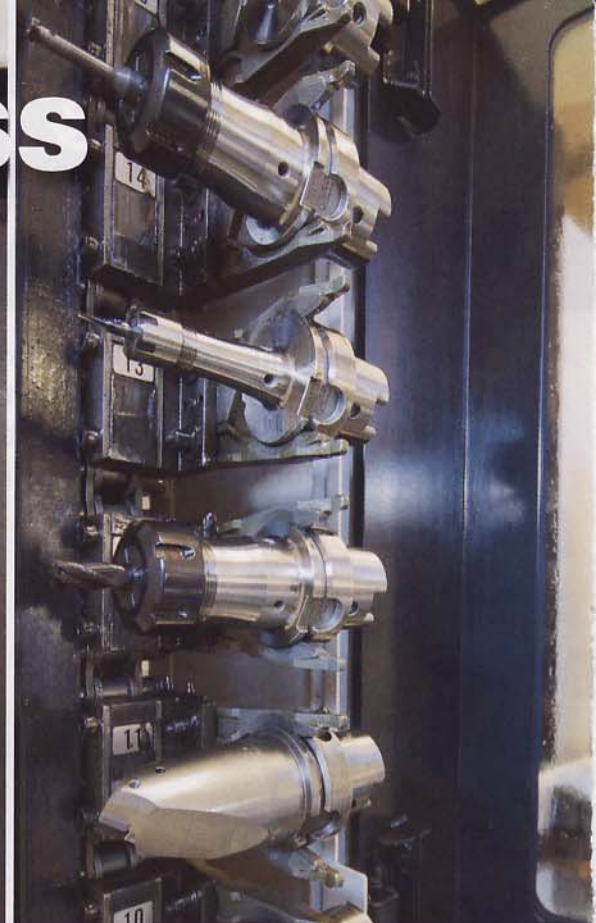


Good business partnerships



The prompt delivery of tools to a manufacturer is as important as the on-time delivery of the parts it makes

Now entering its fourth decade of business, the Horndean-based precision engineer Di-Spark puts its success down to the 'founding values' of the business — in particular partnerships and use of the best available technology.

Beginning life as a small, sub-contract supplier of wire-eroded components for the local tool-making sector, Di-Spark initially invested in two Fanuc wire-cut EDM machines. The company subsequently added solid-sink EDM to its capabilities; this necessitated the manufacture of electrodes and fixtures — plus the associated addition of metal-cutting machines.

The new milling and turning capabilities opened up new opportunities for Di-Spark and, under the guidance of managing director David Light, the machining of components became an increasingly important part of the company's operation. From what was 100% EDM when the business was formed in 1980, the split between EDM and metal cutting was even last year; it is predicted that advanced metal cutting will generate 60% of Di-Spark's turnover in 2012.

In recent years, investment has focused on five-axis machines and multi-tasking machines, driven by the need to reduce costs and to re-engineer manufacturing processes. Mr Light says: "We have made significant investments for a company of our size. However, I view it as essential to continue to buy what I see as the best equipment for the job. We could have bought a greater number of less-capable machine tools, but that would have been short-sighted in my

view, as it would have required more labour and a greater number of set-ups to machine the same parts that we can now do in one hit.

"We have always based our business philosophy on striving for world-class performance. There was one area where my father, who started the business, varied from a traditional tool-making perspective: he was adamant that, to succeed, you had to take labour out of the job. That is why we have always looked to our machine and tooling partners to support us."

Sporting analogy

Mr Light suggests his machine tool investment is analogous to that of a football team: the EDM equipment is the equivalent of the seasoned journeyman professional footballer, while the multi-axis metal-cutting machines are the star performers that will win games in a moment of brilliance. These star performers include eight Mikron five-axis machining centres and a multi-tasking Mazak Integrex j-200 — the latest 'signing'.

This 'combining of two machines into one' is allowing Di-Spark to produce complex high-value components competitively and adding value rather than driving prices down. This approach has seen the business re-organised into four distinct manufacturing cells, each of which focuses on a small number of key customers in a variety of industry sectors. Di-Spark has also concentrated on a working with a small, specialised, group of suppliers capable of providing the levels of support and technology that can enhance Di-Spark's offering to its customers.

About four years ago, Mr Light was becoming frustrated by the lack of availability of cutting tools from the company's existing supplier; it was necessary to over-order tools — just in

case. The solution was to switch to Sheffield-based WNT (UK) Ltd (Tel: 0800 073 2073 — www.wnt.de/em-en/) and install one of its tool-vending systems. This allowed Di-Spark to make full use of the ability to stock these machines at no cost, paying only for the tools used. Tooling costs were reduced dramatically, and the availability of tooling was virtually 100%. As a result, WNT vending machines are now installed in each of Di-Spark's four business units. "Vending seemed so obvious to me. It followed the exact same principles that we were working to, namely using technology to remove labour from the process and ensuring continuity of production."

Tooling package

WNT (UK) not only supplies the cutting tools but also tool-holders, which on the five-axis Mikron machines are HSK-based. In fact, these tool-holders influenced Di-Spark's choice of the Mazak Integrex j-200, because it was available with an HSK spindle as an option, allowing existing tool-holders to be used for the milling operations; turning was another issue. When Di-Spark ordered the machine, WNT had just introduced its full range of HSK-T tool-holders, which are specifically designed for turning applications on multi-tasking machine tools.

Until the introduction of HSK-T, users of multi-tasking machine tools had been limited in their choice of spindle interface, which resulted in increased tooling costs on new machines. The development of the ISO standard HSK-T opened up the market and created a more-competitive tool-holding environment, as users of multi-tasking machine tools now have a choice of spindle interfaces that are compatible with existing HSK spindles and tool-holders.