

case study

Mitsubishi Electric Solves Residents' Complaints

Magnolia Manor is the corporate center of the group which also has retirement centers in Macon, Richmond Hill and Moultrie, Ga. The organization is a United Methodist Ministry to Older Adults, a part of the South Georgia Conference of the Methodist Church, a non-profit corporation. During the past three decades, there have been many change-outs and a lot of service calls regarding Magnolia Manor's cooling and heating systems. It was time for a change.

A 30-year-old Problem

The management of Magnolia Manor contracted with Parker's Heating and Air Conditioning, Americus, Ga., 25 years ago to service and maintain their system. Mark Todd, president and CEO, Magnolia Manor, called Wes Wheeler, general manager of Parker's, and asked for a solution to the many small problems the center had been experiencing with their HVAC. Wheeler was told that they wanted individual controls in every room and it was vital to maintain a comfortable atmosphere where residents would feel at home.

Identifying a Solution

PTAC's were out of the question because Magnolia Manor didn't want a motel look or feel in their rooms. The Magnolia Manor is home to their residents and keeping them

comfortable, happy and healthy is the prime concern of management. Zoning systems were considered, but according to Wheeler, that would have caused a great disruption in the lives of the residents. With individual returns and drops in every room, it would take a lot of man hours to accomplish their goals.

The team suggested split-ductless systems from Mitsubishi Electric Cooling and Heating Solutions, Suwanee, Ga., could answer every demand and solve the old system's greatest complaint.

Wheeler arranged to have David Archer, formerly with Mitsubishi Electric HVAC, Dean Long, a manufacturer's representative for Mitsubishi Electric HVAC and Mike Harrison, Mingledorff's Inc., a Mitsubishi Electric HVAC distributor, make the presentation to Magnolia Manor management. A complete Mitsubishi Electric system was brought to the center for Todd and his group to inspect and it was love at first sight. "It's perfect; why haven't you told us about this before?" was their first question.

Installation Goes Smoothly

After the decision was made to change over to the 176 split-ductless units, the actual work was scheduled for "off-season" implementation as to create the very least intrusion for the residents.



Project Name

Magnolia Manor

Project Location

Americus, Ga.

Completion Date

October 2001

The Team

Owner

Magnolia Manor

HVAC Contractor

Parker's Heating and Cooling, Americus, Ga.

HVAC Distributor

Mingledorff's, Inc., Atlanta, Ga.

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October is a pleasant time of the year in Americus. The work was begun October 2000 and finished October 2001.

Factory service specialists were brought in to help train Parker's installers and service techs. By noon on the first day of work, the first system was installed successfully. Soon they were averaging 2.7 units per day. It took about five man hours to install each system.

There are three sections of the Magnolia Manor center. Working around resident schedules, it took a year to install the 176 systems. Of the total, 156 units are MSH09NW2 wall-mounted heat pump 8,800 Btu/h

units, and 20 are MSH12NN2 12,000 Btu/h units. The 176 individual room units are straight heat pumps with no strip heat needed. The 20 corner rooms each required an additional 1.5 times load, so installing the MSH12NN2 models made more sense than adding power-hungry strip heaters.

According to Wheeler, there were zero failures, no parts have been required, all compressors started up and performed perfectly and there has been no down time.

Wheeler had a training session with the residents and staff members to explain the use of their wall-mounted

controls. Mitsubishi Electric controllers have a simple up and down button for temperature selection and there have been no reported problems or complaints from the residents. An important consideration in the choice of split-ductless systems was the serviceability of the units. Filter cleaning is very easy. The 6-year compressor warranty and 1-year all parts warranty also were strong factors in the choice. Mitsubishi Electric HVAC held a special service session for the Parker technicians. "The level of service we have gotten from Mitsubishi Electric HVAC is terrific," says Wheeler.



After installing over 175 split-ductless systems in individual rooms, residents of Magnolia Manor were able to enjoy better comfort and indoor air quality, all at the touch of a remote control.

Nothing but Positive Feedback

“We were looking at a huge down time and spending a lot more money on replacing our old system with a new central system,” says Todd. “The ease of the conversion has been a blessing for us and our residents. The efficiency of the Mitsubishi Electric HVAC systems was another pleasant surprise. The Manor expects the overall system to pay for itself in less than five years.”

Perhaps the greatest benefit these remarkable units have given the residents of Magnolia Manor is their quiet and individual efficiency. In the past, if there were service problems with one of the central units, 15 or more rooms would be shut down by a failure. There also was a problem with cross-over ventilation. While smoking is discouraged, residents who smoke in their rooms were creating smoke odors in adjacent rooms sharing the same central system. This is not a problem with Mitsubishi Electric split-ductless systems. Every room stands alone. And, if and when a service problem ever happens, it can be corrected swiftly and efficiently with minimal disturbance to only the unit affected.

The split-ductless units blend in unobtrusively with the outdoor shrubbery outside Magnolia Manor. The condensing units are set on standard pre-poured pads. The average refrigerant line run is less than 10 feet. Their quiet operation is not heard in the rooms and only a whisper of the circulating fans bear witness to the units operation.

The number one complaint of the old system by the residents was that their rooms were either too warm or too

cool. It was difficult to balance 15 rooms to everyone’s satisfaction. In 2004, there were 175 residents at Magnolia Manor, with an average age of 85 to 90 years old. Now every resident has control over their own environment. There are no complaints about individual room temperatures.

“If I were planning a new construction, I would recommend the Mitsubishi Electric split-ductless systems,” says Mark Todd. “When we replace the systems in our other homes, Mitsubishi will be our first consideration.”



Mitsubishi Electric Equipment Installed

(156) MSH09NW2 Heat Pump Systems

(20) MSH12NN2 Systems