

MADE SMARTER

Barkley Plastics Driving towards future success.

A leading industry expert in plastic injection moulding and toolmaking is driving towards future success after installing a new robot thanks to Made Smarter West Midlands.

Barkley Plastics was set up by Maurice Harwood and three other ex-Lucas toolmakers. In 1965 they moved into a factory in Highgate Street, Highgate, Birmingham, which was previously a coach repair station, and has now evolved into a one-stop manufacturing and engineering business for mouldings for many industries including automotive.

Maurice's son, Mark, has been with the business for over 40 years, taking the role of Chairman since March this year. Since then, Mark's son, Matt, has been running the company as Managing Director alongside Operations Director Stephen Smith.

The factory houses 40 moulding machines to manufacture products for an ever-increasing range of sectors which include medical, construction, retail, industrial and electronics.

With the business looking to improve productivity they wanted to invest in another robot for a particular production line.

Made Smarter West Midlands approved a £20,000 grant to buy a six-axis collaborative robot and air curtains.

Matt Harwood, Managing Director of Barkley Plastics, said: "The collaborative robot speeds up our processes and has freed up staff who previously did this work manually, to work elsewhere in the business.

"The grant from Made Smarter has been a massive help and has improved our efficiency."

The Challenge

Barkley Plastics has been renowned for its automotive expertise in manufacturing everything from under bonnet components to cosmetic parts such as light guides.

It has started to diversify into other sectors to manufacture items such as orthopaedic items for the medical sector in the UK, China and the Dominican Republic, supplying products for underwater boat lighting and a tooling project to develop battery technology for agriculture and off-road vehicles.

The firm employs 96 people working three daily shifts and produces over 20 million components annually.

The business won a new contract to produce brake light components for the Nissan Qashqai and needed a production line dedicated to this piece of work in a busy factory.

Barkley Plastics is part of the Manufacturing Assembly Network (MAN) and heard about Made Smarter West Midlands through a presentation at one of its meetings.

Matt contacted Martyn Mangan, Made Smarter's Digital Transformation Specialist for Worcestershire, Greater Birmingham and Solihull, who came along to one of the largest toolmaking facilities in the UK along with Ioan Lutas from WMG at the University of Warwick, Made Smarter strategic partner.

Matt said: "We've always been keen on embracing technology, starting our digital journey some years ago with our Enterprise Resource Planning system so that we can see our on-time data, and it encouraged us to keep continuing investing in technology.

"We have been keeping our eyes out for technology which would make us work more efficiently and through our research, we wanted to invest in a six-axis cobot and have been looking into it for over a year.

"We have worked with WMG before on several projects over the past ten years so it was great to hear their recommendations through the digital roadmap."

Ioan Lutas said: "I appreciate Barkley Plastics is a forward-thinking company because they already had several robots in place in different parts of their factory.

"This collaborative robot will help to quicken up their processes in producing parts for the Nissan Qashqai and I wish every business would be open to digital transformation."

The Solution

Matt and Stephen took the decision to invest £20,000 in the six-axis universal cobot to add to the £20,000 grant from Made Smarter West Midlands. Stephen and his colleague David Littlewood travelled to Bedfordshire to complete their training to fully understand the capabilities of the cobot to maximise its use for the business.

Matt said: "This robot is used to carry out specific tasks. We have a cutting tool to remove the waste material from the brake lights and the robot picks up the components and runs it through

an air ioniser to remove the static. It then picks them up and puts them in a returnable container, which also helps with our Net Zero targets."

Martyn Mangan added: "Barkley Plastics was really open to new digital ideas having started investing in robots 18 years ago.

"We helped the team complete the application form for the match-funded grant and it is fantastic that the new robot is already having a positive impact on the business."

The Benefits

To accommodate the new cobot, the digital roadmap also made suggestions regarding the lay-out of the factory which houses over 40 moulding presses ranging in size from five to 650 tonnes.

Matt said: "This particular production line wasn't initially well structured but with WMG's ideas, we have made it more efficient by swapping certain machines around to make the most of the space we have.

"There used to be three operatives carrying out this kind of work – to cut, check and blow any dirt or dust off.

"Full-time we have now removed two people from this job who are now working in other departments and we have someone part-time spot-checking so it has been really beneficial in many ways.

"It has allowed us to take more work on, continuing to supply products that end up with such OEMs as BMW, Mini Oxford, and Jaguar Land Rover which is only seven miles away from us.

"Applying for the Made Smarter grant was easy, there was a clear roadmap with insightful diagnostics and everyone was very helpful."

The Future

Matt and Stephen are planning for future growth and are hoping to consult Martyn again in the second phase of funding from Made Smarter following the success of the first phase.

Stephen said: "We're continuing to win new work and we're branching out from predominantly automotive contracts, although do have new projects in the pipeline supplying to the automotive sector.

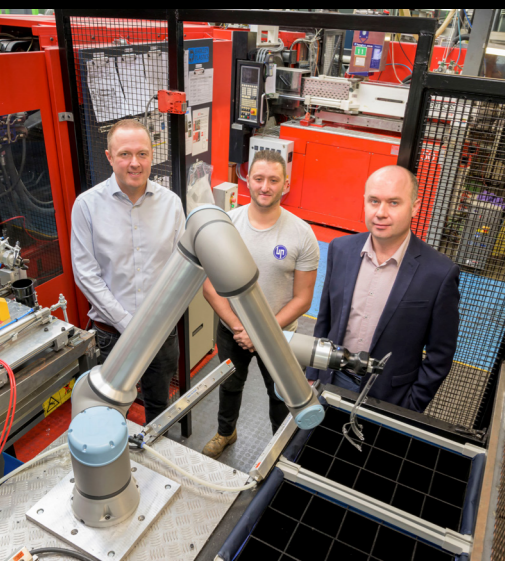
"We are concentrating on the growth of the business to make the most of our engineering knowledge and manufacturing capabilities.

"We are considering investing in a camera inspection system to further automate this production line, or advancing our 3D printing capabilities, so we are hoping to apply for a further grant from Made Smarter."

Stephen Harris, Account Manager for the Creative Industries at the Greater Birmingham and Solihull LEP Growth Hub, has expressed his excitement toward the success of Barkley Plastics.

He said: "Having previously supported Barkley Plastics, we are amazed to see family-run businesses excel in this way and to continue to create jobs, stay innovative and improve their processes.

"We are thrilled by their growth and look forward to the more technologically advanced manufacturing systems operating in the Greater Birmingham region. We will endeavour to provide free business support that contributes to the value of the region and intend to help businesses in any way possible."



From the left, Matt Harwood and Stephen Smith from Barkley Plastics with Ioan Lutas from WMG at the University of Warwick

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CASE STUDY