

## THE BRIEF

Autac is a leading designer and manufacturer of standard and bespoke cable solutions, partnering with clients across the world, delivering high-quality cable products, solutions and services from its sites in the UK.

Autac is a 3rd generation family-run business of nearly 60 years of experience and expertise within the cable industry and British manufacturing. A solution-driven business, with a focus on innovation, customer service and quality, Autac has been helping customers succeed since 1964.

Husband and wife team, David and Sallie Lowe bought the company back in 2016 with an average of £1.6m profit which has rapidly doubled to £4.5m turnover at the end of 2022. With the growing success and demand, the company now has a forecast turnover of £5.5m by the end of 2023 and over £10m by 2028. This growth has seen the company expand and introduce additional subdivisions including Autac Assemblies and Autac EV, focusing on charging cables for electric vehicles.

## THE APPROACH

Based in Macclesfield, Autac originally operated within a modest but busy red brick factory. The objective was to expand manufacturing capacity to keep up with increased customer demand, reduce lead times and create better facilities for the Autac team.

Autac have invested in a new £2.8m state-of-the-art manufacturing facility in addition to the red-brick factory, having more than tripled the floor space and capacity (12,500 square feet). The challenge was to explore the most productive, efficient and optimised workflow for the business, the manufacturing of electrical retractable cable over the two sites. They needed to work fast as the move was happening quickly, with minimum disruption to the production line and be able to test out different layouts and options easily,

Autac wanted to work with the CW4.0 teams who could utilise the latest in digital technology for running multiple scenario simulations and differing layouts, allowing Autac to confidently expand to their new premises as part of their growth strategy. The new facility is three times the size of the existing premises and will be used for injection moulding and product assembly in addition to introducing improved facilities for staff including staff canteen and changing room and even an innovation lab for research, development and testing.



## THE BENEFITS

Lead CW4.0 partner the Virtual Engineering Centre (VEC), worked closely with Autac to fully understand their current systems and processes, which machinery is needed, and the workflows of their operations.

The VEC selected a specific area of the Autac business (assembly sub-processes) and composed a Matterport and LiDAR scan of their existing and new premises that played a key role in this understanding and layout planning, offering the teams exact measurements of their equipment and machinery.

Following this data collection, the VEC's Industrial Digitalisation teams developed a factory simulation which offered the Autac team a virtual tour of their new facilities. This included virtual placeholders for the equipment they wanted to move around and include so they could see how it would work and use it as part of their planning process. This enabled Autac in identifying the most efficient layout plans which they could resolve with confidence and without the need for rigorous and timely moving and adjusting of large and heavy equipment.

This support meant that Autac would not only be able to maintain the productivity levels of their business running during their transition period but would have the confidence that the new premise will be able to increase company efficiencies and optimise workflows.

The VEC has used this technology demonstrator to highlight to Autac the potential impact of rolling this technology out across the wider company. Through a Knowledge Transfer Workshop, the Autac teams now have a greater understanding and have the know-how to run something similar in the future, without the dependence on external sources, making better-informed decisions.

*"Whilst it was an incredibly exciting time for Autac, making the move to our second facility presented certain challenges for our day-to-day operations. We needed to maintain our production capability, whilst at the same time moving machinery, people and stock across our two sites. Of course our main concern was ensuring that our clients weren't affected which meant keeping any disruption to an absolute minimum."*

*This is where the support from the CW4.0 team at the Virtual Engineering Centre was invaluable. With their help, we were able to virtually map out and optimise our workflow and processes which meant that we could confidently expand into our new facility. Thanks to the team, we have been able to find the most effective and efficient layout for our business and to meet the evergrowing demands of our customers."*

- David Lowe, Managing Director

