

Press Release

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Finger gripper mGrip: Shows what it can do

Automation in the food industry places special demands on gripping systems. They must be easy to integrate into existing solutions and fulfil the highest hygiene standards. Above all, however, they must be able to pick up sensitive products flexibly and safely. The finger gripper mGrip from Schmalz has long since proven its suitability for practical use. In short: safe food handling used to be manual, now it is automated.

Muesli bars and marshmallows, schnitzels and steaks, tomatoes and onions as well as potato sacks - the pneumatically controlled finger gripper picks up different products sensitively and places them down precisely. Octopus arms served as a biological model for the development of the finger gripper mGrip. Fingers arranged in a circular or parallel pattern adapt to the shape of the object, enabling gentle and safe handling.

The finger gripper mGrip is fully convincing in the meat industry. Its pneumatic control guarantees safety, hygiene and reliability - essential requirements for automated food handling. Whether steaks, schnitzels or chicken drumsticks: compared to mechanical systems, it is particularly sensitive when gripping different shapes and reduces the risk of contamination thanks to the closed pneumatic circuit. This makes it ideal for direct contact with sensitive protein-based foods.

This also works with delicate marshmallows: A leading manufacturer of confectionery uses the finger gripper mGrip to place up to 450 units in one minute with millimetre precision and without bruising or damage. 'The finger gripper achieves the same quality as our skilled workers,' says Randall Copeland, Senior Vice President at Just Born in Bethlehem, Pennsylvania, USA. It was crucial for the project that no sugar crumbs enter the system, as this would lead to downtime due to filter cleaning.

A manufacturer of muesli bars, biscuits and crackers knows that the finger gripper significantly increases speed. 'After switching to the finger gripper mGrip, we increased cycle times from 40 to 60 picks per minute, improving the overall line speed by 50 per cent,' reports Ryan Kaminski, Senior Project Engineer at biscuit specialist Schulze & Burch in Chicago, USA.

Simplified: cleaning, maintenance and installation

An important aspect for users is the IP69K certification of the new finger gripper. This certifies that the system can withstand high temperatures or high-pressure water and is protected against the ingress of dust. As a result, the finger gripper fulfils the highest hygiene standards and is easy to clean - it is designed for both clean-in-place (CIP) and clean-out-of-place (COP) processes.

This was also noticeable at the muesli bar manufacturer. Previously, maintenance staff spent 20 to 40 hours a week dismantling the previous gripper system, removing food residues and cleaning the appliances. A huge amount of work that is almost completely eliminated thanks to the finger gripper mGrip, as employees can simply wipe their fingers off the gripper. The company also confirmed the ease of installation: within just two weeks, it had integrated 16 grippers on four production lines, with the first test run taking just ten minutes to install on the robots.

Maximum flexibility through automation

What used to be done by hand can now be automated in seconds using the finger gripper mGrip on a robot. Operators who use it to grip vegetables and potato sacks report: Automated handling relieves staff of monotonous tasks and bridges bottlenecks caused by a lack of labour. It also ensures consistent quality, reduces errors and runs reliably - 24 hours a day, seven days a week.

One user even goes one step further in terms of automation. He combines the finger gripper with 3D vision technology and AI-supported image processing for object recognition and quality control. This is because it is often difficult to find employees who can reliably recognise and sort out faultless products for hours on end. People also get tired, which increases the error rate.

Service for the editorial team

Meta-Title: Finger gripper mGrip from Schmalz fulfils the requirements of the food industry

Meta-Description: Thanks to its hygienic design, the new finger gripper mGrip from Schmalz handles sensitive products gently and reliably. This is confirmed by various users in the food industry.

Social Media: The new finger gripper mGrip from Schmalz sets new standards in the food industry. With its special geometry, it grips sensitive products gently and precisely. Users can use it to automate their handling processes. The result is safe and efficient processes.

Images:



Image 1:

Compared to mechanical systems, the finger gripper mGrip is particularly sensitive when gripping different shapes and reduces the risk of contamination thanks to the closed pneumatic circuit.



Image 2:

Handle marshmallows gently: The finger gripper mGrip deposits up to 450 units in one minute without damaging them.



Image 3:

Maintenance and cleaning effort for muesli bar manufacturers significantly reduced: The employee can simply wipe off the fingers of the gripper.



Image 4:

Thanks to the finger gripper mGrip and artificial intelligence, the tomato sorting process has been transformed from manual to automated. This ensures product quality and compensates for labour shortages.

Images: J. Schmalz GmbH

About the company

Schmalz is one of the market leaders in vacuum automation and ergonomic handling systems. The internationally positioned company's products are used in logistics applications as well as in the automotive industry, the electronics sector and furniture production. The broad spectrum in the vacuum automation business field includes individual components such as suction pads or vacuum generators, complete gripping systems and clamping solutions for holding workpieces, for example on CNC machining centres. In the Handling division, Schmalz offers innovative handling solutions for industry and trade with vacuum lifters and crane systems. With the Energy Storage business area, the company is establishing a further mainstay in the field of stationary energy storage systems.

The combination of comprehensive advice, a strong focus on innovation and first-class quality ensures sustainable added value for customers. Intelligent solutions from Schmalz make production and logistics processes more flexible and efficient - and at the same time fit for advancing digitalisation.

Schmalz is represented in all major markets with its own locations and trading partners in around 70 countries. The family-owned company, headquartered in Glatten in the Black Forest, employs around 1,800 people at 31 locations worldwide.

Contact for Questions

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