

Avtech Engineering – Thriving despite the downturn

While the current downturn in Western Australia's mining and resources industry is undoubtedly having an impact on local manufacturers, Perth-based Avtech Engineering is still finding strategies to succeed. By Carole Goldsmith.



Avtech's owner and Managing Director Steve Delfos, with the company's new Mazak Quick Turn Smart 300M turning centre.

Avtech manufactures precision components and tools for companies that supply the subsea, mining and resources industries. It also produces parts for local and international manufacturers of CNC machinery, and for industrial safety switch component businesses. Nonetheless, according to Avtech's owner and Managing Director Steve Delfos, the extractive sector inevitably casts a major influence on local manufacturing.

"Being WA-based, most manufacturers are connected somehow to the mining industry," he says. "Avtech makes components for the companies that manufacture products for the mining, oil & gas industry. We produce tools to support exploration and drilling areas for mining. This includes 'down-the-hole' equipment and tools used in the surveying of drilled holes."

For its oil & gas industry clients, Avtech produces various traceable components for subsea, maintenance, exploration, production and recovery tools. These will end up being used worldwide by some of the largest subsea companies.

"We also precision manufacture cylinders, rams, manifolds and valve blocks for the hydraulics industry and cases, standoffs, brackets, chassis and electro-mechanical components for the mechatronics and electronics industry," Delfos adds.

Avtech has extensive experience in machining high-strength alloy steels, stainless steels, titanium, aluminium, brass/bronze, cast iron, Inconel, plastics and exotic materials for local and overseas industries who rely on consistent, high-quality precision components manufactured on time, every time.

From machinist to MD

Delfos is a success story in himself. After his apprenticeship, he spent several years selling CNC machines, before going back into the industry as a machinist at one of the largest repetition machining companies in Perth. He worked his way up to become the Production Manager, and finally spent four years as General Manager, steering that company through a change from mass production to smaller volumes as the market changed.

On the lookout for a fresh challenge, Delfos took the General Manager's position at Avtech when the company's founder, Geoff Mullet, offered him the role in 2002.

"Geoff started the business in 1979, and built it by taking on the impossible jobs and getting them done efficiently," says Delfos. "He bought the latest equipment at the time, that was needed to complete the wide range of ongoing projects. In this way, he placed the company ahead of the competition."

"In 2005, I became a partner in Avtech, and in 2007, I bought the business outright and became the Managing Director. With this opportunity, I carried on the same philosophy as Geoff, building the company, purchasing the latest equipment, and growing the business by taking on the challenges that others would say no to."

Delfos proudly describes some of machines that enable his company to produce custom-manufactured products. Avtech uses the latest quality CNC machines and tooling, with features that provide customers flexibility and efficiency for the manufacture of their components.

"We continually invest in CNC machining technology, including a large selection of high-tech machine tools for precision component manufacturing," says Delfos. "The majority of our CNC lathes have 'live' tooling with Y-axis ability and bar feeds to some. Our Mazak five-axis Integrex machine gives Avtech's customers freedom for design. We do a lot of prototype and complex work on this machine, which would otherwise take several operations or not be possible at all."

Avtech's CNC milling department has four- and five-axis capability, supported by the SolidWorks-based Camworks software, which has significantly improved the company's ability to turn its customers' models into reality.

"To further support the design department, we have also introduced a Faro arm, for the reverse engineering of complex shapes as well as the checking of finished parts," Delfos adds. Avtech was also awarded ISO 9001 accreditation in 2016 with all systems and processes approved.

"We believe this gives our customers the comfort that their components will be made under a recognised system," says Delfos. "And that all certification of materials and as-built measurement reports can be supplied as required."

Bouncing back

Delfos says that these days the company is going strong.

"We went through a downturn in 2015 with a 40% reduction in turnover and our staff numbers dropped from 16 to 10 people," he says. "Since then, we have bounced back, and we are making parts for a diverse range of companies that export their products. We have used the downturn as an opportunity to address how we do things, and have become more efficient in the process. We also identified our markets and kept them as diverse as possible."

One example of its diverse client base is a manufacturer of mining surveying equipment. Sold around the world, this equipment is used to ensure the drilled hole they drill is in the right spot and in the correct direction. It's also used in the tunnelling industry.

Another major client manufactures conveyor safety switches.

"We make the machined components for their safety switch," says Delfos. "These switches are used to switch off the conveyors in the case of emergency, and to detect when large rocks or poor belt tracking occurs. "With this client, we have built a very strong relationship. When they come up with the ideas, we assist in the design and manufacture the component."

Delfos adds: "We also make a lot of tools for the subsea industry operators. They use these tools together with a subsea ROVs (remotely operated vehicles) to remotely cut or install and maintain components on the sea floor in oil exploration. These tools are designed by the tooling design team (our client), who then gets the final customer's approval, and then needs us to produce them in a very small window of time, often with fixed deadlines. This can be very challenging. It has been said that we are successful in the supply of such tools due to our accuracy and on-time delivery."

Assistance in improvement

Since 2009, Avtech has received several government grants to assist the business. With some of them, Delfos was alerted to



A selection of components produced from various materials

the possibility by AMTIL. A member since 2005, Delfos believes AMTIL has helped contributed to Avtech's business success.

"AMTIL's (Corporate Service Manager) Greg Chalker assisted Avtech to get Federal Government funding, on a 90%-government/10 %-Avtech basis, in 2009," Delfos says. "This grant was for system training on the 5S program, to assist the company to streamline the factory floor.

The 5S system, Delfos explains, is: 'Sort the factory out'; 'Set in order'; 'Shine' (i.e. keep the factory clean); 'Standardise' (having everything in place for each workstation); and Sustain (keeping the system going). The process was quite daunting, but the change it brought in Avtech's operations was very rewarding.

"Further to this we learnt about our process inefficiencies in the paper trail from quote to invoice," Delfos adds. "With the implementation of new software 'Job Commander', we were able to reduce our office staff, and have real-time planning for job completion, all in the one system. Now, via my mobile phone, I can show my client the progress of his job whilst in his office. Impressive!"



The Federal Government's Enterprise Connect program (now superseded by the Entrepreneurs' Programme) conducted a free business review for Avtech in 2009. Delfos advises: "This review revealed that we needed a business plan, a website and a logo, all of which we did not have at the time. Enterprise Connect provided a \$25,000 grant on a 50-50 basis to get these three business additions developed. This was in a tough time (during the GFC) to come up with the extra cash, but the end result was very rewarding.

"As a priority to move the business forward, Avtech's business plan, website and logo were developed soon after," Delfos adds. "This has helped with marketing and business expansion."

AMTIL also assisted Avtech in 2015, by arranging an AusIndustry representative site visit to see how the business was progressing. This was after the previous business review and to offer further business advice. It was through this visit that Avtech received 50-50 assistance in gaining its ISO accreditation.

Delfos handles the company's sales and marketing, with the Production Manager responsible for the factory's day to day operations.

"Most of our sales come from word of mouth and from our website," says Delfos. "We thrive on challenges and everyone in our team works together to achieve success by providing custom-made products for our clients, on time. Our strengths lie in working with clients to design components and tools in line with our CNC machines' capabilities."

On the export front, Avtech has been making model jet engine components for a Singapore company, as well as parts for diving re-breathing equipment units for a UK business. Manufacturing 10,000 brass standoffs for China, was a surprise project, reveals Delfos.

"Whilst exporting is not high on our priority list, we have had surprising success in areas that we are good at, and as usual, the exchange rate has a huge effect on being commercially viable," he says. "We built our business by providing value to our customer. By encouraging and supporting our employees to gain more knowledge, in turn they help the company grow.

"If you look at our logo, there are two grey lines that make up the right-hand side of the letter A. The higher darker stripe is us, being at the pinnacle of our industry, and the other lighter one is our client. As we come down the path together we work to achieve success at the crossover, which now puts the customer on the top, and being longer than the darker line, now places them ahead of their field."

Avtech puts a lot of effort into this and sees customer relations and its skilled employees among the main reasons for its ongoing success.

"Our forward plans are to continue to improve our systems and conduct staff training to meet our expanding markets," Delfos says. "We will continue to look at and invest in the latest equipment to support our clients' increasing level of requirements." **AMT**

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