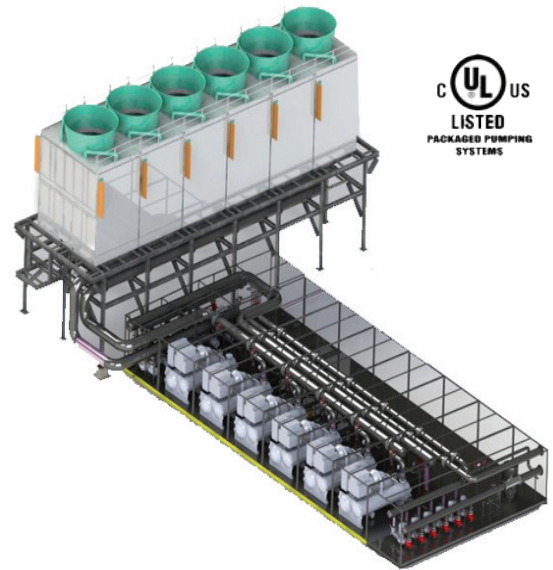


envirosep MCP

MODULAR CHILLER PLANT

Envirosep has led the way in packaged systems by offering designs and manufacturing integrated solutions for fluid handling, heat transfer and energy recovery for over 20 years. We strive to provide the most cost effective and energy efficient engineered modular chilled water plants to our customers.

Our engineered modular plant, *envirosep MCP*, is a UL-listed, factory engineered and manufactured mechanical room utilized in conventional building cooling systems using chilled water as the cooling medium. Custom engineering by Envirosep enables the owner to specify key components from a range of manufacturers that meet performance needs. Our knowledgeable engineering staff is available to assist facility owners or engineers in conceptual development and planning.



FEATURES & BENEFITS

- Our *envirosep MCP* is factory manufactured, tested and UL-listed ensuring quality and NEC code compliance
- Sole source manufacturing responsibility with just one manufacturer to coordinate
- All components required to integrate a stand-alone chiller plant are included, eliminating site coordination and negating start-up irregularities.
- Our *envirosep MCP* provides a lower cost alternative to site-built central plants while avoiding costly project delays
- The *envirosep MCP* is controlled by a non-proprietary chiller plant optimization controller, providing the best system operating efficiency
- Speeds up installation and start-up which provides significant savings to contractors, engineers and facility owners
- Factory hydrostatic and operational testing performed prior to shipment
- Envirosep provides a dedicated project manager to coordinate all aspects of production, delivery, and site installation assistance

SYSTEM DESIGNS INCLUDE:

- Energy-efficient centrifugal or screw chillers
- Integrated pumping system-chilled water & condenser water
- Hydronic accessories-air separators& expansion tanks
- Evaporative cooling tower
- Variable frequency drives (VFD) & chiller plant controller with touchscreen interface
- Differential pressure, temperature & flow transmitters
- Communication interface to Building Management System (BMS)
- Environmentally-controlled building enclosure with single-point power connection

CHILLER PLANT OPTIONS INCLUDE:

- Magnetic bearing compressor chillers
- Internet connectivity for remote system monitoring
- Free cooling heat exchanger
- Chemical treatment
- System without building enclosure
- Specific performance criteria (upon request)



TECHNICAL DATA

SYSTEM CONDITIONS	RANGE
system cooling load (tons)	100 ≤ 12,000
chilled water temperature (°F)	28 to 60
number of chillers	as specified
standard power (V)	460 (other available)
working pressure (psig)	100 to 300
working temperature (°F)	< 140

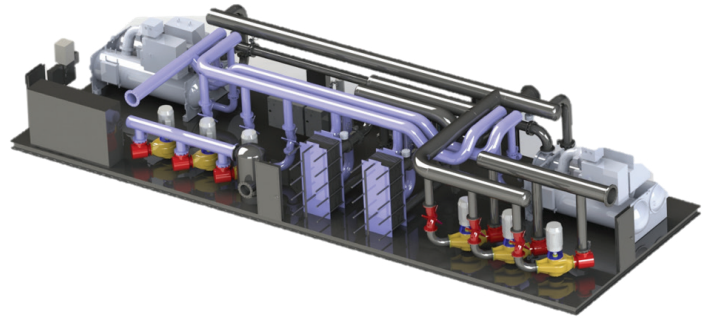


FIGURE 1. Two (2) chiller, one-section complete packaged chiller plant

TYPICAL PLANT PERFORMANCE

CHILLER TYPE	kW/TON (FULL LOAD)	kW/TON (IPLV)
centrifugal-constant speed	0.90	0.75
centrifugal-variable speed	0.80	0.65
screw-variable speed	0.70	0.55
magnetic bearing	0.65	0.48

1. Chilled water supply temperature = 42°F
2. Condenser water temperature = 85°F
3. Outdoor air temperature = 95°F



For larger chiller plants, multiple sections may be required. Multiple sectioned chiller plants are designed for simple, modular field assembly resulting in minimal installation time and labor. Cooling towers are typically shipped separately requiring field erection and interconnection to the chiller plant. Typical lead time for the *envirosep MCP* is 20-24 weeks depending on approvals.



The *envirosep MCP* may be provided as a single, UL listed, package system shipped in one-section. Typical one-section chiller plants are available up to 1,500 tons, depending on system configuration. One-section chiller plants provide for the most simple installations as minimal field piping and power connections are required.

