Solid HVAC Growth Predicted

By Kimberly Schwartz
Of The NEWS Staff

According to financial services firm J.P. Morgan, the outlook for the North American HVAC market is one of solid growth. The firm released its 2010 HVAC Review and Outlook report in early July with predictions that both the residential and commercial sectors will improve. However, some in the industry have expressed concern that the outlook is too optimistic.

The first encouraging note is the report’s statement that the HVAC market hit bottom in 2009. The report said, “We believe the global HVAC industry is now beyond its collective bottom, hit in 2009 (residential and commercial). After four straight down years, residential HVAC is poised for solid double digit growth in 2010.” In addition, the commercial segment “is set to turn the corner in the next six to 12 months, with potential greater upside than residential.”

According to Talbot Gee, vice president of the Heating, Airconditioning & Refrigeration Distributors International (HARDI), the J.P. Morgan report is one of the most comprehensive reviews of the HVAC industry. However, he noted that HARDI and its members have some reservations about the 2010 report’s forecast, which he acknowledged is based primarily on data from a handful of companies that may not be entirely reflective of the industry as a whole.

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FMI Show Highlights Changing Technology

By Peter Powell
Of The NEWS Staff

LAS VEGAS — “The design of refrigeration systems in supermarkets is going through a state of flux not seen since the conception of man-made refrigeration some 130 years ago.”

That statement by piping manufacturer Georg Fischer, an exhibitor at FMI 2010, was reinforced throughout the Mandalay Bay Convention Center show floor at the most recent every-other-year event sponsored by the Food Marketing Institute.

The Georg Fischer statement also said, “The main drivers concern the environment and compliance to local and global regulations to reduce refrigerant charges.”

INSIDE THE NEWS…

A High-Efficiency Summer Camp Install

Owner Ken Rex (left) and installation technician Dylan Skursky (right) of Ken Rex Heating and Cooling level a concrete pad for a condensing unit at a summer camp. See story on page 18.

INSIDE THE NEWS…

Best Contractors Beat the Odds

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Online at www.achrnews.com
Synerg-E™, combines patented evaporator technology with proprietary airflow management system. According to a statement from the company, “The first half of the design starts with the NRGcoil, an evaporator design that features increased primary and secondary cooling surface, which operates at higher suction temperatures and decreases the total energy required as a result. NRGcoil includes an integral liquid subcooler that increases system efficiencies by supply liquid subcooling and vapor-free liquid to expansion devices. The second half of the design is an airflow management system that combines an air scoop, rear baffle design, reengineered top canopy supports, and high-efficiency fans.”

Hussmann showed a meat case called XtraLife that is said to reduce bacterial growth by providing a lower, more consistent refrigerated merchandiser in the Stratus product line. The Stratus refrigerated countertop cases that can sit on or drop into counters. The company said, “The first half of the design starts with the NRGcoil, Synerg-E™, combines patented evaporator technology with proprietary airflow management system for use in refrigerated drawers, preparation worktop systems, and precision storage systems. Drawers operate independently, said the company, and users can switch from refrigerator to freezer. The technology, called FX Series, can also be used as a safety thaw system to thaw frozen food.”

Kysor/Warren (www.kysorwarren.com) highlighted a multi-deck refrigerated merchandiser in the Stratus product line. The Stratus models feature standard ECM fan motors, recycled/recyclable bumper and drain pan, and options for LED lighting using Kysor digital lights and night curtains. According to the company, the 9-W fan motors have dual-speed programming and automatically adjust to load differences while maintaining a set speed and efficiency range.

Structured Concepts G Series display cases for deli, meat, seafood, and bakery merchandising come in low-, medium-, or high-capacity configurations. They meet the DOE’s 2012 energy standards, it was reported. They have stainless steel tub and fan shrouds. The company also noted the CO Series of refrigerated air curtain models feature standard ECM fan motors and the CT Series of refrigerated and non-refrigerated countertop cases that can sit on or drop into counters.

Trade Fixtures (www.tradefixtures.com) noted that it has custom millwork for display cases.

COMPONENTS

Frost (www.frostrefrigeration.com) provides insulated panels for processing plants, cold storage facilities, supermarkets, and distribution centers. The company has panels for interiors, exteriors, liners, exterior roofs, and walk-in coolers and walk-in freezers. A humidification system for refrigerated warehouses was shown by MiatTeCh (www.miatech.org). “On average, when produce can be stored with added humidity to the amount of 90 percent rh or higher, the unpackaged product has reduced weight loss by more than 90 percent over produce that is stored in an environment without added humidity,” the company said.

Muller Industries (www.mullerna.com) highlighted the 3C condenser SH09 Series. According to the company it “combines the absolute latest technology to achieve the performance expected from an environmentally focused heat rejection system.” It has aluminum construction including a micro-channel heat exchanger, Ziehl-Abegg Owlet fans, and an optional ETAvent technology. The condenser is designed to reduce water consumption, and increase energy efficiency.

Randall (www.unifiedbrands.net) had a refrigerator/freezer system for use in refrigerated drawers, preparation worktop systems, and precision storage systems. Drawers operate independently, said the company, and users can switch from refrigerator to freezer. The technology, called FX Series, can also be used as a safety thaw system to thaw frozen food.

LIGHTS

EcolBrite (www.ecobritedlightlights.com) promoted what it called Precision Optical Performance™ (POP) for lighting. “Using specially designed optics that accurately focus the high-intensity beam of our LED lights, POP Technology™ makes display cases more visually appealing.”

Hill Phoenix announced a proprietary brand of Clearvoyant™ light-emitting diode (LED) for refrigerated cases. The LEDs are said to use less energy than traditional fluorescent lamps with no mercury, phosphors, load, or UV rays. The company said they last an average of five to eight years.

Promolux (www.promolux.com) had lighting for fresh food display cases at the show. The company described the product as a “reduced radiation lamp” capable of extending the shell life of products being displayed under the lights.

Summer Camp Installed With High Efficiency HVAC

H ANCOCK, N.Y. — In mid-June, about 650 students poured in from all over the country to the French Woods Festival (FWF) summer camp in rural New York. “Nearly every activity a young person could be excited about is found here,” said camp director Isaac Baumfeld. The 20-plus FWF programs teach everything from waterskiing to computer skills. The camp’s specialty, however, is the performing arts. Rock and roll, classical music, theater, film, dance, magic, and even circus performing are taught to students ages 7 to 17.

Many athletic fields dot the hillside that the 70-acre campus occupies. Red and white buildings of various sizes are elevated on stilts to compensate for the gradual slope down to the sandy beach and 80-acre lake.

In 2008, camp management decided it was time to add air conditioning to several of the buildings. Many areas received HVAC for the first time; others are getting...
high efficiency ductless systems to replace existing window units.

SKILLS ON TAP
According to FWF camp managers, Ken Rex Heating & Cooling is the name to know. Based in Kingston, Pa., the eight-employee company specializes in ductless mini-split systems. “We did ductless before ductless was cool — pun intended,” said owner Ken Rex.

The company installed its first ductless mini-split in 1987 and has installed more than 3,000 systems since then. Rex said that they have the largest referral list for split systems in the state. Rex got his start in the field by serving as a machinist mate for six years in the Navy while working on high pressure steam boilers. After his military service, he earned his bachelor’s degree and has taught and attended trade schools for more than 30 years.

“We enjoy a great business relationship with French Woods,” Rex said. “We offer our best counsel and skills on tap, and they offer several projects each year, typically at a time when we’d be slow.”

The camp routinely renovates buildings and makes venue improvements during the off-season. Some new buildings go up and some HVAC retrofits are initiated each year, all at a steady, sensible pace. The camp provides dependable work for the Rex crews each winter. And — with no variation — by the time the next batch of eager students hits the shores of French Woods in June, there’s no work crew in sight.

MAGIC COMFORT
Among the many buildings on the campus is the centrally located magic studio. Here, campers practice magic and illusions. Until this year, the 3,400-square-foot, three-room building would reach sweltering temperatures while camp was in session. “Even with windows open wide, and fans blowing at full tilt, it was illusion of cooling ... all done with smoke and mirrors,” chuckled Rex.

But now, with new split systems installed by Rex crews in May, the young magicians and their audiences enjoy genuine comfort.

Earlier in the year, camp maintenance crews installed 3-inch rigid insulation on the ceiling to insulate the magic studio. Now, cool air is provided by three 12,000 Btu air handlers. Camp managers love the Fujitsu units; they’re ideally suited for retrofit work and save a lot of energy,” Rex said. “The inverter technology used by Fujitsu converts energy from dc to ac power, making them up to 30 percent more efficient than non-inverter systems.”

HEALTH CENTER
Last year’s swine flu outbreak triggered widespread concern by parents, students, and camp managers. The sickness was especially problematic for schools and other programs where high numbers of children were in close contact; FWF was no exception.

To dispel concerns, the camp built a new 5,000-square-foot health center. The building has 20 wellness rooms, office space, and a reception area. Each wellness room has a full bathroom and is equipped with its very own ductless air handler.

“Mini split heat pumps were just what the doctor ordered for this job — especially considering the need to limit the spread of germs in the event of a flu outbreak,” Rex said. “Camp managers wanted a facility — and HVAC systems — that would handle problems in stride.”

If campers are sick, they go to the health center and visit the doctor or one of seven full-time nurses on staff. If need be, they’re given their own room while their health care needs are met.

According to Rex, six 15.5 SEER, quad-zone, 36,000 Btu Fujitsu RLQ ductless systems were not only less expensive and simpler to install, but also eliminated the spread of germs from room-to-room. “It makes for a healthier environment, and this was a key selling facet for the camp.”

With the many Fujitsu RLQ units in place, there’s no air exchange between rooms in the health center — just R-410a refrigerant running through a small perforation in the outside wall.

Another advantage seen by camp managers is the Fujitsu air filtration and purification. The air handlers circulate, heat or cool, filter, and purify the air in each room. Electronic air purification comes from the built-in plasma filter, which is standard on the RLQ units installed in the health center.

In camp session between June and August, the heating capability of the Fujitsu heat pumps will only be used on the occasional crisp morning.