Pfannenberg GmbH

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Pfannenberg GmbH is a medium-sized electrical engineering company. Modern production processes with a high vertical range of manufacture make Pfannenberg successful. The product range includes components and system solutions for electrical cabinet climate control as well as visual and acoustic alarm and emergency signals. Around 470 personnel are employed at the four production sites in Germany, Italy, China and USA and in nine distribution centres.

INDUSTRY
Electrical engineering

NUMBER OF EMPLOYEES
470

LOCATION
Hamburg (Germany)

TRUMPF PRODUCTS

- TruArc Weld 1000

APPLICATIONS

- Laser cutting
- Bending
- Laser welding

Challenges

Finding good welders is not an easy undertaking, even in the seaport of Hamburg, a popular location for welders. Erik Westphal, Production Manager at Pfannenberg GmbH, explains, "Most of our components are manufactured from thin sheet. This requires fine motor skills and a steady hand, and specialists in this area are hard to find." Add to that the fact that welding the large and heavy housings is hard on your back. And interior welding also presents ergonomic challenges as well. Westphal started looking for an automation option for the manual welding workstations.

"The TruArc Weld 1000 provides optimum quality with a noticeable reduction in processing time."

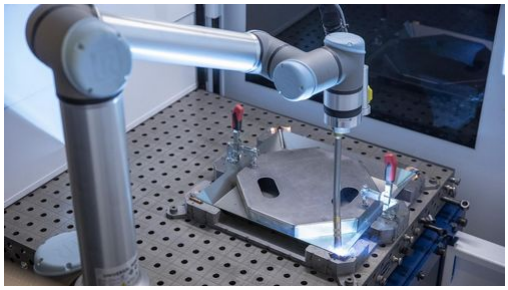
ERIK WESTPHAL
PRODUCTION MANAGER AT PFANNENBERG GMBH

Solutions

Erik Westphal found the solution in the TruArc Weld 1000 welding cell. The collaborative robot with six axes can be positioned to the left or right of the component along a linear axis, thus providing more clearance during processing. The high-performance welding cell from Fronius has an ultra-slim 350 A torch which can be used to safely weld even difficult to access component parts. The system is completed with an external wire feed system and a 3D work table from Demmeler for using flexible clamping devices. The safety equipment complies with the high standards of TRUMPF machine tools. But the system's highlight is how easy it is to operate. The system operator does not have to attend a programming course and only has to position the collaborative robot by hand. The waypoints as well as the start and end of the weld seam are determined directly via the teach module in the welding torch.

Implementation

Erik Westphal was impressed by the system's easy commissioning. "We did not even need a service engineer. TRUMPF gave us precise instructions beforehand for the electricity, compressed air and technical gas supply lines. We just connected the system ourselves after unloading it." The operators were trained using just video tutorials which can be called up on a tablet via a barcode on the machine. Westphal explains, "Our guys had already welded the first hoods after just a few hours and the TruArc Weld 1000 was incorporated in batch production after one week." Even previously sceptical operators were enthusiastic: numerous stored welding parameters – so-called welding jobs – make programming so much easier.



Forecast

Around 2,000 components a month are currently welded with weld seams in automated processes at Pfannenberg. Erik Westphal is already extremely happy with the result. "Using the TruArc Weld 1000 has reduced the processing time by 30 per cent on average, with the reproducible part quality at 90 percent."