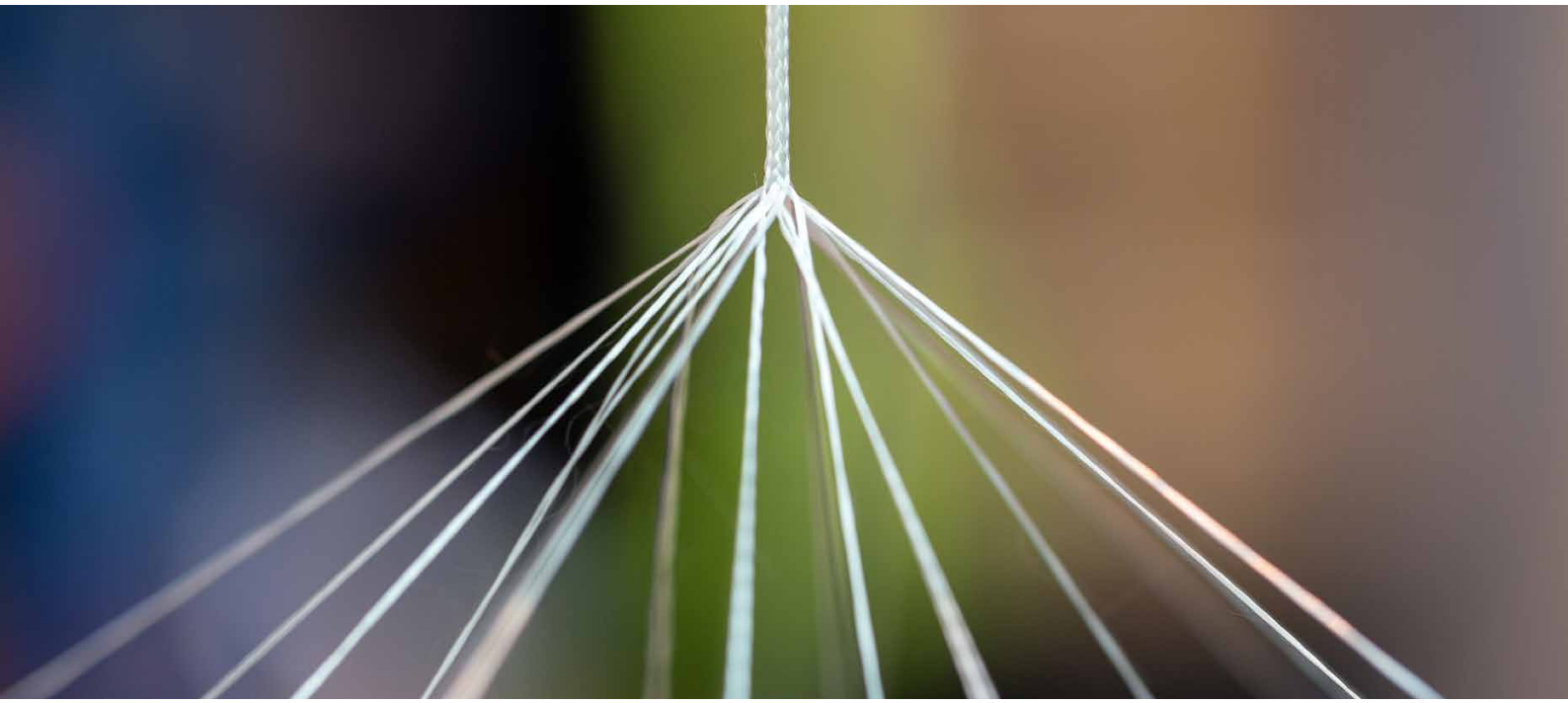
Case study

F4N Fit For Nuclear

NUCLEAR AMRC
ADVANCED MANUFACTURING RESEARCH CENTRE



Heatsense hurdles barriers to entry

Heatsense Cables is winning new customers after becoming the first specialist cable manufacturer to be granted Fit For Nuclear status by the Nuclear AMRC.

Based in Rochdale, Greater Manchester, Heatsense is the UK's leading manufacturer of high-performance thermocouple and signal cables for extreme environments.

The firm specialises in cables which are resistant to flame, oils and chemicals, and operate in ultra-high vacuum, cryogenic and high radiation environments for customers in nuclear, aerospace, medical and other sectors. Products range from single wires to multicore cables, braided in glass or ceramic fibres, other specialist yarns or metals.

Founded in 1984, the business was acquired in 2014 by a new management team led by director Jeremy Kemsley-Pein.

"We saw an opportunity to build the company into a specialist high performance cable business," he recalls. "A clear objective from day one was to ensure that there were no barriers to doing business with Heatsense. Step one was to ensure that the company had all the relevant quality and environmental accreditations that are now considered essential by corporates."

The new team quickly achieved the latest ISO9001 quality management and ISO14001 environmental management certification, and looked for other ways to reduce barriers to new markets.

"At the time, there was a great deal of talk regarding developments and opportunities in the nuclear industry," says Kemsley-Pein. "We took the view that there would be opportunities, and that F4N approval would reduce barriers to entering the industry. No other cable company had been awarded F4N status, as is still the case today."

The assessment highlighted the importance of health and safety culture to nuclear customer expectations. "Part of the journey involved sending key staff members on a nuclear awareness course, and this knowledge, awareness and understanding was embedded back into the business," Kemsley-Pein says. "Another key factor was the importance of regular communication with all staff members. It is easy to assume that all staff know what is going in an SME, but that is not necessarily the case."

Lean manufacturing was another area for development, with the Nuclear AMRC industrial advisor John Olver helping the firm adopt Kaizen and 5S techniques to continually improve systems and procedures. Kemsley-Pein points to the visual presentation of key performance indicators and analysis posted on the factory walls and meeting rooms as evidence of the encouragement and guidance of the F4N team.

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The F4N journey also helped Heatsense develop its digital strategy to embrace Industry 4.0 technologies, with digital processes on individual production lines allowing further improvements to efficiency, quality and throughput rates.

"The F4N journey has significantly improved the company on all fronts, and we encourage customers, prospective customers and auditors to visit as we are extremely proud of what our team has achieved over the last five years," Kemsley-Pein says.

Heatsense has continued to develop since being awarded F4N status at the start of the year, remaining fully operational throughout the Covid-19 lockdown. The firm has taken on more space, purchased additional plant and equipment, expanded its manufacturing capabilities, employed more staff, and won a number of new high-end customers.

The changes made through F4N have undoubtedly assisted in securing additional business in a range of sectors, Kemsley-Pein notes, but progress in the nuclear sphere has been slow.

"Ideally, we would work in conjunction with major contractors serving the nuclear industry and act as a tier two supplier addressing their specific cable requirements," he says. "We have found it difficult to get access to large nuclear contractors and consultants, but we hope that higher visibility through the F4N community will assist."

Heatsense's capabilities for the nuclear sector were vividly illustrated during its F4N journey, when the firm received an enquiry from a nuclear plant operator. The request was for bespoke temperature monitoring cables to operate within the extremely hazardous environment of its spent fuel storage system – a job that would usually take at least four weeks to deliver. The team agreed a technical specification within four days, and delivered the cables to site one week after the initial enquiry.

"We understood the critical nature of the production and were happy to go the extra mile," says Kemsley-Pein. "Over time, we would like to establish strong business relationships with all key nuclear contractors, and be regarded as having outstanding knowledge and design capabilities for cables that operate in extreme environments."

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

F4N Fit For Nuclear

Hundreds of 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.

Begin your F4N journey: **namrc.co.uk/services/f4n**

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