Driving technological progress forward

CLOOS further expands cooperation with universities, colleges and research centres

HAIGER, Mai 2023 – What opportunities do digitization and Industry 4.0 offer in welding production? How can industrial companies successfully implement artificial intelligence (AI) in products and processes? To further advance technological progress, CLOOS works closely with universities, colleges and research institutions worldwide. For decades, the company has been considered a pioneer in the research and development of new technologies in the fields of welding and robotics.

"Cooperation with universities drives further technological developments and is an important factor in ensuring the competitiveness of our company," explains Stephan Pittner, CEO of the CLOOS Group. "Without such collaborations, medium-sized companies reach their limits, as companies in Germany receive less direct funding for research purposes in a global comparison and often cannot afford the high administrative costs."

Together with other partners, Pittner opened the Smart Factory Mittelhessen of the Technical University of Central Hesse (THM) at the Gießen site in mid-May. Industry 4.0 concepts that can be easily implemented in practice are developed and researched here. The smart model factory enables production in batch size 1, with the entire data flow being digitally mapped. CLOOS participated in the project with a robot equipped with the latest interface technology for stock management. CLOOS has been working with THM for many years. For more than 15 years, CLOOS has offered technical and commercial dual study courses together with the THM as part of StudiumPlus.

CLOOS also cooperates with the University of Siegen and the Machine Tool Laboratory WZL of RWTH Aachen University, among others, in the Smart Demonstration Factory Siegen (SDFS). The SDFS uses a compact robot welding system from CLOOS. With intelligent programming, quality control and AI for the automated production of welding assemblies, SDFS is working here together with CLOOS on the welding factory of tomorrow.

In addition, CLOOS is involved in various research projects together with the Schweißtechnische Lehr- und Versuchsanstalten (SLV) of the Gesellschaft für Schweißtechnik International (GSI) to promote a practice-oriented transfer of knowledge in welding technology.

CLOOS' involvement in this area is not limited to Germany. The company cooperates in various projects all over the world - among others with the international welding and technology institutes of RWTH Aachen University, various Fraunhofer Institutes,

the Welding Institute of Ohio State University, the Pennsylvania College of Technology, the KTH Royal Institute of Technology in Stockholm as well as Lund University.

Image 1: Opening of the Smart Factory Mittelhessen by THM President Prof. Dr. Matthias Willems, Stephan Pittner (Cloos Schweißtechnik), SFM Director Prof. Dr. Christian Überall and Dr. Anne-Kathrin Roth (Roth Industries). (Image source: THM)

Image 2: With the CLOOS robot system, the Siegen Smart Demonstration Factory is researching the welding factory of tomorrow. (Image source: SDFS)

CLOOS Welding technology:
Robot and welding technology from a single source

Since 1919, Carl Cloos Schweisstechnik GmbH has been one of the leading companies in welding technology. More than 900 employees all over the world realise production solutions in welding and robot technology for industries such as construction machinery, railway vehicles, energy, automotive and agricultural industry. The modern CLOOS welding power sources of the QINEO series are available for a multitude of welding processes. With the QIROX robots, positioners and special purpose machines CLOOS develops and manufactures automated welding systems meeting the specific requirements of the customers. The special strength of CLOOS is the widely spread competence. Because – from the welding technology, robot mechanics and controller to positioners, software and sensors – CLOOS supplies everything from a single source.

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