



Easy, economical and flexible automation

Machine loading and unloading with the Schmalz Solution Kit

WWW.SCHMALZ.COM/IVOS-SHEET-METAL



Automatic loading and unloading with unknown sheet metal parts

Do you use muscle power to load and unload your sheet metal working machine? Then you know the problems that come with monotonous, tiring, and time-consuming work: High absenteeism, fluctuation and staff shortages have a negative impact on productivity. Now, for the first time, loading and unloading can be automated economically, even with a wide variety of parts and small quantities. This is made possible by a flexible and easy-to-operate solution based on the Schmalz Solution Kit ivOS Sheet Metal.



USE CASE: LOADING A DEBURRING MACHINE

This system is already being used successfully in construction machinery production at LISSMAC Maschinenbau GmbH. The automation solution based on the Solution Kit ivOS Sheet Metal increases productivity by up to 50 % with partial automation. Future full automation should even enable an increase in productivity of up to 90 % in the near future.

Automate with AI now and get started!

Intelligent Gripping - Ready to automate sheet metal handling

The Solution Kit ivOS Sheet Metal is an innovative solution for automated loading of grinding, deburring and straightening machines. Schmalz provides a solution package consisting of a highly flexible adaptive matrix gripper, AI-based software and state-of-the-art 3D sensor technology. With this package, they can easily and flexibly implement the requirements of end customers in metal processing for any type of system. End users can optimize their production processes, increase efficiency and address labor shortage. You think:

"Automation is expensive, requires expertise and can't be done in my company?"
That is the past.

We have the technology and help you to find the right solution provider. Invest now in automated processes now and benefit from these advantages:

2-4 years

Amortization time

Automation pays off very quickly, even for small quantities with high variance.

50 percent

Increased productivity with partial automation

Only one person is required to operate and load the machine.

95 percent of the part spectrum can be automated*

Unknown sheet metal parts are detected without prior teaching.

0 prior knowledge necessary for operation

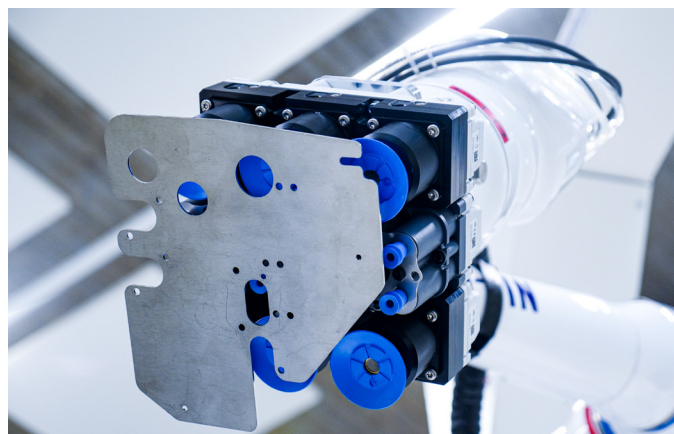
The graphical user interface is easy to use and does not require expert knowledge.

Flexible financing options



In addition to purchasing, our system partner coboworx offers the solution for rent for a minimum period of 12 months.

*Average value from customer analyses carried out to date. Contact us for an individual analysis of your parts spectrum.



APPLICATION RANGE

The solution automatically recognizes and grips unknown objects, enabling the economical use of robots for loading and unloading as well as turning sheet metal parts and is compatible with both large robots and cobots. This enables the space-efficient and flexible integration into any production environment.

- Up to 500 sheet metal parts/hour
- Workpiece weight up to 50 kg
- Size range from business card to Euro pallet and more
- Workpiece thickness from 1 to 20 mm

Schmalz Solution Kit ivOS Sheet Metal

BASIS FOR INNOVATIVE AUTOMATION SOLUTIONS



Recognition

Automatic part recognition

The software sees and recognizes new, unknown parts based on human models. Instead of using CAD data like traditional vision solutions, ivOS uses artificial intelligence.



Gripping

Adaptive matrix gripper

The matrix gripper allows the gripping of different parts without changing the gripper. This saves time and minimizes investment costs. A vacuum terminal controls each suction point individually and monitors the handling process.



Planning

Collision-free path planning

The software takes over the entire process planning, calculates the next best gripping point and controls the robot collision-free from gripping the part to placing it in its destination.



Learning

Learning system

Since the software is capable of learning, it continuously optimizes parts handling and constantly expands the range of recognized parts and executable processes. You get a future-proof system.

YOUR PATH TO AUTOMATION

You want to automate your sheet metal parts handling? Take the first step and contact our robotics specialists. We look forward to your inquiry!

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1. Feasibility analysis

We check to what extent your use case is suitable for automation and carry out feasibility tests if required.

2. Choice solution provider

We match you with an experienced integrator to implement the solution.

3. Project Realization

We are with you and the integrator from the beginning of the project to the start of operations.

4. Service and support

From remote maintenance to on-site service, we are here for you.

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