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Combine radiant technology with warm air, water heaters

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WITH HYDRONICS still in its infancy here, the potential in this niche market is mind boggling if we all understand what it takes to bring it to the next stage of development. Many avenues to be taken to accomplish this over the next 10 to 20 years.

Radiant heating is the most important tool we have to get homeowners and building owners interested in hydronics because of its efficiency, payback and invisible comfort.

The second most important tool is the pollution reduction potential. Environmental issues are becoming mainstream and are considered by most people as important for the well-being of our children. The reduced energy consumption of radiant produces less pollution, helping us towards our goal of a cleaner environment.

Radiant heating advantages have caught on during the past 10 years and are finally accelerating. Interest is overwhelming and the number of systems being installed are staggering, well in excess of the amount one would have dreamed of a few years ago. Each properly working system be-

ing installed right now multiplies itself by a factor of three by word of mouth. The momentum has reached critical mass and can't be stopped.

To take it to the next level we have to combine radiant heating with traditional hvac in areas of the country where hydronics are unknown. This means trying to find a way to combine floor heating with warm air heating and cooling, which is 93% of the total market. Don't make the mistake of thinking that builders and homeowners must make an either/or decision - either hot air or hot water. Trying to talk builders and homeowners out of warm air heating in some areas of the country won't work. Compromise is the key

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in your negotiations. Once builders and homeowners see the possibilities of integrating hydronics into their plans, you have your foot in the door.

With 65 million homes in this country all we want to do is the bathrooms and family rooms at first. More will come later. Remember, in many parts of the United States, air conditioning is more important than heating. This way you give people the best of both worlds.

With baseboard you're not going to make the earth move or get people excited. People want to see that little grill or, better yet, nothing at all. A good example is high end housing, which is the fastest growing radiant segment at this time. People don't want to deal with visible radiation for obvious reasons. That's one of the reasons for the success story of radiant floors. Once they live with it they understand the real benefits.

Once people are exposed to radiant heating they will never settle for anything else! During the winter, when I get calls from homeowners who tell me how they love their radiant systems and wonder how they could have ever lived without it, I know that we are doing something right.

So what should your sales strategy be? First, it will take some compromise from the boiler manufacturers by promoting radiant in general, without selling boilers for every potential system. This means using other heat sources besides boilers for small floor areas of 200 to 800 sq.ft. The only logical alternative is domestic water heaters, which are present in every one of the 65 million homes. In retrofit,

remodel, or new construction this represents the biggest market potential for hydronic radiant.

The important thing is to utilize system separation. Do not circulate potable water through a floor heating system. Use water heater tanks with internal heat exchangers, or external flat plate heat exchangers with existing tanks, or use dedicated water heaters for the radiant system.

Figuring in all the radiant efficiency factors, even electric water heaters with 7 cents to 10 cents per kWh rates are cost effective. Stick in a dedicated 3 kW (cost approximately \$200) electric water heater and even that heat source will comfortably heat 600 to 800 sq.ft. of floor at extremely low operating costs in moderate to cold climates.

Drawing 10,000 Btuh to 12,000 Btuh under design conditions off the existing or new domestic water heater to supply 800 sq.ft. of radiant doesn't cause any shortage of hot water, especially if you're using an oil- or gas-fired unit where only 5,000 Btuh to 6,000 Btuh are

needed for 80% of the heating season.

Never confront your client with the choice of either hot air or radiant. Sell and pamper him on both with a small portion of hydronic radiant in the most important living areas - bathrooms, spa areas, kitchens, family rooms and living rooms where people enjoy 90% of their time. Always keep in mind that this is a small additional cost the homeowner is willing to pay for the luxury without sacrificing his central air conditioning and the quick heating recovery of warm air. He'll still get the payback efficiency and comfort he will love.

Sell your customer on the thought that he will drastically reduce his heating bill by 30% to 50%, automatically reducing his contribution to air pollution by the same amount, while improving his comfort level! Try it, it's an easy sell!

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