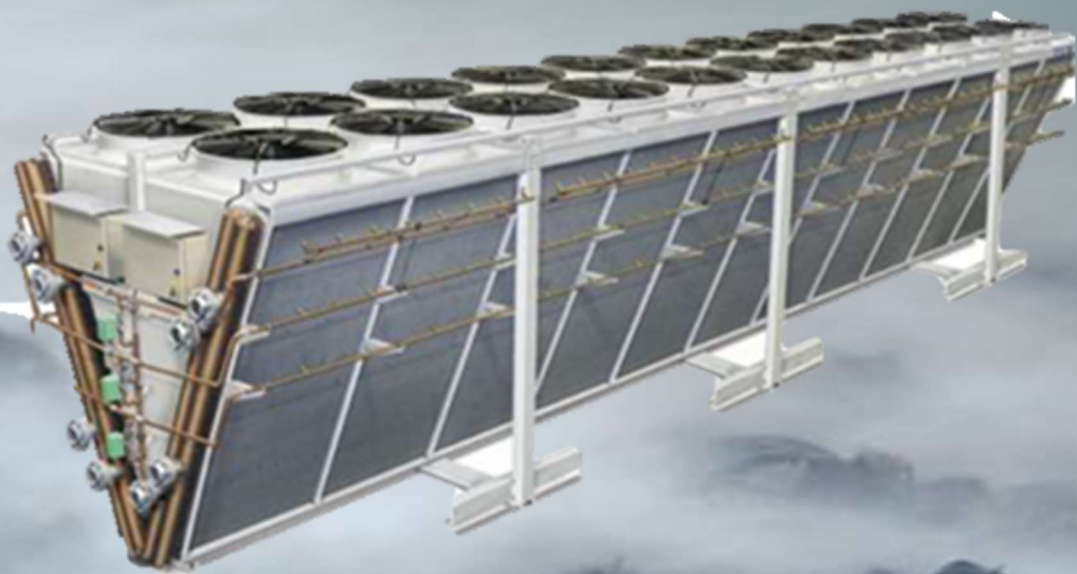


SIRE

CHILLERS



Dry coolers

Another alternative for cooling fluids through a closed circuit is to an air condenser-type analog exchanger system, with heat removed from the fluid by convection, through forced air circulation by fans that flow backwards through a tube and finned battery system. This type of cooling is usually above ambient air temperature. The fluid to be cooled is inside the piping so there is no direct contact with the cooling water.

DRYACPD/H	100H	200H	300	400	500	600	700
refrigerating capacity	106	203	312	425	512	633	730
number of fans	2	4	4	4	6	6	8
absorbed power kW x 1	0.80	1.15	1.15	1.15	1.15	1.15	1.15
current A total	3,2	8	8	8	12	12	16
air flow m3 / h Δt 10°C	21.200	40.600	62.400	85.000	102.400	126.600	146.000
water flow m3 / h Δt 10	10.600	20.300	31.200	42.500	51.200	63.300	73.000
temp. max input	+85°C	+85°C	+85°C	+85°C	+85°C	+85°C	+85°C
min without ethyl glycol	+2°C	+2°C	+2°C	+2°C	+2°C	+2°C	+2°C
work pressure	4bar	4bar	4bar	4bar	4bar	4bar	4bar
depth	2200	2200	3200	3500	4500	4500	5200
width	1100	1100	1400	1400	1400	1400	1400
height V	1600	1600	1700	1700	1700	1700	1700
height H	1100	1100	1100	1200	1200	1350	1350
dry weight	774	910	1150	1214	1452	1484	1553
Net price V	5.350,00	7.890,00	13.860,00	15.990,00	17.800,00	19.879,00	22.000,00
Net price H	4.200,00	6.400,00	12.790,00	14.640,00	16.900,00	18.700,00	20.100,00
dba 10 Meters	65	66	66	66	69	69	68
pump included	s	s	s	s	n	n	n
electrical board included	s	s	s	s	s	s	s
DRYACPD/V	800	900	1000	1100	1200	1300	1500
cooling capacity KW	835	940	1070	1125	1210	1340	1512
number of fans	10	12	14	16	18	20	22
absorbed power kW x 1	1.15	1.15	1.15	1.15	1.15	1.15	1.15
current A total	20	24	28	32	36	40	44
air flow m3 / h Δt 10°C	167000	188000	214000	225000	242000	268000	302400
water flow m3 / h Δt 10	72000	80825	92000	94500	105000	116000	130000
temp. max input	+85°C	+85°C	+85°C	+85°C	+85°C	+85°C	+85°C
min without glyco ethylico	+2°C	+2°C	+2°C	+2°C	+2°C	+2°C	+2°C
work pressure	4bar	4bar	4bar	4bar	4bar	4bar	4bar
depth	5800	6200	7100	8500	9400	10800	11500
width	1400	1400	1600	1600	1600	1600	1600
height V	1700	1700	1700	1700	1700	1700	1700
height H	1350	1350	1440	1440	1440	1440	1440
dry weight	1865	1934	2320	2556	2669	2860	2978
Net price V (adiabatic)	25.900,00	26.400,00	26.990,00	29.991,00	31.340,00	33.870,00	35.100,00
Net price H	23.779,00	24.900,00	25.870,00	27.230,00	29.100,00	32.100,00	33.100,00
dba 10 Meters	68	68	68	68	68	68	68
pump included	n	n	n	n	n	n	n
electrical board included	s	s	s	s	s	s	s

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The V Model

The V- is a Dry Cooler that allows a cooling system similar to the cooling tower one, yet with no aerosol set of problems.

Can be equipped with an Evaporative Panel System adiabatic system with evaporative panels to reach higher specific capacity compared to a traditional Dry Cooler.

No water treatment needed

No exchangers' treatment

Reduced water and energy consumption

Unlimited hours per year

Low total cost of ownership

Heavy duty design

WIRING IN JUNCTION BOX

WIRING WITH ELECTRICAL AC P...

WIRING WITH SPECIAL ELECTRI...

SWITCH

PHASE CUT SPEED CONTROLLER

SINGLE-PHASE R – PHASE CUT SPEED CONT...

STEP FAN SPEED CONTROLLER

INVERTER SPEED CONTROLLER by OPTIONAL

SHOCK ABSORBERS

FLANGES

EXPANSION TANK

INSPECTIONABLE FANS

CASING PAINTING WITH EPOXY PROTECTION

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The H Model

The H-is a Dry Cooler that allows a cooling system similar to the cooling tower one, yet with no aerosol set of problems.

is a simple system without adiabatic, in a position of vertical air supply, extremely viable and without maintenance costs fans can be optionally variable speed

No water treatment needed

No exchangers' treatment

Reduced water and energy consumption

Unlimited hours per year

Low total cost of ownership

Heavy duty design

WIRING IN JUNCTION BOX

WIRING WITH ELECTRICAL AC P...

WIRING WITH SPECIAL ELECTRI...

SWITCH

PHASE CUT SPEED CONTROLLER

FLANGES

EXPANSION TANK

INSPECTIONABLE FANS

CASING PAINTING WITH EPOXY PROTECTION

A dry cooler is an air-cooled device, which is used to eliminate excess heat. The cold fluid, usually water, circulates through the cooler, where heat is transferred from the air to the fluid.

The fans are used to force air through the dry cooler. A temperature difference of at least 5 K between the cooling air and the fluid is recommended. The dry cooler is often used in industries where it is necessary to eliminate excess heat. For example, cooling or pre-cooling processes. Evaporators are used in cooling systems. Evaporators absorb the surrounding heat, for example, by cooling the surrounding air. For air conditioning applications, air- or water-cooled evaporators are used.

Usually, an air-cooled evaporator is equipped with copper or steel pipes, equipped with aluminium fins. The refrigerant flows through the pipes transferring the heat to the fins, which in turn are cooled by a fan. A water-cooled evaporator is often equipped with an elongated tank with integrated pipes. The refrigerant flows around the pipes in the tank, while cold water flows into the pipes which eliminates the heat from the refrigerant.

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Evaporation takes place in the evaporator, which is a component of a cooling system. The transition from the liquid state to the gaseous state of the refrigerant flowing through the evaporator is called evaporation.

SIRE 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.

sire 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

The evaporative panel system completes «sire 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

SIRE can also produce heat exchangers completely in 304 or 316L stainless steel for special applications particularly aggressive environments or fluids.

In order to verify the correct pressure of the circuit, the unit is supplied with nitrogen charge of about 3 bars, which can be checked on the manometer mounted in factory

Standard painted casing, designed in galvanized steel which is oven painted with polyurethane resins to guarantee a perfect durability over time

A protection covers on the headers side and a closing cover on the return bend side of the coil avoid a 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. Ny damage even to the most fragile parts.



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