Case Study

AERCO’s Innovation Provides the Right Remedy for Colorado Hospital

What the Client Needed
This Colorado hospital is constructing a 175,000 sq. ft. facility, slated to open in late 2013. The center will offer a wide range of expert pediatric care, including urgent, outpatient specialty, inpatient and surgical, along with the latest imaging and diagnostic technology. Instead of an old-fashioned, large, central steam plant, the hospital wanted an innovative, decentralized system to supply its state-of-the-art facility. The project’s engineers needed to design a high efficiency, direct-fired domestic water heating system in the smallest space possible while meeting the system’s high demand.

AERCO’s Solution
Very few direct-fired tankless water heaters on the market are large enough to meet many hospitals’ domestic water heating needs, but a head plumbing engineer on the project had used AERCO tankless water heaters for years. He chose to install five AERCO Innovation 1350s. With 97% efficiency, tankless design and onboard Water Heater Management (WHM) systems, INNOVATION 1350s were exactly what this hospital needed:

• The WHM system efficiently sequences the five units to meet the system’s load requirement—anywhere between 1 GPM to 164 GPM at an 80°F temperature rise. When a unit isn’t required, it’s isolated via fully packaged motorized isolation valves.
• If a heater were to fault for any reason, the WHM master will signal its sequencing valve to close, immediately isolating that unit from the rest of the system and bringing another one online to replace it. This ensures that hot water, at the right setpoint, is always ready, no matter what.
• The most efficient water heater is one that doesn’t burn gas until it’s needed. The Innovations’ tankless design means there’s no need to burn energy maintaining a setpoint in a large volume of stored water, with wasteful radiating energy that goes nowhere. That will save considerable cost.
• Thanks to the Innovations’ small footprint, it’s easy to install and fit in even the tightest spaces.

Return on Investment
The Innovation 1350s are ready to meet the high load diversity and critical capacity requirements of this new flagship hospital—which expects to treat some 80,000 patient in its first year.