

SAMSYS⁺

Innovative. Intelligent. Precise.



ROBOTIC & COBOTIC

THE INTELLIGENT WAY TO AUTOMATE YOUR PRODUCTION PROCESSES

www.samsys.eu

THE COMPANY

SAMSYS GmbH - The pioneer of short bar loading magazines.

SAMSYS GmbH is a dynamic and innovative company with numerous ideas and high-quality quality products. Today's SAMSYS GmbH was founded from the Swiss company SAMSYS SA (created from Swiss automation systems) and has a long experience in the field of automated loading and unloading through its bar loading systems.

SAMSYS products not only stand for high reliability and high-quality processing, but also relieve your employees by automating unergonomic processes. For this reason, companies have been relying for years on Samsys quality products to increase their productivity.

„SAMSYS products make our customers more competitive!“, Jo Braun, Managing Director

SAMSYS COBOTS AND ROBOTS - YOUR WAY INTO AUTOMATION

The term cobot comes from the combination of the words „collaboration“ and „robot“ and describes robots that are designed for direct interaction with humans. Collaborative robots have paved the way in the automation of CNC machines and production processes for small and medium-sized manufacturers thanks to greater flexibility, higher production output and improved quality. As a result, Samsys offers a comprehensive range of cobots and robots from well-known manufacturers for the automation and optimization of standard industrial processes.

From stationary solutions for fully automated shift operation and production from small to large series, to versatile and lightweight robots for customized solutions to collaborative grippers - Samsys offers the right products for every requirement. As robots have become more common and easier to implement, gripping tools have become an important element in adapting collaborative and lightweight industrial robots to a wide variety of applications. This is where Samsys GmbH, as a certified contractual partner, relies on the robot gripper tools from the company OnRobot. These can be easily combined and used with the products of various manufacturers.

WE OFFER COBOTS/PRODUCTS FROM THE MANUFACTURERS

EasyRobotics
- we move your parts

 **UNIVERSAL ROBOTS**

NACHI

 **robot**

CERTIFIED SYSTEM INTEGRATOR OF



CERTIFIED PARTNER OF



OUR STRONG SERVICE PARTNER

Alzeyer
Werkzeugmaschinen
Service GmbH



	ProFeeder Table	ProFeeder Light	ProFeeder
Return on investment*	6-8 months	6-8 months	Less than a year
Changing the trays	Manual change of parts baskets	Manual change of parts baskets	Change of the trolleys
Number of trays	-	1	1 per trolley
Tray / part size	900 x 860 (slot table)	600 x 400 mm	600 x 400 mm
Number of trolleys	-	-	2
Production	Test/Demo	An „additional” hand	2-shift-operation
L x B x H	900 x 860 x 925 mm	900 x 860 x 925 mm	900 x 860 x 925 mm
Max. Robot load capacity	16 kg	16 kg	16 kg
Material	Powder coated steel	Powder coated steel	Powder coated steel

*Experience values. Actual value may differ.

The Samsys ProFeeder series enables unmanned shift work



Robot cell

The basic module of the ProFeeder forms the frame of the cell and ensures the positioning of the application. It serves either as a parts deposit or as a station for the material trolley.

The compact and mobile cell design offers maximum flexibility in production. As the robot can be attached to all three sides of the cell thanks to the smart design, the application ensures easy access to the machine.



Parts compartments

The trays have exchangeable surfaces that are customized to your workpieces. These are changed and ready for use in no time!



Trolley

For transport and loading/unloading, a trolley is used with the ProFeeder. It is simply pushed into the cell and centered by compressed air locks. By using several material carts, the production chain is never interrupted.

ProFeeder

ProFeeder - The smart way to automate your CNC machine

The ProFeeder is the perfect stationary solution for fully automatic shift operation and productions from small to large batches.

ProFeeder X

The ProFeeder X is available with 2, 5 or 10 drawers and is therefore an ideal solution for shortening your cycle times and increasing your efficiency thanks to minimal set-up time. In addition to the possibility of placing the robot in different positions, the surface also offers the possibility of using robot arms from a wide range of manufacturers.

Advantages

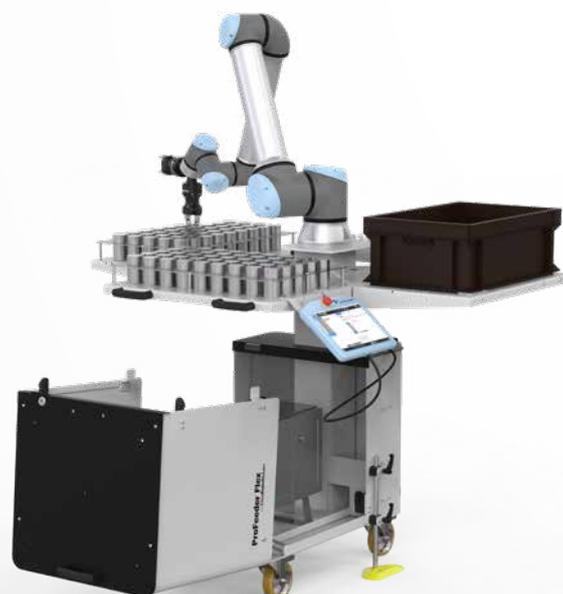
- **Setup time:** Placement in non-productive time, while system is running
- **Payload:** Handling of workpieces from a few grams up to several kilograms
- **Space requirement:** Space-saving and movable cell with simple machine connection
- **Production:** : Developed for large and medium series

ProFeeder Flex

The ProFeeder Flex is available in 3 different versions: Base, One and Three. A distinction is made according to the number of trays. The ProFeeder Flex stands out due to its fast connection to different machines and its modern, simple design. Parts compartments can be optionally attached to the shelves or KTS boxes can be placed on them.

Advantages

- **Flexibility:** System is mobile and can also be used in limited space in the production area
- **State-of-the-art design:** placement of the robot arm is variable to use the full motion range of the robot
- **Innovative:** flexible mounting for the teach pendant and additional space for storing the controller





ProFeeder Table

Suitable for fast and flexible entry into automation as well as for the attachment of measuring devices and fixtures.



ProFeeder Light

Consists of a basic module with a permanently installed parts magazine. This is designed for a large number of workpieces.



ProFeeder

The ProFeeder robotic cell consists of 1 basic module and 2 trolleys, each with a parts tray. The surfaces of the parts trays are customer-specific and can be exchanged in the shortest time possible.



ER Work

The ER Work mobile robot platform is a compact mobile workstation for safe collaboration with robotic arms. The ER Work is used in fully or partially automated production environments that require increased flexibility and fast integration. Preferably, the application area of the ER Work is in frequently changing location processes, which allows it to take maximum advantage of its mobility.

EasyPalletizer

The mobile and multifunctional palletizing robot solution

EasyRobotics

- we move your parts

In addition to robots from Universal Robots, we also use robots from Nachi and Doosan.



The EasyPalletizer is a mobile palletizing robot that is easy to program and operate. It can be extended by any robot arm. The EasyPalletizer consists of a robot console the size of Euro pallets, which includes a compartment for the robot control unit, cables, and lifting module or base. It has a robust construction and a total weight of 300 kg (without robot and lift module). The EasyPalletizer is available in 3 versions depending on the height of the load: Without base (height 655 mm), with fixed base or with lift module (height 855 mm). Per side, the EasyPalletizer has a docking station that checks the pallet placement by 4 pressure sensors each. If all pallets are correctly placed, palletizing starts.

Advantages of the Samsys EasyPalletizer:

- ▶ Palletizing at ground level.
- ▶ Transfer system (loading or unloading).
- ▶ Dual palletizing system (2 pallets at once)
- ▶ Automatic & unmanned loading of pallets
- ▶ Precision and speed.
- ▶ Mobile robot unit that can be easily and quickly connected to different locations by lift truck.

The EasyPedestal from EasyRobotics can either be used as a standalone unit or in combination with the ProFeeder X or ProFeeder Compact.



ProFeeder Compact

The ProFeeder Compact is a filing system with compact dimensions that can be easily moved around in production. With the ProFeeder Compact, existing lines can easily be expanded to include this deposit system. Together with the EasyPedestal, several Compact can be used by one robot.

EasyPedestal

The construction is made of 6 mm thick powder-coated steel with integrated cable trays. The base with its industrial and stable design is fixed to the floor with up to 8 x 8 mm screws. With the EasyPedestal the robot arm can move 360 degrees around the center of the cell.

Vorteile des ProFeeder Compact in Kombination mit dem EasyPedestal

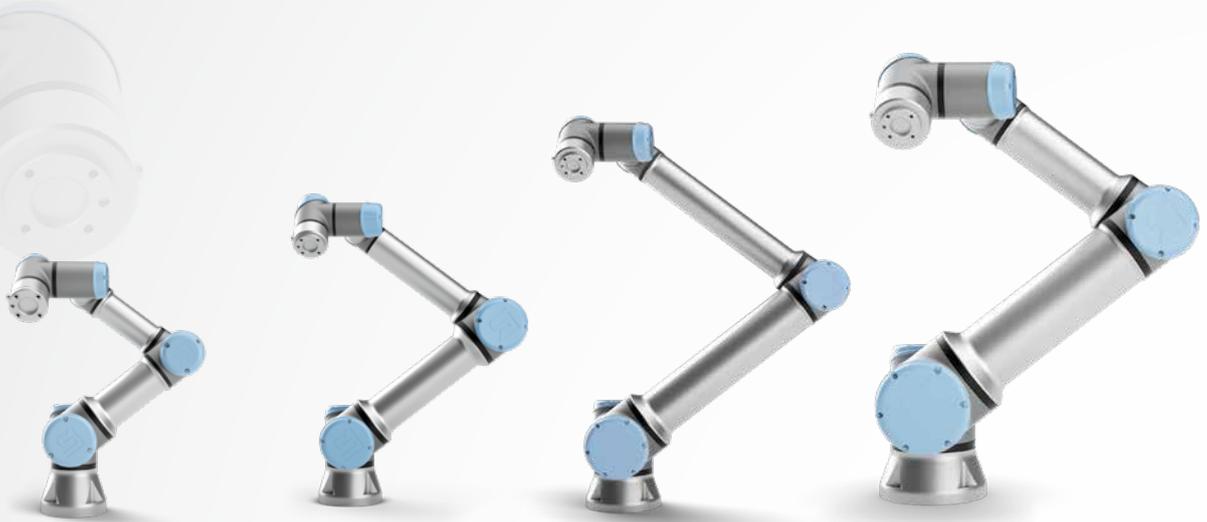
- ▶ **Intelligent parts storage:** The ProFeeder Compact is used in combination with the EasyPedestal as a storage system. This increases the material storage space and the runtime of the automation.
- ▶ **Continuous production:** While the robot is removing workpieces from the ProFeeder Compact, you can easily refill the empty drawers.
- ▶ **1 robot, multiple ProFeeder Compacts:** One robot can operate several ProFeeder Compacts at the same time. This is of interest for tasks in assembly but also loading of machines.
- ▶ **Strong construction:** Both components are made of powder-coated steel, which makes them ideal for use even in dirty environments



UNIVERSAL ROBOTS

Universal Robots e-Series

Extremely flexible, lightweight and designed for a wide range of applications.



	UR3e	UR5e	UR10e	UR16e
Radius	500 mm	850 mm	1300 mm	900 mm
Payload	3 kg	5 kg	10 kg	16 kg
Footprint	Ø 128 mm	Ø 149 mm	Ø 190 mm	Ø 190 mm
Weight	11.2 kg	20.6 kg	33.5 kg	33.1 kg

UR3e

The Universal Robots UR3e is an ultra-lightweight, compact, collaborative tabletop robot. Its small footprint makes it ideal for installation in plants or confined work environments. The robot only weighs 11 kg but has a payload capacity of 3 kg. Since all of its joints can rotate 360 degrees and its wrist can rotate without limits, it handles high-precision assembly and screwdriving tasks with ease.

UR10e

The Universal Robots UR10e is a highly versatile collaborative robot with high payload (10 kg) and long reach. Its 1300 mm radius covers a wide working range - without losing precision or performance. The UR10e is suitable for a wide range of applications in machine loading and palletizing as well as packaging.

UR5e

The Universal Robots UR5e is a collaborative lightweight robot for medium loads (up to 5 kg). Its main features are versatility and adaptability. The UR5e is designed for seamless integration into a wide range of applications.

UR16e

The Universal Robots UR16e offers an impressive 16 kg payload capacity with a compact design and is ideal for tasks with heavy loads - whether machine loading, material handling, packaging, or assembly. This true powerhouse enables applications with heavy tools, handling of multiple objects and is the first choice when it comes to short cycle times.



UNIVERSAL ROBOTS

UR+ Komponenten

Automate any process faster with certified „plug-and-produce“ peripherals.

- ✓ Hundreds of industry-leading products
- ✓ Proven for „plug-and-produce“ use
- ✓ Fast deployment, fast ROI
- ✓ All components UR+ certified



As a certified system integrator for Universal Robots, we offer a wide range of innovative grippers, peripherals and software solutions for Universal Robots. Just get in touch with us.



Vision

- + 2D Component Localization
- + 3D Component Localization
- + Inspection metrology



Gripper

- + Electrical
- + Pneumatic
- + Vacuum
- + Adaptive & more



End Effektors

- + Screwing
- + Grinding
- + Polishing
- + Welding and more



Software

- + Simulation software
- + Path Generating & Planning
- + Risk assessment



Plug-Ins and Interfaces

- + Interface-Communication protocol
- + Data acquisition
- + Data monitoring



Accessories

- + Cable guides
- + Feeders & Conveyors
- + Tool changers and more

Nachi MZ Serie

The fastest lightweight robot in the world!

SAMSYS will be happy to help you choose the size - Depending on your needs.



	MZ03 EL	MZ04	MZ 07 (07P)	MZ07 L	MZ12
Weight	39,0 kg	26,0 kg	30,0 kg	32,0 kg	150,0 kg
Max. Payload	3,5 kg	4,0 kg	7,0 kg	7,0 kg	12,0 kg
Max. Reach	1102 mm	541 mm	723 mm	912 mm	1454 mm
Footprint	Ø 190 mm	Ø 150 mm	Ø 190 mm	Ø 190 mm	Ø 283 mm
IP Protection class	IP67	IP54 (IP 67)	IP 67	IP 67	IP 67
Power consumption	Ca. 400 Watt				
Number of joints	6 (5)				

Nachi MZ Serie

The compact robots of the MZ series combine the classic 6-axis concept with innovative detailed solutions such as hollow hand axes, intelligent cable routing, high IP protection class as standard across all axes. Highly dynamic drives enable trouble-free operation with maximum productivity.

The advantages of the Nachi MZ 03EL / 04 / 07 / 07L / 12

- ▶ Fastest movement speed
- ▶ Intelligent cable routing
- ▶ Compact & flexible installation
- ▶ Easy programming
- ▶ Flexible use
- ▶ Integrated software PLC
- ▶ High accuracy: 0.02 / 0.03 / 0.04 mm

Areas of application:

- ▶ Loading and unloading of machine tools
- ▶ Chaining of workstations



EXPAND COLLABORATIVE PRODUCTION PROCESSES

OnRobot products open up new possibilities in automating tasks you never thought were possible. With our state-of-the-art gripping and sensing systems for industrial automation, you can easily design collaborative applications that allow your workers to work side-by-side with collaborative robots during assembly, surface finishing, pick & place, machine tending or testing.



OnRobot Gripper RG2 and OnRobot Gripper RG6

The OnRobot RG2 or RG6 grippers are collaborative grippers that can be integrated for almost any application thanks to customizable fingertips.

- ▶ Payload up to 2kg (RG2) / 6kg (RG6)
- ▶ Maximum stroke of 110mm (RG2) / 150mm (RG6)
- ▶ Customizable fingertips for stable gripping
- ▶ Automatic depth compensation
- ▶ Customizable fingertips also provide great gripping flexibility.



OnRobot Gripper RG2-FT

Thanks to the integrated force/torque and proximity sensor in the fingertips, the RG2 FT is the perfect helping hand for handling delicate workpieces.

- ▶ Detects objects and slippage risk of workpieces accurately



OnRobot Gripper 3FG15

Gripping with the 3FG15 centers cylindrical workpieces, which, in addition to high gripping force, also leads to a great advantage in machine loading.

- ▶ Payload up to 15kg
- ▶ Maximum stroke of 150mm; inner and outer grip possible



OnRobot Parallel Gripper 2FG7

The 2FG7 from OnRobot is an electric parallel gripper that is ready to use directly on the robot without much programming. Its strength and size make it easily suitable for applications with limited space.

- ▶ Payload up to 7kg (force closure) / 11kg (form closure)
- ▶ Maximum stroke of 38mm
- ▶ Inner and outer grip possible



OnRobot Hex Force/Torque Sensor

The six-axis force/torque sensor enables the robot to measure force and torque along all 6 axes. This improves precise control in applications such as assembly work, polishing, grinding and more.

- ▶ Offers features such as path recording, force control and special functions for insertion
- ▶ HEX-E – high precision
- ▶ HEX-H – little deformation



OnRobot Quick Changer

The Quick Changer enables a simple and fast tool change. Patented, reliable and equipped with user-friendly connection mechanism: The Quick Changer is a unique product and ideal for all collaborative robot applications.

- ▶ Payload up to 20kg
- ▶ Tool change in 5 seconds, fast deployment
- ▶ Redundant locking mechanism enables tool change without screws



OnRobot Soft Gripper

The OnRobot Soft Gripper can accommodate a wide variety of irregular shapes and delicate objects, making it ideal for pick-and-place applications in food and beverage production, manufacturing and packaging.

- ▶ Payload up to 2,2kg based on the form, softness and friction of the object
- ▶ Certified, food-safe gripper
- ▶ Ideal for food and beverage automation

OnRobot Vacuum Gripper VG10



The VG10 from OnRobot, with its flexible arms and adjustable vacuum, makes a perfect assistant for any production line. It is a double gripper - so the right and left sides of the vacuum gripper can be controlled independently, further increasing efficiency in your production line.

- ▶ Payload up to 15kg
- ▶ Integrated electric vacuum – no external air supply needed
- ▶ Interchangeable suction cups according to application

OnRobot Vacuum Gripper VGC10



With its compact design yet high payload, OnRobot's VGC10 is ideal for applications in confined spaces as well as for bulky, small workpieces with heavy weights. The VGC10 has two independently controlled air channels, so it can be used as a dual gripper with pick and release in one action..

- ▶ Payload up to 15kg
- ▶ Integrated electric vacuum – no external air supply needed
- ▶ Interchangeable suction cups according to application

OnRobot Vacuum Gripper VGP20 New



The VGP20 is ideal for palletizing cartons, even if they are made of thinner, porous and recycled cardboard, but also for bulky and irregularly shaped shipping bags. Here it stands out with a very high payload and different controllable suction cups

- ▶ Payload up to 20kg
- ▶ Integrated electric vacuum – no external air supply needed
- ▶ Precise airflow control – suction cups can be controlled in rows

OnRobot Magnetic Gripper MG10 New



OnRobot's MG10 is a versatile, easy-to-use magnetic gripper for material handling, assembly and machine tending in manufacturing. It offers unique, customizable force and grip detection features that give users unprecedented control.

- ▶ Payload up to 10kg
- ▶ Reliable gripping with variably adjustable force
- ▶ Handling of the workpiece even during shape change, e.g. in bending applications



OnRobot Vision System EYES

OnRobot Eyes makes it easy and cost-effective to provide vision for almost any collaborative application. Eyes is suitable for sorting a wide range of objects, CNC machines with metal parts defined by their external shape, and many other pick-and-place applications

- ▶ 2.5D vision system with depth perception for unstructured applications
- ▶ Simplest deployment with minimal programming effort
- ▶ Attachment directly to the wrist or externally



OnRobot Screwdriver

With the intelligent OnRobot Screwdriver for light industrial and collaborative robots, you can easily automate the assembly process. Intelligent error detection and handling of multiple screw sizes ensure consistent results and drastically reduce your cycle times.

- ▶ Torque control ranges from 0,15 Nm up to 5 Nm
- ▶ Screw sizes from M1.6 to M6 up to a length of 50mm
- ▶ Complete screwdriver solution with integrated screw feeder



OnRobot Sander

The all-electric random orbit sander solution is suitable for virtually any automated surface finishing application, from buffing and polishing to buffing and cleaning. It operates without an external air supply, reducing application complexity and producing no dust or noise.

- ▶ Quick, easy setup and implementation through simple programming
- ▶ Interchangeable grinding pads ensure wide range of applications
- ▶ Optional: with GRIT CHANGER automated changing of the grinding pads



OnRobot Adhesive Gripper Gecko

The Gecko gripper enables the use of the innovative Gecko adhesive gripper technology on surfaces that could not be automated so far. It offers precise and trace-free gripping even on porous workpieces such as printed circuit boards or glossy surfaces.

- ▶ Payload from 1kg (SP1), 3kg (SP3) to 5kg (SP5)
- ▶ Cost-effective plug-and-play solution without electronics or air supply
- ▶ No cleaning of the workpiece due to trace-free gripping



SAMSYS GmbH - Service & Support

Spare parts

Our products don't require any special maintenance. Nevertheless, if you have any specific technical problems or if you need the appropriate replacement part, our competent service team can quickly help you via telephone or e-mail. This applies both to Samsys and Sameca products. Samsys offers a variety of spare and wear parts, which can be delivered by our logistics partners just in time.

Customer Service

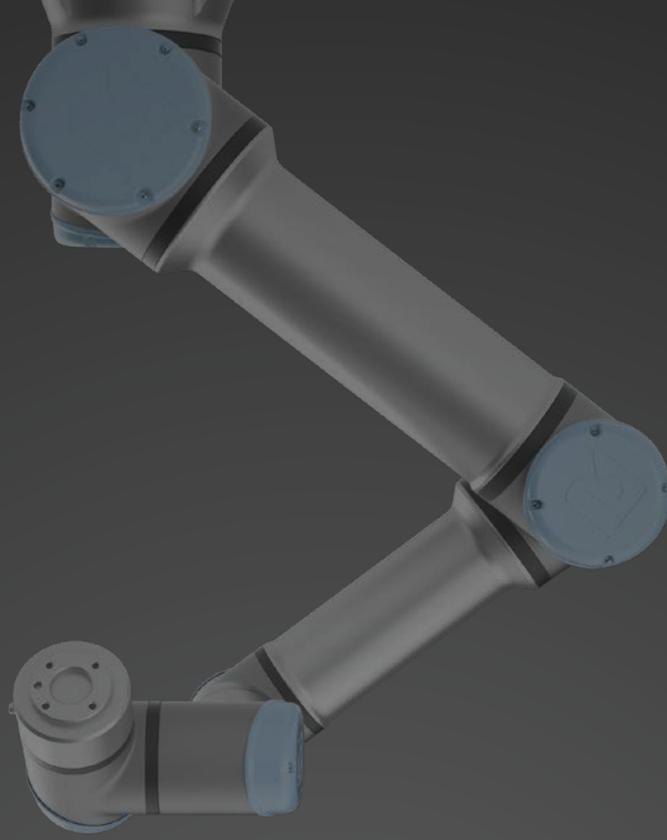
Our telephone customer service is available weekdays from 8:00am - 05:00pm available for free. For questions, changing of requests, appointments or emergencies, we are here for you.

Schulung & Weiterbildung

We are offering efficient trainings, which are targeted at operation, efficiency and profitability of our products - also at your site. Learn more about the options for bar machining, trends and possible solutions for your specific needs. Our professional training team is at your disposal for this purpose.

For more information on our service & support services, please contact:

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SAMSYS Loading and Unloading Systems

The brochure and the technical data sheets can be downloaded on our web presence under:

<https://www.samsys.eu/downloads/>