

Plumbing manufacturer unblocks bottleneck after Made Smarter support

A major Dudley manufacturer with over 100 years of history is set to boost its productivity within its plumbing division after installing smart software on its manufacturing machines.

Thomas Dudley, which incorporates six different manufacturing companies including its plastics, water fittings, and iron foundry, was experiencing bottlenecks in its production facility that manufactures products for TYDE - one of the Thomas Dudley Group's business units.

Performance data from the plastic production machines could only be manually extracted and was at best 24 hours old.

Made Smarter West Midlands approved a £20,000 grant to help purchase a manufacturing execution system (MES) to allow TYDE's machines to collect performance data in real time, alerting workers to any issues instantly.

Peter Devine, Production Unit Director at Thomas Dudley, said: "The new system means we can spot issues with our machines as soon as they happen, which has made a huge difference to our productivity.

"Receiving the grant from Made Smarter helped make the decision to purchase the software that much easier."

The Challenge

Thomas Dudley has been trading for more than 100 years across several generations, supplying merchants and wholesalers not only in the UK, but as far away as Africa and the Caribbean.

Under its umbrella are six companies working in different areas of manufacturing: TDF Foundry, McDonald Diecasting, Waterfit, Rugby Plastics, Thomas Dudley Works, and TYDE.

It was in TYDE's production facility - which specialises in the production of over 6,000 plumbing products made from various materials - where an opportunity to increasing productivity was first spotted.

They identified that if there were any problems with its plastic injection moulding machines, they would not know about it straight away as performance data could not be collected in real time. Instead, workers would have to inspect the machines manually and extract performance data that was often old - meaning issues could be left undetected, negatively affecting the production line.

Peter realised that a modern MES would likely be the way to solve the problem.

Through the Black Country Growth Hub, Peter and Martin Dudley, CEO of Thomas Dudley, heard about Made Smarter and the support it offered in helping businesses adopt solutions like an MES.

Peter contacted Made Smarter through its website and was put in touch with Jit Gatcha, Made Smarter's Digital Transformation Specialist for the Black Country.

Jit organised a meeting with Peter and Martin alongside Tomas Novais, Senior Research Engineer at Made Smarter strategic partner, the Manufacturing Technology Centre (MTC).

Peter said: "We knew the issues we were facing, but we needed reassurance that we were making the right decision and the grant money that Made Smarter offered was very attractive.

"If we could remove this bottleneck, it would allow us to be significantly more productive and reliably fulfil orders much faster for our customers."

The Solution

Made Smarter discussed the kinds of MES products available on the market, analysed whether it would make business sense to purchase one, and offered advice on accessing grant funding.

The MTC also helped produce a 'digital roadmap' showing them the key steps to take after adopting the MES.

Peter and Martin decided to purchase the MES, and Made Smarter guided them through the process of applying for a match-funded grant worth £20,000 to help pay for the system.

Peter said: "The process was very smooth - Jit and Tomas were very helpful in taking us through the kinds of systems that applied to our business, and confirmed our initial thoughts that an MES would help solve the issues Thomas Dudley was facing.

"Jit's advice with the application process was great as seeing a long form with various questions

about your company can seem daunting at first, but he made it easy.

"The grant was approved very quickly which meant we could get on with purchasing and installing the MES."

Jit Gatcha added: "Thomas Dudley was another example of a business that knew where the problems lay, but were a little unsure about the best way forward.

"Our analysis showed an MES was indeed a viable solution for Thomas Dudley, and we took them through the grant application process step by step to help pay for it.

"Many SMEs in manufacturing simply don't have the time or money to make these important purchases, so we're delighted to have helped Thomas Dudley take that next step.

And Tomas said: "The real-time data collected by the MES on the plastic injection machines is a great example of how digital technology can help transform a business's productivity.

"Spotting problems as they happen and fixing them straight away will make a big difference to Thomas Dudley's bottom line."

The Benefits

Peter estimates that productivity has increased by around five to seven per cent as a result of the MES's implementation, which is almost fully complete.

It will also allow the business to focus on fulfilling more orders and upskilling its staff to become

more confident with digital technology.

He said: "For a business like ours, that extra five to seven per cent increase in productivity will make such a difference in the long run.

"Even though the system is not quite fully integrated yet, we are already seeing positive effects and our staff have realised how much easier their jobs are as result. We are becoming more proactive rather than reactive.

"We are also devoting more of our time to training our staff in digital technologies like MES systems so we can adapt in the future.

"Made Smarter was fantastic to deal with throughout the process. They made everything simple and, if we had any queries, Jit was just a phone call away."

The Future

Peter is confident the MES will enable Thomas Dudley to focus on growth thanks to the efficiencies it will bring.

"We can now fulfil bigger orders for our customers thanks to the increase in capacity from the MES," he added.

"And with our new approach to upskilling our staff, we will be able to cope with any future technological advances knowing we have the skills in place to use the new technology effectively to its full potential.

"It's a really exciting time for Thomas Dudley and TYDE as a whole. I have to thank Jit, Tomas and the Made Smarter team for their support with everything."

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Jit Gatcha (left) with Peter Devine viewing the outputs of Thomas Dudley's new MES.

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