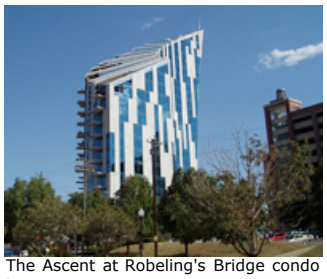
Standout Ohio River Condo Tower Comes With Hydronic Heating-Cooling System

Across the Ohio River from the downtown Cincinnati skyline stands a most striking blue and white high-rise building. It's called The Ascent at Roebling's Bridge - a 22 story crescent-shaped building designed by the noted architect Daniel Libeskind.

Libeskind is best known for his designs of museums and cultural centers throughout the world, like the Jewish Museum in Berlin and the redesigned Denver Museum. He was also selected as the original master site designer for the new World Trade Center complex in lower Manhattan. The Ascent at Robeling's Bridge marks his first residential high rise building in the United States.


The Ascent at Robeling's Bridge condo tower.


View of the Ohio River, Robeling's Bridge and downtown Cincinnati from The Ascent tower.

The Ascent, located in Covington, KY and close by the suspension bridge designed and built by John R. Roebling (who later built the Brooklyn Bridge) is a luxury condo tower comprised of a pre-cast concrete façade and reflective glass curtain walls. It contains 64 condo units and eight super luxury penthouses on the top three floors where the building's sloping roofline reaches its dramatic climax. Prices range from $800,000 to $5.5 million.

Getting heat and air conditioning up through the 20-plus floors was a major challenge to the HVAC design-build firm on the project, Commercial HVAC of Cincinnati. The building's HVAC system is a closed loop water source heat pump system. Its cooling towers, provided by Marley Cooling Tower and located across the street from The Ascent, function separately from the building loop.


Taco KV pump supporting cooling tower.

Ascent property owners have individual units located in their condos with programmable Honeywell thermostats. Several units have multiple systems allowing even more precise indoor comfort.


Commercial HVAC and Weber-Huff personnel in the mechanical room.

The heart of the building's HVAC system is in its ground floor mechanical room. Two Thermal Solutions gas-fired boilers with 2.5 million BTU each provide plenty of heat for the cold Ohio Valley winters. Two Taco KV pumps for the boilers serve the primary loop, and two Taco FI Series pumps provide distribution through the heating loop to serve high efficiency, self-contained McQuay heat pumps for each condo and penthouse unit.

With the use of heat pumps in The Ascent tower each unit responds only to the heating or cooling load of the individual zone it serves, thereby providing superior comfort levels for occupants, while reducing energy use and lowering seasonal operating costs.


Taco FI series pumps and Plus Two Multi-Purpose valves in the Ascent mechanical room.

To ensure years of trouble-free service with minimal maintenance needs, the Commercial HVAC design team used Taco's 4900 Series Air/Dirt Separator. Two Taco shell & tube and plate & frame Heat Exchangers separate the boiler and building systems. This separation simplifies maintenance and control for the boilers and the cooling towers.


Taco heat exchanger.

Regarding the Taco equipment specified by Commercial HVAC for the project, "They're a great example of what we sell here in the Midwest," says John Noyen, part-owner of Weber-Huff, Taco's manufacturers' rep agency for Ohio and Kentucky.

"Weber-Huff provided excellent engineering support on this project," says project manager Bob Cartwright of Commercial HVAC. "We went with Taco because they make great, dependable equipment."

"When challenged with unique projects like the Ascent, with demanding build schedules, it was an easy decision for us to turn to the Taco team from Weber-Huff," adds Chip Branscum, P.E., of Commercial HVAC.

Information supplied by Taco, Inc. and Commercial HVAC.