



ENVIRONMENTAL TECHNOLOGY

AESSEAL® product removes risk of HFC emissions

A specially designed double seal from AESSEAL® has enabled an Italian drinks company to avoid the risk of major financial penalties which could have resulted from the release into the atmosphere of highly damaging HFC (hydrofluorocarbon) gases.

HFC gases are used mainly in air conditioning and refrigeration. The company employs them to refrigerate tanks containing sparkling wine. However, HFCs are climate pollutants and major contributors to global warming, and the amount which can be released into the atmosphere is strictly regulated by law.

The company was concerned about the possibility of a catastrophic failure of one of the single seals in one of its compressors. In such a case, the release of HFC emissions would be so high and its impact on the environment would be so great that the company would be likely to incur major financial penalties as well as significant damage to its reputation. In an effort to avoid such an eventuality, the single seals were being replaced every five to six months.

AESSEAL® was able to remedy the problem with the installation of a specially designed double seal, which prevented even minor leaks into the atmosphere. In addition, the company fitted transmitters to the vessel which enabled it to regulate barrier fluid pressure and monitor the performance of the seal. The use of a double seal was an untried and innovative approach to the problem. Because the first seal was a prototype, AESSEAL® engineers worked closely with the company to carry out modifications and adjustments on a day-to-day basis as new information became available.

The double seals were installed in March 2015, and are replaced every two years using a system of predictive maintenance. The greater reliability of the AESSEAL® product and the close monitoring of seal performance has saved the company an estimated €25,000 a year on each of its eight compressors, and by eliminating the risk of sudden seal failure, has also removed the risk of serious leaks and major financial penalties.

‘Reliability increase from <6 months to >2 years’

Industry:	Food & Beverage
Product:	Special & AES-15™ API Plan 53A
Application:	Tank Refrigerant Compressors
MTBF Increase:	300% (and counting)
Savings:	€25,000 a year per compressor
Reference N.O:	TD3110372



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