

The romance of radiant

You think you're passionate about radiant? Polish hydronics expert Zbyszek "Ziggy" Jonak loves radiant heat so much that he left his native country in 1986 to pursue his interests in Austria where they've refined it to an art form. There, for nine years, he worked with a few masters of the craft.

Those were especially good years for Ziggy. He honed his skills, met and married his Polish bride, Marzena.

Together, they emigrated to the United States in '95. They settled in Chicago and quickly formed a relationship with Piotr Zelasko, indisputably one of Chicago's top hydronic pros. Zelasko also left Poland, though a decade before Jonak did, to bring his passion for hydronics here; today, he's a manager and ace trouble shooter for Chicago-based Able Distributors.

Zelasko and Mike Bleier, president

of Able, were quick to see the many common interests they shared with Jonak, offering to help him get his business established there. Jonak's enterprise has since flourished and he's now one of the most sought-out hydronic/radiant heat installers in the area.

Among the products that Ziggy uses routinely are those manufactured by Watts Radiant. A recent residential job entailed the use of 3,000 square feet of SubRay, several stainless steel manifolds, 2,200 lineal feet of Onix tubing and another 3,500 lineal feet of RadiantPEX tubing for an extensive snowmelt system.

Another recently completed project is one that Ziggy did for their own enjoyment and as an investment. In '04, he and Marzena — a real estate pro — purchased a 70-year-old, 5,400-square-foot home in Highland Park, Ill., one of several high-end suburbs that make up the North Shore area skirting Lake Michigan north of Chicago. The home is an architectural gem, but it lacked in comfort amenities. Now, with most of the home's tile and stone surfaces luxuriously warmed, the home has achieved "masterpiece" status.

Jonak's finely-tuned mechanical system has exceeded the complexity of many light commercial systems, but the tough part, he attests, was mapping it out initially. "With a good plan, which we gave a lot of thought to on the front end, we've designed a system that has exceeded our expectations and is virtually maintenance-free." Of course, that's no surprise when lofty European expectations play a role.



Marzena Jonak enjoys the comfort and luxury of a totally radiant bathroom with its warm tile and stone surfaces.

"I wanted nothing less than for my wife and children, Kevin and Daniel, to be able to walk on any floor surface in the home with complete comfort," commented Jonak. But he didn't stop there. The project soon grew to include a radiantly-warmed walk-in shower, tub surround and a sitting bench in the home's master suite.

"We also wanted radiant because it's perfect for families with allergies," added Marzena. "Fans aren't kicking-up and circulating dust and allergens in the home, making it a much healthier environment."

The powerhouse behind their new home's 12-zone, multi-temperature hydronic system is a twin set of Viessmann Vitodens 200 gas-fired, wall-mounted condensing boilers. The sealed combustion systems' high-alloy stainless steel heat exchanger and the modulating gas burner make for maximum energy efficiency (up to

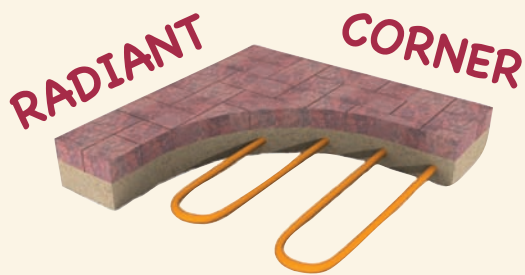
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From left, Mike Bleier, Piotr Zelasko, John Siegenthaler and Zbyszek "Ziggy" Jonak examine part of the comprehensive radiant system Ziggy retrofitted in his 70-year-old, 5,400-sq.-ft. home in Highland Park, Ill., north of Chicago.



The home's 12-zone, multi-temperature hydronic system employs multi-speed circulation and Grundfos SuperBrute pumps, while Caleffi zone valves and an insulated Hydro Separator enable the primary and secondary loops to operate hydronically independent of each other.



Radiant retrofit modernizes 70-year-old home

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95.2%) with minimum emission levels of NO_x and CO.

“A key part of our mechanical system was the way we circulate hydronic fluids,” said Jonak. “Piotr and I are big believers in multi-speed circulation. That’s why I use Grundfos SuperBrute circs exclusively. My

experience with them overseas, and now here in America, has been ideal. The three-speed, wet-rotor design is reliable, quiet and gets the job done with room for error on my part. If I need more or less circulation, I’ve got it with the flick of a switch. The circulators also enable me to make downstream changes to the system with the flexibility to adjust for mechanical system retrofits.

“We’ve also used some Caleffi zone valves and an insulated Hydro Separator, a device I feel is one of the most effective means of accomplishing primary-secondary piping for multiple-zone hydronic systems,” he added. “By creating a low pressure zone, the unit enables the primary and secondary loops to be hydronically independent of each other. The flow in one circuit doesn’t affect flow in another.”

For his home — with baseboard, high- and low-mass radiant panels, a garage snowmelt glycol loop, and an indirect-fired water heater for domestic — Jonak used the 1¹/₄" hydro separator.

“We connected the home’s two, 230 MBH, wall-hung Vitodens boilers to the hydro separator because the high efficiency units are a bit more flow-sensitive compared to higher-mass, cast iron units,” said Jonak.

Throughout their home, Ziggy used RadiantPEX — some of it is stapled up with plates, some of it is

embedded in concrete (parts of the basement, and the master suite), and yet more of it is wound within the engineered channels of Watts Radiant’s sleek SubRay. He used it plentifully within the snowmelt sections outside, some of which is concrete, and some of it lies under a bed of sand and brick pavers.

“One of the key challenges we as Europeans



RadiantPEX is used throughout the home, some stapled up with plates, some embedded in concrete in parts of the basement and the master suite, and some is wound within the engineered channels of SubRay from Watts Radiant.

have here in the US is the tendency for Americans to see mechanical systems and components as unimportant, favoring an attention to amenities like granite counter tops and formal dining rooms,” said Jonak. “The comfort of radiant heat — and the mechanical space needed to provide it — are just now beginning to find share of mind (and space!) among homeowners and builders.

“Americans are finally warming to the concept, the comfort and the romance of radiant,” added Jonak.

And now you have the whole story. ■



Twin Viessmann Vitodens 200 gas-fired, wall-mounted, 230 MBH condensing boilers incorporate sealed combustion, high-alloy stainless steel heat exchangers and modulating gas burners for energy efficiency up to 95.2% with minimum emission levels of NO_x and CO.