

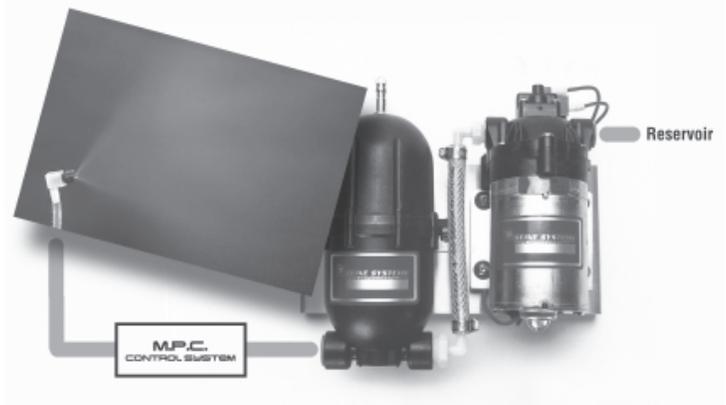
Information Sheet

M.P.C.

Multi.Purpose.Cooling Unit

System Description

MPC is a fluid misting system designed to lower air temperature using the principles of evaporation. Powered by the vehicle's electrical system (12 volts), the system can operate in a wide variety of mobile vehicles and remote locations to reduce environmental temperatures. Water, under high pressure, is converted into very fine droplet sizes using our specially-designed misting nozzles. The small water droplets (average 55 microns) rapidly evaporate to absorb heat from the air which lowers the air temperature approximately 15-20°F (10°C). MPC water nozzles have low water consumption characteristics. MPC can lower air temperature in many applications. This includes, but is not limited to the following:



Automotive	Fluid radiators (engine oil, differential/transmission lubricant, engine coolant, etc.) Turbocharger, supercharger intercooler Brake calipers and rotors (via brake ducting) Engine compartment
Other	Portable environmental space cooling (Golf carts, fork lifts, tractors, RV's and other open-air vehicles)

The system uses a low current, high pressure pump, resin nozzles that resist clogging and redundant system filters for minimal maintenance. In addition, an accumulator tank reduces pump cycling to minimize operating noise and extend pump life. MPC is a complete kit containing most components needed for a typical installation (wire, wire loom, switches, fluid hose/connectors, tie wraps, fuses/fuse holders, etc.). The MPC System is controlled manually (standard) or automatically (optional).

System Components

Reservoir and Filter

The MPC reservoir supplies fluid to the system. For space conservation, a flexible and collapsible storage reservoir is the standard system reservoir. System capacity is 2.5 gallons. The see-through, external fluid filter is user-serviceable. Replacement filters are also available. A quick-disconnect hose connection provides convenient reservoir/filter removal from the vehicle without leakage.

Pump and Accumulator Assembly

The MPC pump draws fluid from the reservoir/filter and provides high pressure fluid to the accumulator. The pump is controlled manually or automatically and protected by an inline fuse. The pump can run dry without damage (although not recommended for extended time periods) and can be mounted above the water supply (10' max.)

The accumulator contains two chambers separated by a flexible bladder. One side of the bladder is precharged with 60 psi of air pressure; the other side receives pressurized fluid from the fluid pump. During system operation, the pump charges the accumulator with fluid then automatically shuts off (built-in pressure switch). The accumulator supplies system pressure until additional pump pressure is required. The pump and accumulator mount as a unit on an aluminum bracket for ease of installation.

Pump Switch

The pump switch energizes the fluid pump to pressurize the accumulator. The illuminated switch indicates battery source voltage is applied to the pump.

Solenoid Valve

The MPC solenoid valve controls fluid flow from the accumulator to the nozzle(s). The solenoid valve is controlled by the solenoid valve control switch. To create independent nozzle branches (e.g. separate branches for intercooler and oil cooling), use an additional nozzle/solenoid kit and hose.

Solenoid Valve Control Switch

A toggle switch (standard) energizes the solenoid valve. An integrated status light illuminates whenever the solenoid valve circuit is energized. Other switching solutions are optionally available:

- Pressure switch Senses engine boost pressure (turbocharged or supercharged engines).
- Temperature switch Automatic solenoid valve operation according to a preset temperature level. User-selectable temperature turn-on setting.
- Brake switch (existing) Energizes the solenoid valve whenever the brake pedal is applied (for brake duct cooling applications). A piggyback wire connector is supplied to control the MPC solenoid from the brake light circuit.

MPC Nozzle(s)

MPC uses specially-designed resin nozzles to create very small droplet sizes. A user-serviceable, secondary nozzle filter traps additional particles to prevent nozzle clogging. Typically, each nozzle flows approximately .6 GPH (gallons/hour). 2 pairs of nozzles are included; the second pair has slightly higher flow rates for fine-tuning the cooling setup. Use one nozzle or any number for your particular application.

Hose Connectors

Nylon and polypropylene hose connectors (Tee's, elbows, adaptors and unions) are supplied to configure the nozzle system to your application. In addition, a quick-disconnect shutoff connector provides convenient separation of the reservoir/filter from the system for service or refilling.

System Hose

MPC uses low and high pressure hose. Low pressure PVC hose supplies water to the pump inlet. High pressure, braided PVC hose supplies water to the high pressure portion of the system.

MPC System price \$269.95 + shipping

Additional information and pictures on our website: www.seinesystems.com

Seine Systems reserves the right to change system configuration without notice

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