



Dynamic transfer system for varied assembly needs

Up to 40,000 parts per day

With a fully-automatic assembly line and the ActiveMover linear motor transfer system from Bosch Rexroth, Wöhner GmbH is able to assemble 40,000 fuse holders in up to 94 different varieties each day. To do this, 20 workpiece pallets are channeled asynchronously through the processing stations in a highly-dynamic way in the shortest transport times possible.

Wöhner GmbH & Co. KG manufactures products and systems for energy distribution, control technology and renewable energies in Germany. For the assembly of fuse holders, the company configured and commissioned a fully-automated assembly line based on the ActiveMover from Bosch Rexroth within a period of six months. The transfer system is based on the principle of a revolving linear motor with vertically arranged workpiece pallets. The workpiece pallets' motion profiles can be defined individually. The modular design makes future adjustments simple. The goal was to allow for the automatic conversion of the part feeding, as well as the integration of this into fully-automatic processes.

Highly dynamic and future-proof

The ActiveMover accelerates the workpiece pallets at speeds of up to 40 m/s^2 and can therefore achieve very high dynamics. The assembly of the fuse holders has been designed so that the cycle time at each station for each component is less than three seconds. All assembly steps are checked automatically through several camera systems. In addition, the transfer system is also connected to a superordinate PLC control system through an open interface. Furthermore, the modular design of the ActiveMover makes it easier to make adjustments to the hardware and software for new tasks so that other varieties can be manufactured with the same level of efficiency in the future. The technicians can add new target positions and movement parameters through the AMpro software (ActiveMover program) without this requiring lots of programming work thanks to the simplified system configuration.

The challenge

Automatic conversion of part feeding, as well as integrating fully-automatic processes into fuse holder production.

The solution

Fully-automatic assembly line with ActiveMover transfer system

The result

"It is only with the help of high-productivity assembly systems that we can only manufacture our products in Germany in the long-term."

Andreas Friedrich, Manager of Robotics and Software Development at Wöhner GmbH & Co. KG



Solved with

- ▶ Fully-automatic assembly line with ActiveMover transfer system
- ▶ Modular design
- ▶ Simple system configuration through AMpro
- ▶ Advice, delivery and servicing