

REGIONAL WINNER & NATIONAL RUNNER-UP, THE ENVIRONMENTAL ACHIEVEMENT AWARD

PAUL FABRICATIONS

**Nature of business:**

High-precision, safety-critical complex sheet metal formed, welded, and machined for aerospace, nuclear and defence

Site location:

Castle Donington, Derby

Number of employees: 109

Concerns over a high use of resources at its chemical etch facility spurred Paul Fabrications to drive down costs and reduce its impact on the environment.

No expense was spared by Derby-based Paul Fabrications in its quest to produce sheet metal fabrications at the highest level of cleanliness for use in aerospace, nuclear and defence. A thorough resource-saving strategy now means the environment is no longer a casualty in its quest for perfection.

Paul Fabrications set a three-year target to reduce the running hours of its four process tanks used in the key activity of chemical surface etch preparation. The tanks were monitored depending on contents and usage along with any safety factors or specific chemical requirements.

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A vision

It was imperative that the reduction strategy did not impinge on the current work flow or quality and key to this was a collaborative effort, beginning with the environmental management team, which tabulated the times process tanks were used against workers' hours.

These findings could only be addressed with commitment and communication throughout all departments. By setting monthly goals, staff could see the short-term fruits of their adjusted working practices, and as expected, results manifested immediately.

Investment

Timer/volume control release devices were fitted to the water supply, motion sensor lighting was introduced and an automated system was installed which controlled not only utilities but would also be used to effect on all business processes.

The results were far greater than ever anticipated. By the end of the first year, there was a reduction of the tanks working hours of 96 hours per week. This quadrupled to an incredible 388 hours by the end of the third year, which gave momentum for the project to forge further ahead in the future.



“Paul Fabrications is now proud to showcase its amazing achievements and continue forward, establishing ourselves as a prominent voice on environmental issues in this field.”

Cahal McMenamin, Health and Safety Officer,
Paul Fabrications

Reaping the rewards

The 10 per cent electricity savings forecast was blown out of the water by the eventual 54 per cent result. A whopping 92.8 per cent electricity saving was achieved in the ambient acid tank, by massively cutting down on its hours of operation.

Not even the best projections could have predicted the compressed air reduction of 90 per cent, an achievement sweetened by the fact that the resource is three times more expensive than electricity.

A significant knock on effect has been a reduction of 5.25 cubic metres per day in process waste to the foul sewer, and a reduced discharge cost as a result.

Looking to the future

Paul Fabrications is not resting on its laurels, with continued focus on reduction and now solar power set in its sights, the company has rolled out its environmental programme site-wide with amazing results. Staff morale has also increased tenfold since the awards as all employees had taken an active part, through their hard work and continued commitment.

Paul Fabrications has benefited from the EEF services in every application, including HR, environment, health and safety advice and has always found EEF to be professional, courteous and friendly with every enquiry.

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