

Island custom home comes with high efficiency heating system

A new 6,000-sq.-ft. waterfront home on the island of Jamestown, Rhode Island, was designed and built with energy efficiency and Energy Star products in mind, dictated by an owner who wanted the best heating system possible, which included radiant heating.

The resulting heating system, designed and installed by Steve Gronski, of Gronski Plumbing & Heating, includes an oil-fired Viessmann Vitorond 200 boiler coupled with an array of Taco pumps, valves and accessories set within a tight 58" high crawl space under the

up with a mix of in-floor Uponor radiant for his family room and baseboard for the rest of the two-bedroom house. The house has six zones total — one radiant and five for baseboard.

Gronski likes the Vitorond 200 with its 90% efficiency and small footprint. The Vitorond 200 is a triple-pass boiler with a stainless steel combustion chamber. Its triple pass design provides reduced emissions, efficient fuel utilization and low heating costs. Gronski also selected a 40-gallon Superstor Ultra indirect water heater and a Flexcon expansion tank for the heating system.



The Jamestown, R.I., homeowner chose radiant heating over interior design frills.

floor slab.

On Jamestown there are no underground gas lines so propane or oil are the only options. The homeowner preferred oil over propane because of the greater control he would have with supply and pricing. He also wanted whole house radiant but had to compromise because of cost, ending

Clustered around the boiler are a host of green Taco products: 007 and 008 circulators, a LWCO (low water cut-off) valve for the boiler, a 3/4" iSeries mixing valve with outdoor reset, a residential 4900 Series air separator, a 5000 Series mixing valve, five EBV zone valves for the baseboard, an SR501 relay, a Differential Bypass



Steve Gronski prefers Taco Viessmann boilers and Taco pumps and related equipment on his radiant heating jobs.

to combine Taco with Uponor, and he credits both companies for their technical training and contractor field support.

Custom homebuilder Scott Grenon installed Energy Star products like Anderson HP windows and Isonene



Close-up of the array of Taco equipment includes "00" circulators, iSeries Valves, EBV zone valves, an SR501 relay, a residential 4900 Series air separator and a Freedom flange.

valve and Freedom flanges for circulator isolation.

Gronski says that the two outdoor resets — a Viessmann KW 10 for the boiler and a Taco PC700 linked to the iSeries valve provide the real keys to the heating system's energy efficiency. For the five baseboard zones the

spray foam insulation in the walls and floors for better energy savings and indoor comfort, in keeping with the homeowner's desire to concentrate on construction fundamentals and not the purely decorative.

"A lot of custom homeowners do just the opposite," says Gronski.



The complete heating system includes a Viessmann Vitorond boiler, a variety of Taco circulators, valves and controls, and a SuperStor Ultra indirect water heater (not shown).

iSeries valve and the outdoor reset control provide constant water circulation without temperature spikes. The circulators run constantly and the thermostats never shut down.

Gronski chose the iSeries mixing valve over an equivalent Viessmann mixing valve because of the price difference. He prefers to use Taco products for their reliability and affordability. For his radiant work he likes

"They prefer to concentrate on things you can see, that will impress people, like the kitchen, instead of something as important and basic as the heating system. If the owner could have afforded it, the whole house would have been radiant. To me, he's got his priorities straight."

Information supplied by Taco Inc., Cranston, R.I. www.taco-hvac.com.