CLOOS

SUCCESS STORY

AUTOMATED INTO THE FUTURE

How HUCH is setting new standards
with CLOOS in water boiler production

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CLOOS MAKES SERIES PRODUCTION FUTURE-PROOF

HUCH is taking a decisive step toward the future with the CLOOS robot system.

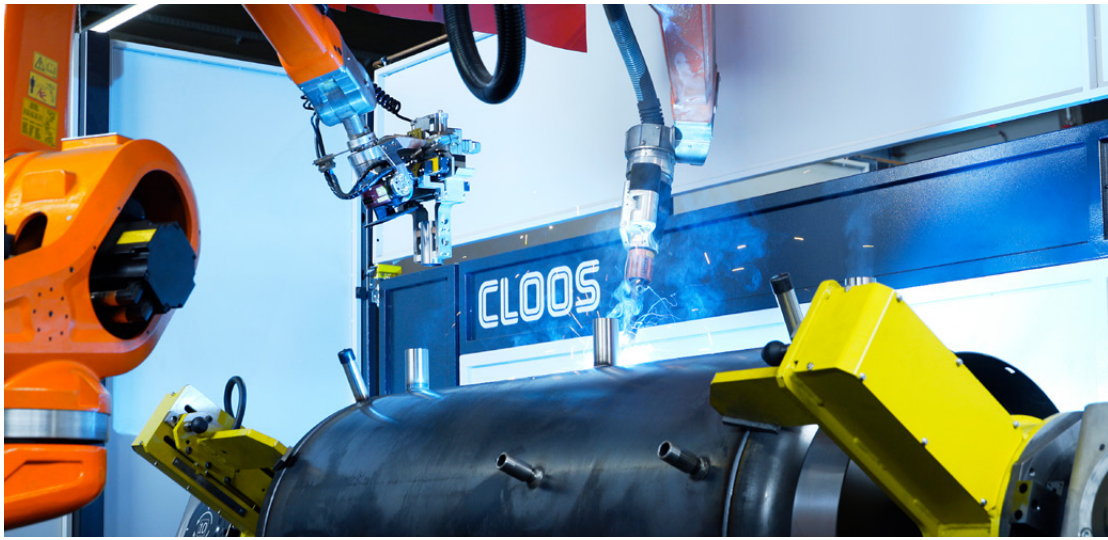
Haiger, 11/2025
By investing in a state-of-the-art robot system from CLOOS, HUCH has taken a decisive step towards the future. In a market environment characterised by increasing competitive pressure, a shortage of skilled workers and high-quality requirements, the company is focusing on consistent automation to make its series production hot water boilers more efficient, flexible and future-proof.

HUCH GmbH is a long-established family business based in Märkisch Linden, Brandenburg. Since 1928, the company has been developing and manufacturing high-quality steel storage and container solutions for a wide range of applications – from heating and air conditioning technology to special industrial solutions. With a volume of up to 25,000 litres per container and a high degree of customisation, HUCH is one of the leading suppliers in Europe.

„With the new production line, we at HUCH are consistently pursuing a new path of automation for our entire production process for series storage tanks," explains David Kubitzki, Head of Container Production at HUCH. „Whereas many work steps were previously carried out conventionally using muscle power, modern robots and handling systems now take over a large part of the work and transport processes involved in series production. This promises us significantly higher quantities with the usual high quality."

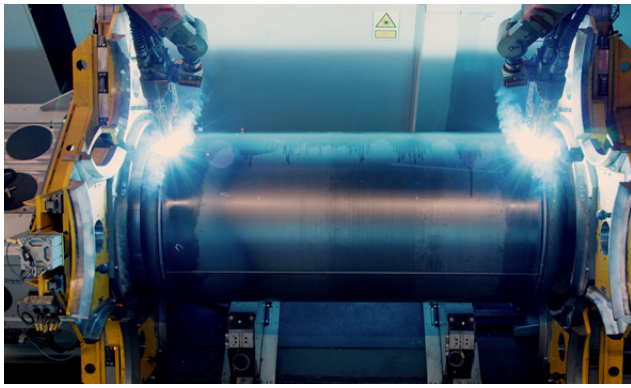
Integrated manufacturing process – from sheet metal to tested storage tank

The new production line at HUCH is divided into several coordinated process steps that enable a continuous production process – from raw sheet metal to tested end product. Each section is designed for maximum efficiency, precision and automation.

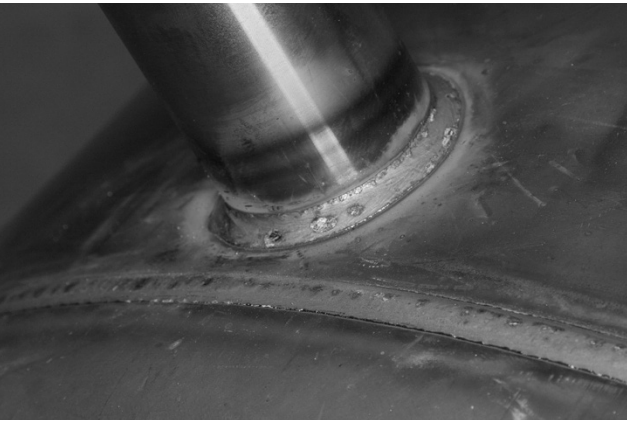


HUCH relies on consistent automation in the manufacture of water boilers.

First, the cylinder sheets are prepared: they are measured and provided with openings for the subsequent connection pipes. A gantry crane with suction grippers then picks up the sheets from the warehouse and transports them to the bending station. There, they are automatically threaded and bent. A longitudinal carriage with a mechanical gripper, consisting of four clamping fingers and an opening stroke, transports the formed sheet metal


Numerous types of water boilers with different diameters and different cylinder lengths are manufactured on the production line.

Each production step is designed for maximum efficiency, precision and automation.



Automation enables HUCH to achieve reproducible weld seam quality.

to the welding cell, where a QRC-350 welding robot welds the longitudinal seam with a suction torch.

The heat exchanger tube coils are then inserted manually and welded on – a deliberate manual intervention that requires flexibility and technical expertise. In the next step, the boiler cylinder is connected to the two bottoms. A handling robot places the cylinder in the welding fixture, where it is automatically centred and joined with up to two tonnes of pressing force. Two robots perform the circular seam welding in tandem. The seam is located using online laser sensors, which ensure consistently high quality.

The final processing step involves attaching the connection nozzles: a QIROX QRC-350-H robot works here with an intelligent gripper system equipped with the ICSE system. This uses an offline laser sensor to detect the exact position of the socket openings and aligns the components precisely. The sleeves are removed from a magazine, positioned, tacked and then welded – an average of eleven sleeves per storage tank.

After welding, a leak test is performed. The storage tank is „pressurised" with water to ensure that all connections are completely leak-proof. Intelligent handling systems take care of transport between the individual sections and ensure a smooth flow of material along the entire line.

Technology that inspires

The technical implementation of the system was a joint project that was characterised from the outset by close and trusting cooperation between HUCH and CLOOS. „For each individual work step, the components were precisely designed to ensure uninterrupted and largely automated production of our series storage tanks," explains David Kubitzki. „The design and implementation of the components for transport and handling between the individual production stages was particularly fascinating and challenging. Numerous components, such as the grippers, were specially designed and manufactured for this purpose. The experienced engineers and technicians at CLOOS implemented these complex processes with flying colours. The result is a production line that is unique in Europe and one that we at HUCH are very proud of."

Plant operator Jens Böhm is also convinced: „After an intensive phase of adaptation, training and familiarisation, the plant now enables us to manufacture our series storage units smoothly and efficiently in large quantities," he reports. „The operation of the plant is clear and very user-friendly in all areas. The manufacturing quality achieved is outstanding."

Productivity meets flexibility

The new plant was designed not only with quality and efficiency in mind, but also as a response to the growing shortage of skilled workers. The automated areas of the production line can be operated by just one programmer. At the same time, it allows for a wide range of variants: water boilers from 300 to 1,100 litres, with six different diameters and different cylinder lengths, can be manufactured with minimal set-up effort.

The cycle time was a key criterion: a finished tank should leave the plant every five to six minutes. This corresponds to an annual capacity of around 40,000 tanks in two-shift operation. The increase in efficiency achieved through automation is a decisive competitive advantage for the company.

A project with vision

The decision in favour of CLOOS was based not only on technical expertise, but also on the long-standing, trusting partnership. HUCH has been working with CLOOS for more than a decade. The new system is the result of a project phase lasting around 1.5 years – from planning and design to final acceptance. „Even in the initial planning phase, we knew that this would not be an easy project," says David Kubitzki. „But CLOOS impressed us with its expertise, commitment and flexibility."

Employees were involved at an early stage – both in programming and training. This not only increased acceptance but also strengthened understanding of the complex processes. „The new production line involves complex processes with high quality requirements," emphasises plant operator Böhm. „CLOOS understood this and guided us safely through the introduction with targeted training and competent support – and will continue to do so."

A strong signal for the future

With the new robot system, HUCH has not only expanded its production capacities, but also sent a strong signal for innovation and sustainability. The investment is already paying off today – in the form of higher productivity, better quality and satisfied employees who are proud of their new system. The close cooperation with CLOOS and the tailor-made solution have shown that innovation and tradition can go hand in hand.

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