



For **Severe Service** Control Solutions, Turn to Fisher Technology and Innovation

ETHYLENE PLANT IN SAUDI ARABIA CHOOSES FISHER ANTISURGE SYSTEM TO PROTECT COMPRESSORS

A new ethylene plant in Saudi Arabia installed a Fisher-optimized antisurge system for its critical antisurge valves. A compressor surge event occurs when gas begins to flow in the reverse direction through the impellers in a compressor. This can have undesirable consequences in terms of upsetting operations, altering internal compressor clearances, and stressing compressor seals. Antisurge or recycle valves allow a portion of the compressor flow to be diverted back to the compressor's inlet and thereby avoid a surge event.

The typical requirements for an antisurge valve include: extremely fast stroking speeds (less than two seconds), high capacity, extreme noise attenuation (up to 40 decibels), and very stable throttling control. The valve's ability to meet these requirements protects the compressor from a surge event and protects the piping from noise-induced vibration.

The Fisher Valve Division and its Severe Service group have studied antisurge applications and developed the most advanced technology in the industry to address them. For this ethylene plant, Fisher provided eight valves ranging in size from 10- to 30-inches in diameter. All the valves utilized Whisper® III and WhisperFlo® noise-abatement trims, proven to reduce noise by up to 40 dBA. These trims are characterized to match valve capacity with the complex compressor-performance curve.

To address the fast stroking speed requirements, the Fisher® valves were equipped with the field-proven antisurge package. This package not only reduces the number of accessories typically required for fast-stroke applications but also improves the valve's long-term performance. The valve assemblies included FIELDVUE® Digital Valve Controllers with Performance Diagnostic (PD) capabilities that provide real-time diagnostic information. With the DVC instruments, plant personnel commissioned the valves in a matter of minutes, rather than the hours required with conventional antisurge valves.

The Fisher-optimized antisurge system provides more reliable control, protects compressors, increases efficiency, and enables predictive maintenance—all of which reduce the risk of operations downtime.

For more severe service solutions, see us at www.fishersevereservice.com.



Severe Service