



Process optimization at the Bosch Ansbach plant

APAS and humans hand in hand

The Bosch Ansbach plant manufactures EPS control units for car steering systems, among other things. Four APAS assistants work closely with their human partners in a semi-automated production process. The robots directly assist humans without any special shielding and thus define a new qualitative dimension in human-machine interaction.

At the Bosch plant in Ansbach, robots and humans work hand in hand. The four APAS assistants help employees with standardized processes that are run by automated manufacturing stations. For example, when the EPS control units are heated to high temperatures during the final electrical quality control to measure the temperature resistance. This process requires that the measuring device be loaded or unloaded with the components. The APAS assistants are responsible for loading and, in particular, removing the hot control units. In contrast to humans, they are not bothered by the heat – instead, they perform their duties reliably, relieve the strain on employees and make a valuable contribution to safety at the workstation.

APAS assistant does the groundwork for people

People get tired very quickly with the production plant's monotonous loading and unloading, increasing the susceptibility to errors. It is precisely here that the APAS assistant can provide people with meaningful assistance while they concentrate on more mentally demanding tasks, such as evaluating the components after the temperature resistance test. This intelligent decision is still very much left to people, as is choosing the best mix of human-machine work. Whether it's two employees and one APAS assistant, two robots and one employee or three production assistants as an island solution: This new technology offers a wide range of configuration options for constantly changing production requirements, for example, as a result of demographic change. The robots accommodate the increasing proportion of older employees as well as their intuitive user interface, which makes it easy for older employees to create new work schedules.

The challenge

To support, assist & automate routine processes in EPS control unit production.

The solution

Variable automation using APAS assistants, flexible human-machine mix configuration.

The result

"People get tired over time, particularly with routine work. APAS can provide people with meaningful assistance here."

Wolfgang Pomrehn, Product Manager APAS assistant



Solved with

- ▶ 4 APAS assistants for loading and unloading as well as for transport to the measuring unit
- ▶ Intuitive user interface for new applications
- ▶ Configuration to suit production requirements