

Success Story

Application: Protect Sensitive Equipment

Industry Classification: Refinery



Background: A gasoline refinery was using 15 micron cartridge filters to protect sensitive analytical equipment used to analyze unleaded gasoline. On average, the cartridges were changed every eight hours, and at times every 20 minutes. The processor was seeking an automatic alternative to the costly process of maintaining the cartridges. These costs include the cartridge, the labor to replace the cartridge, and the increasing cost of disposal.

An on-site trial was conducted using a single stainless steel 'Zero Gravity' filter element and pod. The objective of the tests were to determine the removal effectiveness of a 25 micron filter element, and the appropriate number of filter elements required to accommodate the required flow rate. The trials proved that the removal efficiency of the 25 micron filter element was more than sufficient to protect the testing equipment.

Solution: Provide a single skid containing two separate filtration systems, each filtering a separate sampling stream. Each filter system consists of four (4) stainless steel filter pods, each with an explosion proof, 3-way "T" ported, pneumatically operated valve for backwash. The unit is wired for an explosion proof environment with the control panel located in a safe environment.

Application Details:

Flow Rate: 30 gpm
Micron Rating: 25 micron
Operating Pressure: 300 psi

Filter Specifications:

Filter Housing: Stainless steel
Filter Elements: Stainless steel
Test Pressure: 450 psi

Results: The processor will experience less than a one year payback based solely on the costs of the cartridges, excluding labor and disposal.

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