



Vortab Flow Conditioners Tame Irregular Fluid Flows To Protect Process Equipment and Instruments

Reducing Swirl & Velocity Distortions To Increase Throughput and Accuracy

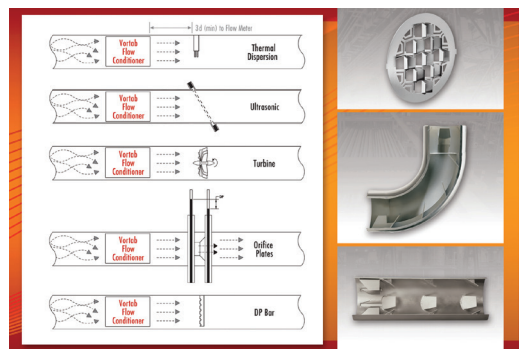
San Marcos, CA — In today's crowded process plants, less than ideal straight pipe runs often result in swirling fluid flows and asymmetrical velocity profile distortions that affect the efficient, continuous operation of equipment, such as gas compressors, valves and pumps, and the accuracy of sensitive instruments, such as flow meters, until controlled or if not entirely eliminated with the family of Vortab Flow Conditioners from The Vortab Company.

The efficiency of natural gas compressors, for example, can be easily reduced by such disturbed flow conditions, which also potentially increases maintenance and the total cost of operating gas pipelines. Gas with swirling or asymmetric velocity flow profiles can result as gas is routed through compressor stations on long, complex pipelines and into storage facilities due to shortages of real estate, crowded equipment conditions, the use of pipe elbows or valves and variable pipeline demand.

There are several types of critical equipment, including gas compressors, pumps, valves and flow instrumentation, which require relatively long lengths of pipe straight-run for high efficiency operation. It can take up to 40 pipe diameters of unobstructed straight pipe run to eliminate both swirl and velocity profile distortions. Vortab flow and process conditioners isolate such flow disturbances and create a swirl-free, symmetrical, and repeatable velocity flow profile in just a few pipe diameters to keep equipment running efficiently.

The Vortab Company's product line of inline and insertion type flow conditioners nearly eliminates the upstream straight pipe run requirements for many types of equipment and instruments. They condition the flow stream into a regular flow regime to mimic adequate pipe straight run.

In addition to conditioning the flow stream, the use of a flow conditioner eliminates the pipe cost and technician labor for the purchase of additional lengths of pipe straight run and the labor for its installation. Many times, however, sufficient plant real estate is simply not available to accommodate the required pipe straight-run and then flow conditioning is the best option.



Vortab Flow Conditioners feature tab-type flow conditioning technology, which has been laboratory proven and successfully installed in hundreds of plants worldwide. To validate their unique flow conditioning design, they have been tested with swirl and velocity profile distortion generators in state-of-the-art gas and liquid calibration facilities.

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

With their simple, flexible designs, the Vortab Elbow, the Vortab Insertion Panel (VIP) and the Vortab Insertion Sleeve, Short Run, Meter Run and Field Kit configurations provide a cost effective solution to crowded installations for gas compressors, pumps, valves, flow meters and other critical process equipment. These rugged flow conditioners provide the most effective flow disturbance isolation, lowest pressure drop and least affected by fouling of any of the flow conditioners available.

Vortab flow conditioners can be made from carbon steel, 316L stainless steel or Hastelloy C-276. A variety of process connections are also available--ANSI flanges, male NPT threads, butt welded preps or retaining wafers. Custom configurations are also available from the factory.

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.