GAS VAPOR RECOVERY

PRODUCT: Model 201

APPLICATION DETAILS:

The company is focused on providing customers with exceptional products, services, and innovative solutions for improving the fueling station experience. Their flagship product line monitors underground storage tanks to capture, control, and monitor fugitive emissions. This device saves their customers money while also protecting their health and the environment.

CUSTOMER PROBLEM:

Gas leaks lead to profit loss, environmental/safety concerns

At every gas station there is a potential for gas vapor to leak out of the underground fuel tanks. This is typically a result of inadequate maintenance of negative pressure inside the storage tank. When the gasoline vapor leaks from the tanks, it results in profit loss, environmental concerns, and public safety issues. The caustic nature of gasoline vapors makes material compatibility difficult for the wetted material of the pressure sensor. The pressure sensor is a key component in maintaining the negative pressure within the system, giving real time feedback to the main controller of the vacuum pump.

SETRA STRENGTHS

- Low Full Scale Range
- All-Welded Construction
- Wide Compensated Operating Temperature
- High Overpressure of 45 PSI
- Used For Gauge or Differential Pressure Measurements

SETRA SOLUTION:

Setra was able to provide a customized pressure transducer that could detect low negative pressure, and is compatible with fuel vapors. This sensor is made of Inconel, which has chemical resistivity to gasoline, and has no internal o-rings for a leak-free design. The Model 201 is a differential or gauge transducer that can be configured down to 0-5"W.C., 0-1 kPa or 0-10 mBar. The Model 201, used in the customer's product has a full span of ±5"W.C. with the control set point set at -0.2", engages the vacuum pump and increases the negative pressure in the storage tank, never allowing it to go "positive".

WHY SETRA WON:

Provided low range pressure sensor to meet all safety criteria

The Model 201 is able to monitor the small vacuum (-5 "W.C. or 12.5 mBar) that is required to ensure that the gasoline vapors are being drawn back into the underground tanks. Setra was able to provide the customer with a rugged capacitance sensor design that has high overpressure and a wide operating temperature range. Setra and the customer worked together during the product development to make sure all performance, environmental and safety concerns were met for the customer's client base.

159 Swanson Rd. Boxborough, MA 01719
T: 800.257.3872 || F: 978.264.0292
www.setra.com