Air Cooler Industry
AC-MS
Modular Systems

General

The new AC-MS air coolers are specifically designed to meet the needs of electric power generation applications, such as Diesel or gas generators, gas turbines, cogeneration units, gas compressors and general applications in oil and gas industry.

Product Features

Due to the high level of efficiency achieved by our aluminium cooling elements made with "plate & bar" technology, the new AC-MS coolers are designed to allow the installation inside the standard and high cube ISO 20-40 ft container, for Diesel / gas engines, gas turbines and compressors with the highest power output.

The modular design of the coolers makes possible the integration in several types of installations, and offers the possibility to expand the cooling capacity of new and existing power plants.

The AC-MS coolers may be used for cooling the following fluids:

- Engine cooling circuits
  HT High temperature circuit
  for jacket water
- LT Low temperature circuit for air to water charge cooler
- Charge air for Diesel and Gas turbo after-cooled engines
- Lubricating and transmission oil circuits
- Diesel fuel

Application Field

- Diesel and gas generators with a power output up to 3,000 kVA and over
- Gas turbines
- Gas compressors
- Combined heat and power applications (CHP)
- Oil & gas industry
- General industrial and fluid process cooling

Design

Depending on the specific needs of the application it is possible to choose the coolers among these three configurations:

Low Noise Coolers

- Fixed fan speed rotation
- Variable speed fan
- Ultra-silent coolers for special applications

Compact Design

- High performance in a compact design
- Side by side coolers
- Stacked coolers

Heavy Duty Systems

- Enhanced performance
- Extreme ambient conditions

AC-MS Benefits

- Modularity:
  Expand your cooling capacity without limitation.
- Compactness:
  Design is optimized for containerized application
- High performance:
  Specific heat capacity up to 18 kW/K water glycol application.

- Efficiency:
  Low noise coolers reduce energy consumption further by use of low speed fans.
- Low cost of maintenance due to electric motor fan drives.

AC-MS Low Noise – High Efficiency

AC-MS Low noise cooler is the combination of high efficient cooling element and variable speed fans technology. Fans performances are regulated by monitoring both thermal load of the fluids and ambient temperature. Fan speed is tuned by means of system's integrated PID algorithm.

The reduced acoustic emissions of these coolers allow the installation of industrial equipment such as Diesel and gas generators, compressors and any other industrial machines needing a cooler in residential areas, hospitals, hotels, commercial buildings and schools.

Horizontal air flow direction
Vertical lay-out

Horizontal lay-out

Vertical air flow direction
V-shape cooler

A range of products is available for Diesel and gas generators with an electrical power output of 40 kVA / 200 kVA / 300 kVA / 500 kVA / 800 kVA and up to 1,400 kVA.

Modularity of the cooling systems allows to expand the cooling capacity to any enhanced requirement.

AC-MS Compact Design

AC-MS compact coolers are the ideal choice for energy power applications that demand extremely high thermal capacity in limited space.

The overall dimensions of the coolers are compatible with the height limits of standard or high cube 20/40 ft ISO container. With electric motors for fan drives with electric power up to 22 kW with 2 and 4 poles and option for variable speed drive. The modular design allows vertical and horizontal air flow direction. Mounting position of the cooling system in both vertical and horizontal position meets any specific installation requirement.

Horizontal air flow direction

Stacked cooler – Vertical lay-out

Twin/Stacked cooler – Vertical lay-out

Vertical air flow direction

Single Table cooler – Horizontal lay-out

Modular cooler – Horizontal lay-out

AC-MS Heavy Duty

AC-MS Heavy Duty systems are designed to match the highest level of performances and reliability.

The radiator core is available with various core thicknesses, assembled in a structural steel frame suitable for outdoor installation. Those coolers integrate a bunded tank required for leakage and for safe maintenance operation.

AC-MS coolers are available in several standard models that may be configured with options such as acoustic louvers, hydraulic and electrical control box, air flow inlet and outlet conveyor.

All the parts are easily accessible for cleaning, inspections and testing procedures.

Typical applications are those in the energy market segment as well as for gas turbine lubrication oil bearing or general industrial application.

Single module – open top

Modular system
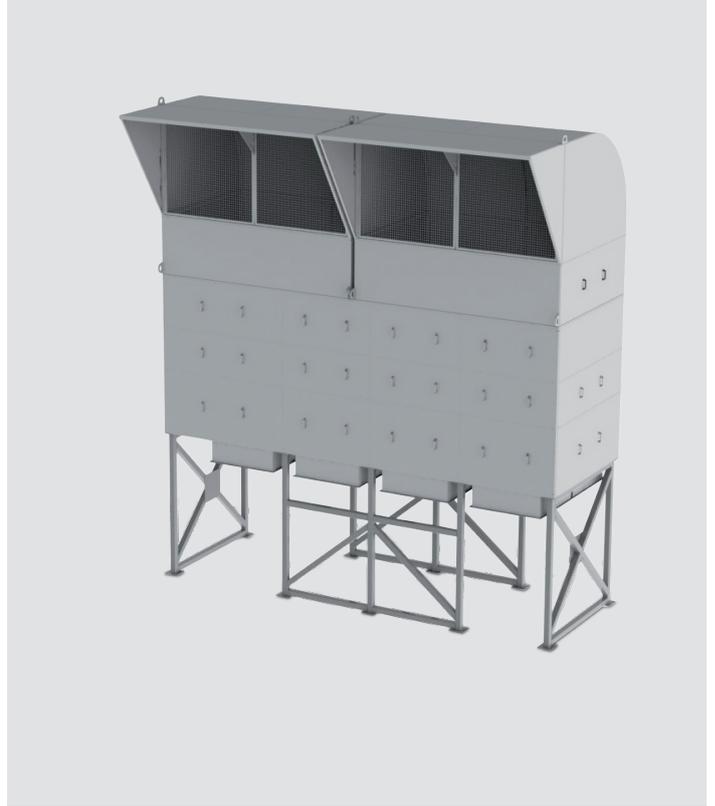
AC-MS Installation Examples

AC-MS Compact – HT / LT Circuit
3,200 kVA Diesel engine
– Emergency operation

AC-MS Compact – Modular table coolers
Cooling systems for gas compressor power station
Baseload and standby units

AC-MS Low Noise
Variable speed fans – 800 kVA Diesel engine
Jacket water and charge air cooler engine circuits
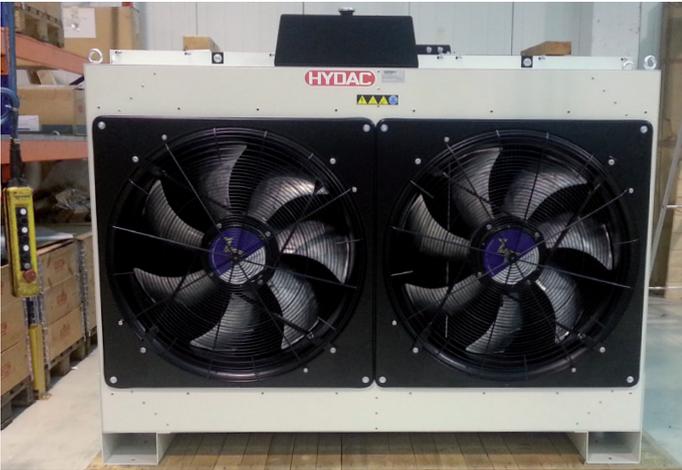
AC-MS Heavy Duty
Cooling system for air compressor

AC-MS Options Available

- Expansion / Filling tank
- ISO flanged / Victaulic hydraulic connection
- Fluid temperature and level sensors
- Safety switches for electric motors maintenance
- CPL version (Corrosion Protection Level)
- ATEX version
- Customized solutions
- Fan systems for engine room temperature control with AC/DC motors and brushless option with PWM speed control

Note

The information in this brochure relates to the operating conditions.

For applications and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

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