Winning formula

Ontario contractor builds a business around hydronic floor heating

By Rachel Wenger

iss your cold feet goodbye. It's the slogan that Paul McRoberts and his firm, iFH Designs and Installations, has used as a calling card since 1984. It's a fitting expression because when Old Man Winter makes himself at home in their area for six months at a time, folks quickly experience the reality of cold feet.

Most of Ontario lies in the lee of the Great Lakes, studded with rivers and watersheds. In these parts, frigid temperatures and abundant snow is only the norm come wintertime. Paul's solution to the freezing-feet problem that pushes itself into so many homes in the area: hydronic radiant floor heating.

iFH, based in St. Mary's, Ont., specializes in in-floor heating, which is how the name came to be. Their singular vision: to create a well run, professionally managed and staffed plumbing and floor heating company providing expert advice, workmanship and knowledge.

McRoberts, a licensed master plumber, has built his team with great





Brent McRoberts, left, and Andrew Wilhelm make final adjustments on the system.

care. Though numbers shift seasonally, they're typically a five-employee operation. He's trained them well and, in doing so, he's built an extended family.

Family tradition

McRoberts grew up in a family of trade professionals. His father, a service and repair technician for pumps and water softeners, wanted his sons to get into a trade, knowing the constant demand for work would provide them with opportunities to make a living for themselves and their future families. Of the four McRoberts boys, Bob became a steamfitter, Glen pursued a career as a telephone technician, Gary followed a natural path toward automotive mechanics and Paul, the plumber, took a path similar to his father's.

In the beginning, iFH was conducted exclusively by Paul. Paul's wife Jean was busy raising the children – Steven, Kristy, Karna, Paula, Andrea and Brent.

Today, Jean runs the accounts and manages the office. Brent works in the trade and is currently a fourth-year plumbing apprentice, following in his fathers' footsteps. By releasing some of the daily responsibilities to Jean and Brent, Paul now focuses his attention on proposals and invoices, supervising all key facets of the operation. Also working for iFH are plumber Andrew Wilhelm and second-year plumbing apprentice Evan Thomson.

iFH serves a largely rural territory. With a vast area of operation, it's important that the coffee stays warm and the fuel lines, unfrozen. Typical jobs require McRoberts and crew to travel up to two hours away, and that's with cooperative weather, while some customers may be much further down the road.

New construction a mainstay

The new construction industry in Canada is still booming, with 75 percent of iFH projects being new homes. One of iFH's most recent jobs was for a brand new, one-story, 2,300 sq. ft. bungalow. The home, located half an hour from the iFH shop, is on a 50-acre farm surrounded by blue spruce, maples and an apple orchard making it, as McRoberts describes it, "picture perfect." His customers, the Brennans, decided



These guys know how to market hydronic heating!



Paul McRoberts, left, offers apprentice Evan Thompson a little helpful advice.



Brent McRoberts, left, and Thompson talk shop. Sophisticated controls and adjustable valves ease fine-tuning of the system.

to go with a fully floor-heated system with a lightweight concrete over-pour. A snowmelt system for the front porch and a radiantly heated garage were just icing on the cake. An 80-gallon Bradford White indirect water heater handles the domestic hot water need while 6,500 ft. of 1/2-inch PEX heats the bungalow and garage.

In the mechanical room, McRoberts specified Taco controls. A Variable Delta-T (VDT) pump and several Zone Sentry zone valves, all governed by a switching relay, control the home's five zones. A Watts expansion tank was installed as well and a Watts backflow pressure reducer protects domestic water lines.

It's all about radiant

"I think anyone who can tap in-floor heat as the main source of warmth in their home will win the age-old battle of man versus winter. Radiant heat delivers healthy heat, savings and extreme comfort," McRoberts explained.

A recent renovation project sent iFH technicians to a 5,000 sq. ft. farmhouse in London, Ontario. The home, having been in the Johnston family for three generations, was in dire need of remodel and renovation work, and was largely torn down. Only two walls were left standing. The Johnstons decided to go with radiant floor heating on all levels of the re-built home.

McRoberts decided the best way to heat this farmhouse was to tackle the radiant challenge with three different infloor techniques. Basement heat was installed in the new slab. The main floor and second floor piping was installed in joist spaces, while the attic was equipped with an over-the-floor radiant system. When all was said and done, 9,000 feet of PEX divided among ten zones provided comfortable and efficient heat.

An 80-gallon Bradford White indirect tank meets all domestic hot water needs. Also on the Johnston's project are three Taco iSeries mixing valves, connected to VDT circulators to control the individual zones. Eight new three-speed/variable speed 0015 circulators control supply for the extensive joist space heating system, concrete slabs and over-the-floor radiant

heat in remodeled attic spaces.

Two 0013 pumps control supply water for the chiller. They also installed 3/4-inch Taco 418 air vents for trouble-free operation of the upper manifolds for radiant supply and return. The same company's SR506 expandable controls are used for thermostats and pump wiring. The circulators are wired directly into the controls.

Two 24-volt zone valve controls are used for the radiant manifold actuators.

Both the switching relay and zone valve controls are expandable, giving the ability to add more than one control to the first panel. The first panel will then act as the master controller while any additional controls will act as slaves.

Warm feet for the cobbler's shoes

Specializing in hydronic in-floor heating is what makes iFH unique. They're "obsessive-compulsive" about staying abreast of new product introductions and the steady training of all employees through the Canadian Hydronics Council. "We strive to go beyond

customers' needs," said McRoberts.

Currently, iFH operates from a 2,500 square foot building with 500 sq. ft. dedicated to office space. New blueprints reveal a substantial upgrade: a new shop, offices and showroom adding up to over 7,000 sq. ft. (all in-floor heated, of course) that will break ground this spring.

"Every once in a while, the cobbler gets new shoes. Soon, we'll have a chance to turn our attention to our own work environment – and the feet'll be happy, by design," says McRoberts. +



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