Application Note

Secondary Containment of Sour Gas in Oil Production

Natural gas well drillers have special pressure measurement requirements to ensure the safest working conditions. An oil drilling by-product known as sour gas, coupled with high pressures and pressure spikes involved in drilling, create a challenge for instrumentation manufacturers. This hostile environment can cause diaphragm corrosion and eventual ruptures in typical pressure transmitters. Ruptures not contained within the instrument endanger operators and expensive equipment by sending explosive gases through the conduit surrounding the transmitter's wiring.

To solve this problem, Viatran has designed a transmitter with a Hastelloy secondary containment chamber that can withstand pressure spikes up to 40,000 PSI. Viatran's Model 572 pressure transmitter is safe, durable and accurate. The secondary containment chamber that surrounds the transmitter sensor contains any gas leakage occurring after rupture of the diaphragm.

This unique solution to the problem allows the chamber to contain ruptures anywhere within the pressure cavity. The high strength 316 stainless steel and Hastelloy C-276 used in the construction of our 572 transmitter are recognized by the National Association of Corrosion Engineers (NACE). All wetted parts, including the diaphragm and secondary containment chamber, are made from Hastelloy (C-276), a highly corrosion resistant alloy.

The O-Ring free construction adds to its many safety features. Viatran's unique control module is hermetically sealed with magnetically-coupled

adjustments, preventing exposure of the electronics to the severe environment. Compact and completely sealed, the 572 can withstand submersion to 100 feet.

Model 572 is safe, reliable and easily installed. Like all of the products in our oil and gas production family, the 572 is designed to meet Explosion Proof and Intrinsic Safety standards of Factory Mutual (FM), the Canadian Standards Association (CSA) and Cenelec (EE_x).

Viatran takes pride in our ability to design our products to meet our customers' specific needs. The Model 572 is the right pressure transmitter for sour gas applications in the oil and gas industry and for many other corrosive applications.

For more information on how Viatran can help you with your pressure measurement needs, call us today.

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