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Brewing Sustainability: How a Coffee Manufacturer Cut Energy Costs by 72%

CASE STUDY

Food & Beverage



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THE PROJECT

The challenge

- Energy-intensive cooling processes
- Desire to reduce CO₂ emissions

The solution

- Comparative testing of Rittal Blue e and Blue e+ cooling units
- Achieved 72% reduction in power consumption



Introduction

The food and beverage industry relies on innovative solutions to remain energy-efficient and sustainable. At a renowned coffee manufacturer's research and production facility, cutting-edge solutions are continually explored to support advanced product development. The facility, which has optimized processes like freeze-drying roasted coffee, partnered with Rittal to address the energy challenges associated with enclosure cooling.

The Client

The coffee manufacturer's research center required a solution to address the exploitation of energy in cooling while reducing CO₂ emissions. With the facility's focus on innovation, identifying a technology that combined efficiency and reliability was paramount. The goal was to integrate a more sustainable solution while cutting energy costs. Thankfully, Rittal had the perfect solution for the situation.

The Rittal Solution

Rittal proposed a year-long comparative test of the in-service Blue e cooling units and the enhanced Blue e+ cooling units, which are currently the most energy efficient thermal solutions on the market. Both units were mounted on identical Rittal enclosures already in operation at the facility. During the test, Rittal provided the Blue e+ cooling unit, measurement protocols, and monitoring devices. Results demonstra-

ted a 72% reduction in power consumption with the Blue e+ unit, all thanks to a hybrid cooling approach that combines speed-controlled compressors and innovative heat pipe technology. The system's advanced design ensures optimal cooling capacity, energy efficiency, and seamless digital monitoring, meaning that the temperature inside the enclosure remains steady and consistent without large spikes and valleys of energy usage.

The Results

The impressive 72% reduced energy consumption not only helped the coffee manufacturer significantly lower energy costs but also contributed to their sustainability goals by reducing CO₂ emissions. By implementing advanced cooling technology, the manufacturer transformed their operations beyond what is possible with other leading solutions on the market. Additionally, the Blue e+ unit's digital interfaces enabled real-time data access and fault alerts, ensuring improved system reliability over time.

Conclusion

“We are always motivated to help genuine innovations make a real breakthrough,” said the project manager for the coffee manufacturer. By leveraging the advanced capabilities of the Rittal Blue e+ cooling system, the coffee manufacturer achieved its goals of energy efficiency, sustainability, and operational cost reduction for many more years of excellent brews.

Contact Rittal for Efficient Automation Solutions

Looking to enhance your IT infrastructure or boost your operational efficiency out on the factory floor? **Reach out to Rittal today** — our experts are ready to discuss the details of your project and help you find the perfect solution.

About Rittal LLC

Rittal LLC is a global manufacturer of industrial and IT enclosures, racks, and accessories, including cooling solutions and power management systems for industrial, data center, outdoor, and hybrid applications. As the largest manufacturer of enclosures in the world, Rittal provides innovative, high-quality solutions for practically any industrial or IT infrastructure application, from single enclosures to comprehensive, mission critical systems. Products are tested and certified to the appropriate standards that apply, including UL, CSA, ATEX, NEMA, and more. **[Learn more at rittal.us](http://www.rittal.us)**.

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project manager
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You can find the contact details of all Rittal companies throughout the world here.



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