

Manufacturing still core

600 Group recently took time out to underline its UK manufacturing credentials, insisting they are still very much at its core. Andrew Allcock reports

Least anyone thought they were being overshadowed by sales company developments and outsourced product initiatives, 600 Group, in November last year, turned the spotlight on its UK manufacturing activities.

"Manufacturing has to remain the core of the business," 600 Group chief executive Andrew Dick declared. And marketing director Dr Stephen LeBeau underscored that by saying that the credibility the company has in the market place is enhanced by its status as a manufacturer, as opposed to being solely a machine tool reseller.

NEW HOME; BUT NOT YET

Mr Dick did admit that the manufacturing site in Heckmondwike "is not the facility we would wish for today if we started with a blank sheet". But while the company will eventually be moving from the 110-year-old, 180,000 ft² site to a new home, geared to the assembly of its middle-to-high level Colchester-Harrison CNC lathes, for the moment, great efforts are being expended in improving the look, feel and efficiency of the existing facility. The improved product quality, customer service and responsiveness goals will "deliver our customers products that will help them remain competitive in Western markets", affirmed the chief executive.

While the 600 Group has the 'value' Clausing and new China-made/600 Group-designed Dalian machine tool offerings which it unveiled at EMO, and high technology solutions business built around products such as Mitsui Seiki machining centres, Dr LeBeau pointed

out that products manufactured at the Heckmondwike factory, the Colchester-Harrison medium technology CNC turning centre ranges – Alpha and Tornado – plus the outsourced Storm machining centres and manual lathes, together represent 80 per cent of the Group's machine tool sales revenue.

Production activities undertaken at

Heckmondwike for the Tornado and Alpha CNC lathes comprise some machining of castings and components, sheet metal production and guard fabrication, painting, CNC panel building and final assembly.

Over the past five years or so, there has been significant change at Heckmondwike, managing director



Moving to a make-to-order manufacturing environment has seen production on the company's Mitsui Seiki FMS retooled to support the delivery of machine sets of parts

Jonathan Shaw offered. Manual lathe machining and assembly have been discontinued, seeing the elimination of some machines from the machine shop. Sheet metal/guard fabrication has been brought in house. Electrical panel build has moved in from a separate site. And flowline-type assembly, applied to manual machines, has given way to static build of CNC machines.

WORLD CLASS TASK MASTER

Most recently, a physical re-arrangement of facilities has helped workflow, with this allied to a major change being spearheaded by recently appointed operations director Richard Wingate, namely that of moving the company from a make-for-stock to a make-to-order operation. Mr Wingate – tasked to drive forward world class manufacturing at Heckmondwike – hails from Gardner Denver, a leading provider of compressed air and gas, vacuum and fluid transfer technologies.

The manufacturing environment at Heckmondwike has been shaped by the past, Mr Wingate explained. It was configured for mass production of standard machines employing batch production techniques. Production was sales forecast driven and material requirements planning – a push system – provided the production instructions. Flow-line manufacture where one man undertook one job resulted in employees with narrow skill sets and limited flexibility. Material supply was also batch

based, and the whole management set-up was hierarchical with many layers, he continued.

The present situation now sees a modern manufacturing environment applying 'lean' principles, as far as the current site/buildings allow. "We have recently moved to a make-to-order environment and we are applying a flexible planning process."

There are still separate skills in the electronics and software area, for example, but in terms of mechanical engineering, people now have a broader skill set offering greater flexibility, according to Mr Wingate.

Kan ban has been introduced between the Tornado build area and the machine shop and the fabrication shop; it is now being introduced between machine build and control system panel build.

But sales forecast-driven MRP is still used on long lead time items, although lead time reduction efforts are ongoing to try and get the majority of parts supplied in lead times that are "within customer expectations" so that machines will "genuinely be built to order".

In the machine shop, assembly, controls and fabrication areas, multi-disciplinary teams have been set up to drive continuous improvement, supported by internal and external training.

Operational managers are now also working more closely together; indeed have been physically moved closer together, and again multi-discipline



The flow-line has gone. Static build of the 600 Group's medium level CNC lathe technology, such as the Alpha (below), is the norm, as is assembly by multiskilled personnel

teams are working on a variety of projects.

CONTINUOUS IMPROVEMENT

Continuous improvement is measured against machine delivery lead time and product availability in the first instance, plus machine build schedule adherence. It is also measured against machine assembly time – end to end not in terms of required hours – with analysis of delays and their reasons, plus analysis of faults found in finish assembled machines and their source.

A specific target is to get a five-day end-to-end machine assembly time – currently it varies from three to 10 days, depending on machine. And a delivery time from order of two weeks is targeted for standard machines with off-the-shelf accessories. As for on-time machine



delivery, 65-80 per cent is currently achieved; not acceptable, says Mr Wingate, adding that it will be improved.

Key gains so far include a significant reduction in work in progress and something like a 25 per cent reduction in onsite stockholding through the introduction of kan ban practices. There is also a much more visible production control element to the factory, with material placed in designated painted squares close to its use – any build up or shortfall is immediately evident.

TRANSPARENT FACTORY

“The next big initiative will be to build on the accurate monitoring and recording of fault analysis in the manufacturing environment and start driving these down,” says Mr Wingate. And it’s worth mentioning that in addition to his appointment, there was also a board level

quality director position established last year, with ex-Peugeot, Ryton, quality director Denis Cairns joining in February 2007 to drive up quality internally – in manufacturing, design and customer service – and externally within suppliers.

Looking to the future, Mr Wingate highlights that the company will move to a full demand flow, ‘pull’ environment which will involve new integrated IT systems that will allow suppliers to ‘see in’ and obtain demand requirements while also allowing customers to ‘view’ machine progress.

A reduced supplier base will be part of a better integrated supply chain, and having moved to a more visible planning system, a next move will see a fully dynamic planning package adopted. Further personnel training will take in not just the shopfloor but also others, “bringing the team ethic to all areas of

the business”. And this new mode of operation will ultimately reside inside a new site for the Group’s CNC lathe manufacturing activity.

NEW FACTORY COUNTDOWN

“Over the next 12 to 24 months, the challenge will be to identify a site and then construct a modern manufacturing facility within it,” says the operations director. The new site, which will be in Kirklees, close to the existing plant, will be smaller than the current one, probably around 100,000 ft².

So while the 600 Group’s UK manufacturing activities have narrowed, and while outsourced product announcements have recently been prominent, there is to be no break with UK manufacturing; indeed, an updated and renewed domestic manufacturing effort is demonstrably under way. □

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