

SPECIALTY CONTRACTING: MECHANICAL & PLUMBING

Bosch Rexroth | HVAC Upgrade ▪ Manufacturing Retrofit

Section 1 — Contracted Scope

Provide a detailed description of your scope for this project (maximum of one page). Responses should include: type of construction; size of project; contract value; length of project; and percentage of labor that is self-performed.

Project Location

Fountain Inn, SC

Type of Construction

Retrofit/Expansion/Remodeling project to convert distribution center to manufacturing space.

Waldrop's Role

HVAC Contractor

Contract Value

\$848,175

Project Duration

- HVAC Scope – 11 weeks
- Total Construction – 32 weeks

Building Size

- 205,000 sf – existing space retrofitted for manufacturing, requiring extensive upgrades
- 11,500 sf – new office space and dining/canteen area
- 6,825 sf – existing office area renovated

New HVAC System and Mechanical Equipment

- Installed 12 new air handling units
- Procured and installed 7 new water source heat pumps
- Procured and installed 19 new exhaust fans
- Fabricated and installed 18,000 lbs. (9 tons) of low-pressure duct system
- Procured and installed 78,000 lbs. (39 tons) of medium-pressure duct system

Percentage of Work Self-Performed

- 85% of work self-performed
- 9,000 self-perform man-hours

Subcontracted

Insulation; and test and balance.

Merit Subcontracting

Subcontractor selections were based on merit, along with quality of the firm, in lieu of the lowest bid.

Bosch Rexroth purchased a 10-year-old former industrial building in Greenville County (SC), located near another Bosch Rexroth facility. The intent was to create a manufacturing campus for its existing hydraulic manufacturing operations. The company planned to transform the former pharmaceutical distribution center into a manufacturing facility. The upgraded building would house machining, assembly, testing and heat-treat processes to support a specific product line. Schedule was of critical importance. Bosch Rexroth wanted the entire renovation to be completed in 32 weeks. To support such an aggressive schedule, the HVAC upgrade had to be completed in 11 weeks.

The Construction Manager (O'Neal) had pre-purchased all of the major air handling equipment prior to awarding Waldrop the HVAC contract. Delivery was not expected until the 7th and 8th weeks of Waldrop's HVAC schedule. This would require Waldrop to complete 90% of the other HVAC activities prior to receiving the equipment, posing a significant challenge for our team. The work to be completed before the new equipment arrived included fabrication of approximately 96,000 pounds (48 tons) of ductwork; installation of that ductwork at 40-foot elevations, while structural steel fabrication and installation for a building mezzanine was underway; and procurement and installation of other scope items such as 7 water source heat pumps, 19 exhaust fans, and 23 gravity intake and relief hoods.

To meet the deadline, Waldrop developed an aggressive project schedule that expedited the delivery of the equipment and materials being purchased by our team. Our team outsourced the fabrication of the medium-pressure spiral duct system in partial shipments with a predetermined sequence to support our work plan. We received the final shipment of this medium-pressure duct in Week 5 of our 8-week schedule and had all of the ductwork fully installed by the end of Week 6. Upon receipt of the air handling equipment purchased by others, our team worked diligently to make up for its late delivery (1 week). Despite the unforeseen event of needing to make major structural repairs to one of the units that was damaged in shipment, the Waldrop team successfully achieved substantial completion of our work scope within the allotted 11-week schedule.