MC fluid cooler

MARLEY®





Unmatched reliability

Heavy-duty construction, high performance design and our five-year mechanical warranty ensure consistent, fully-rated cooling over a wide range of flow and temperature requirements.

What every premium installation demands

Reliability and performance. When specifying components for high-end applications, they're the most important considerations for your cooling solution. And the Marley MC Fluid Cooler delivers, with low noise and a space-saving footprint for installation practically anywhere. Suitable for all critical indoor and outdoor applications, the MC Fluid Cooler provides these built-in performance advantages:

Low energy consumption

Fluid cooling equipment minimizes the energy consumption of the entire system because it provides lower operating temperatures – saving money while conserving natural resources.

Low noise

Centrifugal fans, a fully-enclosed falling water area and optional sound attenuation create one of the quietest tower configurations on the market.

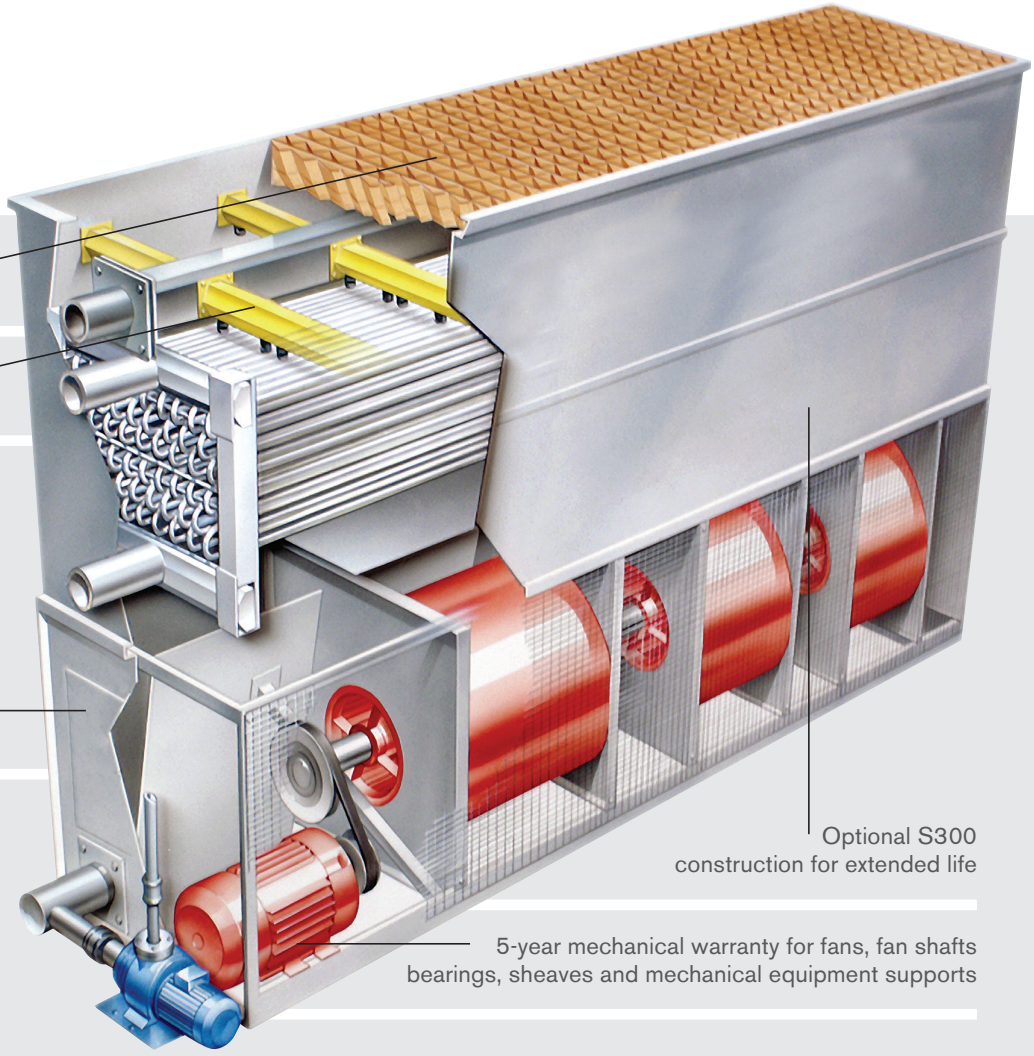
Smaller footprint

Forced-draft counterflow design requires considerably less plan area than crossflow towers.

Ease of maintenance

An extra large entry panel makes the interior of the unit easy to access for service and maintenance. For even greater access, the motor and drive are located outside the plenum area near the grade.

Features of the MC Fluid Cooler



High velocity, low drift eliminators guarantee drift rates <0.005%

Distribution system access via an optional ladder or platform

Extra large rectangular access doors for easy maintenance

Optional S300 construction for extended life

5-year mechanical warranty for fans, fan shafts bearings, sheaves and mechanical equipment supports

POPULAR OPTIONS

Welded stainless steel collection basin – for extra protection, all collection basin parts exposed to the circulating water, including structural members projecting into the basin (plus attaching hardware and all basin options) are heavy-gauge series 300 stainless steel. Electric basin heater – incorporating a stainless steel electric immersion heater with magnetic contactor and solid state circuit board can prevent freezing during operation in cold weather. A pump heat trace comes standard with the basin heater package.

Solid state water level control package – monitors basin water level with solenoid-valve water makeup. Configurations include makeup along with high and low water level alarm and cutoff and electric basin heater cutoff.

Positive closure dampers – gives the added security of safe operation in freezing weather by trapping heat inside the fluid cooler while fans are inoperable. Electric or pneumatic actuator operation allow for flexibility during design.

Vibration switch – protects against mechanical failure should the tower experience high vibration levels. Automatically shuts down the motor. Manual reset ensures inspection to correct initial vibration cause.

Variable speed drive – provides the ultimate in temperature control, energy management, sound control and mechanical equipment longevity.

Control systems – range in sophistication from standard fan and pump starters to Programmable Logic Controllers that work in conjunction with your building or process system.

Sound attenuation – baffles can be installed across the length of the air inlet, as well as the air outlet opening. All baffles are constructed of perforated sheet metal and contained within a self-supporting steel box.



- Standard HDG coil pressure tested to 400psi
- Hot dipped galvanized after fabrication
- Welded process fluid connection on either side
- Coils sloped for drainage

For fully-rated thermal performance, low sound levels and installation costs, year-round operating reliability and simplified maintenance requirements, demand the Marley MC Fluid Cooler. Call 44 0 1905 720 200 or visit spxcooling.com to learn more.

Frequently Asked Questions



Q Why should I purchase a fluid cooler instead of a cooling tower/heat exchanger combination?

A Fluid coolers reduce piping and system complexity by combining three pieces of equipment (cooling tower/ heat exchanger/pump) into one unit. This can prove beneficial in critical application areas.

In addition, a cooling tower and heat exchanger usually have a combined approach temperature of about 7°F. With a closed circuit fluid cooler, approaches as low as 5°F can be guaranteed – allowing for colder process fluid temperatures and greater efficiency during operation.

Closed circuit systems also protect the process fluid from contamination – reducing fouling and scaling tendencies within sensitive systems. Clean closed loops result in greater efficiency, reduced energy costs and reduced maintenance costs.

Q What are some common closed circuit/fluid cooler applications?

A Typical closed circuit applications include any process that is sensitive to fouling and corrosion. Many HVAC applications are ideal for fluid coolers. Fluid coolers are also ideal for installations where the process fluid is something other than water. The MC Fluid Cooler can effectively discharge heat from other fluids such as glycol, oil or other unusual water mixtures.

Common applications for the MC Fluid Cooler:

- Water source heat pumps
- Self-contained cooling
- Chillers
- Free cooling
- Cooling special fluids
- Compressor jacket cooling
- Machine jacket cooling

Common sites for the MC Fluid Cooler:

- Condominiums
- Steel mills
- Power plants
- Schools
- Hospitals

Q Why would I install a forced draft fluid cooler over other fluid cooler configurations?

A There are a number of reasons why a forced draft fluid cooler might be the smartest choice:

Low energy and water consumption – forced-draft fluid coolers can alternately operate in a dry cooling mode if ambient conditions are favorable. This minimizes energy and water consumption, saving money while conserving natural resources. For situations that require greater electrical energy savings, consider the Marley MH Fluid Cooler.

Low noise – centrifugal fans and a fully-enclosed falling water area work to create one of the quietest fluid cooler configurations on the market.

Small footprint – a forced-draft, counterflow design requires considerably less plan area than crossflow towers.

High static – the capability of centrifugal fans makes it ideal for ducted applications, indoors or out.

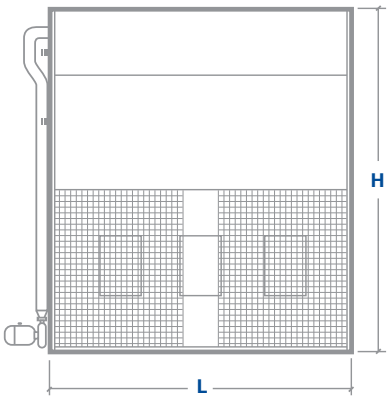
Q Can a fluid cooler be used in freezing weather applications?

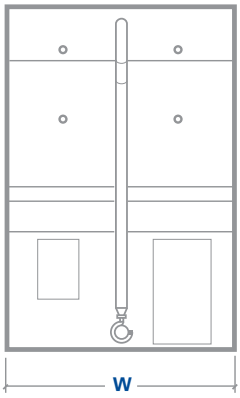
A Yes, but care must be taken to ensure proper operation and orientation (preventing recirculation). By maintaining sufficient flow rate and heat load on the process fluid, a closed circuit tower can be utilized in almost any environment.

Fluid exiting the coil must be maintained at or above 45°F. Cycling of the recirculation should not be used to control process temperatures. Instead, introduction of ethylene or propylene glycol solutions is the best means to protect the coil. For more severe fluid cooler freezing environments, we recommend the Marley MH Fluid Cooler.

Tower Models	m^3/hr*	L	W	H	Installed Weight
MCF7012–081	8 - 10	1830	1245	2820	1410
MCF7012–101	9 - 12	1830	1245	3050	1585
MCF7012–121	10 - 13	1830	1245	3275	1755
MCF7013–081	14 - 17	2745	1245	2320	1830
MCF7013–101	16 - 20	2745	1245	3050	2060
MCF7013–121	17 - 21	2745	1245	3275	2290
MCF7014–081	22 - 26	3660	1245	2820	2300
MCF7014–101	24 - 28	3660	1245	3050	2585
MCF7014–121	25 - 30	3660	1245	3275	2875
MCF7054–081	49 - 64	3555	2390	4165	4105
MCF7054–101	54 - 70	3555	2390	4395	4660
MCF7054–121	57 - 73	3555	2390	4625	5125
MCF7055–081	81 - 91	3555	2390	4165	5555
MCF7055–101	90 - 101	3555	2390	4395	6325
MCF7055–121	97 - 108	3555	2390	4625	7085
MCF7073–081	42 - 49	2665	2970	4165	4115
MCF7073–101	47 - 57	2665	2970	4395	4645
MCF7073–121	50 - 60	2665	2970	4625	5180
MCF7074–081	61 - 71	3685	2970	4165	5110
MCF7074–101	67 - 78	3685	2970	4395	5790
MCF7074–121	71 - 82	3685	2970	4625	6475
MCF7075–081	95 - 111	5360	2970	4165	6840
MCF7075–101	104 - 122	5360	2970	4395	7780
MCF7075–121	111 - 128	5360	2970	4625	8615

* at 35° C HW, 29.5° C CW and 25.5°C WB





Marley MC

FLUID COOLER

ADDITIONAL MC FLUID COOLER PUBLICATIONS

For further information about the MC Fluid Cooler – including engineering schematics, data, layout requirements and more – download these MC fluid cooler publications and others at spxcooling.com.



Engineering Data and Specifications



IOM Manual

OTHER SPX COOLING TECHNOLOGIES PRODUCTS

SPX Cooling Technologies offers a full line of industry leading products – with unmatched support and innovation designed to help you get the most out of your cooling process. Take a look at these other products at spxcooling.com.



Marley NC Cooling Tower



Marley MD Cooling Tower



Recold JW Fluid Cooler



Marley MH Fluid Cooler

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