

FUJITSU

# CASE STUDY

**AIRSTAGE™**

Grifols Manufacturing Facility  
Clayton, NC

# Grifols Manufacturing Facility

## Project Name

Grifols Manufacturing Facility

## Location

Clayton, NC  
(suburb of Raleigh, NC)

## Completion Date

June, 2014

## The Team

### Owner

Grifols

### Mechanical Contractor

Raleigh Heating & Air,  
Raleigh, NC

### HVAC Distributor

Virginia Air  
Distributors Inc.,  
Raleigh, NC

Grifols is a Spanish pharmaceutical and chemical company best known for their plasma-derived medicine. Their newest manufacturing facility is over 155,000 SF and opened June, 2014 in Clayton, NC – a short drive from Raleigh, NC. At the heart of their new plant is an operations center which monitors the processes and safety of the entire campus. The operations center consists of a master control room, server room, small office, and break room. In order to maintain quality of product and to ensure safety of equipment and employees, the entire facility is on backup generators and the center must remain operational for 24 hours a day, 7 days a week, 365 days a year.

## Design Challenge

The most important requirement of the HVAC system was to provide complete redundancy in the control room and the server room. In addition, because of the high internal load, the system is expected to provide year-round cooling. The operations center was located in the interior of a large manufacturing facility and as such, the piping had to be run through the manufacturing facility to the nearest outside area. This, and low ceilings in the control room, made it nearly impossible to use ductwork.

## Why Fujitsu Was Chosen

The unique requirements of the project played directly into the strengths of Fujitsu Airstage. The ability for the Airstage V-II outdoor units to cool down to 5°F ambient meant that the system could provide the year-round cooling required in the control room and server room. Because of the energy-efficiency and small power draw of Airstage equipment, it allowed Grifols to put the systems onto existing generators. Additionally, the inverter compressor and variable capacity of the indoor units ensure that the system can meet the cooling demand in the server room without overcooling other spaces.



## The Results

The Airstage system was designed and installed by Raleigh Heating & Air. The cooling load was split onto two 6-ton systems. The control room and server room both have two indoor units, with each indoor unit connected to a different outdoor unit. This assured redundancy of the systems in the most critical spaces. Wall mounted units were installed throughout due to the lack of available ceiling space. The occupants were extremely happy with the individual control of each indoor unit. The operators of the plant work long hours in the control room ensuring the efficiency and safety of the manufacturing plant, and their comfort is of the utmost importance to Grifols.

## Customer Testimonial

Raleigh Heating & Air commented that the equipment start-up and commissioning was the quickest and easiest that they had ever experienced.



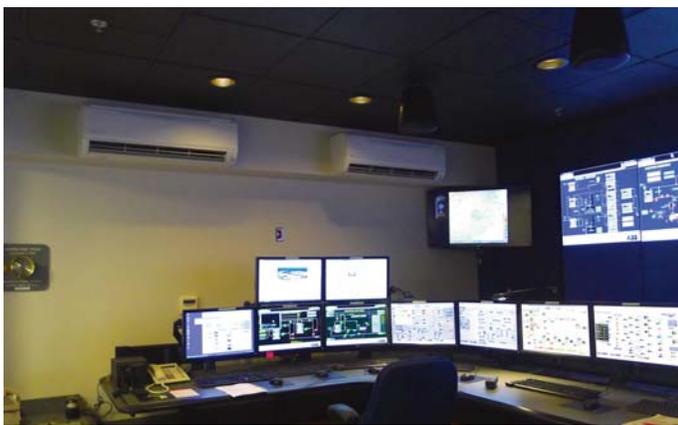
### Airstage Equipment List Series: V-II

(2) AOUA72RLBV V-II Heat pump  
Outdoor Unit

(6) ASUB24RLAV Wall Mounted  
Indoor Units

(6) UTY-RNKU Wired Remote  
Controllers

(2) UTR-H0906L Connection Unit



- ISO9001
- ISO14001

### Fujitsu General America, Inc.

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