



## Heat Transfer and Fluid Handling Specialists

### ADVANTAGES FOR OWNERS, CONTRACTORS, MANUFACTURERS and the PLANET

**SAVES CAPITAL COSTS** - 25% less cost than field built is conservative. And that is only part of the value equation.

**CONTROLS THE OUTCOME** - Bringing engineering and manufacturing under one roof with trained workers and managed processes overseen by our engineers assures efficiency, system performance a positive experience for customers.

**COMPRESSES TIME** - Modularized equipment compresses the total project time, often substantially. Specifying factory built modules is a valid strategy to mitigate costs and delays. Modules for power, chilling, heating, pumping, heat recovery and energy control are produced in parallel to the less technical site work, making the most efficient use of resources. Manufactured in a controlled environment, all electrical, control and piping connections are simplified and efficient. The time-cost of money is a driving factor.



**PRESERVES PERFORMANCE INTENTS** - Field built installations are often plagued by unknowns that compromise ideal conditions. Pressure drops, temperatures, delta-t, and velocities may be derailed for site realities.

**SAVES OPERATIONAL COSTS** - Components and subsystems are carefully engineered in close proximity with correct piping. Hydronic fundamentals are tightly controlled in a compact module which results in less overall energy to drive the system and is easier to maintain.

**REDUCES SPACE REQUIREMENTS** - Interior space is expensive. Engineered modular equipment is compact and requires less floor space. Modules can be enclosed, outdoors, or on rooftops, also reducing plant noise.

**ELIMINATES MISSED EXPECTATIONS** - A known cause of project delays and costs is miscommunication and coordination between trade disciplines in

field-built systems. This is eliminated in leveraging a modularized approach. SINGLE-POINT accountability and easy communication for critical and often complex approaches is assured, and better meets real owner objectives. Change-Orders are eliminated. Risk is mitigated.

**SUPERIOR TO VARIABLE REFRIGERANT SYSTEMS** - The useful service life for modular hydronic equipment exceeds VRF. Water as the working fluid instead of refrigerant requires much less costly installation, provides less risk, reduced cost of service and lower cost parts. VRF requires specialized maintenance over a shorter life span, thereby producing higher life-cycle costs. The overall energy required to move thermal effect is reduced in a well engineered and controlled hydronic approach.

**EXTENDS MAINTAINABILITY and RELIABLE SERVICE LIFE** - Carefully selected, commissioned, operated and controlled modular equipment means fewer service needs. Access for workers to every component is easily assured. Secure access inside of enclosed modules and face temperature sensors are available to mitigate COVID related risks.

**OIL-FREE VARIABLE-SPEED CHILLERS for LOWEST COST OF OWNERSHIP** - Low GWP refrigerants and remarkable energy savings are entirely SUSTAINABLE. Variable-primary pumping, VSD tower fans, evaporative condensers and adaptive controls can provide the absolute lowest total cost of ownership. Data centers and campuses can benefit by thermo-siphon and tower free cooling with advanced pressure-ratio reset algorithms made possible in an oil-free environment.

