



Heatric targets new nuclear work

Heatric, a specialist manufacturer of advanced heat exchangers, is targeting new nuclear business after completing the Fit For Nuclear programme.

Part of the Meggitt group, Poole-based Heatric specialises in printed circuit heat exchangers (PCHEs) for demanding applications. These assemblies feature stacks of chemically etched steel plates, joined using a proprietary diffusion bonding technology, with headers and nozzles welded on to form the complete exchanger.

The technology was embraced by the oil and gas sector for offshore platforms, and Heatric grew rapidly on orders for bespoke PCHEs. The firm expanded its main production site just outside Poole and acquired its Birmingham-based supplier of etched steel plates to reduce supply chain risk.

“We had a very good run up to two years ago with our oil and gas applications, but recognised that we needed to broaden Heatric,” says Adrian Tattershall, general manager. “We had been working on other things, but with the seismic changes in our core market in the past two years we took the decision – supported by Meggitt head office – to put effort into developing a number of new strands that aren’t related to oil and gas.”

Manufacturing development manager Paul Morris was already working with the Nuclear AMRC to investigate keyhole welding technology for applications in Heatric’s core oil and gas work.

“As I was going up to review the K-TIG, I began to better understand the nuclear industry and its importance,” Morris recalls. “There are clearly great opportunities out there for us.”

After carrying out some research on nuclear opportunities, Morris completed the online Fit For Nuclear assessment in April 2016. “The questions were very much aligned to what we were already doing in levels of compliance for oil and gas, and a lot of things we were asked for were things we’d introduced over the past five years,” he says.

The firm’s focus on quality-led manufacturing was rewarded with a record score on the initial F4N assessment of 95 per cent – confirmed by F4N industrial advisor Huw Jenkins during his initial site visit. Morris then brought in Andrew James, leader of Heatric’s innovation and new business team, to focus on developing the business for nuclear.

“We believe nuclear is one of the largest business opportunity that fits our profile,” says James. “The demands the nuclear industry puts on its suppliers are very stringent, but we are used to that from working in oil and gas.”

The main area for development was around health and safety. Heatric had an exemplary record, but wasn’t emphasising safety culture in the way that nuclear customers like to see.

“Our health and safety was good, but it wasn’t sufficiently in your face,” James says. “One of the things we took from that was if you do something well, make sure you’re seen to be doing it.”



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The team worked with Jenkins and F4N nuclear specialist Martin Ride to close the nuclear gaps in Heatric's HSE approach, and identify additional nuclear quality standards that would be required for specific product types.

"When Martin and Huw give us advice on something, we respond to that advice," Morris says. "We understand why it's important to do so, and their advice on the industry is always very useful and very supportive."

Heatric is also driving its technical capabilities to meet customer demands, and is now working with the Nuclear AMRC and partners to investigate advanced fabrication techniques including automated welding technologies.

"Our manufacturing developments are based around increasing our flexibility in terms of product, reducing lead times and reducing costs, and at the same time reducing our dependence on manual skills," says Giles Corbett, operations manager. "What we want to do is retain our world-class manual skills, and use the technology that we're exploiting with the Nuclear AMRC."

In the short-term, the firm sees the biggest opportunities in the decommissioning market, including waste treatment systems and waste containers. The team are also looking at pressure vessels and HVAC systems for new build and, in the longer term, heat exchangers and other systems for the proposed new generation of small modular reactors.

F4N came at the perfect time for the company, James notes.

"We were reassessing our strategy and looking to develop automation for different welding processes with Nuclear AMRC support," he says. "F4N just fitted for us perfectly. We knew it was going to take significant resource and effort to break into nuclear and establish ourselves, but F4N gives us credence when we're presenting our capabilities. It shows the industry that we've gone through this journey and are absolutely serious about it."

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March 2017

Fit For Nuclear (F4N) helps UK manufacturers get ready to bid for work in the civil nuclear supply chain.



F4N was developed by the Nuclear AMRC and its leading industrial partners. The service lets UK manufacturers measure their operations against the standards required to supply the nuclear industry, and take the necessary steps to close any gaps.


Over 600 companies have completed the online F4N assessment, with most receiving ongoing support and development from the F4N team of nuclear specialists and experienced industrial advisors.

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