QUALITY WORK IN METAL

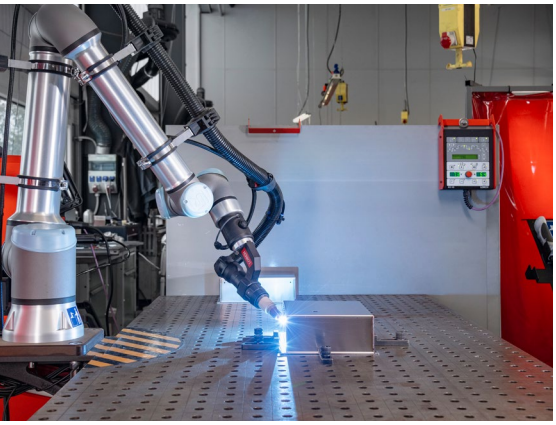
TIG COBOT FROM LORCH WELDS HIGH-TECH COMPONENTS AT FERROTEC

Founded by Morteza Taghi Aghdiri in 2000, the medium-sized company is now run by his son Asim Aghdiri, the second generation of the family. With 35 employees, it is now one of the leading specialists in metal processing in southern Germany. Based in Stutensee-Blankenloch near Karlsruhe since 2015, the company manufactures high-precision components and housings made of stainless steel, steel and aluminium for industries such as mechanical engineering, medical technology, the electrical industry and automotive on over 3,000 square metres. The product range extends from simple connection components to complex system housings with sophisticated designs. Since the beginning of 2023, the company has been relying on Lorch's TIG cobot, which not only increases productivity but also minimises bottlenecks in the welding area.

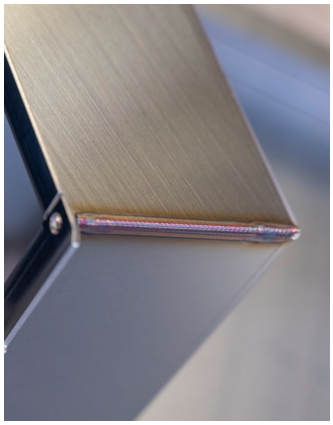
OUR CUSTOMER AT A GLANCE

FERROTEC GMBH

- Stutensee-Blankenloch near Karlsruhe
- 35 employees
- Specialist in design-oriented sheet metal processing and sophisticated housing construction
- www.ferrotec.net



Precise, fast and economical: the purchase of the TIG cobot quickly paid for itself at Ferrotec.



The TIG cobot performs the finest weld seams in stainless steel independently and reliably.

Controlling the cobot via the free-drive function directly on the torch makes it easier to guide the robot arm and thus enables precise adjustment on the component.

LORCH
smart welding

Intelligent cobot technology for perfect TIG weld seams

HIGH-FREQUENCY PULSE PROCESS, AVC FUNCTION, COBOTRONIC SOFTWARE

The cobot solution from Lorch chosen by Ferrotec comprises a UR10e cobot, Lorch Cobotronic software and a V30 ACDC welding system including a high-performance torch. A high-frequency pulse process up to 20 kHz enables automated TIG welding at very high speeds. The cobot-optimised torch holder also guarantees precise torch guidance, which reproduces every weld seam with the same high quality. If the workpiece is distorted, the integrated AVC (Automated Voltage Control) function corrects the arc length, ensuring a precise weld seam. The Cobotronic software for controlling the cobot is intuitive and can be operated without extensive prior knowledge. The welding cobot learns the exact welding process through 'teaching'. The torch is guided to the various waypoints, such as the start and end points, via a free-drive function that is attached directly to the torch holder in the TIG solution. Once set, the cobot then reliably welds each series component with consistent quality.

'The TIG cobot is ideal for our high standards. Since the components in housing construction must fit together precisely, the thin sheets must not warp and the weld seams must be finely structured and visually clean.'

– Asim Aghdiri, Graduate physicist and managing partner

FACTS

- Significant increase in productivity
- High welding speed
- Reduced workload for employees
- Precise weld seams and consistently high welding quality
- Fewer spatters
- Simple and intuitive operation
- Once programmed, weld seams are easy to reproduce
- No enclosure required thanks to safety concept

www.lorch-cobot-welding.com

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