

Simple AI solutions for maximum productivity

Digital automation and artificial intelligence in production

Festo is setting new standards in process optimization on the shopfloor: By using AI and other smart software solutions, Festo enables its customers to achieve maximum flexibility and increased efficiency in their production processes. A significant increase in overall system effectiveness has already been demonstrated in many projects. The Festo AX Industrial Apps in particular make digitalization and networking scalable and support the efficient advancement of Industry 4.0 in production.

Technical availability plays a crucial role as a key performance indicator for manufacturing companies to measure and maximize their productivity and effectiveness. According to a study*, five to 20 percent of productivity losses can be attributed to component failures. More and more companies are turning to predictive maintenance to avoid unplanned downtime and respond to maintenance needs at an early stage.

"We are proud to offer our customers innovative solutions that make them more efficient, faster and more productive," says Gerhard Borho, Member of the Management Board Information Technology and Digitalization at Festo. "By using AI-supported process optimization tools, our customers can increase their competitiveness and take their production to a new level. Our AX Industrial Apps offer exactly that: easy-to-install, scalable solutions that enable effective implementation of predictive maintenance."

The AI-based AX Industrial apps make decisions easier

The industrial software solution Festo AX Industrial Intelligence uses artificial intelligence methods and enables the optimization of various processes on the shopfloor by making the best possible use of plant data. This enables users to increase productivity, reduce energy costs, avoid quality losses, optimize administrative store floor processes and - in coordination with machine builders - establish new business models. Customer experience shows optimization rates of over 20 percent and gives an idea of how much potential there is in this data and algorithms.

Festo AX Industrial Intelligence thus enables optimization in three typical fields of application: Predictive Maintenance, Predictive Energy and Predictive Quality. Together with the customer, Festo develops how scalable, individual solutions can be implemented. What was classic AI project business just a few years ago has now taken on two new dimensions at Festo: With AX Solutions, more complex subsystems such as welding, gluing, riveting or packaging are made scalable with just a few adjustments. The AX Industrial Apps are even more scalable: Here, customers can even install standardized AI applications themselves and thus optimize products and processes.

In the interests of standardization and a solution that is as simple and scalable as possible, framework conditions such as the type of drives or the number of sensors are specified here. The AX Industrial Apps can then be put into operation by the customer themselves - even

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without their own AI expertise. In this way, manufacturing companies of all sizes benefit from the new, innovative technologies - and machine builders or original equipment manufacturers can set up new business models immediately without the need for years of development work.

Monitoring and maintenance with the Insights Pneumatic app

One example of an industrial app from Festo is the AX Motion Insights Pneumatic App. By using AI and machine learning, the industrial app detects anomalies in the behavior of pneumatic components early and reliably, without the need for complex sensor technology. This enables companies to plan preventive maintenance measures and minimize unplanned downtimes.

The industrial App Festo AX Motion Insights Pneumatic offers a user-friendly interface and simple horizontal and vertical integration into existing systems. It enables companies to monitor their pneumatic components independently and effectively and thus continuously optimize productivity.

Industrial apps also on Siemens Industrial Edge

Festo is also part of the Siemens Industrial Edge ecosystem. This starts with the industrial App Festo AX Data Insights, which is already available on the Siemens marketplace. The app feeds data from Festo components into Siemens Industrial Edge to supply analysis applications with data. Based on this data, customers can set up monitoring and thus improve maintenance processes, reduce their energy consumption and improve quality. Further industrial apps from Festo will soon be available on Siemens Industrial Edge, for example for AI-based monitoring of pneumatic and electric drives.

AX Smartenance closes the loop

With AX Smartenance, Festo also offers a solution for maintenance management that enables customers to digitalize and simplify the maintenance and servicing process in a consistent and intuitive way. AX Smartenance closes the loop by returning condition-based recommendations for action from AX Industrial Apps and AX Solutions to the right addressee in the maintenance process at the right time, in addition to cyclical maintenance tasks.

*<https://www.henkel-adhesives.com/us/en/applications/all-applications/industry-insights/the-impact-of-unplanned-downtime.html>

Persfoto's



Festo Digitalization_1

The use of data is becoming standard in automation solutions in all industry segments. Festo provides the right tools and solutions for this.



Festo Digitalization_2

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