

COMBINATION OF CNC MACHINES AND LOADING ROBOTS: GREATER EFFICIENCY IN MANUFACTURING

Collaboration between machine tool manufacturer HURCO and suppliers of automated loading systems has resulted in higher productivity and greater returns. Automated loading enables capacity expansion in individual piece and small series production without a need for additional personnel to operate the machines. Loading robots can also be deployed in unmanned shifts or on weekends.

Planting near Munich, Germany, March 2019: Automation solutions from HURCO offer an opportunity to successfully address the growing lack of specialists, particularly for manufacturing SMEs. Specialists can be deployed for more demanding tasks when robots assume the loading and unloading of CNC machines. This leads to a reduction in unit costs and more efficient deployment of personnel.



“We are collaborating with various automatic loading system providers”, reports Michael Auer, Managing Director of HURCO Germany. “This allows us to satisfy a wide variety of process requirements and enable our customers to enjoy a sustainable path to increased productivity at the same manufacturing quality.” In practice this means: HURCO informs its customers about suitable automation solutions on the market, such as EROWA, BMO Automation or ZeroClamp, and supports them during

implementation. This can even include using the DNC interface to integrate a machine tool into an existing process control system. Its software thus takes on the organizational tasks and processes production orders via the connected machining centers in accordance with the program.

Possibility of combination with different loading systems

The practical application example respectively shows an EROWA Robot Compact 80 or the BMO Titanium robot operating two CNC machining centers docked to the right and left of loading system. The pieces to be machined are fed into the robot cell on trays.



The robotic arm integrated within the cell positions these one at a time in the HURCO machining center and removes them after completion to deposit them back into trays in the cell. The new Zerobot® loading robot from ZeroClamp additionally replaces tools and grippers in a flexible manner during a manufacturing process. “All that remains for the operator is the programming of the machine tool and the loading of the shelves in the cell,” explains Auer. Like many contract manufacturers, Managing Director of MAL Metall- und Anlagenbau Lemke GmbH Peter Lemke sees the automation of individual production steps as the only option for meeting good demand for orders despite a lack of personnel. “We have been wringing our hands for some time now in our search for machining mechanics”, is how he describes the situation. “The integration of a loading robot enables us to operate a second or third shift without personnel.”

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