

Industrial Chiller

Air Cooled Water Chiller - MRS



MRS industrial grade water chillers are available in cooling capacity range from 13 to 75 kW, with water working temperatures ranging from 0°C to 25°C and suitable for indoor or outdoor installation. The standard configuration is designed for an ambient temperature up to 45°C.

These units are equipped with up to four hermetic rotary Scroll compressors in one or two refrigeration circuits with ozone-friendly refrigerant R410A, axial-flow fans and microchannel full-aluminium condenser.

Characterised by very small footprints, these chillers are particularly suited for installation close to processing machines.

Versions

- **Fan Type**
 - AC: on-off asynchronous fans
 - EC: brushless EC variable speed fans
 - EH: high pressure EC fans, suitable for ducting indoor installation
- **Evaporator Type**
 - BP: Brazed-plate
 - S&T: shell-and-tube
- **Water Configuration Type**
 - N: no pumps and tanks
 - M: with evaporator pump only
 - P: with tank and process pump



Scroll

Advantages

- Reduced footprint
- FC version with integrated Free Cooler (saving more than 60% of energy)
- Microchannel condenser and free cooler with low refrigerant charge and with low air pressure drop
- Easily cleanable microchannel condenser using pressure washer

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Technical Features

Chiller System

- Scroll compressor;
- 1 refrigerant circuit;
- R410A refrigerant;
- High and low pressure gauges

High efficiency microchannel aluminium condenser

- **Higher efficiency and performances**
 - Heat exchange from +20% to +40% compared with finned tube models
 - Reduction of air-side pressure drops
 - Lower weight and reduced dimensions
 - Thinner profile than finned tube models
 - 60% lower weight compared to finned tube models
- **Proven reliability**
 - Robust design and easy to clean with pressurised water
 - Process and materials proven over time
 - Engineered with long-life aluminium alloys
- **Low cost**
 - Lower refrigerant charge
 - Optimised material cost

Fan Type

- **AC: asynchronous on-off fans**
 - For temperatures greater than -15°C
- **EC: brushless fans with variable speed**
 - For ambient temperatures greater than -25°C
- **EH: high head EC fans**
 - Suitable for ducting on indoor installations (heat recovery)
 - For ambient temperatures greater than -25°C

Evaporator

- **BP: brazed plates**
 - All configurations available
 - SS316L copper brazed plates
 - Oversized exchange surface
 - Reduced dimensions and high-efficiency herringbone pattern
- **S&T: shell**
 - Available on MRS121-161-191 no-tank configurations only
 - Cleanable
 - Gas and water low approach
 - Carbon steel body and copper pipes
 - Anti-corrosion extra thick design

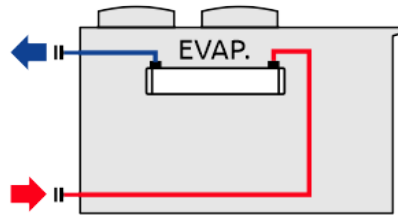


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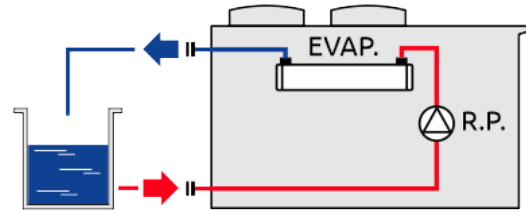
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Technical Features

- Self water-filling
- Chilled-water storage tank pressurised and insulated
- Galvanized steel frame and panels, painted with polyester powders
- Stainless steel pumps



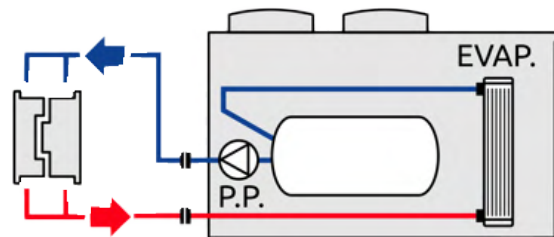
N: without pumps and tank



M: with evaporator's pump only

Process pumping stations available on request for GPP/GPV series, with and without inverters, recirculating pumping stations and its storage tanks.

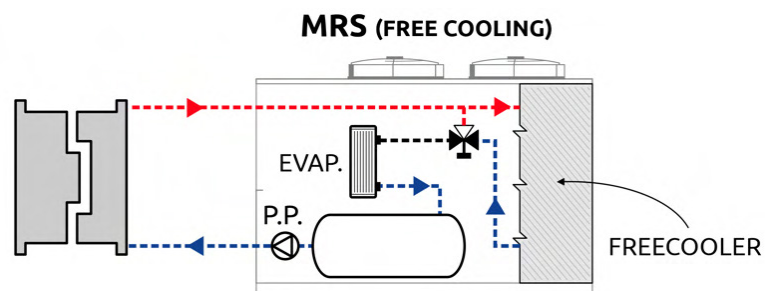
Process pumping stations available on request for GPP/GPV series, with and without inverters.



P: with tank and process pump

Built-in Freecooling option

Some versions are available with built-in freecooler system. This version, using the ambient air, allows to cool the water from the process, by shutting down, partially and/or completely, the refrigerating unit, resulting in energy savings.



Option

- Cold Climate for no glycol systems when $T_{amb} < 0^{\circ}\text{C}$
- Electrical cabinet heater for glycol systems when $T_{amb} < 0^{\circ}\text{C}$
- Remote control with 30m of cable
- Y water filters
- Wheels
- Opened loading tank option
- Metal air filter on condenser

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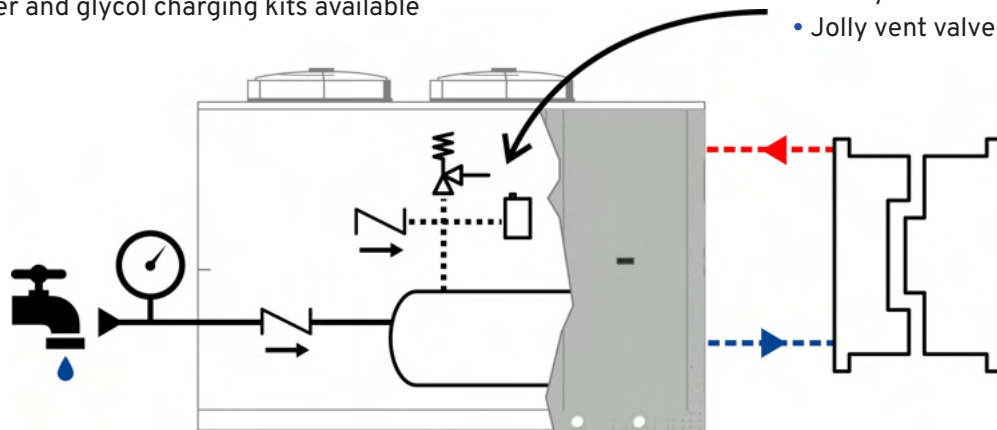
Hydraulic Supply

Standard models with internal tank "P"

- Filling by water system
- The pressure of the inner tank is determined by the water supply
- External water and glycol charging kits available

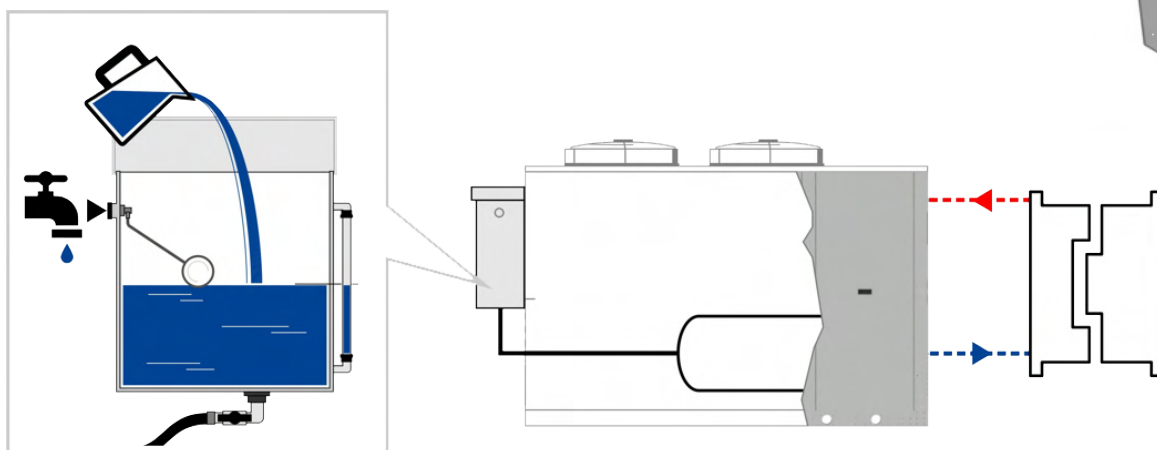
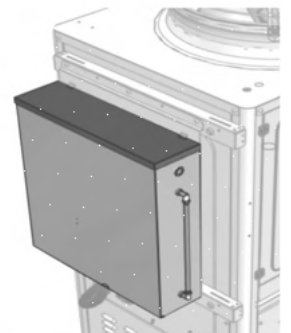
Safety Devices

- Vacuum breaker valve
- Safety valve
- Jolly vent valve



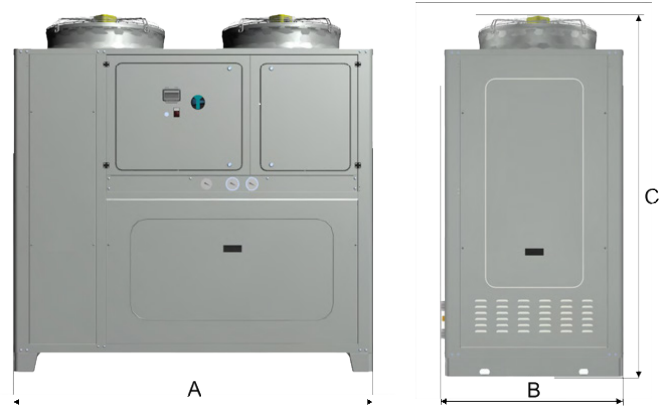
Models with internal tank "P" and tray for manual loading

- Consisting of a stainless steel tray with flap lid
- Allows manual loading of water, or water-glycol mixture
- Allows automatic loading with float if connected to water system
- Equipped with internal visual level indicator

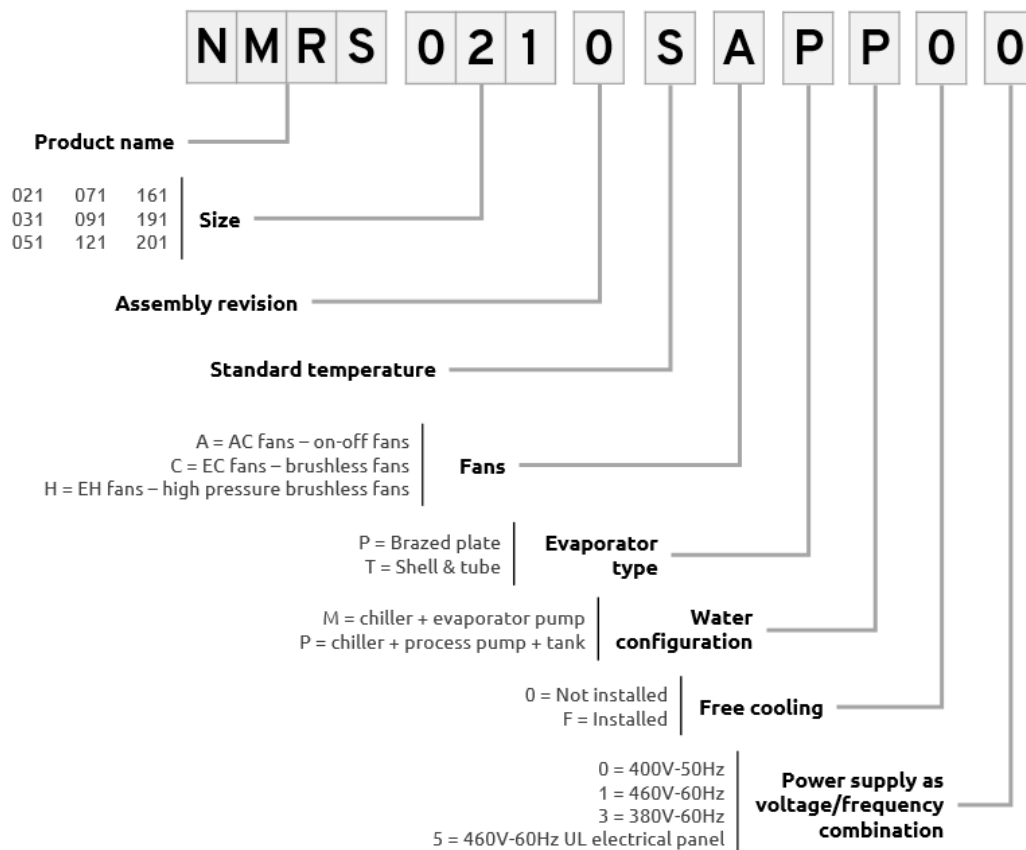


Industrial Chiller – Air Cooled Water Chiller - MRS

Industrial Chiller Air - MRS (Heavygel)										
Model		21	31	51	71	91	121	161	191	201
A	mm	820	820	1,360	1,360	1,360	1,810	1,810	1,810	1,810
B	mm	688	688	690	690	690	890	890	890	890
C	mm	1,631	1,631	1,827	1,827	1,827	1,865	1,865	1,865	1,865



Order Code



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