
Seal-Leak Detection System

Monitoring seal leaks in tandem seal pumps, such as those used in refineries, is important from both environmental and safety standpoints. Seal leaks can result in venting of hazardous gases to the atmosphere as well as the potential for fire or explosion.

The system is comprised of two parts:

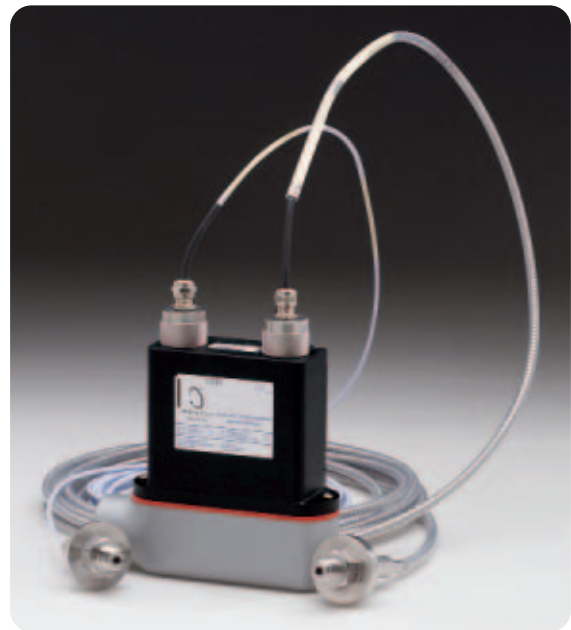
1 The 200136 SLD Pressure Transducer

This transducer employs a proximity probe observing a diaphragm enclosed in a stainless steel housing. When the pressure increases on the low-pressure end of the seal, the diaphragm moves, causing a change in the gap voltage from the probe. The result is a sensor that has better self-checking capabilities, better reliability, and better robustness in the harsh environments encountered in typical industrial installations. While other sensors used for these types of applications are typically only rated for burst pressures of twice their reading value, the SLD transducer carries a 0 to 30 psi rating and can withstand burst pressures of up to 400 psi.

2 The 200135 Dual Seal-Leak flexiTIM™

The flexiTIM™ module conditions the transducer signal and converts the gap voltage to psig units. With dual inputs, each flexiTIM can support up to two SLD pressure transducers and is the interface to Bently Nevada's Trendmaster® sensor bus.

Our new Seal-Leak Detection (SLD) System is specifically designed to address this important industry need by measuring the static pressure between the faces of tandem seals, or by measuring the pressure on the low-pressure side of double and single seal pumps. The flexiTIM™ brings this measurement into our Trendmaster® sensor bus where it can be input to System 1™ or existing Trendmaster® 2000 software. Changes in pressure indicate seal problems and typically provide early warning of an impending seal failure.



Previously, pressure measurements of this type often relied upon the use of analog gauges and manual logging of the data. This new Seal-Leak Detection System provides the benefits of continuous, online monitoring with a permanent and rugged installation. ↻