

AMADA technology supports Broxap's sustainability ambitions



A £3 million improvement programme is underway at Staffordshire manufacturer BROXAP LTD that aims to put sustainability at the heart of the company's operations. Central to Broxap's 'Project Transform' capital investment programme is a commitment to carbon and energy management, waste reduction, and product lifecycle sustainability. To help fulfil this commitment, Broxap turned to the expertise of sheet-metal processing machinery manufacturer, AMADA. In the past three years, the company has invested in an automated AMADA ENSIS-AJ fibre laser cutter and two HRB-series press brakes with automatic tool-change capability.



A third-generation family-owned business founded in 1946, Broxap specialises in the design, manufacture and installation of street furniture such as: outdoor seating; litter and recycling bins; bollards; cycle parking products; shelters, canopies and walkways; as well as outdoor gym and playground equipment. Certified to ISO9001, ISO14001 and ISO45001, what sets Broxap apart is its ability to provide high-quality bespoke solutions for projects large and small at its 20,000m² site in Chesterton, near Newcastle-under-Lyme.



The 220-employee company, which includes the 'Sunshine Gym' and 'Hand Made Places' brands, can also manage developments from start to finish through its Design & Build division



As a conscientious manufacturer, Broxap is keen to demonstrate its sustainability credentials by ensuring that any capital investments make a real difference to waste reduction.

Exemplifying this mind-set is the company's investment in an AMADA ENSIS-3015AJ 3kW fibre laser cutter with an ASF-3015EU, nine-shelf automated tower system.

In the first instance, investing in the AMADA ENSIS-AJ automated fibre laser has reduced the need to send products off site for laser cutting and custom fabrication. This shift has led to a significant decrease in the number of vehicle journeys to and from the factory as part of Broxap's carbon reduction initiative.

Furthermore, fibre laser technology uses around two thirds less power than CO₂ lasers, while a solid-state laser also produces fewer hazardous fumes and enables speedy high-volume production. Together, these benefits have increased capacity and cut lead times, particularly in the steel litter and recycling bins production facility, which offers a highly popular customisation service.

Broxap Manufacturing Director Matthew Miles says: "The ENSIS-AJ easily handles galvanised sheet, mild steel, stainless steel and aluminium with thicknesses ranging from 0.6 to 20mm. We can process a single component for a bespoke item or run a batch of 200 or more. Laser cutting using compressed air is also a cost-effective feature of the AMADA ENSIS-AJ that we make use of to help remain competitive for our clients, which vary from schools, local authorities, retailers, NHS trusts and parish councils, to leading infrastructure services companies, regeneration specialists, construction and civil engineering groups."



The accompanying automated tower unit supplied with the AMADA ENSIS-AJ laser cutter brings a number of additional advantages to Broxap.

“Being able to run the machine 24/7 using the automated tower is extremely beneficial to the business in terms of the additional manufacturing capacity it creates,” says Mr Miles.

“We make full use of this facility through the night and at weekends.” The ENSIS-AJ laser cutter also features AMADA’s AMNC 3i numerical control with a 21.5” HD touchscreen for simple, intuitive operation that promotes higher productivity. Operators benefit from smartphone-type operation for zooming and one-touch operation for quick machine set-up.

“The control unit on the ENSIS-AJ laser cutter is easy to navigate and use,” confirms Mr Miles. “Notably, the offline software offers quick and simple nesting, working from CSV files to load component data into the auto-nesting software. Both create a seamless and efficient way of converting DXF files into physical cut parts.” Investment in new machinery with user-friendly controls supports the development of a multi-skilled workforce as part of Broxap’s sustainable manufacturing strategy.

Employee flexibility means production operatives participate in job rotation, moving around the factory’s departments to meet changing customer demand and keep work interesting. Two new press brakes are the most recent AMADA investments at Broxap, bringing the total number of AMADA press brakes on site to five. The latest arrivals are an HRB-1003ATC (Automatic Tool Changer) with 100-tonne capacity, and an HRB-2204ATC offering 220-tonne capacity.

AMADA’s HRB-ATC series (available in 1003 and 2204 versions) provides the ideal solution for processing small batch sizes with AFH-ATC tools. Thanks to the integrated ATC and powerful AMADA VPSS 3i Bend offline software, increasingly smaller lots and shorter lead times are no longer a problem for companies such as Broxap.



The ATC provides reduced set-up times, as well as the possibility for operators, with varying experience, to use the machine effectively. These factors again increase on-site capacity, maximising use of space in the factory and boosting output.

According to Broxap, these bold investments in AMADA manufacturing technologies not only contribute to the company’s environmental and social priorities, they also improve efficiency, reduce costs, cut waste and support business viability. Factors such as these are critical to a company that operates in sectors such as education, construction, healthcare, transport, housing, hospitality and leisure.

It comes as no surprise that Broxap is today one of the UK’s biggest single-source turnkey suppliers for outdoor infrastructure and improvement works. Looking to the future, the company aims to ensure every town, city and village across the country takes advantage of its products. Such a bold ambition demands a machinery investment strategy that supports sustainable growth, while delivering reliability, quality and productivity. In AMADA, Broxap has clearly found the ideal manufacturing technology partner.

