



Case Study: Hydrogen Pipe Flange Connection - EVOLUTION[®]

PROBLEM

A multinational gases, technologies and services company was seeking an isolation solution for a pipe connection which had been prone to corrosion, the pipe carried Hydrogen and Nitrogen Gas, it was therefore required that the solution provided was fire-safe compliant and provided an extremely tight seal. They had the added complication that the connection was sited in an awkward position, vertically and close to the tank body.

SIGNIFICANCE

Due to the position of the flange connection and the close proximity to the tank body the customer could only spread the flange to around .31 to .35 in (8 – 9mm), to allow installation of the Isolation gasket. Due to the light makeup of the media (Hydrogen), the sealing element of the isolation gasket, had to provide impeccable sealing performance.

OPERATING CONDITIONS

Temperature:	Ambient
Pressure:	0 - 145 psig (8 bar)
Media:	Hydrogen & Nitrogen Gas
Size:	8 inch (203 mm)



SOLUTIONS

EVOLUTION[®] Isolation Gasket. The thinner, 1/8" (3mm) design allowed for installation into the tight flange connection which wouldn't have been possible with the standard thicker isolating gasket. The patented PTFE ID seal used in the EVOLUTION[®] design, provided the sealing performance needed. EVOLUTION[®] also had the necessary API 6FB, 3rd Edition Fire Test recognition.

For more information, please visit:
<http://www.gptindustries.com>