

More time for tea, because the punching machine can do everything on its own when it has the right tools. This saves Future Automation two manual refinishing steps.



# LOWER STRESS, HIGHER PRODUCTIVITY

Thanks to good consultation, Future Automation increases production and economizes on material – with a new punching machine and the right tools.



Above and below: The blanks for the enclosures are now made on the punching machine. Right: A MultiBend tool makes angle brackets out of scrap skeletons.



**W**henver a gigantic monitor appears as though out of nowhere, travels into a room and seems to hover in space, it's probably based on mechanical mounts made by Future Automation. Jack Percival, the company's chief designer, grins: "We are renowned for technology with a James Bond flair." The firm, located in Stevenage, near London, specializes in mechanisms that move monitor screens, projectors and speakers within a space and can either hide or present them. In the summer of 2012, Future Automation opened up a new area of business and since then has also been manufacturing enclosures for advanced dimmers and smart home applications. "In the past we shaped the manufacturing process around a laser cutting machine

and a press brake from TRUMPF, since we already had them on site. When an ever larger number of customers called for enclosures, production couldn't keep up with the heightened demand," Percival recalls.

#### **Punching instead of manual work**

The process at that time was divided into four steps. First the blank was cut with the laser; this was followed by bending and manual welding. Percival's co-workers finished by outfitting the enclosures with numerous tapped threads and bushings for captive screws, and they did this all by hand. "We needed between 15 and 20 minutes for a typical enclosure. That's a long time. At some point we realized that things couldn't go on like this. We had to become faster and more efficient. With this request we turned to TRUMPF and explained what we were thinking about."

A few days later, Percival and his Managing Director, Alun Williams, sat at a table with two TRUMPF punching tool specialists. They discussed all the details of the design for the part. The main concern was the modifications that could be made so the design would work better with a fully automated process. The solution would lie in a punching machine and suitable tools. "We didn't know much about working with punching machines. Of course, being engineers, we didn't start from scratch. The TRUMPF experts gave us thorough punching technology consultation. And I thought this was really super," said Percival and added, "They knew exactly what we needed, and we had a solution in no time."

The new TruPunch 3000 punching machine came with a thread forming tool, a MultiBend tool and an embossing tool.



**“With these special tools, we now manufacture many of our parts entirely automatically – and all on a single machine. This saves the time needed by up to 75 percent.”**

—  
**Jack Percival,**  
 Chief designer at  
 Future Automation



### **A turbocharger for production**

“The best improvement is certainly the special tool for the threads and the bushings for the captive screws. This sped up the process enormously. Now we need just five minutes per enclosure – that’s four times faster than before! We can now produce 60 more enclosures per day!” said Percival with satisfaction. “For two days a TRUMPF technician was here in production and explained the machine and the punching tools. Everything worked right away and has been running without problems, right down to the present.” Percival took this opportunity to show another part to the visiting technician: a small angle bracket used as a holder within the enclosure.

### **Turning scrap skeletons into parts**

Future Automation intended to laser-cut and fold this bracket on their press brake,

but Percival wanted to know if it could be made on the punching machine as well. “The TRUMPF engineer looked at the part and told us that it should be possible with a few design tweaks and some modified tooling. He thought they could engineer a special MultiBend tool,” Percival said with excitement. “The great thing is that this small part could be made using scrap segments of the sheet skeleton which would otherwise have wound up in the scrap container. This means that manufacturing this bracket costs us virtually nothing!”

### **Logos without additional cost**

And yet another improvement: The company logo is now punched onto the dimmer enclosures with a custom embossing tool. “That was an urgent request of ours. Before, we had stickers with our logo, and they had

to be attached in an additional working step. But these stickers kept falling off. We wanted absolutely everyone who laid hands on our enclosures to see who had made them. And that even years later when, for example, the enclosure should be extended. In this way they would see right away where they could order a new one,” said Percival.

**i** Founded in 1998 Future Automation manufactures premium-quality mounts and mechanisms for audio and video equipment. Enclosures for illumination controls and ventilation form a second mainstay. The company with 65 employees is located in Stevenage, near London. [↑ www.futureautomation.co.uk](http://www.futureautomation.co.uk)