

Air Conditioning | Heating | Refrigeration

the NEWS



JULY 25, 2005

WWW.ACHRNEWS.COM

A BNP MEDIA PUBLICATION \$3.00

FYI...

A weekly roundup of industry news, events, and people

Manufacturers

- **ICOR International Inc.** (Indianapolis) appointed **Walter Cooper** as regional business director for its East Coast region and **James McKinney** as its Midwest regional business director.
- **York International Corp.'s Unitary Products Group** (Norman, Okla.) donated six new packaged air conditioning units to the recent 2005 SkillsUSA Championships.

Distributors

- **Ferguson** (Newport News, Va.) opened a new facility in Denver.
- **Baker Distributing Co.** (Jacksonville, Fla.) promoted **Jeanene Miller** to vice president of Marketing.

Associations

- **The Air-Conditioning and Refrigeration Institute (ARI)** has published updated versions of ARI Standard 440-2005, "Room Fan-Coils"; Standard 495-2005, "Refrigerant Liquid Receivers"; and Standard 610-2004, "Central System Humidifiers for Residential Application." These can be downloaded at www.ari.org.
- **Air Conditioning Contractors of America (ACCA)** inducted **Ron Jackson** of **Jackson Systems LLC** (Indianapolis) into the 2005 ACCA Hall of Honor in Indianapolis.
- **The National Electrical Manufacturers Association (NEMA)** announced the retirement of **Malcolm O'Hagan**, the association's president for the last 14 years. **Evan Gaddis**, president of the **Gas Appliance Manufacturers Association (GAMA)**, will succeed O'Hagan as president.

— compiled by Kyle Gargaro



Planning Ahead For Year-Round Comfort: Andy Fox, vice president, Fox Mechanical (left), and Hanse Cromer, manufacturer's rep with Steffens-Shultz, discuss the layout of the radiant heat grid for the riverside pavilion at Northbank Park in Columbus, Ohio. For the full story, see page 20.

Ductwork Problems Cause Issues With Airflow

By Joanna R. Turpin
Of The News Staff

There's no question that flexible duct has revolutionized the HVAC industry. The advent of flex duct meant that contractors could dramatically reduce the amount of time and skill it takes to install a duct system. Not to mention that flex duct costs significantly less than other types of duct systems and is easier to store and transport.

As with any great product, however, the key to its optimum performance is proper installation. Too often, flex ducts are not installed properly, and they end up kinked, bunched up, undersized, or sagging.

These issues can cause increased resistance in the duct system, resulting in too little airflow reaching a building's heating and cooling equipment. Too little airflow reduces the system's capacity and

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Finding Skilled Workers In The U.S. Military

By Mike Murphy
Of The News Staff

Employers who are wondering where to find their next top-quality technician might do well to consider men and women who are used to

wearing a uniform — members of the U.S. military.

The U.S. Navy provides training in about 20 various categories. The particular area that provides HVACR training in this branch of the service is

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system effect

System effect is the negative impact on fan performance that results when the fan is connected to a duct system. For an explanation of system effect, what causes it, and how to overcome it, read the technical article "Minimizing System Effect." Go to www.achrnews.com and check out Extra Edition today.

New Riverside Pavilion Is A Polished Gem

By John Vastyan
For *The News*

COLUMBUS, Ohio — Like gem cutters working painstakingly on a diamond in the rough, planners in Columbus have kept city improvements at a steady pace for several years. Despite economic dips and swings, functional and aesthetic changes have added shine and luster to a city that, a decade ago, looked worn and tarnished.

The city's new 12-acre, \$15 million Northbank Park on the bank of the Scioto River is part of Mayor Michael B. Coleman's plan to lure people into the city. Planners have now accomplished a key part of it by developing a winding, interconnected park system that runs along the river through the downtown area. It's also been a great enticement to real estate development. Late this year, two new, eight-story condominium buildings with 98 units will be

completed just north of the park.

The park's gleaming gem is its new enclosed, glass and brick pavilion with dramatic skyline views of the cityscape. At sunset, the city is at its finest from outside or inside the pavilion even during harsh winter conditions because, after all, designers planned for that. Columbus-based Fox Mechanical was tapped to install a radiant heat and supplemental hydro-air system for the pavilion.

No doubt, the comfort amenities have helped make it one of the area's hottest spots for wedding receptions and other social functions, year-round.

Project Overview

"The pavilion project stretched out over a period of about a year," explained Andrew Fox, vice president of Fox Mechanical, a union shop with about 30 pipefitters. The city awarded a contract to Fox Mechanical for \$290,000 to complete the plumbing and heating installations.

The 3,000-square-foot pavilion is constructed around a slab foundation. The classy, glass-enclosed area is 1,800 square feet in size, and the slab underneath that area is radiantly heated, supplemented by hydro-air. Fox Mechanical chose ½-inch RadiantPEX tubing supplied by Watts Radiant through Columbus- and Dayton-based Steffens-Shultz, a central Ohio hydronics manufacturer's rep firm.

Eight 300-foot tubing loops provide heat for the fully insulated slab. They used perimeter-banding for the first 10 rows of tubing on each side of the large, open room, placing the tubing at 6 inches on center for maximum heat output below the largest, windowed walls. The rest of the tubing, throughout the center area of the slab, was placed at 12 inches on center.

"At 0° design temperature, we knew we would need 40 Btu per square foot in the large room surrounded by glass," explained Tim Kaiser, Fox field superintendent.

They also chose to install a small HydroControl panel fabricated by Watts Radiant to handle thermostatic mixing, controls, and fluid flow to the in-floor system.

"We put the control panel and radiant manifolds in a small room adjacent to the public part of the pavilion," said Kaiser. "There simply wasn't room for it in the mechanical room for them."

The attic mechanical room was truly a tight fit. So tight, in fact, that the mechanical equipment and most of the ductwork were in place



Tim Kaiser sweats a connection during final installation of the 500 MBH, sealed-combustion Laars Pennant system.

before the roof trusses could be set.

"Our two key challenges on the job were space and the ability to meet the heat load," said Fox.

"The attic mechanical room trusses have an 8/12 pitch and offer only five-and-a-half feet of clearance to the peak, is no more than 12 feet wide, and the angled walls are sharp. So, it's pretty much like a crawl space. But, with the pre-planning that we did, we were able to accommodate the boiler, two air handlers, the 40 inch by 20 inch supply and return ductwork, and all the necessary pumps up there. The air handlers are 6,300 cfm and 850 cfm in size. It's tight, but it came together nicely, all things considered."

It was also a space consideration — the architect's desire to keep the maximum amount of ceiling height in the decorative lobby area — that led Dynamix Engineering, the project engineering firm, to propose contemporary, exposed ductwork. "Planners liked the idea," said Fox. "So we ran heavy spiral ducts and painted them, the exposed trusses and ceiling in flat black. It's got a lot of class."

The glassed-in area is essentially

a non-insulated, 30-foot by 60-foot sunroom, on a slab, with a 20-foot ceiling and exposed on all sides.

To handle the heat load, Fox installed a 500 MBH Pennant boiler by Laars. "We chose it for its small size, low weight, and very good combustion efficiency," said Fox. "The low-mass, copper-fin boiler is perfect for an application like this."

The 85 percent AFUE Pennant has a fan-assisted, sealed-combustion design. "Rather than maintaining high mass, standby energy at considerable cost, this little boiler meets the need easily and quickly injects incremental energy into system loops on demand," he said.

"What's so satisfying to me about this job is that our work and attention to detail came together in a place that will be enjoyed by so many people in the community," said Fox. "Over the years, this place will become one of the area's most desirable spots for wedding receptions, social events, and other special occasions. And even in the winter, when other buildings like this might be closed down, this pavilion will ready, warm, and comfortable." ©

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