

EasyRobot – The Perfect Combination of Industrial Robot and WAFIOS Machine

Increasing quality requirements of the industry on the handling of workpieces

EasyRobot manages the handling of delicate workpieces well. WAFIOS has integrated the robot made by KUKA directly into the WPS 3.2 EasyWay programming system. Thus it can be operated like the WAFIOS machine. Expensive robot training courses for employees are therefore a thing of the past.

The industry's rising quality and packaging requirements go hand in hand with the rising requirements on the handling of finished springs and bent wire and tube parts. These parts, for example, have to be placed in a defined position in special transport containers or they have to be removed from the machine's tool room without damaging their surface. More and more, industrial robots are used to carry out tasks that formerly were carried out manually, by simple transport systems or conventional workpiece slides. WAFIOS follows this trend and integrates the KUKA robot of the Agilus and Cybertech series completely into the WAFIOS programming system WPS 3.2 EasyWay. The EasyRobot sets new benchmarks in the operation of machines.

Integration into WAFIOS programming system

Many WAFIOS CNC machines for the production of springs and bent wire and tube parts (fig. 1) can now be operated together with the robot via the machine's control unit. This merges the production program for the spring or the bent part with the robot program. Due to the integration into the WAFIOS programming system WPS 3.2 EasyWay, the robot does not have to be set up separately anymore and operators do not need special training courses to learn how to program the robot. User guidance and programming of robot movements takes place on the machine's touchscreen monitor (fig. 2). All sequences performed by the robot can be implemented directly in the program of the machine. The robot axes can be conveniently moved using the machine's hand-held operating device. The robot program is saved together with the bending program and can be reloaded as required. The robot forms a safe and CE-compliant overall system with the machine.

The EasyRobot does not only have a pick-and-place program but also special functions like palletizing and job lists.

New benchmarks in robot applications

In addition to the ready-to-operate robot, the overall scope of EasyRobot includes the entire periphery, such as base, power supply, collision protection and parallel gripper. The robot complies with CE regulations and thus ensures safe operation. Depending on the version, EasyRobot is either integrated into the machine structure (see fig. 4) or it is adapted specifically to the machinery system (see fig. 3).

Thanks to the complete integration of the industrial robot into the production process, the EasyRobot considerably reduces the programming time of bending programs that include handling tasks and it reduces the costs for special robot training of operators.



With EasyRobot, WAFIOS sets new benchmarks in the field of robot applications for simple handling tasks. This makes cost-effective and easy-to-use robotic solutions accessible at a new level and thus also very attractive for SMEs.

As an official KUKA system partner, WAFIOS AG continues to offer complete and customized automation solutions.



Fig. 1. EasyRobot takes over pick-and-place tasks, for example. Image: WAFIOS





Fig. 2 User guidance and programming of robot movements takes place on the machine's touchscreen monitor. Image: WAFIOS



Fig. 3. EasyRobot can be adjusted to the machinery system. Image: WAFIOS





Fig. 4 Integration into the machinery structure is possible too. Image: WAFIOS

Brief profile of WAFIOS

WAFIOS develops, designs, and produces sophisticated, specialist machinery for the wire and tube processing industry and for cold-forging applications. The company is one of the world's foremost providers in this field. More than 130 years of experience stand for quality and innovation. The range of products includes more than 130 types of machines. Equipped with the latest software, artificial intelligence and IoT, WAFIOS machines optimize the output, the quality and the setup process.

60 percent of WAFIOS' customers work in the automotive and supplier industry, with a growing share in e-mobility. But we also serve major industries such as mining, construction, electrical engineering, medical technology, household appliances, agriculture, and furniture. Exports account for more than 60 percent of total sales.

Today, WAFIOS has evolved into a group of companies that consists of parent company WAFIOS AG, based in Reutlingen, plus several locations throughout Germany (Reutlingen, Marktredwitz, Wuppertal, Berlin, Simonswald), France (Ecuelles), Portugal (Maia), the Americas (Branford/USA, Mokena/USA, Querétaro/Mexico; and São Paulo/Brazil), and Asia (Shanghai/China and Zhangjiagang/China). WAFIOS expands its core business with the connectavo brand, developing software solutions for maintenance work in, for example, hotels, communities, or the industry.