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The difference between heat and comfort

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Radiant heat is cost-efficient, warm

By Lura Roti, Reporter
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Quality heat without the headaches is why Robert Malisch likes working with and selling electric radiant heat panels.

“There is no service work once the radiant panels are installed,” said Malisch, the owner of Energy Solutions, LLC in Mitchell, S.D. “I've been doing this full-time for three years now and there are no service calls. I don't have a service company anymore; I don't have repair guys working for me. Before, I had up to 60 guys working for me doing service work.”

Involved in the heating and cooling industry for more than 41 years, Malisch, 62, became such a believer in radiant heat that he no longer sells geothermal, air source heat pumps or gas furnaces - his only focus is radiant heat.

Radiant heat is the transfer of thermal energy or heat, in the form of electromagnetic waves. It does not transfer heat to something warmer than it is and the greater the difference in temperature the more heat it transfers. Basically, as Malisch explains, the biggest difference between radiant heat and forced air, is that radiant heat works by heating objects, not air.

He says that this not only means lower energy bills - typically saving as much as 75 percent a year over gas heat - but it means more consistent heat.

“With radiant heat, all the objects are the same temperature. In a ceiling application, the floor will be 70 degrees, the table top will be 70 degrees - everything will be 70 degrees,” Malisch said.

He adds that with a forced air system there can be as much as a 30 to 35 degree swing from the floor to the ceiling. With radiant heat, there is only a 1 to 3 degree difference

Radiant heat reduces heat loss, according to Jamie Halvorson, a project manager with Jans Corporation, a full service commercial contractor headquartered in Sioux Falls, S.D.

“By heating objects instead of air, there is minimal heat loss. Objects take longer to cool down,” Halvorson said. “This would be a benefit to agriculture producers if they put it in their shop for example - instead of losing heat once they open their overhead doors.”

Because electric radiant heating panels don't require a blower, a boiler or tubing, Malisch says contractors save a lot in labor costs.

“The first comment we get from almost everyone when they see us install it is ‘is that all,’” he said. “It's a lot easier than putting steel in a building or drilling a well. Typically with ductwork it would take two men about three days to install a standard heating system. With this product, an average house can be installed in six hours with two guys, reducing labor costs from three days to one day.”

He explains that the radiant panels are installed in the ceiling rafters, sandwiched between the insulation and sheet rock. If the panels are installed as a warm floor system, then the panels are housed between the floor and insulation. To learn more or see examples visit, www.energysolutionsllc.com.

“It's cutting costs in half, if not more, compared to other types of heating. Contractors are always looking at labor and what they can do to get costs down,” Halvorson said.