ADVANCED MANUFACTURING GROWTH CENTRE

MEMBER PROFILE

Quickstep

Quickstep was originally established as a research and development company in Perth in 2001. It was built on the foundation of a great Australian idea: an out-of-autoclave, fluid-based composite curing method, and then the business turned itself into a Joint Strike Fighter program member.

By 2012, Quickstep had moved to Bankstown, NSW, and made its first JSF parts shipment to Northrop Grumman in the USA.

Since then Quickstep has been proving itself as a supplier of high-quality advanced composite components to the aerospace, defence, automotive and other advanced sectors, targeting opportunities through supplying strong, lightweight, increasingly complex parts.

Quickstep has achieved success outside of aerospace, too, including a supply deal with Ford Australia for the XR6 Sprint carbon fibre air-intake duct, the first such duct in the Ford world globally. Being widely regarded as an advanced manufacturing success story, Quickstep continues to reinvent itself and seek new ways to solve problems for customers.

"A lot of people see us as a publicly-listed company, but the reality is we're a $51-point- something million in turnover company and we have roughly 200 people across our business," explains Carl de Koning, the company's General Manager, Marketing and External Relations.

Quickstep's flagship Qure process is a competitive solution against energy-hungry autoclave methods for production volumes between 5,000 and 20,000 parts annually; cycle times are 30 minutes rather than four to eight hours. For the company to develop uses for Qure and its other manufacturing innovations, collaboration is essential.

"I came out of the auto industry, and particularly in the auto industry collaboration is not seen as unique: it's seen as mandatory," he says.

"I think Australia to be successful in advanced manufacturing has got to have these sorts of collaborative projects, and you need projects that lead to international activity, because there are no major end-users in this market."

Quickstep, along with the Carbon Nexus research facility and Special Patterns, has completed a six-month project for a European luxury car OEM, developing a carbon fibre composite front fender.

Assisted by a $250,000 grant from the Advanced Manufacturing Growth Centre, the project overcame technology hurdles requiring faster pre-forming, faster curing, flexible tooling and cost savings. This lead Quickstep to becoming a qualified supplier for the OEM, who will later put out a request for quote.

The cost drivers for making any carbon fibre composite part, for example, are in the fibre, the resin, and the curing process. Quickstep can improve on one of the three in-house. The other two can be addressed by researchers at Carbon Nexus, located at Deakin University's Waurn Ponds campus.

Quickstep's links with Deakin are deep, with 11 PhDs contributing to the development of Qure over the years. The company's New Technology facility is headquartered at the Deakin University campus, with subject matter experts a stone's throw away.

Processes and intellectual property that have emerged from their recent fender project, which deals with the challenges of quickly producing complex parts, will be included in future projects. These could be in defence or in the market for commercial aircraft.

Besides assisting with the collaborative project, the AMGC has helped by raising Quickstep's profile as an advanced manufacturer.

"Since joining as an AMGC member we've spoken at a number of their events and had access to regular roundtables," explains de Koning.

"Certainly they've also given us a fair bit of literature on advanced manufacturing and helped with learning about what advanced manufacturing is. So they've been very, very good."

AMGC
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“We’re an SME, but we’re an advanced manufacturing SME.