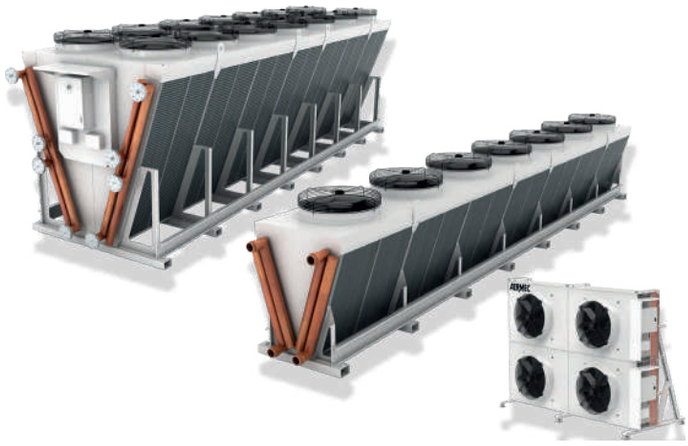
Remote condensers - Dry Cooler

Cooling capacity 8 ÷ 2200 kW

- **Simple to use and install**
- **Wide range of powers**
- **Easy to handle and transport**
- **Can be installed both horizontally and vertically**



DESCRIPTION

DryCoolers and Condensers are air-cooled units used in air conditioning, refrigeration and industrial applications. The are typically installed outdoors, in a remote location, e.g. on roofs, squares, etc. These units consist of one or more heat exchangers installed on two types of structures:

— **Type V**: generally consisting of two heat exchangers installed in a 'V' shape and fans positioned above them.
— **Table type**: generally consisting of a horizontally or vertically positioned heat exchanger and fans with a vertical axis of rotation relative to the finned pack.

The use of these units, in most cases, is necessary to control the temperature of the outlet fluid or to keep the condensing pressure of the refrigerant used under control. These units are generally equipped with air flow regulation systems, which allow the heat exchange to be adapted to changing environmental conditions (day, night, summer, winter, etc.).

Since the units are installed outdoors, they are subject to all environmental characteristics. There are several regulations that classify outdoor environments. The main categories are:

— Rural area
— Urban area
— Coastal area
— Industrial area
— Coastal-industrial area

These areas, in turn, can be further divided, as they can create specific micro-environments, which are the sum of one or more of the above-mentioned categories.

In addition to these classifications, there are also further severe situations due to the significant presence of pollutants such as, for example, sulphur oxides typical of climatic zones with intense acid rain (e.g. northern Europe) or areas near volcanoes, etc. All these pollutants can significantly change the pH of the environment, making deposits on the units extremely corrosive.

Another factor to consider is TOW (time of wetness), which is the amount of time that there is a constant presence of humidity above 80% with a temperature above 0 °C. These are just a few examples of environmental situations that require a thorough analysis of the installation before making a technical choice.

In addition, instructions on maintenance and cleaning methods should also be considered in the following cases:

— after a shipment of units by sea
— when operating the unit in particularly dirty places

The correct definition of the corrosive environment has a direct impact on the choice of heat exchanger materials, structure and fans to be used. Aermec it is able to offer specific technical solutions for each of these cases and to test new construction solutions in cases not previously mentioned.

We recommend using the Aercooler selection programme available on the website www.aermec.com.

EVERY DETAIL IS DESIGNED TO ENSURE THE BEST PERFORMANCE

LIFTING EYES
Aermec has designed the lifting eyes to ensure a correct and easy handling of the dry cooler in compliance with safety standards.

CROSS AND LONGITUDINAL SECTIONS OF EACH PART
Each fan module is separated from the other thanks to panels in order to avoid air by-pass and to optimize the efficiency of the heat exchanger. In this way the correct and proportional functioning of each module is granted.

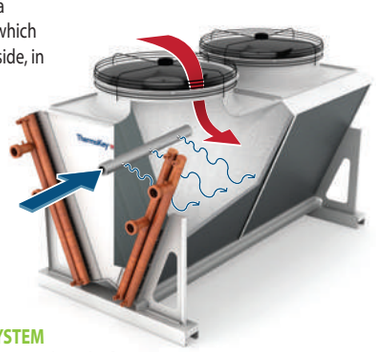
PAINTED CASING
Standard painted casing with C4 protection-class,designed in galvanized steel which is oven painted with polyurethanic resins to guarantee a perfect durability over time.

COVERS ON HEADERS AND RETURN BEND SIDES
A protection cover on the headers side and a closing cover on the return bend side of the coil avoid any damage even to the most fragile parts.

NITROGEN FILLING WITH FLANGE AND COUNTERFLANGE
In order to verify the correct pressure of the circuit, the unit is supplied with a nitrogen charge, which can be checked on the manometer mounted in factory.

OPTIONS

(Optional)
SPRAY J CLEANING SYSTEM
On V-type units Aermec has designed a Cleaning System with internal nozzles which sprays water from the inside to the outside, in order to clean the heat exchanger.



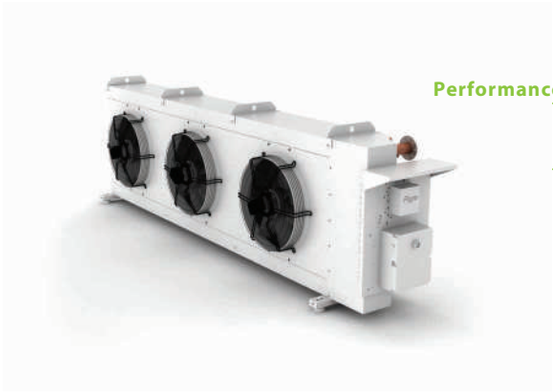
(Optional)
SELF-DRAINING AND DRAINABLE SYSTEM
automatic drain system designed to prevent the risk of **freezing of the finned coil during the winter.**

(Optional)
STAINLESS STEEL TUBES, FINS AND CASING
AERMEC can also produce **heat exchangers completely in 304 or 316L** stainless steel for special applications (particularly aggressive environments) or fluids..

(Optional)
ADIABATIC COOLING SYSTEMS: HIGH EFFICIENCY TO MEET THE MOST DEMANDING CONDITIONS

- **AFS - AIR FRESH SYSTEM**
  adiabatic cooling system equipped with special high-pressure nozzles which allows to compensate for the peaks of power to be dissipated, with minimum water consumption for maximum of 500 hours per year.
- **WFS - WET FIN SYSTEM**
  hybrid cooling system which allows a complete flexibility of operation, working at low pressure (2-3 bars) and for a very high number of hours per year (up to 1000).
- **EPS - EVAPORATIVE PANEL SYSTEM**
  The evaporative panel system completes Aermec offer for adiabatic cooling. Thanks to an homogeneous and adjustable distribution of water on the panels this system allows to reach a high saturation level and therefore an efficient capacity increase with low water consumption (hours per year 8000).

DRY COOLERS RANGE

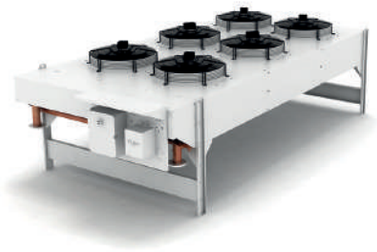


WTE

Performance range: **Capacity from 8 to 890 kW**
(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

Fans Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

Benefits
- High efficiency geometry
- Modular design, 1-10 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted



WTE

Performance range: **Capacity from 45 to 1123 kW**
(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

Fans Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

Benefits
- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted

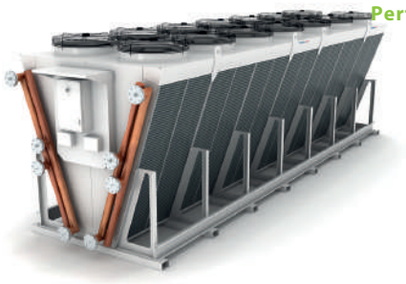
WTR

Performance range: **Capacity from 45 to 1123 kW**
(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

Fans Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

Benefits
- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted

WDR



Performance range: **Capacity from 70 to 961 kW**
(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

Fans Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

Benefits
- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted

WGA

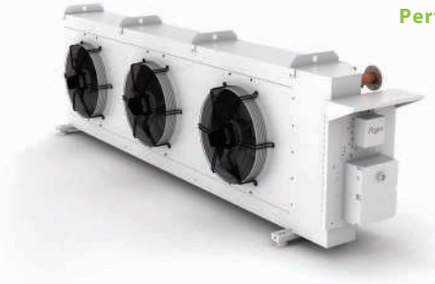
Performance range: **Capacity from 290 to 2219 kW**

Fans Diameter Ø 800, 900, 1000 mm, AC or EC motor

Benefits
- **EPS (Evaporative Panel System)**
- Maximum performance, minimum footprint
- High efficiency geometry
- Modular design, 8-20 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories

REMOTE CONDENSERS

CSE

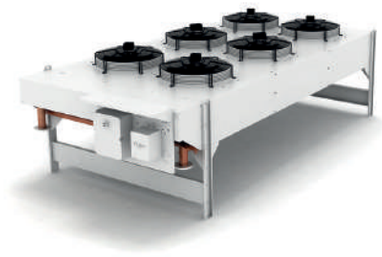


Performance range: **Capacity from 10 to 1200 kW**
(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

Fans Diameter Ø 500, 630, 800 mm, AC or EC motor

Benefits
- High efficiency geometry
- Modular design, 1-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted

CSE



Performance range: **Capacity from 45 to 1123 kW**
(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

Fans Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

Benefits
- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted

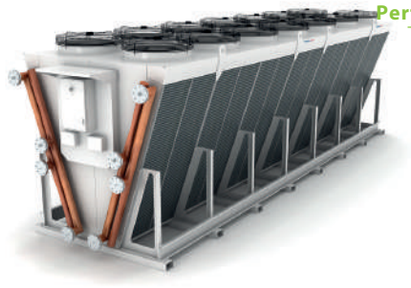
CVR

Performance range: **Capacity from 70 to 961 kW**
(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

Fans Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

Benefits
- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted

CDR



Performance range: **Capacity from 100 to 19515 kW**
(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

Fans Diameter Ø 900 AC or EC motor

Benefits
- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- AFS (Air Fresh System), WFS (Wet Fin System) e EPS (Evaporative Panel System) disponibili su richiesta
- Casing in galvanized steel, powder painted

CGA

Performance range: **Capacity from 290 to 2219 kW**

Fans Diameter Ø 800, 900, 1000 mm, AC or EC motor

Benefits

- **EPS (Evaporative Panel System)**
- Maximum performance, minimum footprint
- High efficiency geometry
- Modular design, 8-20 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories

MODULAR MICROCHANNEL

Performance range: **Capacity for each module up to 120 kW**

Fans Diameter Ø 800 mm, AC or EC motor

Modules From 1 module on

Benefits

- Compactness (maximum length of 2245 mm)
- Low installation costs
- Regulation or partialisation of the whole unit
- Lower enviromental impact
- Less weight
- Less fluid use
- Easy-to-clean microchannel core
- Core coating possibility in case of aggressive ambient

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