

| OFF-THE-SHELF SOLUTIONS |

Separation satisfaction

Hydraulic separation has been the talk of the town for the past several years — hydronically speaking, of course. The intent, or goal, of hydraulic separation is probably already familiar to most designers and installers.

If you have designed or installed closely spaced tees or primary secondary piping, you have been offering hydraulic separation. That dual tee configuration provides a pathway for multiple flows to get along without

primary secondary and hydraulic separation.

You may have learned about the sizing and piping finer points from any of the numerous papers and articles written from industry trainers and educators. Manufacturers have embraced the concept, acknowledging the advantages it offers their customers. They understand how it can reduce problems relating to the safe and efficient operation of their products. Boiler manufacturers, in some cases, provide a P/S piping panel or device as standard equipment or as a plug-

to separate. With a domed top, you have an ideal spot for an automatic air vent. An expansion tank could be mounted below, with the auto-fill valve installed for a nice clean installation. Some brands provide a port for installing a temperature gauge or control sensor. So, one component can give you multi-functions in a rugged, clean, insulated and well-constructed component. You will find these products built for small residential jobs with 3/4" or 1" pipe sizes. In addition, many manufacturers offer large flow devices 12" and larger. Separators have a place in cooling piping in addition to hot water applications.

Taking the concept even further, there are now buffer tanks that provide hydraulic separation functions. Think of these as super-sized separators. In addition to separation, air and dirt removal is part of the package. These tanks are available in various sizes, from 30 gallons up to 119-gallon capacity. The tanks should be well insulated (fully wrapped in insulation) to allow them to be used in chilled water installations. These buffer/separator tanks will generally have multiple large-diameter connections to allow for any piping configuration. A tank like this would be ideal for a system that has numerous zones to help eliminate boiler short cycling.

The products to solve your piping challenges are on the shelves. Examine them all to see which fit into your next piping project.

Been humming that Rolling Stones song at the supply house counter, "I can't get no sep-er-ray-shun ...?" Well, it's time to quit singing the blues. You've got so many cool choices. ●

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upsetting one another. The closely spaced tees, properly sized and installed, allow for various flow paths through the fitting. This provides a means for circulators of different size and flow rates to work together without causing flow conflicts. The introduction of small tube heat exchangers, common in some mod con boilers, drove this concept home. It is not unusual to see a medium or high head circulator required on the boiler side and a much smaller circ for the distribution side.

Advantages for customers

Much has been written about primary secondary (P/S) piping over the last few decades. Credit industry leaders for demystifying the concept and bringing it main-piping stream. As many know, Gil Carlson, perhaps is the granddad of

and-play option.

You may have used or noticed special fittings that are available from manufacturers to accomplish quick and easy P/S. Taco, Webstone and PHP are just a few that build unique P/S components. Some, like the Taco fitting, are merely a custom-built fitting that allows the flows to separate. The Webstone Hydro-Core takes the concept a step further, with a ball valve included to provide isolation with a pump flange and a purge cock on the return side.

More utility

Various manufacturers now offer hydro separator devices that provide multiple functions. In addition to providing the closely spaced tees in a cylinder fashion, these devices also provide some basic air and dirt removal functions. With a cylinder diameter about three times the pipe connection, the device provides a chamber for the flows to separate. The "wide spot" in the piping road provides a means for the air and dirt