Success Story

Hammers with "whoomph"

Compact Robot Cell for Process Safety and Top Quality

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HAIGER/ACHSTETTEN – The Halder family company has been producing soft-faced hammers for over 75 years and is the world leader in this product segment. Recently, the Hidden Champion has automated the entire welding process for the soft-faced hammers made at the Baden-Württemberg site in Achstetten. The new, compact QIROX QR-CC-6 robot cell produced by CLOOS guarantees constant quality and reproducibility.

The engineer Erwin Halder founded the company in 1938 under the "Simplex Schonhammer" patent. Since then, many products for varying fields such as standard parts, work piece clamping and aviation have been added. Since then, the Halder Group as a whole has employed around 300 employees and it is still growing. The soft-faced hammers are used all over the world. They must withstand extreme weather conditions – both very low minus temperatures in the Canadian winter and the very highest temperatures in the desert. "In order to maintain the high quality we claim for our hammers, we rely on a one-hundred-percent production depth", explains Stefan Halder who runs the company together with his brother Martin, both of the third generation. "So that the hammers have the right amount of whoomph, that is to say the right level of impact, the quality of the head-shaft connection is of particular importance."

Automated welding of the soft-faced hammers

This critical connection is welded by robots from the CLOOS company. The first system for the production of medium-sized hammers was already commissioned in 2001. "We had excellent experiences with the older CLOOS compact system", emphasises company manager Markus Bührle. "What's more, we are very happy with the services of the CLOOS representative Görmiller in nearby Kirchberg."

Last year, Halder invested in another CLOOS compact cell. Here, the QIROX QRC-320-H robot welds the very small and very large hammers from Halder's broad product range. These were previously welded by hand. By using the welding robot in the compact cell, spatters from welding have now been reduced to a minimum and there is therefore there is no need for an extensive rework.

Photo 1: The CLOOS compact cells do not require much space and can be

easily integrated into each production.

Individual complete solution for efficient production

It does not require much space and could be easily integrated into the production. From sensors to controller and safety technology the compact cell is a tailor-made unit with components which match each other optimally.

Photo 2: CLOOS has developed the fixture specifically for Halder.

The cell has a two-station positioner with turning/swivelling movement. Here, the construction of the fixture for the hammers was a particular requirement. "CLOOS has developed an individual fixture for us which is designed specifically for our hammers ", says Bührle. Due to the two-station design the operator can remove the welded workpieces on one side and reload the system whilst the welding process takes place at the other station. As controlling and programming of the compact cell are exactly as with the older system, the employees were quickly able to adapt to the new equipment.

"By changing to automated welding, we were able to make our production process safer and achieve exactly reproducible welding results ", Managing Director Halder continues. Just with the new compact cell, several tens of thousands of hammers can now be welded automatically each year.

Photo 3: The two-station design allows for simultaneous welding and loading of the compact cell.

Photo 4: The soft-faced hammers are available in many different sizes

Video on YouTube

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