

## Buffer Zone

**Working with a world leading reciprocating gas compressor manufacture to develop a better solution for inert gas buffering**



### Project Brief

While the customer could develop In-house solutions to inert gas buffer injection, it distracted their engineers from core activities and increased the risk of holding safety certificates in non-core technology.

As an existing supplier of purge systems for the drive motors they already used, Expo was asked to develop a cost effective N<sub>2</sub> buffer system solution to overcome problems of bad design, poor value for money, and lack of hazardous area certification with currently available products.

### Challenges

While Hazardous Location standards are well known by the Expo team, API-618, a standard used by most compressor manufacturers, had to be studied and translated into a design specification.

Modifying of existing Motor Purge technology to adapt to the higher pressures and lower flow rates in the N<sub>2</sub> Buffer

Designing a modular and compact product capable of being built to the client's specification, specifically:

Single or Dual distance piece compressors

Accommodating all machines from 1 to 10 cylinders

Sour gas protection when compressing gas with high hydrogen sulphide (H<sub>2</sub>S) content

### Outcome

The most comprehensive N<sub>2</sub> buffer product solution on the market. Via 3 modular designs we have met the requirements for all reciprocating compressors requiring compliance to API-618. The range has been standardised and is available worldwide from Expo and its distribution network.

## Expo Products and Services

### Design and Consultancy services

Expo Technologies' team of consultants and certification engineers have the experience and knowledge to support our customers through the certification process for equipment to be used in Hazardous Areas.

From concept design through to maintenance, Expo Technologies works with you to reduce the risks and accelerate your entry into global markets.

[Click here](#) for more information.



### Nitrogen buffer

Pressurisation systems to limit flammable gas emissions from reciprocating compressors



#### Features

Easier compliance with API618

Capacity up to 10 dual compartments

Stainless steel enclosure construction

Optional hazardous area certification

[Click here](#) for more information.