

Systems Manual Description
15500/TRA BuyLine 5344

The Trane Company
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Centrifugal Liquid Chillers

Water-Cooled Hermetic CenTraVac® Chiller

165 to 3,000 Tons - Catalog CTV-DS-1

Engineered to minimize life-cycle costs and maximize reliability, Trane's hermetic, centrifugal CenTraVac water chillers efficiently produce chilled water for central air conditioning systems. Typically this chilled water is used to cool and dehumidify air circulated inside buildings.

For comfort cooling of industrial applications requiring *simultaneous* heating and cooling, an optional heat-recovery or auxiliary condenser can be added to provide hot water.

CenTraVac chillers are also suitable for thermal (ice) storage applications when the utility rate structure is such that reduced energy costs can be realized. In this type of system the CenTraVac chiller is selected to chill an antifreeze solution in order to freeze water stored in tanks during off-peak hours. Cooling capacity is released later by melting the stored ice via a conventional chilled water system.

Typically, hermetic CenTraVac chillers are installed in mechanical equipment rooms or separate, central chilled water plants. Rejected heat is transferred to outdoor cooling towers by way of a recirculated condenser water system.

Feature: Hermetic direct drive

Benefit: Increased reliability versus open/gear drive machines reduces operating/maintenance expenses and lengthens equipment life. Direct drive is statistically 2-3 times more reliable than gear drive. Of all the chillers Trane has built since 1938, more than 92 percent are still running.

Feature: Multi-stage low pressure refrigerant compressor with economizer.

Benefit: Increased efficiency at all loads, reducing operating costs. At standard ARI conditions provides .55 kW/ton or better efficiencies. Operates more stable and quietly over extensive range of load conditions.

Feature: Near zero refrigerant emissions

Benefit: Less than one percent loss of refrigerant annually protects your investment as well as the environment.

Feature: Microprocessor-based control system.

Benefit: Provides reliable performance and advanced diagnostics for easier chiller service. Adaptive Control™ feature provides chilled water longer than competitive machines. Chiller plant provides easy sequencing and automatic failure recovery. Compatible with Trane's Integrated Comfort™ system and generic building automation system.

Feature: Complete factory testing.

Benefit: Assures performance accuracy and smooth, trouble-free start-up.

Feature: Numerous evaporator-condenser-compressor combinations.

Benefit: Chiller can be custom-matched to specific projects in various engineered systems.

Feature: Heat-recovery and auxiliary condensers (*optional*).

Benefit: Capture valuable heat normally rejected from the building.

Feature: Free Cooling (*Optional*).

Benefit: Provides up to 45 percent of chiller's nominal capacity *without* compressor operation.