

Permutit® Flow Straighteners To Correct Flow Profile for Accurate Flow Measurement

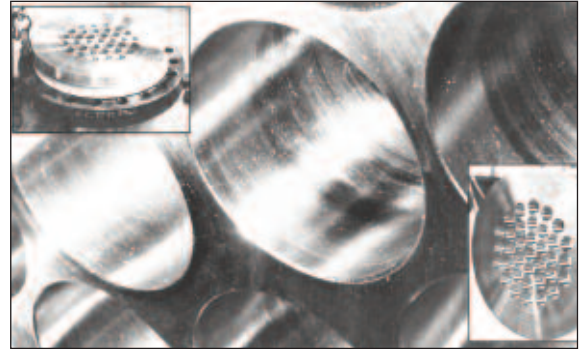
The Permutit® Flow Straightener has a unique and exclusive design to provide flow profile correction within minimal straight pipe lengths. This combination offers the most flexible installation at a fraction of the cost of ordinary flow straighteners. When installed in existing pipelines, Flow Straighteners can actually improve flow meter performance.

Uses

Flow straighteners are used to correct the flow distortions that cause inaccurate flow meter readings. The accuracy of the flow meter is dependent upon the flow profile of the fluid as it passes into and through the measuring device. The pipe layout, pipe fittings, expanders and strainers cause distortions in the flow profile. Such distortions can be eliminated by providing an adequate length of straight pipe before the meter or by the use of flow straighteners.

Applications

Permutit® Flow Straighteners are used in liquid, gas or steam applications in virtually all types of closed pressure piping where flow profile correction is required. They can be installed in new or existing systems to ensure accurate flow metering. Appropriate for a wide range of boilers, from low pressure to supercritical, they are utilized in both fossil fueled and nuclear power plants.



Advantages

- Highly Effective – corrects rapidly for both unsymmetrical and spiral flow distortions
- Low Cost – compact design with simple, rugged construction and ease of installation
- Less Piping – uses significantly shorter straight pipe runs than conventional types (requires only 11 pipe diameters upstream and 4 diameters downstream)
- Low Pressure Loss – 75% lower pressure drop than conventional perforated plate flow straighteners and 41% lower pressure drop than ASME tube types
- Versatile – developed for use with Venturi meters, flow nozzles and orifice plates and may also be used with vortex, turbine and pitot type meters

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Quality Control

We have been the trusted source for all grades of nuclear components for many years. Our capabilities include dissimilar metal welding and fabrication to ANSI and RDT specifications. We meet the requirements of the ASME Codes and 10CFR50, Appendix B through our stringent quality assurance program.

The Advantage

As the leader in the water treatment industry, Siemens Water Technologies has the greatest depth of personnel and technological resources to overcome any challenge. We offer the widest variety of specialty products for the power generating industry, including many custom components. Please contact us for additional information about your specific requirements.

design features

Permutit PFP Flow Straighteners feature a perforated plate design with a symmetrical layout of holes clustered more densely at the center than at the perimeter. This unique design pattern re-establishes the normal turbulent flow velocity profile for a fluid passing through it. Offered in weld in or flange mounted design, they are available in a range of standard sizes from 6" to 24" diameter with larger units on request. All variations such as length, pressure ratings and materials are available.

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