## CARE

REFRION AUTHORIZED SERVICE







## THE CREATION OF THE REFRION CARE SERVICE

The consulting and after-sales service that guarantees the excellence of the Refrion units and extends their life.



## MORE ATTENTION, MORE PERFORMANCE

## REFRIGERATION UNITS ALWAYS AT THE TOP

The optimal efficiency and perfect operation of Refrion units is an essential value throughout the product life cycle.





## THE IMPORTANCE OF PERFECT SIZING

Initially, an important factor is the precise sizing of the machine to be installed. This can be done thanks to the **Selection Tool**, the calculation program conceived and developed by the R&D department that allows you to choose the ideal Refrion liquid cooler, calculating the performance under real operating conditions.



## REFRION CARE SERVICE. ALL-ENCOMPASSING ASSISTANCE

The specialized division to support customers in the management and maintenance of the devices applied to the Refrion units (consumables and innovative electrical and electronic components).

## WHY RELY ON REFRION CARE

- improved performance of the Refrion units;
- product life extension;
- · economic and environmental savings;
- · maintenance of the Refrion units;
- safety.







## THE REFRION CARE SERVICES

INSPECTION
SUPERVISION
COMMISSIONING
SUPPORT
SPARE PARTS MANAGEMENT
SCHEDULED ROUTINE MAINTENANCE
EXTRAORDINARY MAINTENANCE
REVAMPING







## INSPECTION

Constant inspection interventions result in a reduction in operating costs and in the risks of downtime for repairs or replacements.

At each intervention, the Refrion CARE Service specialists develop a specific inspection report that highlights:

- the conditions of the ventilated unit
- · the recommended maintenance activities
- the list of the components to be replaced
- the benefits of the suggested interventions

Moreover, with the Refrion CARE Service it's possible to extend the warranty period up to two years.

## SUPERVISION AND COMMISSIONING



The optimal operation of the Refrion ventilated units also involves perfect installation. This is why Refrion CARE Service technicians supervise the activity in person or remotely, verify compliance with the minimum installation requirements and optimize the set up of the unit according to the real operating parameters.

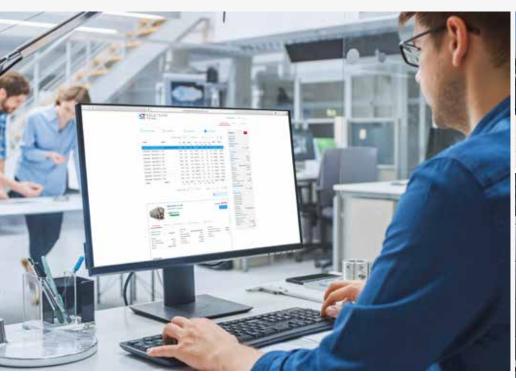
In addition to this, Refrion technicians are also available to carry out the first commissioning of the machine and verify its optimal operation by following rigorous checks on all functions.

Each intervention is certified by a timely start-up report. In addition, with Refrion CARE Service you can extend the warranty period up to six months from the start date.



## **SUPPORT**

The Refrion staff and authorized centers also provide remote assistance for commissioning, inspection, maintenance and cleaning of refrigeration units.







## SPARE PARTS MANAGEMENT

The original spare parts ensure the optimal operation throughout the whole cycle of the Refrion ventilated units with multiple benefits:

- operating safety;
- reduction of machine downtime;
- maximum duration.

The management of all spare parts and assistance requests takes place centrally, guaranteeing short supply and intervention times.



## PERIODIC SCHEDULED MAINTENANCE

For new plants, as well as for existing ones, Refrion CARE Service proposes a periodic scheduled maintenance contract.

Not only: Refrion supports the customer on site or remotely by supporting him and transferring all the information necessary for the correct execution of activities.







## **CLEANING**

It's advisable to carry out the cleaning activities of the ventilated units at least once a year, in order to be able to count on their correct operation and optimal performance and to avoid the formation of encrustations or other phenomena harmful to humans and to the unit itself.

## **DEVICE CHECK-UP**

#### Advantages:

- ensuring the optimal operation of the unit;
- avoiding system blocks;
- avoiding machine stops;
- keeping the performance of cooling solutions unchanged.

#### What we check:

- electric and electronic components;
- specific devices of adiabatic systems;
- finned pack heat exchangers.

# REVAMPING THE NEW REFRION CARE SERVICE

In order to restore or increase the performance of Refrion units and extend their life cycle, Refrion CARE Service offers the new revamping service.







## WHAT REVAMPING MEANS FOR US

- Upgrade of systems that have become obsolete over time through the replacement of electrical or electronic components with latest generation devices (such as fans or software)
- Implementation of dry units with adiabatic system, in addition to the replacement of PADS on adiabatic systems.

# THE MANY REASONS FOR ADIABATIC REVAMPING

The use of an adiabatic system for the pre-cooling of the intake air allows to increase the efficiency of the machine, even where the climate reaches high temperatures, and extends the life of the systems.



/Compliant



## 100% COMPLIANT WITH STANDARDS

Adiabatic revamping ensures compliance with any new legislation or standard regarding also health matters.

But that's not all: with the revamping action you can extend the warranty for two years.

## SUMMARY

- · performance improvement;
- reduction of noise emissions;
- water saving:
- energy saving;
- · increased reliability of the unit;

- regulatory compliance;
- warranty extension on the treated unit;
- compliance with health regulations (no risks of legionella).

## NOT ONLY REFRION UNITS

Revamping operations can be performed on all Refrion units, but they also represent a valid solution to implement the performance of other types and other brands of machines, at reduced costs and timing.

# THE 4 ADIABATIC REVAMPING SOLUTIONS THAT REFRION CAN OFFER

## WITH THE ADIABATIC SPRAY

Humidification of the intake air by means of water nebulization.



## WITH THE H.S.S. HYBRID SYSTEM

Cooling of the exchange surface through direct nebulization of water on the heat exchanger.



## WITH OPEN CIRCUIT INDUSTRIAL ADIABATIC SYSTEM

Humidification of the intake air by means of special open-circuit adiabatic cellulose panels.



## WITH CLOSED CIRCUIT INDUSTRIAL ADIABATIC SYSTEM

Humidification of the intake air by means of special closed-circuit adiabatic cellulose panels.

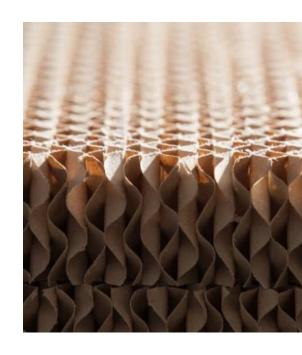


# LATEST GENERATION PADS OF THE BEST QUALITY

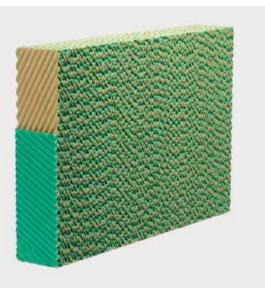
The evaporative cooling pad that is used in the Refrion units is designed for high efficiency cooling systems.

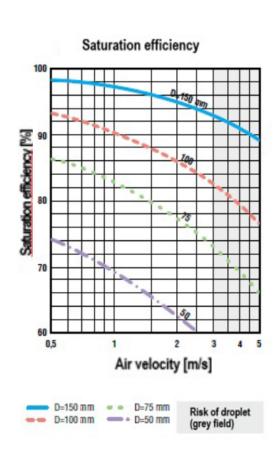
It's a product consisting of specially impregnated and corrugated cellulose paper sheets with different groove angles, glued together. The unique design produces a cooling panel with a high evaporation efficiency, even though it operates with a very low pressure drop.

There's an additional panel on the Refrion PADS Systems: the droplet separator panel. This panel stops the already low amount of droplets at the exit of the cooling pad. With this type of system, the possibility of water droplets formation is minimized.









## OUR REVAMPING IN THE WORLD

## REVAMPING WITH INDUSTRIAL ADIABATIC SYSTEM (PADS) SUPERJUMBO - MODEL: EQUC 2890.6

#### **BEFORE**





# AFTER

#### ORIGINAL INSTALLATION:

Ambient temperature: 30°C - 43%U.R. Fluid IN/OUT Temperature: 40/35°C

Water Flow: 206 m<sup>3</sup>/h Cooling capacity: 1200kW

#### WITH INDUSTRIAL ADIABATIC SYSTEM (PADS):

Ambient temperature: 40°C - 43% U.R. Fluid IN/OUT Temperature: 40/35°C

Water Flow: 206 m<sup>3</sup>/h Cooling capacity: 1200kW

Result: the machine works with +10K of ambient temperature

## REVAMPING WITH INDUSTRIAL ADIABATIC SYSTEM (PADS) WALL - MODEL: EK5C 1590.6

#### **BEFORE**



## **AFTER**



## ORIGINAL INSTALLATION:

Ambient temperature: 35°C - 40%U.R. Temperatura IN/OUT Fluido: 45/40°C

Water Flow: 59 m<sup>3</sup>/h Cooling capacity: 340kW

## WITH INDUSTRIAL ADIABATIC SYSTEM (PADS):

Ambient temperature: 35°C - 40%U.R. Temperatura IN/OUT Fluido: 45/40°C

Water Flow: 120 m<sup>3</sup>/h Cooling capacity: 690kW

Result: At the same conditions, doubling of the air flow and cooling capacity

# REFRION CARE MEANS PROFESSIONAL TEAM AT YOUR SERVICE

## The CARE service centers guarantee:

- safety of the assistance interventions: the CARE Centers are authorized by Refrion;
- quality and speed of interventions thanks to the continuous training of the staff that also includes specific training sessions on the Refrion units;
- effective assistance management: the technicians of the authorized CARE Centers personally manage the intervention requests;
- saving on maintenance: if agreed at the same time as the purchase of a Refrion unit, maintenance interventions through CARE are offered at reduced costs compared to the price list.





## THE TRAINING COURSES

Refrion is available for specific training courses with a practical part where ad hoc prototypes are used to simulate the installation, management and maintenance activities. Theoretical and practical courses, in Italian or English, focus on the installation, operation and maintenance of all Refrion products: dry coolers, condensers, batteries and industrial solutions. Refrion trainers are also available to develop customized courses for management and maintenance activities dedicated to the Service and Maintenance staff and to the support with the new Selection Tool.



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