



Success Story

Economic welding of small batch sizes

Cobots weld at Glüpker

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HAIGER/NEUENHAUS – Glüpker Blechtechnologie GmbH is increasingly facing the difficult challenge of finding suitable manual welders due to the shortage of skilled workers. The sheet metal specialists have therefore invested heavily in automation solutions in recent years. In order to weld even small batch sizes economically and with consistently high quality, the company also uses three Cobot welding systems by CLOOS.

Lasering, edging and welding - since its foundation in 1981, Glüpker has been continuously expanding its expertise in sheet metal processing. Today the company employs around 600 people at its site in Neuenhaus in Lower Saxony. Glüpker has relied on CLOOS technologies for both manual and automated welding for around 30 years. The first robot system was put into operation at Glüpker Blechtechnologie in the early 1990s. Today, the company uses more than 30 robot systems for automated welding. These are both compact robot cells for welding small parts and larger systems with several robots for welding complex components. With the investments in automated production technologies, the sheet metal specialists want to further expand the quality and productivity of their production and sustainably secure their competitiveness. The range of components is very large as Glüpker works for many different companies in various industries. "Our customers appreciate the short processing times and the high quality standard," explains managing director Jürgen Gerst. "That's why we continuously invest in modern machinery."

Three Cobot Welding Systems

Glüpker commissioned the first Cobot Welding System in 2020. Two more were added in the following months. The compact "Ready to weld" complete packages were delivered completely ready to weld. This enabled Glüpker to integrate the cobots into existing production processes without any problems.

Now, the cobots mainly weld smaller components up to a size of half a metre. "Due to the simple programming, we can now also weld small batch sizes automatically under economic conditions," says Gerst.

A torque sensor in each axis allows the Cobot to be programmed and moved precisely. The intuitive operation significantly increases work efficiency. The user can make individual adjustments on the user-friendly touch control panel with macros specially developed for welding. In addition, the Freedrive option with foot switch and the intelligent safety concept guarantee sensitive and safe control of the Cobot. Another special feature is the simple restart after an emergency stop as no extensive unlocking or free movement of the robot is necessary.



Photo 1: The employee places the workpiece.

The Cobot Welding System is equipped with the high-tech QINEO NexT MIG/MAG welding power source which is characterised by versatile high-performance welding processes and excellent welding properties. For perfect interaction between the welding power source and the cobot, the welding control is integrated into the robot controller so that no additional controller is required.

Skilled workers shortage as a challenge

"Cobots and employees share the tasks and complement each other perfectly," says Gerst. "Since the set-up and welding processes run in parallel, we were able to increase our productivity significantly." Due to the shortage of skilled workers, there have been difficulties in finding qualified personnel for years. With the cobots, the company can produce more with the same number of employees. "The employees enjoy the new technology," says Gerst happily. "Working with high-tech systems usually motivates them more than manual welding." The cobots significantly relieve the employees - especially in monotonous, repetitive tasks. In addition, the sheet metal specialists benefit from optimum welding results due to the consistent, reproducible quality of the cobot.



Photo 2: The cobot can be programmed and moved easily and precisely.

Cobots as future technology

Based on the positive experience with the cobots, Glüpker is planning further investments in this technology in the coming years. "The cobot systems are becoming better processed and there are also significant advances in terms of sensitivity and sensor technology," explains Gerst. "I firmly believe that development will continue in the direction of collaborative." He would like to see larger systems in the future so that more complex components can also be welded with cobots.

In addition, Gerst praises the partnership and cooperative collaboration with CLOOS. "Here, the focus is clearly on the user and we can discuss new developments at eye level."



Photo 3: In combination with the QINEO Next welding power source, the Cobot achieves excellent welding results.



Video on CLOOS TV

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