

Information Technology Company Achieves Improved Process Efficiency and Water Conservation Using Closed Loop Cooling Tower



Industry:

Information Technology

Location:

Noida

Application:

Condensor Cooling by using Closed Loop Cooling Tower

Capacity Range:

170 CMH

Customer Description

The customer is a leading global consulting and technology services company that specializes in helping businesses transform and manage their operations by leveraging the potential of technology. With deep industry knowledge and expertise, the client assists companies in adapting to the rapidly evolving landscape of digital technology.

Process Description

Thermax's Closed Loop Cooling Tower system is a versatile and highly efficient solution designed to enhance industrial processes and HVAC operations while simultaneously reducing energy consumption and maintenance costs. By connecting this system to electrical screw chillers, it optimizes cooling processes, leading to improved overall efficiency for the customer. Additionally, it prevents scaling issues in process heat exchangers, ensuring the long-term reliability of equipment.

The Closed Loop Cooling Tower operates year-round, even in extreme cold conditions, with the ability to circulate water directly to AHUs to meet the HVAC load. This unique feature allows businesses to realize substantial energy savings during the off-season, resulting in significant cost reductions. With a strong emphasis on energy efficiency and a low-maintenance design, Thermax's Closed Loop Cooling Tower system is an environmentally friendly and cost-effective solution for various industrial and HVAC applications, making it an ideal choice for businesses seeking enhanced performance and reduced operational expenses.

Highlights

- Closed loop cooling towers are used for condenser cooling.
- SS304 for tube bundle, and AZ150 for casing & basin, are the materials used which are corrosion resistant and improve the life of machines.
- Even in extreme cold conditions the water from the closed loop cooling towers will be circulated to AHU's directly which will cater for the HVAC load resulting in huge energy savings.
- The condenser water is circulated in the closed loop cooling tower which prevents scale formation in the condenser tubes of the chiller resulting in improved efficiency.

Challenge

The primary challenge faced by the customer revolved around the need to enhance the overall efficiency of their industrial processes while simultaneously addressing scaling issues in their process heat exchangers. The customer's specific objectives included achieving greater process efficiency, substantial energy savings, long-term reliability, reduced operational expenses, and a commitment to sustainability. To meet these goals, it became evident that a new cooling solution was imperative. This solution needed to be not only technologically advanced but also sustainable, aligning with the customer's broader objectives and providing a comprehensive remedy for their efficiency and reliability concerns.

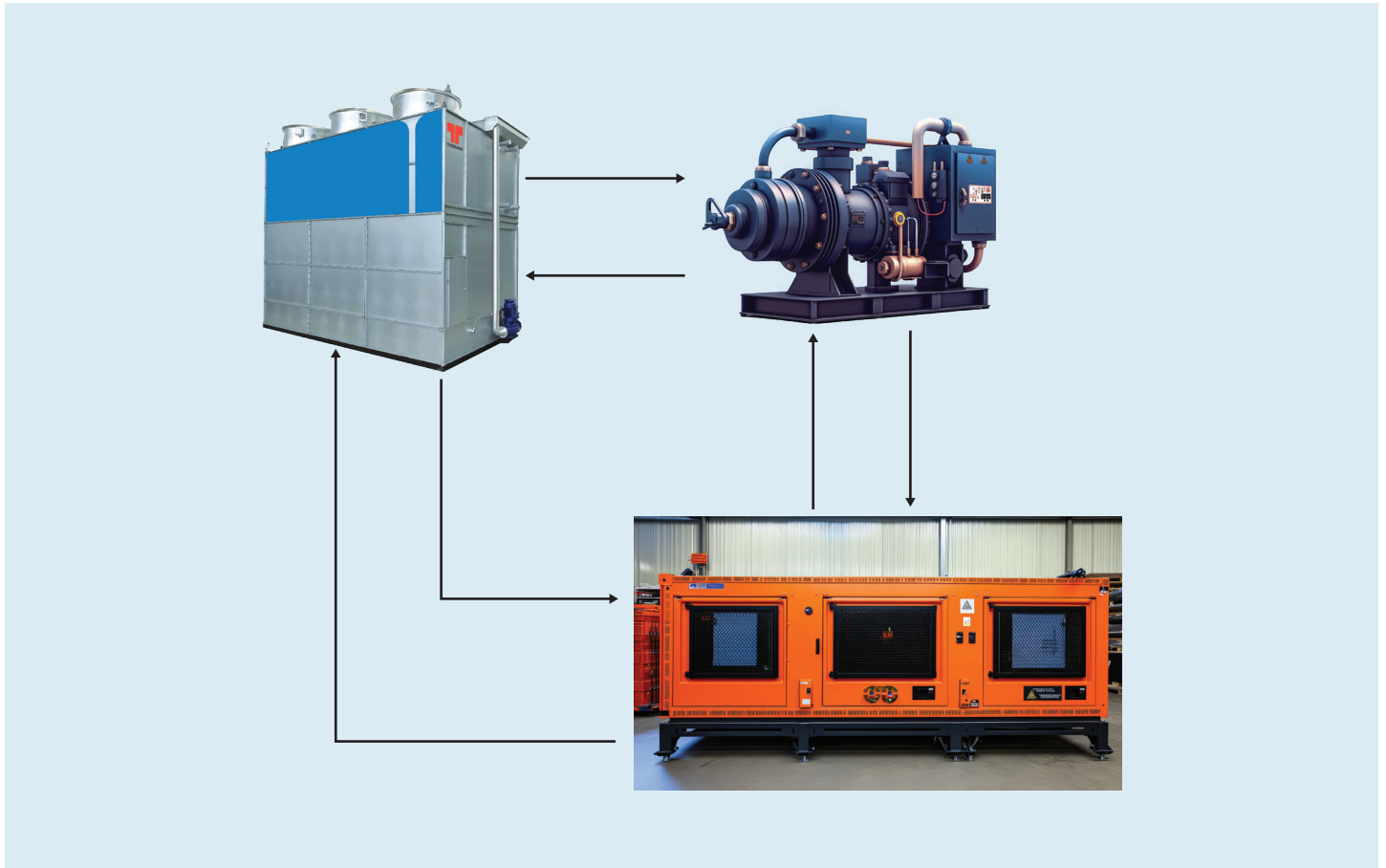
Solution

Thermax, a global leader in Absorption cooling and heating solutions with a strong focus on sustainability and environmental responsibility, was selected to provide a precise and effective solution to meet the specific requirements of the customer. The choice of Thermax was driven by their extensive expertise across a wide range of industries. After conducting a thorough analysis of the customer's unique processes and challenges, Thermax supplied Closed Loop Cooling Tower (CLTC) with CTI certification, featuring SS304 coil bundles and AZ150 Casing and basin construction. This selection ensured a long-lasting product with exceptional durability.

By circulating the condenser water through this closed loop cooling tower, the risk of scale formation in the condenser tubes of the chiller was effectively mitigated. This not only improved the efficiency of the system but also prevented capacity deration, ensuring that the customer's cooling and heating needs were met reliably and sustainably. Thermax's commitment to innovative, eco-friendly solutions proved instrumental in optimizing the client's operations and reducing their environmental impact.



Schematic Diagram



Registered Office

Thermax Limited
D-13, MIDC Industrial Area,
R D Aga Road, Chinchwad,
Pune 411019, India
Email: enquiry@thermaxglobal.com
Customer Care: 1800 209 0115

Business Office

TVH Beliciaa Towers, 3rd Floor,
Tower-1, Block No. 94, MRC Nagar,
R A Puram, Chennai-600028.
Tamilnadu, India.
Tel: 044 6133 4700
Email: cooling.commuications@thermaxglobal.com

Factory

2700 Peepul Boulevard, Sri City,
Andhra Pradesh - 517646. India
Tel: 085 7666 2000

www.thermaxglobal.com

 [thermaxlimited](#)

 [thermaxglobal](#)

 [thermax_global](#)

 [thermaxglobal](#)

 [thermaxmedia](#)



This brochure presents only some of our products and we reserve the right to amend any product details without notice.
The photographs used in the brochure are indicative and may not match the actual plant.

© 2024 Thermax Limited. All rights reserved.

Conserving Resources, Preserving the Future.