

## The Expanded Metal Company Investing in smart tech to future proof the century-old business

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The world-renowned manufacturer worked with Made Smarter Adoption North East to grow capacity in its business and position the company as digital champion.

Founded in the late 1800s, Hartlepool-based The Expanded Metal Company is a leader and innovator in the development and manufacture of expanded metal mesh products. The company worked with Made Smarter to address challenges around recruitment and retention, and meeting a major spike in demand.

Having already explored the adoption of smart technology but unable to agree on the right solution, The Expanded Metal Company worked with Made Smarter to introduce a digital tool that was both affordable, and would deliver growth in the business.

### The Challenge

In addition to the core of its business, which is the manufacture of metal mesh products, The Expanded Metal Company also manufactures disability ramps. A significant spike in demand for this product, and continued growth across the rest of the business, required additional capacity to support the company's expansion.

The Expanded Metal Company knew it had to look to technology to help find a solution. Ryan Pinder, Exmesh Operations Manager & Head of Continuous Improvement at The Expanded Metal Company, said: "We explored introducing a

robotic welder into the business, which would have delivered very fast and efficient results, but the infrastructure that's needed to run the equipment meant the investment would be much greater."

The company decided that wasn't the solution for them, but after attending the EMCON Engineering & Manufacturing Exhibition, Ryan spoke to a number of contacts and colleagues about another digital solution; one that was more cost effective and would meet the company's needs – cobot welding.

### The Solution

Ryan took his proposal for a cobot welder to the Managing Director of The Expanded Metal Company who made the introduction to Made Smarter Adoption North East via Teesside University.

After carrying out a bespoke digital roadmap, it was agreed a cobot welder was the best solution for the company. As well as increasing efficiency, reducing down time, and improving quality; the cobot welder also addressed The Expanded Metal Company's challenges around recruitment as it wouldn't require a qualified welder to operate it.

As part of the Made Smarter programme, The Expanded Metal Company was able to access a grant to part-fund the purchase of a cobot welding machine.

Ryan said: "One of the great things about the cobot is that it's able to do the things people didn't enjoy doing, meaning we can move staff onto doing more bespoke jobs, which helps with retention. It also means we can expand the business to take on more of those jobs too."

### The Benefits

As a result of the new cobot welder, The Expanded Metal Company has positioned itself as an innovative and future-thinking place to work as it's investing in new technologies. Apprentices and long serving members of staff have been excited by the new addition to the business.

Ryan said: "The cobot can produce a fence post in one minute thirty seconds – regardless of size – whereas it would have taken five-six minutes before.

"It also vastly reduces the number of jigs we need for each job. Previously we'd need around 25 per job, but the cobot only needs six – and one jig can do multiple different jobs.

"Overall, the quality of the welding is much better and there is little to zero splatter off the cobot. As well as making the manufacturing process quicker by reducing downtime in changeovers, it's also made it a lot safer too."



### The Future

When The Expanded Metal Company purchased its first cobot welder, everyone hoped it would be the first of many. Having seen the benefits, and how it can improve other areas of the business, The Expanded Metal Company is open to investing in more smart technology.

Ryan said: "Yes, we were anxious when we first got the cobot;

especially because we didn't have anyone in the business that had worked with them before. But now we could get a new cobot installed and be up and running in a week.

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