

Case Study



TuftMaster system turns subjectivity into objectivity at Kingsmead Carpets

If you are in production management, how many times have you heard "the shift went well" or "it didnt go too well last night" but what does this mean?

Without the figures to substantiate them, these personal opinions can be meaningless.

Two and a half years ago, when Clem Parkes joined Kingsmead Carpets in Cumnock as Operations Director, there was no method in place to measure the performance of the tufting machines or the backing plant. "We needed a system that could turn this 'subjectivity into objectivity'", he stressed.

"When I was confronted by somebody telling me that 'it's not been too good', I needed to know what the problems were, what the down time was and what the machine utilisation was for that shift. It's impossible to do that without the real-time data to back it up."

"I'd used the Barco system before in the carpet industry and knew what it could do to monitor performance and help improve efficiency on the shop floor, so I put a case for it to improve productivity here." Kingsmead has fourteen tufting machines and a backing plant working two shifts, producing a range of carpets with a high percentage of wool rich products. These are distributed through wholesalers, high street retailers and specialist customers, like housebuilders.

Based on Windows NT with an Oracle database, the TUFTMASTER production monitoring facility will improve efficiency in the following areas: reduction in machine downtime, optimisation of machine speeds, real-time display of key operational information and improved planning and scheduling. "Having decided to use production monitoring, it is important to introduce it in the right way," Clem maintained.

BARCO

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....before TuftMaster, utilisation was 60%, now we regularly report 92%....

Clem continued, "If it is thought that it is a 'spy in the cab' then it won't be used correctly. When I proposed the system at Kingsmead, I focused on two areas. We sat round the table and explored the benefits from a raw material and machine efficiency point of view. It was agreed that we had to move into the 21st century. It was also agreed that the machine monitoring system could, in fact, raise standards by measuring good operators as well as poor ones. I know from past experience that you cannot rely on the impression you get from walking round the shop floor. Sometimes I've thought this machine or that operator isn't performing well, only to be proved wrong when I've read the TuftMASTER report the following morning. Secondly it would highlight any raw material difficulties, which could be used to demonstrate problems to yarn suppliers. This was well received because everyone complains about yarn and it is useful for me to compare one supplier against another. If we have a yarn problem and call the supplier in, then it helps if we can prove that a machine is only running at 17% utilisation because of the breaks at the needles."

From the data that the TuftMASTER system provides, Clem knows the square metres per hour, the linear metres for each shift, the stitches per minute, the run time, the machine stoppages and the reasons why, the availability of the tufting machines minus not planned and the machine utilisation in percentage terms.

About Barco:

Barco, an international company headquartered in Kortrijk, Belgium, provides visualization and display solutions for professional markets. Barco designs and develops solutions for large screen visualization, display solutions for life-critical applications, and systems for visual inspection. Barco has a network of subsidiaries, distributors and agents in almost 100 countries. Barco is quoted on Euronext Brussels and is a BEL 20 and a Next 150 company.

"I can measure our performance against an expected standard and see at a glance how well we are performing. If we can achieve 60% utilisation on the eight machines that are in constant use, then I'm delighted," he continued. "We trust the operators to key in the correct reason for the stoppage on the Barco DU5 boxes which are on each machine but this is the only manual intervention. When we first set up the system, we had thirty reasons for stoppage but this was far too many and so we've reduced it to twelve, which are the really important ones."

"Once the system is installed you need to select somebody to champion it. Liz Donnelly, our Customer Services Co-ordinator, who has the server in her office, is referred to as 'Betty Barco' because every morning she checks the reports and produces performance pie charts, which she shows to the operators concerned. Doing this provides an element of competition between the machine operators and between the shifts. At the same time everybody knows that if they don't use the system properly, then Liz will chase them up."

All the reports are sent on a daily basis to the IT Manager at Kingsmead head office. "These reports are very useful throughout the year as a lot of information is collated from them. They are particularly useful at budget time because I have the information to support any request or argument," Clem added.

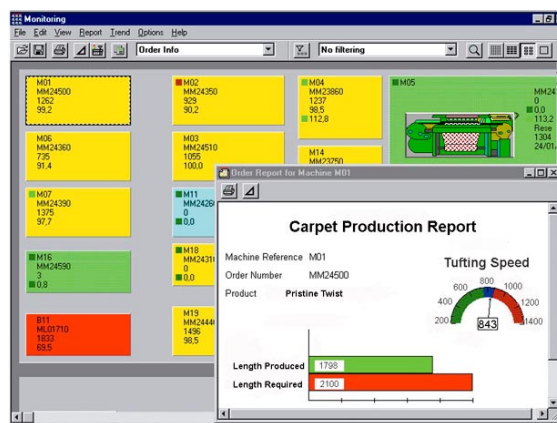
...the improvement has been phenomenal...

It's in the back in g department where machine utilisation has increased dramatically. "Before TuftMASTER was introduced machine utilisation was about 60% but now we are regularly reporting 92%. Pie charts are hung on the wall and there is a real sense of pride when they reach ninety percent plus utilisation. Obviously some machines never reach 100% because there are stoppages to change the hessian rolls and to inspect the quality but the improvement has been phenomenal."

"I can access the TuftMASTER system via a modem from outside the factory, which is a big advantage. Remote access is very useful because I dial in to see how the machines are running. There is nothing as powerful to a night shift than a call to ask why number 14 machine has been stopped for the last ten minutes!"

Clem's next priority is to add planning to the TuftMASTER system. "We are currently using another planning system but it makes sense to link the planning and scheduling within TuftMASTER. We already have the software - it's simply a question of resource."

"It's been a good investment for Kingsmead. Everybody from the management to the people on the shop floor realise that what gets measured gets done. As well as improving our productivity, actual data rather than guess work gives the company a much firmer footing from which to grow the business."



Barcovision Ltd
 Philips Road, Whitebirk Ind Est, Blackburn, Lancs, BB1 5SN
 Tel:+44 (0) 1254 662244 Fax:+44 (0) 1254 582595
 email: sales.dex@barco.com
 Registered Office: Registered In England No 1501885



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