

Hazardous location camera systems

Developing a hazardous area solution for a manufacturer of drilling camera systems

Overview & Project Brief

While explosion proof CCTV cameras are readily available, the monitoring systems are often installed remotely in safe areas. In this case the client wished to develop a monitor/server system that was suitable for locating in both Class I Div 1 & Class I Div 2 (CID1 & CID2) hazardous areas.



Challenges

- The standard monitors, servers & enclosures used for the operator interface of the system were not hazardous area rated.
- Within the standard enclosure, there was only a limited space to add additional purge and pressurization hardware.
- Users required good visibility of the purge and pressurization system's status when the platform or rig was in operation.

Solution

- Working with the system OEM, Expo advised on the required enclosure designs, not only on space but to ensure the enclosure would be sufficiently leak tight for purge & pressurization.
- For both CID1 & CID2 options, the purge systems (Type-X & Type-Z) were panel mounted on the rear of the monitor/server enclosure, but the purge status indicators were relocated to the front panel, along with other operator controls & indicators.
- Solution was compliant and met hazardous area requirements and specifications.

Expo Products and Services

Type X and Type Z purge and pressurization systems



IECEX, ATEX & UL certified purge and pressurization systems for Zone 1, Class I Div 1 applications.

Features

- Global approvals
- Purge flow capacity up to 900 NI/min
- Leakage Compensation or Continuous Flow
- Stainless steel enclosure construction

[Click here](#) for more information.



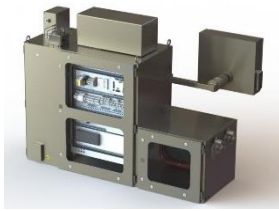
IECEX, ATEX & UL certified purge and pressurization systems for Zone 2, Class I Div 2 applications

Features

- Global approvals
- Purge flow capacity up to 900 NI/min
- Leakage Compensation or Continuous Flow
- Stainless steel enclosure construction

[Click here](#) for more information.

Custom Enclosure Service



Some projects call for special shapes and sizes of enclosures, non-standard features, or very special applications, and may also require input from a Notified Body during the design phase or final certification.

With Expo's fully custom process, a dedicated engineer will work with you to develop exactly what you need and agree on a detailed budget and project timeline with milestones. As this is a highly flexible service, we can adapt the plan if your project requirements change.

[Click here](#) for more information.

Design & 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.

