



PIPING ALTERNATIVE COMBINES WITH NEW CHILLER TO HELP AIRPORT HOTEL'S A/C TAKE OFF

PROJECT:

Embassy Suites Nashville,
Chiller Piping Retrofit

PRODUCTS:

aquatherm blue pipe®

LOCATION/DATE:

Nashville, TN
July 2008

AQUATHERM ADVANTAGES:

- PP-R compared well to other pipe options price-wise
- The lighter weight of Aquatherm eased installation
- The natural insulation was an added bonus

The nine-story, 296-room Embassy Suites Nashville – Airport hotel was built in the 1980s, and its original chiller and piping had reached their logical replacement point. Over the years a couple of the existing Schedule 40 carbon elbows on the system had sprung leaks and some of the galvanized pipe had experienced considerable corrosion. Thus, keeping the new piping leak- and corrosion-free was a big concern.

RIGHT PROJECT AT THE RIGHT TIME

Nashville-based Gipson Mechanical was contracted in early summer 2008 to replace the original 6-in. Schedule 40 carbon piping supply and return lines serving the facility's new 200-ton Carrier chiller. Gipson served as the design engineering firm and installer on the project, and the company's service manager, Jamie Hassett, realized it was a perfect chance to use Aquatherm, a new (only to North America), nearly 40-year-old product.

Hassett had been considering using Aquatherm's polypropylene-random (PP-R) piping system for a while and the short run (about 60 ft) made this an ideal candidate. "We're always looking for something to make us more competitive, so we were interested in Aquatherm, especially with the commodity prices going up so much," Hassett said.

Gipson Mechanical priced the job with grooved pipe, weld pipe, and Aquatherm, allowing for material cost and labor hours. "The original values put Aquatherm in the

middle of the installed price range of the three different types of piping systems," Hassett explained.

NO WELDING MACHINE AND LIGHTWEIGHT

The fact that Aquatherm's PP-R piping (manufactured in Germany) has been established for so long also helped. "If someone makes a product and it's been around for a long time, it's got to be viable. And the fact that we could do this job without a welding machine, its lightweight compared to steel, and not having to use a crane made it a good fit," Hassett said.

The Aquatherm Climatherm piping in the bore size used on this job was 60% lighter than Schedule 40 carbon of the same size – another key concern. Local Carrier officials were willing to use the Aquatherm product and felt comfortable with it, according to Hassett.

The local Aquatherm distributor worked closely with Gipson in product selection, job setup, and training. The mechanical firm, which has specialized in HVAC piping for the last 25-plus years, was extremely quick to adapt to the heat fusion process that's so essential to Aquatherm's global success.

The installation commenced in July 2008. Gipson rented the fusion welding machines from the distributor and purchased all the necessary piping and accessories, including the 160 mm (6-in. equivalent) Blue Pipe SDR-11 piping.

The Climatherm used on this job includes



faser composite, a fiberglass impregnated layer that provides exceptional strength and resistance to thermal expansion. “We selected the product because of the temperature and pressures that the system required,” Hassett said, adding that the pipe’s resistance to scaling and pipe corrosion also factored into the decision. “We also liked the fact that we could install it without using a traditional welder.”

“We learned a lot in this short project. The ease of assembly reduced the preliminary labor estimates by 30%, and the fact that three men hung a 35-ft section of piping with fittings without the assistance of a crane was a big cost savings.”

-Jamie Hassett, Service Manager, Gipson Mechanical

A LOT DONE – QUICKLY – IN THE LOT

The total project consisted of about 60 ft of Climatherm, including seven 90-degree elbows, four flanges, and six outlets (two thermometers, two drain valves, and two Pete’s Plugs® or pressure taping ports).


The Gipson team set up the Aquatherm butt-welding machine (used for 6-in. diameter and larger piping) and the handheld fusion device (for the smaller welds) in the parking lot near the chiller and completed the installation within

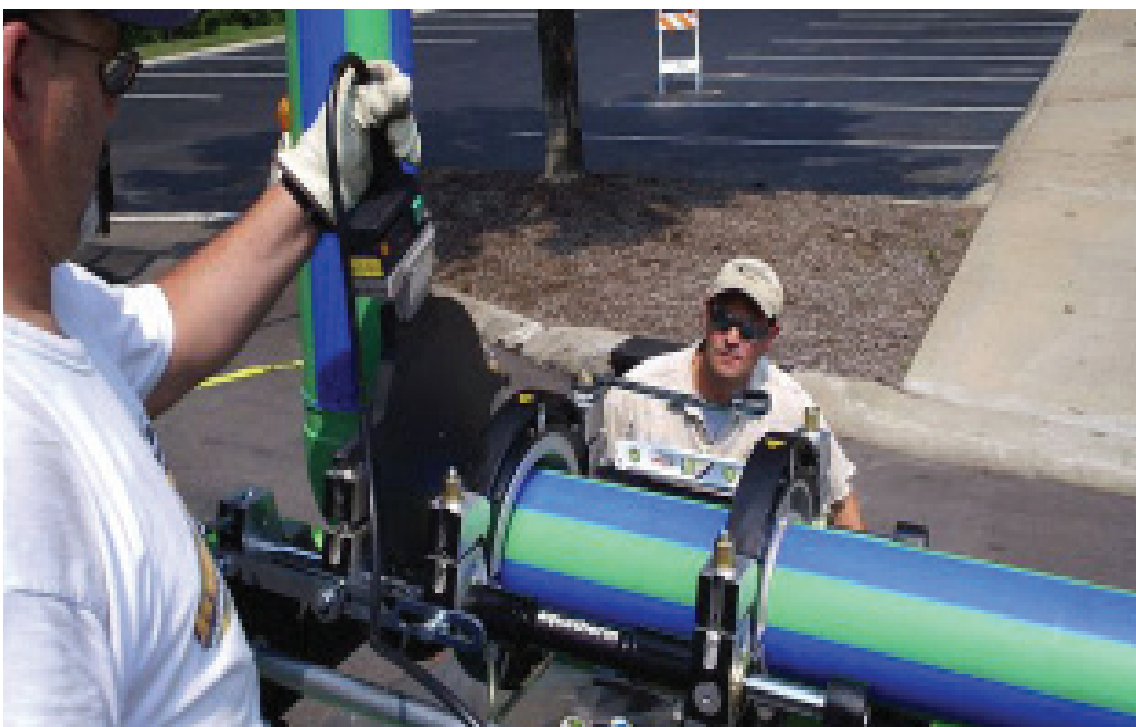


24 hours. “We learned a lot in this short project. The ease of assembly reduced the preliminary labor estimates by 30%, and the fact that three men hung a 35-ft section of piping with fittings without the assistance of a crane was a big cost savings,” Hassett added.

After the system was operational it was heat traced and insulated to protect from freezing in the winter months and also to protect against UV rays. The project went off without any issues and the customer was impressed with the speed of installation and the reduced down time.

“The chiller and the piping have been fantastic, and the piping looks good too,” said Wayne Carpenter, facilities director for the hotel. Carpenter had been unfamiliar with PP-R piping, but was impressed. “Its insulation properties are another bonus of the product,” he said.

Eight other firms bid on this job using steel, but the polypropylene was the deciding factor that got Gipson the job. “Aquatherm has now become another product in our arsenal to compete in the market, and provide a product to our customers that is environmentally friendly, has unmatched longevity, and allows them to fit projects into their budgets.” 



The German-manufactured pipe has been one of the world’s most durable and greenest piping systems for four decades and proven successful in 70-plus countries. Aquatherm piping systems offer many performance and environmental benefits, such as:

- Eliminating toxic materials, glues and resins, and open flames from the piping installation equation
- An R-value of 1 or more per inch or greater depending on pipe size and SDR
- The fusion welding process, which creates seamless connections that last a lifetime without leaking or failing
- An optional faser-composite layer in the pipe reduces linear expansion of the pipe by up to 75% compared to plastic piping



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