SYS Systems Case Study:

HellermanTyton

Global leader in cable management systems shrinks time and cost with additive manufacturing.

With over eighty-three years of experience manufacturing in the UK, the talented people behind HellermannTyton's Manchester site know a thing or two about effective automation.

Employing over 6,000 people across 39 countries, the company has grown from humble beginnings to a trusted global brand in cable management, network connectivity solutions, and bespoke products for a range of solutions ranging from automotive to wind and solar power.

Their mission of continuous improvement and delivering innovative solutions led them to critically evaluate how they sourced and utilised end of arm tools in their industrious Manchester site.
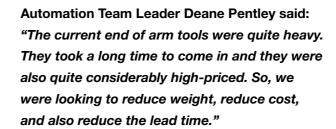
" The talented people behind HellermannTyton's Manchester site know a thing or two about effective automation.

▶ **Watch the video case study.**

stratasys

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Because we were now pulling it in-house, we were able to reduce the lead time significantly. We would typically be looking at weight savings of up to 50%, lead time reduction of up to 50% – and also, the cost we reduced up to 75%.

Deane Pentley, HellermanTyton

Automation Team Leader Deane Pentley said: *"The current end of arm tools were quite heavy. They took a long time to come in and they were also quite considerably high-priced. So, we were looking to reduce weight, reduce cost, and also reduce the lead time."*

Implementing 3D printing was something that had previously been brought to the table, but they struggled to find a brand that could deliver the robust solution that they required. That was until they discovered Stratasys, and the strength of their Nylon 12 Carbon Fiber printing.

The material contains chopped carbon fiber, giving it the highest flexural strength and stiffness-to-weight ratio of any FDM material. By incorporating this lighter alternative to heavy metal tooling, they gained an ergonomic solution that sacrificed neither the strength nor rigidity that they required on a daily basis. This led them to purchase the Fortus 450mc printing machine.

"We started off with the first tool in August, and we've now installed another two. That first tool has now done just under 1.4 million cycles without any issues. It was one of the concerns we had moving from metals to plastics. Are they going to be robust enough?

"We were able to work with SYS to develop a trial and development tool which helped dispel some of the fears we had and that then gave us confidence to purchase the printer."

The Fortus series can build for all kinds of manufacturing solutions, including specialised industries, making it ideal to replace more cumbersome and demanding materials like metals. For a high-throughput manufacturer like HellermannTyton, this quickly translates to dramatic yields in efficiency.

"The printer helped us because obviously we could move away from traditional manufacture where we're using metals rather than plastics, so that saves the weight. And because we were now pulling it in-house, we were able to reduce the lead time significantly.

"We would typically be looking at weight savings of up to 50%, lead time reduction of up to 50% – and also, the cost we reduced up to 75%."

Incorporating a 3D printer into their processes meant that Deane and his colleagues found they were saving phenomenal amounts of time, and taking back some ownership of their tooling solutions whilst doing so.

"With the existing processes, we take an issue back to the supplier, the supplier had to propose a redesign, propose a cost. We then have to initiate an order for that. So that process can take four weeks at best. Whereas with the current issue we had, we saw a redesign in the afternoon, a print overnight, and the install the next day."

Deane comments that the training provided by SYS was 'easy to pick up', as was Stratasys's GrabCAD Print design software. Within a week of having the machine installed, they were printing as they saw fit.

"Throughout the process, SYS helped us – from the guides that they gave us, and also all the way through to the installation. The training they gave us on both the software and the hardware has enabled us to really take printing on ourselves with confidence."

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Get in touch to request a free sample or to set up a demo:

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