KNOW YOUR CHILLER PERFORMANCE...MAXIMIZE ITS EFFICIENCY

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ARE YOUR CHILLERS MAXIMIZING THEIR OPERATIONAL POTENTIAL?

With warmer months approaching, is your Chilled Water Plant ready to handle the heat? Is the annual evaporator and condenser maintenance keeping your electrical consumption (kWh) and demand (KW) low and energy savings high? How do you know if your Chilled Water Plant is operating at peak efficiency and satisfying the demand of the facility? And once it starts underperforming how do you determine if the cause is from improper refrigerant levels, or condenser and evaporator efficiencies, or condenser water cleanliness? The majority of cooling systems do not function as efficiently as they should with higher energy costs and increased CO2 emissions as a result. In order to decrease consumption, there is a need to know how the equipment is operating in real-time under real-world conditions.

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Synergy's Facility Health Engineering team offers a service that utilizes smart sensors, data, and analytics that can diagnose the issues within your chilled water plant. We utilize all the sensor data and analytics and perform a detailed engineering analysis in order to provide you with an accurate and actionable plan for your plant.

15-20% of the world's total energy consumption is used for cooling and air conditioning.

https://www.iea.org/reports/the-future-of-cooling

If a chiller analysis would help you pinpoint the Chilled Water Plant inefficiencies, it's simple to connect with our team:

1. Scan the QR code to talk to us about your facility needs
2. The Facility Health Engineering Team will schedule a site visit
3. And determine if a chilled water analysis is right for your facility

After our Chilled Water Plant Analysis, your team will no longer need to guess what is wrong and can work proactively toward the energy efficiency of the building systems. The Facility Health Engineering team will set you up with a plan with actionable data that leads to increased plant efficiency (KW/ton), extended asset life, chemical treatment

Good data, analysis, and trouble-shooting methods are the foundation to optimize Chilled Water Plant efficiencies

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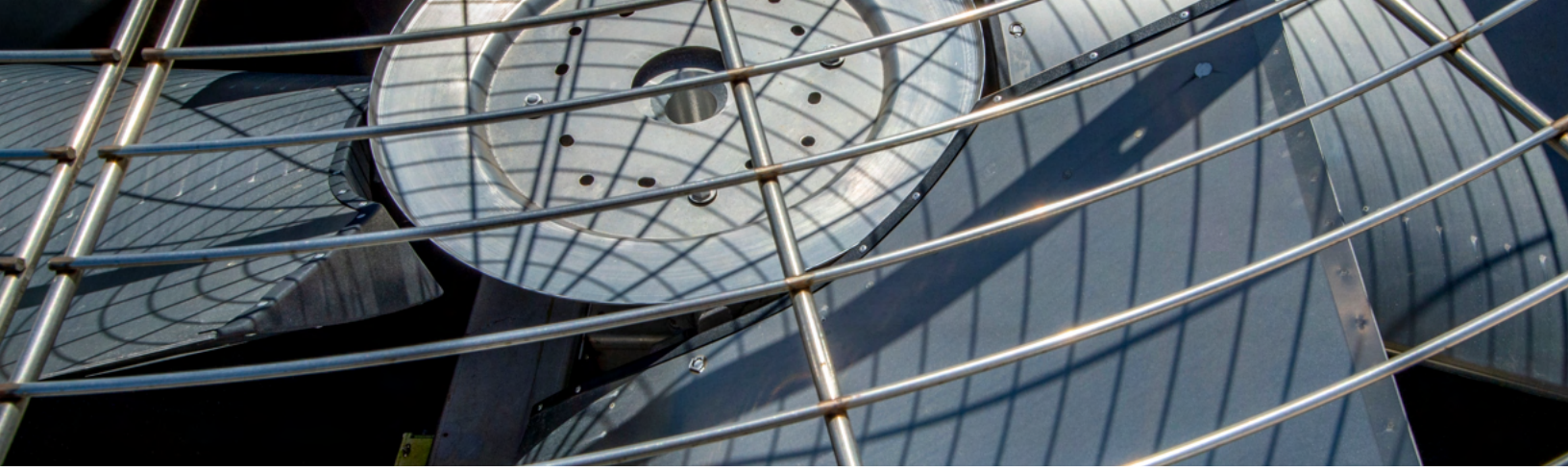

savings, and continued operational maintenance improvements.

Synergy uses a well-proven platform to validate performance and troubleshoot refrigeration and air conditioning systems. This platform allows us to analyze virtually any compressor-driven refrigeration process. Even for the most complex configuration, systems can be evaluated in detail to pinpoint any type of problems on the same level as advanced test rigs in a manufacturer's facility. As no manufacturer data is required to do a thermodynamic evaluation of the process, the method is totally unbiased and performance can be validated and benchmarked versus design and manufacturer data.

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KPI PERFORMANCE INDICATORS (KPIs] MEASURED

- COP, EER, kW/ton
- System Efficiency Index (SEI)
- Cooling Capacity and Power Input (voltage, amperage, and power factor)
- Energy Consumption
- Superheat and Subcool
- Compressor Isentropic Efficiency
- Evaporator Efficiency – Mean Temperature Difference
- Condenser Efficiency – Mean Temperature Difference
- Cycle Efficiency
- Water/Air Temperature In/Out of Evaporator, Delta-T, Flow
- Water/Air Temperature In/Out of Condenser, Delta-T, Flow

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Issues within a Chilled Water Plant can go on undetected for years leading to significant savings losses, unnecessary wear and tear on your assets, and potential costly replacements. Stop stressing out with poor Plant efficiencies and performance that inhibit your potential energy savings, scan the QR code to get connected with the Facility Health Engineering team today.

The Facility Health Engineering team will help you develop an actionable plan, driven by data, that will improve the operational efficiency (KW/ton) of your chilled water plant.

Scan the QR code to talk to us and determine if a Chiller Analysis is right for your facility.

SCAN ME

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