

# Hybrid Fluid Coolers

## Why use a Thermal Care Hybrid Fluid Cooler?

There are several convincing reasons to choose one of our new Hybrid Fluid Coolers for your industrial cooling process needs. It's likely that you can reduce both operating costs and energy consumption – while actually improving the quality of your process water.

Most fluid coolers are basically closed-loop heat exchangers that cool process water using ambient air. But our new Hybrid Fluid Coolers employ a unique adiabatic design that can provide leaving water temperatures in ranges similar to temperatures achieved with conventional evaporative cooling tower systems — all year round.

The closed-loop attribute of our new Hybrid Fluid Coolers reduces water consumption, eliminates possible bacterial contamination of process water, reduces the need for costly maintenance, and is much more environmentally-friendly than using a conventional evaporative tower.



**Our new Hybrid Fluid Coolers are modular and can be integrated with existing cooling systems to lower operating costs and reduce energy use.**

## Significant savings – for every application

If you're looking to reduce energy use, cut operating costs or provide cleaner water for your process cooling system – or looking for all three — then Thermal Care's new Hybrid Fluid Coolers are exactly what you need. We have over 40 years of experience with the design and manufacturing of chilled water systems and these units are just the latest addition in our complete line of high-quality process cooling equipment.

## Save on operating costs

Fluid coolers are a reliable and very economical method for cooling process water. Our units operate as air-to-water heat exchangers and use a number of variable speed fans as dictated by your process cooling requirements. Our Hybrid Fluid Coolers can operate for 50 percent less than conventional cooling tower systems

During much of the year and in warm weather climates, our Hybrid Fluid Coolers can provide 85°F leaving water temperatures — just like systems using conventional evaporative cooling towers. In cooler climates, leaving water temperatures as cool as 46°F are possible without using glycol.

## Save on energy

On hot weather days, the relative humidity of ambient air is increased by spraying an atomized fine mist of city water into the incoming air stream on both sides of the unit. Our adiabatic system decreases the air temperature as it enters the unit and results in lower leaving water temperatures when compared to those achieved by a cooling tower alone.

As mentioned above, you can run process water temperatures low enough using only our Hybrid Fluid Coolers that it may actually be possible for you to operate your equipment without the use of additional central chilling units — that's like getting your process cooling for free!

## Hybrid Fluid Coolers — a significant way to save.

### Save on water consumption

Your operation uses less water for process cooling than with conventional evaporative cooling tower systems. Since our Hybrid Fluid Coolers are closed loop there is no need to replace evaporated process water and using less water preserves a valuable natural resource. Plus, process water is kept clean and uncontaminated — without the need to treat for water scale or bacteria.

The unique “V-shaped” angled-side design of our Hybrid Fluid Coolers also means no water accumulation on the ground under the units.

### Save on maintenance

No wet filters to replace as with other fluid cooling systems. No costly chemicals to add like with cooling tower systems. No frequent cleaning of tower basins is required. Plus, performance of cooling tower systems can also be compromised by the buildup of scale and debris. Our Hybrid Fluid Coolers operate 24/7 with a minimum of maintenance or repair.

### Save on installation and expansion

Our Hybrid Fluid Coolers are designed to be used outdoors. Air circulation through coils is maximized while the footprint of each unit is minimized. Units are modular and easy to install.

Additional units can be added at any time there is a need to expand cooling capacity.

### Features

- Units use much less water than conventional cooling tower systems.
- Units can provide 85°F water year-round.
- In cooler weather, units can provide “free cooling” by replacing the need for a chiller.
- City water is nebulized into the entering air stream to lower the ambient air temperature for lower water temperature.
- Nebulizing water mist system is separate from process water system.
- No moisture on coils eliminates scale buildup.
- Polyurethane filters mean no wet filters to replace.
- Self-draining, glycol-free system allows 46°F leaving water temperature without unit freeze up.
- Remote control panel located inside facility operates fans, nebulizing mist system and a recirculation pump that maintains accurate water temperatures while optimizing unit performance.
- DC brushless motors are quiet, save energy and increase reliability.
- Advanced coil technology provides 20 percent more cooling capacity over standard coils.
- High-efficiency spray system design prevents water from coming in contact with coils.

**Every Thermal Care Hybrid Fluid Cooler system comes with factory authorized start-up service.**

**Count on Thermal Care to be your one source for a complete line of dependable process cooling equipment. From system design through equipment start-up, to exceptional service and repair parts — Thermal Care does it all.**

**Our full line of efficient, reliable process cooling equipment includes:**

- Portable Chillers
- Central Chillers
- Fiberglass Cooling Towers
- Pump/Reservoir Assemblies
- Temperature Controllers

**Our services include:**

- Application Engineering
- System Design
- Custom Configurations
- Installation Assistance
- Start-up and Maintenance Service
- Replacement Parts
- Customer Support Programs

**For additional specifications and system information, please visit us on the web at [www.thermalcare.com](http://www.thermalcare.com)**

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Printed in USA. Form 8-202.1