

Milltek Sport has, for the past 40 years, being at the forefront of the design and manufacture of aftermarket performance exhaust systems, but with one eye on the future it has recently created a £3 million Advanced Manufacturing Centre, adjacent to its Derby headquarters. At the heart of this investment are three machines from BLM GROUP that incorporate the very latest in Fiber laser, robotics and bending technology.

While Milltek Sport's core products will remain in demand for many years to come, the rise of electric vehicles influenced the company's decision to invest, a move that is allowing it to appeal to new markets, such as heat shield manufacture for EVs. The three machines from BLM GROUP are an ELECT102, an All-Electric CNC Tube Bender, a LC5 Combination Flat Sheet and Tube Laser Cutting System, and the technically advanced LT-FREE HIGH FLEX five-axis, twin-robot, fiber laser cutting cell.

With no history of working with BLM GROUP previously the choice of machines came down to a combination of capability, processes, quality, support, and technical back-up. Having carried out a whole market review the conclusion was that BLM GROUP could provide the complete package that Milltek Sport wanted, the level of support from BLM GROUP in the UK and Italy was seen to provide the 'best fit'. "Having made the choice of BLM GROUP as our supplier we were initially looking at the LC5 combination flat sheet and tube laser cell, but COVID restrictions delayed the order being placed. As soon as the travel restrictions were lifted, we visited BLM GROUP in Italy and convinced ourselves to take all three investment steps at the same time," says Steve Pound, Managing Director, Milltek Sport.

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The BLM GROUP machines allowed Milltek Sport to bring laser cutting in-house, this in turn led to greater efficiencies as they can produce the parts they need, when they need them, this just in time approach is generating improved cash flow through elimination of work in progress. These efficiencies are highlighted by the LC5, which integrates separate modules for tube and flat sheet processing to enable a switch from tube processing to flat sheet instantly, without any need to reconfigure the machine. Milltek chose the 4kW (12kW optional) fiber laser for their machine, a choice that gives them capability to cut stainless up to 15mm thick. Adding to this versatility is the electric sheet pallet change system with dual shelves for automatic loading of flat sheet up to 3m x 1.5m and tube up to 120mm diameter x 6.5m long, making the LC5 a highly efficient asset. The LC5 optimally integrates two systems: a dedicated module for sheet metal cutting and a dedicated module for tube cutting.

Similarly, the LT-FREE HIGH FLEX five-axis robot cell features twin robot arms that can be operated individually, with a divider allowing one part to be cut by the 2kW fiber laser, while another is being set-up; or, if the part demands it both robots can work in tandem. "As we are developing parts to suit the new laser technology, we are seeing efficiency improve dramatically, up to 40 per cent gains on some components," says Steve Pound. "For example, with the LT-FREE HIGH FLEX we can achieve cuts on bends that previously would have been done by hand using a plasma torch. We can now get multiple parts from a single tube, making use of micro joints which is delivering major time and material cost savings. One exhaust system section features six separate parts, that previously had to be cut manually, now the prebent tube is cut automatically in one operation, saving over 1m of tube and 28 minutes of time."

"While we were familiar with tube bending the move to laser cutting was a steep learning curve for us," says Steve Pound. "Because of the sectors we operate in batch sizes tend to be small, between 10 and 100 off. Therefore, we needed machines that can adapt quickly to our changing requirements, here we have found that the combination of the versatility of the BLM GROUP laser machines, along with the intuitive ArtCut software have been invaluable. We can now design and develop parts around the machines' capabilities, which in turn leads to a reduction in scrap or waste material and consistent quality, in tandem with the support we received from BLM GROUP we are confident that we can meet whatever the future puts in our way."

