

**PRESS RELEASE**

* **Wickert: New, compact, setup-free multifunctional gripper for handling mutlilayer-stacked components with layer separation**
* **Flexible, space-saving gripper for handling, automation, machining**

*Landau, May 3, 2021*. Wickert Maschinenbau has developed an extremely compact, setup-free multifunctional gripper for the handling of multilayer-stacked or chaotically deposited components with layer separation.

The system is available with two different gripper types: A group of two to six fingers picks up workpieces and lifts them out of the transport container. As soon as one layer has been completely emptied, the separation sheet is removed by three close-fitting, extendable vacuum suction elements on the gripper arm. The system is then able to access the next level of components.

The multifunctional gripper can be used without additional programming: the diameter of the gripped component is permanently monitored by a position sensor system and the PLC compares this value with the gripper diameter, which also has a tolerance range configured in a recipe stored centrally in the PLC.

**Automated workpiece handling even in confined spaces**

Due to its space-saving, completely setup-free design, the multifunctional gripper enables the automated handling of components and uninterrupted production even in confined spaces, as no additional space is required for gripper changer systems in the production cell. Thanks to its flexibility, the gripper is suitable for a variety of different applications in handling, automation and machining operations.

**For rotation-symmetrical workpieces up to 20 kg**

In the standard version, the compact multifunctional gripper is designed for rotation-symmetrical workpieces with inside diameters from 40 mm to 256 mm and weights between 100 g and 20 kg. For other requirements, the parameters can be configured individually. Grippers with larger arms, for combined outside and inside gripping, can also be provided on request.

**Image processing is used to monitor and direct the gripper**

With the help of cameras, image processing and an integrated position sensor system, the multifunctional gripper detects both the inside diameter and position of components. It also monitors the remaining quantities and detects when a layer of components is empty.

The system employs a plausibility check to decide on the suitability of workpieces for further processing. Any components that are clearly inappropriate or falsely gripped are thus detected reliably and are not fed in for further processing.

**Even small, tightly packed components in corners are reached**

The standard version of the gripper arm has a height of 730 mm. Thanks to its slim design, with a diameter of just 160 mm, the gripper is still able to precisely pick and place small components even when they are tightly packed on a pallet, or located in the corners of pallets. If a workpiece has slipped into a position that is not accessible to the gripper, the fingers move it back into a position where it can be reached.

**The gripper pressure can be set individually**

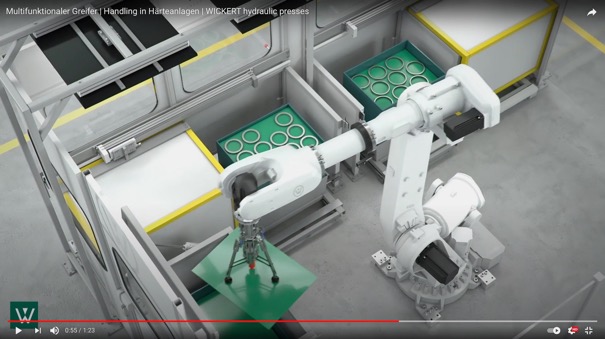
The gripper fingers have a very amply sized lift range. The surfaces which come into contact with the product are equipped with a wear-resistant rubber coating which ensures a high friction value and reliable grip. In accordance with individual requirements, the gripper pressure can be set individually to a value between 460 N and 3000 N. This ensures that both heavy and light components, as well as delicate components, can be gripped reliably and without being damaged. As an option, the gripper fingers can also be fitted with an interlocking under-grip.

**About Wickert Maschinenbau GmbH**

Wickert Maschinenbau GmbH is a medium-sized, family-owned company based in Germany. It develops and manufactures hydraulic presses and fully automatic press systems. All machines and systems have a modular structure and feature pressing forces of between 20 and 100,000 kN, with a customer-specific layout in each case. The provided systems are used to process elastomers, composites, plastics and powder materials. In addition to the production of pharmaceutical plugs, the presses are also used in the manufacture of brake and clutch linings as well as grinding disks, as fixture hardening systems, and in research and scientific laboratories.

Hans-Joachim Wickert and Stefan Herzinger are the partners and managing directors of the family business that was founded in 1901 and exclusively manufactures in Landau in der Pfalz, from where it supplies its customers in Europe, the Americas and Asia. In 2020, 172 employees generated a turnover of around € 40 million.

**Video of the multifunctional gripper from Wickert Maschinenbau:**



Go to link: <https://www.youtube.com/watch?v=r3gNG-3oq6c>

**Pictures:**

Ein Bild, das Boden, drinnen enthält.

Automatisch generierte Beschreibung

Picture 1:

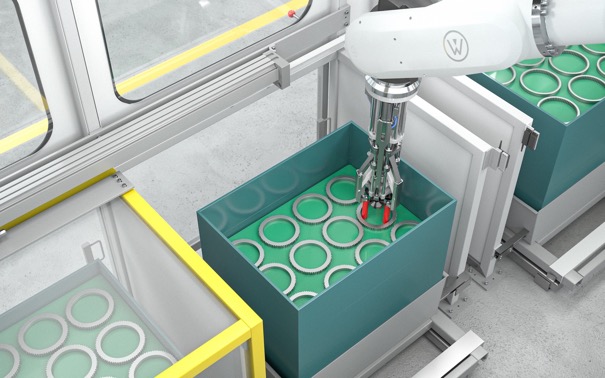
With the help of cameras and an image processing system, the multifunctional gripper detects both the inside diameter and position of components (picture: Wickert Maschinenbau GmbH).

Ein Bild, das drinnen enthält.

Automatisch generierte Beschreibung

Picture 2:

The system is available with two different gripper types: A group of two to six fingers picks up workpieces and lifts them out of the transport container (on left). As soon as a batch is completely empty, the layer separation sheet is removed by means of three vacuum suction elements also attached to the gripper arm. The system is then able to access the next level of components (picture: Wickert Maschinenbau GmbH).



Picture 3:

In the standard version, the compact multifunctional gripper is designed for rotation-symmetrical workpieces with inside diameters from 40 mm to 256 mm and weights between 100 g and 20 kg. For other requirements, the parameters can be configured individually (picture: Wickert Maschinenbau GmbH).

**You can also download the text of the press release as a Word document and the pictures in print quality from**

[**https://www.auchkomm.com/aktuellepressetexte#PI\_401**](https://www.auchkomm.com/aktuellepressetexte#PI_401)**.**

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