

## Agile power cells

*Good news for all those planning to invest in a standard cell from EGS Automatisierungstechnik: the automation systems from the Donaueschingen-based system integrator, featuring the new KR AGILUS small robot from KUKA, can now be ordered with immediate effect. An impressive combination, as had been seen at Motek.*

The standard cells from EGS Automatisierungstechnik go by the name of SUMO and have proved their worth as innovative automation tools in many applications. The integration of the brand-new KR Agilus six-axis robot from Augsburg-based KUKA Roboter GmbH has produced an all-German combination that sets standards in quality, performance and flexibility.

“When KUKA announced its entry into the small robotics segment and we were able to inspect the KR Agilus for the first time in Augsburg, we were highly impressed by the robot’s performance. Speed, payload, precision and the compact design – the robot is ideal for use in our standard cells. We quickly reached a deal with KUKA Roboter GmbH, with the result that we are already in a position to present our first SUMO cell with the KR Agilus at Motek,” says Heiko Röhrig, Marketing Manager at EGS.

The decision in favor of the KR Agilus was far from being a foregone conclusion, however. Before committing itself to KUKA, EGS carried out a detailed survey of the entire global robotics market. “We wanted to find the best robot and the best control technology available, to complement what we believe to be the best cell available. With KUKA, we have achieved this goal,” Röhrig says.

### **Standard cells for the metal and plastics industry**

Since 1996, EGS has specialized in the production of standard cells and has gradually built up a complete program of highly flexible universal systems that

are particularly well-suited to typical applications in the metal and plastics industry. With immediate effect, the KR Agilus is available for integration into the SUMO series Ecoplex2, Ecoplex3, Duplex and Multiplex.

These standard cells, whose name is not intended as a reference to the Japanese style of wrestling, but stands for “Standardized, Universal, Minimum space, Optimized”, vary in their size, workpiece supply and overall performance. Whereas the smaller SUMO systems Duplex and Multiplex are designed for use with the quarter-size Europallet format, the large automation systems of the Ecoplex series can handle a range of pallet formats, mini-load containers, and special customized formats. And the high flexibility of the cells doesn’t stop at the workpiece supply, either. Depending on the application, loading can take place via pallets, conveyors, push-in trolleys or drawers.

The term “loading and unloading cells” is not favored by EGS, however. Of course, the loading and unloading of machines still constitutes one of the core functions of the cells. But today they can do far more, thanks to the integration of a wide range of additional work processes. The spectrum extends from finishing and measuring tasks right up to the complete machining of the parts. Thanks to the robot’s flexibility, there is hardly a task that cannot be integrated into the cell.

Nonetheless, the designation “standard cell” remains appropriate, despite all the different possible applications, as Heiko Röhrig explains: “The consistent use of the robot, a modular cell layout, the intralogistics – all this is standard and saves time and money when designing a new system. All that is then needed is to solve the application-specific task; for the rest, we can rely on standards that have proved their worth in thousands of applications. A perfect solution which allows us to offer cost-effective, turnkey implementation of even complex complete systems within 14 weeks.”

## **Benchmark: SUMO and KR Agilus**

With nearly all applications in the metal or plastics industry, cycle times play a decisive role. Here, the KUKA KR Agilus scores with its enormous velocity potential across all axes. KUKA specifies a cycle time of 150 cpm for the Agilus model KR 6 R900, thereby advancing into areas that used to be the sole preserve of SCARA and delta kinematics. This makes it possible to increase the overall performance of the SUMO cells to an even greater extent.

It was not only the robot's speed which convinced EGS, however, but also the overall package. "Given the wide spectrum covered by our applications, we need a robot that is good in all disciplines. And that is exactly where the all-rounder KR Agilus comes into its own: the six-axis robot is highly compact and therefore ideal for work in narrow machines, while offering an excellent payload capacity of six kilograms and an impressive reach of 900 millimeters. Thanks to its accuracy, we can also implement it for high-precision work; and the controller excels in every respect. And with the planned expansion of the KR Agilus series to encompass a wide range of models, we can be sure that we will be in a position to offer the optimal robot for every application," Heiko Röhrig continues.

With the use of the KR Agilus, operation of the standard cells is set to become simpler than ever. All the functions run on the new KUKA KR C4 compact controller, eliminating the need for a separate system controller. The controller and teach pendant are state-of-the-art and the epitome of user-friendliness.

This is good news for the user – as is the price of the SUMO cells, which remains virtually unchanged despite the increased performance of the systems. Greater performance at an attractive price: one reason for this is the restraint shown by the Augsburg robot makers, who are offering the KR Agilus at the standard market conditions of their Japanese competitors.

## Captions:

IKH 3134: Making its debut at Motek: the SUMO Ecoplex cell with the brand-new KR Agilus from KUKA.

IKH 3111: The six-axis KR Agilus robot offers impressive acceleration, high precision and a compact design.

IKH 3169: Heiko Röhrig, Marketing Manager at EGS Automatisierungstechnik, is impressed by the overall performance of the KR Agilus.

## Text and photos:

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