



## Video Explains Flow Conditioning Technology

### *Eliminating Flow Disturbances Due To Crowded Equipment Conditions*

**San Marcos, CA** — Engineers challenged by flow meter inaccuracy and repeatability issues in crowded plant conditions will want to watch a new video featuring, "[Vortab Flow Conditioners](#)." This video explains how air, gas and liquid flow measurement can be greatly improved anywhere restricted pipe runs in cramped equipment areas make following the flow meter manufacturer's pipe straight-run requirements impractical or impossible.



The [Vortab](#) flow conditioners overcome this challenge by delivering a uniform, swirl-free flow profile to the meter inlet in as little as a few pipe diameters for accurate, repeatable measurement. Upstream flow disturbers, such as pumps, elbows, expanders or reducers, and valves, often produce non-uniform, non-repeatable and swirling fluid flow entering the meter. These flow disturbers impact the flow sensor's ability to measure fluid flow accurately and consistently.

Turbulent flow conditions in the pipe not only affect flow meter accuracy, but it can also damage pumps, valves and other equipment by causing premature wear that requires additional maintenance cycles and/or early equipment replacement before their normal life-cycle. Swirling flows also can affect product throughput, energy costs, process quality and more.

With their exclusive flow profile and anti-swirl tab design, the Vortab process flow conditioners correct fluid disturbances to mimic adequate pipe straight run and produce a highly repeatable, symmetrical flow profile. Vortab flow conditioners are proven to be the industry's lowest pressure drop flow conditioning technology, which reduces energy costs and minimizes process design considerations. Their use also eliminates the extra pipe cost and technician labor for additional lengths of pipe straight run and/or moving equipment around to accommodate new pumps.

In long lengths of straight pipe, swirl reduction and velocity profile correction occur naturally due to diffusion, friction and turbulent mixing. The Vortab flow conditioner's anti-swirl and inclined vortex generating profile correction tabs, projecting from the inside pipe surface, generate vortices that accelerate these natural pipe effects to create a uniform, non-swirling, symmetrical flow profile in a much shorter section of pipe.

The simple, flexible designs of the Vortab Insertion Plate (Model VIP), Vortab Elbow (Model VEL) and the Vortab Insertion Sleeve (Model VIS) configurations provide a cost effective, easy to install solution that supports proper pump installation. They can be made from carbon steel, 316L stainless steel or Hastelloy C-276 and in almost any pipe size. A variety of process connections are also available—ANSI flanges, male NPT threads, butt welded preps or retaining wafers.

The Vortab Company is a manufacturer and global supplier of flow conditioners and flow straighteners committed to meeting the needs of its customers through innovative solutions to the most challenging requirements for flow disturbance isolation to optimize flow meter accuracy and repeatability in gases or liquids.