



Vallourec

Vallourec Oil & Gas UK is the world leader in premium tubular solutions primarily serving the energy markets (oil and gas, powergen). Its expertise also extends to the Industry sector (mechanicals, automobile, construction etc.). For the oil and gas industry, the Group designs and develops a comprehensive range of products including seamless tubes and premium connections for drilling operations, line pipes and well equipment capable of withstanding extreme operating conditions: high pressure, high temperature, deviated wells, deep offshore, corrosive environments.

Laplace Solutions were approached by Vallourec to design and implement a new control system for one of their plants, which would increase efficiency and reduce both energy consumption, and carbon emissions.

Our Solution

Laplace designed and implemented a new bespoke, integrated control system. Initial and extensive investigations highlighted potential system improvements in several key areas that would be substantially beneficial to Vallourec.

These included the implementation of a new SCADA system, burner upgrades, furnace pressure control, new walking beams, combustion air and recuperator modifications, and a new integrated furnace control system which produced a more effective overall process control. Laplace and CR Plus utilised a combination of their industrial cost saving experience and engineering skills to successfully examine and install the most suitable bespoke control system. They also implemented mechanical modifications that would significantly reduce energy consumption and provide carbon emission savings in excess of £800k a year.

Aim & Objectives

The aim of this project was to design and implement a new control system, and optimise performance to ultimately increase plant efficiency, reduce energy consumption and carbon emissions. This was to be done by working as part of a specialist project team comprising of Laplace expert engineers, our energy partner CR Plus and Vallourec staff.

- To design and implement a tailored SCADA control system capable of increasing efficiency and reducing consumption.
- Work as part of a specialist project team to optimise performance, sustainability, and reduce energy costs.

Benefits

- A new bespoke control system has been implemented increasing plant efficiency.
- Financial savings have been increasing year on year over a decade. Current savings are in excess of £1.5M!
- Carbon savings are running in excess of 10,600Tco2/y, a substantial amount.

Laplace Initiative

- Laplace's dedicated engineers succeeded in overcoming a varied task list, keeping within the initial design brief to install new systems, improving maintenance visibility, and overall equipment efficiency.
- Our combination of expertise in automation systems, and energy optimisation manifests itself throughout the project, giving us the ability to produce visible results.

