**Press Release**

**FMG matrix area gripper: easy to operate and flexible to use**

With the FMG matrix area gripper, Schmalz offers a powerful and flexible solution for the automated handling of various workpieces. The innovative combination of modular design, high energy efficiency and digital networking makes the FMG an indispensable tool for modern manufacturing and logistics processes.

The increasing demand for custom-made products, for example in sheet metal or nesting processing, is leading to more and more high-mix, low-volume applications. However, these pose challenges for manufacturing companies: They often have to retool and adapt processes and machines flexibly to the wide variety of workpieces. This makes manufacture complex and time-consuming.

With the FMG matrix area gripper, Schmalz has developed an innovative solution for the automated handling of flat and predominantly suction-tight workpieces. The special feature: Thanks to its modular design, the FMG can grip almost any geometry. Applications can easily expand or reduce the size of the gripper with additional modules as required. The gripper modules, each with twelve suction points, weigh less than one kilogram and can be blocked in any arrangement. For this purpose, Schmalz creates a specific flange plate according to the desired arrangement, to which the FMG modules are mounted. Optional proximity switches further increase the reliability of the processes.

**Individual control of the suction points**

The suction cups can be activated individually and selectively with compressed air. This extends the suction points ten millimetres via a spring plunger. This simultaneously opens a channel that directs the external vacuum to the workpiece. In this way, only the suction cups that are required to grip the geometry are placed on the workpiece. This prevents incorrect parts from being sucked in. When the valve is switched off, the spring return retracts the suction point and deactivates it.

Leakages at inactive suction points are eliminated. The integrated air-saving regulation ensures low energy consumption while ensuring a constant vacuum supply. The system fixes the workpiece in place thanks to the auto-hold function, even in the event of a power failure. Thanks to the standardized suction cup interface, applications can use different vacuum cups with diameters from twelve to 28 millimetres.

A higher-level machine controller or a camera sensor provides the data on gripping points to activate the suction cups according to the geometry and position of the workpieces. Alternatively, Schmalz offers a complete system including camera and software for detecting the products and calculating the gripping points. Thanks to simultaneous activation, the system can be set up for new items in less than a second.

**Economical operation**

The area gripper requires an external vacuum supply. The SCTSi compact terminal, for example, which controls the gripping system centrally and can control up to eight FMG modules via IO-Link, is ideal for this. The individual ejector discs of the terminal supply the system with the required 50 liters of suction capacity per minute for each unit. The integrated air saving function reduces compressed air consumption by up to 80 percent.

(3.183 Characters including spaces)

**Service for the editorial team**

**Meta-Title:** Schmalz presents the modular matrix area gripper FMG

**Meta-Description:** The matrix area gripper FMG handles various workpieces fully automatically. The suction points can be activated individually. This guarantees high energy efficiency and flexible processes.

**Social Media:** Experience the future of automation with the Matrix area gripper FMG from Schmalz. This powerful and flexible solution optimises the handling of different workpieces. Thanks to its modular design, high energy efficiency and digital networking, the FMG is an indispensable tool for modern manufacturing and logistics processes.

**Images:**

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|  |  | **Image 1:**  The individual modules of the FMG weigh less than one kilogram and each have twelve suction points that can be controlled individually. |
|  |  | **Image 2:**  Thanks to its modular design, the FMG matrix area gripper can grip almost any geometry with process reliability. |
|  |  | **Image 3:**  The modules can be blocked in any arrangement. |

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 cups 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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