Distant shores

There is an ever-growing contingent of enterprising sub-contractors in the UK establishing manufacturing facilities overseas. Steed Webzell explains why, where and how

The old adage, “If you can’t beat them, join them”, might be regarded by some as a statement of resignation, others would call it “smart”. Western OEMs have flocked to low-cost regions such as Eastern Europe and the Far East. So what about their UK suppliers? Where volumes and lead-time allow, UK machine shops will struggle to compete with rivals operating in low-cost economies.

Certainly, automation can help, but much more is required to balance this particular equation. Indirect labour such as management, as well as the costs associated with energy, premises and taxation, conspire to make it hard for UK sub-contractors to offer globally competitive component prices.

MORE GO OFFSHORE
Some are turning to offshore manufacturing as the solution. This can involve establishing production subsidiaries or creating machining collaborations with overseas partners.

One such company taking the former route is Techno Group which, in the UK, comprises Rugby-based Technoset Ltd and Technoturn Ltd of Hastings. The group specialises in the manufacture of high-precision components for the aerospace, fibre optic, telecommunications, defence and medical industries.

“We needed to release capacity within our two UK group companies to cope with increased demand for high added value components that cannot easily be outsourced elsewhere,” explains group director Fred Moser. “Therefore, we now outsource offshore higher volume but lower margin products manufactured from easy-to-machine materials.”

A few years ago, Techno Group established its own manufacturing facility in south east Asia. The factory was populated mostly with non-CNC sliding-head machines such as Tornos or Bechler models that were used at the group’s UK facilities until approximately 10 years ago. Currently Techno Group’s Asian facility employs around 85 people.

Selecting the contracts to place offshore is straightforward, says Mr Moser. “High added value components in difficult-to-machine materials requiring micron tolerances, traceability and highly skilled setters and operators are, without question, made here in the UK in one hit on the latest CNC machine tools.

“The components we outsource to Asia are simple parts where total micron quality is not an issue. However, I must stress we do not abide rejects. Quality is still a requirement and parts must be to specification, albeit to wider tolerances.”

The major benefits for Techno Group customers are that parts are produced in the most cost-effective location and subjected to the group’s own strict quality controls before despatch. Customers also have one point of English language contact.

THE RIGHT CONTACTS
Mr Moser cites finding the right trustworthy people with whom to establish a working relationship as one of the obstacles to taking the route travelled by Techno Group. But the group’s approach has clearly paid dividends, with offshore manufacture now a popular service with its growing customer base.

Negotiating a similar path in recent years is Oxford Engineering, which generates a turnover in the region of £8 million and employs 100 people at its Abingdon headquarters, four miles south of Oxford. The company describes itself as
Baltic state of mind

Estonia now has one of the most open economies in the world, ranking fourth after Singapore, Hong Kong and Malaysia, and it benefits from liberal trade and investment laws. Average labour costs of some £480/month, high skill levels and a Scandanavian work ethic have attracted more than 5,000 foreign investors.

The country’s competitiveness is supported by a developed infrastructure. Privatisation has been pursued aggressively with the private sector accounting for 90 per cent of the economy. Joining the EU in May 2004 has brought a further boost to trade, although there is pressure from Brussels to bring taxation into line with other members which could put a brake on growth.

For the UK, Estonia is positively ‘next door’ compared with China or India. Flight times are only two-and-half hours and road transport to the UK is just six days or less, door to door.

a specialist in lean manufacturing, supply chain management and precision engineering. Industries served include aerospace, medical, cryogenic, semiconductor, and oil and gas.

Responding to a delegation from Estonia to Oxford in 2004 (see box, above), and after fact gathering and exploratory visits to Estonia by Oxford Engineering personnel, the company was sufficiently encouraged to select Estonia’s second city of Tartu as the preferred location for its offshore venture to provide its customers with low-cost manufacturing and supply.

Not unlike Oxford, Tartu has a population of around 100,000 and is home to the premier university of Estonia. It was, in fact a centre of high-tech manufacture in Soviet times, particularly in respect of aviation equipment.

In December 2004, Oxford Engineering Eesti OÜ was registered officially and staff were interviewed. In January 2005, company chairman and founder Alec Watts and his wife moved to Estonia on a permanent basis to oversee the establishment of the facility. In July last year, four CNC machinists were sent to England for training and, later in the month, a batch of machines was sent to the new factory in Tartu and manufacturing began.

ESTONIAN SUPPLIER NETWORK

Oxford Engineering Eesti OÜ was established to produce low-cost machined items and assemblies, primarily for the UK market. A supplier network is being developed and coached by Oxford Engineering to deliver ever higher standards of service. Recently a contract has been signed with a Tallinn company to supply stainless steel forgings at a much lower price than can be achieved from UK sources.

Although young, the service offered
by the new facility in Estonia is already proving popular. The company says that because its customers know the history and reputation of the UK facility, sourcing production from Eastern Europe through Oxford Engineering UK has proved to be a no-risk option.

**GO EAST YOUNG MAN**

For many UK sub-contractors deterred from establishing their own offshore facilities – generally due to factors such as time, capital and risk – a half-way house has been to create partnerships with established overseas manufacturing companies.

One sub-contractor pursuing this route is Ely-based Shearline Precision Engineering that describes itself as a total manufacturing solutions provider to differentiate its range of expertise from the standard precision engineering services offered by other companies.

“We like to add value for our customers,” explains sales manager David Lonsdale. “Whether that means helping to develop processes, designs or manufacturing requirements, we offer far more than simply a commodity.”

However, Shearline is well aware of the market for commodity services. “With globalisation there is pressure to be proactive,” says Mr Lonsdale. “We wanted to find a way of being competitive for purely transactional open tenders, where the customer is looking for the most cost-effective way to manufacture relatively simple parts or assemblies to a proven design.

“Initially we considered establishing our own company or a joint venture, but the investment required alongside the guarantee of success made us take the option of finding a partner to offer our customers a low-cost service.”

Shearline did consider Eastern Europe but with most countries in that region aspiring to join the EU, the company’s concern was that costs would increase due to rising affluence. Instead, it focused its attention on China (see box, above) which it considers will offer the longest term low-cost option.

Shearline made a “wish list” and commissioned a consultancy to screen a selection of manufacturing partners in China, which narrowed the search to three potential candidates. With permission, all three were given customer drawings to tender against, with target prices offered as a guide. From the results and subsequent visits to all three, Shearline made its decision.

“Ten months ago we struck an agreement with a large, financially stable manufacturing company located near Hong Kong – in fact it is listed on the Hong Kong stock exchange,” says Mr Lonsdale. “We see this company as offering a long-term capability that is very much in line with our own.”

However, he says that customers expecting everything to be sourced in China for a fraction of UK prices are sadly mistaken. “Many factors have to be right,” he clarifies, “including volumes, design, physical size, as well as the fact that the customer has to be able to withstand 10 to 12 week shipping times. Naturally air freight is a possibility, but it erodes the benefits gained by sourcing in China in the first place.

“Having said all that, there are, of course, many products that are ideally suited to low-cost manufacture in the Far East and now Shearline can help service this demand,” continues Mr Lonsdale. “The world has changed and will continue to change – UK manufacturers cannot just keep ploughing the same furrow. Shearline has demonstrated its initiative and taken a progressive approach to competing on a global stage.”

**GEARING UP FOR THE FUTURE**

Sub-contract gear manufacturer, Stockport-based Mini Gears, was an early mover (see Machinery 18 July, 2003, page 8). The company set up an operation in Shanghai with the aim of sourcing volume gears, machined parts and castings. Mini Gears appointed a purchasing manager based in Shanghai, Jason Chen, who is both a qualified engineer and a fluent English speaker.

Both Mr Chen and the directors of Mini Gears visit Chinese suppliers on a regular basis to review their capability, quality systems, production equipment, capacity and ability to export. But other companies are also being proactive.

Slowly but surely, sub-contract machining companies from all corners of the UK are establishing Chinese sourcing services, including Teesside-based Cleveland Components Ltd, Evans Engineering of Liverpool and Shakespeare Engineering Components located near Chelmsford. Some others will not speak about their offshore activities, however.

What is certain is that the component manufacturing map has changed forever. And while many state that China’s competitiveness will decrease as its wealth increases, there will surely be other ‘Chinas’. Offshore manufacturing is no longer only a threat to sub-contractors, it is also a weapon.