

CASE STUDY

Johnson Matthey - LOPA Improvement Project



Background

Johnson Matthey develops and manufactures a wide range of high technology products, many of which provide environmental and quality of life benefits.

With operations globally, their site in Billingham UK is part of their Process Technologies division.

Customer Requirements

As part of an overall risk analysis programme (Layers of Protection Analysis - LOPA) Johnson Matthey identified a high potential issue in relation to pipework that was routed internally within their O2 building which was carrying a mixture of chemicals. In the event of an incident where the chemicals escaped and were to mix, this would cause a major HSE incident.

As part of a risk mitigation strategy it was proposed that the existing pipework be re-routed to the outside of the building and a new control panel be built and situated externally from which new pipework would be installed linking this area to another part of the chemical site.

Hydrasun's Solution

As part of an integrated solution Hydrasun designed and built a new control panel within our own facilities and then project managed the installation of this together with the re-routing of existing and installation of new pipework on-site.

Hydrasun managed all activities to meet the project timeframe including the manufacture of the panel, procurement and supply of all materials and equipment for the installation, supply & scheduling of manpower to site, as well as the planning of all installation activities including positionable welding, radiography testing of each weld and pipework fitting.

Result

Hydrasun's dedicated and experienced team, successfully project managed and delivered to Johnson Matthey a high quality turnkey solution within a tight project schedule without compromising safety within a high risk environment.

A critical success factor was effectively managing the scope of supply to ensure the scheduled timeframe for both the panel manufacture and installation work were met and that the test and commissioning of the work, led by Johnson Matthey operators with Hydrasun personnel supporting, could be efficiently undertaken. The installation work was planned around a shutdown weekend, the only time when they system could be completely isolated to enable all "tie in" welds to be completed.

The installation work involved the provision of a 6 man team consisting of one Project Co-ordinator, a Project Engineer, 2 Welders and 2 Small Bore Tubing Technicians. During the course of the project 323 welds were completed and radiographed successfully and around 35 complex Parker Autoclave pipe runs were installed.

The successful completion of the project highlighted Hydrasun capabilities in:

- Engineering & Project Management
- Product Expertise
- Product Manufacture & Assembly
- Product Installation
- Complex Welding
- Testing

At a glance

Customer

Johnson Matthey

Location

Billingham, UK

Customer Requirements

Build & supply of new control panel together with the re-routing of existing and installation of new pipework within a high risk environment.

Hydrasun Solution

The project management, manufacture, installation & testing of a turnkey hydraulic system package within a tight project timeframe in a safe efficient manner.

Benefits

- High Integrity Technical Solution
- Single Source Integrated Solution
- Overall Project Management
- Reduced HSE Risks
- Compliance with Legislative requirements
- Enhanced Technical Integrity & Reliability
- On-Time Delivery
- Cost Savings



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