

CASE STUDY: BELLEVILLE FLANGE WASHERS MITIGATE METHANE GAS EMISSIONS



INDUSTRY CHALLENGE

Recent federal regulations stemming from the U.S. Environmental Protection Agency require the oil and gas industry to detect, monitor and repair methane gas leaks from pipelines and equipment more accurately. The new regulations are aimed at protecting the environment by reducing methane emissions, the second most potent greenhouse gas after carbon dioxide, by 30% by the year 2030.

Methane gas leaks could potentially enter the atmosphere through leaks from oil and natural gas wells, natural gas pipelines, in addition to natural gas processing equipment. It is widely reported that, “methane emissions from leaks are mostly caused by imperfections or ordinary wear in sealed joints such as flange gaskets, screwed connections, valve-stem packing, seats on pressure relief valves, or poorly seated open-ended valves”¹.

SOLUTION



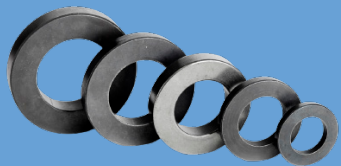
Most leak detection and repair (LDAR) programs within the oil and gas, chemical and petrochemical industry already dictate performing regular maintenance activities to identify, monitor and prevent leaking equipment to minimize emissions, prevent equipment downtime, and protect assets. One element to ward off leaking valve stem packing and gasketed flanges is by live loading the bolted joints within these systems with Solon Belleville Springs & Washers. Solon Belleville Springs and Solon Flange Washers work constantly to maintain tight, leak-free seals; increasing the elasticity of the bolting system and maintaining the bolt preload needed to prevent fugitive emissions leaks.

Solon Belleville Springs & Washers are designed to maintain sufficient bolt tension and resultant gasket pressure in extreme-temperature, high-pressure applications. When safety and emission containment take priority, they remain a proven and cost-effective solution for mitigating the risk associated with leaking assets while contributing to the overall reduction of fugitive methane emissions for decades to come.

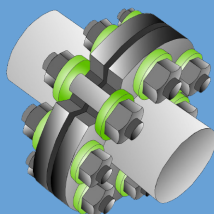
¹ <https://methaneguidingprinciples.org/best-practice-guides/equipment-leaks/>

SOLON® FLANGE WASHER ADVANTAGES

- ✓ REDUCE FUGITIVE EMISSIONS
- ✓ MAINTAIN BOLT INTEGRITY
- ✓ MADE IN THE USA
- ✓ ECONOMICAL
- ✓ LOW MAINTENANCE



Solon® Flange Washers



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