

New VIP Flow Conditioner Significantly Reduces Flow Meter Straight-Run Requirements

Lightweight, Flat Panel Design Saves On Installation and Operational Costs



San Marcos, CA—A breakthrough, patentpending flat panel flow conditioner, <u>Model VIP</u>, has been introduced by the Vortab[®] Company. This revolutionary flow conditioner maximizes flow meter performance with minimal pressure drop in a simple to install, lightweight thin panel.

The VIP blends the proven performance and superior low pressure drop 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 the

pressure drop compared to alternative technologies such as tube bundles, screens and perforated plates. Minimizing pressure drop is a significant design consideration in flow conditioning for process engineers to minimize plant energy consumption and energy costs.

Many flow meter technologies, and particularly center-point types, require several diameters of straight pipe run to meet their meter's accuracy specifications. The straight-run is necessary to provide a highly repeatable symmetrical and swirl-free flow profile to the flow sensor for accurate and repeatable flow measurement. Unfortunately, most process industry plants are rich with elbows, valves, tees and real estate limitations that make the flow meter's required pipe straight-run configuration difficult to achieve.

The Model VIP Insertion Panel Flow Conditioner solves the pipe straight-run dilemma. A VIP installed in just 3 pipe diameters downstream from the flow disturbance and with the

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flow meter installed at just 3 pipe diameters downstream of the VIP neutralizes the flow disturbance and produces the symmetrical and swirl-free repeatable flow profile that ensures a flow meter installation meets its accuracy and repeatability specifications. The thin, lightweight panel design of VIP is easily installed between flanges or can be welded in place.

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

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

The Vortab Company is a global supplier committed to meeting the needs of its customers for innovative flow conditioning solutions to the most challenging flow metering and process flow optimization applications. Vortab is ISO 9001:2000 and AS9100 certified.

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