

## Turnkey project for oil terminal in Brazil

### Multi-party collaboration to install & commission motor purge systems and controls enclosures at an oil import terminal

#### Overview & Project Brief

The client is a multinational oil and gas company. An expansion at an oil importation terminal required multiple new large electric motors and control systems, all suitable for use in a Zone 2 hazardous area. This case study describes the collaboration between the motor & pump OEMs, the client, and Expo, working with its local channel partner, to manufacture & commission multiple systems.



#### Challenges

- Four large motors that required high-capacity purge and pressurization systems
- Space limitations for 10 control enclosures required for operating & monitoring the equipment
- Specific project requirements on paint finish for a corrosive coastal environment
- INMETRO & IECEx certification was required for the completed systems
- Navigating & ensuring the best outcome from a multi-party collaboration

#### Solution

- Working with the motor OEM, Expo selected the appropriate large purge & pressurization systems.
- Expo provided design consultancy and engineering services to support the local manufacture of 10 large Ex p enclosures by our channel partner.
- The custom stainless-steel enclosures were designed with a special pocket door to give easy access to the HMI and painted with the client's proprietary colour. Each was fitted with an Expo Z-purge system.
- The channel partner, with Expo support, provided the customer commissioning services for both the motor systems and the enclosures.
- In addition to IECEx, the Expo products already carried INMETRO certification, fully documented in both English and Portuguese, simplifying the INMETRO certification for both the motors and populated control enclosures.
- The channel partner contracted with the client to provide equipment maintenance services.

## Expo Products and Services

### Motor Purge Systems

IECEX, ATEX & INMETRO Certified Purge and Pressurization System for large Electrical Machines



#### Features

- Global approvals
- Purge flow capacities up to 14,000 NI/min
- Stable machine pressure with CLAPS technology
- Stainless steel enclosure construction
- Temperature ranges from -60°C to +60°C

With more than 7,500 purge and pressurization systems supplied for large electric motors and generators, Expo is the world's most experienced designer and manufacturer. As the leading designer and manufacturer of systems, we have the right solution for your machine.

[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.

## Type Z Purge

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

Expo's Minipurge type Z range provides a full purge and pressurization solution for electrical enclosures and other equipment installed in Zone 2 or Class I Div 2 hazardous environments. Physically the same, Y purge systems are for use in Zone 1 / Class I Div 1 hazardous environments where the equipment to be protected already carries Zone 2 or Class I Div 2 certification.

[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.

