



BAC Provides ENDURADRIVE® Fan System for Mission Critical Facility at BASF Tarrytown

Factory Installed Direct-Drive Fan System Maximizes Facility Uptime While Reducing Operating Costs and Supporting BASF's Commitment to a Sustainable Future

OVERVIEW

Faced with the need for a new cooling tower at its Tarrytown, NY, location, the BASF Corporation considered options from several manufacturers. After comparing these options to meet their primary goals of sustainability, energy savings, and reduced maintenance, the company ultimately selected a cooling tower from Baltimore Aircoil Company (BAC) with its industry-leading ENDURADRIVE® Fan System.

BACKGROUND

BASF Tarrytown

BASF's facility in Tarrytown is a state-of-the-art research center providing R&D, new product development, analytical and technical service support for BASF's research operations. Reliable cooling is essential to the company's work, as uninterrupted operations in laboratories and other areas of the research facility are critical to product development and delivery. As a result, the company's facilities team was concerned about downtime risk when faced with the need to select a new cooling tower for the building. They recognized that the HVAC system would need to operate with minimum unscheduled downtime in order to ensure BASF's continued success.

In addition to mitigating operational risk, the facilities team wanted to save on energy costs and lower total operating costs. They were looking for a solution that would provide less scheduled maintenance, fewer entries to the tower, and less downtime, thus lower operating costs. Finally, BASF needed a product that adhered to their commitment for a sustainable future.

ENDURADRIVE®
Fan System





SOLUTION

After setting these priorities and surveying available technology, the BASF Tarrytown team elected to work with BAC to design and install a Series 3000 cooling tower with the proven ENDURADRI[®] Fan System. Competing fan systems, including belt and gear-drive as well as other direct-drive fan system technologies, fell short of the company’s key goals.

Belt and gear-drive solutions are more prone to failure, given their many moving parts, frequent need for oil inspections and replacement, and requirements for rigorous shaft alignment to prevent bearing and gear damage. These extensive maintenance needs and failure risks led to planned and unplanned downtime, as the facility had experienced previously, driving operating costs up. Once they decided that a direct-drive, rather than a belt- or gear-driven, solution would be best, the team then considered whether a factory- or field-installed direct-drive system would best meet their needs; they ultimately decided in favor of the superior quality control and higher reliability of a factory-designed and tested solution instead of a field-installed one.

The ENDURADRI[®] Fan System’s direct-drive design reduces the risk and cost of failures due to water intrusion and excessive heat and vibration. The motor features a patented permanent magnet rotor design to manage high torque starts, an exclusive laminated structure to dissipate heat more effectively, upgraded wiring insulation, drive end seal, and integrated condensate elimination system to protect from moisture. The ENDURADRI[®] Fan System is engineered and CTI certified for extreme duty of cooling towers and to withstand thermal and vibration rigors of cooling tower operation.

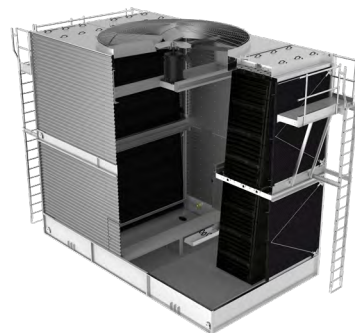


“Working with the facilities team at BASF Tarrytown and recognizing that, as a lab facility, uninterrupted operation was absolutely necessary, we knew that the ENDURADRI[®] Fan System was the best possible option. We also knew that they were concerned about quality control, which, as a factory-designed and installed solution, the ENDURADRI[®] Fan System delivers.”

— Ed Villela, General Manager for Balticare Inc., BAC’s representative in New York City

“Finally, the ENDURADRI[®] Fan System eliminates transmission losses to improve motor efficiency – particularly at part load operation – reducing fan energy consumption by 5%. That supports another major goal of the BASF facilities team”, Villela added.

The BASF team agreed: “When I heard the ENDURADRI[®] Fan System had been in cooling tower applications for ten years with exceptionally low failure rate, I was immediately convinced,” said David Gatewood-Cowart, Senior Manager of Facilities at BASF.



BAC Series 3000 Cooling Tower with ENDURADRI[®] Fan System



“We no longer have to waste time on maintenance and fixing gears, so we now have a cooling tower that ensures minimal downtime, while at par with our sustainable efforts. Sure enough, **we have not had a single problem with the ENDURADRIVE® Fan System since it was installed in 2016.** I strongly recommend this technology.”

— David Gatewood-Cowart, *Senior Manager of Facilities at BASF*

CONCLUSION

The Series 3000 cooling tower has continued to meet the BASF Tarrytown facility's needs without issue. With the ENDURADRIVE® Fan system, BASF now enjoys unmatched peace of mind, lower energy usage, and lower total operating costs, thus putting less stress in the environment. The perfect solution for BASF!

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