**Presseinformation**

**November 2023**

**Recognising, gripping, depositing - Solution Kit from Schmalz automates sheet metal handling**

Metalworkers are faced with several challenges: high variance of workpieces with small batch sizes, high cost pressure and a lack of personnel due to strenuous and monotonous activities in sheet metal processing. With the Schmalz ivOS Sheet Metal Solution Kit, companies can automate the loading of machines - simply, flexibly and economically.

Sheet metal processors and contract manufacturers want to produce efficiently in order to be profitable and ensure their competitiveness. The challenge: high part variance with fluctuating batch sizes. The shortage of labour and rising wage costs exacerbate the situation. The use of robots can provide a remedy here and ensure a sustainable improvement. However, classic robot systems and bin-picking solutions have often failed in the past when it came to flexibility and adaptability. As a result, humans were indispensable for the strenuous and monotonous loading and unloading of machines. Teaching in new workpieces used to be time-consuming and usually required two specialists: on the one hand, the specialist for image processing or 3D sensor technology and, on the other, the robot professional for programming, as the grippers also had to be changed as required.

With their ivOS Sheet Metal Solution Kit, the vacuum experts from the Black Forest elegantly automate the handling of sheet metal parts, offering sheet metal processing companies the optimum solution quickly and easily. The Solution Kit consists of the latest 3D camera technology, the ivOS vision operating system and the highly flexible FMG matrix gripper. This gripper consists of seven modules, each with twelve suction cups, which are linked to form a flexible area gripper. The 84 individually controllable suction points adapt automatically to the changing workpiece geometries. This offers users maximum flexibility when handling different sheets and gripper changes can be reduced to a minimum.

**A learning system**

Da die Ansteuerung dieses universell einsetzbaren Greifsystems komplex ist, übernimmt eine lernende KI (künstliche Intelligenz) die Aufgabe. Sie erkennt über ein Kamerasystem die unbekannten Werkstücke und steuert den Greifer so an, dass er das Blech bestmöglich aufnehmen kann. Anschließend überwacht das Vision Operating System ivOS die Griffqualität während des Handhabungszyklus und navigiert den Roboter mit dem Produkt kollisionsfrei an die Zielablage. Das alles passiert autonom, ohne dass die Nutzerinnen und Nutzer Fachkenntnisse zur Bedienung der Anlage benötigen. Und das Beste: Die ivOS Software Plattform arbeitet mit Greifern, Kameras, Pick-Software und Robotern unterschiedlicher Hersteller zusammen, die sich so einfach verbinden und in Echtzeit steuern lassen. Damit können zukünftig auch weitere Anwendungen leichter automatisiert werden.

#### *(2,911 characters incl. spaces)*

**Service for the editorial team**

**Meta-Title:** AI from Schmalz reorganises sheet metal parts handling

**Meta-Description:** Schmalz proves that sheet metal can also be handled economically in batch sizes of one - with the help of artificial intelligence and a universal gripper.

**Social Media:** Large or small, thick or thin, structured or smooth - not all sheet metal is the same. The artificial intelligence of the ivOS Sheet Metal Solution Kit from Schmalz independently recognises the workpieces in all their variants and autonomously adapts the entire handling process accordingly - metal no longer has to be heavy!

**Images:**

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|  |  | **Image 1:**  ARKU, the specialist for straightening machines, impressively demonstrates the virtuosity with which different sheets can be handled without manual intervention. |
|  |  | **Image 2:**  The Schmalz ivOS Sheet Metal Solution Kit makes processing economical from batch size one. |
| **Ein Bild, das Cartoon enthält.  Automatisch generierte Beschreibung** |  | **Image 3:**  The 84 suction points of the FMG matrix gripper adapt automatically to the workpieces and thus offer maximum flexibility when handling sheet metal parts. |

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 30 locations worldwide.

#### Contact for Questions

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