

Phoenix Convention Center

Case Study

Summary

Customer

Phoenix Convention Center

Location

Phoenix, AZ

Industry

Convention Center

Laars Product Installed

OmniTherm boilers

Sales Representative

Mechanical Room Inc.

Challenge

The boilers installed in 2007 needed to be replaced and updated. There were also unique piping and plumbing needs along with modifications to venting for the new hydronic system. The mechanical room was very tight and narrow and the buildings being served by these units were as large as 210,000 square feet and as far away as 800 feet. Phoenix-based HACI Mechanical Contractors, a commercial and industrial mechanical contracting firm with more than 300 employees, was brought in to tackle the challenges.

A unique feature of HACI's updating and retrofit work to the large hydronic system was the need to make minor adjustments to a unique configuration of the multiple boiler's exhaust flue. "The earlier boilers were manifolded into two 8-inch exhaust headers, each with five boilers," Byrd says.

The next challenge was whether the team could easily reduce the venting to 7-inch flues to accommodate the OmniTherm boilers.





Solution

HACI crews installed 10 high-efficiency Laars OmniTherm boilers in the fall of 2021, notes Tim Byrd, project manager for HACI's service group. "We replaced two of the existing boilers initially in September, each with a 2,000 mbh boiler," he says. "Several weeks later, we replaced the other eight — all the same size — completing the job just before Thanksgiving."

OmniTherm boilers (or volume water heaters), manufactured in Rochester, N.H., by Laars Heating Systems Company, are also available as volume water heaters in six sizes from 1250 MBH to 3000 MBH with 7-to-1 turndown. The systems can accept cold return water temperatures down to 85°F without the need for an external mixing. The near-condensing heating systems — with thermal efficiencies up to 87.7% — include electronic air-to-fuel ratio control, long-life stainless steel heat exchangers, and the Laars Linc icon-driven control system that displays key performance measures, a quick start option, and USB input for parameter uploads.

The OmniTherm is ideally suited to meet the convention center's needs, says Sean Crombie, director of sales and operations for Mechanical Room Inc., the Phoenix-based manufacturers' rep firm that specified the boilers. "It can be installed in Category I, II, III or IV vent systems for new or replacement applications, is easily connected to building automation systems via BACnet, and offers many other valuable features," he explains.

