

# AUGMENTED REALITY IN MECHANICAL ENGINEERING

## AND THE MACHINES JUST KEEP ON RUNNING

Anyone who uses the attribute “high-performance” to describe their assembly systems and promises not only a cycle time of under a second but also a system availability of >90 % has complete faith in the quality they deliver. MA micro automation is at any rate a trendsetter. Not only do they install state-of-the-art technology in their machines, their Service department also relies on it. Using augmented automation, for example, they provide audio-visually-assisted remote support and are thus a pioneer when it comes to Industry 4.0. And now they are going one better: with augmented analytics for the condition monitoring of their machines and predictive maintenance based on this monitoring.

### **Augmented Portal for globally available machine and process data**

In addition to their customer support staff, MA micro automation also maintains its machines worldwide from St. Leon-Rot, Germany. From here, they adjust controllers or reprogram robots, which means that they can fulfill almost all their customers’ wishes on the spot. This creates a bond.

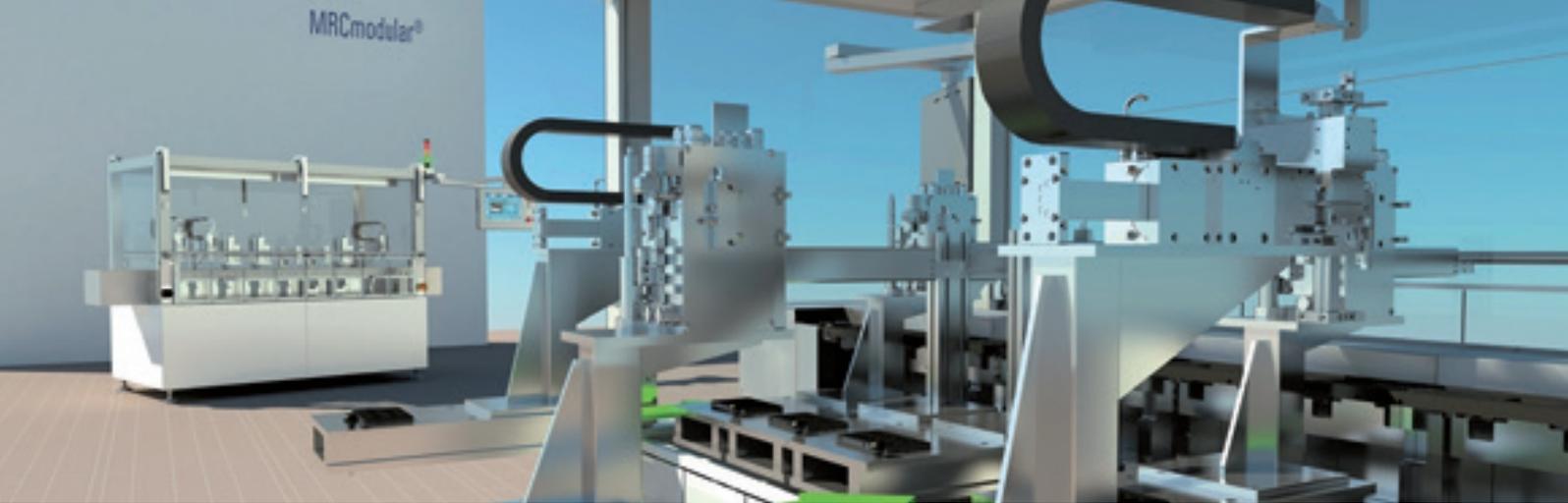
At the heart of their Industry 4.0 solution lies the Augmented Portal. This is where the secure, centralized management of user and device data is performed. The relevant machine data is available to authorized persons around the globe as are the smart apps used to train staff or reliably manage sector-specific processes.

### **Machine monitoring for status-oriented maintenance**

In the future, MA will also continuously record their machines’ operating and status data in order to analyze physical parameters such as vibrations, temperatures, position and proximity. This will then allow it to create a maintenance strategy that is tailored each individual machine.

MA hopes to provide its system operators with additional added value by scheduling maintenance appointment in a timely fashion. This allows the appointments to be integrated in the production process as best possible.





“The data supplied by the machine must be meticulously evaluated very quickly. Only then can the operator take the appropriate action within seconds, before an error occurs. That is why, when it comes to our customers, we are focusing on predictive maintenance,”

Stefan Halder, Sales/Marketing MA micro automation GmbH

Furthermore, potential problems can be detected early, thus allowing corrective action to be taken immediately and costly production downtimes avoided.

### Augmented analytics

MA's medium-term objective is to evaluate, classify and quantify the data and parameter logs. It expects insights into the correlation between a design and its impact in productive operation. MA firmly believes that if this information flows back into the development process, the reliability and service life of their machines can be further increased.



## COMPANY PROFILE

MA micro automation specializes in customized automation solutions for companies in the medical engineering, automotive and optoelectronics industries.

Thanks to a modular design and the wide range of applications and processes that its technology offers, MA customers are able to react quickly to changing market requirements. As the machines can be adapted quickly via remote access, they are their customers' answer to ever shorter product lifecycles – often a crucial advantage for MA customers in today's competitive environment.

