

Case Study: Produmax

Aerospace specialists Produmax invest in Seiki software to future proof their business

West Yorkshire based Produmax has its sights set firmly on the future. With a company vision statement to be “Engineering Superheroes” this is a company with an ambition to go further and faster than anyone else. Specialising in high precision engineering, Produmax has focused heavily on optimising its manufacturing operations and using the latest technologies to stay at the leading edge. This has resulted in investments in a new modern facility, CNC machine tools and handling systems, and Seiki software to visualise and improve the productivity of its resources.



Complete shop floor system

The Seiki manufacturing system was first introduced when Produmax was operating out of two factories in Yeadon and Otley. A two-phase implementation saw the complete shop floor system, which included DNC, machine activity monitoring and SFDC/WIP booking with performance analysis, installed to nine machines at the Yeadon site. The original intention was to then roll-out to the remaining fourteen machines after moving to the new facility in Baildon but they were already seeing the benefits and decided to avoid delays of the move and get both sites connected.

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Operations director Paul Birtles explains, “The last few years have seen some significant changes for Produmax and we’ve embarked on a major process of business transformation. Our philosophy is very much about doing this every day in small, achievable chunks as one team. The Seiki system has been a key part of this, helping us to drive changes with data and process support. The fact that you could store all the job information, monitor machine activities and deliver prioritised electronic work queues was attractive as we were moving to paperless systems. Seiki was going to be the driver behind it. It really turned us around, giving us the measures we’d never had before.”

Having completed the relocation into the new £3.1 million factory in early 2016, Produmax then focused on optimising the flow of parts with the help of the government backed Sharing in Growth Aerospace supply chain competitiveness programme. Operating cells structured around key product groups was the first step in reducing cycle times. The next stage is to analyse the downtime of their machines to uncover further improvement opportunities.

Paul continues “One of the key selling points of the Seiki system was that it is very much machine centric. This really makes a difference when you’re working on continuous improvement and lean initiatives. We’ve got a good amount of machine activity data to work on having used the Seiki Monitoring to capture non-productive times and reasons. As the business develops, and with more resources to manage, including the introduction of unmanned machining, understanding where our problems are coming from is becoming more critical. With the whole team focused on keeping the spindles running, the machine operator’s ability to feedback downtime reasons helps us to work smarter and find even the smallest opportunities for improvement.”



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The designated “Seiki Guru” Iain Evans, who is responsible for extracting data from the system and doing the BI continues, “Being proactive about machine downtime means that we have to work closely with the production team to ensure the right information is going into the system. As a business all our KPIs are based on production data so it’s essential that it’s as accurate as it can be. As we start to understand where our bottlenecks are, whether that’s machine breakdowns or time spent on non-machining resources - we’ve recently extended the system into inspection, assembly and blending – we will be able to identify our next priority target for improvement.”

Each day starts with the machine operators meeting in their cells to review the latest performance figures which are all generated through Seiki. This gets rolled through subsequent cell team leader and operations management meetings. Paul says, “Everyone has visibility of how well they’ve done. It creates a friendly rivalry between cells and naturally builds a momentum to do better. Every machine also has a prioritised work queue, which comes from the Seiki integration to our Aventa ERP system. It allows the operators to see what jobs are due and overdue, alongside all their production information, such as drawings and NC programs. We place a huge importance on teamwork and the fact that the Seiki system connects machines, people and processes in this way is a major benefit.”

Working in such a highly-regulated industry, control and visibility of every process, along with a traceable history is essential. An integrated manufacturing system does this. Paul concludes, “Seiki is now an integral part of the business, touching many different people and departments. It helps the team to measure productivity and make things happen – keeping the spindles turning. As the industry changes, and it will dramatically over the next 15 years with Industry 4.0, you can’t sit still. Our advanced manufacturing is technology and partnership based, truly collaborative, and our investment in Seiki is part of future-proofing our business.”

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As a proactive company, Produmax is always looking for the latest technology to help them stay ahead and drive work through the factory. The next logical and most recent investment has been Seiki’s graphical planning and scheduling system. Iain says, “We used to do our planning in Excel, exporting data from Aventa into spreadsheets and using Macros to analyse demand and progress but it wasn’t a particularly robust method. It didn’t really allow us to run the queries and reports that we needed. The Seiki Scheduler is much more flexible, with built in analysis and reporting features. It’s also much faster at processing large numbers of operations. The fact that its closely integrated with the other Seiki shop floor modules was a key factor. It really helps us build a more complete picture of future demand on each resource and what we need to do to meet the customer due dates.”



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