

FCI to Feature Breakthrough ST100 Flow Meter at WEFTEC 2011

Ideal for Water & Wastewater Treatment

New Video Highlights Air/Gas Flow Conditioner That Increases Process Measurement Accuracy

Lightweight, Flat Panel Design Saves On Installation and Operational Costs



San Marcos, CA — A new video from [Fluid Components International](#) features the breakthrough flat panel [Vortab® VIP \(Vortab Insertion Panel\) Flow Conditioner](#). The VIP Flow Conditioner maximizes air/gas flow meter measurement performance accuracy with a simple to install, lightweight thin panel design, which significantly reduces flow meter straight-run requirements.

The video demonstrates how the VIP Flow Conditioner combines the proven performance of Vortab tab-type flow conditioning technology with the low cost and ease-of-installation of an insertion panel type flow conditioner solution. Vortab tab-type flow conditioning technology greatly reduces line pressure drop compared to alternative technologies such as tube bundles, screens and perforated plates. Reducing pressure drop minimizes plant energy consumption and costs.

Many flow meter technologies, especially center-point types, require several diameters of straight pipe run to provide the highly repeatable symmetrical, swirl-free flow profile that most flow meter technologies require for accurate and repeatable measurement. Unfortunately, most process industry plants are rich with elbows, valves, tees and other real estate limitations, which make it difficult to achieve the required pipe straight-run configuration necessary for accurate flow measurement.

The Model VIP Insertion Panel Flow Conditioner solves this problem by significantly reducing pipe straight-run requirements. Its advanced tab-type plate design neutralizes distorted flow profiles caused by elbows, valves, blowers, compressors, etc., that commonly occur in piping and duct runs. A VIP conditioner installed three pipe diameters downstream from the flow disturbance eliminates the flow disturbance. With the flow meter next installed another three pipe diameters downstream from the VIP conditioner, the result is a swirl-free repeatable flow profile

that ensures accurate measurement by the flow meter. The thin, lightweight panel design of VIP is easily installed between flanges or can be welded in place.

The VIP Flow Conditioner is particularly effective with wide turndown and/or low flow sensitive flow meter technologies, such as thermal dispersion, which measure transitional flows. The VIP provides a highly repeatable flow profile during laminar, transitional and turbulent flow conditions. It has been extensively tested in Vortab's NIST traceable flow stands under actual installation conditions with elbows, valves, headers and other flow disturbers.

The Model VIP Flow Conditioner is easy to order and specify. The standard Model VIP Flow Conditioner is manufactured of 316L stainless steel in sizes for pipes from 2 to 40 inch diameters (50 to 999.9 mm). Other construction materials and larger line sizes are available upon request. The VIP conditioner is available in both ANSI and DIN flange-mount or weld-in-place configurations. A typical VIP conditioner weighs less than 20 ounces (560 grams) per diameter, which means it is easily transported and installed on site without using special handling equipment.

Fluid Components International is a global company committed to meeting the needs of its customers through innovative solutions to the most challenging requirements for sensing, measuring and controlling flow and level of air, gases and liquids.

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