

Control systems enclosure for aviation fuel test facility

Working with a global aircraft manufacturer on control enclosures for a fuel test facility

Background

The client is a multi-national manufacturer of large aircraft. They operate a wing design and development centre, where aviation fuel is used to test the wing fuel system performance under simulated flight conditions. Because of the highly flammable nature of jet fuel, the test area is classified as Zone 1. Several purged and pressurized (Ex p) controls enclosures have been installed, one of which is now in need of replacement due to corrosion.

Project Brief

Replacement of a badly corroded mild steel enclosure with an exact copy in stainless steel, permitting the retrofit of the existing contents.

Challenges

The original painted mild steel enclosure had been in place for many years. Over that time, modifications from the original Expo design had been made that needed to be captured and included in the new design



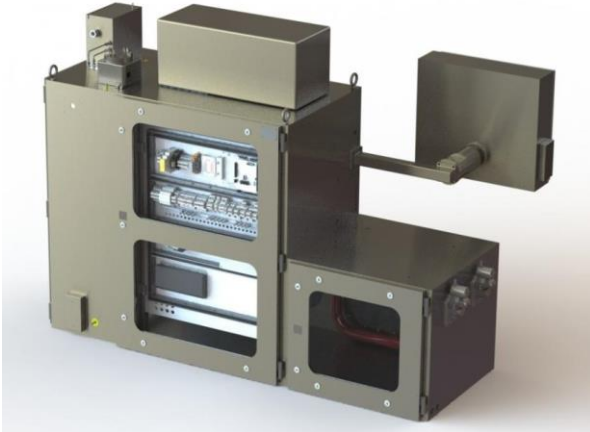
The panel is in an outside environment, exposed to the elements, and, potentially, aviation fuel vapour. When operating, the facility is classified as Zone 1.

Outcome

- Having reviewed the original project, Expo engineers carried out a site survey to assess the current enclosure and record changes from the original system design
- A new 316L stainless steel enclosure was fabricated
- The X-purge system was refurbished and reused
- The customer carried out the task of transferring the electrical systems from the old to the new enclosure.
- Expo certification engineers recertified the completed project

Expo Products and Services

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.

Enclosure Certification Service



Once built and populated, Expo can provide an IECEx or ATEX Certification service for the completed enclosure.

Our Certification Engineer works with the customer 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.