Case study

Hydrobolt fastens on nuclear fitness

Specialist fastener manufacturer Hydrobolt has driven significant improvements to its business after taking part in the Fit For Nuclear programme.

Wolverhampton-based Hydrobolt produces a wide range of special fasteners and threaded components for demanding applications, from standard precision bolts to high-integrity components in exotic materials. It employs over 260 people and is well established in the energy markets, with around 40 per cent of business in power generation.

“There are a variety of applications within the power generation and nuclear environments where our products are used,” says Richard Barnes, business development director for Hydrobolt. “These range from flask lid bolts for Magnox, to reactor coolant pump and ASME III bolts for Sizewell, and turbine bolts for EDF nuclear stations.

“None of our products are standard off-the-shelf nuts and bolts — our products are becoming more specialist, more technical and undergoing stricter testing as we expand more and more into markets such as nuclear and subsea. The integrity of our supply, flexibility, customer focus and our fully equipped machine shop are our key strengths.”

Hydrobolt experienced sustained growth over the past decade, and was keen to maintain that momentum as the energy market underwent significant change. “We knew that a lot of the power stations we were dealing with would eventually close, and we saw the UK’s new nuclear build programme as an opportunity to fill the gap,” Barnes says.

Barnes and his team completed the online Fit For Nuclear questionnaire in late 2011. The initial assessment rated Hydrobolt as being of a high standard, but identified a number of opportunities for improvement. The biggest was in manufacturing process management, as the company was then working to integrate an enterprise resource planning (ERP) system across the business.

“Before ERP, the company operated on a series of stand-alone systems. Jobs had to be pushed through the system,” Barnes recalls.

Now, every job is planned up front, and the ERP pulls it through production. “ERP gives us full traceability, visibility and real-time planning and stock management — and the massive win is that when we have a repeat job, the manufacturing route is already in place,” Barnes explains.

The F4N team also encouraged Hydrobolt to improve its health, safety and environmental management systems.
“One of the biggest things F4N gave us was a greater awareness of the industry – where we are and where the industry is going.”

“HSE is very important, and we invested a lot of time and resource in these areas following our initial F4N audit,” says Barnes. “A big part of the improvement plan was ISO 18001 integration – it ticks so many boxes and has driven so many improvements across the company.”

As well as mandatory personal protection equipment in the workshop, the team has revamped the company reception, introduced health and safety inductions for all visitors and contractors, and instigated a health and safety training programme for all employees.

“We made a lot of what you would class as non-profit investments,” says Michael Lloyd, power division sales manager for Hydrobolt. “It’s about looking at different areas within the business to give our customers confidence – we’ve always had the capabilities and procedures, but we needed to move ourselves up the corporate ladder.”

F4N also provided valuable independent insight into the specific demands of the nuclear new build industry. “One of the biggest things they gave us was a greater awareness of the industry,” says Lloyd. “They said this is what you’re doing in existing plant but, if you want to progress and work towards new build, this is what’s expected. That was the big difference – it’s where we are and where the industry is going in new build.”

Hydrobolt is now targeting continued growth and investment, concentrating on specialised markets including nuclear and sub-sea operations. “We want to be the supplier of choice for special fasteners for the new nuclear programme, as well as the decommissioning market,” says Barnes.

Hydrobolt is also working with the Nuclear AMRC team to better understand international nuclear standards and requirements. “We’re not limiting ourselves to the UK,” says Barnes. “Over 70 per cent of our products are exported, and we really want to attack the global nuclear markets.”

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