

THE WHOLESALE

News of Plumbing • Heating • Cooling • Industrial Piping Distribution



Combining radiant heat with alternative energy and/or ultra-high-efficiency heat sources puts 'the best of both worlds' together. This 8,000-square-foot luxury home took 38 months to complete. Contractors linked six geothermal heat pumps with an extensive 10-zone radiant heat system that has all the bells and whistles. Here, Oren Atchley Co.'s David Kuykendall installs RadiantPEX and plates in what may be the ultimate, radiantly heated tub-surround. See the full story on page 31.

HARDI OKs initiatives to push proper installations

COLUMBUS, OHIO —The Heating, Air-conditioning and Refrigeration Distributors International has formally endorsed two industry initiatives, making unanimous the HVACR supply channel's commitment to the proper installation of heating and cooling equipment.

The Air Conditioning Contractors of America recently introduced a new ACCA-developed, ANSI-recognized standard for Quality Installation Specifications on HVAC systems, intended to demonstrate contractors' commitment to quality HVAC residential and commercial installations, improve equipment performance and durability and provide assurance to customers of proper installations. Additionally, the Air-conditioning and Refrigeration Institute is introducing a free *Contractor Guide* CD to help contractors navigate ARI's *Directory of Certified Product Performance* to find certified matched air-conditioning and

(Turn to HVAC group... page 25.)

Office vacancies down from '06

Commercial/industrial construction boom offsets residential debacle

BY MORRIS R. BESCHLOSS

Most of our readers might be surprised to learn that the U.S. is undergoing a monumental construction boom. With all attention riveted on the plunge in housing building permits and starts, one of America's greatest commercial and industrial construction booms ever is practically going unnoticed.

This surge is not only offsetting the body blow that the U.S. economy is experiencing from the massive downturn in the five-year housing boom, but the economy is substantial-

ly helped by this immense non-residential rebound. In the second quarter alone, U.S. office vacancy rates fell to 12.6%, down from 13.7% a year ago, despite a 21.5% yearly increase in the amount of office space con-

structed during the second quarter.

An unexpected falling vacancy rate is one reason that construction activities remain hot. In May alone, non-residential outlays jumped

(Turn to Surge... page 25.)

Rheem purchases additional land in Mexico

FORT SMITH, ARK. — The Heating & Cooling Division of Rheem Manufacturing Company has purchased a 37-acre commercial development site in Nuevo Laredo, in the state of Tamaulipas, Mexico.

Rheem's Heating & Cooling and

Water Heating divisions currently have manufacturing operations in Nuevo Laredo. This land purchase provides the company with an important strategic platform for continued global market expansion. This is the latest in a series of strate-

gic business investments designed to put the company in the best position to increase market share and aggressively compete with offshore competition.

Rheem has been realigning and

(Turn to Rheem ... page 25.)



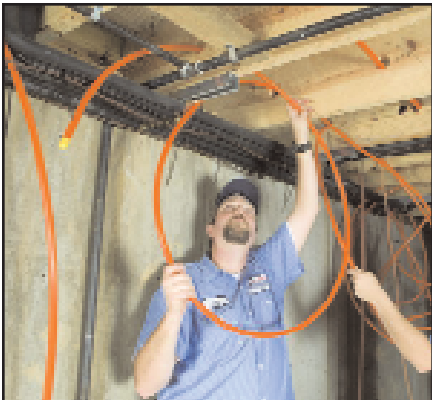
RADIANT IN THE FIELD

Customer pushes the 'Radiant Green' button

FORT SMITH, ARK. — Combining radiant heat with alternative energy and/or ultra-high-efficiency heat sources puts “the best of both worlds” together. When homeowners want the ultimate in energy efficiency and can put more upfront money into it, they’re rewarded with uncompromised comfort, off-the-charts energy efficiency, and steroidal payback!

Leading-edge contractors are harnessing the warmth of the sun or the abundant thermal energy stored below the ground. Here’s how the Oren Atchley Company of Fort Smith, Ark., did it. We’ll also look at some of the common misconceptions about “insufficient heat” for radiant when sourced from these types of systems.

Mechanical contractor Oren Atchley Co. recently completed a very substantial residential project that spanned 38 months. For the job, they linked six



Technician Jeff Hanna begins the installation of a RadiantPEX-and-plates staple-up application below the home's master bedroom.

geothermal heat pumps with an extensive 10-zone radiant heat system with all the bells and whistles. According to company president Mike Atchley, the project was under construction for more than three years.

The eye candy work inside this spectacular 8,000-square-foot home includes a custom-built circular stairway, cabinetry and millwork that Tom Atchley says he's never seen the likes of in 35 years on the job, hand-milled cherry columns for the bar that were carved to resemble old, spiraled barber poles and whole-wall murals. There's ample marble and granite, and attention to detail that few newly constructed homes receive.



Contractors drill holes for the geothermal heat pump system during construction of this magnificent 8,000-square foot home.

The homeowners made it clear that they would entertain groups of up to 100 people and that they would like their guests to be comfortable year-round. That's why most of the four-bedroom home's floor space is devoted to luxuriously appointed common areas. A pool house includes an additional bedroom.

Naturally, the architect and builder were busiest in bringing the homeowner's dream into reality. But Mike and his crew (which included the close help and counsel of his father Tom who, though now retired, still enjoys a good challenge) got their opportunity to shape and influence the home's “footprint.”

The Oren Atchley guys are no greenhorns when it comes to sophisticated mechanical systems. They're involved in the Radiant Panel Association and Air Conditioning Contractors of America and, on one occasion, they submitted a project for an RPA award and walked away with second-place recognition for the classification they entered; this project may be their next entry.

For every aesthetic, visually appealing surprise within the home, the Atchley guys matched it in the level of detail and care they brought to the job, though most of their work, of course, is unseen. Details include setting the extensive radiant heat system for constant circulation to ensure uncompromised comfort; using geothermal heat pumps for heating and cooling for the best in energy efficiency; and using vibration isolators on all the uni-strut clamps that connect hydronic panels to mechanical room walls to ensure that any hint of vibration wouldn't be detected.

The two-story home sits atop an expansive basement. Most of the first floor receives in-floor radiant heat through a tubed, standard-weight concrete slab. About 12,000 lineal feet of Watts Radiant's RadiantPEX tubing was used to distribute the 121,000 Btu of green, earth-generated heat. “Green” consideration was also given to other facets of the home, including the ample, blown-in cellulose insulation in walls and ceilings and Low E windows and doors.

Five of the 10 radiant zones are fed by two 3-ton geothermal heat pumps. The other five zones get their heat from a 3-ton, and a 2.5-ton heat pump. Flat plate heat exchangers were installed to heat the water for the radiant floors. Two additional heat pumps were set up for conventional forced air heating and cooling only via ductwork.

“The reason for having two separate systems is that the home has four mechanical rooms and the refrigerant line length [for the heat pumps] would be a problem if we placed all of the geo units on a single radiant system,” explained Tom Atchley. “Had the radiant system used a boiler, a single radiant system would not have been a problem; in fact, it would

have been much easier to install.”

The radiant is set up on a continuous circulation with three-way valves directing the flow of heated water. Tom added that 50-gallon buffer tanks are installed on the north and south ends of the home. “We used electric water heaters and removed the elements so that we could have the larger diameter ports to make our connections to the tank,” he said. “Each tank has an additional 2 inches of foil-backed insulation on it to help hold the heat in the tank. This was the first constant circulation (CC) job that we installed.”



Oren Atchley Co.'s David Kuykendall installs RadiantPEX to the manifold. About 12,000 lineal feet of the tubing was used for the project.

The inspiration came from John Siegenthaler's book on the topic, trade magazine articles and postings on the Wall.

“One of our deciding factors to go with CC was that our climate is not really cold, so there's a lot of down-time for the pumps, and tile floors can start to get some temperature swings that we would rather not have,” noted David Kuykendall, the Atchley technician in charge of the radiant portion of the job. Kuykendall designed the entire radiant manifold and mechanical rooms, as well as the electrical control panels. “Obviously, it costs more to do this, but a project of this stature wasn't set up for cutting corners.”

According to Mike Atchley, the Tekmar stats are remote-mounted as opposed to being on the finished room walls. The control system is pretty deep. The radiant heat is the first stage of heat. If a cold snap kicks in, and the radiant can't keep up, the system automatically switches to heat pump-generated forced air. Then, when the thermostat is satisfied on air temperature, the system automatically switches back to heating the floor. If for some reason a heat pump

fails, electric back-up heat takes over, thanks to variable speed fan coils.

One of the more interesting facets of the mechanical challenge was the sunroom. This room was designed as the

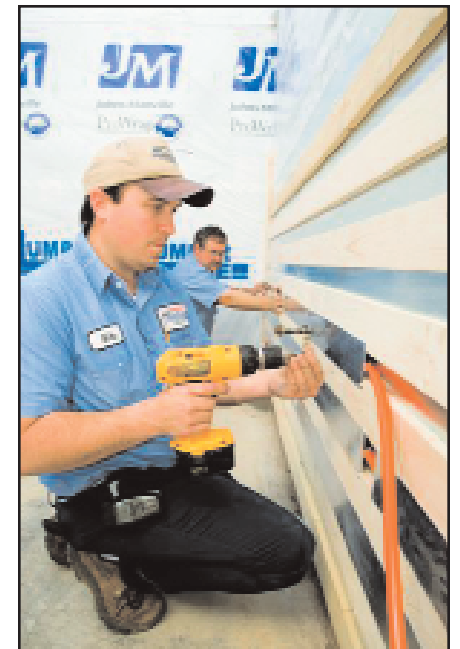


The attention to detail in the game room of the luxurious home is matched by the unseen radiant heating system.

designated smoking room. The south wall and entire roof are all glass, so it was an advantage to isolate it from the other areas thermally and to ensure that smoke and odor would not infiltrate connecting rooms.

To accomplish this, Atchley Co. installed a separate mini-split heat pump system for the sunroom. An exhaust fan is also installed at the peak of the room for use when outdoor temperatures are mild, permitting open windows. A carbon filter clean air unit was added to scrub the air, negating smoke odor. “We've used these in heavy smoking areas such as pool halls, and they do an incredible job,” said Matt Holsted, the Atchley technician in charge of the HVAC portion of the job. Holsted fabricated all the rectangular ductwork, and was also responsible for all the HVAC, exhaust and make-up air ductwork.

The sunroom floor is made of brick pavers; Atchley Co. placed radiant tubing in the concrete slab below the
(Turn to Radiant green page 74.)



Mike Yarborough, technician (foreground), and David Kuykendall, senior technician, begin to apply extruded aluminum heat transmission plates into place as part of the wall heat application.

SMART MANAGEMENT

Watch for warnings your business is going bad

(Continued from page 8.)

chart, e-mail me at rich@go-spi.com.)

Even now as the economy is cooler, you should still be working to grow. The best companies are aggressively driving to take share from other wholesalers who have opted to take a “wait-and-see” attitude. Such businesses are sitting ducks for their growth-focused competitors. If you don’t intend to grow, you should at least be aware that some of your competitors may be on the attack.

• **Sales in Units not growing.** In some cases, the raw sales dollars exceed the inflation rate while the units-of-product-sold are flat or down. When

When there is no “next job” there is no way to pay for the last job.

there is inflation in the cost of your products you must also monitor your sales in units to determine if you are holding your own or losing ground. The recent inflation in copper, for example, has boosted the dollars even while pounds and units may be decreasing. The 13 SEER changeover to higher-cost-per-unit equipment has increased dollars while unit sales may have declined. This means that you might be growing revenue while you are actually losing market share. That strange sound you hear may be someone else eating your lunch.

• **Expenses as percent of sales or per unit.** Normally, keeping your expenses in line as a percentage of sales is a good gauge of expenses. Ideally, the intent is to have expenses trending down as a percent of sales. You should be working to become more efficient over time. Also, as you grow, your expenses as a percent of sales are ideally decreasing because many fixed costs do not increase at the same rate as sales dollars. Said another way, when you see that your business expenses are growing at a faster pace than sales it should be like the smoke alarm in your home — you should be investigating the cause immediately. Further, so you are not lulled into a false sense of comfort, you must break out the inflated products and wash out the impact of inflation to determine if your expenses are really in line.

• **Accounts Receivable too high.** As the economy has slowed down, many contractors’ ability to pay has slowed or dried up. Some contractors are living behind the power curve where the next job pays for that last job. When there is no “next job” there is no way to pay for the last job. Remember how the musical chairs game works? Someone always ends up without a chair. You must be working to be the first-paid wholesaler — not the guy at the end of the line who is without a chair when the music stops. I would also review whether you’re A/R reserves are adequate. Your 120, 150 and 180 days past-due

accounts are truly a concern.

• **Inventory up and turns headed down.** Your inventory team must be adjusting their stocking levels for the current market. Further, you have to ensure that you maintain the proper balance between your fast- and slow-moving products. We sometimes find that the inventory team is operating to the total budget while the branches are stocked out of “A” and “AA” products. Too much of the budget is committed to “C” and “D” products.

• **Gross Margin headed down.** There is always pressure on pricing and, thus, your margins. The current environment is certainly more intense than it was a year or two ago. If you do not have a full-pressure effort to offset margin erosion through price management, it is a concern. I am not talking about lip-service. I mean the analysis and adjustment of pricing, conducted several times a year for each and every SKU that you stock and sell.

• **Productivity per head or per payroll expense dollar.** While productivity measures can vary throughout the country based upon many factors, they need to be monitored to ensure that your productivity is in the ballpark compared to your peers. Ideally, productivity should be increasing over time as the company invests in technology, equipment and facilities. One of my pet peeves regarding these types of investments is that few wholesalers project their ROI in advance — and even fewer determine whether the project was a success in the end. The hard truth is that many of these projects should allow the business to operate with fewer people, yet after the investment the same number of people are still on the payrolls.

Not discounting

When a company is not discounting, it should be a red flag for the owners since it often indicates that too much cash is locked up in inventory that is not moving, in receivables that are not being collected and/or a line of credit that is near or at its limit. The inability to discount is always a red flag for me as a consultant, for your suppliers and for your bank.

Vendors becoming disenchanted with your performance

When your vendors are getting concerned, it might be their yearly press to get you to pay attention to their lines or it might be that your performance is truly eroding. While you must remember that a vendor’s motives may not always be pure, your good vendors will level with you and may be able to suggest areas of opportunity for your company.

Bank concerned with your performance

I start with the caveat that many bankers do not understand hard-goods wholesaling. One of your tasks as a wholesaler is to educate your banker

about your business. When your banker gets concerned, you must sit up and pay attention. They provide the operating cash for many wholesalers, and when their key measures and ratios get out of range many times they will be required to act.

Losing target customers

You will always be losing customers and gaining customers. Some price-focused customers love you when you’re low and hate you when you’re high. The good news is that their love can always be quickly rekindled by simply offering the lowest price.

I get most concerned when the customers who *ought* to be buying from you *stop* buying from you. If you target service contractors with the products, pricing and support that they need, you ought to be getting a fair share of their business. When these customers who ought to be buying from you are going elsewhere, it is a smoke alarm type of warning.

Not fun anymore or you — and your team is losing “the fire”

If the business isn’t fun any more or the management team has lost their fire, it is a warning signal. Frankly, some owners and managers have been doing this for many years and they would rather spend their time playing golf, at civic meetings or on their boat. I think they deserve that reward for their years of service. But, they do not deserve the right to pretend that they are filling the role that their title denotes.

When they work short weeks and short days, it means that the ship is without a captain much of the time. The investors and other team members deserve a management team that is fully present and fully engaged in their job.

One president, who had pretty much retired to his boat, told me that he couldn’t find anyone to do his job. My response was, “Maybe we can find someone to work full-time and do about as well as you are doing in your part-time, disinterested position within the company.” I know those were hard words, but he had hired me to fix some tough problems and to paraphrase cartoon character POGO, “I had met the enemy and it was him.”

While most of these warning signs do not, by themselves, portend disaster, each should be considered serious and addressed immediately. When you have several of these signs, it may be time to call a wholesaling specialist for a check-up. For more information on our Corporate Physical process, e-mail me at Rich@go-spi.com.

PS: If you are attending ASA/Network ‘07, come to see us at our Schmitt ProfiTools booth #219 or at *The Wholesaler/TMB* Publishing booth #512. If you are attending HARDI, stop by our Schmitt ProfiTools conference booth #129 and our Solutions Center booth. ■

Rich Schmitt is president of Schmitt Consulting Group Inc., a management consulting firm focused on improving the profitability of distribution and manufacturing clients.
www.go-scg.com

Rich is also the co-owner of Schmitt ProfiTools Inc. (SPI), a business producing print, CD-ROM, web and palm-based catalogs as well as pricing management and analysis software for wholesalers.
www.go-spi.com

Radiant green

(Continued from page 31.)

pavers. “We also fabricated a radiant wall for this room that has 1/2-inch RadiantPEX mounted in aluminum plates,” added Mike Atchley.

Another interesting challenge was the master bathroom in which a large, whirlpool tub was installed. “We used a RadiantPEX with plates for the floor and the tub-surround, which is marble,” noted Tom Atchley.

The master bathroom also has two exhaust fans, one for the walk-in steam shower and one to serve the wet area and toilet area. The fans are controlled to ensure that the humidity is removed before they deactivate.

“At last, it all came together perfectly, and the key measure of success was the homeowner’s satisfaction,” said Danny Johnson, project manager for the architectural firm that designed the home, Fort Smith-based Tim A. Risley and Asso-

ciates. “They’re very pleased with mechanical system performance and especially pleased with the low energy costs.”

Tim Risley added, “We were also very happy with the ability of Atchley Company to make the mechanical systems, essentially, invisible. You don’t see the equipment, the heat is amazingly smooth and consistent throughout the home, and there are no aspects of it that interrupt the home’s design.

“This is the most extensive residential geo-to-radiant system we’ve had experience with. There’s a lot of new technology in this home. Our hats are off to the Atchleys. They’re early adopters, and they’ve kept pace with some of the newest, greenest and most sophisticated building systems available today. As we design homes for very discriminating clientele, we appreciate the ability to partner with firms like theirs that can deliver new and energy-efficient solutions without missing a beat.” ■

For more information, call 800/276-2419 or visit www.wattsradiant.com.