

# HIGH EFFICIENCY

## Central Chiller



## Technical Specifications

The high efficiency central chillers are remarkably energy efficient and can save processors up to 60% in electrical costs. The system continuously measures ambient and process conditions and will adjust to operate in the most efficient manner. Designed with electrical, mechanical and control redundancy, along with predictive analysis, downtime is virtually eliminated.

The High Efficiency Central Chiller is available in single circuits from 20 to 60 tons and is designed with modularity in mind. Users can purchase a system to meet their current process cooling needs. Expansion is made easy by plugging similar capacity units in parallel for up to 600 tons of cooling. The chillers control off the temperature of the tank and can maintain between 20°F to 80°F (-7°C to 26.6°C).

### ENERGY EFFICIENT

- Up to 60% energy savings compared to traditional cooling systems.
- Improved fan motor and compressor energy usage.

### MODULAR & EXPANDABLE

- Parallel one to ten units within the same control platform.
- Invest in additional units as the process needs grow.

### VIRTUALLY ELIMINATE DOWNTIME

- Advanced control platform provides live monitoring and remote serviceability.
- Automatic mechanical and electrical redundancy through intuitive controls.

## Features

### Remote Air & Water Cooled

- Intuitive 10" Touch Screen Control and monitor one to ten paralleled units with a large, high resolution color touch screen.
- Simple Strainer Maintenance Cleaning is easy with the Stainless Steel Brazed Plate Evaporator. Incorporated TS Tech™ tool-less technology allows for quick access with less effort. The large surface area on the strainer also increases the time between required cleanings.
- More Accurate Temperature Control Chilling system operates based on tank temperature instead of unit leaving fluid temperature.

- Built in Auto-Redundancy & Controls Zones communicate between one another to maintain tank temperatures via Ethernet connectivity.
- Increased Energy Efficiency Tandem Scroll Compressors with Staging Capability are managed by proprietary algorithms
- Replaceable Filter Core Easily replace and maintain filters without having to cut out old unit and braze in new
- Welded Frame Provides better structural integrity during transport & operation. The frame is powder coated for increased corrosion resistance

### Water Cooled

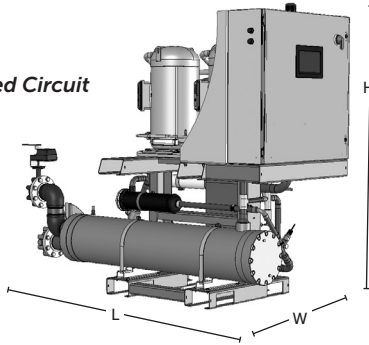
- Controlled to Optimize Performance The electronic water regulating valve automatically adjusts to increase efficiency
- Resistant to Corrosion Shell & Tube Condenser designed to be more resilient to clogging and easier to clean.
- Increased Stability Condenser is closer to the ground to reduce operational vibration.

### Remote Air-Cooled

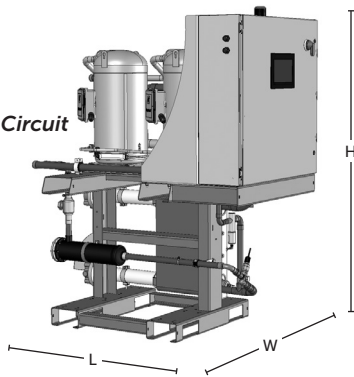
- Higher Performance Motors The electronically commutated (EC) brush-less motor increases reliability, controllability and energy savings.
- Robust Design Tube & Fin Condensers have a higher resistance to corrosion while providing more efficiency.

## System Diagram

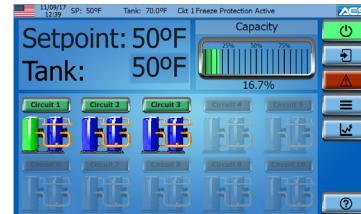
Water-Cooled Circuit



Remote Air-Cooled Circuit



## Advanced Controller



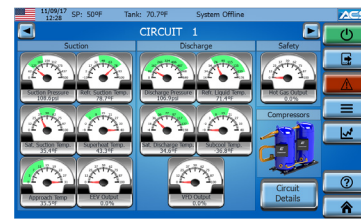
### Home Screen

Quick visual representation of the entire system, easily allowing you to enable or disable circuits in your system.



### Alarm Help Screen

Guides users through common alarms and offers suggestions on solutions.



### Individual Circuit Overview

An in-depth look at each circuit for a full representation of status and performance.

## Specifications

### High Efficiency Central Chiller (Water-cooled)

Model	Cooling Capacity Tons @ 50° LFT (kW) <sup>1</sup>	Condenser Water Flow GPM (LPM)	Dimensions in Inches (CM)			Shipping Wt. Lbs (Kg) <sup>3</sup>
			Height <sup>2</sup>	Width	Depth	
20T	23.1 (81.2)	60	72 (183)	40 (101)	79 (201)	1250 (567)
25T	28.6 (100.5)	75	72 (183)	40 (101)	84 (214)	1380 (626)
30T	33.6 (118.2)	90	72 (183)	40 (101)	84 (214)	1490 (676)
40T	43.7 (153.7)	120	72 (183)	40 (101)	93 (237)	2250 (1020)
50T	54.9 (193.1)	150	72 (183)	40 (101)	93 (237)	2450 (1111)
60T	70.6 (248.3)	180	72 (183)	40 (101)	93 (237)	2623 (1190)

<sup>1</sup> For additional capacities at multiple LFTs, refer to the product Operation and Installation manual.  
<sup>2</sup> Stated capacity data assumes 85° F condenser water, w/ 2.4 GPM/Ton flow on the evaporator ± 5% component variance  
<sup>3</sup> Add additional 3 inches to height when ordering alarm option  
<sup>3</sup> Shipping weight does not include packaging materials, such as pallets, cardboard, etc.

### High Efficiency Central Chiller (Remote Air-cooled)

Model	Cooling Capacity Tons @ 50° LFT (kW) <sup>1</sup>	Dimensions in Inches (CM)			Shipping Wt. Lbs (Kg) <sup>3</sup>
		Height <sup>2</sup>	Width	Depth	
20T	20.7 (72.8)	72 (183)	40 (101)	69 (176)	1000 (454)
25T	25.7 (90.4)	72 (183)	40 (101)	72 (183)	1100 (499)
30T	30.3 (106.5)	72 (183)	40 (101)	72 (183)	1200 (544)
40T	39.5 (138.9)	72 (183)	40 (101)	72 (183)	1900 (862)
50T	49.6 (174.5)	72 (183)	40 (101)	72 (183)	2050 (930)
60T	63.5 (223.3)	72 (183)	40 (101)	72 (183)	2200 (998)

<sup>1</sup> For additional capacities at multiple LFTs, refer to the product Operation and Installation manual.  
<sup>2</sup> Stated capacity data assumes 95° F ambient w/ 2.4 GPM/Ton flow on the evaporator ± 5% component variance  
<sup>3</sup> Add additional 3 inches to height when ordering alarm option  
<sup>3</sup> Shipping weight does not include packaging materials, such as pallets, cardboard, etc.

### Remote Condenser

Model	THR BTUH	Condenser Fan Sections	Total CFM	Dimensions in Inches (CM)			Shipping Wt. Lbs (Kg) *
				Height	Width	Depth	
20T	315,423	2	19,800	50	45.5	127	650 (295)
25T	394,048	2	19,000	50	45.5	127	700 (317)
30T	583,597	3	28,500	50	45.5	180	1030 (467)
40T	597,893	4	38,600	50	45.5	233	1250 (567)
50T	760,106	4	37,000	50	45.5	233	1350 (612)
60T	975,301	5	46,200	50	45.5	286	1700 (771)

\* Remote condensers requiring more than 5 zones are shipped as two separate sets. Shipping weight does not include packaging materials, such as pallets, cardboard, etc.