



HVAC duct cleaning project for large data center

Complex, time-critical project at Microsoft data center in Boydton, VA



Project Description

A new data center located in Boydton, VA, part of the Microsoft network of cloud computing centers, underwent major construction. The scope of the construction required a cleansing of the entire HVAC/air handling system before the center could become operational. Waco was brought in as a sub-contractor to complete the duct cleaning project.

This is the third expansion at the Boydton facility. To date, Microsoft has invested \$1.2 billion at this data center.

This large data center, approximately 250,000 sq. ft., is heavily dependent on quality and clean airflow to maintain a satisfactory working environment and for temperature control to avoid overheating of the computer equipment.

The scope of the duct cleaning project included the entire HVAC air handling system from the roof top units to the actual supply diffusers and grills in the facilities. Both the supply and return sides of the system had to be cleaned. Getting the facility to full operational capacity depended on completing this project on time, among many other factors.

The duct cleaning project included a variety of air-handling equipment, from flex ducts as small as 8 inches in diameter to large metal ducts up to 5 feet in diameter. Hepa vacuums containing a series of filters along with EPA certified cleaners and rags were used for cleaning. Additionally, the Nikro Viper Clean system, which operates on compressed air and uses a series of flexible rods with various cleaning tips, was used to clean the air-handling system to exacting standards.

Unique Project Challenges

- 1 Project scheduling to achieve on-time performance - At the time, this construction project was considered one of the largest of its type in the world. As such, management and sequencing of sub-contractors' projects and phases were complex. This complexity required precise scheduling and project management, and the ability to ensure project phases were properly sequenced and completed on time.
- 2 There were a multitude of contractors on site, which created unique challenges to working conditions.
- 3 Safety/security challenges -The massive amount of expensive computer hardware equipment around which the duct cleaning work had to be done, required that worker safety procedures and security measures be meticulously followed.

Project Scale

- Thousands of linear feet of duct were cleaned
- System contained 50 air-handling units
- Project spanned a 2-month period

Why Waco was chosen – experience, capabilities and depth of personnel

Waco competed with many other companies in the bid process and was awarded the project because they were the lowest bidder. Waco had already done a smaller project in that environment and performed well, earning a reputation for doing quality work. Additionally, the general contractor was familiar with Waco's capabilities and knew they had the depth of personnel to get the project completed in a quality way and on time.

Summary of Results

Louis Walkerwas Project Manager on this project. The project was completed on schedule. There were no change orders and no safety incidents through the life of the project.

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