Well-served
KUKA robots for the food industry
Optimally tapping automation potential
From secondary to primary applications – ideally equipped with KUKA

Automation is in greater demand in the food industry than ever before. In particular, the innovative drive and dynamism of the industry are astonishing. In relevant criteria, such as availability or energy efficiency, it has been possible to achieve significant improvements. Production meanwhile boasts consistently high product quality that was inconceivable just a few years ago – thanks to the systematic use of robot-based automation solutions.

When it comes to primary and secondary applications, KUKA is one of the pioneering key players in the market. Our intelligent, custom-tailored solutions ensure efficient, process-reliable food production and thus considerably greater cost-effectiveness.
Recipe for success to enhance competitiveness
Flexible and easy-to-operate automation solutions

All food and beverages require packaging. It protects the contents and informs consumers, contributing to their purchasing decision. That is why this central area meanwhile accounts for more than 40 percent of production costs. The intelligent and flexible automation solutions from KUKA play a significant role in reducing this constantly growing cost block in the overall process chain to a reasonable level, thereby boosting competitiveness.

For every requirement, we offer custom-tailored solutions that are easy to integrate – with permanently available components that harmonize perfectly and robots that perform convincingly both in the broad range of secondary applications and in primary processing with high hygiene standards.

100% flexibility
KUKA robots are flexible. Intelligent software allows adaptation to new packaging designs in the shortest possible time. The controller communicates effortlessly with your IT solutions. Batch processing, recipe management or remote monitoring – the possibilities are endless.

99.995% availability
KUKA robots are among the fastest of their class and characterized by maximum availability, even at maximum throughput. Qualities which are reflected in low costs and high profitability throughout the entire life cycle. Our success has proved us right: in many different industries, KUKA is one of the world’s leading suppliers of robotic automation.

100% safety
Food safety is subject to increasingly strict legislation. Robots minimize the human workers’ direct contact with the product. To this end, KUKA supplies special, easy-to-clean robot variants with surfaces optimized for hygiene. And our solutions also support the traceability of your products in the production process if required.
The new pace of palletizing
KUKA robots for palletizing applications

Palletizing robots from KUKA have two convincing arguments: they are extremely fast and embedded in a broad product range that offers every company an unrivaled variety of options. With payload capacities from 40 kg to heavy loads of 1,300 kg and a reach of up to 3,601 mm, an appropriate solution is ensured for even the most specific of requirements – such as the KR QUANTEC PA H0 that can even be used in sensitive hygiene areas thanks to its food-compatible lubricants.

More space for your success: the virtual protected space
KUKA robots monitor their workspace by means of safe software. This means that they can also be operated in confined spaces, for example under craneways or in facilities with low ceilings.

No loss of quality
A real pro makes no compromises – not even in extreme situations down to –30 °C. The KR QUANTEC PA arctic has been specially designed for palletizing in deep-freeze environments. It can work in the freezing cold: uncompromisingly, reliably and extremely fast, without heaters in the robot arm and without any protective suit. This offers radical cost savings compared with conventional shrouded solutions. For example, no annual costs and downtime for exchange work are required. Furthermore, cost-intensive heat emissions in the cold storage depot are avoided as no heating is required.

The models of the energy-efficient KR QUANTEC series meet all the needs of future-oriented automation: minimized space requirements, shorter cycles, maximum availability and reduced operating costs. With their streamlined design, they can reach stack heights of over 2,500 mm – and a hollow shaft with a diameter of 60 mm allows protected routing of the energy supply.

The compact KR 40 PA palletizing robot stands out for its low weight. Other KUKA palletizing robots, such as the KR QUANTEC palletizing robots, the KR 300-2 PA and KR 470-2 PA, impress with their high speed. Higher payloads are lifted effortlessly by the KR 700 PA, making it perfect for palletizing whole layers. In the heavy-duty category, the KR 1000 1300 titan PA is the undisputed champion, capable of lifting well over a tonne and placing it exactly at the target position.
Absolutely clean. Lightning fast.
KR AGILUS Hygienic Machine

Particularly in the case of primary processing, in which the machines come into contact with open foodstuffs, stricter hygiene regulations apply. This is no place for standard design robots. Special variants suitable for cleanrooms are called for. This is where the KR AGILUS really comes into its own – as a hygienic machine, it is particularly suited to applications that require a sterile environment.

The hygiene concept
The robot’s design and materials allow it to be used in applications involving direct contact with foodstuffs and pharmaceutical substances. Corrosion-resistant surfaces, food-compatible lubricants and stainless steel parts ensure the highest level of hygiene.

Easy to clean
Thanks to its hygienic design, deposits cannot form on the surface or screws of the six-axis robot. The cleaning-sensitive electrical interface is not located in the primary contact area but rather underneath the robot. Cleaning is possible using industry-standard cleaning agents as well as high pressure.

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Particular...
KUKA KR C4
One intelligent system controls all.

KUKA KR C4 – one system controls all. Robot, motion, sequence, process and safety control: the KR C4 unites all the control tasks for the efficient use of robots in a single, smart system. With maximum energy efficiency. This sustainably conserves valuable resources and minimizes the cost risks inherent in rising energy prices.

Operation with little knowledge of robotics
mxAutomation is specifically aimed at manufacturers of packaging machines. With the software, integrating robots into the specific controller of the packaging machine is a snap. KUKA robots are then available and easy to use in the familiar programming and operator control environment. This increases user acceptance and significantly reduces training costs.

Especially low-maintenance – without filter mats
The passive heat exchange system of the KR C4, with separate air circulation in the inner and outer zones of the controller, allows low-maintenance operation entirely without the need for filter mats.

The KR C4’s integrated energy management provides standby modes and an Eco mode. These reduce the energy consumption by up to 95%, for example by reducing the robot velocity or through programmable brake systems which maintain the robot’s position without any impact on energy consumption. The energy consumption can be simulated and calculated even in the engineering phase. During operation, the energy consumption can then be displayed and verified on the control panel. KR C4 means efficiency with transparent energy consumption. This forms the basis for energy saving certification with tax advantages (ISO 50001).

Comprehensive advice: KUKA Robotic Consulting & Engineering
Our Engineering Team supports you in the design and implementation of new automation systems and optimizes existing ones. This way, the systems provide optimal support for your production at all times – even under altered operating conditions.

Robotics training in over 25 training centers worldwide
The KUKA College in your vicinity provides first-hand practical experience and teaches the necessary technical knowledge for working with the robot.
Well-served... KUKA robots for the food industry

Stacks up success for any company
The extensive and flexible portfolio convinces throughout the industry.

The practical test shows that KUKA robots for the food industry combine everything that is needed for perfect automation. They impress with a maximized work envelope, minimized disruptive contour and utmost robustness. They are fast and designed to master not only demanding palletizing and depalletizing tasks but also processing tasks in the primary area. The result is short cycle times and increased throughput combined with low space requirements and high cost-effectiveness.
KUKA robot range
The right specialist for every taste

KR AGILUS
The KR AGILUS enables you to tap new fields of application through its versatility. Irrespective of the installation position – whether on the floor, ceiling, or wall – it offers utmost precision in confined spaces thanks to its integrated energy supply system and service-proven KR C4 controller.

KR CYBERTECH nano
The specialized process robots of the KR CYBERTECH nano product family are perfectly tailored to handle small food and packaging items. Benefit from maximum diversity for greater economical flexibility with minimum investment and energy costs.

KR CYBERTECH
These powerful and compact multi-function robots are specialized in handling applications. Moreover, KR CYBERTECH robots also impress with greater integration density and minimal disruptive contours.

KR 40 PA
Fast and precise. Its 4-axis kinematic system enables pallets to be stacked up to 1.6 m high.

KR QUANTEC PA
Maximum dynamism, extreme stiffness and high performance combined with low weight. The series is also optionally available with food-compatible lubricants and as an arctic variant.

KR 30-3 und KR 60-3
These 6-axis industrial robots with jointed-arm kinematics offer precision and versatility. They also have high path accuracy and perfect positioning behavior.

KR 300-2 PA / KR 470-2 PA
Ideally suited to high-speed tasks in the heavy-duty category, with compact design and low weight.

KR 700 PA
The low weight and powerful motors and gear units make the KR 700 PA a real high-speed champion. Also available as an arctic variant.

KR 1000 titan PA
The world’s first robot for payloads up to 1,300 kg – with high dynamic performance and short cycle times.

KR 3D-3 und KR 60-3
These 6-axis industrial robots with jointed-arm kinematics offer precision and versatility. They also have high path accuracy and perfect positioning behavior.

KR ready2_pilot
In order to make the teaching of an industrial robot through manual guidance simple and user-friendly, KUKA offers ready2_pilot: a wireless solution which is particularly easy to use and can be implemented quickly.

KR ready2_powerlink
With ready2_powerlink, KUKA enables the fast and preconfigured connection of robots to B&R programmable logic controllers via the POWERLINK standard.

KUKA Service – working day and night for you
Service quality plays a decisive role in efficient production sequences – over the entire life cycle of the product. To be able to provide you with this efficiency, we have made Customer Service one of our main disciplines – with global presence, a worldwide network of system partners, proven best practice concepts and 24-hour support. The main objective of our services is always the competitive advantage to your company.