

Double bubble

A rationalisation program implemented at Chard subcontractor, Metaltech, has resulted in the number of different tools used by the company being reduced from 400 to 250. A welcome additional benefit is the cost savings made on monthly tooling expenditure, which equates to around £2,000. Solutions reports.

In today's tough operating conditions, cost cutting is a part of everyday life, but in Metaltech's case, tooling rationalisation has led to increased productivity due to more appropriate tool selection and the use of Iscar SumoTec grades which are delivering faster cycle times. The changes followed a company-wide audit and programme of process optimisation by applications engineers from West Country Tool Company in conjunction with Iscar Tools, which now supplies 90% of the cutters.

Contributing further to higher production output is a marked reduction in machine idle time. This follows the installation of two computer controlled Matrix tool stores, to house indexable inserts, solid carbide cutters and toolholders. The stores are provided and managed by local Iscar supplier, West Country Tools, under a commodity and tool management service that involves the integrated supply of all tooling to Metaltech, including the minority sourced from suppliers other than Iscar.

Better all round

The improvement to Metaltech's bottom line is significant and helped further by two benefits in addition to the lower monthly expenditure on tooling. Firstly, there was a windfall saving of £20,000 in the first few months, while the stock of cutters that the subcontractor owned were transferred to the Matrix stores and issued on free vend. Secondly, while 10 man-hours were previously spent reordering and managing tooling stock levels manually, just two hours are now needed.

CNC turning section supervisor, Steve Larcombe, who is responsible for managing all of the lathe tooling, says: "We used to have 400 numbered plastic bins containing between five and 20 inserts each and I had to open every one regularly to check how many were left."

"It took me five hours a week to identify what needed restocking, make lists on a Monday and again mid-week, have the office email the orders to West Country Tools, check the deliveries when they came in and put the tooling away. In contrast it takes me just one hour to manage the Matrix

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system – a five-fold time saving. The person that looks after our machining centres is making a similar weekly saving in the number of hours spent administering prismatic cutting tools. It means we both have more time for other things, such as improving tool selection and usage on the shopfloor and problem solving."

Delving a little deeper into operating conditions before and after installation of the Matrix tool stores, some marked improvements are revealed. Mr Larcombe reveals that he would have had to check each of the plastic drawers twice a day to be certain that inserts would not run out, which would have been very time consuming.

Therefore in practice, tips would be unavailable to continue a machining process on a few occasions every month

– often during or just after a night shift. Metaltech nearly always circumented the problem, by perching temporarily using a worn tip or changing the grade and holder, but both solutions compromised productivity.

Systematic approach

There have been no reported stock-out occurrences since the Matrix tool stores were installed at the end of 2008. Operators and setters access the stores using unique passwords that provide different levels of authorisation, while Mr Larcombe has supervisor level access to allow him to reconfigure the software.

The touchscreen and logical menu system afford simple tool location identification. Only the compartment in the drawer that contains the selected item will open, so other tools cannot be taken at the same time. The number and type of tool removed is entered via the screen, so there is an up to date inventory permanently in memory of exactly what is in each store.

West Country Tools interrogates the inventories regularly from its offices in Newton Abbot and visits twice weekly to top-up stocks to the agreed levels. The Friday visit doubles as a management meeting. In addition, the local Iscar sales engineer is on site every one to two weeks to introduce the latest cutting tool technologies that can save further costs.

As with most tool vending

systems, Metaltech does not pay for a tool until it is taken out of the store, so any opened packets of unsuitable inserts for the company's applications are no longer wasted – they are simply returned to the supplier at no cost to Metaltech.

Conscientious accountability

On the first of every month, a report is generated automatically and transmitted to the mobile phone of Metaltech's owner, Steve Hill. It contains itemised information on the number and type of inserts removed from the Matrix stores during the month and by whom, the cost of each type of insert used, the cost of all inserts taken out by each employee and the grand total for the month.

When a Syspro enterprise resource planning and supply chain management system from K3 comes on-stream mid 2009, the link to the Matrix stores will expand the information available to include tooling costs associated with each job, as well as labour and material costs. A scanner, already supplied with each Matrix store, will read a barcode on the job sheet to provide the necessary data input.

Mr Larcombe observes: "Operators have really started to think about what they are taking out of the stores, now that they are visibly accountable. Gone are the days when someone would select an inappropriate tip for a job or



take a few extras in case the inserts ran out during a shift. With the new system, everyone knows that items will always be there when they need them."

Metaltech says that it has been the success of its business over the past two or three years that prompted changes to its tooling management. The number of machines on the shopfloor has increased by a quarter in that

period and two shift working has given way to round-the-clock production on weekdays. Tool vending systems are really the only effective way of monitoring usage during the night shift, when supervisory staff are usually absent.

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