#### **HYDRONICS**

# FROM THE FIELD

# Trade shows and new products

BY DAN FOLEY CONTRIBUTING WRITER

recently attended two national conferences and tradeshows: AHR Expo during January, in Dallas, and ACCA Indoor Environment & Energy Expo (IE3), which took place in Orlando in February. It is difficult to be away from my business for a week at a time, but I consider participation in these events critical to the success of my business.

While my employees may think I am on a boondoggle or junket when I attend these events, I actually work harder than I do when I am home. The days start earlier and end later. In addition to walking the show floor, I typically have meetings scheduled for various committees and boards I serve on. At both of these conferences I presented seminars, which required hours of preparation and planning. I make sure to visit the booths of key suppliers to review future plans and discuss how to best apply their products.

Case in point: While I was walking the aisles at AHR, I received a call and was on the verge of closing a commercial boiler project I had surveyed the day before I left town. The client had no heat or hot water in the building and was ready to sign the contract. She had some technical questions about the proposed equipment that required additional research. I had proposed removing one 1.2M BTU/hr. cast iron atmospheric boiler and replacing it with two Triangle Tube Prestige 399's mounted on their welded rack system, along with a 119 gallon indirect DHW tank.

I wandered down to the Triangle Tube booth where Marty Haurin and Doug Dodds not only answered my questions, but immediately emailed the requested



Foley Mechanical technician Joe Guerrero uses the MAX tie tool to attach radiant tubing to steel mesh.

While my employees may think I am on a boondoggle or junket when I attend these events, I actually work harder than I do when I am home. The days start earlier and end later.

documentation to me. I quickly answered my client's questions and I was able to close the deal while standing at their booth.

I also scheduled meetings with the trade press, business partners and manufacturers at AHR. Even the social aspects, which included cocktail parties, dinners and similar events, were carefully planned to allow time with my key industry partners. Yes, these are friends as well and I enjoy the time with them, but I never lose sight of the fact that these are business trips.

In addition to meetings with existing manufacturers to discuss products that I currently use, I also look out for new products that will benefit my clients and my company while at trade shows. Advertisements in the trade press and product information on manufacturer websites can be very informative, but I am the type of person that has to see, touch, feel and physically handle a product to fully experience it. I prefer this firsthand experience to test the quality, fit and finish, heft and serviceability of products. I open and close valves, flip switches, take covers off equipment, play with computer screens, adjust settings, try out tools, take things apart, put them back together, connect pipe and fittings and so on. I need to try things out and this can only be done in person and trade shows are the best venue to do this. For example, I was aware that ECR had a new condensing boiler on the market with a proprietary heat exchanger design. It was only after spending 30 minutes at their booth at the ACCA trade show with fellow contractor and good friend Brian Stack, that I fully appreciated all of the features of this boiler. We all but took this boiler apart in an effort to learn more about it.

I have successfully implemented several new products and tools into my company that I first saw at trade shows. These are products that I may have known about but it was my experience at a trade show that led me to actually give it a try. I would like to share a few of these with you.

The first product was a tool that I saw at the ISH-

Turn to FOLEY on p 38

#### **HYDRONICS**

### FROM THE FIELD



The Viessmann rack packs a little over 1.5M BTU/hr. into the corner of a very tight mechanical room.

Frankfurt show several years ago. After trying out the Max Tie Tool at the show, I knew I needed it for my company. This tool was originally designed for rod busters to tie re-bar on concrete jobs. It has an adjustable tension setting that allows for a loose setting that is perfect for tying radiant tubing to re-bar or steel mesh. We use the plastic coated soft aluminum wire at my company. It will wrap, tie and clip the wire in about one second. For our large radiant jobs, it is far quicker and easier on the wrist than cable ties or squiggies.

I purchased three of these tools several years ago at \$2,300 each. While this may seem expensive, my labor savings have paid for these tools many times over, not to mention the wear and tear on my employee's arms, wrists and shoulders. It surprises me that no current North American radiant manufacturer offers this tool to their contractor customers. I bought these from a concrete tool supply house and continue to buy the wire from the same source.

The second product is the aforementioned boiler rack system. I saw this at the AHR show in Chicago a few years ago as well as at the ISH show. In the past year, we have used both the Viessmann system and the Triangle Tube system at my company. This rack system allows you to quickly install a large BTU capacity system in a compact space in a short period of time. The Viessmann rack packs a little over 1.5M BTU/hr. into the corner of a very tight mechanical room. The Triangle Tube rack allowed us to quickly replace a commercial sized cast iron boiler in a "no heat" situation. In addition to the quick change-out, the fuel savings of the staged, modulating condensing boilers over the cast iron atmospheric boiler were dramatic.

The third product we have implemented is the Aquatherm fusion welded polypropylene system. I first used this product on our chilled water projects using 2 to 4 inch pipe. The cost was significantly less than L copper and I liked the reliability of fusion welding joining process. We have yet to have a leak in the two years we have used this product.

We have since expanded its use to our geo projects. We use it for the piping inside the house or building. I had seen projects piped with HDPE that looked like a mess of spaghetti. I recognize that a professional appearance is dependent on the skill of the practitioner, but I believe that it is easier for plumbing and level pipe runs with the sturdier Aquatherm pipe and fittings. It does require planning ahead for the larger fittings in tight spaces, but this is true of most any other piping system.

**CONTINUED FROM PAGE 36** 

The final product we have recently implemented that was introduced at a trade show is the Viega MegaPress system. We have used Pro-Press for almost 10 years so we were already familiar with the company, the tools and the press joining method. MegaPress just expands this joining method to schedule 40 black steel pipe. The system uses the same tool as Pro-Press. All we needed to purchase was a unique set of jaws.

I envisioned using this system for hydronic system repairs and change-outs. While waiting for this type of project to give it a try, another unusual situation presented itself.

I had a steam boiler replacement job lined

up this past fall. The original two-pipe system was installed in a large manor house about 80 years ago. Somewhere along the way, the original steel mains were removed and replaced with copper. It is unknown as to why the steel mains were replaced. The 1 1/2 inch to 2 inch copper mains ringed the basement where they fed the original steel risers. Many of the soldered joints were leaking and the copper-to-steel threaded joints were corroded and leaking.

My plan was to remove the copper mains and re-pipe with threaded black steel mains. We would re-connect to the threaded risers with unions. A few days before the job was scheduled to start, the owner called to let me know that the GC wanted all the scrap copper. With #1 clean copper scrap prices at an all-time high, of course he did! I politely explained to the owner that if



The Aquatherm fusion welded polypropylene system installed in a geo loop application delivers reliability at a cost significantly less than L copper.

Turn to FOLEY on p 40

## FROM THE FIELD

we demo the copper, we keep it.

We showed up on the job the following week to find all the copper gone. The GC had gutted every piece of copper on site. Unfortunately, he did this before we had a chance to trace out and label the risers, which made our job much harder. Also, rather than unscrew the copper female adapters, he simply cut the black steel risers with a Sawzall inches from the ceiling. The floor above was poured concrete limiting our options. This GC did us no favors in his lust for a few dollars in scrap copper.

There was no room to re-thread the risers in place and opening the finished plaster walls above was not an option. Our solution was to clean the ragged black steel riser stubs with a pipe cutter and use a MegaPress coupling or union to attach to the existing risers. We used compressed air to locate the correct supply and return risers. While this was slow going, it saved the day as we were running out of options. Before applying this product, I checked with Jeffrey Young (a.k.a. Heatboy), our regional Viega tech rep, to confirm that MegaPress was rated for steam. Jeffrey assured us that MegaPress was fine for low pressure steam, but advised using threaded steel fittings on the header and near boiler piping. Once pressed, the MegaPress fitting is locked into place. The threaded fittings have some give, which is better for the header and the boiler block.

**CONTINUED FROM PAGE 38** 

This project has been in operation since October 2012 with no leaks or other issues. I would not hesitate to use MegaPress on our upcoming projects. I have a commercial steam boiler change-out scheduled for this summer. The wet returns are completed rotted out and filled with mud and sediment. This is a perfect application for re-piping with MegaPress fittings and black steel pipe.

Keep your eyes open when walking the next trade show you attend. Be open to trying new products and new technologies. Let me know your experience with the technologies I described above, or with other new products that you may have tried over the years. As always, I appreciate the emails and letters with feedback (good and bad) I have received over the past couple of years.

**Dan Foley** is president and owner of Foley Mechanical, Inc. based in Lorton, Va. FMI specializes in radiant, hydronic and steam systems as well as mechanical systems for large custom homes. He can be reached at the company website, www.foleymechanical.com, or directly at (703) 339-8030 or dfoley50@verizon.net

