

WP Automatic Loader
WP Robot
WP Scoring Robot

New concepts with
WP ROBOT

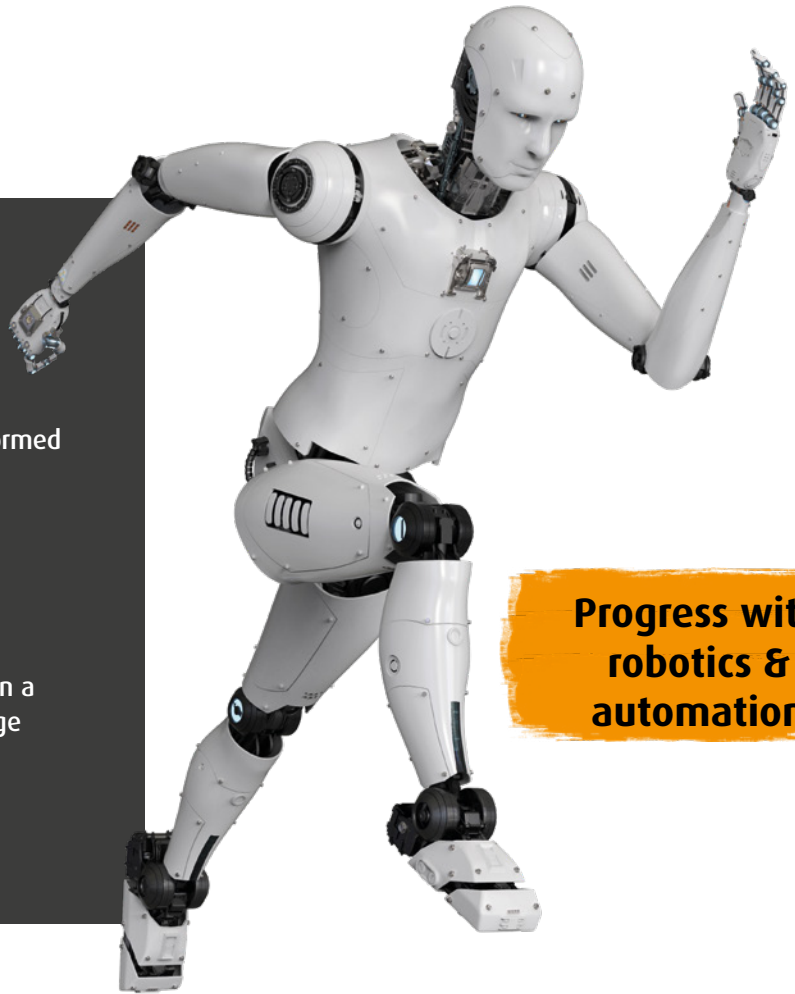
Effective automation of baking processes

think process!

WP BAKERYGROUP

BENEFITS

- Simple work processes can often be performed by robots and automation
- More reliability
- Increased process and planning reliability
- Compensation for staff shortages
- Flexible application options
- Collaborative robots can often be used in a space-saving manner and without a large safety zone



**Progress with
robotics &
automation**

NEW CONCEPTS WITH NEW TECHNOLOGY

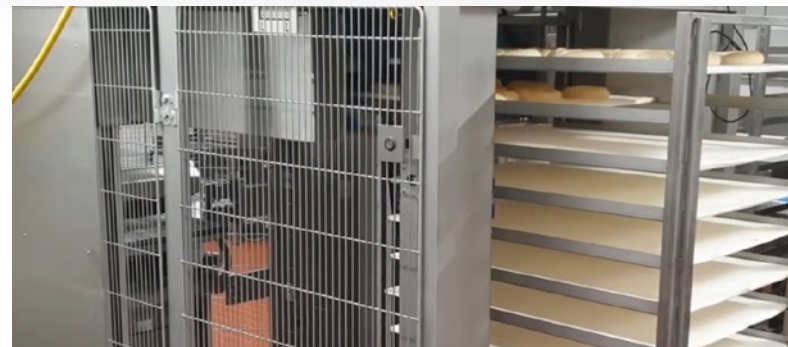
New technologies create new opportunities. The segment of automations and robots, the technology and the spread of possible applications are growing. The food industry also benefits from this in many sectors. The area of application of automation and collaborative robots is vast and they can be used without huge barriers.

Thanks to the flexibility, the possibilities are nearly unlimited. For example, robots can be used for loading and unloading the machines, cutting or tray handling.

WP AUTOMATIC LOADER

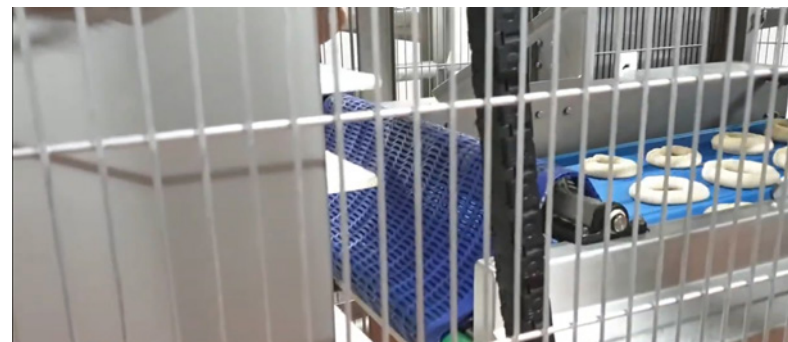
BENEFITS

- **Taking on simple tasks:** The tedious and ergonomically unfavourable manual feeding of products is taken over, relieving the strain on employees
- **Regular feeding:** The products are fed into the system at regular intervals
- **Compensation for staff shortages**



AUTOMATED PRODUCT TRANSPORT

A rack trolley with the dough pieces is docked onto the WP Automatic Loader. The WP Automatic Loader then begins to systematically scrape the dough pieces from the rack trolley. As soon as a unit has been picked up, it is transferred to a system, for example a lye application unit. In this way, the docked rack trolley is systematically emptied from top to bottom. The WP Automatic Loader feeds the dough pieces into the system at predefined intervals.



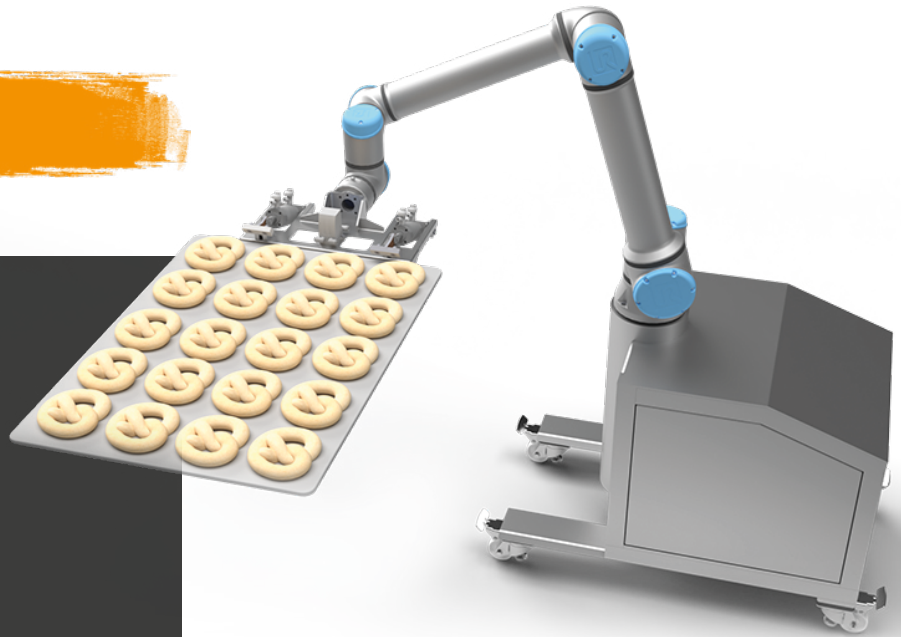
**Systematic unloading
of rack trolleys**



WP ROBOT

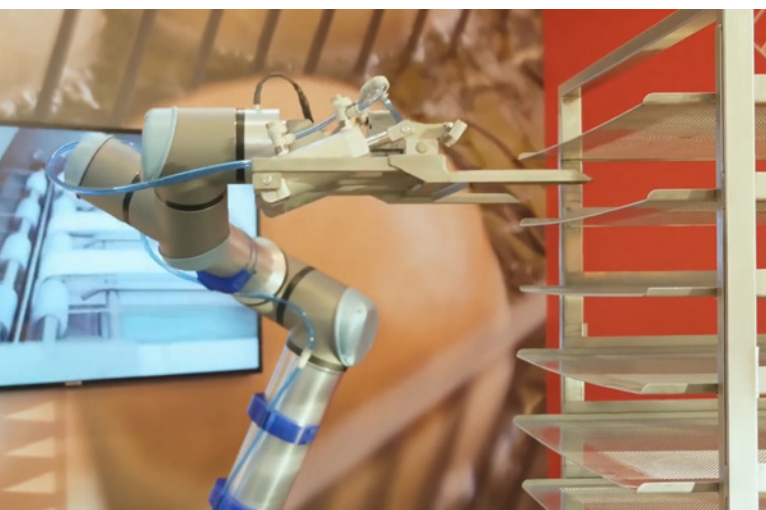
BENEFITS

- **Flexible application options:**
 - Tray handling
 - Product handling
 - and much more
- **Space-saving:** Collaborative robots can often be used in a space-saving manner and without a large safety zone
- **Different versions:** Different sizes / capacities are available depending on requirements
- **Various application possibilities:**
 - Depending on the application, grippers / suction attachments can be changed without tools
 - Various programmes can be stored



WP ROBOTS AS HELPERS FOR THE BAKERY

There is a number of areas in the food industry that benefit from intelligent robot solutions. Simple, tedious tasks that are also not very ergonomic, such as loading machines with dough pieces, can be taken over. This work step, which in many places is still carried out manually, can be easily performed by our WP Robots.



Robots for gripping or suction and conveying in baking processes



ROBOT SIZES

Different robot sizes can be used depending on the load capacity. Our "helper for the bakery" can be used in different areas and is flexibly controllable. The robot's grippers can be exchanged without tools and can therefore grip not only baking trays but also proofing crates etc. Direct product handling is possible with the aid of a suction cup attachment.

AREAS OF USE

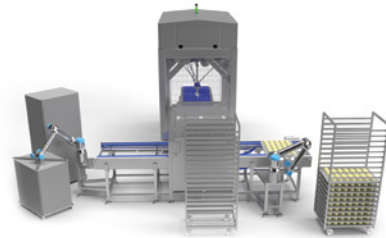
Till now, the WP Robot has been used, for example, for feeding and removing trays from rack trolleys and conveyor belts, handling dough pieces, brushing off baking trays, etc. The robot can be programmed in a variety of ways and used in different areas. By using two or more robots, entire baking processes can be automated.

Examples



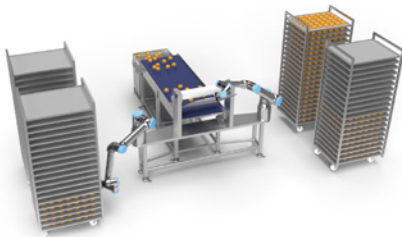
EMPTYING TRAYS

- The trays are removed from full rack trolleys and the products are unloaded onto a conveyor belt
- The emptied tray is placed back into the rack trolley
- Optionally, the trays can also be brushed after emptying



TRAY FEED AND DISCHARGE

- Tray feed from provided tray stacks or rack trolleys
- The robot places the empty trays on a conveyor belt
- When products have been deposited on the tray, it is placed in a rack trolley provided



EMPTYING AND BRUSHING OFF WITH TWO ROBOTS

- Emptying trays can be made even more efficient by using two robots
- In this example, work can be carried out alternately from two sides
- The trays are removed by a brush after emptying



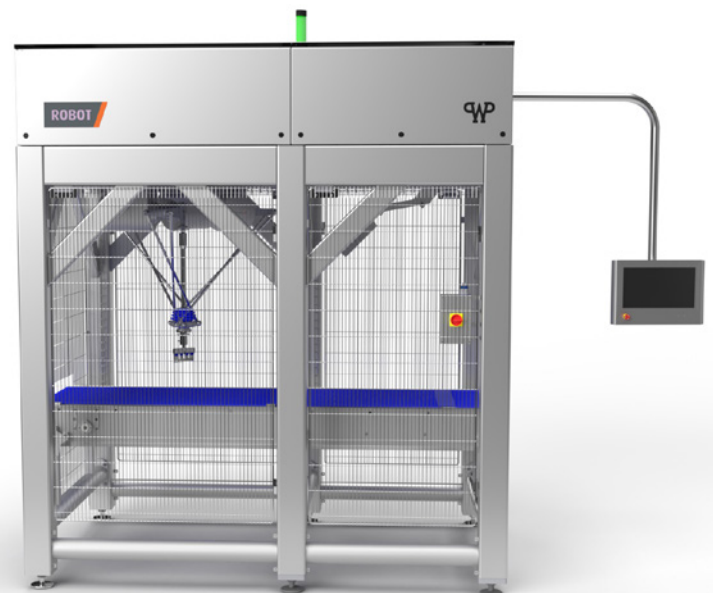
LOADING AND UNLOADING

- In this example, the ALLROUND was combined with two robots
- The front robot removes the peelboards with dough pieces from the rack trolley provided, places them, triggers the process of lye application and removes the unloaded peelboard to place it back in the rack trolley
- The rear robot takes an empty tray from a rack trolley, triggers the depositing of the products and places the full tray in the rack trolley

WP SCORING ROBOT

BENEFITS

- **Taking on tedious work:** Cuts in products can be automated
- **Different versions of the trimming technique:**
 - Ultrasonic
 - Rotating blades
 - Water jet
- **Various patterns programmable:**
 - Consistent pattern quality
 - Different patterns possible



SCORING ROBOT

This delta robot can be integrated into various systems to automatically cut in bread rolls, pretzels, pretzel sticks, loaves, etc. An automated process relieves your bakery staff of this tedious work – and you always get precise and consistent results thanks to the programmed automation. Depending on the production requirements, a WP scoring robot with articulated arm is used.



Automated scoring of dough pieces



INTEGRATED 3D CAMERA SYSTEM

The integrated 3D camera system not only recognises the dough pieces, but also their position, so the WP Scoring Robot can be controlled accordingly via the system to achieve optimum results.

Various cutting patterns can be stored, which are used depending on the product.

The WP Scoring Robot is installed as standard in our Comjet lye application system and delivers reliable results.

A POSSIBILITY FOR EVERY REQUIREMENT

The application area of robotics is vast, and they can be used in different branches of the food industry. The possibilities go far beyond the examples shown.

CUSTOMIZED ROBOTIC SOLUTIONS

In cooperation with you, our team implements your individual robotic solutions in all sectors.

THINKING FURTHER THINK PROCESS!

Of course, you have the option to add components from the other WP BAKERYGROUP members to your production line, and therefore benefit from the entire knowledge acquired from one source.

SERVICE

Our service includes the delivery, installation and set-up of the device. We provide technical training for your staff in order to ensure the best qualification of your employees. In case of trouble shooting, we are always available for you with our Serviceline 24/7.

SCOPE OF SERVICES

In order to render you a full support, we offer individually designed scopes of services.

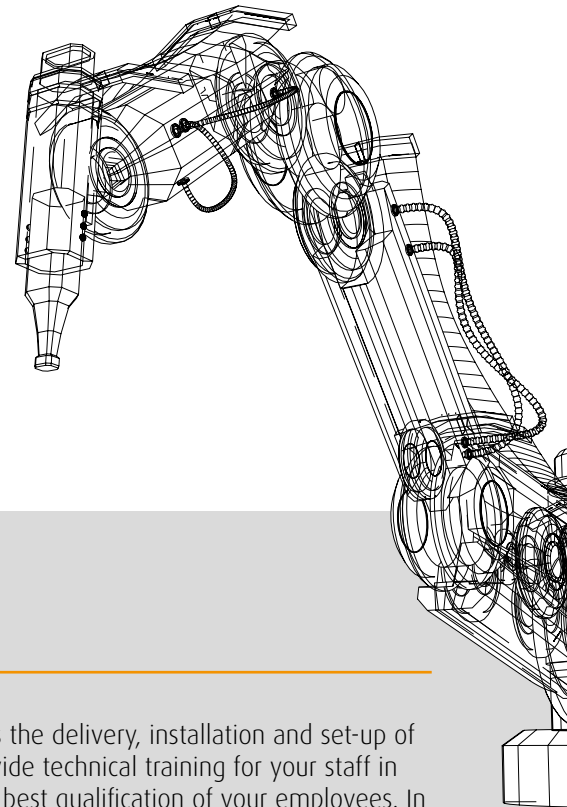
QUALITY BY RIEHLE

Our goal is to advance you technically. Time is running faster, and life is getting more digitalized. This makes a big impact, especially on the handcraft manufacturing. For this reason, we would like to make your everyday work easier, and so we work at solutions that support you in your everyday life.

Different companies have different requirements. This makes robotics a sector, in which we mainly rely on individual solutions.

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**DEEP FRYING
(PASTRY)**

**DEEP FRYING
(SAVOURY)
& COOKING**

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APPLICATION**

**TRAY
CLEANING**

**ROBOTICS /
AUTOMATION**

**BAKERY
FREEZING
SYSTEMS**

**CUSTOMISED
SOLUTIONS**

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