CLOOS

SUCCESS STORY

HIGH-TECH IN TRACTOR CABS PRODUCTION

AGCO shapes Industry 4.0 with CLOOS technology

CONNECT WITH US!

HIGHEST PRECISION AND MODERN TECHNOLOGIES

AGCO relies on its long-standing cooperation with CLOOS to maximise production efficiency.

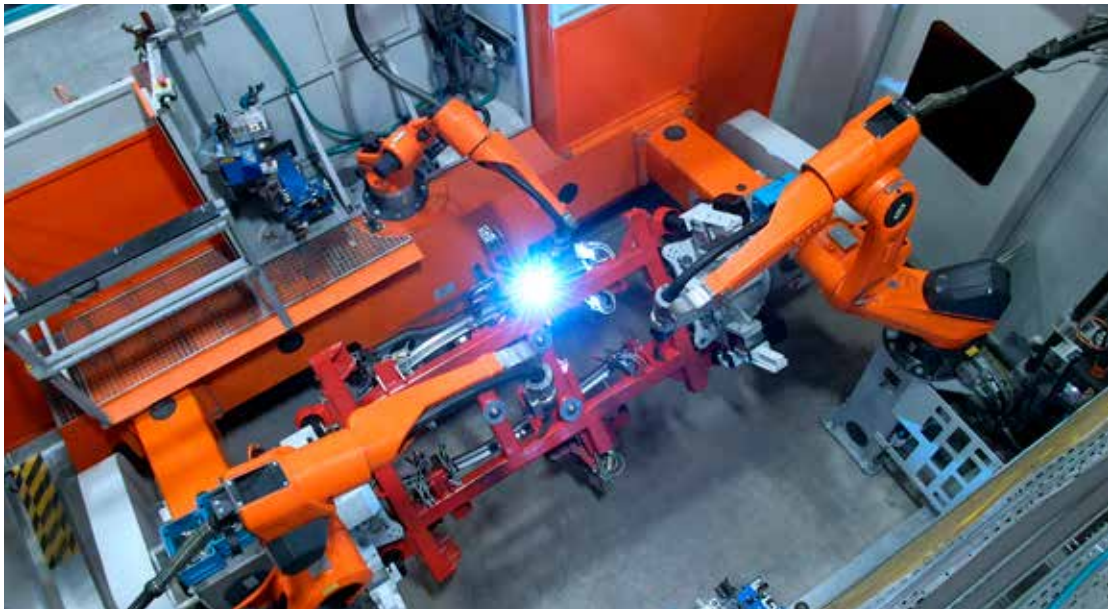
Asbach-Bäumenheim/Haiger, 02/2025
As the world's leading manufacturer of tractors and agricultural machinery, AGCO produces around 30,000 tractor cabs for the Fendt and Massey Ferguson brands at its Asbach-Bäumenheim site every year. With around 1,500 dedicated employees, AGCO relies on the highest precision and modern technologies to achieve maximum production efficiency. A key component of this success is the long-standing partnership with CLOOS, which is characterised by the integration of advanced welding technologies and digital solutions.

The production of tractor cabs at AGCO is characterised by a high level of vertical integration and essentially comprises the following steps: Plate and profile production, welding and coating of the cab frame and cab assembly. The use of CLOOS technology is an important part of welding production, as it enables precise and flexible processing of the tractor cab frames.

More than 40 CLOOS robots are used in the two complex and chained production lines at AGCO. These robots work hand in hand with workpiece positioners, handling systems and manual welding technology.

Efficiency due to digital networking with C-Gate

A central element of the digital production environment at AGCO is the C-Gate digitisation platform from CLOOS. The C-Gate dashboard offers comprehensive analysis and management functions that make it possible to record and evaluate production data in real time. This continuous monitoring is decisive for maximising the production efficiency and guaranteeing the quality of the tractor cabins.



AGCO has relied on CLOOS welding technologies for decades.

'Nowadays, networked production is essential to ensure that everyone involved always has access to the latest data,' emphasises Markus Rainer, Operations Engineer for the Tractor Body and Paint segment at AGCO.

'With the help of this data, the continuous improvement process can be operated in a much more targeted manner, which means that the desired results can be achieved more quickly.'

Digital networking plays a central role in the production of tractor cabs.

The open interface technology from CLOOS makes it possible to optimise the use of welding data together with data from different production areas. 'Higher-level software enables us to network the entire production process and visualise the interaction between the various production steps. Open interfaces make cross-process networking of data from different technologies in our production possible and improvements can be achieved across process steps,' explains Markus Rainer.

Reduced error rate and continuous improvement process

With the help of the C-Gate dashboard, deviations in production at AGCO are identified immediately so that quality losses or inefficient processes can be prevented. The use of C-Gate supports the targeted analysis of production data, allowing appropriate measures to be introduced at an early stage to improve the key performance indicators (KPIs). This procedure has contributed to a significant reduction in the error rate and an improvement in production quality.

Offline programming with QIROX RoboPlan

AGCO uses the QIROX RoboPlan offline programming system from CLOOS in parallel with C-Gate. While production is running in the robot system, a new welding program can be created in RoboPlan at the same time. With this offline programming system, welding and travelling lengths as well as sensor routines are created on 3D models of the welding assemblies. The welding parameters and other functions required to run the program are also defined. The welding program developed in this way is transferred directly to the robot controller.

'With RoboPlan, we can seamlessly integrate our welding programs into our digitised infrastructure and thus ensure a smooth process that works both online and offline,' explains Frank Zinsmeister, offline programmer at AGCO.

The C-Gate dashboard offers comprehensive analysis and management functions.

The RoboPlan offline programming system is fully integrated into the digital infrastructure.

Stable production processes and traceability

User-friendly operation via the teach pendant (PHG) ensures versioning of the welding programs, which is crucial for the traceability of changes in the welding programs and therefore for the operability of the welding systems. This is essential to maximise efficiency and avoid errors in production. Continuous versioning enables robot programmers to always have access to the latest and error-free program versions, which is a prerequisite for process stability and effective optimisation of production processes.

Technological partnership sets standards

The partnership between AGCO and CLOOS shows how advanced technologies and digital networking can achieve a significant increase in production efficiency and quality. ''Digitisation offers us enormous opportunities to make our production more efficient and competitive,'' says Markus Reiner.

The application of the CLOOS technologies C-Gate and RoboPlan at AGCO illustrates how modern manufacturing solutions and digital networking can revolutionise production processes.

Easy access to current program and production information supports the continuous improvement process in the welding shop, which is essential for competitiveness in a digitally networked world. AGCO is thus setting standards in tractor cab production and demonstrating how Industry 4.0 can be successfully implemented.

CLOOS

PRESS CONTACT

CARL CLOOS SCHWEISSTECHNIK GMBH

Main office: Carl-Cloos-Strasse 1
Central warehouse: Carl-Cloos-Strasse 6
35708 Haiger
Germany

Telefon +49 (0) 2773 85-0
E-Mail info@cloos.de
www.cloos.de

CONNECT WITH US!