SABRINA SCHILLING

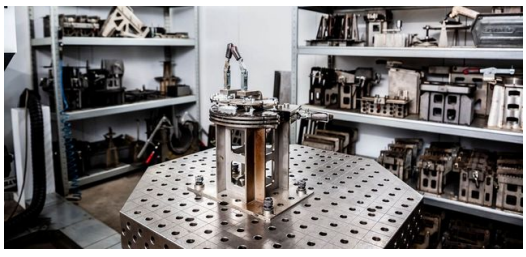
Forging a close alliance for laser welding – new technology boosts sales

By investing in a TRUMPF TruLaser Weld 5000 laser welding cell, brothers Kevin and Marcel Kempf took a bold business gamble. They initially had only a few parts optimised for the new process. Through a clever idea, they motivated their employees to make significant changes in a short time. The end results were so good that many of their customers now only want laser-welded parts.

Kevin Kempf and his brother Marcel are passionate about sheet metal processing. Exploring new technologies and processes, and consequently advancing their company, is what makes the business so appealing to them. It also takes a certain amount of courage, and they have it in spades. "If we had relied solely on cost calculations for our decisions, we wouldn't have been able to purchase some of our machines in recent years," explains Kevin Kempf pragmatically, adding with a grin: "But we see the bigger picture. We can't offer our customers technologies if we don't have the correct machines, which means missing out on business opportunities. That's why we sometimes take risks."

One such risk was the decision to invest in a TRUMPF automated laser welding cell. The brothers had long been fascinated by the technology, and their interest peaked with the market launch of the TruLaser Weld 5000 with FusionLine option. The FusionLine option allows for the compensation of inaccuracies in a component, enabling the automatic processing of parts that are not optimised for laser welding. Gaps of up to one millimetre in width can be closed easily without affecting the quality or strength of the weld seam. "That was the deciding factor," explains Marcel Kempf. "We placed the order for the system in 2018."

<p>With the expert advice and support of their TRUMPF contacts, Kevin



<p>Even with simple sheet metal fixtures, components can be clamped

(2nd from left) and Marcel (3rd from left) succeeded in getting started with automated laser welding.

In addition to laser tube processing with the TruLaser Tube 5000, Kevin and Marcel Kempf have now also added automated laser welding to their portfolio. They were able to expand their customer base even further with the help of the TruLaser Weld 5000.

such that they can be processed automatically with the TruLaser Weld 5000 laser welding system.

AUTOMATION EMPOWERS INDEPENDENCE

Andreas Kempf founded Kempf GmbH in 1987. In 2020, his sons Kevin and Marcel took over as company managers. The family business with headquarters in Kraichtal-Gochsheim, Baden-Württemberg, is a contract manufacturer for sheet metal and tube technology. The company currently supplies some 500 customers from sectors including mechanical and plant engineering, fixture making, medical and rehabilitation technology as well as the automotive and electrical industries. The company's 70 employees handle all aspects of the sheet metal process chain, from component design to surface finishing.

The brothers invested in expanding the welding shop in 2017. In addition to the standard TIG, MIG and MAG welding processes, the time had come to take the plunge into automated laser welding. "Everything fell into place all at once," explains Kevin Kempf, detailing the process. "With FusionLine, TRUMPF has reduced the previously stringent requirements for component accuracy required for laser welding preparation. Additionally, it is no longer necessary to invest thousands of euros in milled fixtures. Last but not least, the shortage of skilled labour, which has also been a problem for us, has made it clear how important automated production processes are. The issue has become even more acute since the pandemic."

COMPONENT DESIGN BONUS

When commissioning the TruLaser Weld 5000, the Kempf brothers initially encountered the same problem that still prevents many sheet metal processors from purchasing a laser welding system – a lack of the correct parts. Customers often respond to the prospect of a new procedure with skepticism. "Many people believe that only a thick seam ensures stability. Although we have destroyed components and demonstrated that it is the material, not the delicate laser-welded seam, that fails, this evidence has often been insufficient," explains Marcel Kempf, outlining the dilemma they face.

> **Once you've seen a laser-welded seam, nothing else will do.**
>
> Kevin Kempf

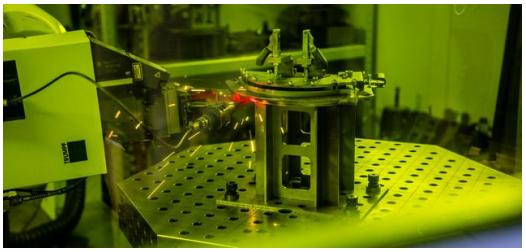
Kempf's employees were initially not keen on redesigning components for laser welding and building the fixtures required for the welding process. "That's when we came up with the idea of offering a bonus for every part optimised for laser welding," says Kevin Kempf. This sparked the employees' ambition. The requirements were straightforward – they needed to supply a processing program, a suitable fixture and a brief video or photo documenting the new process. And, of course, they had to gain the customer's approval. "The effort proved worthwhile for both sides," says a delighted Kevin Kempf. "For the employees, their ideas translated into tangible cash rewards. And we've benefited as well – 80 to 90% of our parts are now optimised for laser welding."

LASER WELDING BOOSTS SALES

Alongside their sales team, the Kempf brothers have successfully gained the support of their customers. "When I showed a customer three laser-welded samples and he left after what felt like just five minutes, I was shocked and bewildered," says Kevin Kempf. "Until the customer got in touch shortly after and said he had never seen such impressive samples before and that he would be placing an order with us." This marked a real breakthrough. "This customer is now one of our largest. Without laser welding, we wouldn't be able to achieve the revenue we do with them," adds Marcel Kempf.

Marcel Kempf (left) is delighted with the quality of the laser-welded seams, as are his customers: "Once you've seen a laser-welded seam, nothing else will do."

Kempf's managing directors motivated their employees to identify parts suitable for automated laser welding by offering performance bonuses. This boosted their motivation, and now even fixture construction has become straightforward.



The automated laser welding process is extremely productive, delivers 100% reproducible quality and reduces employee workload. Kevin Kempf: "Parts that once took an hour to process can now be completed in ten minutes."

The speed, quality and, above all, the reproducible results continue to inspire Kevin and Marcel Kempf. "We had components that took over an hour for TIG welding and the necessary post-processing. Using laser welding, we can complete them in just ten minutes. We can accomplish in one shift what used to take an entire week," summarises Kevin Kempf enthusiastically. Another decisive factor for the brothers is that the TruLaser Weld 5000 not only processes the orders quickly and punctually. It also delivers 100% reproducible welding results at all times.

The Kempf brothers have not regretted their investment in automated laser welding. They have been able to attract new customers and impress existing ones, giving them a significant competitive edge. "Once you've seen a laser-welded seam, nothing else will do", says Kevin Kempf with conviction.

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TRUMPF GROUP COMMUNICATIONS