



CASE STUDY: Reinvented Aermec Modular Chiller Transforms NYC Multifamily

The Challenge

The conventional chiller installed at a high-rise multifamily condominium in New York City had run the course of its useful life and it was time for a replacement. However, many challenges existed, including tight equipment spaces, limited budgets, a short timeline and sustainability concerns. The equipment space was small, and to install a traditional chiller, major renovations would have been required. The facility was running a tight budget, and needed to have a financially suitable solution. With many family units, the facility could not be without a chiller for a long period of time. Additionally, the owners of the building wanted to upgrade the chiller with a new one that had less environmental impact.

Project Specifications

- **Technology:** Aermec WWM 0500 30-Ton Modular Chiller
- **Application:** Multifamily Living
- **Location:** High-Rise Multifamily Condominium in New York City
- **Project Type:** Mechanical and Engineering
- **Project Size:** 15 Stories, 59 Residential & 3 Commercial Units, 89,253 ft²
- **Year of Completion:** 2019



The Solution

For this project, HIGHMARK identified the Aermec WWM 0500 30-ton modular chiller as the best technology for the job, and incorporated eight modular chillers to overcome the specific challenges and conditioning needs of the building:

- **Fitting into a Small Equipment Room:** Due to the modular nature of the WWM individual modules, the systems can be wheeled into the space using standard doors and elevators. The modules can be easily placed into the space in a variety of arrangements.
- **Meeting a Tight Budget:** The WWM modular chiller system provided the building owners with a cost-effective solution in comparison to the costs of installing a traditional chiller.
- **Working Within a Short Timeframe:** With 63 individual units, the need to reduce operational downtime was critical. The demolition, installation and startup was completed within two weeks, limiting the downtime for the residents.
- **Solving a Sustainability Challenge:** The WWM modular chiller system provides an environmentally friendly solution featuring high-efficiency scroll compressors, sustainable refrigerants and plate-type heat exchangers.

The Results

The Aermec WWM 30-ton modular chiller was the perfect solution for the challenges faced by the multifamily residential building, and achieved the following results:

- **Solved the Equipment Room Challenge:** Using the current facilities, all eight modules easily fit through doors and elevators to get into the equipment room. With the modular flexibility, the installed system fit into the equipment room.
- **Reduced Installation and Equipment Costs:** Eliminating wall demolition and reconstruction, the costs of purchasing and installing the eight modules was significantly cheaper than the costs of purchasing and installing a traditional chiller system.
- **Limited the Impact on Residents:** With a quick installation and startup, the residents of the multifamily building felt little interruption in their services.
- **Provided a Sustainable System:** With high-efficiency scroll compressors, sustainable refrigerants and plate-type heat exchangers, the WWM 0500 is a highly efficient system. It helps the building exceed ASHRAE 90.1 energy-code efficiency standards, while being in compliance with future NYC 80x50 regulations.