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Hydronics' future grows brighter in the United States

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will hydronics ever take on the same proportions in the United States as it has in Europe? Probably not in our lifetime.

Central hot air heating systems have never existed in Europe for one simple reason — air conditioning never existed there. Up until about five years ago air conditioning was considered an American luxury. Europeans are just discovering the benefits of air conditioning and dehumidification. Even so, air conditioning is only of interest one or two months of the year in much of Europe. Relative humidities in most countries are low and discomfort levels are not even as bad as what we experience here in the Northeast, let alone in the South.

Cooling in Europe, however, is catching on, mostly in the commercial sector. Office buildings, hospitals and luxury hotels in particular are being retrofitted or built with air conditioning. More and more cars are also being built with air conditioning as an option, something we have taken for granted as long as I can remember.

What type of cooling systems are the Europeans discovering? The answer is, as you may well have guessed, hydronic. The typical European mechanical contractor knows hydronics and that makes it a natural for radiant cooling.

The commercial building owner likes it from the economic point of view, mainly because it is less expensive to run and the space needed to install a radiant cooling system is far less than is needed for normal ductwork in an air cooling system. In a new building this can eliminate one story for every six stories of building height.

The occupants like it because it gives them the comfort they are accustomed to from hydronic heating systems.

Here in our country the conditions are different. In half of the populated areas —in the South — heating requirements are marginal. Dehumidification and cooling are the primary concern.

That is why hydronic heating is relatively strong in the Northeast and Midwest where people have to live with eight months of cold weather. The inhabitants of these areas realize the advantages of hydronics because they live with it two-thirds of the year.

The popularity of hydronic heating systems is growing at a faster pace than ever in regions where air conditioning is not an issue, in high-end home applications where the cost of two separate mechanical systems is not a factor, and in commercial applications where floor heating is replacing unit heaters and rooftop units.

Floor heating, in particular, is opening many doors for hydronics where hot air heating was the norm.

With the introduction of European hydronic heating system components over the past 15 years, hydronics has become more diversified and exciting. Everyone in this business is benefiting, including the consumer.

Finally, we should not overlook the use of combination hot water and hot air systems. This interesting concept can be used in many cases where the advantages of both systems can be combined and used to their greatest potential.

The future of hydronics looks bright. Let's keep up the good work!

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