



## PROJECT REPORT:

# Upgrading to PT2 Cooling Towers



## An Upgrade Opportunity

A government facility located in Maryland operates twenty four hours a day, seven days a week. Housing over 800 employees in an 800,000 sq. ft. building, the facility puts a heavy burden on their HVAC system. With the constant heat load of their operations and varying seasonal temperatures, the reliability and efficiency of their cooling system has a major impact on productivity.

For over the last decade and half, the facility met its cooling needs with four two-cell BAC VT1 Cooling Towers in conjunction with over 30 air handlers. The system was well maintained, however a number of the air handlers were reaching the end of their lifecycles, and it gave the facility an opportunity to upgrade all of its cooling equipment.



## Providing a Solution

Working with their local BAC Representative, the facility decided to update their system with BAC's PT2 Cooling Towers. The new PT2s were configured to meet the capacity requirements while occupying the same footprint as the old units. This allowed the existing steel to be reused, saving thousands of dollars on support structure costs. With strategic placement of the outlet locations, the piping was drastically simplified for the entire installation. The materials of construction were also upgraded, choosing to use rugged Type 304 stainless steel with welded cold water basins to provide durability. Lastly, the PT2s were configured to be FM Approved, saving the facility and their local underwriters time when it came to evaluating their insurance policy.

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# Upgrading to PT2 Cooling Towers CONTINUED

## Delivering More

With their axial fan design, the PT2 units require less than half the fan horsepower of their centrifugal fan predecessors, the VT1s. Combined with added technology at the air handler level, the facility expects the new system to provide an approximate 25% reduction in energy consumption over the previous system.

Another significant advantage the PT2 units offer is the ease of rigging. The InterLok™ System simplifies the mounting of unit sections by removing the need for sealer tape, and the single lift capability of the units reduces crane usage. In this case, it took a mere half hour to lift each unit from the staging lot to the rooftop structural steel. In the end, all eight cells were easily rigged in a single day, minimizing labor hours and limiting the installation costs.

Before



After



## Looking Forward

The PT2s offer many advantages to the facility's personnel who maintain the building systems. Removable louvers provide easy access to the cold water basin and integrated ladder and platform packages allow for routine inspection of moving parts. Additionally, these units include basin heaters and electric water level control systems that simplify water management. "The access differences between the VT1 and PT2 are sizable. The PT2's easy to remove louvers and tool-free serviceability make maintenance tasks simpler to perform, resulting in a more complete and efficient maintenance program. Ultimately we'll save money and time, and that is important" says one facility supervisor.

The installation of PT2 Cooling Towers reflects the investment of the facility in quality products, products that do more than to just satisfy the current needs, but also provide the reliability and ease of ownership that will result in years of dependable performance.



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