Project: Missile Launch Facility

Client: Confidential

Industry: Defence

Scope: Automated Hydrogen Gas Control System

Project Key Notes

Product Development

Fast Track Initial Build (< 6 weeks)

Touch Screen control

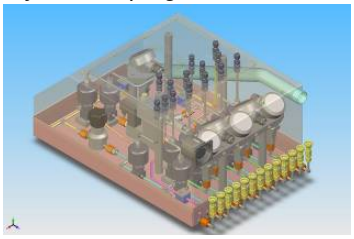
ATEX Compliance

Novel Missile Launch Capability Aiming for Cambridge

Providing customers' with gas control know-how is at the heart of Cambridge Fluid Systems. Balancing the sometimes conflicting requirements of scope, cost and time is also something that the Project Team has turned into a science. This project embodied the very nature of what can be achieved by the team.

The client approached CFS with some basic specifications and principles, which include minimum performance requirements and space constraints, for a sub system of a missile launch facility. A fully working automated ATEX complaint Hydrogen gas control system was required in less than six weeks.

CFS worked closely with the client to generate a full specification and P & ID. It was quickly established during the Haz-Op that conventional ATEX gas system with the electrical assemblies housed in a purged enclosure, was not suitable due to the operating environment. The convention was reversed and CFS engineered the mechanical assembly into the purged enclosure, with the electronics mounted externally.



The CFS design team produced 3D models in Solidworks, and after customer approval, procurement was underway,

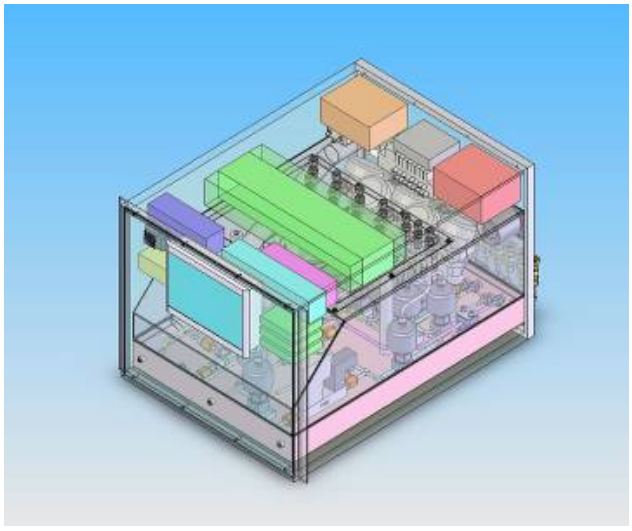
The CFS engineering team developed PLC functionality and the touch screen layouts with the client. A full Failure Mode Effect Analysis (FMEA) was conducted to ensure total safety and reliability.

The components were assembled into the chassis with the interlinking pipe work orbitally welded as sub-assemblies,

A positive pressure test and a vacuum Helium leak test were carried out during Factory Acceptance Testing (FAT), and a full EMC Compliance test was carried out by an independent third party.

A full Software and Hardware Acceptance Test was carried out to ensure the client's specified performance requirements were achieved.

The client has conducted a number of successful field trails with the gas system, and here at CFS we are looking forward to partnering the client on this and other projects in the future.



Cambridge Fluid Systems
12 Trafalgar Way
Bar Hill
Cambridge
CB23 8SQ, UK
t: +44 (0) 1954 786800
f: +44 (0) 1954 782164
e: sales@cam.cambridge-fluid.com
www.cambridge-fluid.com