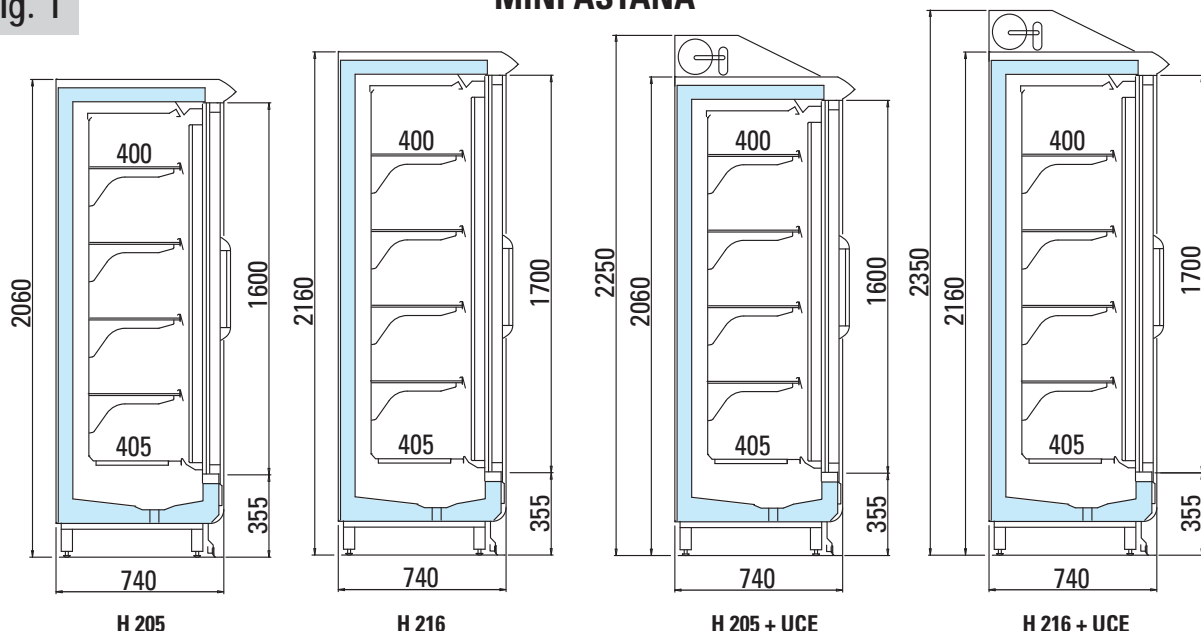


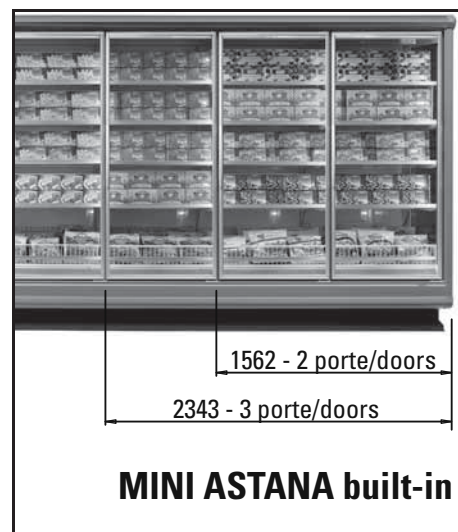
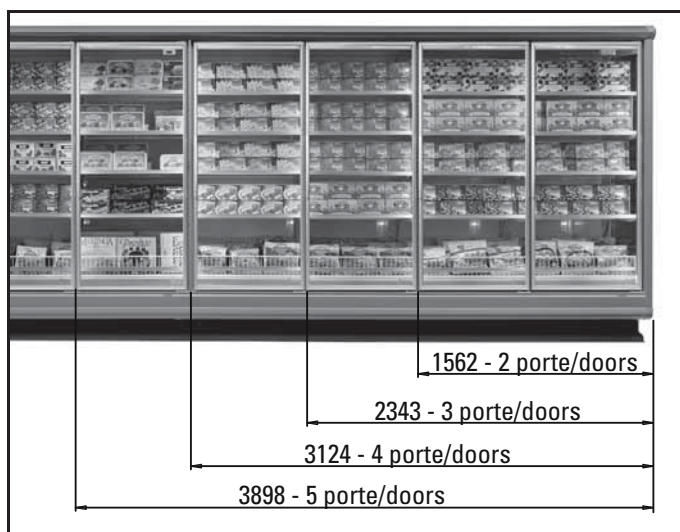
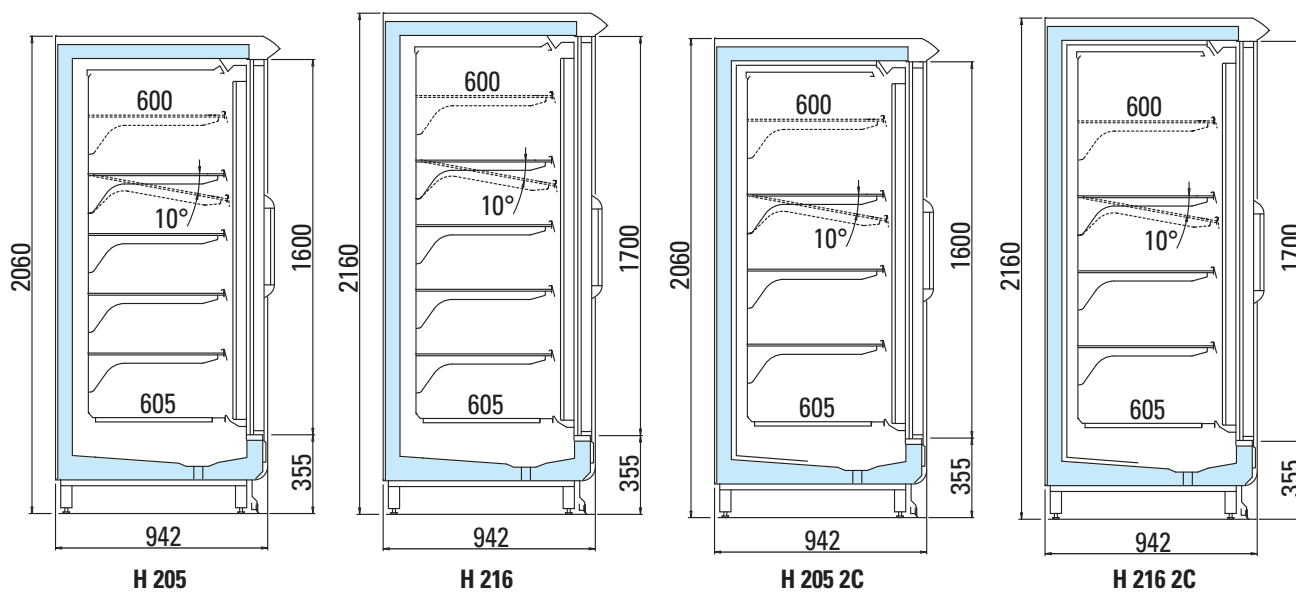
Presentazione del mobile - Case presentation

Fig. 1

MINI ASTANA

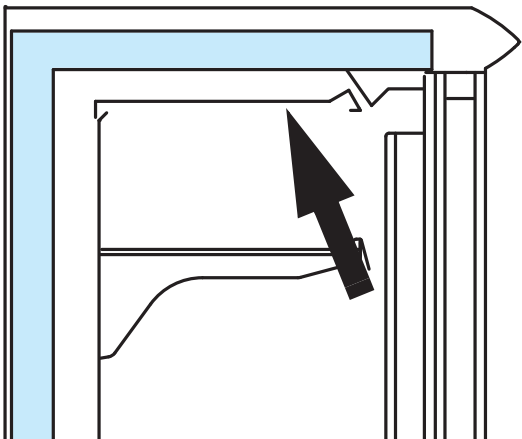
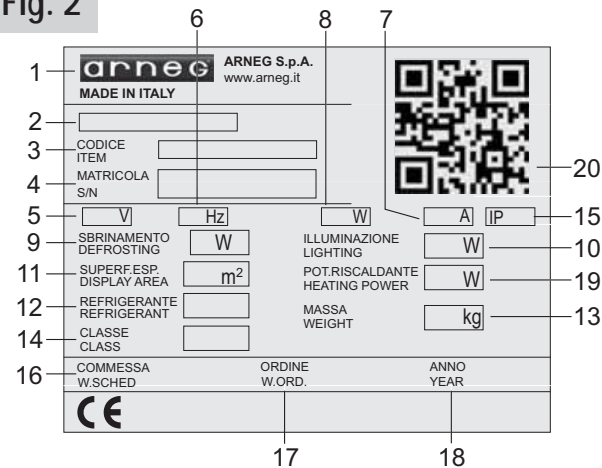


ASTANA



Targa matricolare - Serial number plate

Fig. 2



Il trasporto - Transportation

Fig. 3

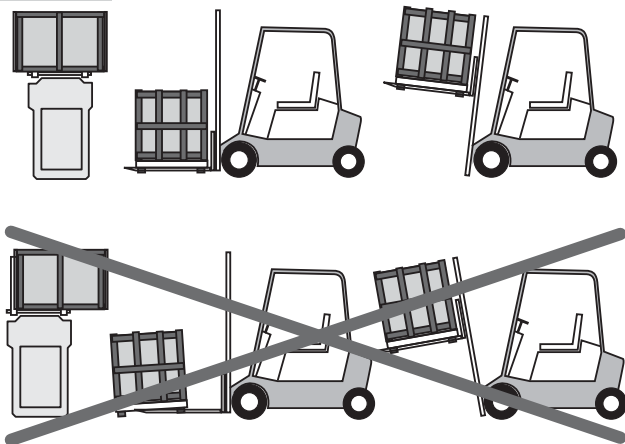
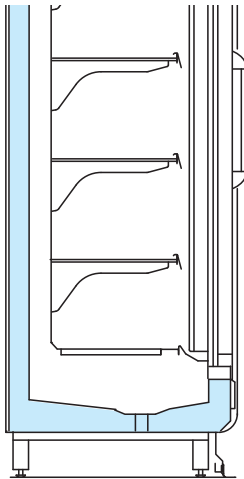


Fig. 4



Installazione/Condizioni ambientali - Installation and environmental conditions

Fig. 5

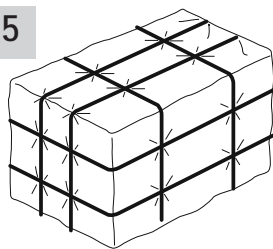


Fig. 8

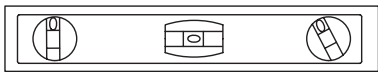


Fig. 6

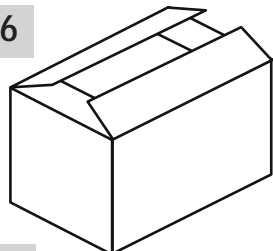


Fig. 7

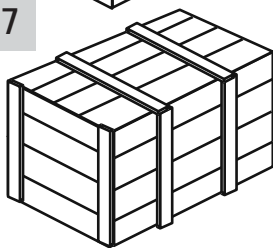
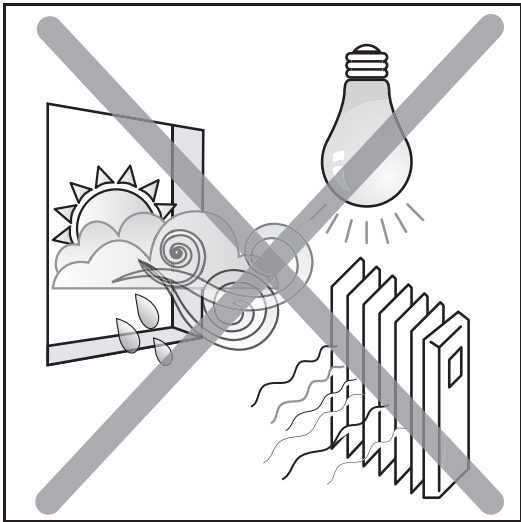


Fig. 9



Installazione/Condizioni ambientali - Installation and environmental conditions

Fig. 10

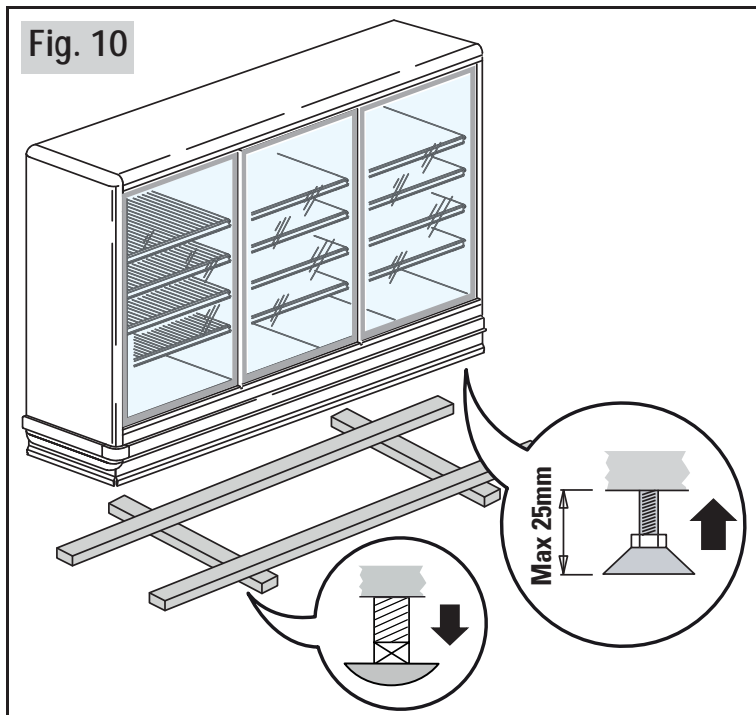


Fig. 11

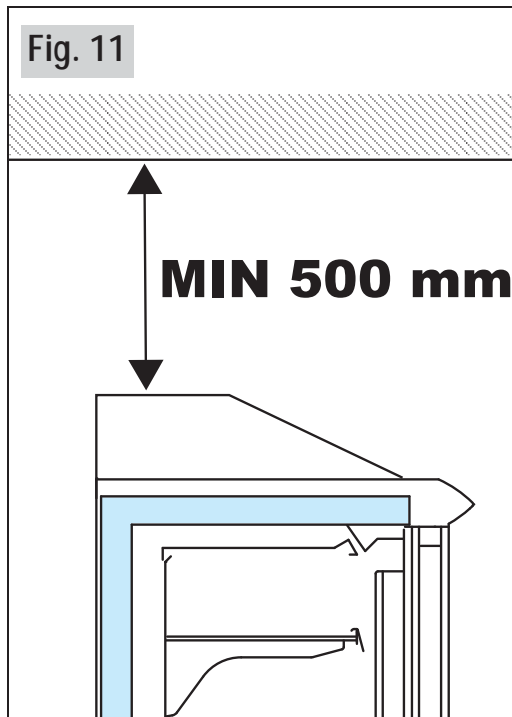


Fig. 12

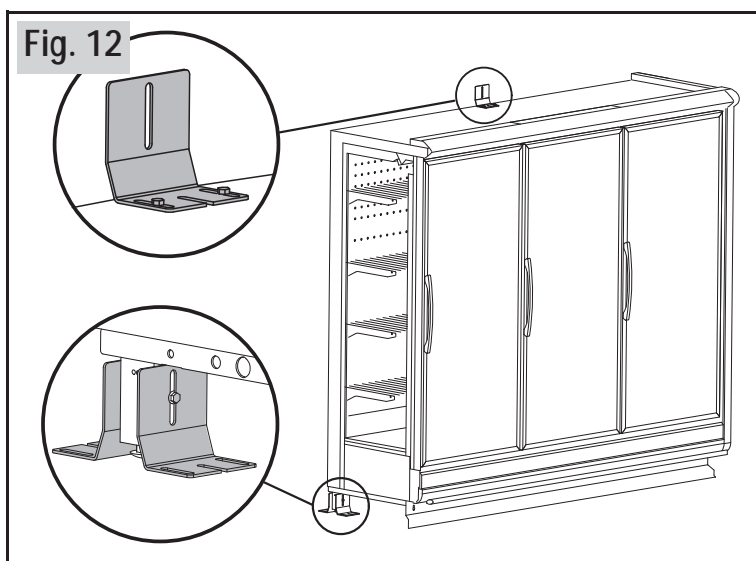


Fig. 13

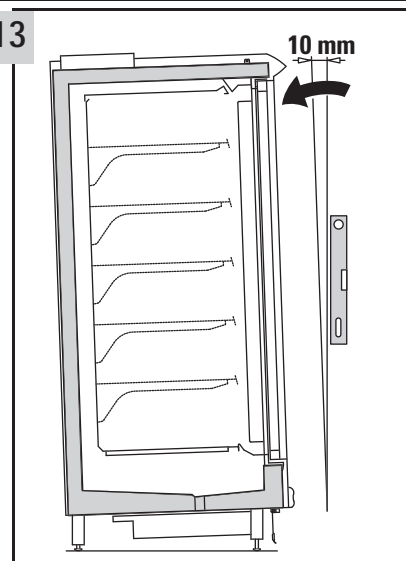
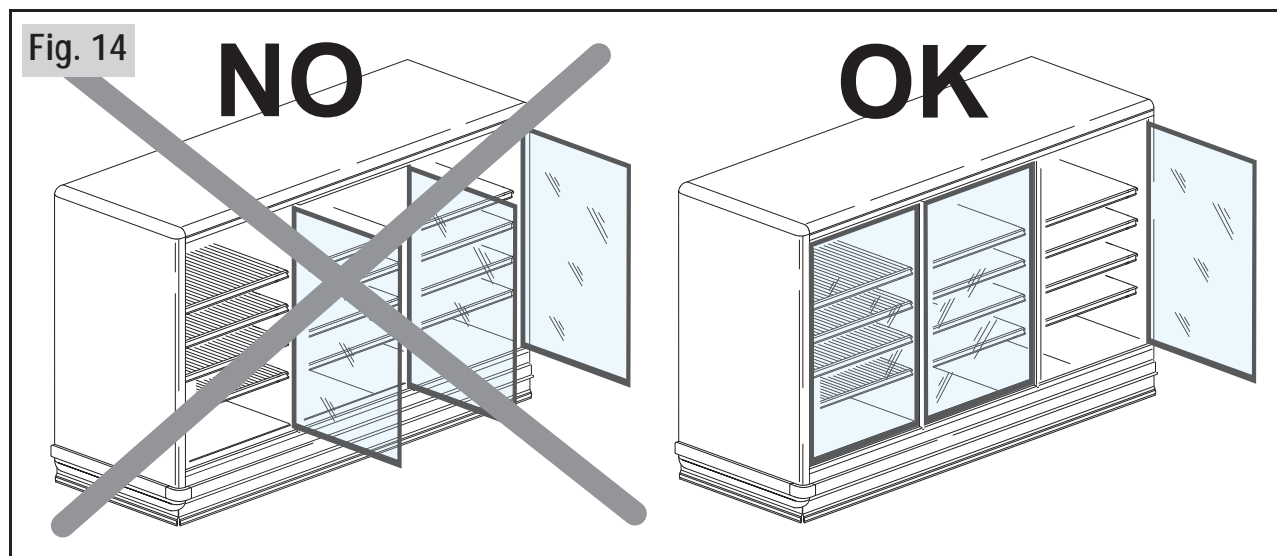


Fig. 14



Collegamento elettrico/Avviamento, regolazione e controllo temperatura
Electric connections/Start, control, and adjustment of the temperature

Fig. 15

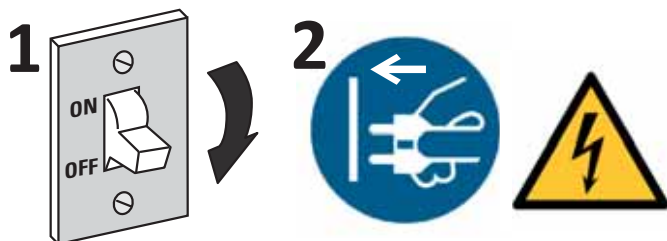


Fig. 16



Il caricamento del mobile - Cabinet loading

Fig. 17

OK



NO

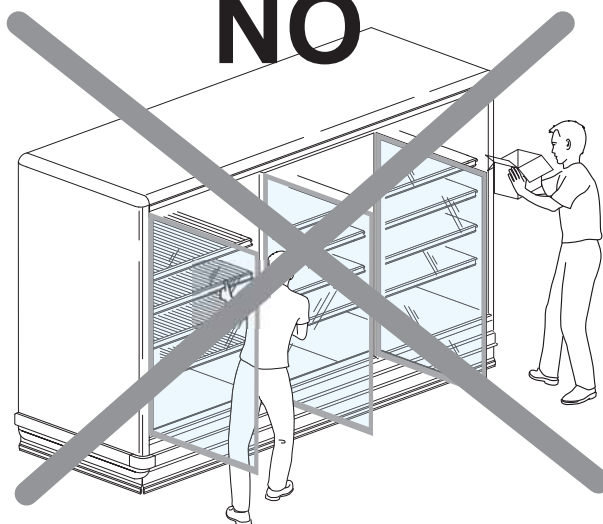


Fig. 18

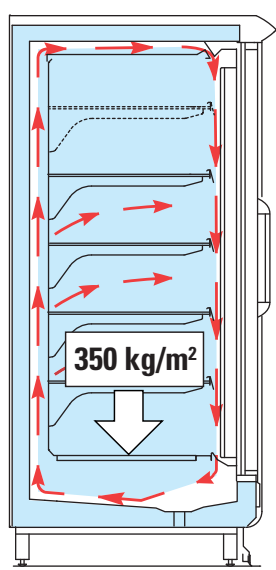
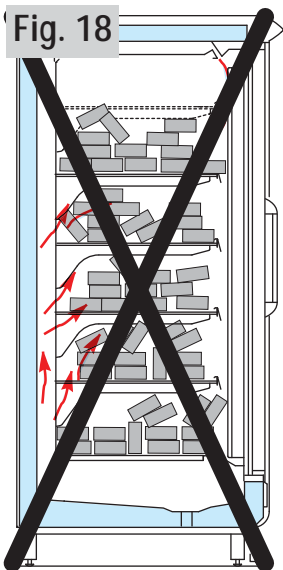


Fig. 19

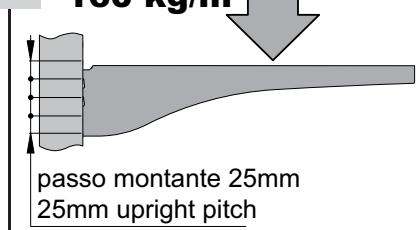
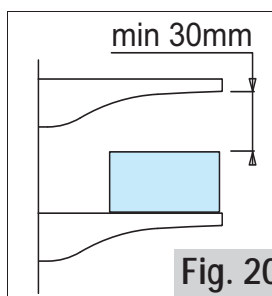
160 kg/m²

Fig. 21



min 30mm

Fig. 20



Manutenzione e pulizia - Maintenance and cleaning / Illuminazione - Lighting

Fig. 22



Fig. 23

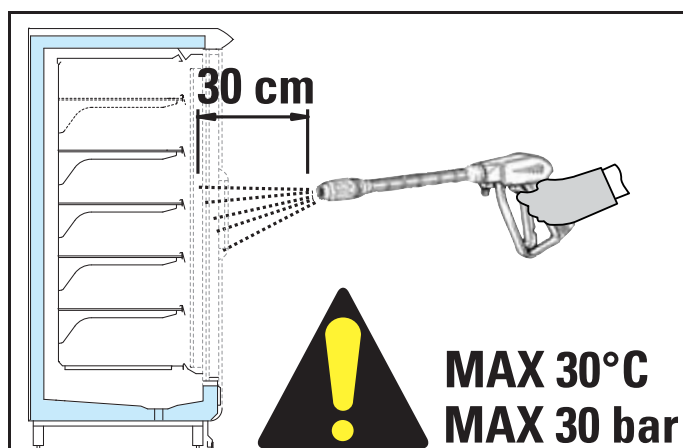


Fig. 24



Fig. 25

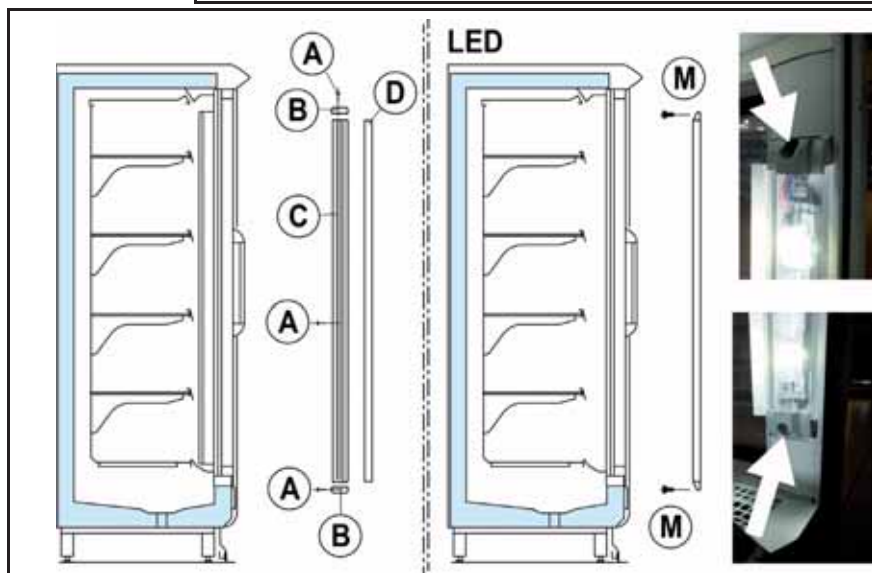
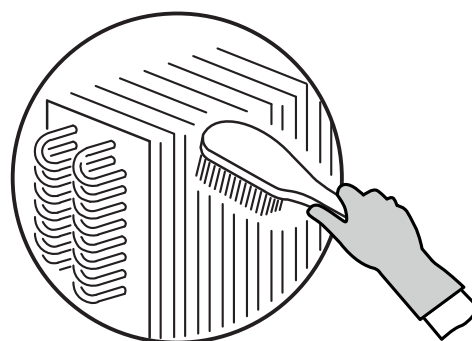
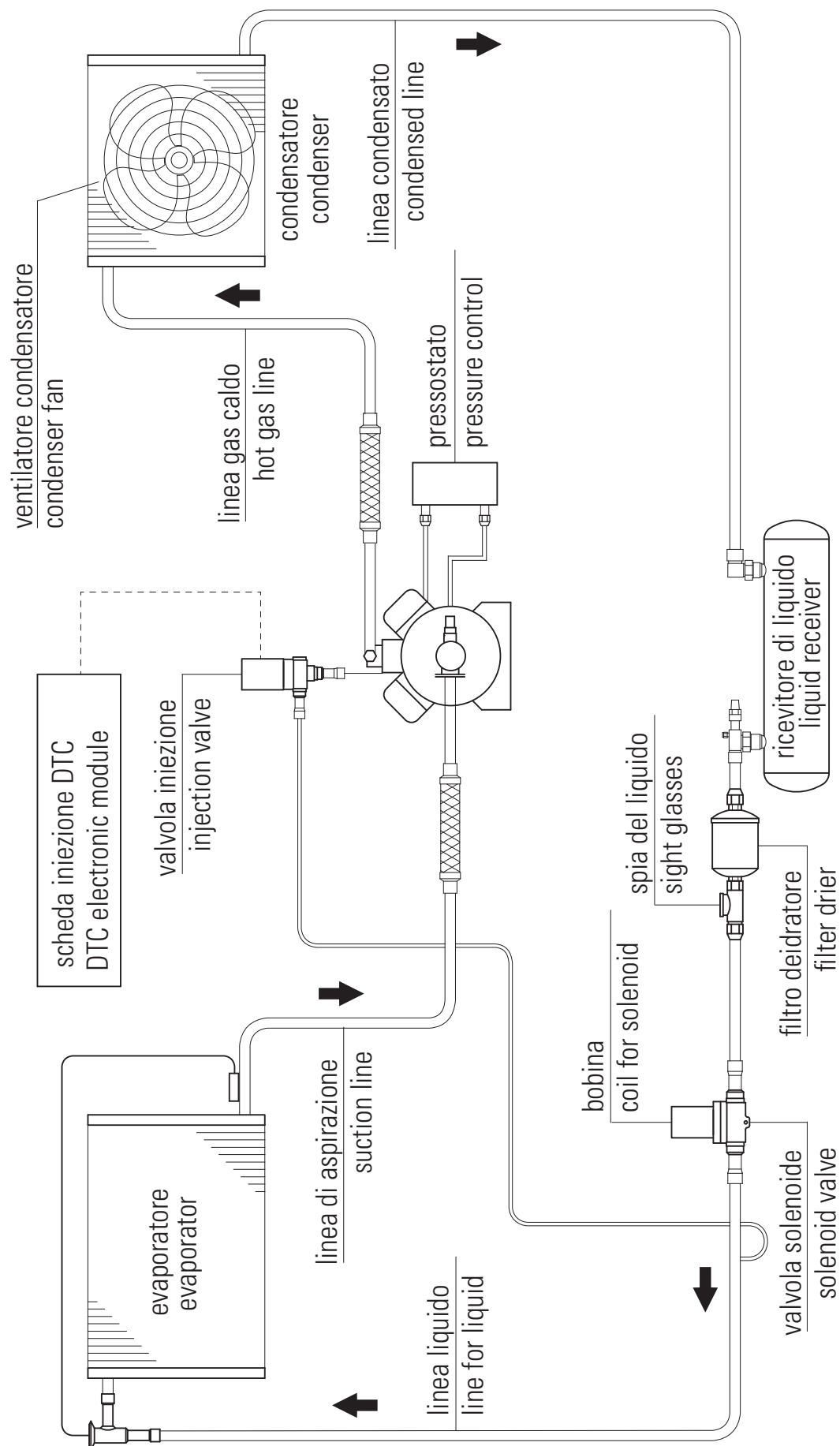


Fig. 26

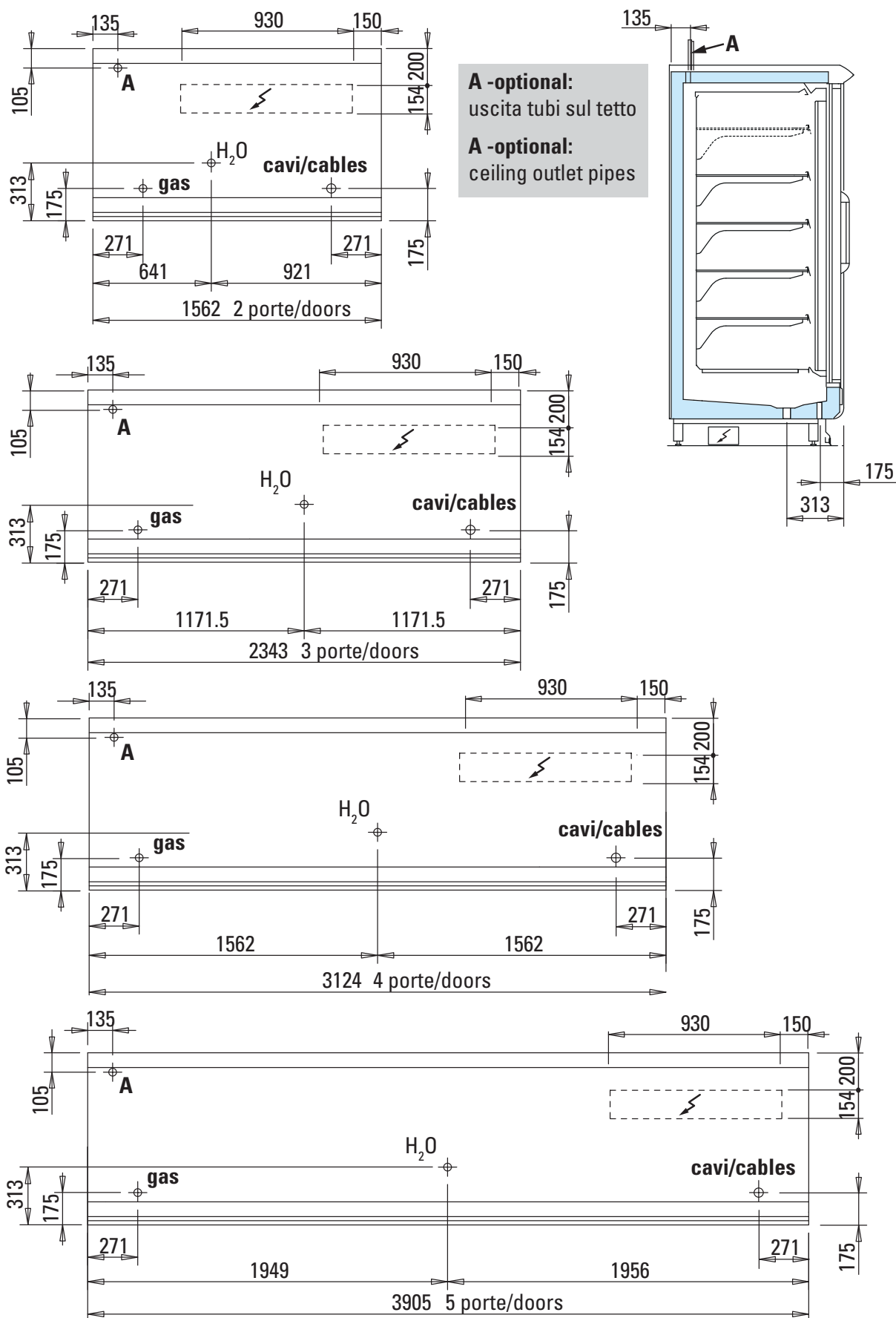


Schema frigorifero - Refrigeration diagram



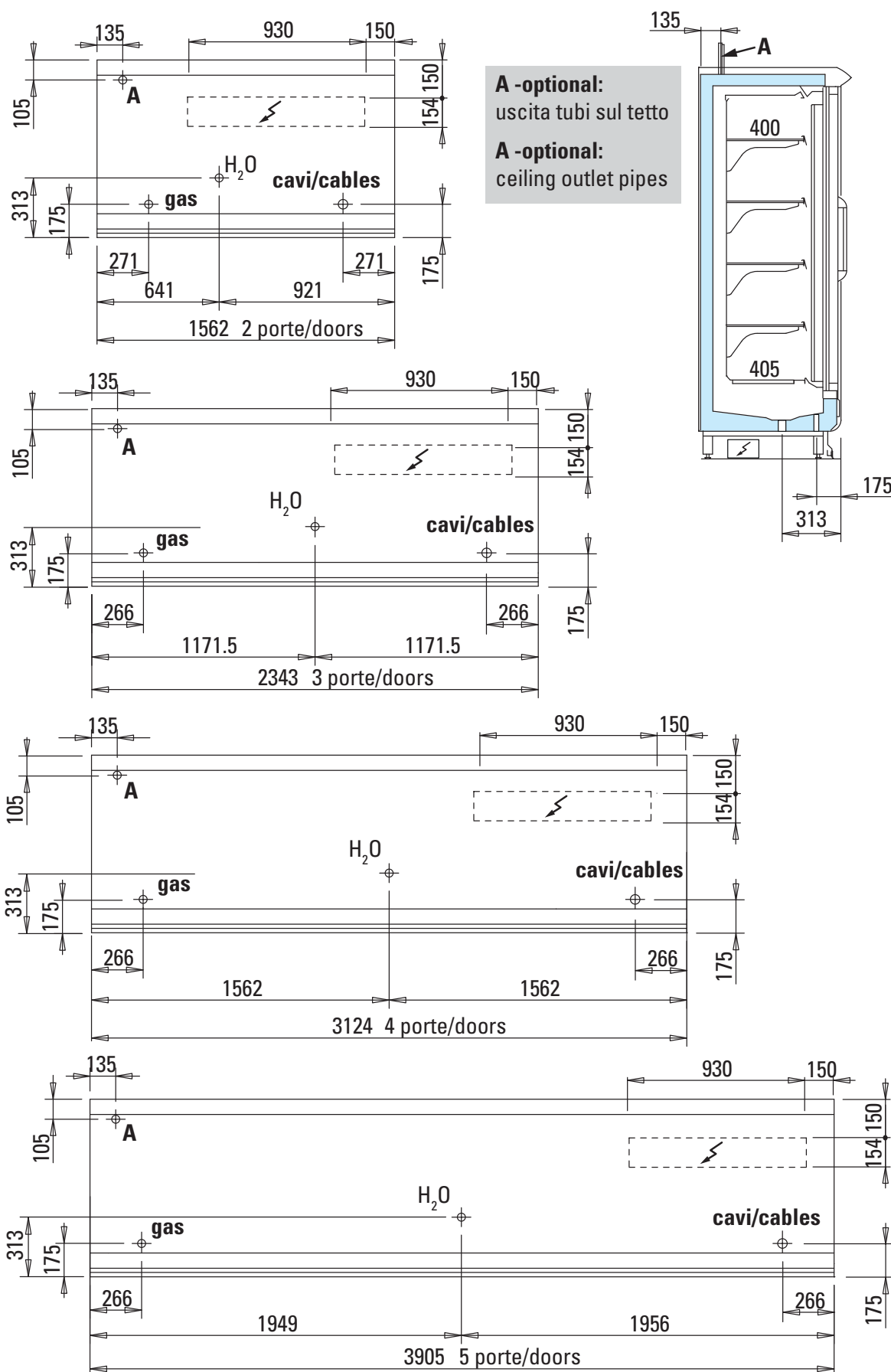
Schema allacciamenti gas e acqua - Gas and water connection diagram

ASTANA

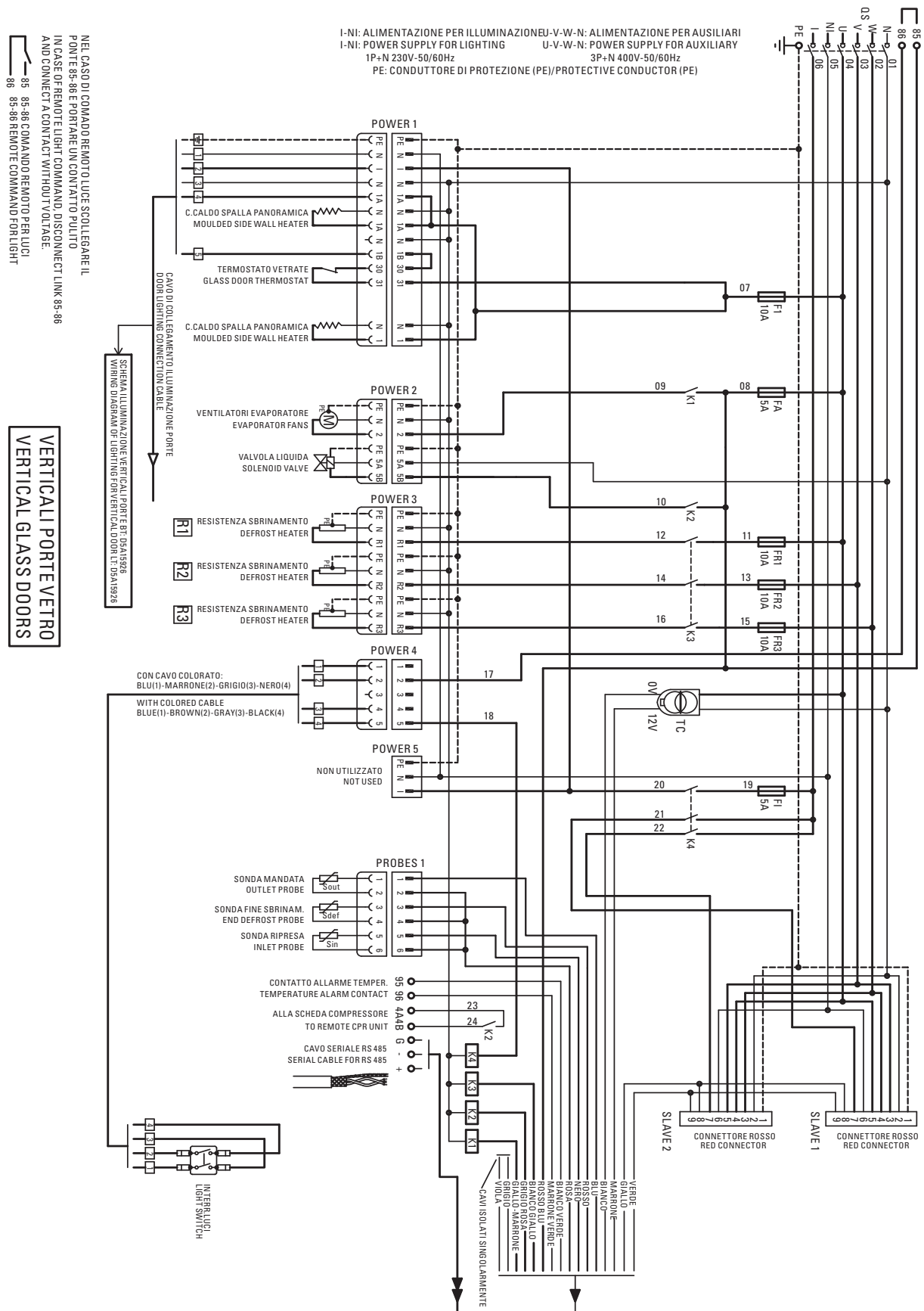


Schema allacciamenti gas e acqua - Gas and water connection diagram

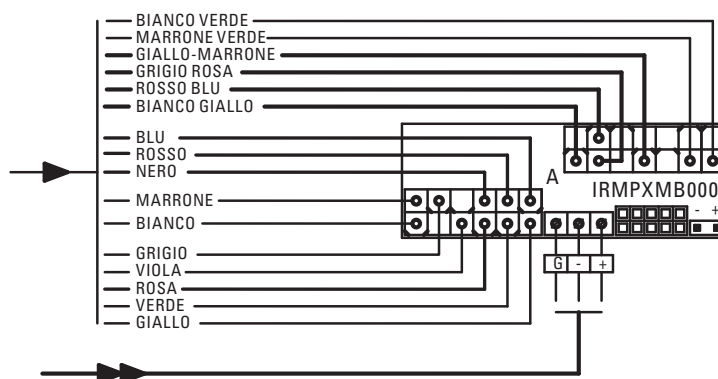
MINI ASTANA



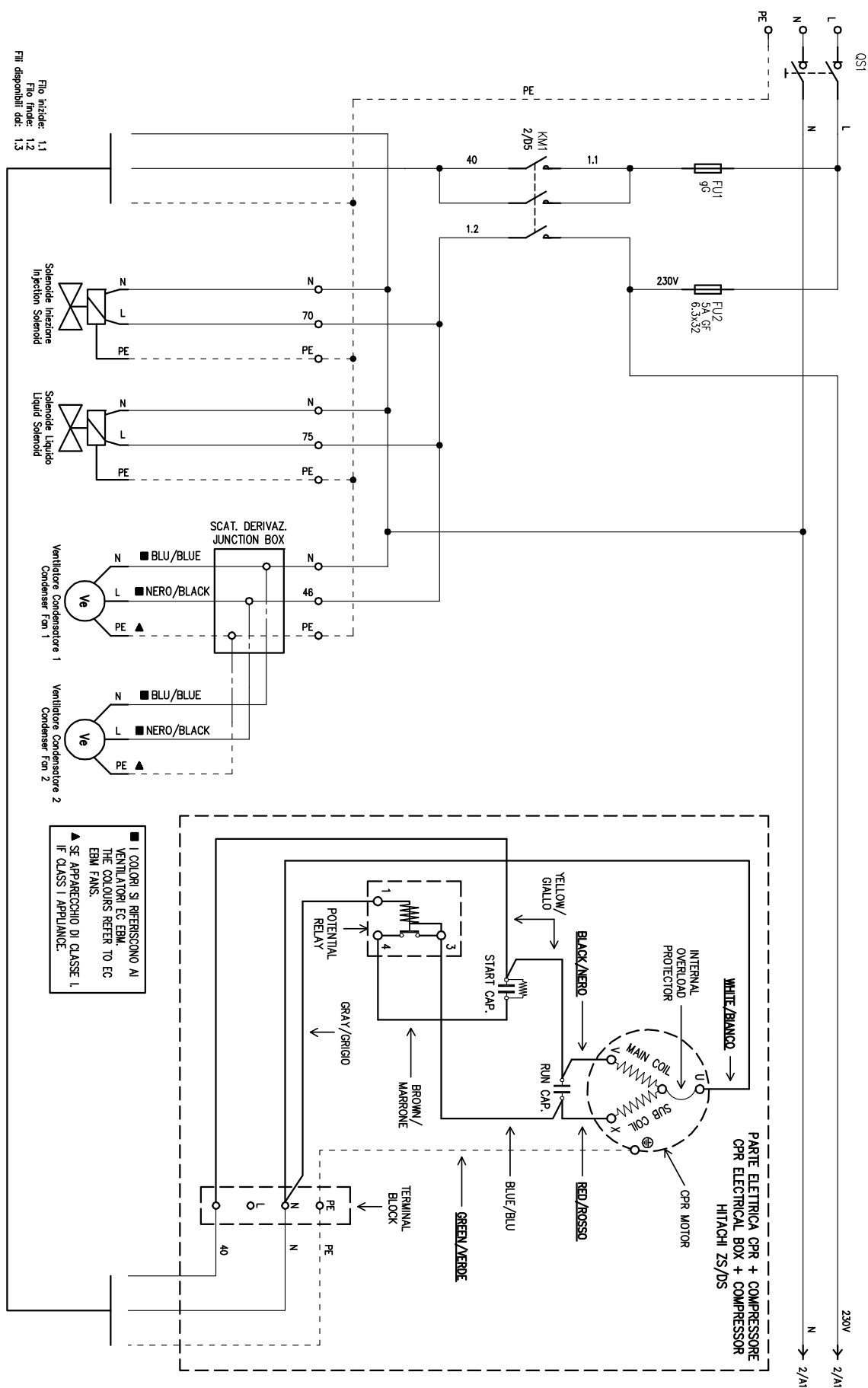
MINIASTANA con gruppo incorporato/with built-in unit:
Schema elettrico del mobile/electric panel of the case



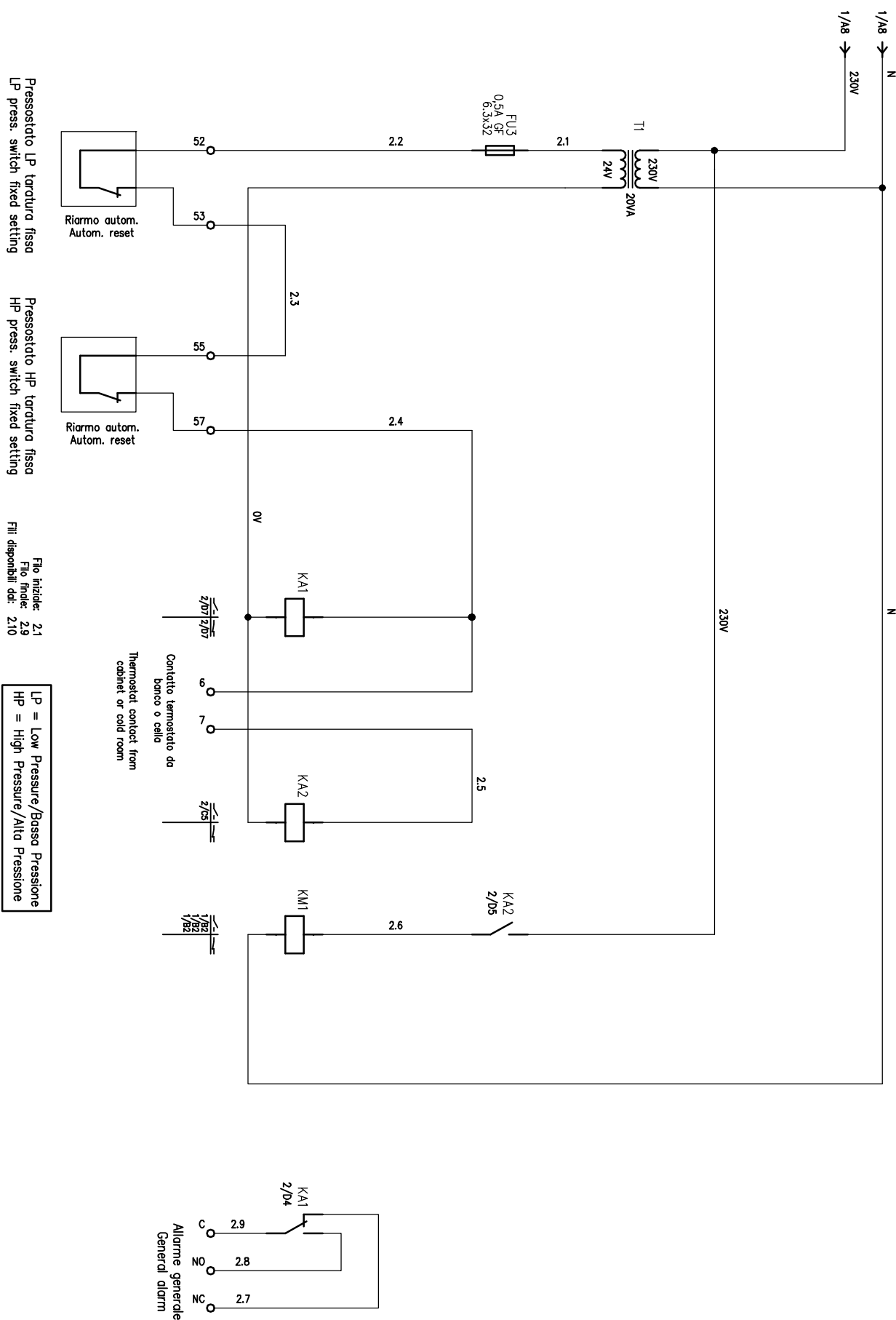
MINIASTANA con gruppo incorporato/with built-in unit:
Schema elettrico del mobile/electric panel of the case



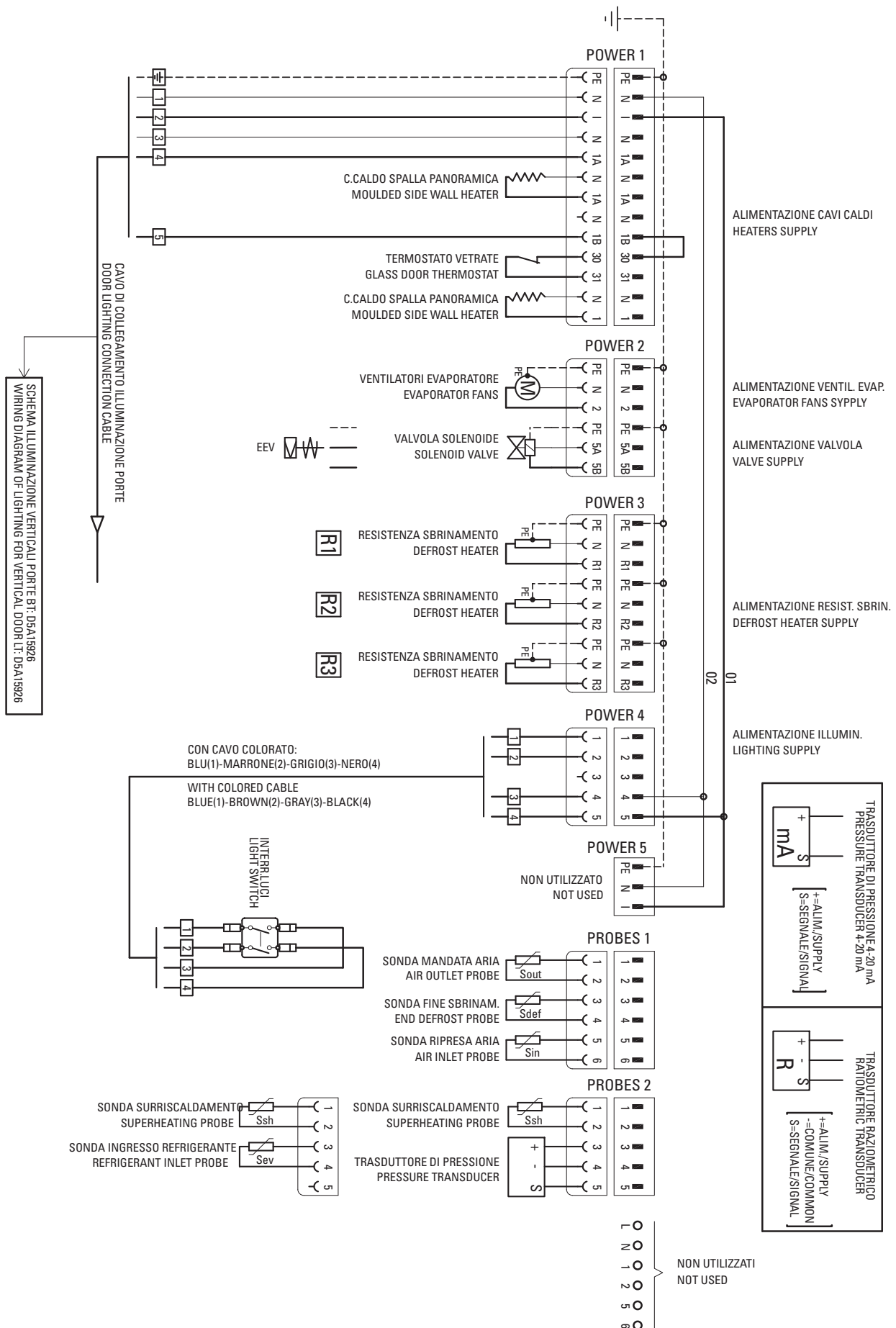
MINIASTANA con gruppo incorporato/with built-in unit:
Schema elettrico unità condensatrice/condensing unit electric panel



MINIASTANA con gruppo incorporato/with built-in unit: **Schema elettrico unità condensatrice/condensing unit electric panel**



ASTANA/MINIASTANA Schema elettrico con gruppo remoto - Remote unit electric panel



Dati tecnici, Technical data, Technische Daten, Données techniques, Datos técnicos, Технические характеристики

Modello Model Modell Modèl Modelo Модель	Lunghezza senza spalle Length without ends Länge ohne Seiten Longeur sans joues Longitud sin laterales Длина без боковин	Porte Doors Türen Portes Puertas Двери		Temperatura di esercizio Working temperature Betriebstemperatur Temp. de fonctionnement Temperatura de trabajo Рабочая температура	Superficie di esposizione frontale Opening display surface Sichtbare Ausstellfläche Surface d'exposition frontale Superficie de exposición frontal Лицевая площадь экспозиции	Superficie di esposizione orizzontale Horizontal display surface Gesamte Ausstellfläche Surface d'exposition horizontale Superficie de exposición de apoyo Горизонтальная площадь экспозиции	Capacità utile Net volume Nutzleistung Capacité utile Capacidad útil Полезный объем	Livello di rumorosità Noise level Schallpegel Niveau de bruit Nivel de ruido Уровень шума
		REMOTO REMOTE	+ UCE with unit					
	mm	n°		°C	m²	m²	dm³	db (A)
Astana H 205	1562	2	-	-22°C / -25°C -18°C / -21°C	2,5	4,59	1361	≤ 60
	2343	3			3,7	6,88	2042	
	3124	4			5,0	9,17	2723	
	3905	5			6,2	11,47	3403	
Astana H 216	1562	2			2,6	4,59	1453	
	2343	3			3,9	6,88	2180	
	3124	4			5,2	9,17	2906	
	3905	5			6,5	11,47	3633	
Astana H 205 2C	1562	2			2,5	4,59	1361	
	2343	3			3,7	6,88	2042	
	3124	4			5,0	9,17	2723	
	3905	5			6,2	11,47	3403	
Astana H 216 2C	1562	2			2,6	4,59	1453	
	2343	3			3,9	6,88	2180	
	3124	4			5,2	9,17	2906	
	3905	5			6,5	11,47	3633	
Mini Astana H 205	1562	2	2		2,5	3,11	922	
	2343	3	3		3,7	4,56	1383	
	3124	4	-		5,0	6,21	1844	
	3905	5	-		6,2	7,76	2305	
Mini Astana H 216	1562	2	2		2,6	3,11	984	
	2343	3	3		3,9	4,56	1475	
	3124	4	-		5,2	6,21	1968	
	3905	5	-		6,5	7,76	2460	

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

Maggiori dettagli tecnici sono disponibili in: www.arneg.it/area-riservata - More technical details are available at: www.arneg.it/area-riservata
 - Weitere technische Details finden Sie unter: <http://www.arneg.it/area-riservata> - Les détails techniques supplémentaires sont disponibles sur: www.arneg.it/area-riservata - Más detalles técnicos están disponibles en: www.arneg.it/area-riservata - Дополнительная информация доступна на сайте: www.arneg.it/area-riservata

Installation and Use Manual

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1.Mounting instructions

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Material annexed to the cabinet:

Cabinet data sheet
 Product conformity
 Product label
 Probe layout
 Wiring diagrams
 Channel combination Kit
 Declaration of conformity



To download this manual:

- 1 - register to the website www.arneg.it
- 2 - request authorization to access the area reserved to the desired department or your referee.

1. Safety messages

Below are the safety messages provided in this manual:



DANGER! It indicates a hazardous situation that, if not avoided, leads to death or severe injuries.



WARNING! It indicates a hazardous situation that, if not avoided, leads to death or severe injuries.



ATTENTION! It indicates a moderate hazard that, if not avoided, may cause mild injuries.

2. Safety labels affixed to the cabinet

There are safety symbols on the cabinets bring the hazards and precautions to the attention of the operators and technicians.

	risk of live voltage and electrocution		danger of moving parts (fans)
	equipotentiality		exact points for inserting the forklift brackets see (cap.10.)

3. Personal protective equipment

Below is the Personal Protective Equipment (PPE) mandatory for the technicians authorized to intervene on the cooling cabinet:

	safety goggles		safety footwear
	safety gloves		clothing, overall

4. Prohibitions and provisions



DANGER! Electrical equipment, live parts. Electrocution.
REMOVE THE ELECTRIC POWER SUPPLY BEFORE ANY OPERATION!



WARNING! Gas leaks. Intoxication.

- unplug the cabinet via the master switch upstream of the cabinet
- Do NOT stay in the room where the cabinet is located if it is not appropriately ventilated.

WARNING! FIRE. Burns. Choking.

- follow the evacuation procedure effective in the event of a fire
- unplug the cabinet via the master switch upstream of the cabinet.
- do not use water to extinguish the flames, but dry extinguishers only.



Carefully read the manual to find out how to avoid accidents and use the cabinet correctly

Liability

The manufacturer is not liable for:



- improper, incorrect and unreasonable use of the cabinet
- incorrect installation not performed in accordance with the norms indicated
- interventions carried out by unqualified/untrained personnel
- defects in the electrical power supply
- severe maintenance and cleaning provided
- use of accessories that are not provided nor authorized by ARNEG S.p.A.
- unauthorized modifications and interventions
- use of non-original spare parts
- non compliance with instructions

Any other use or modification that is not indicated in this manual or not authorized by ARNEG S.p.A. are dangerous, void the warranty and invalidates the declaration of conformity provided by the Machinery Directive 2006/42 CE.


4.1. For the cabinet

Requirements	Prohibitions
<ul style="list-style-type: none"> use the cabinets only indoors the refrigerated cabinet preserves the temperature of goods, it does not reduce it the cabinets are designed to preserve/display only fresh foodstuff, freezed, both cooked and pre-cooked (hot meals) operations inside the electrical panel are reserved to qualified staff only 	<p>DO NOT remove guards or panels that require the use of special tools to be removed</p> <p>DO NOT remove the cover of the electrical panel</p> <p>DO NOT obstruct the air inlet/outlet passages.</p>


4.2. For goods

Requirements	Prohibitions
<ul style="list-style-type: none"> introduce the goods already cooled at the temperature that complies with the cooling chain check at least twice a day, weekend included, that the temperature of the cabinet and the goods is maintained load the cabinet so that the goods from a longer time is sold before the newly received goods (stock rotation) load the cabinet in order observing capacity limitations use containers suitable for preserving the goods regularly check the operation of automatic defroster (frequency, duration, air temperature, restoration of normal operation etc.) 	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>DANGER!: flammable propellant. Explosion. DO NOT introduce aerosol sprays</p> </div> </div> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>WARNING!: collapse/breakage. slipping/damaging of goods, wounds/injuries. DO NOT store beverages on glass shelves.</p> </div> </div> <p>DO NOT introduce:</p> <ul style="list-style-type: none"> - heated products - drugs - fishing bait <p>DO NOT overload the cabinet</p>

4.3. For the environment

Requirements	Prohibitions
<ul style="list-style-type: none"> room temperature and humidity should not exceed the specified values maintain the maximum efficiency of the air-conditioning, heating and ventilation systems of the point of sale the speed of air inside the room in the vicinity of cabinet openings should NOT exceed 0.2 m/s protect the goods against sunlight 	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>High temperatures. Overheating of the goods: DO NOT use spotlights with incandescence lamps aimed directly on the cabinet.</p> </div> </div> <ul style="list-style-type: none"> Avoid having air currents or the output from the air conditioning system aimed directly towards unit openings. Limit the temperature of the irradiating surfaces that are present in the sales area, for example, by insulating the ceilings.

4.4. For use

Requirements	Prohibitions
<ul style="list-style-type: none"> work with caution and diligence. always use the PPE (personal protective equipment) provided (cap.3.). carry out maintenance regularly. all interventions needed on the cabinet should be performed by a specialized technician. check the outflow of water that ensues to the defrost (free the drips, clean any filters, check the siphons, etc.). dispose of the defrost water, or that used for washing, in the sewer system or water treatment plant compliant with legislation in force, the water can come into contact with pollutants due to: <ul style="list-style-type: none"> - nature of product, - any residue; - accidental breakage of packaging containing liquids - use of improper detergents. 	<div style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;">  <p>DANGER! electrical equipment. Electric shock. DO NOT use/touch the cabinet with wet or damp hands and feet.</p> <p>DANGER!: collapse/breakage. slipping, wounds/injuries. DO NOT walk on cabinet's roof.</p> </div> <p>DO NOT climb on the trolley bumper rail use of the cabinet IS PROHIBITED to:</p> <ul style="list-style-type: none"> children staff: <ul style="list-style-type: none"> - with reduced sensorial and metal disability - without experience or knowledge on how to use the cabinet - persons who cannot safely use the unit without supervision or instructions. - who are not sober or are under the effect of narcotics. do not allow children to play with the cabinet

5. Residual hazards, Safety Devices (PPE) and emergency situations

Below are the residual risks that cannot be eliminated through redesign, construction techniques and accident prevention:

Risks	Risk reduction
<p>due to:</p> <ul style="list-style-type: none"> - protruding parts - suspended loads (loading/unloading phase) - electrical power cables; - accumulation of electrostatic charges - moving parts - load falling from the structure, - access inside the cabinet (i.g. by climbing on the front side) 	<ul style="list-style-type: none"> wear suitable clothing (free of loose parts) use Personal Protective Equipment (cap.3.): <ul style="list-style-type: none"> - safety footwear - cut resistant gloves - safety footwear, cut resistant gloves, cut resistant clothing (apron with jacket, protection for legs etc.) - goggles for protection against projections, safety helmet - protective helmet check equipotential connection prohibits behavior that is not suitable with warnings, signals etc. (to be provided by the Customer)

The correct use of the machine, as provided in the manual, protects the operator and the cabinet from dangerous situations.



You can still check emergency situations for which you should use the experience of the operator, and it must never compromise your own and others' safety by performing risky or hasty manoeuvres.



6. Purpose of the manual/Field of application - Subjects concerned



Carefully read the manual to find out how to avoid accidents and use the cabinet correctly


This manual contains general information on the line of refrigerated cabinets **Astana - Mini Astana** manufactured by ARNEG S.p.A. and the instructions deemed necessary for its proper

functioning.

Addressees	<p>The manual is divided into chapters. Each chapter is intended to a specific professional operation:</p> <p> QUALIFIED OPERATOR: qualified person instructed to perform operation, adjustment, cleaning, and maintenance of the cabinet.</p> <p> EXPERT TECHNICIAN: technician trained and authorized by the body specified in the contract (manufacturer/ dealer/distributor) to perform: installation, maintenance, repair, replacement and revision, aware of the risks to which he is exposed and able to take all measures to protect himself and the other people, minimizing the damage with respect to the specific risks involved.</p> <p>For each figure are defined the skills required to operate on the cabinet in safe conditions.</p>
-------------------	--

 *Where not specified, the chapter regards both subjects described.*


Casing	<p>The manual should be preserved:</p> <ul style="list-style-type: none"> - by specifically assigned staff - In a suitable place, known to all the employees assigned to maintenance, to be consulted at any time. <p>If handed over to third parties:</p> <ul style="list-style-type: none"> - deliver the manual to any new user or owner - send written notice to the manufacturer. <p>If the manual gets lost or damaged, ask a copy to the manufacturer.</p>
---------------	---

-  - *The manual must be considered a part of the cabinet and must be stored during its entire lifetime.*
- *the original language of the manual is Italian, which is the only official language.*
- *The manufacturer is not responsible for translations into other languages that do not respect the original meaning.*
- *The contents of the present manual represent the state of the art and technology used to manufacture the cabinet that were valid at the time the cabinet described was placed on the market; it therefore cannot be considered outdated if subsequent updates are made tied to new norms or know-how.*

7. Description of the cabinet - Intended use (Fig. 1)

The subjects concerned	The cabinet is intended to be used by qualified personnel, instructed and trained by the employer to its use and concerning the risks that it can entail.
Intended use	<p>Astana - Mini Astana is a line of vertical multi-shelf cabinets with glass doors for preserving and selling cool and frozen products preset for supply with remote condensing unit</p> <p>Mini Astana is available in 2 and 3 door versions with built-in unit.</p>
Liability	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 unit.

 **DANGER! Electrical equipment. Electric shock.**
The norms and laws in force must be complied with during installation and use.

-  • *Carefully read the manual before use and instruct the persons appointed to the various operations (transport, installation, maintenance, etc.), each in accordance to his responsibility based on the indications reported.*
- *This documentation **CANNOT** in any way make up for cultural or intellectual deficiencies of the personnel that interacts with the device.*

**Built-in MINI ASTANA**

This Arneg S.p.A. product lies within the 2002/96/CE Directive **WEEE (Waste Electrical and Electronic Equipment)** known in Italy as **RAEE (Rifiuti da Apparecchiature Elettriche ed Elettroniche)**, aimed at preventing the increase of said waste, promoting recycling and decreasing disposal.

The crossed bin symbol present on the product plate declares that:

- the product was put into circulation after 13 August 2005
- the product lies within the obligation for separate collection and cannot be treated as domestic waste or taken to a waste disposal site

It is the user's responsibility to deliver the product intended to be dismantled to the collection centre specified by the local WEEE (RAEE) authorized body for professional recovery and recycling.

If the product is replaced with a new one, the user can request the dealer to take the old product, regardless of its brand.

It is the responsibility of the manufacturer to provide for recovery, disposal and treatment at the end of product's service life either directly or through the collection system.

Breaches of the Standard envision specific sanctions, fixed independently, with its own law, by each individual State Member of the EU and binding in accordance with all those who are subject to these rules.

On considering this product a WEEE, Arneg S.p.A. interprets the Orgalime guidelines, taking into account the implementation, by the Italian law with Legislative Decree no. 151 dated 15 July 2005, both of the 2002 / 96/EC Directive, and the 2002/95/EC (RoHS) Directive, relating to use of hazardous substances in electrical and electronic equipment.

For further information, see your Local Authority, the Dealer, the Producer. The Directive is not applied to the product sold outside the European Community.

8. Standards and certifications, conformity statement

All models of refrigerated cabinets described in this manual and belonging to the line: **Astana - Mini Astana** meet the essential requirements concerning safety, health at the workplace and protection required by the following European Directives:

Directive	Harmonised standards applied:
Machinery Directive - 2006/42/CE	EN ISO 14121; EN ISO 12100-1; EN ISO 12100-2; EN 378-2; EN 378-3; EN 378-4; EN 60079-10-1
2004/108/CE Electromagnetic Compatibility	EN 61000-3-2; EN 61000-3-12; EN 55014-1; EN 55014-2;
2006/95/CE Low Voltage	EN 60335-1; EN 60335-2-89/A2
RoHS Directive 2011/65/CE; (restricted use of certain hazardous substances in electrical and electronic equipment)	EN 50581:2012
European Regulation EC-1935/2004 (on materials intended for contact with the goods)	EN 1672-2



Article 3 section 3 of Directive CEE 97/23 (PED) does not apply to these cabinets.

The performance of these refrigerated cabinets was determined through tests conducted in compliance with standard:

- **UNI EN ISO 23953-2: 2006** in environmental climatic conditions class 3 (25 °C , 60% U.R.) see table:

Environmental climatic classes as per UNI EN ISO 23953 - 2

Climatic Class	Dry bulb temp.	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

Declaration of conformity A copy of the conformity statement is annexed to the cabinet
If you lose the original copy of the Declaration of Conformity supplied with the cabinet, download a copy by filling out the form available on the internet addresses:
- for Italy: <http://www.arneg.it/conformita/it>
- overseas: <http://www.arneg.it/conformita/en>

9. Identification - Rating Plate

The serial plate with all the technical specifications (Fig. 2) is affixed to the back of the cabinet:

N°	Denomination
1	name and address of the manufacturer
2	name and length of the cabinet
3	code of the cabinet
4	serial number of the cabinet
5	supply voltage
6	power supply frequency
7	operating current consumption
8	operating electrical power absorbed in the refrigeration phase (fans+hot wires+lighting)
9	operating electrical power absorbed in the defrosting phase (armoured heaters+hot wires+ fans+lighting)
10	lighting power (where included)
11	usable display surface
12	type of refrigerant fluid used by the system to operate
13	weight of refrigerant gas loaded in every system (only for cabinets with a built-in motor)
14	environmental climatic class and temperature of reference
15	class of protection against humidity
16	number of the job order based on which the cabinet has been manufactured
17	number of purchase order based on which the cabinet has been put in production
18	year of manufacture of the cabinet
19	heating capacity
20	QR code



For support, provide the manufacturer with:

- the product name (2); the serial number (4); the job order number (16).
- **DO NOT** remove the serial plate for any reason

10. Transport



WARNING! Heavy object. Crushing
The handling area should be free of persons and objects.



The loading-unloading operations must be performed by qualified personnel capable of checking the weights, the exact lifting points, and the means most suitable both in terms of safety and load-bearing capacity.

The cabinets come with a frame-platform in wood fixed to the base for their displacement with forklifts.

Features of the forklift

Use a forklift:

- with suitable specifications in compliance with applicable standards
- NOT worn/damaged
- manual or electrical suitable for lifting the cabinet, with a nominal capacity greater than or equal to 1000 kg
- with compliant and NON worn cables

Safe handling (what to do)

- make sure there are no foreign objects within the handling area
- always place the lifting brackets in the indicated points (Fig. 4)
- always introduce the brackets completely
- balance the weight of the unit so as to ensure that the load remains balanced (Fig. 3), consider that the centre of gravity of this cabinet is high.



WARNING! Heavy object. Crushing
Observe the indications regarding safe handling



- Dragging. Collapse/deformations/tear-off
- DO NOT drag/push the cabinet
- Observe the indications regarding safe handling



DO NOT use handling procedures other than those indicated.

11. Storage

Remedy

- the cabinets must be stored indoors, with a temperature ranging between **25°C and +55°C** and a humidity between **30% and 90%**.
- before storing the cabinets, check that the packing is intact and that it does not display defect that may compromise preservation of the cabinets.

What to avoid



UV rays. Permanent deformation of plastic materials /damage of cabinet parts.
DO NOT store the cabinets in uncovered areas and therefore subjected to atmospheric agents and to direct sunlight.

12. Installation, environmental conditions, first cleaning



WARNING!

Before any operation use all precautions possible to avoid injury to the operator, wear the Personal Protective Equipment provided (cap.3.).

WARNING!

Doors opening. Cabinet tipping over. Injuries.

- DO NOT open all doors simultaneously (Fig. 14). Open one door at a time.
- DO NOT climb on the cabinet using the doors as support.
- DO NOT lean on the doors.
- DO NOT use the doors to pull the cabinet.



Installation is reserved to technicians trained and authorized by the body specified in the contract (manufacturer/dealer/distributor)



- *It is the responsibility of the customer to provide the installation area*
- *Changes to the setup described here must be authorized by ARNEG S.p.A.*

The cabinet can be delivered packed as follows:


- with frame in wood fixed to the base and nylon casing blocked by straps (standard) (Fig. 5).



- with a cardboard casing (on request) (Fig. 6).
- in wooden crate (on request) (Fig. 7).


The installation area should	<ul style="list-style-type: none"> • comply with the local standards in force • comply with the environmental climatic class (cap.9.) • have a floor able to support the weight of the cabinet • a switch with automatic protection against short circuits, ground discharges and dispersions between the electric power line and the machine; • have the space needed for use and maintenance
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Environmental conditions	For a correct operation of the cabinet, the room temperature and relative humidity must not exceed the limits relative to climatic class 3 (+25°C; R.H. 60%) established by the norms EN-ISO 23953 - 2 with which the counter has been tested.
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Cabinet delivery	<ul style="list-style-type: none"> • make sure the packing is intact and that it does not display readily apparent damages; • carefully perform the unpacking operation in order not to damage the cabinet; • check that cabinet components are intact • should you notice any damage immediately inform the manufacturer
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Installation procedure ASTANA	Step	Action
	1	carefully examine the installation area, eliminating any danger to the operator;
	2	 <ul style="list-style-type: none"> • remove the package only if the cabinet is placed in the operation area
	3	remove the fastening screws from the wooden frame (Fig. 8)
	4	remove the wooden frame
	6	install and adjust the regulation feet at a maximum height of 25 mm (Fig. 8)
	7	adjust the horizontal position of the cabinet using a spirit level (Fig. 10)
	8	bend the cabinet backwards
	9	check that all feet are into contact with the floor

Installation procedure MINI ASTANA	Step	Action
	1	carefully examine the installation area, eliminating any danger to the operator;
	2	 <ul style="list-style-type: none"> • remove the package only if the cabinet is placed in the operation area
	3	remove the fastening screws from the wooden frame (Fig. 8)
	4	remove the wooden frame
	6	install and adjust the regulation feet at a maximum height of 25 mm (Fig. 8)
	7	adjust the horizontal position of the cabinet using a spirit level (Fig. 10)
	8	bend the cabinet backwards(Fig. 13)
	9	check that all feet are into contact with the floor
	10	 <ul style="list-style-type: none"> • secure the cabinet with the anchoring brackets supplied (Fig. 12) • use anchor plugs (not provided) suitable for the type of wall or floor.

MINI ASTANA with built-in unit	 Keep a minimum distance of 500 mm from the ceiling to allow for proper air circulation(Fig. 11)
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- multiplex up to 3 cabinets on the same electrical and refrigeration supply line (1 master + 2 slaves)
- before connecting the cabinet to the electrical line, make sure that the rating plate data matches the characteristics of the electrical system to which the cabinet must be attached.
- if the cabinet is moved to another located, repeat levelling, incorrect levelling leads to incorrect operation of the cabinet
- Level the cabinet both in front and back

**DO NOT place the cabinet:**

- in areas at risk of explosion
- in open air and therefore subjected to atmospheric agents;
- near heat sources (direct sunlight, heating systems, incandescence lamps, etc.)
- near air currents (near doors, windows, air-conditioning systems, etc.) that exceed a speed of 0.2 m/s

Firts cleaning

- gently remove the protective film, eliminate glue residues with suitable solvents
- carry out the first cleaning using neutral products, dry with a soft cloth



DO NOT use alcohol to clean the parts in methacrylate (Plexiglas).
DO NOT use abrasive substances or metal sponges

**ATTENTION!** Abandoned packaging parts. Injuries.

DO NOT leave parts of the package (nails, wood, paper clips, etc.) and tools used for the operation (pliers, scissors, etc.), on the work area.

These objects must be removed with appropriate means and brought to their respective collection places.



For correct disposal

The package is composed of: Wood - Polystyrene - Polythene - PVC - Cardboard.

13. Wiring**DANGER!** Live parts. Electrocution.**REMOVE THE ELECTRIC POWER SUPPLY BEFORE ANY OPERATION!**

- check that the casing does not come into contact with the electrical panel
- check that the connections of various lighting systems (floors, roof, suspended structure) are regularly inserted and locked into their plugs to avoid disconnections during cleaning and maintenance

**Provide a suitable grounding system!**

The systems must be set up in accordance to the norms that regulate manufacture, installation, use, and maintenance foreseen by the norms in force in the country where the cabinet is installed.

To ensure normal operation, the maximum variation of the voltage must range between +/- 6% of the nominal value.

Liability	Customer	provide a power line to the cabinet connection point.
	Installer	provide the anchoring devices for all the wires in input and output to/from the cabinet.
	ARNEG	ARNEG S.p.A. denies all liability with respect to the user or third parties for: <ul style="list-style-type: none"> - damages caused by failures or malfunction of the systems installed upstream of the cabinet - damages to the cabinet due to causes arising directly from malfunction of the electrical system

Power line

- the supply lines of the electric energy should meet the requirements of power consumption of the cabinet(cap.9.).
- check that the power line:
 - has wires with suitable cross section
 - is protected against over-current and dispersions toward earth in accordance with the rules in force
- for the power supply lines measuring more than 4-5 m, increase the section of the cables appropriately.



The replacement of the power cord is reserved to the manufacturer or a body authorized by the same.

Automatic safety switches

- protect the upstream cabinets with omnipolar circuit breakers with suitable characteristics that will also have the function of master switches for cutting off the line
- instruct the operator on the position of the switches to be reached quickly in case of EMERGENCY



DANGER! Live parts. Short circuit. Emergency.

The circuit breakers must not open the circuit on neutral point without opening it simultaneously on phases and, however, must allow complete cut off in overvoltage conditions category III

Cabinets with built-in unit

- the cabinets are preset for plug connection (NOT SUPPLIED)
- install a suitable plug of suitable capacity, compliant with regulations in force and observe the safety rules:
yellow-green = ground / light blue = neutral / brown-black = phase
- the electrical cable must be stretched to avoid damaging it or endangering people



DANGER! Live parts. Short circuit. Emergency.

Do not use sockets already connected to other users, nor reducers, pins or multiple sockets.

Before connected

- consult the wiring diagrams annexed to the cabinet before wiring
- check that power supply voltage is the one reported on the rating plate.
- remove all metallic objects worn: rings, watches, bracelets, earrings, etc.
- proceed with wiring



If the electrical supply is interrupted, the electrical equipment of the shop will not restart, triggering the overload protection devices; modify the system to differentiate the enablement of the various devices.

14. Start, control, and adjustment of the temperature

Cabinets with remote unit

the cooling temperature is controlled by means of:
- electronic controller (Fig. 15)



The controller is set in the factory during testing.

To change the set parameters, contact the manufacturer.

Cabinets with built-in unit

Procedure:

Step	Action
1	cut off power to power plug (Fig. 15).
2	insert the plug and restore power.
3	close the main switch of the electric panel (Fig. 15) 1. Result: The cooling system starts functioning immediately.
4	after about 60 minutes of operation with the cabinet empty, check the temperature.
5	if the temperature has reached the storage values introduce the goods.



Load the goods cooled at storage temperature

14.1. Energy savers

If you are using electronic systems called "energy savers" that control the operation of heating cables of doors



- connect them exclusively to the power line of **glass doors heating cables**,
- the **frame cables** must operate at full power.

15. Introduce the goods



max allowed capacity of shelves: 160 kg/m² (Fig. 19)

max allowed capacity of tray: 350 kg/m² (Fig. 18)

Remedy



Load the cabinet through one door at a time (Fig. 17)

- block the open door
- arrange the products in order and evenly (Fig. 18)
- introduce products already cooled at the required storage temperature
- leave approx. 30 mm of air space between the goods and the upper shelf (Fig. 20).
- on bent shelves, always use retainers

What to avoid

- **DO NOT** open and close the doors continuously
- **DO NOT** obstruct/impede the flow of cooled air
- **DO NOT introduce products that have been heated**
- **DO NOT** obstruct in any way the inlet of cooled air with: goods, price labels, price supports, decorative items etc.
- **DO NOT** climb on the cabinet (Fig. 21) to reach the loading points. Use a compliant ladder.



Arrange the goods without leaving empty spaces, to improve cabinet performance

First use up the goods that have been stored in the unit the longest before adding new arrivals (food stock rotation);

The Customer should:

- *check that all operations have been performed in compliance with applicable regulations*
- *use suitable communication tools to warn the consumers from climbing onto the cabinets*

16. Defrosting and water drainage

Astana and Mini Astana are equipped with **electrical defrosters** containing armored heaters.

16.1. Draining the water

provide a drain to ground with a slight slope to avoid:

- unpleasant odours inside the cabinet
- dispersion of cooled air
- malfunction of the cabinet due to moisture

Procedure

- install the siphon supplied between the drain pipe of the cabinet and the connection to ground.
- hermetically seal the area of drainage to ground.



periodically check that hydraulic connections are perfectly efficient, contacting a qualified installer.

17. Demisting and anti-condensation

Fogging and condensation are eliminated by the heaters fitted in the cabinet.

18. Lighting

The lighting inside the cabinet is obtained by fluorescent bulbs (58W 4000K) positioned vertically behind the cabinet frame uprights. The light switch is positioned at the base of the cabinet.

The reactors, the starters and the condensers are positioned on the roof of the cabinet.

2 Door: 3 bulbs - 3 Door: 4 bulbs - 4 Door: 5 bulbs - 5 Door: 6 bulbs



To increase energetic saving, the cabinet can be requested with low consumption LED lights that allow:

- reduced lighting consumption
- reduced refrigerated load
- duration of the lights for more than 6 years
- uniform lighting intensity and colour
- improvement of the lighting as temperature drops.
- instant power on

18.1. Replacing the lamps (Fig. 25)

Procedure

Step	Action
1	remove electric power supply to the cabinet
2	remove the anchoring screws A from the protective cover.
3	remove hoods B and protective cover C.
4	turn bulb D by about 90° (until it clicks) and pull it out from the bulb-holder.
5	replace the bulb with an identical one
6	fit back the cover and the hoods securing them with screws.
7	restore electrical power supply.

18.2. LEDs replacement (Fig. 25)

Procedure

Step	Action
1	remove electric power supply to the cabinet
2	remove the fastening screws M
3	replace the LEDs with identical ones
4	fit the screws
5	restore electrical power supply.

19. Maintenance and cleaning



DANGER! Live parts. Electrocutation.

REMOVE THE ELECTRIC POWER SUPPLY BEFORE ANY OPERATION!

DO NOT wet, spray water or clean directly the electrical parts of the cabinet (fans, interior lighting, electrical cables etc.)

DO NOT touch the cabinet with wet or damp hands and feet.



ATTENTION! Cold surfaces. Injuries, burning. Glass breakage.

Wait for the glass parts to reach room temperature.

DO NOT apply hot water to cold glass surfaces.



Protect the hands with work gloves.



The products will damage due to germs and bacteria.

Respect of the Hygiene Standards and the cold chain is indispensable to guarantee the protection of the consumer's health.

The cleaning operations must include:

Step	Denomination	General
1	Washing	roughing, removal of approximately 97% of the dirt
2	Sanitization	cleaning+disinfection: - cleaning : removal of visible dirt - disinfection : removal of microorganisms remained after cleaning
3	Rinsing	
4	Drying	

19.1. Cleaning products (Fig. 22)

Best	<ul style="list-style-type: none"> ● clean water at maximum temperature of 30° ● soft cloth ● mild and neutral detergents
DO NOT use detergents	<ul style="list-style-type: none"> ● with alcohol or similar products to clean the parts in methacrylate (Plexiglas). ● in powder ● with granules ● either acidic or alkaline (bleach, ammonia) ● concentrates ● with unknown chemical composition ● abrasive products, chemical/organic solvents ● abrasive sponges, scourers, sharp tools ● aggressive solvents (acetic acid, citric acid etc.)

19.2. General instructions

- The surfaces to be cleaned and the detergents and water used for cleaning must not exceed a maximum temperature of 30°C.
- Accurately dry with a soft cloth;



ATTENTION!

Fragile surfaces, glass. Dents, scratches, corrosion, wounds, broken glass

- **DO NOT** aim the jet directly on the varnished or plasticised surfaces
- **DO NOT** apply the products directly onto the surfaces to be cleaned
- **DO NOT** use steam cleaning equipment
- **DO NOT** apply too much force
- **DO NOT** bring the jet too close to the dirt, it can cause injury to the operator and contaminate parts that have already been cleaned, as well as the environment.
- avoid detergents from coming into contact with nearby products.

ATTENTION!

Floor cleaning products. Fumes. Corrosion. Breathing impairment.

- avoid contact, inhalation.



Should you use pressure washers (Fig. 23):

- use **LOW PRESSURE** systems (max 30 bar) with suitable capacity to remove any dirt present
- keep at a minimum distance of 30 cm from the surfaces to be cleaned.

19.3. Cleaning of the outer parts (Daily / Weekly)

Clean all external parts of the cabinet every week

See "General instructions" (cap.19.2.).

19.4. Clean the internal parts (Monthly)

Refer to chapters (cap.19.1.) and (cap.19.2.) and follow the steps given:

Step	Action
1	completely remove all merchandise inside.
2	place the goods in a place at storage temperature.
3	remove all the removable parts, such as display dishes, grid trays, etc.

4	wash with lukewarm water (max 30°C).
5	disinfect using a detergent with an antibacterial component.
6	carefully clean the bottom tank, the drip, and the grid that protects the water drain, eliminating all foreign bodies that have fallen through the suction grid lifting, if
7	carefully dry using a soft cloth.



Should you notice ice built up, call a specialized technician.

Cabinets with built-in unit

- **Clean the capacitor (Fig. 26)**

- clean the capacitor every 30 days to remove dust
- remove the covering sheet or panel.
- Clean with brushes with rigid bristles (non metallic) or use a vacuum cleaner.



DO NOT fold or damage capacitor's blades

- **Clean the water collection tray**

- the collection tray can be removed for cleaning.
 - remove the tray and clean.
- See "General instructions" and "Cleaning the internal parts".


19.5. Cleaning specific materials

Material	Remedy	What to avoid
Glass	<ul style="list-style-type: none"> ● use a soft cloth with a neutral detergent or soap and lukewarm water (max 30°C). ● Immediately remove all traces of water and detergent with a dry cloth in order to prevent marks from forming and to prevent liquid from reaching the gaskets, frame, or the glass door hinges. 	<ul style="list-style-type: none"> ● DO NOT use hot water on cold glass surfaces; the glass could crack and injure the operator. ● DO NOT use rough or abrasive materials or metal scrapers that could scratch the glass surfaces ● DO NOT use dirty cloths
Plastic (door seal profiles)	<ul style="list-style-type: none"> ● use a cloth soaked in neutral detergent ● clean with a cloth soaked in clean water 	<ul style="list-style-type: none"> ● DO NOT use wax, concentrate detergents containing petroleum, bleach, spray for glasses, nor abrasive cleaners, flammable fluids
Aluminium	<ul style="list-style-type: none"> ● Use a soft cloth with a neutral detergent or soap and lukewarm water (max 30°C). ● Immediately remove all traces of water or detergent using a dry cloth in order to prevent marks from forming. 	<ul style="list-style-type: none"> ● DO NOT use acid or alkaline detergents (e.g. bleach) which could corrode the surfaces ● DO NOT use rough or abrasive materials or metal scrapers that could scratch the aluminium surfaces ● DO NOT use steam cleaning equipment ● DO NOT use dirty cloths
Wood	<ul style="list-style-type: none"> ● Use a soft cloth with a neutral detergent or soap and lukewarm water (max 30°C). ● Immediately remove all traces of water or detergent using a dry cloth in order to prevent marks from forming. ● If necessary, before treating the entire surface, test on a small hidden area and verify that the cleaner will not damage the finish or color 	<ul style="list-style-type: none"> ● DO NOT use acid or alkaline detergents (e.g. bleach), soda and solvents which could corrode the surfaces ● DO NOT use rough, abrasive materials which can scratch the surfaces ● DO NOT use steam cleaning equipment ● DO NOT use rough cloths ● Moderate the use of liquid detergent: excess use causes water infiltration and consequent wood bulging

19.6. Cleaning stainless steel parts

Certain situations can cause the formation of rust on the surfaces in steel:

- iron remains left on damp surfaces, limestone, chlorine or ammonia based detergents not rinsed properly, food incrustations or residues, salt-saline solutions, dry residues of evaporated liquids.

Remedy	<ul style="list-style-type: none"> • <u>recent stains and rust</u>: - clean with shampoo or neutral detergents, using a sponge or a rag. When finished, eliminate any detergent residue, rinsing abundantly and thoroughly drying the surfaces. • <u>old stains and rust</u>: - use chemical substances on the stainless steel that contain 25% of nitric acid or similar substances. • <u>persistent stains and rust</u>: - sandpaper or polish with a stainless steel brush. After this operation, wash with detergents and carefully dry. <div>  <ul style="list-style-type: none"> • This intervention may however cause <u>scratches</u> to the surfaces due to the abrasive cleaning method. • DO NOT use hydrochloric acid on stainless steel surfaces </div>
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ATTENTION! Slippery floor. Falling.

Remove from the floor any items such as sponges, rags, waste of water or detergent.



Carefully clean any residue of detergent or sanitizer.



Carefully follow the sanitizing, rinsing and drying procedures to prevent proliferation of harmful germs.

19.7. Clean the EVERCLEAR doors (optional) (Fig. 24)



The EVERCLEAR glass doors are coated internally with a transparent film that prevents condensate from building up.

Refer to chapters (cap.19.1.) and (cap.19.2.) and follow the steps given:



DO NOT clean the internal part of the door with the same product used for cleaning the external part.

DO NOT use the same cloth and the same product to clean the entire door.

Step	Action
1	open and block the door
2	Inner side: gently clean and in clockwise direction, use a damp, soft cloth for surfaces that are in contact with foodstuff. Change the cloth often.
3	Close the door
4	Outer side: see (cap.19.1.) and (cap.19.2.)

19.8. Check the parts

Once you have completed sanitizing, rinsing and drying, proceed as follows:

Step	Action
1	check that all parts are perfectly clean and dry
2	check that they are not damaged or too worn
3	replace worn parts with new ones provided by the manufacturer
4	install the parts perfectly dry
5	restore electrical power supply.

Once the internal operating temperature has been reached, it is possible to load the products.

20. Loading the refrigerant pag.6-7-8



DANGER! Refrigerant Gas. Explosion. Asphyxiation, alteration of heart pace, burns from frost, anaesthetic effects.

Only specifically trained technicians can charge the refrigerant according to *European Regulation 842/2006*

Cabinets with remote unit


refer to system's user guide

Cabinets with built-in unit

- for the type and weight of refrigerant please consult the serial plate (cap.9.)
- for refrigerant load please refer to diagram pag.6-7

Refrigerant gases used

This cabinet contains HFC refrigerant with high global warming effect (GWP)

Type of gas	General
Astana R 410A; GWP ₍₁₀₀₎ = 2088 R 404A; GWP ₍₁₀₀₎ = 3750	these types of gases used in built-in unit models ARNEG S.p.A. belong to: - HFC family, e.g. fluoride gas with high greenhouse effect (GWP) regulated by the Kyoto protocol.
Mini Astana R 407F; GWP ₍₁₀₀₎ = 1700	 <i>Check the rating plate or the adhesive label on the compressor for which of these two gases circulates in the equipment) therefore:</i>

Procedure

Step	Action
1	check refrigerant leaks using a specific leak detector
2	empty the entire system and recover the gas with a suitable pump
3	remove the cause of the leak
4	apply vacuum to the entire system
5	load the system with the same type and quantity of gas, refer to the serial plate (cap.9.)
6	load through the special valve provided next to the compressor

Cabinets with built-in unit are hermetically sealed and the refrigerant charge is less than 3 kg. It is therefore not subject to the obligation of a plant booklet or periodic checks of the loss of refrigerant (Presidential Decree n.147 of 15 February 2006 Article 3 and 4)

21. Dismantle the cabinet



This product is made up by 75% of recyclable materials.

Preparazione

- recover the coolant
- remove the lubricating oil.

Obligations

- dismantle the cabinet in accordance with the local laws on waste disposal and in respect of the environment in which we live
- this product is considered by the Legislature in force to be a dangerous waste and therefore its separate waste collection is obligatory and it cannot be treated as domestic waste nor assigned to a waste dump.
- hand over the components of the cooling circuit intact to specialist centers for refrigerant recovery



All these operations as also transport and waste treatment must be exclusively performed by specialized and authorized personnel.

Liability	The user must deliver the cabinet to be dismantled at the collection center specified by local authorities or indicated by the manufacturer for the recovery and recycling of materials.
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Materials that make up the cabinet	Material	Components
	Iron tube	bottom frame
	Copper, Aluminium	refrigeration circuit, electrical system, and doors frame
	Galvanized plate	motor base, lower panels, varnished panels, base structure, shelves, trays
	Expanded polyurethane (CO ₂)	thermal insulation
	Tempered glass	doors
	Wood	foamed tank side frames
	PVC	shock absorber
	Polystyrene	thermoforming panel
	Polycarbonate	fluorescent bulbs protection

22. Warranty:

The Buyer can take advantage of the warranty provided by the supplier only by carefully observing the instructions given in this manual, in particular if:

- operating within cabinet's limitations on use
- to carefully and constantly carry out maintenance operations;
- authorizes the use of the machine by operators and technicians trained for the purpose and of proven ability and behaviour (see (cap.4.), (cap.5.), (cap.6.).

22.1. Warranty conditions (Italy)

Unless otherwise agreed, the machines are guaranteed only if factory new, for one year from the date of shipment, except for the electrical parts and related parts.

Within this period, the parts will be replaced or repaired for free at the discretion of our technicians that will assess if they are defective.

For further details on warranty conditions please check the sales terms.

22.2. Warranty conditions (Overseas)

For overseas warranty see the agreements with the respective dealers or area managers.



Failure to comply with the instructions in this manual shall void the warranty.






23. Spare parts





Use only original spare parts

- replace the parts before wearing excessively to avoid damage to persons or property
- carry out scheduled maintenance as provided in the agreement

24. Troubleshooting (Troubleshooting)

Problema	Possible causes	Possible solutions
The cabinet stops and does not restart 	<ul style="list-style-type: none"> power black-out master switch turned off plug detached breakers triggered (fuses, thermal breakers/differential switches) electric controller faulty 	<ul style="list-style-type: none"> check the cause of the black-out turn on the switch. insert the plug if the electrical supply is restored, check that all the electrical equipment of the shop will restart without triggering the overload protection devices; otherwise, modify the system to differentiate the enablement of the various devices. <p> <i>If power is not restored in a short time, store the goods in a cold room to maintain the storage temperature.</i></p>
The cabinet does not cool enough	<ul style="list-style-type: none"> the cabinet is in defrosting phase air inlets are obstructed the load is not distributed evenly the capacitor is dirty the cabinet is next to air currents or heat sources the cabinet is not levelled evaporator obstructed by ice 	<ul style="list-style-type: none"> wait for defrosting to complete (about 30 min) release air inlets load the goods in order (Fig. 18) clean the capacitor (cap.19.4.) check the position of the cabinet inside the store (cap.12.) level the cabinet see (cap.12.)
The engine is noisy	<ul style="list-style-type: none"> screws and bolts are loose the cabinet is not levelled 	<ul style="list-style-type: none"> tighten the bolts and screws level the cabinet see (cap.12.)
Condensate 	<ul style="list-style-type: none"> improper environmental conditions air circulation is improper the window heaters do not work the windows are not closed properly 	<ul style="list-style-type: none"> check the position of the cabinet inside the store (cap.12.) check the operation of fans and wiring check electrical connections. check heaters operation. close the windows properly
Cabinet temperature is too high or too low  	<ul style="list-style-type: none"> improper environmental conditions output air temperature is outside the specified range the cabinet is in defrosting phase the capacitor or the evaporator are freezing. the load is not distributed evenly the capacitor or the evaporator are obstructed or dirty. 	<ul style="list-style-type: none"> check the position of the cabinet inside the store (cap.12.) check the operation of evaporator fan check wiring and input voltage the fans are installed reversely; check and restore the air flow direction check that fan plenum is sufficient and not obstructed check the intake pressure that should comply with rated specifications check defrosting parameters check that the intake is not obstructed load the goods in order (Fig. 18) clean them (cap.19.4.)

Problema	Possible causes	Possible solutions
Water leaks, unpleasant odour 	<ul style="list-style-type: none"> ● cabinet drains are obstructed or damaged ● water collection tray is sealed incorrectly ● water collection tray overflows ● lacking coupling between cabinets in channel or sealed incorrectly 	<ul style="list-style-type: none"> ● release the drains, ● repair or replace the drains ● seal it properly ● check wiring of evaporation heater ● check the operation of evaporation heater ● install and seal the joints
Frost or ice build up 	in the cabinet <ul style="list-style-type: none"> ● fans do not work ● heaters broken ● Sdef probe detached 	<ul style="list-style-type: none"> ● check electrical connections.



in all cases not described or where it is not possible to solve the problem by following these directions call the nearest support centre

1. Mounting instructions



DANGER! Electrical equipment, live parts. Electrocutation.
REMOVE THE ELECTRIC POWER SUPPLY BEFORE ANY OPERATION!

- Wear suitable clothing (without loose parts) and use specific Personal Protective Equipment such as:
 - safety footwear, cut resistant gloves, cut resistant clothing (apron with jacket, protection for legs etc.)
 - goggles for protection against projections, safety helmet



Protect the hands with work gloves.

Astana-Mini Astana are supplied as standard with right-handed doors; should you need left-handed doors simply install them reversely from right to left.
This operation takes only 30 minutes and needs to be performed by two operators.


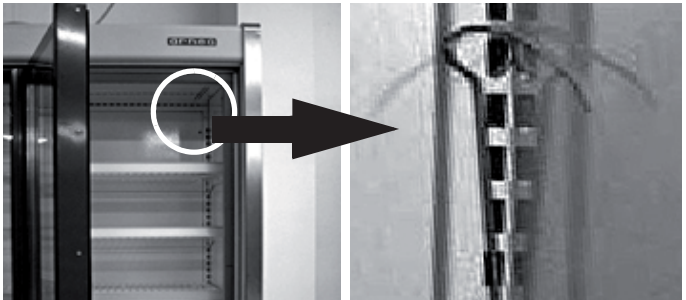
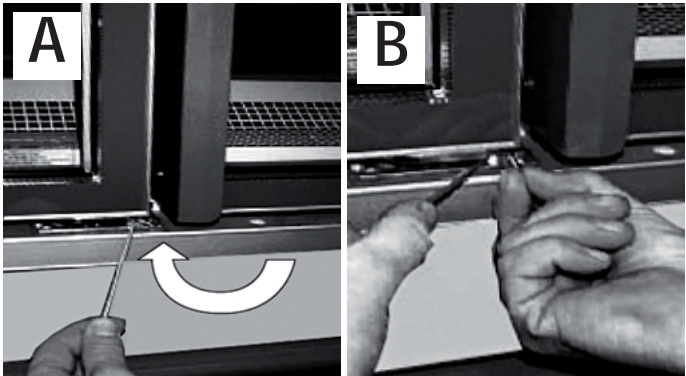
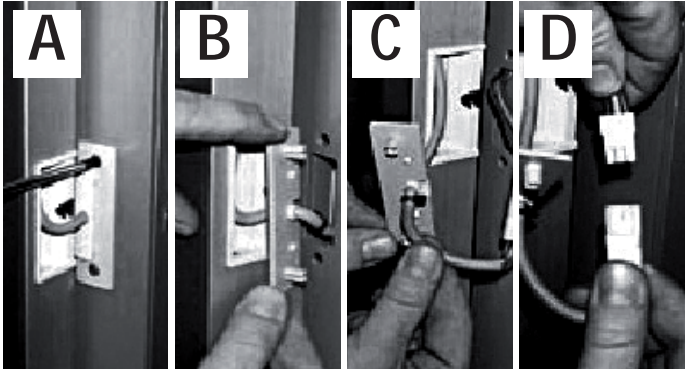
1.1. Reverse the doors


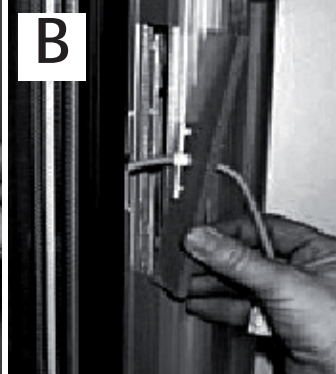
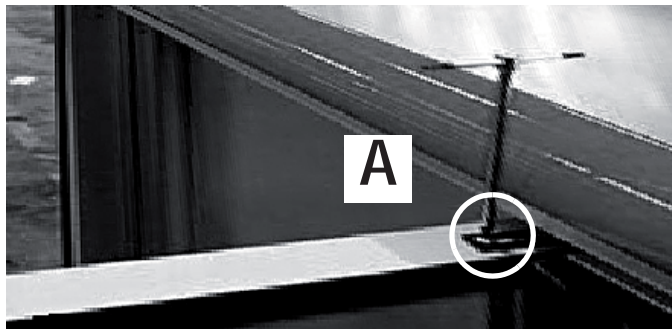


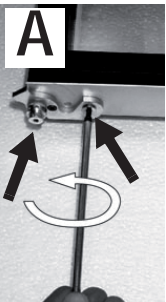
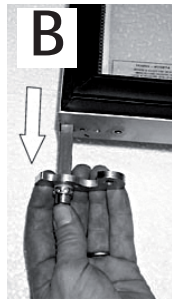
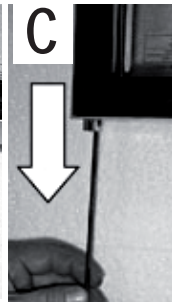
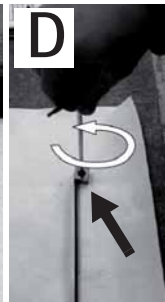
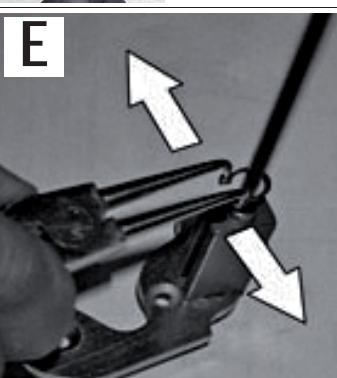
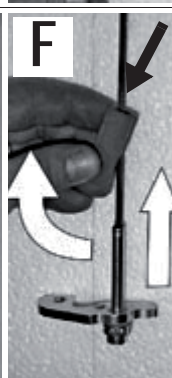
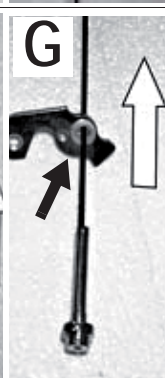


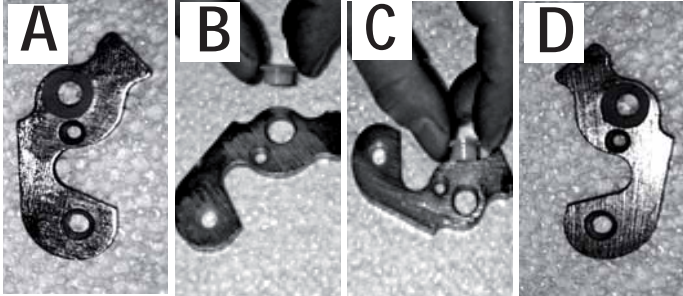
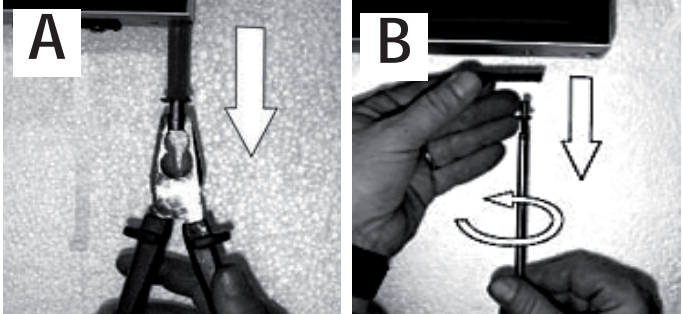

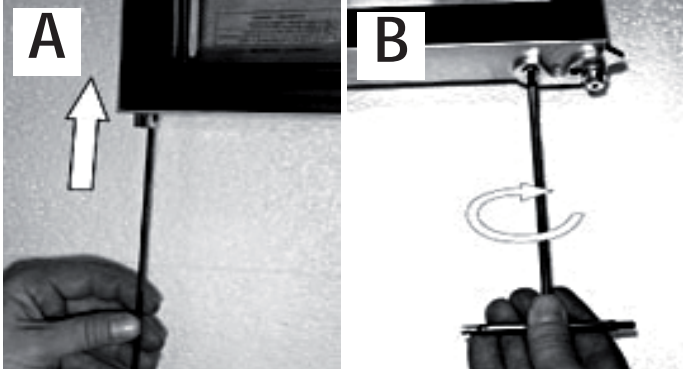
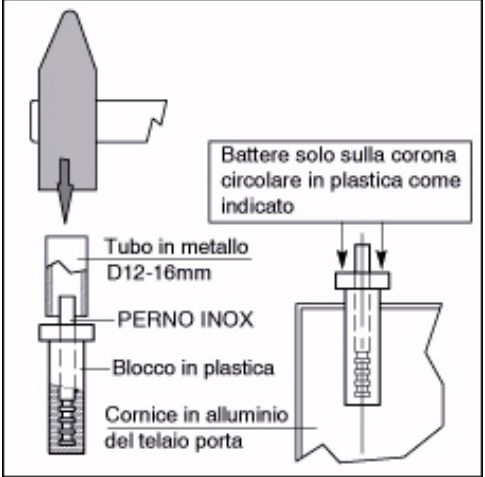
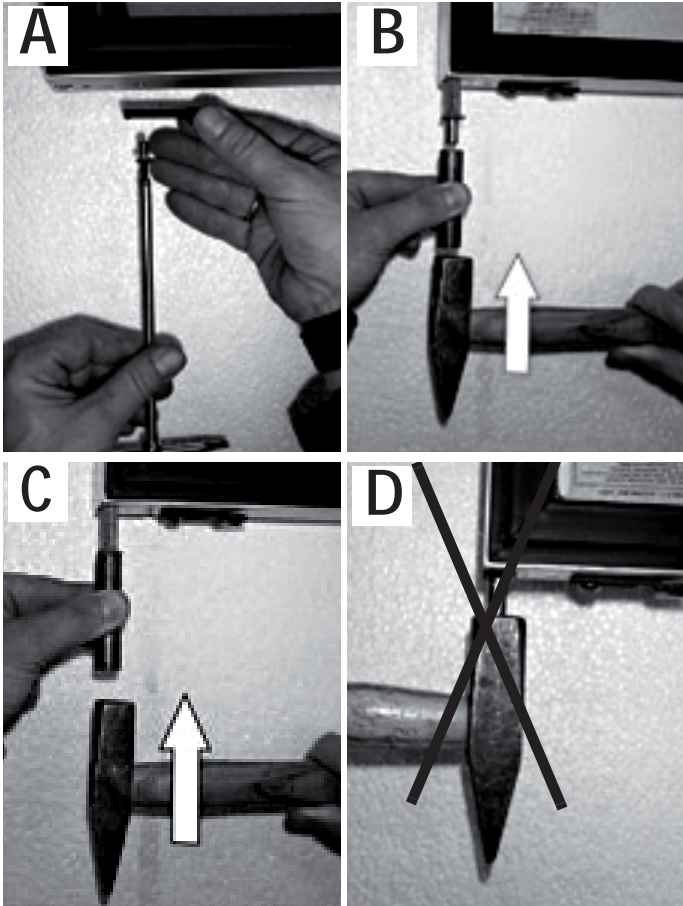
It is NOT possible to install hinges adjacent to each other.

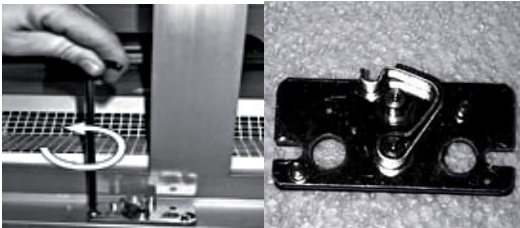
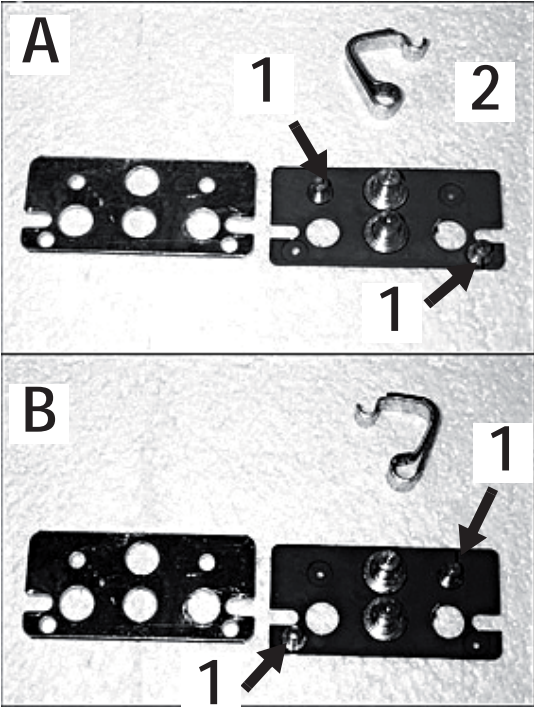
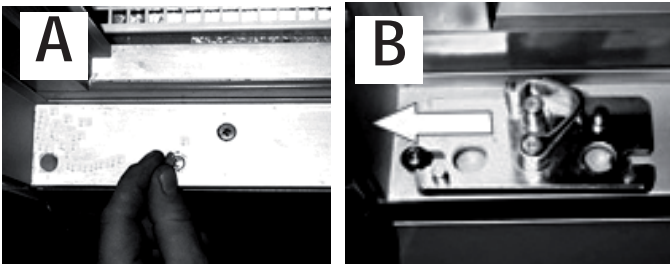
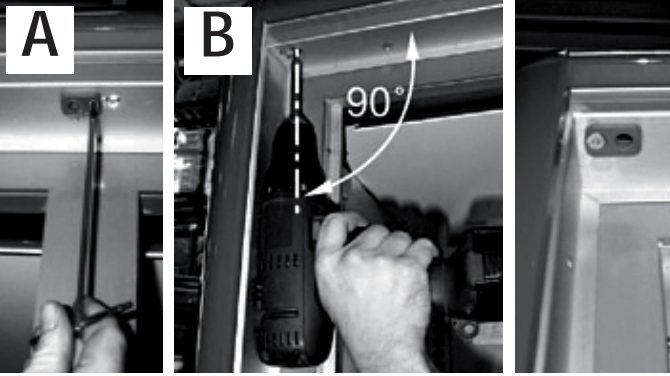
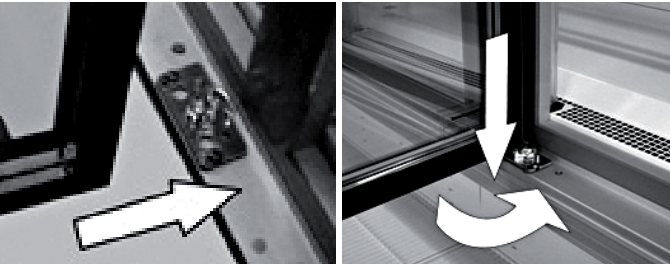

Equipment required for mounting:

Jack - Blade - Drill - Bit Dmax=9mm - Hex keys 2/3/4.
To reverse the doors proceed as follows:

Step	Action
1	<p>Remove the spring tensioning key from its housing</p> <p>1 - Tensioning pin 2 - Spring tensioning key</p>  
2	<p>A) Insert the spring tensioning key into one of the lower pin holes. Rotate as shown in the figure to release the pin.</p> <p>B) Keep the key fixed in the position shown, remove the spring tensioning pin and put both the pin and the key in a safe place.</p> 
3	<p>A) Remove the fastening screws of wires protective plate.</p> <p>B) Pull out the wire.</p> <p>C) Remove the connector</p> <p>D) Open the connector</p> 

4	<p>(referred to right and left uprights). This phase is valid both for unmounting the right door and to prepare the left upright.</p> <p>A) Remove the side stopper using a blade</p> <p>B) Pull out the wire and open the connector</p>	 
5	<p>Loosen the fastening screws of the anti-unthreading fork on the top side of the door:</p> <p>Slide and turn the fork as shown in figure A</p>	
6	<p>To pull out the door it is necessary to raise it and simultaneously rotate it as shown in the figure so that it come out of its housing from the bottom first.</p> <p>Given the weight of the door, this operation requires 2 operators.</p> <p> If you find it difficult to pull the door out, use a wooden lever or alike to avoid damaging the door.</p> <p>Raise it slightly a few millimeters to remove the pin of the bottom hinge. Do not force it</p>	
7	<p>Remove the door and put it on a horizontal surface to facilitate door reversal operation. Fully remove the entire bottom hinge.</p> <p>A) Remove the screws with the special keys</p> <p>B) Remove the bottom hinge group</p> <p>C) Pull out the entire group, including the galvanized block</p> <p>D) Disassemble the galvanized block</p> <p>E) Remove the bush stop flexible ring using the special pliers</p> <p>F) Remove the bottom pin guide bush</p> <p>G) Remove the universal door dampening bracket.</p>	      

8	<p>Shift the universal bracket from right to left. A) Right bracket B) Remove the bottom ball bearing C) Overturn the bracket and insert the ball bearing D) Left bracket.</p>	
9	<p>A) Pull out the top hinge from the upper part of the door gently to avoid forcing the coupling between the pin and the plastic bush. B) Remove the anti-unthreading fork</p>	
10	<p>Install the lower hinge that is now on the left side, following the phases 7(G)-8 reversely and insert it in the housing of the top hinge.</p> 	
11	<p>Install the top hinge in the previous location of the lower hinge. A) Install the anti-unthreading fork. B) Insert the top hinge using a tube D 16 (1) C) Strike gently until the top hinge is fully inserted D) <u>Do not strike directly the stainless steel pin.</u></p> 	

12	<p>Remove the lower plate group. Put the lower plate on a table, remove the top plate, remove the locking plug (1) and place them in the new location as shown in figure B. Rotate the spring (2) by 180°.</p> 	
13	<p>A) Remove the locking plugs from frame holes. B) Put the previously prepared plate next to frame holes</p>	
14	<p>A) Remove the top nylon plate from the mobile stud B) Drill with a bit with Dmax 9mm next to the hole preset on the left side to create the housing for the top hinge pin. Avoid drilling incorrectly centred or bent holes. Drilling depth min.18mm max 24mm C) Install the nylon plate in the new position using the relative screw</p>	
15	<p>Install the door, now left handed, being careful to insert the top hinge first, in the newly drilled hole and then fit it slowly to insert the lower pin in the special hole on the bottom plate group.</p>	
16	<p>Restore the electrical connection being careful to turn plate (1) by 180° so that the "left door" writing is visible on the its top. A) Lock the connector B) Reinsert the cable C) Fit the screws</p>	

17

Insert the spring tensioning key into one of the lower pin holes, turn counter-clockwise to insert the tensioning pin. Upon completion, the door should close automatically. If the tension applied is insufficient, move the tensioning pin into another hole



HINGE KIT:

- 1 - Galvanized block for bent spring
- 2 - Galvanized threaded block for bent spring
- 3 - Burnished finish screw M4x8
- 4 - Rectangular spring with hook
- 5 - Bottom pin guide bush
- 6 - Universal door dampening bracket
- 7 - Screw
- 8 - Screw
- 9 - Bottom bush
- 10 - Universal galvanized seeger ring
- 11 - Radial hole rectangular spring bottom pin
- 12 - Spring tensioning pin

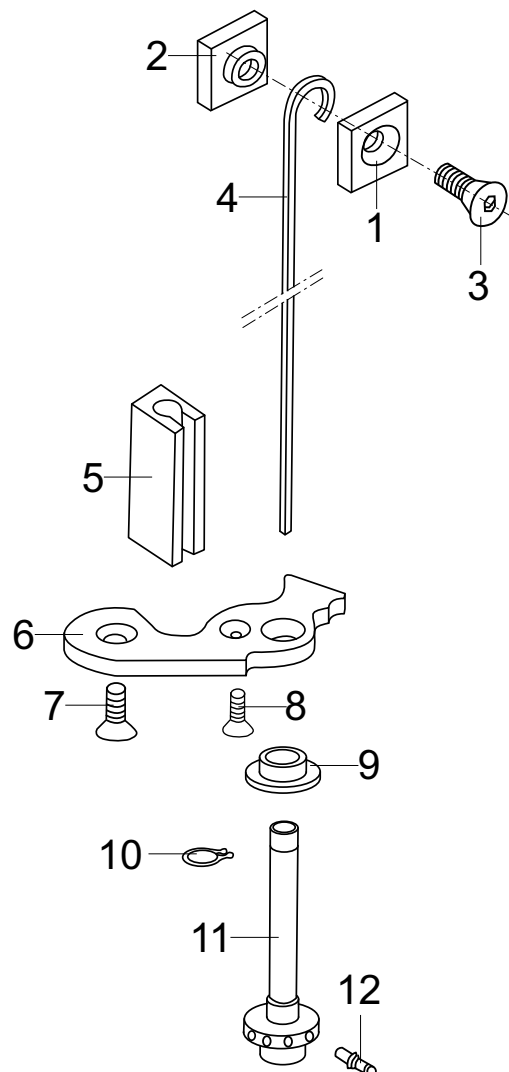
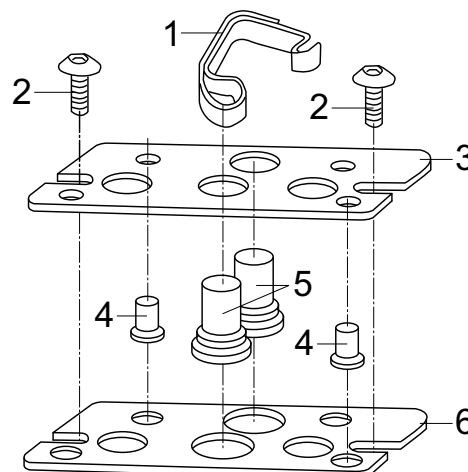


PLATE KIT:

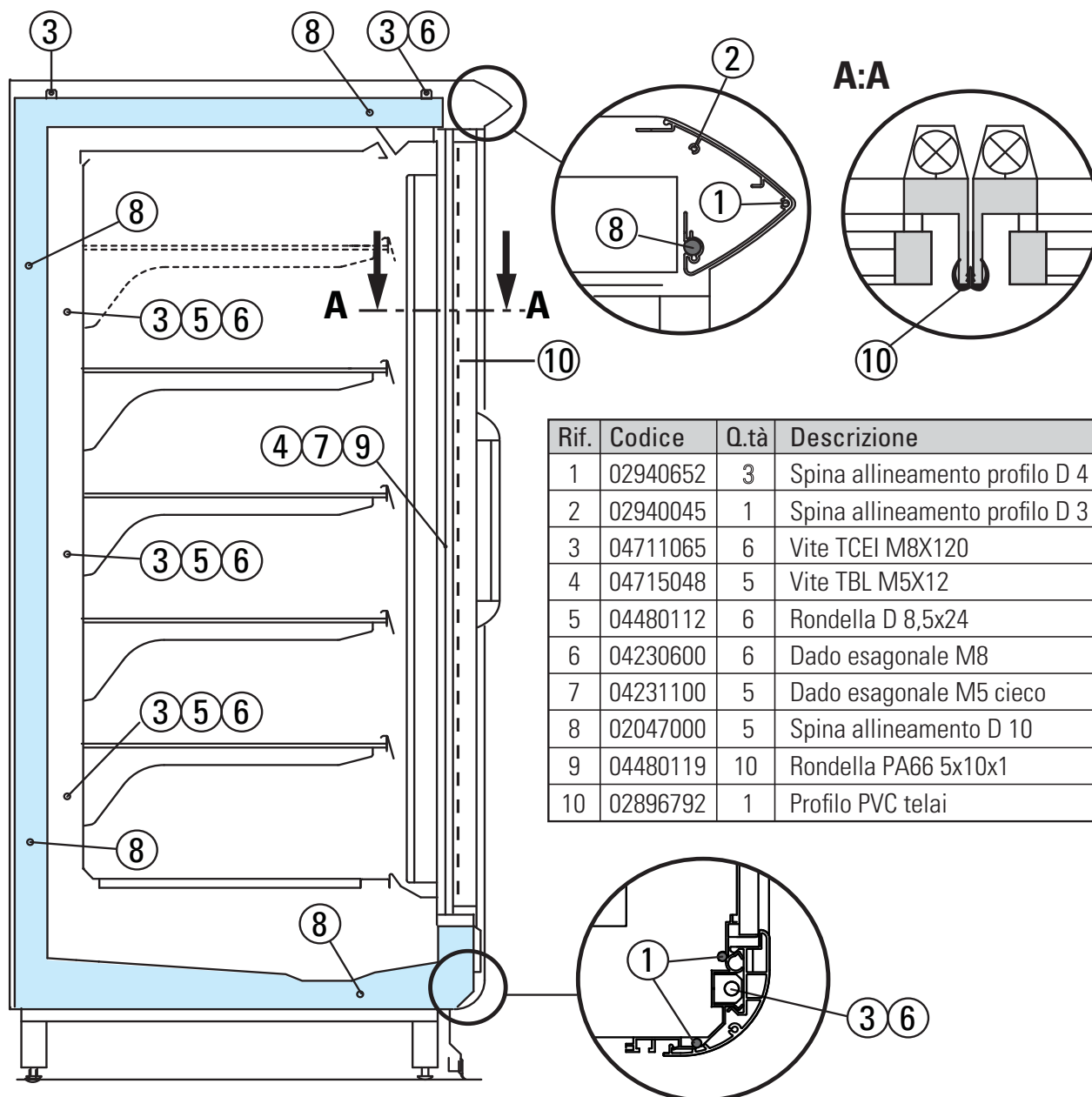
- 1 - Door dampening spring
- 2 - Plate fastening screw in stainless steel
- 3 - Sheared plate
- 4 - Stud locking plug
- 5 - Door dampening spring pin
- 6 - Sub-plate in nylon

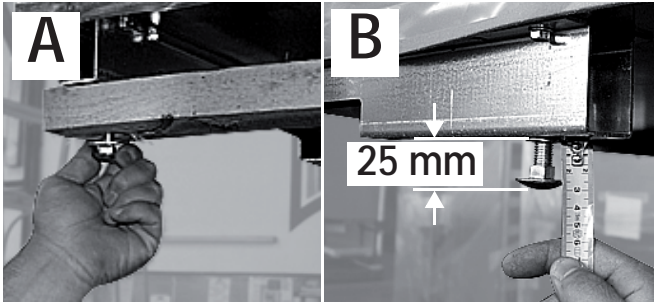
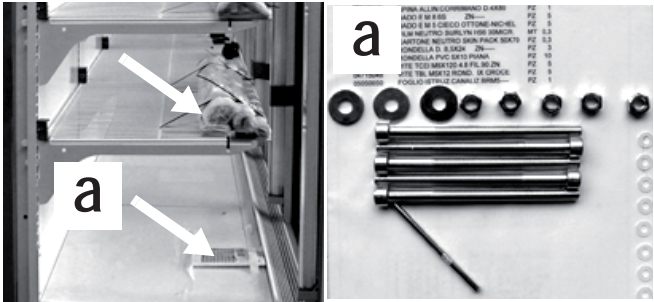







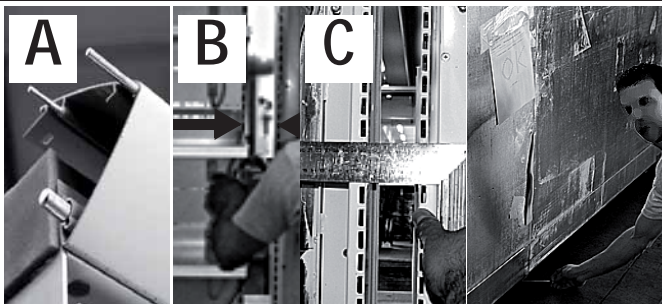
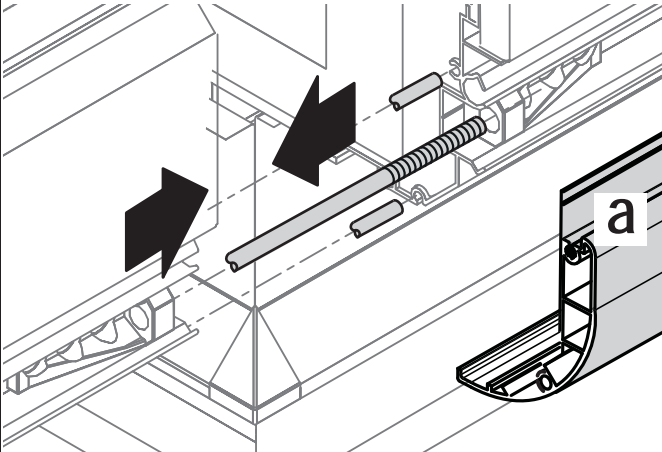
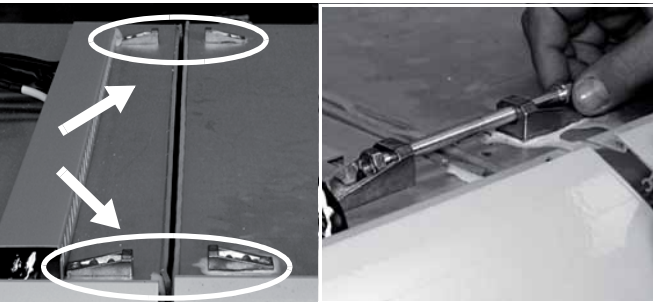

English

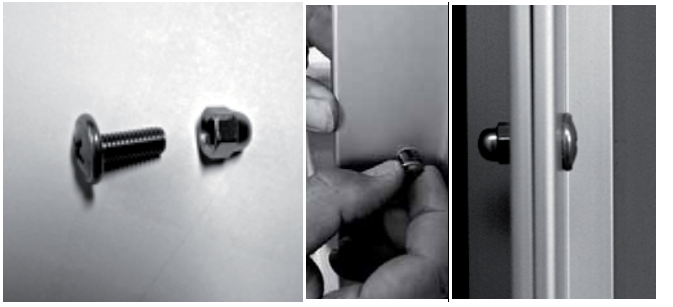



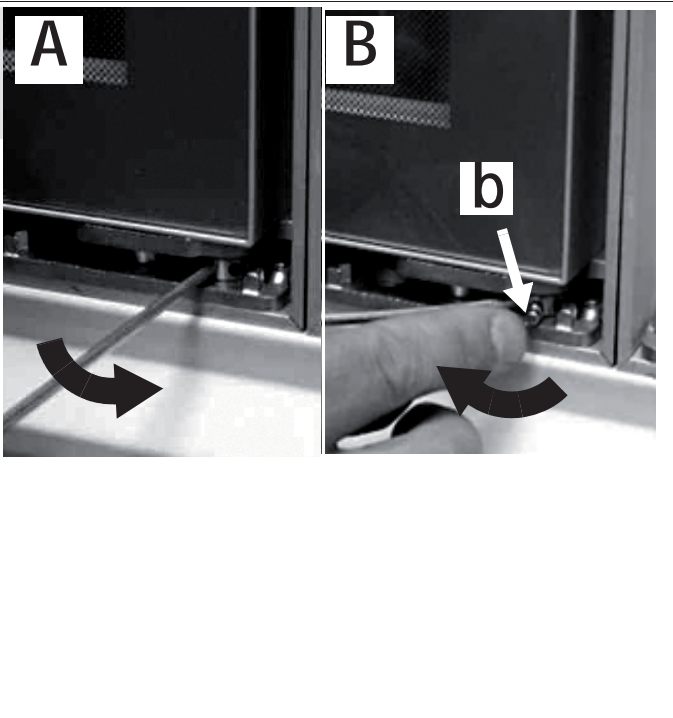
1.2. Channeling

Procedure:



Step	Action
1	<p>A) Remove the wooden frame used for transport, unscrewing the feet. Remove the washers.</p> <p>B) Screw in the feet (without the washers) at max 25 mm. Raise the front feet and bend the cabinet towards the wall by at least 10 mm to ensure perfect closure of doors (pag. 2 Fig. 4 Rif. 6)</p> 
2	<p>Empty the cabinet from the packed items without damaging them.</p> <p>Identify and recover the "channeling kit" blister (a).</p> 
3	<p>Check that cabinets are levelled.</p> 
4	<p>Remove the panels from the channeling side.</p> 
5	<p>Evenly apply the gray adhesive sponge supplied along the side perimeter (as shown in the figure)</p>  

6	Apply silicone along the entire side perimeter of the two cabinets.	
7	<p>A) Insert the plugs in the top strip profile.</p> <p>B) Approach the cabinets matching the channeling points.</p> <p>C) Align the slots of the studs operating the feet and keep the cabinet bent towards the wall by about 10 mm.</p>	
8	<p>A) Remove the trolley bumper rail (a)</p> <p>B) Join the cabinets using the screws and the pins supplied</p> <p>C) Reassemble the trolley bumper rail</p>	
9	Secure the fastening screws on the mobile roof.	
10	Secure the fastening screws between the studs. Check that the slots are aligned.	

11	Secure the front flanges using the screws supplied.	
 Make sure there are no cracks between the parts joined		
12	Reassemble the back panels	
13	<p> Check doors opening; once opened, the door should close without the aid of the locking spring.</p> <p>The locking spring is already set in the factory. Adjust spring tensioning, if necessary, proceeding as follows:</p> <p>A) Insert the spring tensioning key (a) into one of the lower pin holes</p>  <p>B) Turn the pin counter/clockwise to remove the safety pin (b)</p> <p>C) Turn the lower pin clockwise and insert the safety pin in the next hole.</p>	

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