

ENVIRONMENT HEALTH & SAFETY INSTRUCTIONS FOR AIR HANDLING UNITS AND DRYCOOLERS

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FR/ Lire la notice avant l'installation

EN/ Read the instructions prior to installation

ES/ Leer el instrucciones antes de la instalación

DE/ Handbuch für Installation und Nutzung sorgfältig gelesen werden

IT/ Leggere le istruzioni prima dell'installazione



NL/ Lees de installatie-instructies voor installatie

PT/ Leia as instruções de instalação antes da instalação

PL/ Przeczytaj instrukcję instalacji przed instalacją

GR/ Διαβάστε τις οδηγίες εγκατάστασης πριν από την εγκατάσταση

AR/ اقرأ تعليمات التثبيت قبل التثبيت



The illustrations in this document are for illustrative purposes only and not part of any offer for sale or contract. The manufacturer reserves the right to change the design at any time without notice.

1 - Introduction

This safety manual applies for all types of air handling units & drycoolers. It refers, when necessary, to information included in the installation, operation and maintenance (IOM) manual of your unit. The IOM is available on line (flash the QR code on the unit to access the IOM).

Prior to the initial start-up of the unit, people involved in the storage, transportation, handling, on-site installation, start-up, operation, and maintenance of this unit should read, understand and be thoroughly familiar with these instructions, the installation, operation and maintenance manual and the specific project data for the installation site.

Units are designed to provide a very high level of safety during installation, start-up, operation and maintenance. They will provide safe and reliable service when operated within their application range.

It is user's responsibility to ensure that the final installation respects all local, national and international regulations.

This manual provides the necessary information to safely do all operations on the equipment from installation to dismantling.

2 - General safety considerations

The unit must be installed in a place that is not accessible to the public or protected against access by non-authorized persons. The units are not intended to operate in an ATEX area, unless specified on the nameplate.

Do not modify or bypass any of the safety guards or switched in the system.

The main working place for the operator of the unit is in front of the control panel.

All operations on the unit must be carried out by authorized, qualified and trained people to do it using appropriate tools.

All persons who have to work with the equipment must wear personal protective equipment adapted to the intervention on the unit:

- Safety shoes
- Safety gloves or specific hand protection (cut resistant gloves, chemical gloves, thermic gloves, ...)
- Head protection
- Ears protection when necessary
- Eyes or face protection (safety glasses, goggles, facial shed)

Additional equipment may be required, depending on the risk analysis that must be done prior to any intervention.

Do not wear clothes or accessories that can get caught or sucked in by flows of air, tie back long hair before entering the unit.

No combustible matter should be placed within 6.5m of the unit.

RISK OF FALLING:



No part of the unit must be used as a walk-way, rack or support. Periodically check and repair or if necessary replace any component or piping that shows signs of damage.

Use a platform, or staging to work at higher levels.

RISK OF BURN:

The surfaces of the machine and pipes can be very hot or cold and cause the risk of burn

MOVING PARTS :

Do not remove the guards from moving parts while the unit is operating.

Make sure that moving parts are fitted correctly before restarting the unit.

RISK IN CASE OF LEAK:

Do not use your hands to check possible leaks.

RISK OF EXPLOSION:



Never exceed the specified maximum allowable pressures.

Verify the allowable maximum pressure given on the unit name plate or in the manual.

If these pressures are different you must take into consideration the value indicated on the nameplate.

3 - Storage and transportation safety considerations

When it is necessary to store the unit before installation, it is mandatory to observe some precautions :

- do not remove the protection,
- protect the unit from dust and bad weather

The units are intended to be stored and operated in an environment where the ambient temperature must not be lower than the minimum allowable temperature not be higher than the maximum allowable temperature indicated in the IOM (usually -40 to +60°C).

4 - Receipt safety considerations

Check that the unit and the accessories have not been damaged during transport and that no parts are missing. If the unit and the accessories have been damaged or the shipment is incomplete, send a claim to the shipping company and join photos within 24 hours after delivery.

Compare the name plate data with the order.

The unit name plate must include the following information:

- Model number and size,
- PS: Min./max. allowable pressure,
- TS: Min./max. allowable temperature,
- Voltage, frequency, number of phases,
- Maximum current,
- Maximum power input,
- Unit net weight.

5 - Handling/Installation on site safety considerations

Do not remove the skid or the packaging until the unit is in its final position.

The manufacturer strongly recommends employing a specialized company to load or unload the machine.

Lift the unit using the lifting instruction provided.

Lifting must be in accordance with state of the art.

Unit's weight is indicated on the nameplate or sub-assembly label glued on the package.

Only Air Handling Units can be moved with a fork lift truck, as long as the forks are positioned in the correct place and direction on the unit.

All units can be lifted with slings, using only the designated lifting points marked on the unit according the lifting instructions on the certified drawings supplied with the unit. Use slings or lifting beams with the correct capacity that have been tested and certified.

Do not tilt the unit more than 15°.

The unit must be placed on hard ground or concrete.

CAUTION: Before lifting the unit, check that all casing panels and grilles are securely fixed in place. Lift and set down the unit with great care. Tilting and jarring can damage the unit.

WARNING: never apply pressure or leverage to any of the unit's panels or uprights.

6 - Operation user safety considerations

Ensure you read and understood this instruction before accessing the unit.

7 - Start-up safety considerations

After the unit has been received, when it is ready to be installed or reinstalled, and before it is started up, it must be inspected for damage:

- If damage is detected up on receipt, immediately fill a claim with the shipping company and take photos.

8 - Maintenance and repair safety considerations

Never work on a unit that is still energized.

All installation parts must be maintained by the personnel in charge, in order to avoid material deterioration and injuries to people.

Faults and leaks must be repaired immediately. The authorized technician must have the responsibility to repair the fault immediately. Each time repairs have been carried out to the unit, the operation of the protection devices must be re-checked.

All maintenance and repair operation must be done in compliance with regulations and IOM.

Only use original replacement parts for any repair or component replacement.

The manufacturer recommends the following drafting for a logbook (the table below should not be considered as reference and does not involve the manufacturer responsibility):

Intervention		Name of the commissioning engineer	Applicable national regulations	Verification organism
Date	Nature ⁽¹⁾			

(1) Maintenance, repairs, regular verifications (See EN 378), leakage, etc.

Engineers working on the electric or refrigeration components must be authorized, trained and fully qualified to do so.

All repairs must be carried out by a trained person, fully qualified to work on these units.

He must have been trained and be familiar with the equipment and the installation.

All welding operations must be carried out by qualified specialists.

Never work on any of the electrical components, until all the power supplies have been isolated using the disconnect switch(is) in the control box(is), locked and tagged out.

Do not access the electrical components if water and/or moisture are present.

If any maintenance operations are carried out on the unit, lock the power supply circuit in the open position ahead of the machine.

If the work is interrupted, always ensure that all circuits are still deenergized before resuming the work.

WARNING: Even if the unit has been switched off, the power circuit remains energized, unless the unit or circuit disconnect switch is open.

For example the variable frequency drives (VFD) which take twenty (20) minutes to discharge. Refer to the wiring diagram for further details.

9 - Final shutdown safety considerations

Separate the units from their energy sources, allow them cool then drain them completely

DISASSEMBLY

Comply with local environmental laws and guidelines.

Never work on a unit that is still energized.

At the end of its life, the unit must be disassembled, and contaminated fluids removed by professionals and processed via approved channels for waste electrical and electronic equipment. Check whether any part of the unit can be recycled for another purpose.

APPENDICES (PROVIDED WITH THE UNIT)

1 - Appendix 1: Declaration of conformity

2 - Appendix 2: Dimensional drawings

