

CONTRACTOR

THE NEWSMAGAZINE OF MECHANICAL CONTRACTING

Reprint from September 1997

The future in hydronics lies with the systems approach

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IN ALL high-tech industries, whether it's computers, aerospace, automobiles, audio/video or medical equipment, technology has advanced to the point where designers and engineers are concentrating more on the "system" rather than single components. Gone are the days when a manufacturer could produce a single component without thought as to how it would interface with other components.

This is also true in our industry today, whether it's hydronics or warm air heating. The goal is to install a properly functioning and efficient system.

It seems to me that the biggest obstacle facing heating contractors trying to be on the leading edge is the lack of systems thinking by heating component manufacturers.

In most cases, especially in radiant heating, components are sold through wholesalers. Heating contractors are left on their own to design the system, buy tubing, circulators, copper pipe, zone valves, etc., etc., etc., and go forth to the job site with a basic sketch in hand. How much time and know-how does the average contractor have to design every system himself?

Granted, in some cases, the wholesaler or tubing supplier offers design services, but there are few radiant heating system suppliers who have carefully thought out best-case design plans to give to the installer.

New radiant systems are a far cry from the baseboard-circulator-check valve-boiler-thermostat heating systems that were the norm not too many years ago. For manufacturers not to recognize the need for a systems approach to design and sales puts an enormous onus on the installing contractor.

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As our industry becomes more sophisticated, - and we have no other choice if we are to survive - the manufacturer has to learn how to develop systems. If the most complicated products and they are packaged into an engineered system, they will become a simple unit that works well.

In a limited way, U.S. boiler manufacturers saw the need for this many

years ago and began to offer packaged boilers. It was extremely successful and eliminated a lot of problems in the field. As life in the hydronics world becomes more complicated, however, we have to take the system a few steps further.

Let's take a look at how the Europeans have evolved. Ten years ago, European boiler manufacturers produced boilers that were distinguished from one another only by the shape of their internal heat exchanger and the color of their jacket. As heat exchange, controls, combustion, and heat distribution technology became more sophisticated, they realized that these components had to work together as a system.

Boiler manufacturers started to offer their own burners, controls, and distribution manifold stations, thus selling a complete system, which eliminated all kinds of field-related problems and assured that all components worked together efficiently and complemented each other. It was successful from both a technical and business point of view.

When it comes to radiant systems manufacturers, the same basic rules apply. Simply selling tubing, sectional manifolds and telestats does not make an integrated system. After 25 years, the European companies that have the biggest market share and most stable growth are those who chose to market radiant heating as systems.

There are common links among those doing the best in the European market. All use high quality Electronic or Engel PEX tubing; all use a tubing mounting grid system, which is adapted to regional building construction requirements; all use easy-to-install preassembled manifold distribution systems; and their control systems offer system application flexibility and are cost- and performance-effective.

Their systems approach ensures that all components work together as an optimal unit, backed up by one supplier, with warranties, technical support and documentation.

It is my strong belief, and has always been, that systems thinking, whether it's in the area of design and engineering or in hydronic sales and installation, is an advantage both to the installing contractor and the owner, who has to live with the system for many years.

Contractors would rarely would have to design their own systems with off-the-shelf components without having a real working knowledge of the intricacies involved in designing a modern radiant floor system.

Marginally performing systems will not serve this industry well. We need true system manufacturers who have the experience, know how and research to do the job right. You, as the installer, should not have to worry about components because the installation is complicated enough.

The systems approach is the answer for everyone. The specifier knows what he is choosing. The rep can assist his customers with confidence because he knows how the system works. The wholesaler can zero in on exactly which system his customer needs for a certain application and can consult with the manufacturer on its product. The contrac-

tor can gain experience on the job. The owner can be assured that the system will deliver the comfort and efficiency he expects.

An important advantage of systems installations to the contractor is a reduction in call back time because installation crews can follow a plan. The crews will also gain a working knowledge of how the system goes in and how it is supposed to function.

Systems selling could make life less complicated, which is a very good thing!

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