

Thinking big

Working with a world leading HV (High Voltage) motor manufacture to provide the power and torque required to drive a large reciprocating compressor used in the manufacture of LDPE.



Project Brief

To increase the purge flow rate of the Expo MotorPurge systems from 14,000 NI/min to 28,000NI/min to deal with large motor housing (98m³) and short purge time to allow for rapid start-up of the process.

Challenges

Design a control unit that can both provide the exceptionally high Purge flow volumes and leakage compensation volumes while maintaining tight pressure controls inside the motor during its various operating phases.

Purge Flow: 14,000 – 28,000 in 1000 NI/min increments

Leakage Compensation:5,000 NI/min

The Purge Outlet had to be redesigned to deal with higher flow rates and account for fault conditions of the larger control unit, safely venting any excess compressed gas in the event of a failure mode as per IEC 60079-2

Update the ATEX & IECEx technical files and submit for a Notified Body to obtain Zone I certificate within the tight timescales required by the client.

Outcome

Successfully doubling the capacity of our MotorPurge product range and achieving full compliance to the required standards within the client's timeframe

Expo Products and Services

Motor Purge

Expo Technologies is the world leader in protection systems for large electric motors and generators. With the largest installed base of any manufacturer, we are a trusted partner to most of the world's leading manufacturers.

In line with all other electrical equipment used in hazardous areas, electric motors and generators require certification using a recognised protection method.

[Download our brochure to find out more](#)

[Click here](#) for more information.

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.



Certification consultancy

Our Certification Engineer works with the customer through a standard, well-proven process to make sure the design is compliant with the Expo's Schedule of Limitations (SoL), ensuring successful project completion. The SoL defines the scope of what can be certified under Expo's populated enclosure certificate and is broad enough to cover most applications.

[Click here](#) for more information.