

The High-Tech way to bridge the skills gap



WNT's is Europe's leading full service precision metalcutting tool supplier. It has achieved this position through its drive to provide the highest levels of product quality, an extensive range of cutting tools and equipment and, uniquely, a team of apprentice-trained technicians that assists its customer base of small to medium-sized manufacturing companies with sound cutting tool selection and application.

The in-house training of apprentices in the UK is typically the domain of large OEMs who have the financial support to provide the necessary infrastructure.

However, High-Tech Engineering is setting an example to small and medium sized businesses through its commitment to apprentice training.

Steve Tickner, High-Tech Engineering's Managing Director, is determined to protect his business from the chronic skills shortage here in the UK. He is committed to training all of the skilled employees that the Houghton Regis, Bedfordshire-based precision sub-contractor could need. However, what makes this strategy more interesting is the fact that of the 28 employees of High-Tech Engineering, 11 are apprentices. "We had to ensure a continuous flow of multi skilled employees to secure the future of the business," says Steve Tickner. "and the only way we could see of achieving that is to train them ourselves."

Although the company's aim within the next four years is for every employee to have been through the company's Training Academy, Steve Tickner acknowledges that not every student will be able to benefit from a job at High Tech Engineering at the end of their five-year apprenticeship. However, the training that they are receiving is working in their favour and is being

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6 The Diploma will enable us to identify young people who are genuinely interested in engineering as a career.



recognised by local education departments, businesses and the sector skills council SEMTA* in Bedfordshire.

For example, when one trainee left to take up a position at a Formula One team, High-Tech were extremely pleased to receive a letter from the Senior Manufacturing Manager outlining the high quality of training they had provided. It also gave a glowing commendation of the High-Tech Engineering initiative and refers to the possibility of the company becoming a future training partner for the team.

Every High-Tech Engineering apprentice is presented with a traditional Indenture Certificate when they complete their training, although the company accepts that this on its own could be viewed as worthless in the open job market. However, Steve Tickner also provides apprentices with a portfolio that details their experience, highlighting the machine tools they have worked on, the CAD/CAM systems they are familiar with, and other relevant information of value to both to the apprentice and potential employers.

The Training Academy is an extremely serious aspect of the company's business plan, costing about £90 000 per year to run and represents a significant investment for a family-run concern. As any other business investment, they expect to see a return which is a steady stream of locally based multi-skilled engineers. A dedicated room in the Training Academy contains

a Haas CNC machining centre and CNC lathe. Upstairs is a classroom environment where apprentices do theoretical work as well as learning the intricacies of programming using two CNC control simulators that mirror the controls on the machine tools downstairs.

The investment also includes the appointment of John Chopping as the Academy's Training Instructor. An ex-NVQ assessor from Aylesbury Training College, he has worked alongside Steve Tickner to create a training program that is tailored to produce highly skilled CNC machinists required for the company's expansion plans. This also dovetails perfectly with the company's overall quality and operational standards, and active participation on the Aerospace SC21 (Supply Chain 21st Century) Improvement Programme. Steve Tickner is extremely proud that High-Tech Engineering is the first precision engineering company to receive a Bronze SC21 award in September 2008.

SC21 and the Training Academy are all part of the bigger picture for High-Tech Engineering, which has recognised that it has to constantly develop and improve, and that the encouragement of new recruits and development of skills is crucial to that strategy.

Unlike traditional training centres High-Tech Engineering takes a very practical approach. Following initial training apprentices become part of the day-to-day production environment - an approach that Steve Tickner sees as having numerous advantages. "Once we are certain apprentices are confident in their own abilities, I see very little sense in continuing to present them with meaningless training tasks to complete. For example rather than have them producing test pieces as a gauge of their ability, we identify simple production parts on longer lead times for them to produce under our normal manufacturing procedures. This way they understand the need to produce components correct to drawing with all the associated inspection checks, etc. that are essential for manufacture." Apprentices then realise the importance of what they are being asked to do, a genuine work ethic is also instilled in them and, with the correct supervision in place, they contribute directly to the cost of their training.

Because of some of the challenging materials being cut at High-Tech Engineering, the Academy also has the advantage of being able to call on the extensive knowledge of its

suppliers, such as cutting tool specialist WNT (UK).

A case in point is Duncan Slough, the local Technical Sales Engineer for WNT (UK), who has a very close working relationship with High-Tech Engineering. He is frequently found on the shop floor offering the benefit of his extensive cutting tool knowledge, particularly with regard to the aerospace materials that are a common feature of the components being machined. This knowledge is cascaded into the Academy and is of real benefit to apprentices as they become involved with the latest cutting tools and techniques.

In addition to the latest in metal cutting technology the Hi-Tech Engineering Academy also makes full use of the latest tool management technology, having recently installed one of WNT's Tool Service vending units. By having this system in the Academy the apprentices are faced with the same situation as their colleagues on the shop floor and gain a genuine understanding of managing tools.

Having started the Training Academy to develop highly skilled CNC machinists specifically for their own purpose High-Tech Engineering has now, with the help of Semta* and EAL** an awarding body, been approved to deliver NVQ's which is a reflection of the quality of the training being delivered. This excellent Training record was also made aware to local MP, Andrew Selous, who has been instrumental in involving the local authority along with the Learning and Skills Council in inviting High-Tech Engineering to become part of a consortium bidding to deliver the new Engineering Diploma for 14 to 19 year old students in Bedfordshire.

"The Engineering Diploma is the best thing I have heard of in a long time," enthuses Steve Tickner. "For us it can identify students who, at the age of 14, show an particular interest in the subject. More importantly, the Diploma will enable us to identify young people who are genuinely interested in engineering as a career. In return we are able to give them the training that they need to succeed and provide a direct route into full-time employment, which is fantastic."

The Engineering Diploma system will contrast with the current situation at High-Tech where the initial drop out rate can be relatively high, as Students begin to fully understand their career choice. "We are really encouraged by what is happening with the Diploma system and are pleased to be in at the early stages," says Steve Tickner. "Our plans include a possible 3000 ft² extension to the Training Academy, which we will achieve with the support of suppliers such as WNT (UK).

