



SIN OF COLD®



INSTALLATION AND MAINTENANCE MANUAL FT RAPID BLAST CHILLERS – FREEZERS

FT5.12C – FT5.12ST – FT5.20 – FT5.20AF – FT5.30 – FT7.30
FT10.40 – FT14.40 – FT14.50 – FT14.40L – FT14.50L – FTW12.50 – FTW12.80

Summary

1.	GENERAL WARNINGS	5
1.1	FEATURES OF THE BLAST CHILLER	5
1.2	RESIDUAL RISKS – SAFETY MEASURES – IMPORTANT INFORMATION	5
1.3	STORAGE.....	5
1.4	TRANSPORT AND HANDLING.....	5
1.5	UNPACKING	6
1.6	PROTECTIVE FILM/PACKAGE DISPOSAL	6
2.	INSTALLATION	6
2.1	PLATE (OR OPERATING) DATA	6
2.2	ENVIRONMENTAL CONDITIONS.....	6
2.3	POSITIONING	6
2.4	ELECTRICAL CONNECTION	7
2.5	REFRIGERATOR CONNECTION (SET UP WITH REMOTE UNIT).....	7
2.6	WATER CONNECTION (FOR WATER-COOLED MODELS).....	8
2.7	WATER CONNECTION (FOR KLIMA AND EXPERIENCE VERSIONS).....	8
3.	DISPOSAL OF THE MACHINE.....	9
4.	LIST OF ANOMALIES	10
5.	WARRANTY	12
5.1	WARRANTY	12

1. GENERAL WARNINGS

1.1 FEATURES OF THE BLAST CHILLER

This manual contains instructions for the installation, use and maintenance of the blast chiller and must always accompany the appliance even if it changes owner.

Before activating any operation, read the instructions carefully, thus avoiding risks to things and people. You will achieve optimal operation of the appliance, making the most of its output possibilities.

The manual must be kept in a place that is easily accessible to all authorised persons: the installer, the user, the person responsible for maintenance and disposal.

The use of the blast chiller is reserved exclusively for professionals and qualified personnel. Keep the blast chiller out of the reach of children: make sure that it is not used as a toy and that the controls are not touched. The machine is intended exclusively for the use for which it was designed, i.e. the rapid blast chilling of food temperature. Any other use is to be considered non-compliant and dangerous.

1.2 RESIDUAL RISKS – SAFETY MEASURES – IMPORTANT INFORMATION

The manufacturer declines all responsibility for any damage to persons and property caused by improper installation and use.

It is therefore strictly forbidden:

- Installation and maintenance by unqualified and authorised personnel.
- Installing the machine improperly without following the instructions.
- Use by untrained personnel.
- Unauthorised modifications or technical interventions.
- The removal of protective and safety devices.
- Connection to unauthorised equipment
- The use of non-original accessories and spare parts.
- Tampering by unauthorised personnel.
- Make changes to the machine.
- Touch the machine with wet hands or feet.
- Insert cooking utensils or other items between fan guards or extraction grilles.

Before any cleaning and maintenance operation, always switch off the blast chiller and remove the plug from the socket, taking care to pull out the plug without pulling on the cable.

When installing or transporting, make sure that the cable is not pinched or live.

In the event of prolonged stops or when the blast chiller is not being used, always unplug the power supply.

The installer is required to comply with the requirements relating to: health and hygiene regulations, fire prevention regulations, accident prevention regulations, electrical supply provisions.

Do not introduce explosive gases or liquids, such as lighter gas, gasoline, ether, acetone, or the like, into the appliance.

The blast chiller is not a storage cabinet.

Once the work cycles are completed, the blast chiller automatically goes into conservation mode, which must however be understood as temporary, i.e. transitional. At the end of the cycle, the product will then be placed in a dedicated refrigerator / storage cabinet.

The law limits the possibility of freezing or deep freezing food on one's own, making it subject to the issuance of a permit by the USSL (Local health board) or other competent body.

Regulation (EC) 842/2006.

Blast chillers containing 3 kg or more of refrigerant gas should be checked for gas leaks at least once a year. Blast chiller operators are required to keep a record of the amount of gas installed and any amount added or recovered during maintenance, repair and final disposal operations.

1.3 STORAGE

If the appliance is stored in a warehouse, the ambient temperature must never drop below 0°C. Before switching on the appliance it must be brought to a temperature of at least +10°C.

1.4 TRANSPORT AND HANDLING

The blast chiller must be transported by means of an electric or manual forklift, or pallet truck, by lifting the lower part of the bottom, with the warning to remove the condensate drip tray located on the bottom of the machine itself (if previously positioned) before the operation.

Make sure that the capacity of the lifting equipment is greater than the weight of the machine indicated on the packaging plate and on the identification plate attached to the machine.

Proceed with the lifting, making sure that the appliance is in stable balance.

In the case of transport by vehicle, secure the machine by means of a fastening rope to the sides of the body.

It is therefore advisable to move the machine very close to the ground: the maximum lift allowed is 10 cm.
For lifting at higher heights, it is advisable to place the machine on a wooden platform and lift it jointly.
Do not underestimate the weight of the appliance: the size and volume of the machine can be misleading.
Do not turn the machine upside down or place it on its sides to avoid serious damage to the structure.
The machine, if it does not have a wooden cage or platform, can be lifted by ropes.
Always use protective gloves when handling the machine and packaging.

1.5 UNPACKING

Remove the cardboard and polystyrene packaging, lift the appliance (see par. 1.3) using suitable equipment and remove the wooden platform, place the appliance on the ground near the place intended for installation. Check the integrity of the machine and that it has not been damaged during transport, in which case the damage will be promptly communicated to the supplier.

Keep the packaging out of the reach of children: the cling film can pose a risk of suffocation.

Always use protective gloves during these operations.

Hand over the packaging to the appropriate collection and recycling centre.

1.6 PROTECTIVE FILM/PACKAGE DISPOSAL

SINOFKOLD has been committed for years to increasing the environmental compatibility of its equipment, with continuous efforts to reduce energy consumption and waste. SINOFKOLD intends to protect the environment and recommends to dispose of all different types of material, in the appropriate separate collection containers.

The protective film and packaging must be disposed of in strict compliance with the regulations in force in the country of installation of the appliance. The various materials (wood-paper-carton-nylon-metal tacks) that may comprise the packaging are potentially dangerous and must be kept out of reach of children and animals; they must be duly separated and delivered to the respective collection centres (recycling centres). In any case please adhere to the local environmental protection regulations.

2. INSTALLATION

2.1 PLATE (OR OPERATING) DATA

It is of absolute importance to check that the data on the operating plate (V voltage, Hz frequency, kW electrical power) are in line with those of the installation site.

The plate with the data and features of the machine is located on the left side of the machine. In the AS.003/AS.005C models, it is located on the inside of the blast chilling chamber.

2.2 ENVIRONMENTAL CONDITIONS

For air-cooled machines, the working range must be within the following temperature values: +10°C and +32°C. Exceeding the maximum limit may compromise declared performance and yield and in critical conditions will cause the safety pressure switch (or safety devices) to trip.

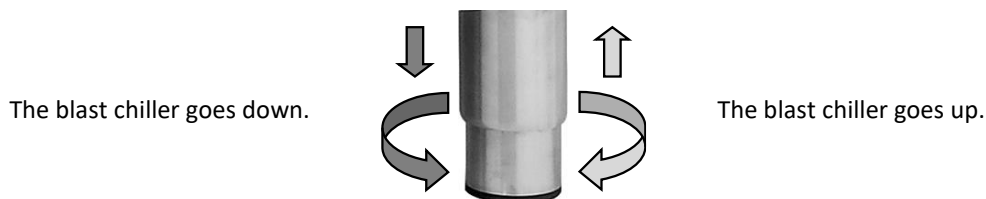
Therefore, it is necessary to avoid installing the machine near any heat source or exposing it to direct sunlight. Observe the minimum positioning distances indicated in the following two paragraphs.

2.3 POSITIONING

Place the machine in the intended position. Keep a distance of at least 10 cm from the back wall and ensure space for air intake at the front. For machines with remote compressor units, install the units in accordance with the instructions in the previous paragraph (2.2), thus avoiding placing the units near heat sources, even near other compressors or heat pumps.

Ensure a clearance from the coil (capacitor) of at least 1m from any walls.

The machine must rest on a flat, stable and resistant floor to ensure stability on all four corners and it is important that it is not placed on other machines.



Insert the condensate drip tray into the lower front part by sliding it along the appropriate guides.

If the blast chiller is not properly levelled, the operation and flow of condensate can be impaired.

In trolley machines, connect the condensate drain in free air at least 20 mm from the adjacent drain.

Remove the protective film completely and clean the machine externally and internally using protective gloves.

Wash the inside of the machine with a light-acting detergent, avoiding the use of iron wool, abrasive sponges, solvents and other products that may corrode or scratch surfaces.

2.4 ELECTRICAL CONNECTION

The electrical connection must be made at the rear, using the power cable that comes out at the rear. In the case of trolley models, follow the instructions in the attached data sheet. Make sure that the power cable is never in tension and is not damaged (risk of electrical injury). A damaged power cable must be replaced immediately by a service center, in the person of a licensed qualified electrician.

The blast chiller must be connected to an interlocked socket with effective earthing. The machine is only free of electrical power when the power plug is removed from the socket.

A 30 mA residual current circuit breaker must be installed on the electrical power supply panel for the protection of people. Make sure that the connection to the earthing system is made at the terminal (PE) with a minimum cable section of 16 mm².

Arrange coordination against contact voltages, equipotential bonding.

Make sure that the mains voltage (V) and frequency (Hz) correspond to that indicated on the identification plate.

Before energising the machine, it must be in an upright position for at least 6 hours if the machine has been transported in a horizontal position. In fact, the liquid in the cooling system must have time to stabilise, otherwise the compressor risks breaking down.

2.5 REFRIGERATOR CONNECTION (SET UP WITH REMOTE UNIT)

The installation of machines with a remote compressor unit must always be carried out in compliance with the regulations on: accident prevention, provisions and constraints of electrical standards, as well as environmental impact and airborne noise produced. Any installation of the compressor unit in closed environments (such as engine rooms) requires compliance with the regulations in force in the country of installation. It should be borne in mind that in particular conditions, such as in the case of operating anomalies, there may be a release of refrigerant gas into the environment through the safety valve or fuse cap installed in the cooling system: it is therefore necessary to provide for a suitable air exchange and intervene with first aid measures as indicated in the refrigerant safety data sheet.

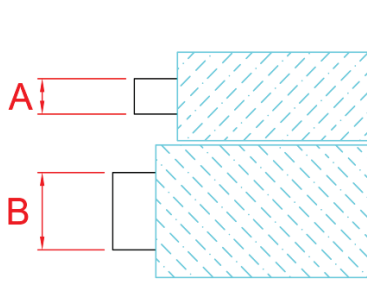
Yields are guaranteed for the installation of the remote unit at a maximum distance of 10 meters.

The dimensions of the pipes must correspond to those indicated in the table. The insulation of the suction pipes must be at least 13 mm thick with material suitable for refrigeration circuits.

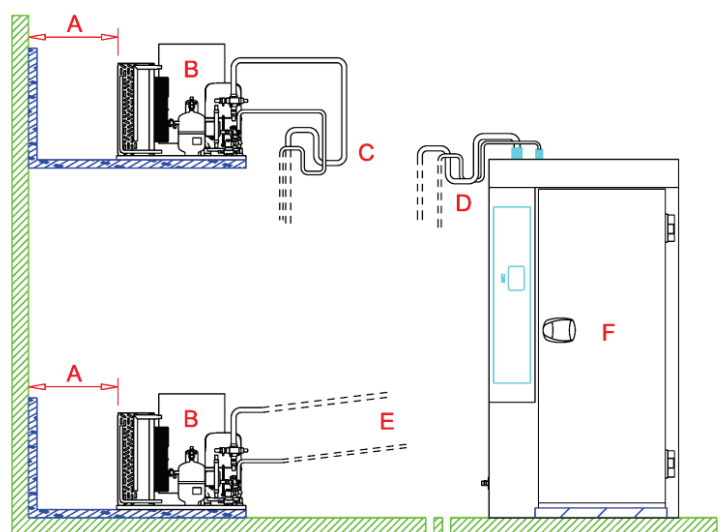
Installation at different levels between the blast chiller and the compressor unit involves some very important precautions for the proper functioning of the blast chiller:

- unit installed higher than the blast chiller: an essential operation to be carried out in this case is to insert a siphon at each start or ascent at every 2 meters of difference in height along the route on the suction pipe;
- unit installed lower than the blast chiller: it is not necessary to insert the siphons, respect the slopes of the pipes towards the compressor unit, at least 3mm/m.

Perform hermetic welds, vacuum the pipes, through the two service taps. Check for leaks, open the taps on the compressor unit. Charge the gas (type indicated on the CE plate), checking the liquid indicator light. Top up with synthetic Artic 32 oil, if necessary, checking the oil indicator light (where present).



	A	B
	Suction	Supply
AS.005 / AS.007	Ø 12mm	Ø 8mm
AS.010 / AS.014.40	Ø 16mm	Ø 12mm
AS.014 / ASW10.50 / ASW10.80	Ø 22mm	Ø 16mm
AS.020.80	Ø 28mm	Ø 16mm
AS.020.100 / ASW20.100 / ASW20.170	Ø 35mm	Ø 16mm



- A = Minimum wall distance of 1m
- B = Remote unit
- C = To be performed approximately every 2m
- D = Supply and suction hoses

ASW20.200 / ASW40.200	Ø 42mm	Ø 16mm
ASW40.400	Ø 54mm	Ø 18mm

E = Slope of 3mm/m towards remote unit
F = Blast chiller

If it is necessary to add refrigerant gas during installation, the quantity of gas added "PLUS" and the total "TOTAL" must be reported on the label.

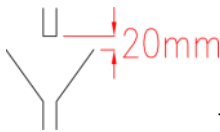
2.6 WATER CONNECTION (FOR WATER-COOLED MODELS)

Connect the water supply pipe and the outlet pipe as indicated on the plate on the back. Use mains water with a minimum pressure of 100 kPa and a maximum of 500 kPa and a temperature not exceeding +18°C.

Do not use seawater, ask for suitable models if necessary. Install a gate valve on the inlet pipe.

When the machine is stopped, check that there is no water leaking from the outlet pipe, if not, close the pressure valve slightly (¼ turn).

Caution! The lack of incoming water leads to the blocking of the machine with the intervention of the HP safety pressure switch.




The water drain must be in free air at least 20 mm from the contiguous drain.

2.7 WATER CONNECTION (FOR KLIMA AND EXPERIENCE VERSIONS)

Connect the water supply pipe as indicated on the plate on the back. Use mains water with a maximum pressure of 100 kPa and a temperature not exceeding +18°C.

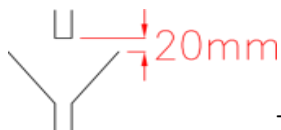
Do not use seawater, ask for suitable models if necessary. Install a gate valve on the inlet pipe.

ADD A PRESSURE REGULATOR AND A WATER FILTER AT THE SOURCE.

Caution! Connect the water pipe WATER INLET  Max 100 kPa

Add a pressure regulator and a water filter at the source.
Caution! Check the hardness of the water.
Water hardness: if you do not know the hardness of your water, contact your local water company. If the water hardness is within the II and III areas, it is essential to install a water softener upstream.

Hardness area	Soft (I)	Medium (II)	Hard to Very Hard (III)
Hardness in mmol/l	0 - 1,5	1,5 - 2,5	> 2,5
German hardness °d	0 - 8,4	8,4 - 14	> 14



The water drain must be in free air at least 20 mm from the contiguous drain.

3. DISPOSAL OF THE MACHINE

The blast chiller must be disposed of in accordance with the following precautions: remove the plug from the power socket and then cut the power cable as close as possible to the appliance. Remove the doors and keep the appliance out of the reach of children. Be careful not to damage the refrigeration system inside and back. The appliance does not contain any substances that are harmful to the ozone layer. The refrigerant is indicated on the plate on the outside of the appliance.



This product has been designed and manufactured with high-quality materials and components, which can be recycled and reused.

The symbol of the wheeled bin crossed out by a cross, applied to all models, indicates that the product complies with the European Directive 2002/95/EC.



Please inquire about this at your local recycling centre.

4. LIST OF ANOMALIES

The following table illustrates the following anomalies that can be found.

ANOMALY	CAUSE	SOLUTION
The Controller/Board won't turn on.	Lack of voltage.	Check the line voltage and the plug-in of the power supply panel.
	Burst of power line protection fuses.	Intervention of a technician.
The machine does not cool.	Fault on the compressor unit.	Intervention of a technician.
The cycle time is long. CYCLE DURATION SANITATION DURATION	The size of the product is too large or the arrangement of the pans is incorrect.	Remove some product so as not to exceed the expected weight.
	The machine is overloaded beyond the expected limit.	Remove some product so as not to exceed the expected weight.
Evaporator with excessive amount of frost/ice.	Cycles are performed repeatedly without stopping.	Perform a manual defrost between work cycles while keeping the door open.
	Condensate drain plug missing.	Replace the plug in the drain pile.
The compressor does not work.	Protection tripping.	Intervention of a technician.
The fan does not work.	Fan faulty.	Intervention of a technician.
The compressor works but the machine does not cool.	Lack of freon.	Intervention of a technician.
	Faulty line solenoid valve.	Intervention of a technician.
OPEN DOOR	Door open.	Close the door.
	Faulty microswitch.	Intervention of a technician.
HIGH PRESSURE	Dirty capacitor.	Clean the capacitor.
	There is not enough space for adequate air circulation at the front and/or rear.	Move the machine to allow more air circulation.
CAP. OVERHEATED	Lack of water (in Water-cooled models).	Restore the water supply, check that the water supply tap is open.
COMP. BLOCKED	Non-compliant temperature limits.	Place the machine in a less warm area or environment with more air circulation.
	Alarm that is prolonged after the above-mentioned remedies.	Intervention of a technician.
HIGH TEMPERATURE	Check the temperature of the cell.	Intervention of a technician.
LOW TEMPERATURE	Check the temperature of the cell.	Intervention of a technician.
CELL PROBE	Broken chamber probe.	Intervention of a technician for replacement.
NEEDLE PROBE 1	Broken core probe.	Intervention of a technician for replacement.
NEEDLE PROBE 2	Additional core probe (optional) broken.	Intervention of a technician for replacement.
NEEDLE PROBE 3	Additional core probe (optional) broken.	Intervention of a technician for replacement.
CAPACITOR PROBE	Capacitor probe (optional) broken.	Intervention of a technician for replacement.
EVAPORATOR PROBE	Evaporator probe (in some models) broken.	Intervention of a technician for replacement.
LOW PRESSURE	Low pressure switch tripping.	Intervention of a technician.
THERMAL	Tripping of the compressor's circuit breaker or protection thermistors.	Intervention of a technician.
POWER FAILURE	Lack of voltage during a cycle.	Check the power supply.
COMMUNICATION BASE / EXPANSION	Fault in the control board.	Intervention of a technician.

COMPATIBILITY BASE / EXPANSION		
SANITATION NEEDLE INS	Needle probe not correctly inserted during the fish sanitation function.	Insert the needle probe more correctly.
NEEDLE INS	Needle probe not properly inserted during a cycle.	Insert the needle probe more correctly.
RTC	Clock error.	Set the actual day and time again.

5. WARRANTY

5.1 WARRANTY

The Sinofcold product is designed for food use only and is covered by warranty according to law (art. 1490 and subsequent articles of the Italian Civil Code) for Professional Customers or customers who purchase from the Dealer with a VAT number. The Sinofcold product is professional and certified according to IEC EN 60335-1 and can only be sold to professional users.

With the exclusion of any additional warranty, the Vendor agrees to repair, at its sole discretion, only those parts of the products that prove to be tainted by an original fault as long as, subject to forfeiture, the customer has reported the fault within 12 months from the date of purchase and reported the defect within 8 days from the date of discovery, in writing, attaching a copy of the invoice, receipt or tax receipt as proof of purchase.

Including the event in which the customer is unable to produce the invoice, receipt or tax receipt as proof of purchase, meaning that the terms outlined above are not complied with, the warranty is expressly forfeited in the following cases:

- 1) Faults or breakdowns of components caused by transport.
- 2) Damage deriving from inadequate electrical, hydraulic and gas supply systems compared to that provided in the installation manual, or anomalous operation of the same.
- 3) Damage deriving from incorrect product installation, or installation not carried out in accordance with the installation manual and, in particular, damage due to the inadequacy of the drains that the product is connected to.
- 4) Using the product for purposes other than its intended use, as specified and resulting from the technical documentation issued by Sinofcold.
- 5) Damage due to the use of the Product not in accordance with the instructions in the use and maintenance manual.
- 6) Tampering with the product.
- 7) Product adjustment, maintenance and repair interventions carried out by unqualified personnel.
- 8) The use of non-original spare parts or not authorised by Sinofcold.
- 9) Damage or defects caused by negligent and/or imprudent use of the product, or in contrast with the instructions prescribed by the use and maintenance manual.
- 10) Damage caused by fire or other natural events and, in any case, by unforeseeable circumstances or any other cause beyond the manufacturer's control.
- 11) Damage to components subject to normal wear that require periodic replacement.

In addition, electrical and electronic parts, handles, movable or removable plastic parts, light globes, glass parts, gaskets and any accessory parts and transport costs from the consumers, end user and/or purchaser location to Sinofcold and vice versa are excluded from the warranty. Replacement costs of the blast chiller/cabinet and relative installation expenses are also excluded from the warranty. The warranty does not cover Products purchased as used or from third parties who are not connected to or authorised by Sinofcold.

SINOFKOLD SRL shall not be held liable for damage, either direct or indirect, caused by a product fault or as the result of the forced suspension of operation.

Repairs under warranty do not result in the extension or renewal of coverage.

Components replaced under warranty are, in turn, covered by a 6-month warranty from the shipping date, certified by the transport document issued by Sinofcold.

No-one is authorised to change the warranty terms and conditions or to issue others, neither verbal nor written.



Sinofcold Srl

Via dell'Artigianato, 24
31030 Castello di Godego
Treviso – Italy

Tel. (+39) 0423.768270
info@sinofcold.com
sinofcold@legalmail.it

sinofcold.com