

FLUID COOLERS



Low cost solution for Cooling Fluids

Advantages

- Easy installation
- Low operating cost
- Ease of service
- Multiple configurations and options available
- Recirculating fluids prevents corrosion, scaling, and freeze damage in piping
- Closed-loop system eliminates additional water cost
- No water treatment necessary after initial set up
- For use with propylene or ethylene glycol and a variety of refrigeration oils

Constructed for All Climates

- Fully assembled and stress tested at the factory
- Heavy-gauge galvanized steel protects against corrosion
- Weather tight control panel provides protection against harsh elements



Features

- High efficiency fan motors
- Optional vent and drain connections
- Multiple fan/motor combinations
- Up to 7 fans with single arrangements
- Up to 14 fans for double row arrangements
- High efficiency coils with copper tubes expanded into aluminum fins
- NEMA 3R control panel
- Available in 8, 10, or 12 fms per inch
- Helium leak tested
- Optional Vspeed variable speed motor solution available for accurate
- Temperature control and energy savings
- Optional hinged fan panel provides easy access for fan cleaning, maintenance, and inspection
- Optional Electrofin or Heresite coils available for coastal area applications
- Liquid tight conduit available upon request
- Horizontal build option available upon request



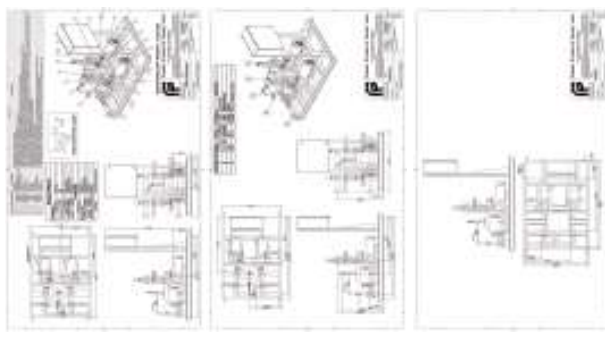
COOLING SYSTEMS



COOLANT TRANSFER SYSTEM

Modular pump system for air compressor coolant can be designed in simplex, duplex, triplex, or even quadplex design. System can utilize close-coupled pumps or ANSI pumps depending on design requirements. Package to include:

- Pumpset
- Isolation valves
- Check valves
- Y-Strainer (ship loose)
- Pressure gauges (Suction/Discharge)
- Pressure switch / pressure transducer (as required)
- Pressure reducing valve
- Expansion tank
- Control panel (per applicable requirements or specification)
- Air Separator and Auto Eliminator (as required)
- Side Stream Media Filter (as required)
- Glycol Makeup Package (as required)
- Performance Testing (optional)
- Specification Reviews (optional)
- Code Welding (optional)



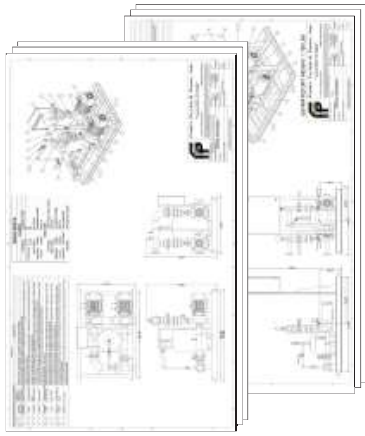
Over-size Tube Sheet Holes "C" Channel Fans



Condenser Tubes and Header

Stainless Steel Support Tubes

Truncated Tube Sheet



Benefits of a Modular System Design In-house Design & Build Capabilities

- Starting with your unique specifications, we can create CAD drawings in-house. From these, we purchase the parts and assemble the skid – all under one roof. Simplify your purchasing process with one order for a full system that includes all the necessary components, including pumps, valves, filters, motor and much more.
- We take full responsibility for the system and mechanical components on the skid, so you can be assured that each component works correctly and efficiently. This results in a professional, high quality custom fabrication that meets your exact needs.

Trim Cooler

Thermostatic control valve opens to run coolant through plate and frame HX during hottest parts of the summer. Energy savings are realized by using a smaller system to handle closed loop cooling process for the majority of the year while still meeting demand in 100+ degree days.



Building Capabilities

- 60,000 ft2 of Shop Floor
- (2) 20-Ton Overhead Cranes
- (2) 10-Ton Overhead Cranes
- (1) 7.5-Ton Overhead Crane
- (2) 5-Ton Overhead Cranes
- Multiple Jib Cranes
- 3 PipeWorx Welders, MIG Welding, TIG Welders and ARC Welders
- Paint Booth 24'x12'
- Blast Booth 32'x16'
- 5 Ton Stake Truck
- Services Truck

CLOSED CIRCUIT COOLERS

The ATWB line of Closed Circuit Coolers advanced design and owner-oriented features provide many operational and performance advantages. The ATWB's Thermal-Pak™ Coil now features Internal Tube Enhancement which increases the internal heat transfer coefficient of the coil and thus increases the cooling capacity of the unit. The improved ATWB offers the most models and box sizes in the industry and is designed with IBC Compliant Construction and CTT Certified Performance.

Principle of Operation

The process fluid is circulated through the coil of the closed circuit cooler. Heat from the process fluid is dissipated through the coil tubes to the water cascading downward over the tubes. Simultaneously, air is drawn in through the air inlet louvers at the base of the cooler and travels upward over the coil opposite the water flow. A small portion of the water is evaporated, which removes the heat. The warm moist air is drawn to the top of the closed circuit cooler by the fan and is discharged to the atmosphere. The remaining water falls to the sump at the bottom of the cooler where it is recirculated by the pump up through the water distribution system and back down over the coils.

Closing the Loop

Open cooling tower systems are susceptible to fouling on the heat transfer surfaces due to the process water being open to the environment, and putting in dirt and debris from the surrounding area. Often, when used in conjunction with a plate and frame heat exchanger, there is the need to oversize the tower to make up for the efficiency lost across the heat exchanger. By closing the process fluid in the coils of a closed circuit cooler, both of these issues are eliminated.

