

Geothermal Manifold Installation with a Professional Touch

Summer 2012



Project:

Residential geothermal manifold installation

Place:

Port Washington, WI

Design:

Caleffi GeoCal™ geothermal manifold, QuickSetter™ balancing valves

Purchaser:

Contractor: Professional Geothermal Systems – Port Washington, WA

Mark Doll makes a good living doing one thing very well – designing and installing ground source heating and cooling systems with a professional touch. He has done many installations; retrofit, new construction, small systems as well as large. His company recently completed a 4 ton heating & cooling system on a new home in Port Washington, Wisconsin. Rather than weld together a loop manifold and burying it in the yard as he traditionally would do, he incorporated a Caleffi GeoCal™ geothermal manifold and located it in the basement mechanical room. With the geo system fired up and performing smoothly, Mark gave an assessment of his first time use of this new manifold approach.

With the GeoCal™ manifold “I can bring all earth loop piping into one common station and avoid having to fusion weld” comments Mark. “Yes, there is the added material cost of the manifold, but it is largely offset by eliminating the welding labor. I didn’t have to deploy welding equipment to the site either.”

Having only constructed geothermal manifolds via welding in the past, Mark was more than a little curious about how to securely connect up the loops using Caleffi’s mechanical fittings. “The GeoGrip™ connections were easy to connect to my PE pipe, too. And on both our air and fluid pressure tests, the fittings held secure with no decay.”

On the manifold, Mark used Caleffi’s optional QuickSetter™ balancing valves. “Getting proper flow in all loops is important for efficiency, but not so easy to accomplish with buried manifolds. The QuickSetters allowed me to dial in the 3 gpm I wanted on each loop with no guessing, and it brings the flow control into the house. They even come with insulation shells that fit like a glove.”

Another advantage to using GeoCal™ manifolds is each loop can be isolated. Commented Mark, “Purging and filling required much less pumping effort because I could do 1 loop at a time. With a welded manifold, the entire loop field is purged which requires a big pump.”

Would he use another GeoCal™ manifold? “The manifold has advantages when compared to the traditional ‘blind’ system. The GeoCal™ is a breeze to install and gives a lot of flexibility as the automatic air vents and supply and return temperature gauges are a couple of added plusses. With this first one up and running, and the customer satisfied, I’ll be evaluating how it holds up. But Caleffi makes good stuff and as the weeks go by, I’m confident I’ll be looking to use the GeoCal™ again”.

