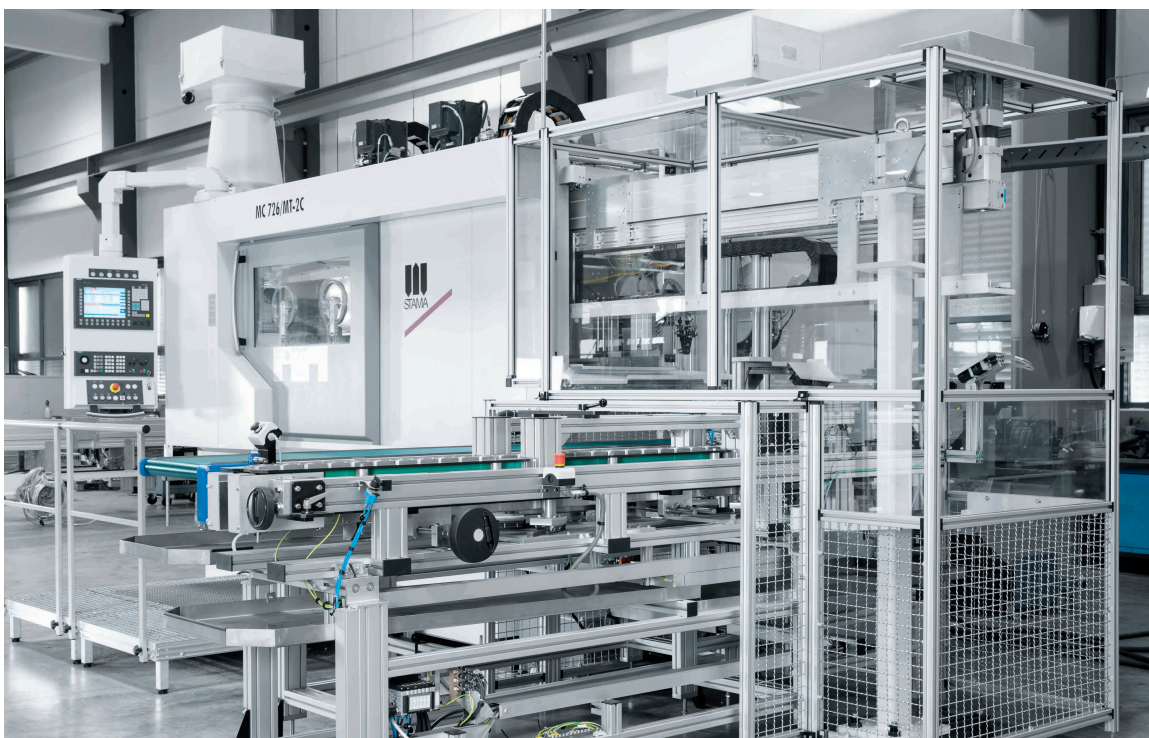


Application Report Stama Maschinenfabrik GmbH
Milling-turning centres from Stama are fully focused on flexibility

Batch size 1 – setup time 0

Many users of milling-turning centres from the Stama brand are reporting time savings of up to 70% and unit cost reductions of 50%. The reason for this is the high flexibility of the machines and their virtually negligible setup times. This enables small batch sizes and high-volume series to be processed one after the other in almost any combination. The integrated automation solution from Festo for loading and unloading the workpieces as well as the tool changer in the additional magazine play their part in this success.



Vertical part loading

“The machines from the MT series MT726-2C and MT734-2C use two tools independently in parallel. The rotating spindles permit vertical loading of parts,” according to Mr Schweicker. “Part loading is carried out by the integrated automation solution, a linear gantry from Festo with suitable grippers,” says Jochen Boscher from the project management team at Stama. The loader and unloader places the workpiece at the processing station, where it is automatically clamped. This enables optimum use of the operating cycles: while one workpiece is still being processed, the integrated automation solution can move into the processing area, unload finished parts and remove them after processing, all independently of the other workpiece.

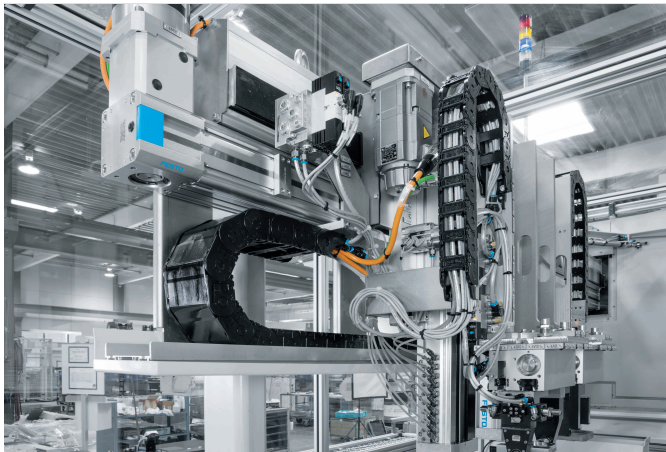
The result is shorter unit times and lower unit costs, since loading no longer needs to be done manually. Instead, the ready-to-install linear gantry is opening up new perspectives. A 4.5-metre long axis DGE on the horizontal as well as two independently working vertical axes EGC with grippers HGPT from Festo enable the workpieces to be transpor-

ted directly to the working space for processing, in other words simultaneously loaded and unloaded. Festo delivers the loader and unloader to the machine complete and ready-to-install.

Tool changer reduces setup times

Stama milling-turning centres from the MT726 and MT734 series are also available with an additional magazine for holding further tools in order to significantly reduce setup times when frequent component changes are required. Here too, fully automated tool changes are performed by a complete and ready-to-install handling solution from Festo. This tandem gripper/rotary unit comprises axes EGC, the pneumatic semi-rotary drive DRRD and the heavy-duty tool gripper HGPT.

“It’s a big advantage to be able to get all the solutions we need for workpiece and tool handling from a single source during the project planning process,” emphasises Mr Boscher. “In Festo, we have a competent development partner for all of our machine automation needs.”



Parallel, independent use of two tools: part loading is carried out by the integrated automation solution, a linear gantry from Festo with suitable grippers.

Photo: Festo

Ready-to-install system solutions

System solutions project teams from Festo have the ability to respond quickly to requests. This means shorter offer and implementation times for machine manufacturers. Integrated automation can be quickly incorporated into the machine controller thanks to the integration of various bus systems or the I/O interface. Customer-specific solutions for installation interfaces and disconnection points are adapted to the respective requirements. The ability of the system solutions team from Festo to adapt the front end to specific requirements and customer needs ensures flexibility of the loader and unloader as well as the tool changer in the additional magazine.

Supplied fully assembled and tested, these ready-to-install systems can be delivered directly to the machine and plant. The scope of delivery includes all design data and circuit diagrams and a comprehensive functional guarantee. Under a single part number, users obtain



“What makes our milling-turning centres stand out is the fact that workpieces can be fully milled, turned, drilled, reamed, hobbled, deburred and polished on all six sides in one operating cycle”

Gerhard Schweicker, sales engineer, Stama Maschinenfabrik GmbH. Photo: Stama

not only hardware in the form of a ready-to-install module or subsystem but also a complete added-value package. Complete solutions ease the burden on technical personnel, keep design costs low, simplify the procurement process and reduce process costs.

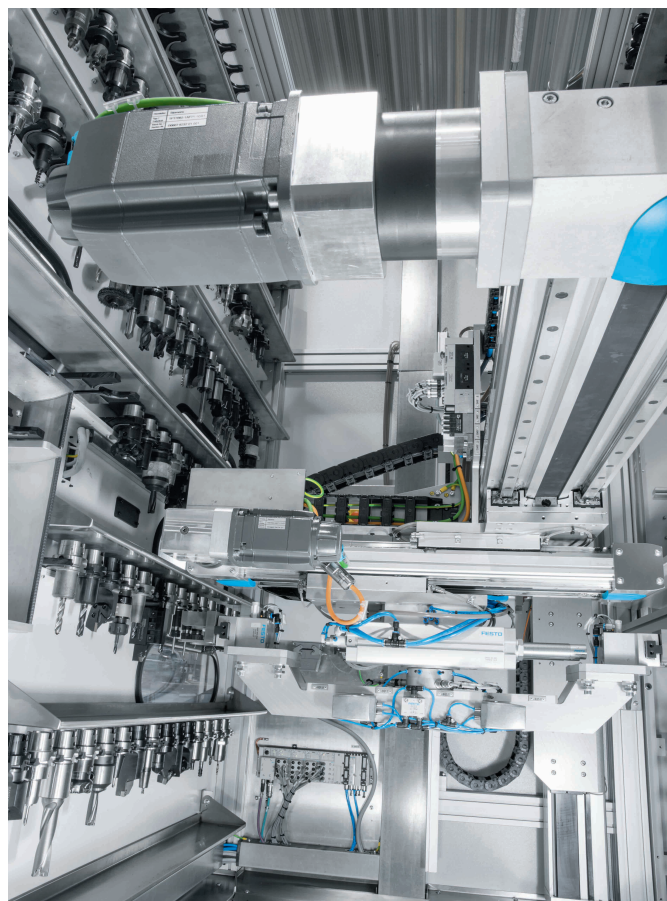
Available worldwide

“The integrated automation solution with the loader and unloader as well as the tool changer from Festo helps to achieve a space-saving machine layout,” says Mr Schweicker. “Since three quarters of our

machines are in use around the world, it is even more important that we work with a global partner like Festo with its extensive sales and service network. This is particularly the case for China, where we as a machine tool manufacturer are experiencing especially strong growth,” adds Mr Boscher about Stama.

“Integrated automation enables optimum use of the operating cycles: while one workpiece is still being processed, the integrated automation solution can move into the processing area, unload finished parts and remove them after processing, all independently of the other workpiece”

Jochen Boscher, project manager, Stama Maschinenfabrik GmbH. Photo: Stama



Tool changer reduces setup times: this tandem gripper/rotary unit comprises axes EGC, the pneumatic semi-rotary drive DRRD and the heavy-duty tool gripper HGPT and is a complete and ready-to-install handling solution from Festo. Photo: Festo

**About Festo:**

Festo AG is a global player and an independent family-owned company with its headquarters in Esslingen/Neckar, Germany. The company supplies pneumatic and electrical automation technology to 300,000 customers of factory and process automation in over 200 industries. Our products and services are available in 176 countries.

With about 16,700 employees in 61 companies worldwide, Festo achieved a turnover of around €2.28 billion in 2013. Each year over 7% of this turnover is invested in research and development. In this learning company, 1.5% of turnover is invested in basic and further training. Yet training services are not only provided for Festo's own staff – Festo Didactic GmbH also supplies basic and further training programmes in the field of automation technology for customers, students and trainees.

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