

CONTRACTOR[®]

THE NEWSMAGAZINE OF MECHANICAL CONTRACTING

The homeowners thought poor comfort was a fact of life in old houses.



Comfort/energy makeover

75-year-old mini-Tudor gets inverter technology

SPECIAL TO CONTRACTOR

ARLINGTON, VA. — There's very little that's typical about Rich Abernathy, president of Air Cool & Heating Systems, a seven-person firm based in Alexandria, Va. He's an explorer, always looking for new ways to tackle a challenge.

"I need to be aware of new and emerging technology solutions. Especially now, with energy concerns riding high on my customer's list of concerns," said Abernathy.

In the past year or so, they've seen a dramatic shift away from standard HVAC systems. His customers want solar heat and photovoltaic, geothermal, radiant heat and high efficiency ductless systems.

"To stay sharp, we do it all," he said.

"One of the things I encourage — almost demand — of my customers is that they collect a year's worth of energy and fuel receipts before we do our work," added Abernathy. "And because every system we install will substantially reduce their energy consumption, I want them to see the impact of

it. There are often huge comfort advantages, but energy savings are usually in the lead."

A year ago, Abernathy received a call from Sharon McDougal. A real estate agent, she and her

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Obama lauds McKinstry's energy leadership

SEATTLE — In an interview with columnist Joe Klein of Time magazine, President-Elect Barack Obama lauded mechanical giant McKinstry Co. for its innovative leadership in helping to move the country closer to a green, new energy economy.

McKinstry Co. is ranked as the 18th largest mechanical contractor in the nation in CONTRACTOR's annual Book of Giants (May 2008, p. 32).

On October 29, in a 30-minute program that aired on all the major networks, Obama laid out his vision for Ameri-

ca's future, highlighting companies that have led the way in promoting green jobs, sustainable business practices and helping to reduce the country's dependence on foreign energy sources.

During the spot, McKinstry was recognized for its commitment to sustainable, design/build practices and promoting an energy efficient America.

"Recently, I visited the McKinstry Co. in Seattle," stated Mr. Obama during the program. "They're retrofitting schools and office buildings to make them energy efficient, creat-

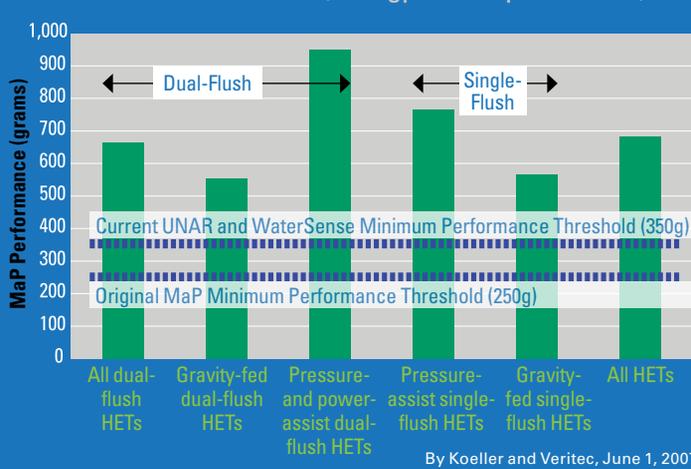
ing jobs, saving their customers money, reducing carbon emissions and helping end our dependency on Middle Eastern oil. As president, I'll use companies like McKinstry as a model for the nation."

McKinstry CEO Dean Allen said, "This national recognition validates the great work we do here at McKinstry. We take great pride in our contributions as a leader in the green economy, and our efforts to have a positive impact on the environment."

Headquartered in Seattle,
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CONTRACTOR INFOCUS

MaP Scores for HETs (1.28 gpf - 4.8 Lpf and less)



EPA refines WaterSense for Homes spec

WASHINGTON — The U.S. Environmental Protection Agency released a draft WaterSense specification for water-efficient, single family new homes in May 2008. As EPA refines its draft specification for WaterSense labeled new homes, the agency has been working with seven pilot

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75-year-old mini-Tudor gets inverter technology

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husband live in a charming 2,000-sq. ft., two bedroom, two bath brick and stone, Cape Cod style “mini-Tudor” built in 1933, long before central systems and duct runs were in vogue.

Gas-guzzler no more

Despite its modest size, the uncomfortable home was a gas-guzzler, and electric bills were increasing steadily.

A 10-year-old gas-fired boiler heated cast iron radiators in all levels of the home except for the partially finished basement.

“And even though our home isn’t large, our energy bills were really getting out of hand,” said McDougal.

“We’ve lived in the home for 10 years with window units providing the only a/c, and only in parts of the home,” she said. “It was uncomfortable, inefficient and noisy. We knew we had to do something about it when the windowsills began to rot and leak from dripping condensate.

“In fact, I’ve lost sales in this area because of the same problem with other homes,” she continued. “We’d been told over and over that we couldn’t have central air installed in the house because there was no place to run the ductwork. For years, we treated that comment like the end of the story. But I learned through a colleague about ductless systems, which opened the door to all sorts of possibilities. A realtor friend referred me to Abernathy’s company.”

Comfort makeover

Initially, McDougal and her husband made the decision to have a high efficiency ductless system installed to provide comfort for the home’s second floor and main living areas.

During his first visit to the home, Abernathy saw many limitations in the home’s design, chiefly, small spaces and knee walls following roof angles.

“Ductless systems are made for applications like theirs,” he said.

Since the McDougals expressed interest in having a more efficient form of heat for the upstairs and main living areas of the home, plus air conditioning, Abernathy selected heat pumps from among several different models of Fujitsu’s wall-mounted Halcyon R-410a inverter heat pump line, opting for units with efficiency ratings of up to 21 SEER and 10.0 HSPF. The lineup now includes 62

‘Now when I’m showing older homes like ours, I don’t have to make excuses.’

systems with capacity ranges of 9,000 to 42,000 Btuh.

For the upper bedroom — a space McDougal says was “unfit for living” during the warmer months — Abernathy installed a 9,000 Btuh unit. He selected an 18,000 Btuh dual-zone system to serve the master bedroom and living room. And in the kitchen, a 12,000 Btuh unit.

Unexpected energy savings

“The gas boiler couldn’t touch that sort of efficiency, and these systems are rated for optimal efficiency down to an ambient temperature of 0°F,” said Abernathy. “Winter temperatures in Arlington are above that, so there was little debate about the value of this decision for the McDougals.”

“It’s been a complete transformation,” said McDougal. “We now have precise control of the home’s comfort and enjoy areas that we avoided for so long — chiefly, the upper bedroom and basement. The home feels luxurious. And there’s no embarrassment when inviting guests.

The McDougals were so happy that they had Abernathy install the heat pumps in the rest of the house.

“The oppressive heat was gone,

and the humidity that we had to tolerate for years went with it,” she said. “Another benefit is the [plasma IAQ] air filtration that the systems offer. The air inside feels and smells cleaner. We quickly learned that we needed more of a good thing, so we asked Rich to return to complete the job.”

“I wasn’t entirely surprised to hear back from them so soon,” said Aber-

and basement.

“We never imagined comfort like this in the home, or the energy savings we’re seeing” said McDougal. “The most amazing change was in the basement where we had high humidity. That’s gone now, and the air is so much nicer there. Last winter, we could enjoy that space for the first time. We now wish we’d have done this sooner.”

Just as Abernathy had requested, McDougal found previous invoices from Washington Gas and Virginia Electric. They now save 20% to 21% on their electric bill and more than 50% on the gas bill.

“Our savings have been terrific, even now with the entire home either cooled or heated. Before, we just tried to ignore the discomfort,” said McDougal.

“Professionally, it’s made a difference for me, too,” she concluded. “Now, when I’m showing older homes like ours, I don’t have to make excuses about insufficient heating or cooling. Ductless systems are so well suited to homes like the one we live in.”

nathy. “In fact, I thought I might get a call when I saw how the home had been heated and cooled for years. The new units made a huge difference in the main areas of the home.”

During their second installation at the McDougal’s home, Abernathy’s crew installed two more 12,000 Btuh heat pump systems for the sunroom

NATE launches consumer site

ARLINGTON, VA. – North American Technician Excellence announced criteria changes to the Consumer Contractor Connection (C3), a contractor referral service, which will be launched in January 2009.

“We are raising the technician excellence bar with the C3 referral service to provide consumers and homeowners with a resource to help them find con-

tractors in their area,” said Rex Boynton, president of NATE.

The Website will feature the value of NATE certification and how consumers can find NATE contractors.

All contractors who participate in the 25% category will need to have 50% of their technicians NATE-certified.

Additional information is available at www.natex.org.