



Natural Gas Fuel Dispenser Inlet

Italy

Problem

Black powder contamination was damaging meters, valves, and compressor seals. Costly monthly maintenance was required to repair and clean the piping system and compressor components.

Solution

Install a high-pressure magnetic separator upstream of the compressor.

Results

After the initial cleaning, a significant amount of ferrous and non-ferrous black powder was captured. The magnetic separator system is still currently installed and operating at full efficiency. No maintenance crews have been required to repair the compressors since its deployment.



Analysis of the contamination collected indicated high levels of non-ferrous particulate caught by the magnetic elements

Particle Composition (ppm)			
Iron	> 2000	Silicon	417
Chromium	3	Sodium	46
Nickel	11	Vanadium	<1
Molybdenum	<1	Potassium	41
Aluminum	58	Calcium	196
Lead	20	Magnesium	60
Copper	13	Phosphorus	154
Tin	< 1	Zinc	93
Silver	< 1	Barium	< 5
Titanium	5	Boron	10

