



CASE STUDY

NYC HEALTH+ HOSPITALS Woodhull

PURE-Steam Coil Cleaning Restores HVAC Performance and Saves Energy for Brooklyn Hospital

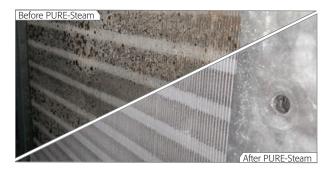


NYC Health + Hospitals Woodhull is a primary care and preventive medicine hospital serving North Brooklyn since 1982. Apart from regulatory and routine maintenance, a focus on energy efficiency is a top priority for operations. One of the main areas in need of optimization is the HVAC system.



Woodhull has 32 air handler units (AHUs) of various sizes and ages, many dating to the original 1982 opening of the hospital. Over the years of "always on" operation, these AHUs have naturally degraded both from a performance and indoor air quality (IAQ) standpoint. This was having a negative effect on building health and occupant well-being.











THE SOLUTION

NYC Health + Hospitals and Woodhull staff, in conjunction with their mechanical contractor, energy consultant and the NY Power Authority, decided to have all 32 AHUs restored with the PURE-Steam HVAC/Coil cleaning process. PURE-Steam utilizes high temperatures and low pressure steam to deeply clean and sanitize fouled coils. Air flow, static pressure and coil cleanliness verification (delta-P) readings were collected from all 32 units before and after the cleaning process. One AHU was environmentally tested before and after PURE-Steam to determine environmental efficacy. Once the environmental cleaning project concluded, a detailed report was issued for each unit. The aggregate results marked a dramatic improvement for the facility.

Benefits of the PURE-Steam Coil Cleaning Process

- Sanitizes the coils/ blower assembly
- Removes latent debris from deep within the coils
- Creates improved air flow
- Creates better cooling capacity
- Saves Energy (typically .22 cents per sq ft)
- Improves indoor air quality
- Reduces HVAC related work orders
- Extends HVAC equipment life



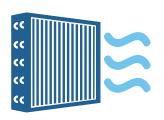
THE RESULTS



98.1% AHU ENVIRONMENTAL IMPROVEMENT (IN SINGLE AHU TESTED)



18.8% OR 3800 CFM INCREASE (AVERAGE PER AHU) 93,248 CFM TOTAL IMPROVEMENT



15.47% ΔP IMPROVEMENT
ACROSS THE
COOLING COIL
(AVERAGE PER AHU)



233.12 TONS TOTAL COOLING CAPACITY ADDED (THAT'S LIKE 5.8 NEW AHUS!)



\$193,216 ESTIMATED TOTAL ENERGY SAVINGS ROI 1.24 YEARS





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