

A Growing Market In Need of More Research & Development

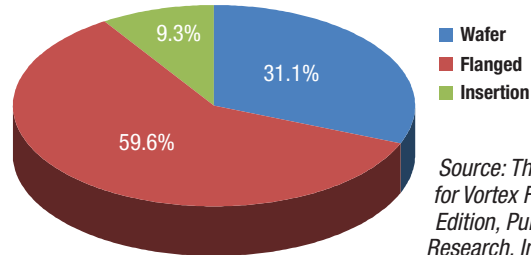
Vortex flowmeters were first brought to market in 1969 by Eastech. Then in 1972, Yokogawa (yokogawa.com) introduced its first vortex meter. Growth in the market was slow for a number of years, but it was given a major boost by Emerson Rosemount (rosemount.com), who released a new vortex meter onto the market in 1994. This meter was the result of 15 years of research and development and was designed to eliminate any possible leaks or clogging of the meter by using a single casting method.

The top suppliers of vortex flowmeters today are Yokogawa, Emerson Rosemount, and Endress+Hauser (us.endress.com). These companies are also the technology leaders. For example, all three companies offer reducer vortex meters, which are designed to better handle low-flow applications. They are among a growing number of companies that offer multivariable vortex meters that are used to measure both steam and gas flow.

In addition to the top three suppliers, a number of other companies have been making an impact on the market. One company is Vortek Instruments (vortekinst.com) of Longmont, Colo., which offers both an inline and an insertion vortex meter. Another is Nice Instrumentation (niceinstrumentation.com) of Manalapan, NJ, which has developed a new line of inline and insertion vortex meters, including a multivariable meter. Racine Federated (racinefed.com) of Racine, Wis. has put together several lines of vortex flowmeters by acquiring the vortex product line from Asahi America (asahi-america.com) and the industrial portion of J-Tec Associates' (j-tecassociates.com) vortex flowmeters.

Despite all the activity in the vortex space, there has been a lack of research and development effort on vortex flowmeters in the past

Shipments of Vortex Flowmeters by Mounting Type in North America in 2010 (Percent of Dollars)



Source: *The World Market for Vortex Flowmeters, 4th Edition, Published by Flow Research, Inc. in July 2010*

10 years. Suppliers have been slow to respond to the approval by the American Petroleum Institute (API, api.org) of the use of vortex meters for custody transfer applications. And it is difficult to find evidence of significant research on fundamental topics like bluff body design and materials of construction. While the vortex flowmeter market has grown at a respectable rate over the past five years, it is still much smaller than the ultrasonic, Coriolis, and magnetic flowmeter markets. It seems clear that suppliers are investing much more heavily in these technologies than in vortex meters.

One area that is pretty much unexplored is the subject of large line size vortex flowmeters. Emerson Rosemount's vortex meter tops out at 12 inches, while Yokogawa has a 16-inch vortex meter. Companies point to lack of market acceptance and also to technical difficulties involving the frequency of vortices as explanations of why there are no meters above 16 inches. But five years ago, who would have thought that there could be a 14-inch Coriolis meter?

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