

KUKA



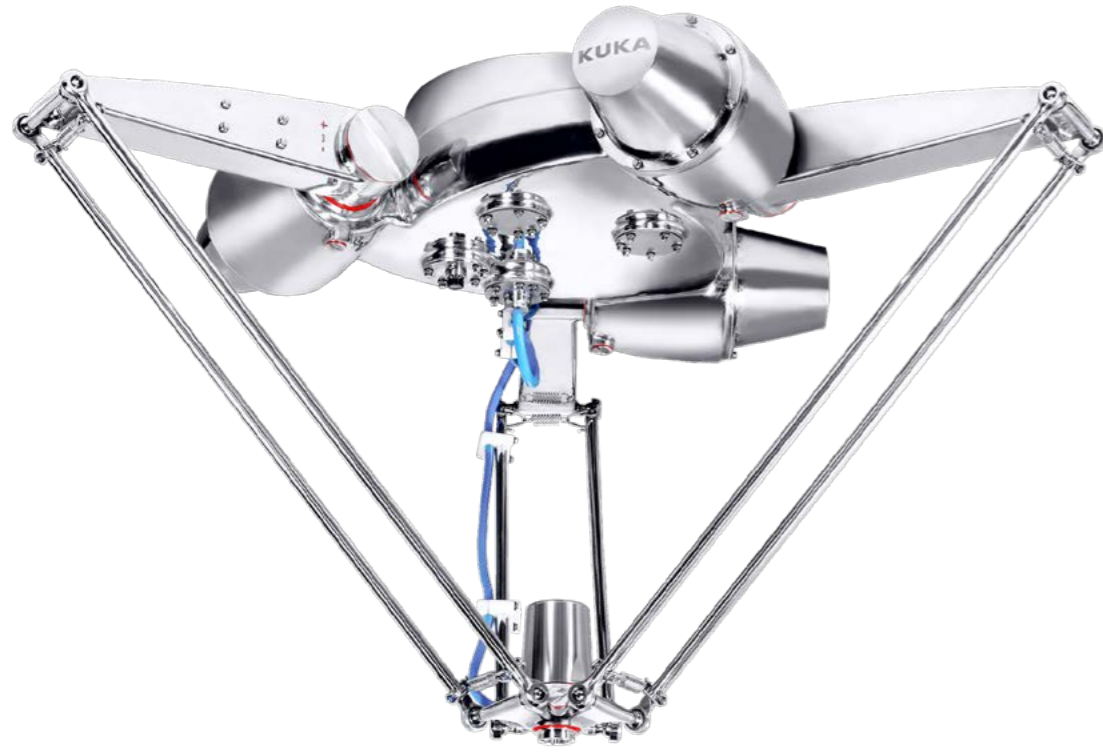
KUKA small robotics

Small robots for 3 kg - 10 kg payload.





KR DELTA. High-level hygiene.



With the new KR C5 micro robot controller for small robots, KUKA is taking automated production to a new level: durable and future-proof.

KR 3 D1200 HM is the first KR DELTA parallel robot marketed by KUKA. It is suitable for applications with stringent health and safety requirements in industries such as food, medicine, household chemicals, etc. The entire body of the robot is made of stainless steel with a protection rating of IP 67 and can therefore be cleaned and sterilized with high-pressure cleaners as well as with various industrial cleaners. Both the materials used for the robot body and those used for lubrication comply with the regulations for food contact materials published by the FDA and in the LFGB.

High speed. The KR DELTA enables extremely short cycle times as fast as 0.5 seconds.

High flexibility. The KR DELTA is suitable for various fields of application, from pharmaceuticals to electronics to the food industry.

Flexible flange. The flange of the KR DELTA is suitable for easy mounting of a wide variety of tools.

Large workspace. The industrial robot operates reliably in a cylindrical workspace with a height of 250 millimeters and a diameter of 1,200 millimeters.

Small footprint. The ceiling-mounted robot has an installation area with a diameter of 350 millimeters.

High ease of maintenance. With an encapsulated gear unit and ball joints made of self-lubricating material, the maintenance requirements of the KR DELTA are particularly low.

Meets the hygiene standards according to the regulations for contact with food

- The entire body is made of stainless steel, and is smooth, dirt-repellent and corrosion-resistant, making it easy to clean and disinfect.
- The protection rating for the robot body is IP 67, while axis 4 meets the high protection rating IP 69K.
- The materials used for the robot body and for lubrication comply with the regulations for food contact materials published by the FDA and in the LFGB.
- Direct contact of the robot body with food and medicines is permissible. The robot is particularly suitable for food processing, primary packaging and similar applications.

High cost-effectiveness

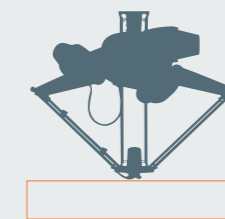
- No replacement of the lubricant in the reduction gears is required throughout the entire life cycle.
- The ball joints are self-lubricating.
- KR C5 micro, the latest generation of KUKA controllers, is included in the scope of supply. This takes up less space and consumes less energy.
- Low maintenance requirements
- Direct cleaning with high-pressure cleaners is possible, reducing cleaning-related downtime.

Powerful and easily accessible application system

- With the visualization application KUKA.VisionTech and the dedicated KUKA.PickControl software package, the seamless integration of up to ten robots and conveyor systems can be implemented with ease.
- The wide range of applications includes processing, picking, sorting, packaging, stacking and other applications in the food, medical, household chemical and other industries.



With flexible DELTA robots and matching hardware and software, KUKA offers cost-effective solutions for automated picking and packing.



Diameter
1,200 mm

Payload
3 kg

KR DELTA	KR 3 D1200 HM
Controller	KR C5 micro
Number of axes	4
Rated payload	3 kg
Reach	600 mm
Diameter	1,200 mm
Pose repeatability	±0.1 mm
Weight	95 kg
Variants	HM
Installation position	Ceiling

HM Hygienic Design

_Small robots



KR SCARA.

Extremely fast,
extremely precise.



Strong, fast, highly efficient. From the assembly of small parts to material handling or inspection – the ultra-compact KR SCARA robots immediately deliver maximum efficiency and cost-effectiveness. With integrated media supply systems, they can master almost any application straight out of the box.

The KR SCARA robots have an internally-routed media supply for air, power and data – a complete package for the smart integration of peripheral devices and the quick adaptation of the KR SCARA robot to almost any desired application. From the assembly of small parts to material handling or inspection – the 4-axis KR SCARA robots are characterized by flexible installation, highly precise motion and low maintenance requirements.



Strong, fast and absolutely reliable. The KR 6 R500 Z200-2 has a payload capacity of 6 kilograms and a reach of 500 millimeters.

click for more



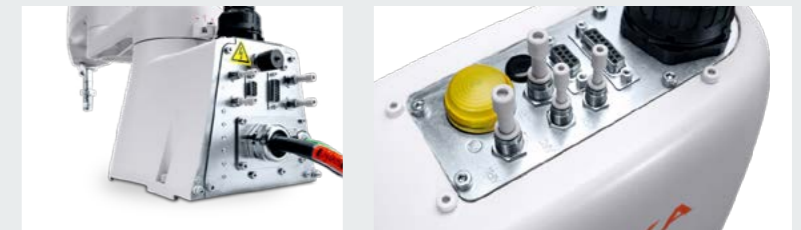
Unbeatable price/performance ratio. 6 kilogram payload, utmost precision, extremely short cycle times, high speed, low weight – and all at an affordable price.

Optimally adaptable to almost any task. Media supply in the complete package to enable fast adaptation of the robot to virtually any desired application.

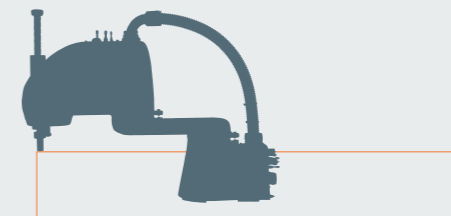
Robust in many working environments. Operational in the entire temperature range from 5° to 40° Celsius, protection rating IP 20.

Fast integration of peripheral equipment. Factory-prepared for the safe, quick and simple integration of peripheral equipment.

Certified quality. The KR SCARA robot is internationally certified according to the applicable EU standard.



As a robot of the latest generation, the KR SCARA has an internally-routed media supply for air, power and data. A coordinated complete package for the simple integration of peripheral devices and fast adaptation of the robot to virtually any desired application.



↔ **Reach**
500 – 700 mm

📦 **Payload**
3 kg

KR SCARA	KR 6 R500 Z200-2	KR 6 R700 Z200-2
Controller	KR C5 micro	KR C5 micro
Number of axes	4	4
Payload (maximum/rated)	6kg / 3 kg	6kg / 3 kg
Reach	500 mm	700 mm
Pose repeatability	±0.02 mm	±0.02 mm
Weight	20 kg	22 kg
Installation position	Floor	Floor

_Small robots



KR 4 AGILUS. New possibilities, shaped from greater functionality.



Custom-tailored for maximum performance in production. High performance in any installation position and with minimal space requirements – the KR 4 AGILUS impresses with its compact design, long reach and high precision.

The KR 4 AGILUS combines ultra-compact, interference-free design with optimum performance: with a payload capacity of 4 kilograms and a reach of 600 millimeters, the compact robot performs a wide variety of tasks, such as handling and assembly in the electronics industry or in small automation cells. It works reliably and precisely even with the shortest cycle times.

Multi-functional applicability, flexible positioning and unbeatable reliability – the new KR 4 AGILUS pushes back the boundaries of technical feasibility in small robotics. With a payload of up to 3 kilograms, it impresses with a top cycle time as fast as 0.4 seconds*. Whether handling, continuous-path motion or working with pinpoint accuracy – the KR 4 AGILUS simplifies the automation of compact and ultra-compact cells. Flexible in installation, highly precise in motion, economical in maintenance.

With just one type of robot, your applications will sustainably reach new levels of performance and efficiency. For maximum performance over the entire temperature range between 0 and 55 °C. Furthermore, the KR 4 AGILUS has an internally-routed media supply for air, power and data, enabling the quick and easy integration of peripheral devices. As a robot of the latest generation, the KR 4 AGILUS operates with the KR C5 micro, incorporating state-of-the-art control technology from KUKA. In order to solve and control tasks more efficiently and intuitively.

*Cycle time according to the "Small Adept Cycle" reference standard

Speed. Cycle times as fast as 0.4 seconds

Durability. Suitable for use in the temperature range from 0 to 55 °C, equipped with protection rating IP 40 and ESD protection

Precision. Repeatability of 0.02 millimeters and improved continuous-path accuracy

Integrated energy supply system. Compatible with most supply systems
4×4 compressed air
1×M12 8-pin (24 V, 2 A)
1×M12 8-pin Ethernet (optional)

Utmost flexibility. Compact, interference-free design, flexible installation position and various interfaces for peripheral devices.

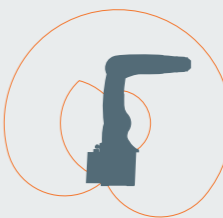
ESD protection. As standard, the robot is protected against uncontrolled electrostatic charging or discharging and is thus equipped for the safe handling of sensitive electronic components.

Maximum reliability. Particularly long service life and low servicing and maintenance requirements, e.g. thanks to fewer steps when exchanging cables

Simple operation. Control via KR C5 micro and operation via the KUKA smartPAD



Integrated media supply for air, power and data. For minimum disruptive contours and maximum reliability in operation.



Reach
601 mm

Payload
4 kg

click for more



KR 4 AGILUS	KR 4 R600
Controller	KR C5 micro
Number of axes	6
Payload	4 kg
Reach	601 mm
Pose repeatability	±0.02 mm
Weight	27 kg
Installation position	Floor, ceiling, wall, angle

_Small robots



KR AGILUS. Custom-tailored for maximum performance in production.

The KR AGILUS sixx is our compact six-axis robot designed for particularly high working speeds. Different versions, installation positions, reaches and payloads transform the small robot into a precision artist.

The KR AGILUS stands out due to its versatility that enables you to tap new fields of application. Irrespective of the installation position – whether on the floor, ceiling or wall – it achieves the utmost precision in confined spaces thanks to its integrated energy supply system and the new KR C5 micro controller. The Safe Robot functionality paves the way for innovative automation concepts. With a wide range of variants for operation in clean rooms or potentially explosive environments, or with a particularly hygienic or splash-proof design: every version of the KR AGILUS is always precise and fast.



click for more



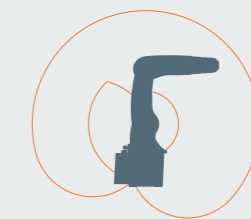
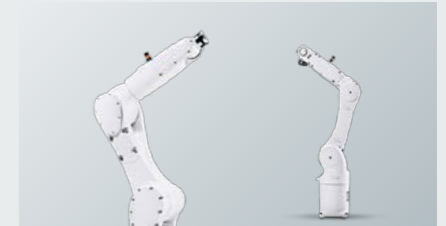
Agile in every environment. No matter how dirty, wet or sterile – the KR AGILUS achieves top performance in every production environment. A wide range of variants, such as Cleanroom, Hygienic Machine, EX – for potentially explosive environments – and Waterproof make it a specialist for many different tasks.

Extreme precision with any cycle time. Thanks to its robust design, the KR AGILUS achieves maximum repeatability and continuous precision. With its extreme speed, it reduces cycle times – and increases production quality, without ever getting out of step.

Sustainably robust. Thanks to its lifetime lubrication, the KR AGILUS never needs a change of lubricant in the gear units and has minimal maintenance requirements. The robust design ensures continuous productivity.

Extremely compact. Inverted on the ceiling, sideways on the wall or fixed to the floor: the KR AGILUS adapts to any installation position. We have integrated the energy supply system so that you can integrate the six-axis robot into your space-saving cell concepts.

Protected against electrostatic charges. Electrostatic charges are a problem especially in electronics production. The KR AGILUS has ESD protection even in its standard version. It is thus optimally protected against charging.



Reach
706 – 1,101 mm

Payload
6 – 10 kg

Hygienic Machine variant. The KR AGILUS is available as a Hygienic Machine. The design and the materials used in this variant are absolutely hygienic. This allows it to be used in applications involving direct contact with food and pharmaceutical substances.

Waterproof variant (IP 67). In the Waterproof variant, the KR AGILUS is splash-proof from all sides and achieves maximum performance even in the case of extreme external production conditions. Stable stainless steel covers have replaced plastic parts, and resistant surface treatments and additional seals in the interior of the small robot enable it to be used in a machine tool environment, for example.

Cleanroom variant. The KR AGILUS CR is suitable for use in clean rooms and meets the requirements of cleanroom class ISO 2. The KR AGILUS CR can thus be perfectly integrated into the smallest of spaces and complex applications with high cleanliness requirements.

EX variant. The KR AGILUS can be adapted to even the most extreme environmental conditions: with the KR AGILUS EX, we have added explosion protection to the Waterproof variant. With this design, the KR AGILUS can also work with maximum precision in potentially explosive environments (zone 2).

KR AGILUS	KR 10 R1100	KR 10 R900	KR 6 R900	KR 6 R700	KR 10 R1100-2	KR 10 R900-2	KR 6 R900-2	KR 6 R700-2
Controller	KR C5 micro, KR C4 compact	KR C5 micro, KR C4 compact	KR C5 micro, KR C4 compact	KR C5 micro, KR C4 compact	KR C5 micro, KR C4 compact	KR C5 micro, KR C4 compact	KR C5 micro, KR C4 compact	KR C5 micro, KR C4 compact
Number of axes	6	6	6	6	6	6	6	6
Payload	10 kg	10 kg	6 kg	6 kg	10 kg	10 kg	6 kg	6 kg
Reach	1,101 mm	901 mm	901 mm	706 mm	1,101 mm	901 mm	901 mm	726 mm
Pose repeatability	±0.03 mm	±0.03 mm	±0.03 mm	±0.03 mm	±0.02 mm	±0.02 mm	±0.02 mm	±0.02 mm
Weight	54 kg	52 kg	52 kg	50 kg	55 kg	55 kg	55 kg	53 kg
Variants	CR, EX, HM, WP	CR, HM, WP	CR, EX, HM, WP	CR, HM, WP	HO	–	HO	–
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle

CR Suitable for clean rooms EX For potentially explosive atmospheres HM Hygienic Design HO Food compatible lubricants WP Splash-proof



 kuka.com/contacts

 facebook.com/kukaglobal

 youtube.com/kukarobotgroup

 twitter.com/kukaglobal

 linkedin.com/company/kukaglobal

Angaben zur Beschaffenheit und Verwendbarkeit der Produkte stellen keine Zusicherung von Eigenschaften dar, sondern dienen lediglich Informationszwecken. Maßgeblich für den Umfang unserer Lieferungen ist der jeweilige Vertragsgegenstand. Technische Daten und Abbildungen sind unverbindlich in Hinblick auf Lieferungen. Änderungen vorbehalten. © 2022 KUKA