QCMT&T: Quality improvement thanks to Industry 4.0 production line - jointly developed with Bosch Rexroth

QCMT&T goes Industry 4.0

Future-oriented thinking comes naturally to the Qinchuan Machine Tool Group (QCMT&T), based in Baoji. This is why the leading company in Chinese machine tool manufacturing has set itself the goal of increasing the share of intelligent technologies in its production significantly. The first big step: A completely connected assembly line for the production of robot gears - jointly developed with Bosch Rexroth.

Higher level of automation, quality growth - the two-part and modular production line resulting from the cooperation can exactly provide this. On the line, the Chinese company flexibly manufactures and installs 35 different variants of robot gears without set-up times. For the machining and assembly line, equipped with the CNC control IndraMotion MTX, QCMT&T specifically relies on the strengths of the Rexroth technologies. Guided by digital assistants, the QCMT&T employees produce and install seven different gear types in five sizes each. Rexroth transfer systems transfer the workpieces through the assembly line on carriers equipped with RFID tags. Those tags contain all information for each single workpiece, which can be read out at the work stations.

Employees, workpieces, processes - everything connected!
Within the assembly, displays and a pick-to-light system show the employees which work steps are required and refer to the correct components for the individual workpieces. During the joining process, the intelligent cordless nutrunner Nexo supports the employees. It is directly connected to the Manufacturing Execution System (MES) and thus knows with which torque bolts and nuts need to be tightened. The interactive communication platform ActiveCockpit collects production data, prepares it in real time and can display each user the information that is relevant for him. The system also keeps an eye on weaknesses and problems. Thanks to its modular design, the Industry 4.0 line can also be expanded by additional work stations at any time.

Solved with
- CNC control IndraMotion MTX
- Nexo intelligent cordless nutrunner
- Manufacturing Execution System
- ActiveCockpit

Contact: www.boschrexroth.com/machinetools