



Geothermal to Provide Comfort, Low Energy Costs to Wounded Warrior

Operation Finally Home brings together suppliers, builders to salute Oklahoma soldier

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The Players

Operation Finally Home is a national, non-profit organization with a network of experienced builders, suppliers and supporters dedicated to building homes for wounded, ill or injured veterans, surviving spouses and their families. The organization brings together homebuilders, the military and communities to build custom mortgage-free homes for recipients to help them move forward in their lives.

ClimateMaster Inc. is the world's largest manufacturer of American-made residential geothermal heating and cooling systems. The company is dedicated to developing and delivering innovative and energy efficient HVAC technologies and products that create tangible value for homeowners, minimize the environmental impact of residential living and enhance the comfort and curb appeal of homes across the country.

The Situation

In building a new home for wounded warrior Sgt. Ronny Sweger, Operation Finally Home aims to give him and his family the structure for no cost. Or, at least, at as little cost as possible.

Even when the organization is successful in eliminating a mortgage for the payment, the new homeowners still are left with monthly utility bills. With the Sweger home near Tulsa, Okla., Operation Finally Home wanted to keep that expense at a minimum.

The project builder, Castlerock Builders, knew one way to make that possible was using geothermal heating and cooling.

“Geothermal makes heating and air significantly cheaper,” Castlerock owner Steve Wright said. “It’s a green system where we’re not going to use a ton of electricity.”

Sweger, a former Army sergeant, was wounded nearly a decade ago when he was struck by an improvised explosive device while serving in Afghanistan, the last of his seven combat deployments.

The home being built for him near Tulsa is the first of its kind – and among 81 nationwide – in Oklahoma. What makes homes built by Operation Finally Home unique is that they aren’t constructed from a standard plan. Rather, they are tailored to the recipient’s needs and to the communities where they will sit, said Ronnie Lyles, project manager for the organization.

The group not only seeks to build homes with curb appeal, but also with longevity. Part of that comes in the systems that will function inside, such as the geothermal heating and cooling system donated by ClimateMaster.

“It’s amazing what you can do with donated labor and material,” Lyles said.

The Solution

Vickery Heat and Air, a ClimateMaster contractor in Oklahoma, will install two ClimateMaster Tranquility 30 Digital Series units – a three-ton and a five-ton.

The heat pumps, to be connected to geothermal loops in the home’s yard, feature two-stage technology that automatically adjust to provide consistent indoor air temperature, regardless of outdoor weather extremes. The Tranquility 30 Digital Series units also include variable-speed blower motors that adapt to various duct systems to even out hot or cold spots.

The Tranquility 30 units feature iGate and vFlow technologies, which provide the foundation for intelligent control and variable water flow, respectively. Combined together, the technologies make the digital unit appealing for having the lowest operating cost in the industry.

The vFlow system alone, which reduces water-pumping power by up to 80 percent over traditional units, can save more than \$100 a year in electricity costs.

Using the ClimateMaster pumps, the Swegers will quickly experience the benefits of what Travis Vickery, who’s heading up the installation for Vickery Heat and Air, calls “one of the best systems on the market.”

“They’ll have the best heating and cooling system you can have,” he



*ClimateMaster's
Tranquility 30 Digital
Series Pump*

Vickery said. “Geothermal is leading the industry in efficiency. I couldn’t put in anything better.”

The Results

The expansive 3,700-square-foot home, which will be ready in 2015, features five bedrooms and four and a half bathrooms. The size provides added space for friends and family who will stay from periodically to help provide care to Sweger and assistance to his family.

The home also features a game room, screened-in porch and, being that Oklahoma sits smack in the middle of Tornado Alley, a tornado-safe room.

When the geothermal system goes online, it’s anticipated that it will operate at an efficiency that is 40 to 50 percent better than traditional gas and electric systems, Vickery said. That means, the Swegers can expect electric bills less than \$200 a month, Wright predicts.

What’s more, the ClimateMaster system requires little to no maintenance and has an expected lifespan of 15 years or more.

Operation Finally Home couldn’t be successful in giving wounded warriors low- or no-cost homes – and homes designed for low energy bills – without the generosity of suppliers that see the value in such projects, Lyles said.

“Companies like ClimateMaster always step up,” Lyles said. “They may think their piece of the pie isn’t significant. But when you add it all up, it’s very significant. It’s amazing how all the different parts come together.”

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