

MADE SMARTER

Whiteley Brooks Engineering In the fast lane to success

A Coventry business which has been busy manufacturing precision-machined parts for over half a century is gearing up for the next stage in its history after joining the West Midlands Made Smarter programme.

Whiteley Brooks Engineering, which was established in 1965, supplies high-quality precision engineering parts for the motorsport, medical, automotive, defence, diesel testing and new technologies sectors.

During the pandemic, the business diversified when they were asked by McLaren Racing to work alongside them on the Ventilator Challenge UK Project to provide ventilators for the NHS.

Now, the 37-strong team has returned to providing Two Axis CNC Turning; Three, Four and Five Axis CNC Milling; and Surface, Universal and Cylindrical Grinding services.

But, like many SMEs in the engineering and manufacturing sector, Whiteley Brooks Engineering wanted to improve its digital technology to continue to meet the requirements of its customers who are based throughout the UK.

After receiving an audit of their business from Made Smarter, Jat Purewal and his fellow directors have ordered a Nikken Five Axis machine which will be arriving from Japan in July 2022.

Jat said: "We are not a large corporate company so we don't have the resources to deploy people to assess the new technology we need to continue to make us competitive in our field.

"We are confident it will lead to further work since we will be able

to offer our customers a quicker and more cost-effective service."

The Challenge

The ambition of Whiteley Brooks Engineering was to introduce an electronic data system on its shop floor.

Their accountant made them aware of the Made Smarter project and after getting in touch, Paul Sullivan, Digital Transformation Specialist at Made Smarter for Coventry and Warwickshire, visited the business in Herald Way, Binley.

Paul arranged for Shailen Tailor and Steve Higham from Made Smarter's strategic partners, the Manufacturing Technology Centre in Coventry, to meet Jat to have a tour of their premises and find out more detailed information.

Jat said: "This is the busiest period we have ever had as a company particularly since we do a lot of work in motorsport and the F1 season has just started.

"We are finding that more of our customers are sourcing parts from the UK because of Brexit and paying more in customs duties which can lead to its own problems in sourcing materials.

"The main point for us in going down the digital route was to increase the digital memory of our machine tools and also reduce set-up times.

"The end goal is to put us in a more competitive place and we

knew we could only do that by improving our digital technology.

"Paul was really enthusiastic from the start. Once it was confirmed we fitted the criteria for the programme, we showed them our digital plans to increase our capacity and it pretty much aligned with the digital roadmap which was produced by the MTC."

Shailen Tailor, of the MTC, said: "The Whiteley Brooks visit was fantastic. The business was in full flow, and the premises were impressive; including the clean, tidy, and well organised shop floor, it was clear that quality was number one for this business. And there was lots of opportunity to help aid in their growth and to keep up with their impressive order book via digitalisation.

"Spending time with Jat Purewal at the premises and running through the current areas of focus really helped us at the MTC to diagnose where the next steps should be taken and to build upon the areas of change which were already being considered."

The MTC team, which was overseen by Senior Advisor Digital Transformation David Roddis, took the information from the site visit and discussions with Jat and worked on formulating a digital roadmap for Whiteley Brooks. The roadmap was then fed back and used to help Jat and his team focus on the next set of steps for digitalisation to release the potential for their growth as well as future steps over a number of months and years to progress on this digital route.

Steve Higham, of the MTC, added: "The team at Whiteley Brooks is really enthusiastic, driven and fully aware of the benefits of digitalisation, it was great to work together and help with their progress via the Made Smarter programme."

The Solution

Paul helped Jat complete an application for a maximum grant of £20,000 from the

West Midlands Made Smarter programme and after being successful, Whiteley Brooks Engineering has added a further £65,000 to order a Nikken Five Axis machine.

Jat said: "It was really useful to have an independent organisation such as the MTC come in and audit your business for free because when you are investing a significant amount of money you need to make sure that everything is in order and that you are on the right track.

"This machine will have more tools than the other machines we have and it will reduce the set-up time. It has bigger tool holders and a bigger memory which is crucial for us.

"It will reduce the amount of time we spend on orders which will benefit our customers and in the long-term, it will save on our energy bills as well as improve the environment because everything will be much quicker.

"Due to Covid, the wait times for new technology due to the chips needed means the Nikken Five Axis won't be arriving until July but our competitors are in the same boat, at least we have placed the order."

The Benefits

Jat said the new machine will have various benefits including quicker lead-in times and the cost savings would be passed on to their customers.

And he felt the whole process throughout the Made Smarter programme has been smooth and he was impressed that they were kept up-to-date with their grant application every step of the way.

"I would definitely encourage other engineering and manufacturing businesses to join Made Smarter," he said.

"Gaining the funding made a massive difference to a company of our size because it was a major benefit and it was also really re-

assuring to get external approval from Made Smarter and the MTC that we are doing our internal processes correctly.

"I don't think we would have bought this machine without Made Smarter, or perhaps not as quickly, but receiving the grant has reduced the amount of our investment and it now means we can bid for new business.

"Paul felt we were one of the more advanced businesses he had dealt with during the scheme and that gave us a sense of pride to have that acknowledgement and purpose for the future because we don't really know what other businesses are doing since you are so involved in concentrating on what is happening within your own walls."

The Future

Following Made Smarter's support, Jat is feeling confident about Whiteley Brooks Engineering's future.

He said: "We are being asked to manufacture complicated parts and cost, like with every business, is key so we will be able to quote the optimum price for each order which is to everyone's benefit.

"Our ambition is to have an electronic data system throughout the shop floor so that at any given stage we know where each job is at by looking at a PC through a bar code system. For a shop floor like ours that is really hi-tech.

"We need to have the capacity to get the work in to have the jobs and track this type of work but it will all come together through a digital programme over the next six months to three years."



From the left, Paul Sullivan (Made Smarter), David Roddis (MTC) and Jat Purewal (Whiteley Brooks Engineering)

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CASE STUDY