

**STERIL-AIRE®**



## Steril-Aire reduces the spread of infection at Vermont Hospital



Mt. Ascutney Hospital is an accredited, non-profit medical facility located in Windsor, Vermont. The nursing and medical staff of about 325 people provide care to around 52,000 patients per year.

### The Problem:

Indoor Air Quality (IAQ) and respiratory illness became of increased concern during the COVID-19 epidemic at the Mount Ascutney Hospital and Health Center in Vermont. Steril-Aire Partner - Conservation Solutions conducted petri dish swabs of the cooling coils that indicated the coils were fouled with mold and bacteria, reducing the efficiency of the cooling systems due to biofilm build-up on heat transfer surfaces resulting in energy losses. Air flow through the hospital's air handlers were restricted by the biofilm in the coils requiring additional fan motor energy to deliver air to the building. Hospital maintenance staff also became aware that periodic, manual coil cleaning was not adequate based upon bacteria and mold growth rates. Additionally, pathogens like SARs-CoV-2 can be easily spread via mechanical HVAC systems throughout the hospital further exasperating the spread of the virus to other patients, staff and visitors.



### The Solution:

Steril-Aire UVC Germicidal Systems were designed to both ensure a minimum initial energy intensity of 1225µW/cm2 across the entire coil with correctly sized, properly spaced UVC emitters as well as provides sufficient dosage for airborne pathogens. The Steril-Aire RIK Systems were installed on the cooling coils in the rooftop units at Mt. Ascutney. Surface pathogen levels were tested by petri dish before and after the RIK systems were installed. The hospital staff and management is delighted to be a leader in using the Steril-Aire UVC germicidal lamps with the highest energy output emitters to provide the most effective control of bacteria, viruses and molds in air and on coil surfaces thus providing a healthier environment for patients, staff and visitors. At the same time the Mount Ascutney Hospital and Health is achieving on-going energy savings by eliminating biofilm on the air handler coils and saving on maintenance costs.



### The Results:

1. Reduced 99.9% in mold, bacteria & viruses; maintaining clean coils
2. Improved the health of the building for patients, staff and visitors by reducing the spread of infection
3. Saved Energy: Eliminated biofilm to increase air flow across the coils and increase heat transfer efficiency
4. Verified Steril-Aire UVC performance with culture test procedure
5. Improved Sustainability: "Greener" Building



Before

After

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