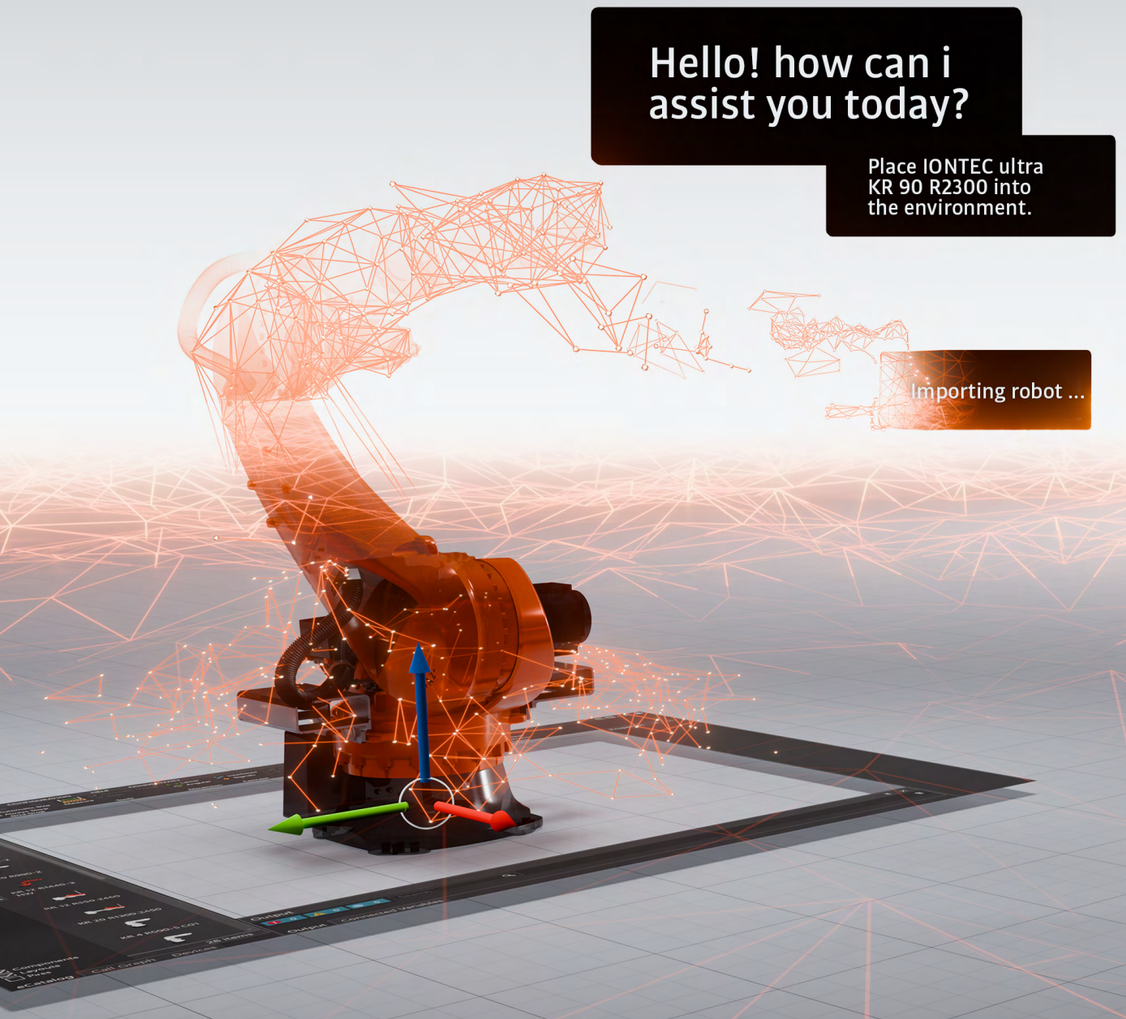
KUKA



PRODUCT PORTFOLIO

08/2026





Welcome to the new KUKA world: Simple. Intuitive. Future-proof.

Dear Readers,

We are living in dynamic times: the demands on flexibility in automation continue to rise. From AI applications to ever-changing production environments and new fields of use, the automation market – and our customers' needs – are evolving rapidly.

With iiQKA.OS2, our new operating system, and the iiQWorks engineering suite, a new era begins for KUKA: more modern, more intuitive, and more aligned with the needs of our users than ever before. iiQKA.OS2 combines decades of KUKA expertise with the possibilities of cutting-edge technologies, making robotics more accessible than it has ever been.

Our new operating system brings a modern, intuitive user experience to your company – enabling you to get started faster, work more flexibly, and master complex tasks without barriers. iiQWorks supports you throughout the entire process: from the initial idea to simulation and final implementation. With the help of a digital twin, easy offline programming, and seamless workflows, you gain planning reliability, save time, and reduce costs.

What unites both solutions is a clear message: KUKA has made its portfolio ready for the future. iiQKA.OS2 is AI-capable, cyber-resilient, and prepared for the new ISO 10218 standard – giving you a strong and reliable foundation for the long term. At the same time, the combination of operating system and engineering suite opens entirely new possibilities – more creativity, more efficiency, and more automation that truly feels seamless.

We are convinced: the future of robotics will be simpler, more connected, and more intuitive – and we look forward to shaping this path together with you.

Sincerely,
Michael Jürgens, CEO KUKA Robotics



Intelligent systems from a single source.



KUKA offers a comprehensive portfolio of mobile robotics that covers the entire value chain and meets the requirements of intralogistics and production in the best possible way.

Our autonomous mobile robots are developed using the latest technologies and innovative features to meet the highest standards in terms of performance, reliability, and safety. Thanks to extensive experience and specialized know-how, we can also provide targeted concepts for your processes and tasks in this field. Our automation portfolio includes industrial series products that address a wide range of specific requirements.

KUKA.AMR Fleet is the management software and optimizes AMR utilization by intelligently distributing transport orders and thereby minimizing costs. Using advanced AI algorithms, the software analyzes current transport orders, positions, and battery charge levels in real time. The goal is to minimize the number of AMRs required and increase operational efficiency.

Versatile portfolio
- Autonomous mobile platforms
- Mobile manipulators
- MRK-capable solutions (human-robot collaboration)
- All payload classes
- For cleanroom applications
- Drive technologies: omnidirectional, differential
- Standardized and customer-specific solutions

Autonomous factory
- Hybrid and free navigation: via SLAM and via QR codes
- No-code solution with artificial intelligence
- Fleet management of the complete transport system
- Easy integration into existing production: VDA/VDMA 5050-compatible

Global full-service support
- 24/7/365 customer support
- Broad portfolio of e-services
- Global partner network
- Feasibility studies, test setups
- Virtual simulation
- Programming services
- Employee training on site or online



010
Cobots

LBR iiwa
LBR iisy



046
High payloads

KR QUANTEC



016
Small robots

KR DELTA
KR SCARA
KR 4 AGILUS
KR AGILUS
KR AGILUS ultra (Next Gen)



028
Low payloads

KR CYBERTECH nano
KR CYBERTECH nano ARC
KR CYBERTECH
KR CYBERTECH ARC
KR CYBERTECH (Next Gen)



050
Heavy payloads

KR FORTEC
KR FORTEC ultra
KR TITAN ultra (Next Gen)



040
Medium payloads

KR IONTEC
KR IONTEC ultra



058
Palletizing robots

KR 40 PA
KR QUANTEC PA
KR FORTEC PA (Next Gen)
KR FORTEC ultra PA (Next Gen)



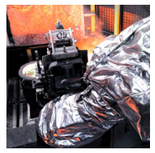
064
Press-to-press robots

KR QUANTEC P



068
Special variants

Food compatible lubricants
Splash-proof
For potentially explosive atmospheres
Suitable for cleanrooms
Hygienic design
Arctic version down to -30 °C



074
Foundry

KR CYBERTECH F
KR IONTEC F
KR QUANTEC F
KR FORTEC F
KR FORTEC ultra F
KR TITAN ultra F



082
Robots in the medical industry

LBR Med
KR QUANTEC HC



088
Linear units

KL 100
KL 250-3
KL 4000
KL 5000



092
Positioners

KP1-MD
KP1-MD HW
KP1-MDC
KP1-MDC HW
KP1-MC
KP1-MB HW
KP1-V
KP1-H
KP1-H HW
KP1-HC
KP1- HC HW
KP1-V2T
KP1-V2T M
DKP HW
KP2-HV
KP3-V2H
KP3-H2H
KP5-V2S2V
KP5-V2H2V HW



100
Autonomous mobile robots

KMP 250P
KMP 250P-T
KMP 600P
KMP 600W
KMP 1500P
KMP 3000P
KMR iisy-2
KMF 1500P



118
Education

Education Cell
Education Cell lite
Education Kit
Education Kit AMR



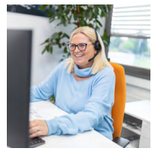
124
Robot controller

KR C5
KR C5 micro
KUKA smartPAD
KR C5 für iiQKA.OS2
KR C5 micro für iiQKA.OS2
KR C5 slim für iiQKA.OS2
KUKA smartPAD pro
KUKA smartPLUG



140
Software

System software
System software iiQKA.OS2
Application software for iiQKA.OS2
Simulation software for iiQKA.OS2
System expansions for iiQKA.OS2
System software KSS
Cloud-based services



180
Global customer services

Setting new standards in automation and intralogistics.

KMP 250P



KR AGILUS ultra

NEXT GEN



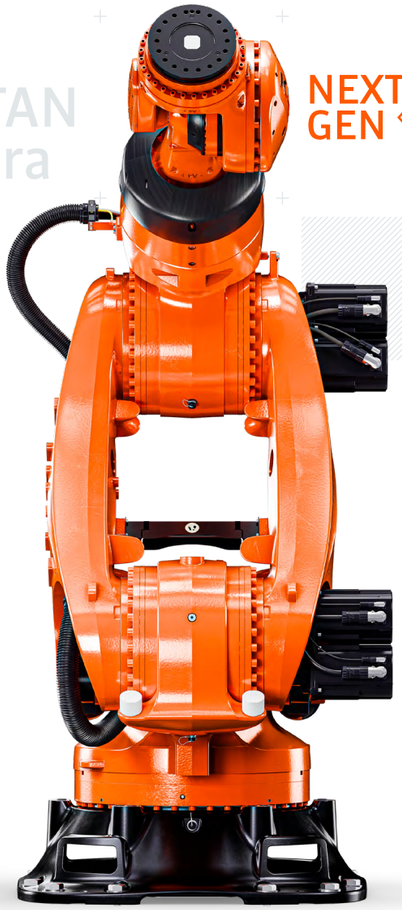
KR CYBER-TECH

NEXT GEN



KR TITAN ultra

NEXT GEN



KMP 250P. **Safe, flexible transport with easy fleet integration.** With the KMP 250P, KUKA expands its AMR portfolio with a mobile platform designed for the safe transport of goods and components up to 250 kg – optionally with a lifting unit. Optimized for electronics manufacturing and its specific requirements, the platform is also available in cleanroom and ESD versions for demanding environments, while the new Sleep Mode feature simplifies fleet handling (e.g., standby management for larger fleets). Integration into existing intralogistics is straightforward.

KR AGILUS ultra. **High performance and precision in the smallest spaces.** The KR AGILUS ultra combines payloads up to 16 kg with highly accurate motion control and a compact design – ideal for fast, dynamic tasks in tight and technically demanding production environments. Thanks to its robust design and enclosed kinematics, it is suitable for both clean and harsh areas, is splash-proof and washable, and delivers IP 67, cleanroom ISO Class 4, and ESD protection. It is also compatible with iiQKA.OS2 and the KR C5 micro, making it AI-ready for future-oriented automation.

KR CYBERTECH. **Two next-generation all-rounders.** With 25 and 35 kg payloads, higher performance in a comparable footprint, and AI-ready design, they expand the low-payload class. Flexible mounting on the floor, ceiling, wall, or at an angle makes them ideal for handling, unloading, pick-and-place, or testing applications. The new central hand increases stiffness and path accuracy; IP 67 protects against dust and splashing water. Perfectly complemented by the KR C5 slim controller for iiQKA.OS2: compact, powerful, and expandable.

KR TITAN ultra. **The specialist for extreme heavy-duty handling.** The KR TITAN ultra is built for handling massive components: in the KR 1500 R3200-2 variant, it moves up to 1,500 kg with a 3,226 mm reach and is specified for industrial environments with IP 65/IP 67. As a heavy-load specialist in the KUKA portfolio, the series also features an energy-efficient design to reduce operating costs and supports more sustainable production – while delivering high availability for applications such as automotive, battery, and photovoltaic manufacturing.

_Cobots

Hands-on robots. With intuitive interaction for new solutions.

Where humans and robots work together, completely new opportunities are created. Collaborative robots, or cobots for short, can be quickly and easily integrated into production environments. Due to their intelligent sensors, they open up entirely new methods of automation and collaboration between robots and humans. Cobots are the solution for industries that, until now, have been dominated by manual labor – such as the electronics sector. They are also ideal for SMEs that have not previously automated tasks with robots for economic reasons.

KUKA served as pioneers with the development of the world's first cobot – the LBR iiwa – in 2014. Since then, KUKA has continuously expanded the range of possible applications for cobots. With the introduction of the LBR iisy, which runs with iiQKA.OS and is supported by the iiQKA Ecosystem, KUKA is now starting a new chapter. Sensors and fenceless functions facilitate teaching and, if desired, enable safe cooperation and collaboration between humans and robots. Cobots can be guided by hand during start-up and programming – enabling the robots to be taught their motion sequences much more quickly and naturally. This is so intuitive that even beginners with no prior knowledge can operate and program a cobot from KUKA.



LBR iiwa



LBR iisy

LBR iiwa



7–14 kg
800–820 mm
±0.1–0.15 mm

LBR iiwa 14 R820
LBR iiwa 7 R800

LBR iiwa

With the arrival of the LBR iiwa – one of KUKA's lightweight cobots specializing in sensitive assembly work – safety fences make way for human-robot collaboration in the workspace.

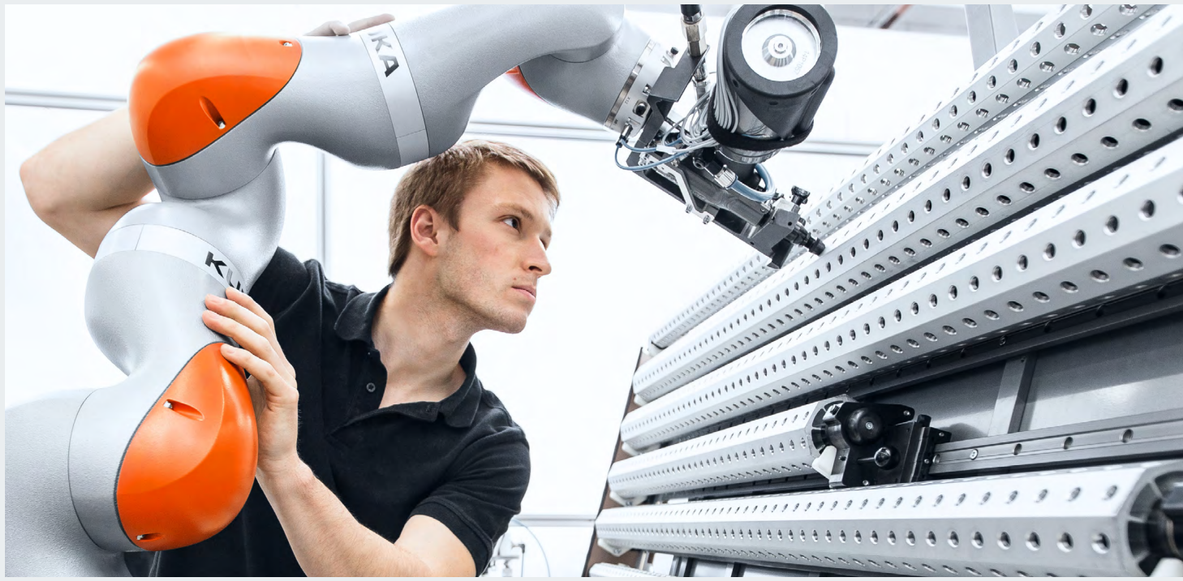
Quick reactions. Thanks to its joint torque sensors, the LBR iiwa detects contact immediately, and reduces its level of force and speed instantly. Its position and compliance control enables it to handle delicate components without creating crushing and shearing hazards.

Able to learn. Choose from three operating modes and program the LBR iiwa by means of simulation: show it the desired position – and it remembers the coordinates of the point on the path. Stop for breaks and control it with simple touch commands.

Sensitive. The lightweight LBR iiwa with its high-performance servo control is able to detect contours quickly under force control. It establishes the correct installation position and mounts components quickly and with the utmost precision with an axis-specific torque accuracy of ±2 percent of the maximum torque. The LBR iiwa can also find small, delicate components in next to no time without your assistance.

Independent. The LBR iiwa's controller, KUKA Sunrise Cabinet, simplifies the quick start-up of even complex applications. Give your operator a third hand – and have the LBR iiwa take care of unergonomic, monotonous tasks reliably and independently.

click for more



Greater freedom.
The LBR iiwa does not require a safety fence.

Industrial change is in full swing. IoT and Industry 4.0 are replacing established structures with a cyber-physical production environment. The active agents in this process of change are intelligent machines with completely new capabilities: robots equipped with sensitivity and superior intelligence. Working side-by-side with humans, they operate more independently and with more sensitivity than ever before. They are mobile, highly flexible and extremely versatile. At the same time, they provide you with seamless digital networking and autonomous adjustment to the rapidly changing production requirements. KUKA is making the vision of a production environment free from rigid structures a reality. As part of this, lightweight robots (LBR) play a key role as "intelligent industrial work assistants" (iiwa). In short: LBR iiwa.

LBR iiwa	LBR iiwa 14 R820	LBR iiwa 7 R800
Rated payload	14 kg	7 kg
Number of axes	7	7
Reach	820 mm	800 mm
Wrist variant	In-line wrist	In-line wrist
Mounting flange on axis 7	DIN ISO 9409-1-A50	DIN ISO 9409-1-A50
Pose repeatability	±0.15 mm	±0.1 mm
Axis-specific torque accuracy	±2 %	±2 %
Weight	29.9 kg	23.9 kg
Protection rating	IP54	IP54
Variants	CR	CR
Installation position	Floor, ceiling, wall	Floor, ceiling, wall

CR Suitable for cleanrooms

The technical data in the tables applies exclusively to standard versions.

LBR iisy



3–15 kg
760–1,300 mm
±0.05–0.1 mm

LBR iisy 3 R760
LBR iisy 6 R1300
LBR iisy 8 R930
LBR iisy 11 R1300
LBR iisy 15 R930

LBR iisy

The LBR iisy is an industrial performance cobot designed for demanding production environments. Built on the same iiQKA.OS2 operating system as KUKA's industrial robots, it offers the robustness, stiffness and accuracy required for advanced applications with higher cycle time and durability requirements – from pick & place and material handling to palletizing and arc welding. With redundant torque sensors in every joint, dedicated safety hardware and the unified operating system, the LBR iisy is optimized for flexible deployment in industrial contexts, including fenceless cells and human-robot collaboration.

Flexible. Robust hardware and iiQKA.OS2 allow components and application packages to be reused across tasks.

Collaborative. Enables direct, fence-free collaboration with humans.

Sensitive. Detects collisions and measures process forces.

click for more

Based on KUKA's next generation operating system, iiQKA.OS2, the LBR iisy cobot experience is user-friendly, well-thought-out and straightforward for a wide range of industries with applications that require precise, fast and sensitive activities.

The LBR iisy runs on the iiQKA.OS2 operating system, aligning cobots and industrial robots on one platform and enabling project engineering with the versatile iiQWorks suite. This makes the robot equally at home in complex automation environments and in unstructured environments where it interacts with workers. And the best part: LBR iisy applications can be engineered and validated on the digital twin, so programs move from simulation to production with predictable behavior.

LBR iisy can also work without safety fences, directly with human operators and can be handguided smoothly with the commander input device on the end of the robot arm to help simplify setup and programming.

LBR iisy is KUKA's first cobot on the iiQKA.OS2 operating system, making it easy to scale from a single cell to entire lines by adding further cobots and industrial robots on the same platform.



Flexible. Flexible robot system due to easy operation and programming, as well as low weight and many application and technology packages.



Suitable for industry. Fully industrial cobot through the use of proven technologies



Fast time to production. LBR iisy runs on iiQKA.OS2, so further cobots and industrial robots can be added to the same cell or line at any time.

LBR iisy	LBR iisy 3 R760	LBR iisy 6 R1300	LBR iisy 8 R930	LBR iisy 11 R1300	LBR iisy 15 R930
Number of axes	6	6	6	6	6
Rated payload	3 kg	6 kg	8 kg	11 kg	15 kg
Reach	760 mm	1,300 mm	930 mm	1,300 mm	930 mm
Pose repeatability	±0.1 mm	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm
Weight	22.8 kg	46.3 kg	43.2 kg	46.3 kg	43.2 kg
Variants	–	–	–	–	–
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle



_Small robots

Little helpers – a big help.

The versatile world of KUKA small robots.

When it comes to compact solutions and payloads of up to 16 kilograms, small robots from KUKA steal the show. Our portfolio in the field of small robots will impress you with a large number of variants and possible applications.

All robots in this class are characterized by impressive precision and speed and combine this with minimal space requirements.

KUKA offers an ideal solution for every automation project – from six-arm robots and robots with internal media supply to parallel-arm robots with parallel kinematic systems. Small robots from KUKA are synonymous with freedom for automation. The flexible installation positions, for example, enable the implementation of a wide variety of production cell concepts.

The breadth of KUKA's portfolio of small robots is probably demonstrated most clearly, however, by the wide range of applications. These range from cleanrooms to hygienically sensitive areas such as the food or pharmaceutical industries, and from ESD-compliant electrical assembly tasks to fields of work involving water spray or explosion hazards. Safe Robot functionalities are also already available for some small robots.



KR DELTA



KR SCARA



KR 4 AGILUS



KR AGILUS



KR AGILUS ultra

3–15 kg
1,200–1,600 mm
±0.05 mm

KR 15 D1600-2
KR 15 D1200-2
KR 3 D1200
KR 3 D1200 HM



KR DELTA

KR DELTA

The KR DELTA delivers with speed, precision, range, reliability, versatility – all with its small footprint. This parallel arm robot was created for pick-and-place tasks focusing on short cycle times and the rapid recognition and handling of objects. With a payload capacity of three kilograms, it is ideal for the automation of order – picking and packing tasks – for example in the electronics industry. One particular strength of all robots in the KR DELTA family is their low maintenance requirements. The ball joints are self-lubricating so that replacement of the lubricant in the reduction gears is never required.

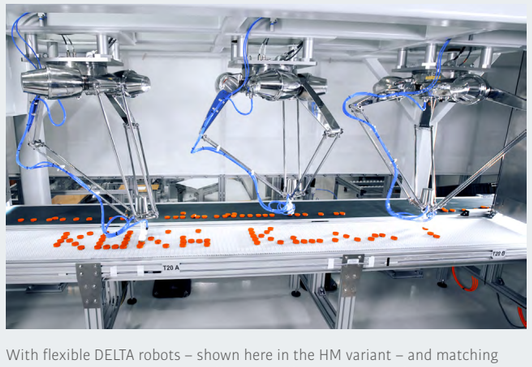
In addition to the cost-effective standard version, the KR DELTA is also available in the Hygienic Machine variant. In this hygiene robot version, the KR DELTA HM can also be used in demanding food or medical applications. Here, the entire body of the robot is made of stainless steel. Due to its IP 67 protection rating, it can be cleaned and sterilized with high-pressure cleaners as well as with various industrial chemicals. 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.

click for more

High cost-effectiveness, low maintenance
- No replacement of the lubricant in the reduction gears is ever required.
- With an encapsulated gear unit and self-lubricating ball joints, the maintenance requirements of the KR DELTA are particularly low.
- The KR C5 micro, the latest generation of KUKA controllers, is included in the scope of supply. This requires less space and consumes little energy at only 230 volts.
- Direct cleaning with high-pressure cleaners is possible, greatly 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, order picking, sorting, packaging, stacking and many other applications in the electronics, food, medical, household chemical and other industries.

The HM version meets the hygiene standards according to the regulations for contact with foodstuffs
- 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 the fourth axis 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. This robot variant is particularly suitable for food processing, primary packaging and similar applications.



With flexible DELTA robots – shown here in the HM variant – and matching hardware and software, KUKA offers cost-effective solutions for automated order picking and packing.

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

High speed. The KR DELTA enables extremely short cycle times as fast as 0.32 seconds.

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

Large workspace. The industrial robot operates reliably in a cylindrical workspace with a height of 350 millimeters and a diameter of 1,200 millimeters.

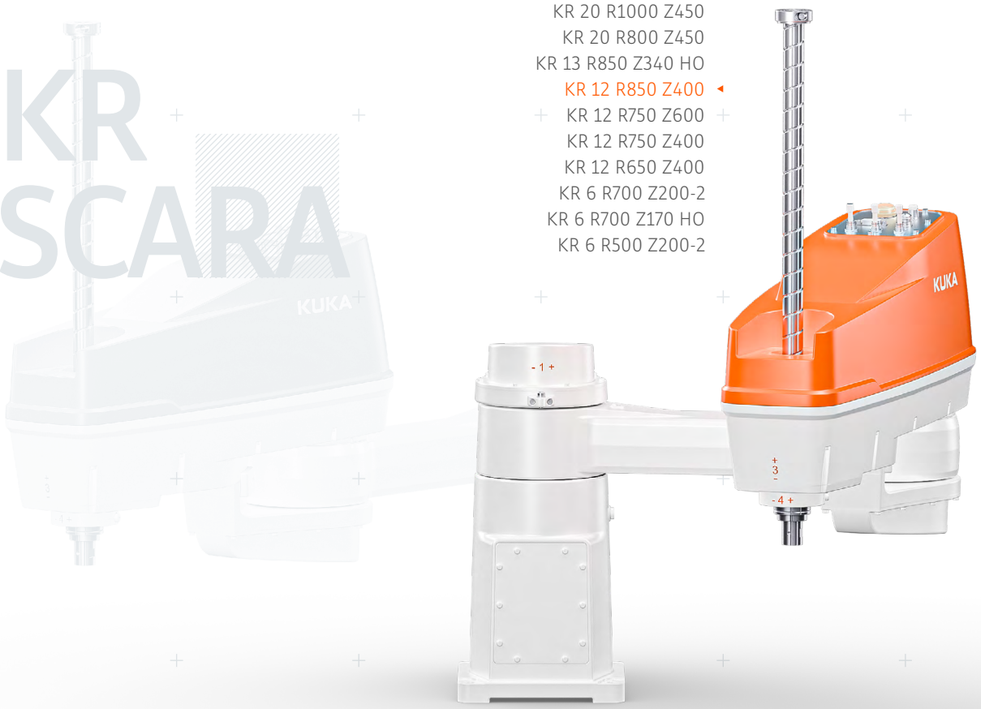
KR DELTA	KR 15 D1600-2	KR 15 D1200-2	KR 3 D1200	KR 3 D1200 HM
Number of axes	4	4	4	4
Rated payload	15 kg	15 kg	3 kg	3 kg
Diameter	1,600 mm	1,200 mm	1,200 mm	1,200 mm
Pose repeatability	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm
Weight	95 kg	94.8 kg	105 kg	95 kg
Variants	–	–	–	HM
Installation position	Ceiling	Ceiling	Ceiling	Ceiling

HM Hygienic Design

KR SCARA

6–60 kg
500–1,200 mm
±0.020–0.035 mm

KR 60 R1200 Z400
KR 20 R1200 Z450
KR 20 R1000 Z450
KR 20 R800 Z450
KR 13 R850 Z340 HO
KR 12 R850 Z400
KR 12 R750 Z600
KR 12 R750 Z400
KR 12 R650 Z400
KR 6 R700 Z200-2
KR 6 R700 Z170 HO
KR 6 R500 Z200-2



KR SCARA

Strong, fast, highly efficient. From the assembly 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 smart integration of peripheral devices and 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.



Unbeatable price/performance ratio. 6, 12, 20 or 60-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 54.

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.



Thanks to the cleanroom variant, companies with ultraclean production environments – such as those in the semiconductor industry – can also benefit from the strengths of the KR SCARA.



Developed for handling bulky and heavy battery cells or for high-load palletizing tasks in numerous manufacturing industries, the KR 60 masters every challenging situation with ease.

KR SCARA	KR 6 R500 Z200-2	KR 6 R700 Z200-2	KR 6 R700 Z170 HO	KR 12 R650 Z400	KR 12 R750 Z400	KR 12 R750 Z600
Number of axes	4	4	4	4	4	4
Payload (max/rated)	6 kg / 3 kg	6 kg / 3 kg	6 kg / 3 kg	12 kg / 6 kg	12 kg / 6 kg	12 kg / 6 kg
Reach	500 mm	700 mm	700 mm	650 mm	750 mm	750 mm
Pose repeatability	±0.02 mm	±0.02 mm	±0.02 mm	±0.025 mm	±0.025 mm	±0.025 mm
Weight	20 kg	22 kg	22 kg	49 kg	50 kg	50.5 kg
Variants	–	HO	HO	CR	CR	–
Installation position	Floor	Floor	Floor	Floor	Floor	Floor

KR SCARA	KR 12 R850 Z400	KR 13 R850 Z340 HO	KR 20 R800 Z450	KR 20 R1000 Z450	KR 20 R1200 Z450	KR 60 R1200 Z400
Number of axes	4	4	4	4	4	4
Payload (max/rated)	12 kg / 6 kg	13 kg / 6 kg	20 kg / 10 kg	20 kg / 10 kg	20 kg / 10 kg	60 kg / 20 kg
Reach	850 mm	850 mm	800 mm	1,000 mm	1,200 mm	1,200 mm
Pose repeatability	±0.025 mm	±0.02 mm	±0.025 mm	±0.025 mm	±0.035 mm	±0.05 mm
Weight	51 kg	55 kg	60 kg	64 kg	64 kg	120 kg
Variants	CR	HO	CR	CR	CR	–
Installation position	Floor	Floor	Floor	Floor	Floor	Floor

The technical data in the table applies exclusively to standard versions.



4 kg
601 mm
±0.02 mm

KR 4 R600

KR 4 AGILUS

KR 4 AGILUS

Custom-tailored for maximum performance in production. High performance in any installation position and with minimal space requirements – the KR 4 AGILUS will impress you 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 will not fail to impress 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 of 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. 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

click for more

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.





Speed. Cycle times as fast as 0.4 seconds

Durability. Suitable for use in temperatures 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)

KR 4 AGILUS	KR 4 R600
Number of axes	6
Rated payload	3 kg
Maximum payload	4.63 kg
Reach	601 mm
Pose repeatability	±0.02 mm
Weight	27 kg
Installation position	Floor, ceiling, wall, angle

click for more

KR AGILUS



6–10 kg
706–1,101 mm
±0.02–0.03 mm

KR 10 R1100-2
KR 10 R900-2
KR 6 R900-2
KR 6 R700-2

KR AGILUS

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 cleanrooms, potentially explosive environments, or with a particularly hygienic or splash-proof design: every version of the KR AGILUS is always precise and fast.

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 breaking 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.



KR AGILUS	KR 10 R1100-2	KR 10 R900-2	KR 6 R900-2	KR 6 R700-2
Number of axes	6	6	6	6
Rated payload	10kg	10 kg	6 kg	6 kg
Maximum payload	11.1 kg	11.3 kg	6.7 kg	6.8 kg
Reach	1,101 mm	901 mm	901 mm	726 mm
Pose repeatability	±0.02 mm	±0.02 mm	±0.02 mm	±0.02 mm
Weight	55 kg	55 kg	55 kg	53 kg
Variants	HO, EP	EP	EP	EP
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle

HO Food compatible lubricants **EP** Electrostatic discharge (ESD plus)
The technical data in the table applies exclusively to standard versions.

KR AGILUS ultra

NEXT GEN



10–16 kg
901–1,103 mm
±0.02 mm

KR 16 R1100-3
KR 13 R900-3
KR 10 R1100-3

KR AGILUS ultra

Power and precision in a compact design. This small robot combines a high load capacity of up to 16 kg with precise motion control and a compact design – the ideal solution for dynamic processes in confined, technically demanding production environments.

The KR AGILUS ultra small robot is the answer to the demands of modern manufacturing: compact, powerful, and flexible. With high payload capacity, a small footprint, and intelligent control technology, it enables efficient and cost-effective processes in production environments with high process density.

Thanks to its robust design and closed kinematics, it is equally suitable for clean and harsh environments. Splash-proof and cleaning-resistant, it integrates effortlessly into complex production lines. Internal media routing ensures safe processes and easy integration.

Thanks to its compatibility with the iiQKA.OS2 operating system and the KR C5 micro controller, the KR AGILUS ultra is AI-ready and opens up new perspectives for future-oriented automation.

click for more

Precision assembly in electronics manufacturing. Pick-and-place of small parts in compact assembly and packaging processes – ideal for series production.

Advanced Semiconductor Packaging. Integration of multiple chips in advanced packaging technologies – enabling efficient and compact systems.

Loading, unloading, testing in small cells. Efficient material feeding and quality assurance in automated manufacturing environments.

Multi-handling tasks for the consumer goods industry. Gripping, sorting, packing, and labeling – optimized for high speed and flexibility.

High productivity.
- Optimized for large components and parallel machining processes
- Power reserves for complex tools and fixtures
- Fast axis movements for short cycle times
- High rigidity for precise positioning

High flexibility.
- Flexible installation (floor, wall, ceiling, angled)
- Handling of large or multiple workpieces simultaneously
- High degree of planning reliability for conversions or expansions

Intelligent control and future-proofing.
- Intuitive operation via a modern, web-based UI
- Multi-protocol compatibility for seamless automation integration
- Future-proof thanks to AI compatibility and modular expandability

Compact and collision-resistant design.
- Slim design reduces interference contours
- Internal cables facilitate integration
- Minimized risk of collision for flexible planning
- Quick commissioning thanks to fewer adjustments

Robust and reliable.
- IP 67 protection class for harsh environments
- Suitable for ISO Class 4 clean rooms as standard
- ESD protection as standard
- Globally certified according to CE, NRTL, and CR

Customizable.
- As-needed expansions: additional I/O modules, fieldbus systems, vision systems.
- Mounting frames enable a wide range of applications
- The A1 axis can be fitted with a mechanical axis range limiter.



KR AGILUS ultra	KR 16 R1100-3	KR 13 R900-3	KR 10 R1100-3
Number of axes	6	6	6
Rated payload	16 kg	13 kg	10 kg
Maximum payload	19.3 kg	16.2 kg	12.4 kg
Reach	1,103 mm	901 mm	1,101 mm
Pose repeatability	±0.02 mm	±0.02 mm	±0.02 mm
Weight	89 kg	57 kg	58 kg
Variants	–	–	–
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle

The technical data in the table applies exclusively to standard versions.

Low payload meets maximum flexibility.
A wealth of variants for a wide range of processes.

KUKA's low payload category from 6 to 35 kilograms. KUKA robots with low payloads demonstrate unique strengths in bonding, sealing, foaming and all tasks requiring a high path accuracy. In ARC welding, KUKA robots for low payloads boast the best acceleration values on the market.

Even tasks such as component testing, small-part assembly or grinding, polishing, assembly, as well as machine loading and unloading are in the best of hands when performed by KUKA robots of the low payload category. With optimal reach and payload coverage, this range of robots offers a level of performance that is hard to beat.



KR CYBERTECH nano



KR CYBERTECH nano ARC



KR CYBERTECH



KR CYBERTECH ARC



KR CYBERTECH

KR CYBERTECH nano



6–10 kg
1,440–1,840 mm
±0.04 mm

KR 10 R1440-2
KR 8 R1640-2 ◂
KR 6 R1840-2

KR CYBERTECH nano

Surpasses limits to master every task. Regardless of the application for which you use the KR CYBERTECH nano robots, both the in-line wrist and hollow-wrist variants achieve optimal results from the outset. For reducing the maintenance costs in small, compact cells, for complex tasks or in demanding, high-density production chains. Their deployment quickly pays off. Because the new KR CYBERTECH nano series combines maximized performance with minimized investment, integration and maintenance costs.

Ready for the dynamic markets of the future. The robots of the KR CYBERTECH nano series set new standards in terms of performance and flexibility. Developed to achieve optimal results in any conceivable application. Unrivaled spectrum of capabilities: outstandingly agile, extremely fast and yet uncompromisingly precise in continuous-path motion – all combined in a single machine. With their sleek and streamlined design, the robots look good even in harsh surroundings.

click for more

Utmost precision. The industrial robots of the KR CYBERTECH nano family offer a repeatability of 0.04 millimeters. They therefore take full advantage of their strengths even at high speed.

Streamlined and compact. Maximum performance with minimal disruptive contours: the new robots are extremely compact, light and streamlined – for a wide range of applications in industrial manufacturing.

Maximum freedom. The robots open up previously inaccessible workspaces: they can cover long distances, with an extremely large workspace to the rear and a long downward reach.

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.

Any installation position. Install the KR CYBERTECH nano industrial robots on the floor, wall or ceiling, or at any other angle – for a wide range of different requirement profiles in any desired installation position.

Most streamlined in-line wrist. With a minimal interference radius, the KR CYBERTECH nano handling robots have one of the smallest in-line wrists in their class – worldwide. It enables work to be carried out in positions that are inaccessible for other robots.

Maximum flexibility. Simply integrate external axes via the robot controller and benefit from the innovative K-PIPE-ES energy supply concept.

Process-optimized motion sequences. The KR CYBERTECH nano family has optional digital plug-in Motion Modes. These are digitized motion modes that optimize the robot sequence for specific application scenarios. "Path Mode", for example, enables high-precision continuous-path motion. "Dynamic Mode" allows a higher acceleration and velocity in order to minimize cycle times still further.



The KR CYBERTECH nano in a welding application

KR CYBERTECH nano	KR 10 R1440-2	KR 8 R1640-2	KR 6 R1840-2
Number of axes	6	6	6
Rated payload	10 kg	8 kg	6 kg
Reach	1,440 mm	1,640 mm	1,840 mm
Pose repeatability	±0.04 mm	±0.04 mm	±0.04 mm
Weight	153 kg	158 kg	162 kg
Variants	HO	–	–
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle

HO Food compatible lubricants

The technical data in the table applies exclusively to standard versions.

KR CYBERTECH nano ARC



6–8 kg
1,441–2,010 mm
±0.4 mm

KR 8 R1440-2 arc HW
KR 8 R1640-2 arc HW
KR 6 R1840-2 arc HW
KR 8 R1440-2 arc HW E
KR 6 R2010-2 arc HW E

KR CYBERTECH nano ARC

Maximum performance with minimal costs. The KR CYBERTECH nano ARC product family is optimized for CP applications. The industrial robots offer ideal performance combined with a high power density – for maximum economy at low cost. With their new controller structures, the industrial robots of the KR CYBERTECH nano ARC family have extremely high path accuracy and speed. The acceleration values and the new ergonomic design with minimized disruptive contours ensure continuous-path motion at the very highest level – even deep inside the workpieces.

With very fine payload intervals of 6 and 8 kilograms, you will find the ideal robot model for your application.

The KR CYBERTECH nano ARC features "Path mode" as standard, which enables high-precision CP motion. It is also calibrated for positional accuracy before delivery.

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Maximum precision. With their repeatability of 0.04 millimeters, the KR CYBERTECH nano ARC robots work extremely exactly and precisely even at high speed.

New KUKA hollow wrist. The 50-millimeter hollow-shaft wrist is a future-oriented innovation: the hollow axis allows reduced main axis motion with short cycle times and utmost precision of movement.

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.

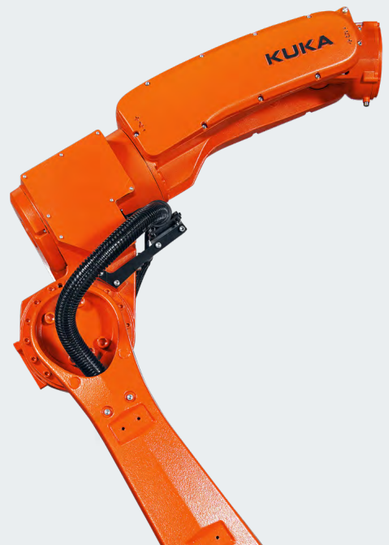
Simplified integration. Thanks to standardized mounting surfaces, the robot is easily integrated into existing production lines and allows the uncomplicated mounting of welding equipment.

High flexibility. The use of modern KUKA controllers facilitates the integration of external axes.

Maximum freedom. The KR CYBERTECH nano ARC robots have a large workspace to the rear and a long downward reach. This enables them to open up previously inaccessible workspaces.

Streamlined compactness. The industrial robots are particularly light, highly streamlined and exceedingly compact. They deliver maximum performance with minimal disruptive contours.

KR CYBERTECH nano ARC	KR 8 R1440-2 arc HW	KR 8 R1640-2 arc HW	KR 6 R1840-2 arc HW
Number of axes	6	6	6
Rated payload	8 kg	8 kg	6 kg
Reach	1,441 mm	1,641 mm	1,843 mm
Pose repeatability	±0.04 mm	±0.04 mm	±0.04 mm
Weight	167 kg	172 kg	175 kg
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle



KR CYBERTECH nano ARC E. In the Edition variant, the KR CYBERTECH nano ARC E marks the entry into the world of welding automation. It has been created specifically for simple welding tasks. The KR CYBERTECH nano ARC E enables very cost-effective implementation of robot-based automation for processes of low complexity. At the same time, it is uncompromising when it comes to quality, accessories or software.

KR CYBERTECH nano ARC	KR 8 R1440-2 arc HW E	KR 6 R2010-2 arc HW E
Number of axes	6	6
Rated payload	8 kg	6 kg
Reach	1,441 mm	2,010 mm
Pose repeatability	±0.04 mm	±0.04 mm
Weight	195 kg	204 kg
Installation position	Floor, ceiling	Floor, ceiling



8–22 kg
1,612–2,013 mm
±0.4 mm

KR 22 R1610-2
KR 20 R1810-2
KR 16 R2010-2
KR 16 R1610-2
KR 12 R1810-2
KR 8 R2010-2
KR 20 R1810-1

KR CYBERTECH

KR CYBERTECH

The specialist for handling applications. The industrial robots of the KR CYBERTECH family represent the world's largest range of models in the low payload category with the greatest power density. They are ideally suited to space-saving cell concepts and provide top performance – with particularly low follow-up costs.

The powerful multifunction robots of the KR CYBERTECH series are specially designed for handling applications: handling of large components, machining, assembling, palletizing and ARC welding. A central innovation of the KR CYBERTECH series: the industrial robots are even more compact. This enables you to benefit from the greater integration density and reduced disruptive contours. Choose the right industrial robot for every application from the wide-ranging portfolio.

click for more

Fast and accurate. The industrial robots of the KR CYBERTECH series reach exceptionally high speeds, allowing them to work even faster – without any loss of precision.

Extensive portfolio. The KR CYBERTECH series is suitable for handling large components, machining, assembly, palletizing and ARC welding.

Flexible installation. For planning security and low costs in the design of cells: the robots can be flexibly floor-, wall- or ceiling-mounted or even installed at a certain angle.

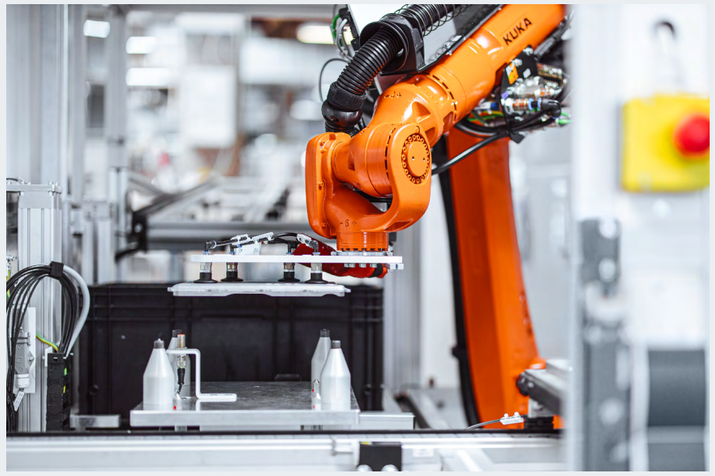
Variety of energy supply systems. Separation of the cable set and the dress package means that you can choose from a large variety of compatible energy supply systems.

Streamlined design. The KR CYBERTECH family is set apart by a streamlined wrist and an extremely compact and athletic appearance.

Improved motion characteristics. The optimized controller structures make for smooth and sensitive motion characteristics – on the path and during positioning.



The space-saving and intelligently integrated cabling ensures that the KR CYBERTECH robots have maximum freedom of motion in any installation position.



KR CYBERTECH	KR 22 R1610-2	KR 20 R1810-2	KR 16 R2010-2	KR 16 R1610-2	KR 12 R1810-2	KR 8 R2010-2	KR 20 R1810-1
Number of axes	6	6	6	6	6	6	6
Rated payload	22 kg	20 kg	16 kg	16 kg	12 kg	8 kg	20 kg
Reach	1,612 mm	1,813 mm	2,013 mm	1,612 mm	1,813 mm	2,013 mm	1,813 mm
Pose repeatability	±0.04 mm	±0.04 mm	±0.04 mm	±0.04 mm	±0.04 mm	±0.04 mm	±0.04 mm
Weight	255 kg	255 kg	260 kg	255 kg	255 kg	260 kg	250 kg
Variants	–	–	–	–	–	–	CR, F, 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

CR Suitable for cleanrooms **F** Foundry variant **HO** Food-compatible lubricants

The technical data in the table applies exclusively to standard versions.



KR CYBERTECH ARC

8 kg
2,101 mm
±0.04 mm

KR 8 R2100-2 arc HW

KR CYBERTECH ARC

Specialized process robots for CP applications. The industrial robots from the KR CYBERTECH ARC product family are characterized by their utmost precision and top performance. The low-maintenance series ensures particularly low follow-up costs.

The industrial robots of the KR CYBERTECH ARC product family are specialized process robots for continuous-path applications such as ARC welding and the application of adhesives and sealants.

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Fast and accurate. Particularly fast without compromising accuracy: the robots of the KR CYBERTECH ARC product family work even faster while maintaining the same precision.

Flexible installation. Adapt the mounting arrangement of the robots to suit your requirements: install them on the ceiling, floor, wall or at an angle.

Athletic design. The industrial robots of the KR CYBERTECH ARC family are extremely compact yet streamlined in appearance.

Optimized motion characteristics. Thanks to optimized controller structures, the industrial robots move smoothly and sensitively both on the path and during positioning.

Broad portfolio. The KR CYBERTECH ARC product family is optimized for continuous-path applications, for example for ARC welding and the application of adhesives and sealants.



The KR CYBERTECH ARC product family is optimized for continuous flow applications, for example for ARC welding and the application of adhesives and sealants.

KR CYBERTECH ARC	KR 8 R2100-2 arc HW
Number of axes	6
Rated payload	8 kg
Reach	2,101 mm
Pose repeatability	±0.04 mm
Weight	260 kg
Installation position	Floor, ceiling, wall, angle



25–35 kg
1,840 mm
±0.03 mm

KR 35 R1840-3
KR 25 R1840-3

KR CYBERTECH

NEXT GEN

KR CYBERTECH **The specialist for flexible high-performance applications.** As a new generation with payload capacities of 25 and 35 kg, the KR CYBERTECH expands the portfolio in the low to mid payload range. With the same footprint, it offers improved repeatability, high dynamics and maximum efficiency. Thanks to optimized performance and a robust design, it integrates powerfully and future-proof into modern production environments. The high-performance industrial robots of the new KR CYBERTECH generation are designed for a wide range of applications such as handling, unloading, pick-and-place or testing. A newly developed central wrist with increased stiffness ensures precise path accuracy – even under additional process forces or in demanding applications, for example in the photovoltaic industry. With IP67 protection, the wrist is optimally protected against dust and water spray.

Whether floor, wall ceiling or angled mounting: the KR CYBERTECH offers full flexibility in integration. In combination with the KR C5 slim controller for iiQKA.OS2 and the KUKA smartPLUG teach pendant, it forms a compact, high-performance overall package. AI-ready, cost-efficient and optimally prepared for the production requirements of tomorrow.

click for more

Flexible high-performance robotics for maximum productivity.

Fast and precise

The new generation of the KR CYBERTECH delivers outstanding dynamics and improved repeatability – with the same footprint. Optimized performance and increased stiffness enable highly accurate motion sequences, even in demanding applications or under additional process forces.

Comprehensive application range

Whether handling, unloading, pick-and-place, testing or applications with increased accuracy requirements – the KR CYBERTECH offers maximum versatility. Even in sensitive fields, it meets the highest standards in path accuracy and process stability.

Flexible integration

Maximum freedom in cell design: the KR CYBERTECH can be mounted flexibly on the floor, wall or at any angle. This ensures high planning reliability and optimal use of available installation space.

Innovative control concept

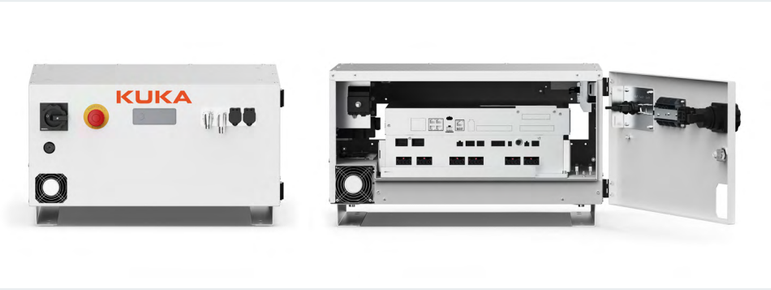
In combination with the KR C5 slim for iiQKA.OS2, the new generation of the KR CYBERTECH forms a powerful and space-saving overall package. Expandable drive units, the new iiQKA.OS2 operating system and the KUKA smartPLUG teach pendant enable a modern, AI-ready production environment.

Optimized performance

Improved control structures and a high-performance control architecture ensure smooth and precise motion behavior – both along the path and during accurate positioning.

Robust central wrist

The newly developed central wrist with increased stiffness enhances path accuracy and ensures smooth, controlled motion behavior. With IP67 protection, it is reliably protected against dust and water spray – ideal for industrial environments.



The KR C5 slim for iiQKA.OS2 is the compact, dedicated controller for the KR CYBERTECH family, combining high performance with a minimal footprint. With expandable drive units, a modern SoC architecture and optional NVIDIA-based AI support, it forms a scalable, future-ready control platform for efficient, secure and space-saving automation cells.

KR CYBERTECH	KR 35 R1840-3	KR 25 R1840-3
Rated payload	35 kg	25 kg
Number of axes	6	6
Reach	1,840 mm	1,840 mm
Pose repeatability	±0.03 mm	±0.03 mm
Weight	237 kg	237 kg
Variants	–	–
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle



_Medium payloads

Medium payload for superior performance. Variety and precision for your automation.

KUKA robots for medium payloads perform numerous demanding tasks within automation solutions. Their streamlined wrist, stiff arm design and compact mounting surfaces mean they are suitable for a wide range of applications. They work with utmost precision even when subjected to high-process forces. That makes them ideal for process applications requiring path accuracy, such as milling, drilling, waterjet cutting, laser welding and other laser processing tasks. They competently handle, polish and assemble components, load and unload machines, and master complex operations such as measuring air currents in a wind tunnel. Whether installed on the ceiling or the floor, or as a shelf-mounted robot, they combine robustness, functional diversity, precision and efficient performance.

KR IONTEC

KR IONTEC ultra



20–70 kg
2,101–3,101 mm
±0.05 mm

KR 70 R2100
KR 50 R2100
KR 50 R2500
KR 30 R2100
KR 20 R3100

KR IONTEC

KR IONTEC

With the KR IONTEC, you are opting for pure performance and the largest work envelope in the medium payload category. Maximum dynamics and minimum cycle times.

Whether mounted on the floor, on the wall, or KR IONTEC combines high dynamic performance with a compact design. Equipped with a hollow wrist and protected motors, it is suitable for almost every area of application. A Foundry option also enables use in extremely hot environments with a wide range of applications with a low total cost of acquisition, operation, and maintenance. This makes it a valuable investment in the future of your production.

Adaptable to processes at the push of a button. Thanks to digital Motion Modes, you can adapt the performance of the robot to various processes or substeps depending on the need for higher precision or speed.

Lowest maintenance requirements. With KR IONTEC, an oil change is only required every 20,000 operating hours. The robot also has an in-line wrist design without belts.

Flexible cell and system planning. The efficient use of the work area, the low space requirement due to a small footprint and the streamlined disruptive contour enable a compact cell design.

Low inventory costs. The robot requires 50 percent fewer spare parts than its predecessor model.

Convertible payload capacity. The payload capacity of the KR IONTEC can also be subsequently adjusted on a robot already installed – allowing for maximum flexibility in your production.

Simplified start-up. An optimized engineering tool and low training requirements using proven KUKA technology simplify start-up for you.

Optimized energy supply system. An A1 hollow shaft with a diameter of 119 millimeters ensures easy energy supply with a minimized footprint.

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.

High availability. The KR IONTEC has high technical availability and guarantees reliable continuous operation (high MTBF).







Long reach. The enormous work envelope provided by the long arm and the long link arm of the KR 20 R3100 vastly expands the range of production options.

KR IONTEC	KR 70 R2100	KR 50 R2100	KR 50 R2500	KR 30 R2100	KR 20 R3100
Number of axes	6	6	6	6	6
Rated payload	70 kg	50 kg	50 kg	30 kg	20 kg
Reach	2,101 mm	2,101 mm	2,501 mm	2,101 mm	3,101 mm
Pose repeatability	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm
Weight	536 kg	533 kg	559 kg	533 kg	549 kg
Variants	CR lite, F, HO	CR lite, HO	CR lite, F, HO	CR lite	–
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle

CR lite Robots with ISO 5 cleanroom class **F** Foundry variant **HO** Food compatible lubricants

The technical data in the table applies exclusively to standard versions.

KR IONTEC ultra



90–120 kg
2,300–2,700 mm
±0.05 mm

KR 120 R2700
KR 90 R2700
KR 120 R2300
KR 90 R2300

KR IONTEC ultra

The KR IONTEC ultra is compact and powerful. With a payload range of 90 to 120 kilograms, the KR IONTEC ultra delivers top performance in confined spaces, making it is optimal for handling and welding applications.

Compact all-rounder for handling and welding. The KR IONTEC ultra excels in handling applications and when spot welding with lightweight weld guns. The robot is equally well-suited for battery handling in electromobility as it is for welding tasks at automotive suppliers.

click for more

Focus on cost-effective automation

Expansion of the portfolio

The KR IONTEC ultra fits into the KUKA product portfolio within a payload range of 90 to 120 kg. It offers flexibility with a reach between 2,300 and 2,700 mm.

Ideal for electromobility

With a payload of up to 120 kg, the robot can also handle heavy battery cells for electromobility. It also fits into small welding cells, which makes it highly sought after by suppliers in the automotive industry.

Low service requirements

The robot is very economical to maintain, requiring oil changes only every 20,000 operating hours. Additionally, its efficient design minimizes the need for spare parts.

Intuitive operation

The KR IONTEC ultra can be quickly integrated into existing production environments. Thanks to the iiQKA.mxAutomation interface, it is easy to program and operate.

Space-saving design

Thanks to its compact dimensions, the KR IONTEC ultra is optimally suited to confined workspaces, enabling the implementation of narrow automation cells and reducing costs.

Beneficial for entry into automation

The KR IONTEC ultra, with its compact design, is ideal for getting started in automation. With a smaller footprint compared to the KR QUANTEC, it achieves a high performance.





KR IONTEC ultra	KR 120 R2700	KR 90 R2700	KR 120 R2300	KR 90 R2300
Number of axes	6	6	6	6
Rated payload	120 kg	90 kg	120 kg	90 kg
Reach	2,700 mm	2,700 mm	2,300 mm	2,300 mm
Pose repeatability	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm
Weight	773 kg	773 kg	751 kg	751 kg
Variants	–	–	–	–
Installation position	Floor, ceiling	Floor, ceiling	Floor, ceiling	Floor, ceiling

High payload with long reach.
The safe choice for a wide range of production tasks.

KUKA robots for high payloads are the right choice when it comes to processes and handling tasks with a required range of up to 300 kilograms. The KR QUANTEC series will impress you with a clever range of reach and payload intervals. This makes it possible to determine the optimum robot for your requirements very flexibly. As veritable workaholics, our robots for high payloads excel with innovative features such as Motion Modes and availability assurance. At the same time, they stand for efficiency and significantly low running costs.

KR QUANTEC

KR QUANTEC



120–300 kg
1,573–3,904 mm
±0.05–0.06 mm

KR 300 R2700-2
KR 250 R2700-2
KR 240 R2900-2
KR 210 R3100-2
KR 210 R2700-2
KR 180 R2900-2
KR 150 R3100-2
KR 150 R2700-2
KR 120 R3100-2
KR 270 R3100-2 K
KR 210 R3300-2 K
KR 180 R3500-2 K
KR 120 R3900-2 K

click for more

KR QUANTEC

The future of your production. The KR QUANTEC robots have the largest payload/reach portfolio on the market in the high payload category. The all-rounder from KUKA is designed for applications in virtually all market segments – from the automotive industry to the foundry and medical sectors.

Optimal portfolio for maximum flexibility and low total cost of ownership (TCO). The KR QUANTEC series was developed on the basis of KUKA's experience in the dynamic world of automation. The result: a reliable, versatile and efficient high-quality solution for your production environment. Customers benefit from the uniquely wide range of applications of the KR QUANTEC robots, which stand out for their performance, cost-effectiveness and flexibility.

An intelligent modular system ensures perfectly coordinated and flexible robots, and low TCO – due, for example, to minimized maintenance requirements and a reduced number of spare parts. The capability of upgrading payload capacity in the field and the Motion Modes for ideal process quality within production make the KR QUANTEC a secure investment in the future of your production operations.

Best in class. With the KR QUANTEC series, KUKA presents a robot generation whose innovative features taken together set new standards – for both conventional and digitalized production worlds. The result goes way beyond technical details, also encompassing long-term aspects such as simplification of commissioning, maintenance requirements and process optimization of the system.

Sustainably low TCO. The KR QUANTEC will impress you not only with its outstanding production efficiency, but also with its economical start-up and maintenance concept. With energy efficiency, top values for the mean time between failures (MTBF) and a reduced number of components in the complete modular system, the series sets new market standards for TCO. Features contributing to a minimization of downtimes and maintenance requirements include the innovative cabling and energy supply concept. As a result, the KR QUANTEC series excels with a significant reduction in running costs. The energy supply concept is set apart by its durability and optimal availability.

Process-optimized motion sequences. The KR QUANTEC series were the world's first industrial robots to have digital plug-in Motion Modes. These are digitized motion modes that optimize the robot motion for specific application scenarios. "Path Mode", for example, enables high-precision continuous-path motion. "Dynamic Mode" allows a higher velocity in order to minimize cycle times.

Maximum flexibility. The KR QUANTEC series is distinguished by the optimal portfolio with its maximized performance and advanced design. Streamlined disruptive contours, extended permissible ambient conditions and an extremely small footprint ensure utmost flexibility in operation, as well as in cell and system planning. The perfected workspace in front of, over and behind the machine offers improved accessibility in a wide range of different applications.



KR QUANTEC	KR 300 R2700-2	KR 250 R2700-2	KR 240 R2900-2	KR 210 R3100-2	KR 210 R2700-2	KR 180 R2900-2	KR 150 R3100-2
Number of axes	6	6	6	6	6	6	6
Rated payload	300 kg	250 kg	240 kg	210 kg	210 kg	180 kg	150 kg
Reach	2,701 mm	2,701 mm	2,900 mm	3,100 mm	2,701 mm	2,900 mm	3,100 mm
Pose repeatability	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm
Weight	1,101 kg	1,101 kg	1,120 kg	1,134 kg	1,077 kg	1,105 kg	1,105 kg
Variants	F	F	F, HO	F	F	F	F, HO
Installation position	Floor, ceiling	Floor, ceiling	Floor, ceiling	Floor, ceiling	Floor	Floor	Floor

KR QUANTEC	KR 150 R2700-2	KR 120 R3100-2	KR 270 R3100-2 K	KR 210 R3300-2 K	KR 180 R3500-2 K	KR 120 R3900-2 K
Number of axes	6	6	6	6	6	6
Rated payload	150 kg	120 kg	270 kg	210 kg	180 kg	120 kg
Reach	2,701 mm	3,100 mm	3,105 mm	3,305 mm	3,505 mm	3,904 mm
Pose repeatability	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm
Weight	1,072 kg	1,105 kg	1,260 kg	1,266 kg	1,256 kg	1,280 kg
Variants	F	F	F	F	F	–
Installation position	Floor	Floor	Floor (shelf)	Floor (shelf)	Floor (shelf)	Floor (shelf)

F Foundry variant **HO** Food compatible lubricants

The technical data in the tables applies exclusively to standard versions.



_Heavy payloads

Making difficult tasks easy. Greater ease for complex processes.

KUKA robots for heavy payloads from 240 to 1,000 kilograms. Where complex work sequences with large loads are involved, KUKA robots for heavy payloads give your business decisive productivity advantages. They master the reliable handling and processing of large and heavy parts, the linking of work processes, the tending of machines, and palletizing. Special variants, such as the heat-resistant Foundry variant, optimally adapt KUKA robots for heavy payloads to your specific task. Here you can keep a cool head even at high temperatures. The robots for heavy payloads are optimized for large and heavy tools. This means that tools with high mass inertias are no problem for these robots.

KR FORTEC

KR FORTEC ultra

KR TITAN ultra

KR FORTEC



240–500 kg
2,800–3,400 mm
±0.08 mm

KR 240 R3400-2
KR 240 R3750-2
KR 280 R3100-2
KR 340 R3400-2
KR 360 R2800-2
KR 420 R3100-2
KR 500 R2800-2

KR FORTEC

The KR FORTEC is our all-rounder among the heavy-duty robots. It is energy-efficient and dynamic for handling applications in the heavy payload range up to 500 kg. Thanks to its use of our well-known industrial robot concepts, it requires little maintenance when in operation. This gives the robot a high reliability factor in your production.

The new KR FORTEC can be expanded flexibly, is economical in its energy consumption and requires little maintenance. With its payload capacity, the robot fits seamlessly in between the KR QUANTEC and the KR FORTEC Ultra – thus rounding out KUKA's portfolio. It is predestined for use in the automotive industry and the general industry sector. Thanks to the KR FORTEC, you can standardize your production processes at a high quality level through the use of automated handling. The low total cost of ownership of the robot also contributes to the cost-effectiveness of your production processes.

click for more



Compact and powerful.
- Great performance in a small space
- Fast performance with low energy consumption
- Low cycle times thanks to higher dynamics
- Compact shape: perfect for work such as handling and spot welding

Modular design.
- Identical spare parts for three robot families: KR FORTEC, KR QUANTEC, KR FORTEC Ultra
- Flexibility when planning new tasks and production processes
- Cost reduction in the storage and development of different robot configurations

Low TCO.
- Low energy consumption
- High technical availability and guarantees reliable continuous operation (high MTBF).
- Proven service concepts, familiar from the KR QUANTEC and KR FORTEC Ultra

Low maintenance.
- Little testing required: No TÜV inspection of the counterbalance necessary
- Maintenance work can be carried out quickly and easily thanks to optimized accessibility

KR FORTEC	KR 240 R3400-2	KR 240 R3750-2	KR 280 R3100-2	KR 340 R3400-2	KR 360 R2800-2	KR 420 R3100-2	KR 500 R2800-2
Number of axes	6	6	6	6	6	6	6
Rated payload	240 kg	240 kg	280 kg	340 kg	360 kg	420 kg	500 kg
Reach	3,400 mm	3,750 mm	3,100 mm	3,400 mm	2,800 mm	3,100 mm	2,800 mm
Pose repeatability	±0.08 mm	±0.08 mm	±0.08 mm	±0.08 mm	±0.08 mm	±0.08 mm	±0.08 mm
Weight	1,597 kg	1,620 kg	1,687 kg	1,728 kg	1,660 kg	1,704 kg	1,671 kg
Variants				F		HI, F	HI, F
Installation position	Floor	Floor	Floor	Floor	Floor	Floor	Floor

HI Hight Inertia (optimized for highest mass inertias) **F** Foundry variant
The technical data in the tables applies exclusively to standard versions.

KR FORTEC ultra



480–800 kg
2,800–3,700 mm
±0.08 mm

KR 480 R3400-2
KR 480 R3700-2
KR 560 R3100-2
KR 640 R2800-2
KR 800 R2800-2

KR FORTEC ultra

The heavy-duty robots with payloads of up to 800 kilograms offer maximum performance in the smallest space and feature fast and precise handling of large components with high moments of inertia.

Designed for high moments of inertia when handling heavy and large workpieces. From battery handling to gigacasting. In production, the requirements for payload and reach are increasing sharply with ever higher moments of inertia of the workpieces. The KR FORTEC ultra robots have been designed to meet these requirements with maximum efficiency in the smallest possible space. As an intelligent modular and common parts concept, it is possible to select the optimum robot for an application and to adapt it in the field. Leading the way in performance, cost-effectiveness and flexibility. Today and in the future.

click for more

Unbeatable power in a compact design.
- Most powerful in its class: up to 800 kg payload
- Small footprint: 950 × 970 mm footprint
- Lightweight in the heavy-duty class: only 2.2 t
- High dynamics with low cycle times

Low TCO.
- Low energy consumption
- High availability
- Reliable continuous operation (high MTBF)
- Short maintenance time (MTTM)
- Fast repair time (MTTR)
- Low spare parts requirement

Highest performance and maximum flexibility.
- Compatible with tools of different sizes by selecting a HI (High Inertia) version
- Upgrade to HI version or higher/lower payload versions

Reduced maintenance costs.
- Components with low maintenance requirements
- Very good accessibility of the robot
- Low maintenance requirements with only 3 actions: Visual inspection, lubrication, oil change every 20,000 h.



Sophisticated energy supply system. Our complete solution for easy installation, low maintenance costs and long service life. From configurator-supported energy supply systems to energy supply systems with flexible K-pipe for more precise movements, we offer you individual solutions tailored to your needs. With equipment perfectly matched to the robot, you can get started immediately and save time and considerable costs during integration.

The advantages of the energy supply system on the KR FORTEC ultra.
- Saves on spare parts thanks to standardized components and lengths
- Optimized for minimum wear and increased service life
- Improved pinch protection
- Identical parts concept with energy supply systems of other robot series

KR FORTEC-2 ultra	KR 480 R3400-2	KR 480 R3700-2	KR 560 R3100-2	KR 640 R2800-2	KR 800 R2800-2
Number of axes	6	6	6	6	6
Rated payload	480 kg	480 kg	560 kg	640 kg	800 kg
Reach	3,400 mm	3,700 mm	3,100 mm	2,800 mm	2,800 mm
Pose repeatability	±0.08 mm	±0.08 mm	±0.08 mm	±0.08 mm	±0.08 mm
Weight	2,140 kg	2,460 kg	2,170 kg	2,170 kg	2,400 kg
Variants	F	F	F, HI	F, HI	F
Installation position	Floor	Floor	Floor	Floor	Floor

HI Hight Inertia (optimized for highest mass inertias)

The technical data in the table applies exclusively to standard versions.



KR TITAN ultra

NEXT GEN

1,500 kg
3,226 mm
±0.08 mm

KR 1500 R3200-2
KR 1250 R3700-2
KR 1000 R4200-2

click for more



KR TITAN ultra

The specialist for handling heavy loads. The industrial robot moves payloads of up to 1,500 kg over long distances and impresses with its low weight.

Heavyweights are no problem for him: the new KR TITAN ultra sets new standards in the KUKA portfolio. Its energy-efficient design reduces operating costs and supports sustainable production processes.

At the same time, its reliability contributes to high availability – whether in automotive production, in precise processes in battery manufacturing, or in handling large-format modules in photovoltaics. Wherever heavy components need to be moved, it impresses with its robust performance and consistent operational reliability.

High payload in a small footprint. The KR TITAN ultra heavy-duty robot moves loads up to 1,500 kg; in palletizing mode, up to 1,900 kg – at a robot weight of only 4.5 t.

More reach. The KR TITAN ultra has a reach of up to 4.200 mm in the version with a payload of 1.000 kg. The robot is also available with a reach of 3.700 mm (1.250 kg payload) and 3.200 mm (1.500 kg).

Modular design.
- Modular design ensures high compatibility and scalability between robot series
- Identical parts, e.g., available in KR FORTEC ultra
- Low TCO thanks to standardized components

High Inertia meets High Payload. Even large and very heavy parts with high moments of inertia are always under control thanks to the heavy-duty robot's rigid design with double swing arms.

Foundry variant for versatile use. The foundry version enables the robot to be used under extreme production conditions and withstands environmental influences such as dust, heat and moisture.

Reduction in TCO and maintenance costs.
- Low energy consumption for efficient operation
- High MTBF thanks to durable components
- Short MTTR for fast recovery
- Maintenance-optimized design with easy access to relevant components
- Few recurring service tasks required

KR TITAN ultra	KR 1500 R3200-2 F	KR 1250 R3700-2*	KR 1000 R4200-2*
Anzahl Achsen	6	6	6
Traglast	1,500 kg	1,250 kg	1,000 kg
Reichweite	3,226 mm	3,726 mm	4,218 mm
Positionswiederholgenauigkeit	±0.08 mm	±0.08 mm	±0.08 mm
Gewicht	4,650 kg	4,820 kg	4,750 kg
Ausführungen	F	F	F
Einbaulage	Floor	Floor	Floor

* Only available as Foundry version **F** Foundry variant

The technical data in the table applies exclusively to standard versions.



_Palletizing robots

Palletizing robots from the market leader. When speed is of the essence.

KUKA palletizing robots combine the largest possible work envelope, minimal interference contours, and maximum robustness. The portfolio covers payloads ranging from 40 to 1,300 kilograms. These robots are specifically designed for demanding palletizing and depalletizing tasks, delivering short cycle times, high throughput, compact footprints, and excellent cost-efficiency.

Powerful. KUKA robots are among the fastest palletizers on the market, offering exceptional precision and repeatability. Their streamlined design enables greater dynamics, shorter cycle times, and high throughput even in confined spaces.

Versatile. A wide range of different payload capacities, reaches, and special variants ensures the right solution for even the most challenging palletizing tasks. All interfaces and energy supply systems are designed for versatility.

Compact. The compact and streamlined design of all robots for palletizing enables their simple integration into existing systems. Their low interference contours extend the effectively usable workspace and allow innovative cell concepts.

Low maintenance. Components are equipped with low-wear drive trains. Thanks to their robust construction, the robots feature long maintenance intervals, 99.995 percent availability, and maximum energy efficiency.



KR 40 PA



KR QUANTEC PA



KR FORTEC PA



KR FORTEC ultra PA

click for more

40 kg
2,091 mm
±0.05 mm

KR 40 PA

KR 40 PA



The KR 40 PA picks and packs your goods in record time. It can palletize with a total load of up to 40 kilograms and reach net stacking heights of up to 1.8 meters – all in a very small space. Cycle times are shortened significantly thanks to its low weight.

KR 40 PA	KR 40 PA
Number of axes	4
Payload	40 kg
Reach	2,091 mm
Pose repeatability	±0.05 mm
Weight	695 kg
Variants	–
Installation position	Floor

click for more

120–240 kg
3,200 mm
±0.06–0.07 mm

KR 240 R3200-2 PA
KR 180 R3200-2 PA
KR 140 R3200-2 PA

KR QUANTEC PA



The KR QUANTEC PA robots are the most powerful robots in their class. The streamlined design and low weight enable unbeatable dynamic performance and precision. The KR QUANTEC PA robots are thus perfectly suited to challenging palletizing tasks with payloads from 120 to 240 kilograms and maximum reaches. They can be used to effortlessly stack multiple pallets to a great height.

KR QUANTEC PA	KR 240 R3200-2 PA	KR 180 R3200-2 PA	KR 140 R3200-2 PA
Number of axes	5	5	5
Payload	240 kg	180 kg	140 kg
Reach	3,195 mm	3,195 mm	3,195 mm
Pose repeatability	±0.07 mm	±0.07 mm	±0.07 mm
Weight	1,017 kg	1,017 kg	1,017 kg
Variants	HO	HO	HO
Installation position	Floor	Floor	Floor

HO Food compatible lubricants

The technical data in the table applies exclusively to standard versions.

click for more

KR FORTEC PA



340–470 kg
3,200 mm
±0.08 mm

KR 470 R3200-2 PA
KR 340 R3200-2 PA

NEXT GEN

The KR FORTEC PA impresses with outstanding performance and particularly low operating costs. Its streamlined design makes it extremely agile. The robot also achieves optimal cycle times with a very high level of performance.

KR FORTEC PA	KR 470 R3200-2 PA	KR 340 R3200-2 PA
Number of axes	5	5
Payload	470 kg	340 kg
Reach	3,200 mm	3,200 mm
Pose repeatability	±0.08 mm	±0.08 mm
Weight	1,590 kg	1,590 kg
Variants	–	–
Installation position	Floor	Floor

_Palletizing robots / Heavy payloads

click for more

KR FORTEC ultra PA



550–800 kg
3,200 mm
±0.08 mm

KR 800 R3200-2 PA
KR 550 R3200-2 PA

NEXT GEN

The KR FORTEC ultra PA is one of the palletizing robots in the heavy-duty category. In addition to its power, it impresses with its long reach and low operating costs. The robot stands for high performance with a compact design.

KR FORTEC ultra PA	KR 800 R3200-2 PA	KR 550 R3200-2 PA
Number of axes	5	5
Payload	800 kg	550 kg
Reach	3,200 mm	3,200 mm
Pose repeatability	±0.08 mm	±0.08 mm
Weight	2,320 kg	2,050 kg
Variants	A	–
Installation position	Floor	Floor

A Arctic version down to –30 °C

The technical data in the table applies exclusively to standard versions.



_Press-to-press robots

Always there when something takes shape.

For the quick linking of presses.

A long reach and a wide range of payloads – these are the strengths of the KUKA press-to-press robots. Whether they are bridging short press gaps or transferring large or medium-sized panels, thanks to their modular design and our long experience of press linking, we can optimally tailor your robot to individual applications. The robust design with low-wear components increases the service life and extends the maintenance intervals, thereby reducing your costs.

KR QUANTEC P

KR QUANTEC P



120 kg
3,505 mm
±0.05 mm

KR 120 R3500-2 P

KR QUANTEC P

The KR QUANTEC P is the KUKA industrial robot specially designed for press linking and is the first choice for loading, unloading and linking press lines.

The KR QUANTEC P has been optimized for press shop integration. It can be used to implement a wide range of applications, for press linking across narrow or wide press gaps, transferring large and medium-sized blanks as well as loading and unloading press lines. Its faster axes enable high-speed press-to-press automaton, which is ideal for the automotive industry.

The KR QUANTEC press-to-press robots are available in floor and ceiling-mounted variants.

Robust with powerful gear units. The extremely robust design with reinforced axes and highly resistant gear units ensures reliable performance and availability even under constant high stress.

Fast with high throughput rates. Thanks to a specially adapted drive train, and machine data, the press-to-press robot shortens processing times, allowing it to achieve extremely high throughput.

Far-reaching, both downwards and upwards. The shelf-mounted robots have a reduced interference contour thanks to the hollow shaft in axis 1 for routing all cables. The robot knee, which is positioned lower down and further forward, enables greater downward reach.

Space-saving at a low height. The shelf-mounted robots from the KR QUANTEC P series make optimum use of the workspace from above. Thanks to their low height, they require very little space above the robot base, thus opening up new possibilities for space-saving cell concepts.

click for more



KR QUANTEC	KR 120 R3500-2 P
Number of axes	6
Payload	120 kg
Reach	3,505 mm
Pose repeatability	±0.05 mm
Weight	1,281 kg
Installation position	Floor, ceiling



_Special variants

Anything but standard. KUKA robots for special operating conditions.

Special operating conditions place exceptional demands on robotics. We at KUKA are familiar with these challenges and offer a wide range of solutions that allow efficient robot automation even in extreme conditions.

The spectrum of special variants ranges from use in particularly cold or hot environments, through solutions for the food or hygiene sector, to robots that are suitable for cleanrooms, potentially explosive or even humid environments.

All special variants have highly specialized features in addition to our KUKA quality promise of precision, flexibility or process reliability.

HO	**Food compatible lubricants**
WP	**Splash-proof**
EX	**For potentially explosive atmospheres**
CR	**Suitable for cleanrooms**
HM	**Hygienic Design**
A	**Arctic version down to -30 °C**



HO robots. Safe handling of food: Uncompromisingly hygienic, safe and efficient.

Robotic automation has become indispensable in the food industry. Robots play an important role when it comes to palletizing, repackaging or food handling – such as sorting, transferring or packaging. The KUKA HO portfolio is the largest of its kind, thus expanding the range of applications in the food sector, where automation plays an ever-increasing role and where the need for flexible solutions is great. With our HO robots we only use NSF H1 lubricants, which are food compatible. Regarding cleanability, KUKA HO robots are also the perfect solution, and of course, they can be equipped with all standard software and hardware options.

CR robots. No fear of emissions: Safe automation solutions for cleanrooms.

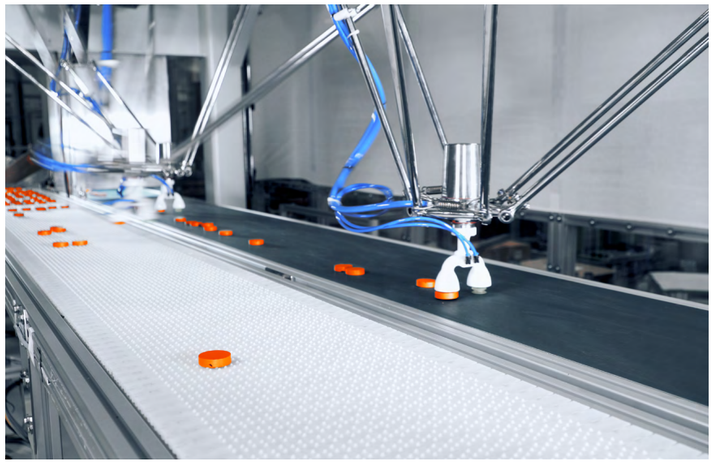
Especially in microelectronics, the pharmaceutical industry, microsystem production, the optics industry as well as medical technology, primary objective is to prevent the contamination of products and processes. KUKA has developed three types of robot that can be used in cleanrooms – KR AGILUS CR, KR CYBERTECH CR and LBR iiwa CR. All our cleanroom robots comply with cleanroom class 2 of DIN EN ISO 14644-1, the second highest of eight cleanroom classes. Due to a special powder coating, the cleanroom robots have extremely smooth surfaces. Air-bonded particles can thus be avoided, and special seals stop dust and seal abrasion to escaping from the robots. CR robots meet the strict cleanroom criteria of the Fraunhofer Institute.





WP robots. Due to its waterproof design, the KR AGILUS WP is suitable for permanent use in working environments with splashing water. One example is the inside of machine tools. The WP robot meets the requirements of protection class IP 67 and is, therefore, even protected against temporary immersion in water. This is made possible by additional seals, constant surface treatment and the use of plastic covers instead of stainless steel covers.

HM robots. Hygiene begins with design. The robots of the Hygienic Machine class (KR AGILUS HM and KR DELTA HM) are designed in such a way that dirt cannot settle. In particular, the electrical interface, which is difficult to clean, is not located in the primary contact area, but underneath the robot. In addition, all surfaces are corrosion-resistant. Cleaning is carried out with commercial detergents and can also be performed at high pressure. This means that HM robots can be safely used in direct contact with food and pharmaceutical substances.



A robots. Robots that work reliably in extremely cold temperatures are in demand in the food sector. With the KR QUANTEC PA Arctic, KUKA has designed a robot that will handle tasks with large ranges and short cycle times even at -30° Celsius (-22° Fahrenheit) without a protective cover. Despite depp freeze conditions, the mechanical systems do not need to be heated. The large operational range is not limited by additional insulation.



EX robots. Wherever an explosive atmosphere can occur – for example in paint shops or in the chemical industry – the KR AGILUS EX is a reliable contribution to secondary explosion protection. To achieve this, the robot is not only sealed (it meets protection rating IP 67), but can also be pressurized. This overpressure ensures that gas and dust cannot intrude and, therefore, ignite. For monitoring the pressure, the robot can be upgraded with an optional detection unit.



EP Robots. Desired – delivered: All KR AGILUS units in the system now meet the ESD+ standard. Achieving such a standard in production with human employees is nearly impossible: human hair and clothing tend to accumulate static electricity, requiring special work clothing for everyone who comes into contact with the sensitive electronic parts. Additionally, the use of robots helps address the general shortage of skilled workers. This is because it is difficult to find personnel for monotonous, repetitive, and simultaneously demanding tasks.





_Foundry

Our Foundry robots are all-rounders in the world of the foundry and forging industry.

Robots need to meet a number of requirements for the new, innovative casting processes: a surface that is resistant to heat, corrosion, alkalis and acid is essential, as are special seals on the motor and gear unit flanges. The Foundry wrists of the KUKA robots hold gripper tooling made of heat-resistant special steel and are provided with a special paint finish. This makes even higher heat resistance possible in this especially critical area. The robot wrist and in-line wrist are provided with redundant safety through sealing air and high-quality Viton seals with thermal and chemical resistance.

Wide product range. KUKA foundry robots for payloads of 20 to 1,300 kilograms can do almost anything.



KR CYBERTECH F



KR IONTEC F



KR QUANTEC F



KR FORTEC F



KR FORTEC ultra F



KR TITAN ultra F

KR CYBERTECH



The Foundry robot from our proven KR CYBERTECH family.

Reach
2,010 mm

Payload
20 kg

KR CYBERTECH	KR 20 R1810-1 F	KR 20 R2010-1 KS-F
Number of axes	6	6
Rated payload	20 kg	20 kg
Reach	1,813 mm	2,010 mm
Pose repeatability	±0.04 mm	±0.04 mm
Weight	250 kg	242 kg
Variants	F	F
Installation position	Floor, ceiling, wall, angle	Floor (shelf)

KR IONTEC



The KR IONTEC combines compact design with the largest working envelope in its class for optimum use of space with a small footprint. Equipped with a aterproof and dustproof inline wrist and protected motors, the robot is suitable for almost every area of application.

Reach
2,101–2,501 mm

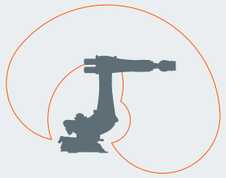
Payload
50–70 kg

KR IONTEC	KR 70 R2100 F	KR 50 R2500 F
Number of axes	6	6
Rated payload	70 kg	50 kg
Reach	2,101 mm	2,501 mm
Pose repeatability	±0.05 mm	±0.05 mm
Weight	536 kg	559 kg
Variants	F	F
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle

KR QUANTEC



KUKA has completely revised the standard version of its bestselling robot, ensuring that it remains state-of-the-art. KUKA presents the second generation of the special version for the foundry, forging and machining industries – more digitalized and even better than before.



Reach
2,701–3,505 mm

Payload
120–300 kg

KR QUANTEC	KR 300 R2700-2 F	KR 250 R2700-2 F	KR 240 R2900-2 F	KR 210 R3100-2 F	KR 180 R2900-2 F
Number of axes	6	6	6	6	6
Rated payload	300 kg	250 kg	240 kg	210 kg	180 kg
Reach	2,701 mm	2,701 mm	2,900 mm	3,100 mm	2,900 mm
Pose repeatability	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm
Weight	1,101 kg	1,101 kg	1,120 kg	1,134 kg	1,105 kg
Variants	F	F	F	F	F
Installation position	Floor	Floor	Floor	Floor	Floor

KR QUANTEC	KR 210 R2700-2 F	KR 150 R3100-2 F	KR 150 R2700-2 F	KR 120 R3100-2 F
Number of axes	6	6	6	6
Rated payload	210 kg	150 kg	150 kg	120 kg
Reach	2,701 mm	3,100 mm	2,701 mm	3,100 mm
Pose repeatability	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm
Weight	1,077 kg	1,105 kg	1,072 kg	1,105 kg
Variants	F	F	F	F
Installation position	Floor	Floor	Floor	Floor

KR QUANTEC	KR 120 R2700-2 F	KR 270 R3100-2 K-F	KR 210 R3300-2 K-F	KR 180 R3500-2 K-F
Number of axes	6	6	6	6
Rated payload	120 kg	270 kg	210 kg	180 kg
Reach	2,701 mm	3,105 mm	3,305 mm	3,505 mm
Pose repeatability	±0.05 mm	±0.05 mm	±0.05 mm	±0.05 mm
Weight	1,069 kg	1,260 kg	1,266 kg	1,256 kg
Variants	F	F	F	F
Installation position	Floor	Floor (shelf)	Floor (shelf)	Floor (shelf)

KR QUANTEC nano	KR 180 R2100 nano F exclusive	KR 120 R2100 nano F exclusive
Number of axes	6	6
Rated payload	180 kg	120 kg
Reach	2,100 mm	2,100 mm
Pose repeatability	±0.05 mm	±0.06 mm
Weight	approx. 998 kg	963 kg
Variants	F	F
Installation position	Floor	Floor

F Foundry variant

KR FORTEC



KR FORTEC is energy-efficient and dynamic for handling applications in the heavy-duty range up to 500 kg. Since it is based on our proven industrial robotics concepts, it requires little maintenance during operation.



Reach
2,800 –3,400 mm

Payload
240–500 kg

KR FORTEC	KR 340 R3400-2	KR 420 R3100-2	KR 500 R2800-2
Number of axes	6	6	6
Rated payload	340 kg	420 kg	500 kg
Reach	3,400 mm	3,100 mm	2,800 mm
Pose repeatability	±0.08 mm	±0.08 mm	±0.08 mm
Weight	1,728 kg	1,704 kg	1,671 kg
Variants	HI, F	HI, F	HI, F
Installation position	Floor	Floor	Floor

F Foundry variant

KR FORTEC ultra



The KR FORTEC Ultra series is specifically designed for high inertia during the handling of heavy and large workpieces. These heavy-duty robots, with payloads of up to 800 kg, offer maximum performance and impressive reach in a compact space. They are fast and highly precise.



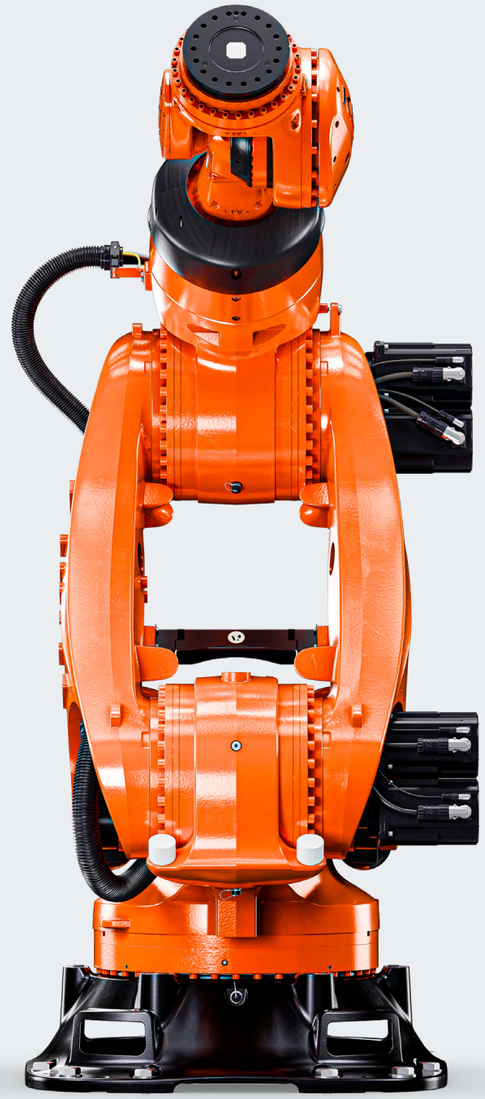
Reach
2,800–3,700 mm

Payload
480–800 kg

KR FORTEC-2 ultra	KR 480 R3400-2	KR 480 R3700-2	KR 560 R3100-2	KR 640 R2800-2	KR 800 R2800-2
Number of axes	6	6	6	6	6
Rated payload	480 kg	480 kg	560 kg	640 kg	800 kg
Reach	3,400 mm	3,700 mm	3,100 mm	2,800 mm	2,800 mm
Pose repeatability	±0.08 mm	±0.08 mm	±0.08 mm	±0.08 mm	±0.08 mm
Weight	2,140 kg	2,460 kg	2,170 kg	2,170 kg	2,400 kg
Variants	F	F	F, HI	F, HI	F
Installation position	Floor	Floor	Floor	Floor	Floor

HI Hight Inertia (optimized for highest mass inertias)

KR TITAN ultra



The foundry variant of the KR TITAN ultra is designed for use in extreme production environments and withstands dust, heat, and moisture. It is rated IP 65/IP 67 and, thanks to its energy-efficient design, helps reduce operating costs.



Reach
3,226–4,218 mm

Payload
1,000–1,500 kg

KR TITAN-2 ultra	KR 1500 R3200-2 F	KR 1250 R3700-2 F	KR 1000 R4200-2 F
Number of axes	6	6	6
Payload	1,500 kg	1,250 kg	1,000 kg
Reach	3,226 mm	3,726 mm	4,218 mm
Pose repeatability	±0.08 mm	±0.08 mm	±0.08 mm
Weight	4,650 kg	4,820 kg	4,750 kg
Variants	F	F	F
Installation position	Floor	Floor	Floor

F Foundry variant



_Robots in the medical industry

KUKA Medical Robotics. A head start in medical experience.

With a large portfolio of robots certified or adapted specifically for the medical industry KUKA can respond individually to customer requirements and support them in the development of medical products. An international KUKA team of experts from the areas of development, customer service, business development and quality management is available to customers and partners throughout the entire product life cycle. As such, KUKA is your partner in medical robotics.



LBR Med



KR QUANTEC HC

LBR Med. For integration into a medical product.

The LBR Med bundles all the robotic capabilities that are specifically required in medical technology.

With the LBR Med, KUKA supplies a robotic component for integration into a medical device.

The certification was achieved according to the **internationally established "IECEE CB Scheme"** – a procedure that certifies conformity to certain safety and quality standards. In order to receive the CB test certificate, the LBR Med lightweight robot must meet medical requirements and comply with the **international standards IEC 60601-1 und IEC 62304.** These include extensive testing of the hardware and software of the two **7- and 14-kilogram payload variants** of the lightweight robot. Compliance with the safety requirements for medical electric devices stipulated in the international standards was assessed. The processes in the life cycle of medical software development were also verified and approved. In both cases, the inspection was carried out by an accredited certified body.





Media flange inside electrical Med. Connections for power supply, I/Os or EtherNet are available for customer-specific tools on the flange via the media flange inside electric Med.

click for more

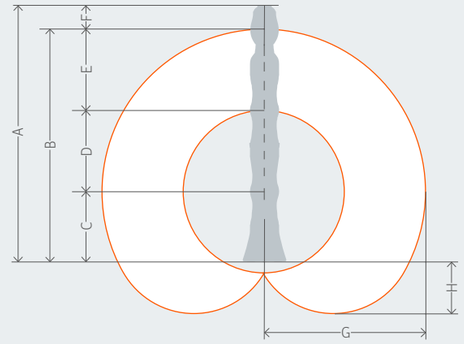
Precise
The LBR Med requires no additional devices for calibration or highly precise work. Thanks to its integrated mastering sensors, it calibrates itself fully autonomously and achieves an outstanding repeatability from ±0.1 mm to ±0.15 mm.

Safe
The LBR Med sets standards with its safety structures. Its safety-rated hardware and software processes the relevant data. Functions covered by the equipment include encoder signals, force/torque sensors, safety circuit, single fault safety, safety-rated interfaces and configurable safety events – in short: everything that predestines it for medical technology.

Sensitive
The LBR Med has redundant, integrated torque sensors. It can detect forces applied externally and react according to the freely programmable system responses specified by you. Benefit from its haptic capabilities for manual guidance, teleoperation with haptic support or gravity compensation. Use the LBR Med to apply predefined forces during a motion, or as a compliant robot that responds adaptively to process forces. Furthermore, the integrated sensors are also used for safe collision detection, thereby enabling human-robot collaboration (HRC).



The new generation of software KUKA Sunrise.OS Med 2 for the LBR Med is Java-based and meets the requirements of IEC 62304. The system software offers all functions needed for programming and configuring medical robot applications. Object-oriented programming enables fast commissioning and access to high-end robotics. The software additionally offers a user-friendly program editor with many powerful option packages such as:
KUKA Sunrise.PreciseHandGuiding Med/KUKA Sunrise.IncreasedStiffness Med/ KUKA Sunrise.BrakeHandling Med/KUKA Sunrise.FRI Med/KUKA Sunrise.Servoing Med/ KUKA Sunrise.KinematicsLib Med/KUKA Sunrise.CollisionAvoidance Med/ KUKA Sunrise.SmartTrajectory Med/KUKA Sunrise.AbsoluteAccuracy Med



LBR Med	LBR Med 7 R800	LBR Med 14 R820
Nominal load capacity	7 kg	14 kg
Number of axes	7	7
Maximum reach	800 mm	820 mm
Wrist variant	In-line wrist	In-line wrist
Mounting flange A7	DIN ISO 9409-1-A50	DIN ISO 9409-1-A50
Positioning accuracy (ISO 9283)	±0.1 mm	±0.15 mm
Axis-specific torque accuracy	±2%	±2%
Weight	25.5 kg	32.3 kg
Protection rating (IP54*)	IP54	IP54
Installation position	Floor, wall, ceiling	Floor, wall, ceiling

Workspace	LBR Med 7 R800	LBR Med 14 R820
Dimension A	1,266 mm	1,306 mm
Dimension B	1,140 mm	1,180 mm
Dimension C	340 mm	360 mm
Dimension D	400 mm	420 mm
Dimension E	400 mm	400 mm
Dimension F	126 mm	126 mm
Dimension G	800 mm	820 mm
Dimension H	260 mm	255 mm
Volume	1.7 m^3	1.8 m^3

*You can find more detailed information on the respective standards in our KUKA Xpert knowledge portal.

KR QUANTEC HC.
The safest one in the family.

A strong partner in many fields. The KR QUANTEC HC is based on the KR 300 R2700-2. A trademark feature is the high and versatile payload of up to 300 kg, which means the robot can be used in almost any area. In addition, the KR QUANTEC HC has a reach of up to 2,700 mm and additional brakes in the axes, which ensure even greater safety. The KR QUANTEC HC comes with a counterbalancing system and a pressure sensor, which allows the pressure to be checked when in use, and the robot to be stopped if the pressure drops. Thanks to the person rescue system, the brakes can be applied manually in case of unforeseen situations, for example, in order to be able to move the KR QUANTEC HC manually in the event of a power failure. Different cable routing designs around A3 can either enhance system compactness or maximize robot workspace. Moreover, to achieve higher precision, robot accuracy can be ensured and further improved through the implementation of an optional absolute accuracy calibration procedure.

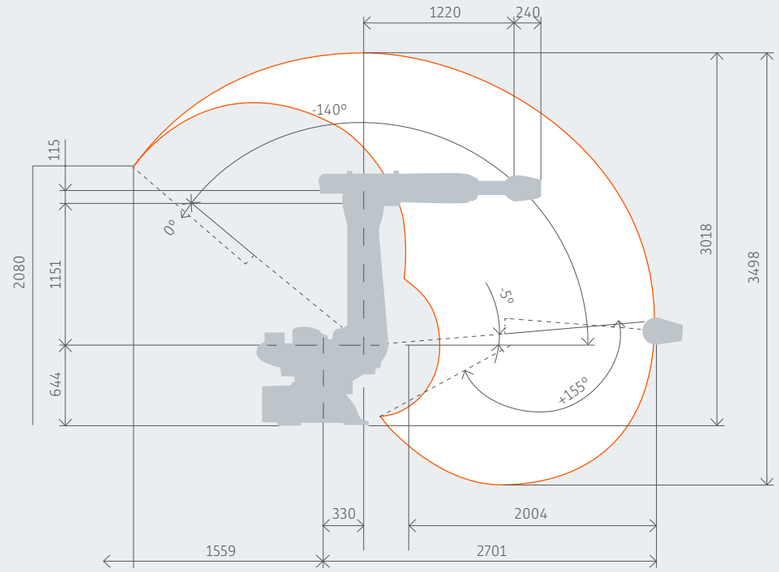


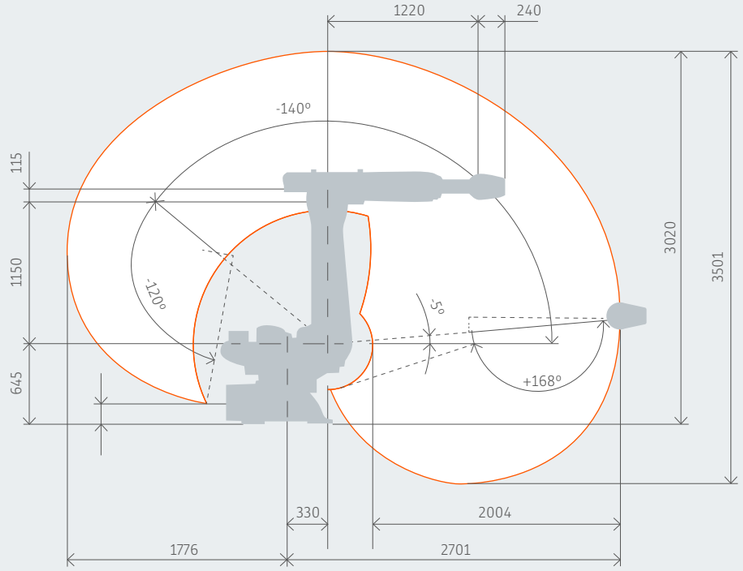












KR QUANTEC HC	KR 300 R2700-2 HC
Rated payload	300 kg
Number of axes	6
Wrist variant	In-line
Reach	2,701 mm
Pose repeatability	±0.05 mm
Weight	1,150 kg
Protection rating	IP 65
Installation position	Floor



_Linear units

Extend your reach. To keep your production on track.

Up to four robots can be operated on a single linear unit. KUKA linear units are available in various different sizes and payload categories, according to the robot series you are using.



KL 100 KL 250-3 KL 4000 KL 5000

Maximum productivity all along the line.

Maximize your productivity all the way down the line. KUKA linear units allow you to increase workspaces significantly.

Another major advantage: the linear units are implemented as an external axis – which means that no additional controller is required. The KUKA product range covers every payload category and every requirement. The spectrum ranges from ceiling-mounted units to the high-speed variant and even linear units with a protective cover. You thus hold all the options for decisively expanding your success margin.

Positionally accurate. Up to four robots can be operated on one linear axis. Multiple robot positions on the linear axis allow optimal adaptation to existing requirements and workspaces.

Flexible. Long travel extends the work envelope by several times the reach of the robot. The linear units are ideal for linking production lines.

Versatile. Floor, ceiling and wall-mounted variants are available, as well as a cover to provide protection from dirt during operations in harsh environments.

Powerful. Additional version with high torque (e.g. for milling applications) and a high-speed variant for tasks requiring extreme speed and short cycle times.

Productive. Moving workpieces/tools with additional carriages, driven or non-driven (tender carriages) help to shorten cycle times.

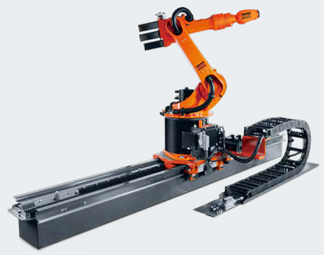
click for more





KL 100

The KL 100 is the linear unit for the KR AGILUS robot series. It can be installed on the floor, ceiling and wall and supports up to 100 kilograms.



KL 250-3

The KL 250-3 linear unit is suitable for the KR CYBERTECH robot series with a payload of up to 300 kilograms.



KL 4000

Suitable for the KR QUANTEC, KR FORTEC, KR 300 PA and KR 470 PA series. The KL 4000 is our linear unit for loads of up to 4,000 kilograms.

Linear unit	KL 100	KL 250-3	KL 4000
Rated payload	100 kg	300 kg	4,000 kg
Number of carriages	max. 4	max. 4	max. 4
Rated travel	max. 30 m	max. 30.1 m	max. 30.4 m
Velocity with rated payload	2.48 m/s	1.47 m/s	1.89 m/s
Pose repeatability	±0.02 mm	±0.02 mm	±0.02 mm
Variants	–	CV	S
Installation position	Floor, ceiling, wall	Floor, ceiling	Floor, ceiling

CV Covered **S** Speed

The technical data in the tables apply exclusively to standard versions.

KL 5000

The KL 5000 linear axis is our additional axis for robots with high payloads. The KUKA Lubricate Kit simplifies maintenance. Lubrication of the toothed rack and running rail is completely automatic.

Payload
5,000 kg

Linear unit	KL 5000
Rated payload	5,000 kg
Number of carriages	max. 4
Rated travel	max. 30.3 m
Velocity with rated payload	1.89 m/s
Pose repeatability	±0.02 mm
Variants	–
Installation position	Floor

_Positioners

Success is down to position. Fast and precise positioners for greater quality and productivity.

KUKA offers a broad portfolio of workpiece positioners for payloads from 250 to 6,000 kilograms.

Depending on the production task and workpiece, you will find the right solution for every application. For example, for ARC welding, spot welding or metalworking. The objective of every automation solution is to boost productivity and quality. With KUKA positioners, you can achieve this from all angles – they allow you to align workpieces quickly and precisely. Ideal for automating production operations. For this purpose, service-proven standard robotics components are used, which can be combined to form customized solutions. The result is highly dynamic automatic positioners with one to five axes. Depending on the specific task, kinematic systems of all sizes can be implemented for payloads ranging from 250 to 6,000 kilograms. With KUKA you are in a strong position to implement your automation ideas.

KP1-MD
KP1-MD HW
KP1-MDC
KP1-MDC HW
KP1-MC
KP1-MB HW
KP1-V
KP1-H
KP1-H HW
KP1-HC
KP1- HC HW
KP1-V2T
KP1-V2T M
DKP HW
KP2-HV
KP3-V2H
KP3-H2H
KP5-V2S2V
KP5-V2H2V HW

Whether standardized or customized – the optimum solution for every positioning task.



High productivity. Higher throughput, fewer rejects or the quick change of tool carriers: dynamic drives, perfect coordination between robot and positioner, and machine data that can be individually optimized for cycle time optimization all enable successful production.

Efficiency and profitability. Robot positioner systems make use of proven KUKA robot components with a high proportion of identical parts. Preconfigured elements ensure reduced integration time, while KUKA.Sim ensures complete and easy simulation capability.

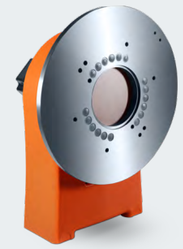
Uncompromising quality. Robots and positioners from KUKA operate with high precision. The result of flexible, repeatable performance is consistently flawless workpieces.

Integration – simple, safe, fast. Electrically insulated face plates, easy mastering with the KUKA EMD and simple programming: Proven, familiar solutions and standardized interfaces stand for efficient integration and fast implementation of individual customer solutions.

Customized solutions from a single source. From robots and positioners to linear units and other components: the modular system ensures simple implementation of customer-specific solutions and thus precise coordination between positioners and workstations.

KP1-MD

	KP1-MD500-2	KP1-MD750-2	KP1-MD1000-2	KP1-MD1500-2
Rated payload	500 kg	750 kg	1,000 kg	1,500 kg
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle
Loading height	417 mm	417 mm	417 mm	417 mm
Hollow shaft Ø	–	–	–	–



KP1-MD HW

	KP1-MD2500-2 HW
Rated payload	2,500 kg
Installation position	Floor, ceiling, wall, angle
Loading height	505 mm
Hollow shaft Ø	140 mm



KP1-MDC

	KP1-MDC500-2	KP1-MDC750-2	KP1-MDC1000-2	KP1-MDC1500-2
Rated payload	500 kg	750 kg	1,000 kg	1,500 kg
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle
Loading height	417 mm	417 mm	417 mm	417 mm
Hollow shaft Ø	–	–	–	–
Counterbearing hollow shaft Ø	68 mm	68 mm	68 mm	68 mm





KP1-MDC HW

	KP1-MDC2500-2 HW	KP1-MDC4000-2 HW
Rated payload	2,500 kg	4,000 kg
Installation position	Floor, ceiling, wall, angle	Floor
Loading height	505 mm	505 mm
Hollow shaft Ø	140 mm	140 mm
Counterbearing hollow shaft Ø	70 mm	70 mm





KP1-MC

	KP1-MC1500-2	KP1-MC4000-2
Rated payload	1,500 kg	4,000 kg
Installation position	Floor, ceiling, wall, angle	Floor, ceiling, wall, angle
Loading height	417 mm	505 mm
Counterbearing hollow shaft Ø	68 mm	70 mm



KP1-MB HW

	KP1-MB2000-2 HW	KP1-MB3000-2 HW S	KP1-MB4000-2 HW	KP1-MB6000
Rated payload	2,000 kg	3,000 kg	4,000 kg	6,000 kg
Installation position	Floor	Floor	Floor	Floor
Loading height	449 mm	449 mm	449 mm	593 mm
Hollow shaft Ø	136 mm	136 mm	136 mm	–
Turning time (180° / 360°)	3.4 s / 6.0 s	2.15 s / 3.7 s	3.9 s / 6.9 s	4.2 s / 8.6 s



KP1-V

	KP1-V500	KP1-V1000
Rated payload	500 kg	1,000 kg
Installation position	Floor	Floor
Loading height	705 mm	705 mm
Hollow shaft Ø	60 mm	60 mm



KP1-H

	KP1-H500-2	KP1-H750-2	KP1-H1000-2	KP1-H1500-2	KP1-H2500-2 HW
Rated payload	500 kg	750 kg	1,000 kg	1,500 kg	2,500 kg
Max. tool radius (in steps of 200 mm)	800 mm to 1,200 mm	800 mm to 1,200 mm	800 mm to 1,200 mm	800 mm to 1,200 mm	1,000 mm to 1,500 mm
Installation position	Floor	Floor	Floor	Floor	Floor
Loading height (in steps of 200 mm)	840 mm to 1,240 mm	840 mm to 1,240 mm	840 mm to 1,240 mm	840 mm to 1,240 mm	1,035 mm to 1,535 mm
Hollow shaft Ø	–	–	–	–	140 mm



KP1-HC

	KP1-HC500-2	KP1-HC750-2	KP1-HC1000-2
Rated payload	500 kg	750 kg	1,000 kg
Max. tool radius (in steps of 200 mm)	800 mm to 1,200 mm	800 mm to 1,200 mm	800 mm to 1,200 mm
Installation position	Floor	Floor	Floor
Loading height (in steps of 200 mm)	840 mm to 1,240 mm	840 mm to 1,240 mm	840 mm to 1,240 mm
Hollow shaft Ø	–	–	–
Counterbearing hollow shaft Ø	68 mm	68 mm	68 mm

	KP1-HC1500-2	KP1-HC2500-2 HW	KP1-HC4000-2 HW
Rated payload	1,500 kg	2,500 kg	4,000 kg
Max. tool radius (in steps of 200 mm)	800 mm to 1,200 mm	1,000 mm to 1,500 mm	1,000 mm to 1,500 mm
Installation position	Floor	Floor	Floor
Loading height (in steps of 200 mm)	840 mm to 1,240 mm	1,035 mm to 1,535 mm	1,035 mm to 1,535 mm
Hollow shaft Ø	–	140 mm	140 mm
Counterbearing hollow shaft Ø	68 mm	70 mm	70 mm





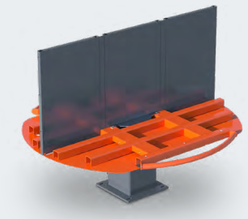
KP1-V2T

	KP1-V2T500	KP1-V2T1000
Rated payload per side	500 kg	1,000 kg
Installation position	Floor	Floor
Loading height	727 mm	575 mm
Station change	Electrical	Electrical
Possible work plates	1,200 × 800 mm	1,600 × 900 mm



KP1-V2T M

	KP1-V2T250 M
Rated payload per side	250 kg
Installation position	Floor
Loading height	727 mm
Station change	Manual
Possible work plates	1,200 × 800 mm



DKP HW

	DKP500-2 HW	DKP750-2 HW
Rated payload	500 kg	750 kg
Installation position	Boden	Boden
Loading height	850 mm	850 mm
Tilting range	±90°	±90°
Hollow shaft Ø	60 mm	60 mm



KP2-HV

	KP2-HV500
Rated payload	500 kg
Installation position	Floor
Loading height	500 mm
Tilting range	±135°



KP3-V2H

	KP3-V2H500-2	KP3-V2H750-2	KP3-V2H1000-2	KP3-V2H1500-2
Rated payload per side	500 kg	750 kg	1,000 kg	1,500 kg
Distance between face plates (in steps of 200 mm)	1,600 mm to 3,000 mm	1,600 mm to 3,000 mm	1,600 mm to 3,000 mm	1,600 mm to 3,000 mm
Max. tool radius (in steps of 200 mm)	600 mm to 1,000 mm	600 mm to 1,000 mm	600 mm to 1,000 mm	600 mmm to 1,000 mm
Installation position	Floor	Floor	Floor	Floor
Loading height	835 mm / 950 mm	835 mm / 950 mm	835 mm / 950 mm	835 mm / 950 mm
Counterbearing hollow shaft Ø	68 mm	68 mm	68 mm	68 mm



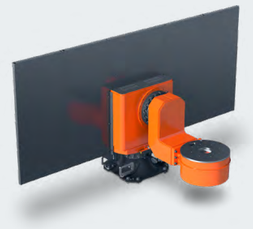
KP3-H2H

	KP3-H2H500-2	KP3-H2H750-2	KP3-H2H1000-2	KP3-H2H1500-2
Rated payload per side	500 kg	750 kg	1000 kg	1,500 kg
Distance between face plates (in steps of 400 mm)	1,600 mm to 4,400 mm	1,600 mm to 4,400 mm	1,600 mm to 4,400 mm	1,600 mm to 4,400 mm
Max. tool radius	600 mm to 800 mm	600 mm to 800 mm	600 mm to 800 mm	600 mm to 800 mm
Installation position	Floor	Floor	Floor	Floor
Loading height	1,021 mm	1,021 mm	1,021 mm	1,021 mm
Counterbearing hollow shaft Ø	68 mm	68 mm	68 mm	68 mm



KP5-V2S2V

	KP5-V2S2V500	KP5-V2S2V600	KP5-V2S2V1000
Rated payload per side	500 kg	600 kg	1,000 kg
Max. tool radius (in steps of 200 mm)	600 mm to 1,000 mm	750 mm	600 mm to 1,000 mm
Installation position	Floor	Floor	Floor
Swivel range	±185°	±185°	±185°
Loading height	700 mm	635 mm	700 mm



KP5-V2H2V HW

	KP5-V2H2V500 HW	KP5-V2H2V750 HW
Rated payload per side	500 kg	750 kg
Max. tool radius	400 mm	400 mm
Installation position	Floor	Floor
Tilting range	0° / 90°	0° / 90°
Loading height	863 mm	863 mm
Hollow shaft Ø	60 mm	60 mm



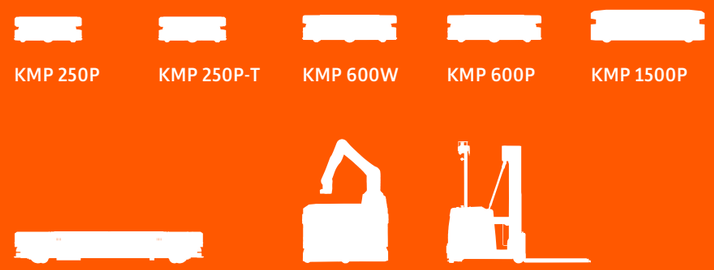


_Autonomous mobile robots

Mobile solutions for agile production.

If you want to get things moving, you have to stay in motion.

Mobility is an important driver of Industry 4.0. KUKA develops mobility concepts for the next stage in the evolution of more flexible industrial production. In the cyber-physical world of Industry 4.0, established structures are becoming a thing of the past. Static production facilities and assembly lines are obsolete. KUKA develops intelligent, mobile units that work together perfectly and find their destination autonomously.



KMP 250P
KMP 250P-T
KMP 600W
KMP 600P
KMP 1500P
KMP 3000P
KMR iisy
KMF 1500P-CB
KMF 1500P-PS

Get your production moving.

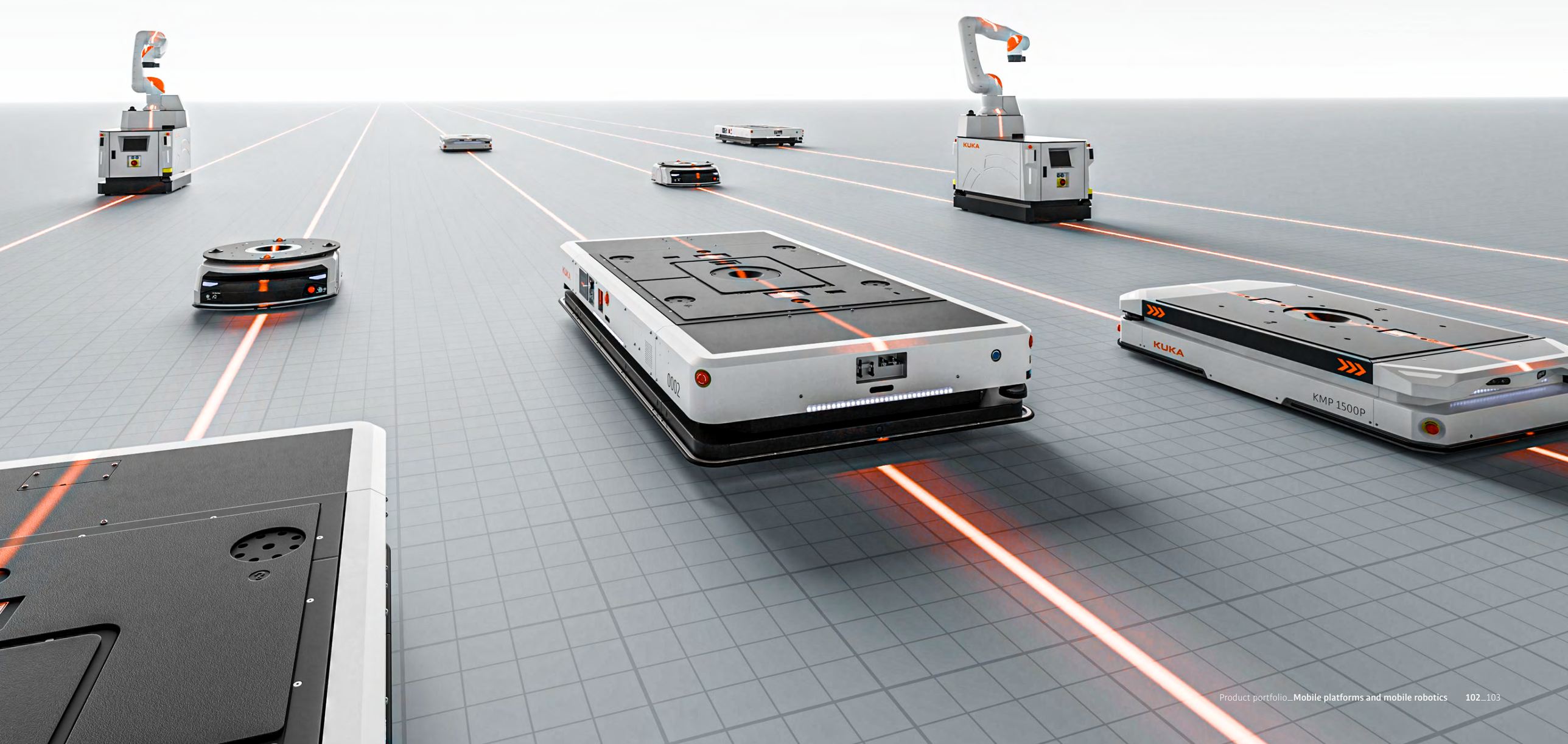
Mobile platforms from KUKA open up new dimensions of mobility in the age of Industry 4.0. Whether it is for the aerospace or automotive industry, or for many other sectors, it has never been easier to integrate autonomous robots and mobile platforms quickly and reliably into cells and systems.

All mobile platforms ensure maximum freedom of movement. Omnidirectional and differential drive systems enable high-precision transport – even with the heaviest loads.

Autonomously navigating systems are used for fully automatic operation. Our portfolio of mobile robot platforms provides the foundation for the flexible production facilities of the future.

The factory of the future demands mobility and flexibility. Static production lines are making way for the next generation of robots: intelligent, mobile robotic units are taking their place. Mobile robots navigate autonomously, act in swarms and offer total flexibility for industrial manufacturing. This is especially important for internal logistics. KUKA offers a vast mobility portfolio.

Our robots work hand in hand with humans and align workpieces within five millimeters. In addition, the fully autonomous variants work without any induction loops, floor markings or magnets. Our range of mobile robots is heralding the next era of cyber-physical production.



KUKA.AMR Fleet: The smart no-code platform with intelligent functions is easy and intuitive to use. The navigation system makes it possible to configure settings by cursor in the browser instead of programming them. This allows new or modified routes to be planned quickly and efficiently. Additional comfort and smart functions as automatic rack recognition increase the efficiency during integration.

The software also enables comprehensive fleet management of the entire AMR system. It fully regulates all fleet traffic and is able to automatically reschedule in the event of obstacles.



KUKA.AMR Fleet

KUKA.AMR Fleet is an expert management system for KUKA mobile robots. Based on a variety of complex scheduling algorithms, flexible process choreography and full coverage of peripherals, it delivers collective intelligence, task execution and efficient collaboration of a number of different mobile robot types. KUKA.AMR Fleet manages entire factory processes, supports countless industrial scenarios, and creates a truly unmanned and digital "smart factory".

Advantages

Easy to use. No-code platform software with easy-to-use interface configuration to meet the needs of countless industrial scenarios.

Efficient delivery. Using predefined configurations, the system can be set up very quickly for more than 90% of industrial scenarios, achieving rapid delivery within 48 hours.

Safe and reliable. Monitors the entire operation in real time, detects abnormal information prompting, quickly locates the cause of the problem, and provides solutions.

Efficient collaboration. RCS can dispatch multiple robots of different models and types at the same time to maximize efficient collaboration.

High precision navigation

Hybrid navigation. Supports Laser Slam, QR code and other positioning systems. Features lane line detection and recognition function, including lane keeping and deviation warning functions.

High Accuracy positioning. High navigation and positioning accuracy, precise to within a few millimeters.

Excellent performance. Stable operation in dynamically changing environments, autonomous planning of operating paths and avoidance of operating obstacles.

One platform, three systems

Workflow Control System

– Total freedom in workflow scheduling
– Supports customized system interfacing
– Monitors full-process job execution in real time

WCS (Workflow Control System) is KUKA's intelligent logistics workflow control system. Acting as an intermediate element between the customer's upstream system and the internal scheduling system, it takes tasks from the upstream, helps with the full-process completion of tasks with flexible scheduling, and provides feedback to the upstream. It also has a simple recovery function should task abnormality occur, a key factor in any factory's low-cost, high-efficiency operation and maintenance.

Robot Control System

– Traffic control based on lock-free dependency calculation
– Global and resource optimal path planning
– Multi-model mixed-field scheduling

RCS (Robot Control System) is KUKA's robot control system and uses intelligent planning algorithms. It coordinates different AMR types in the same area, assigns tasks efficiently, manages traffic, and helps avoid obstacles. This prevents bottlenecks and enables safe, smooth operation with minimal manual intervention.

Equipment Control System

– Graphically configures device control rules
– Gives a real-time view of device operation status
– Execution process log management

ECS (Equipment Control System) is KUKA's external equipment control system, which can manage other hardware devices besides AMR, such as electric doors, hoists, elevators, conveyor lines, robotic arms and other equipment. ECS gives access to device signals and completes docking transformations to achieve smarter and more efficient collaboration and helping customers to build a truly smart factory.



KMP 250P

250 kg
2 m/s
±10 mm

KMP 250P

The new KMP 250P mobile platform can transport goods and components weighing up to 250 kilograms and can be optionally equipped with a lifting unit. It meets the highest safety standards. In addition to the cleanroom and ESD version, the new "sleep mode" feature makes automation even easier, even with large fleets.

Compatible and intuitive. The KMP 250P is compatible for use within one AMR fleet and can be intuitively controlled using the fleet manager KUKA.AMR Fleet and the standard communication interface VDA 5050. With the help of an extended "sleep mode", even large fleets can be put into standby in a user-friendly manner. Thanks to its differential drive, the mobile platform is also highly flexible in terms of space. In addition to a conductive charging station, an inductive version is also available as an option – ensuring that the KMP 250P remains in operation without interruption.

click for more



A Cleanroom- and ESD version enables use in special areas of application.

360-degree protection for people and machines. Two diagonally mounted laser scanners, combined with 3D cameras, provide 360-degree protection. If an obstacle is identified in the path, it can be bypassed automatically and safely if there is sufficient space, or the KMP 250P stops fully automatically.

"This high standard is very important to us. It ensures both smooth cooperation between humans and robotics and the safe transport of goods," says Clemens Lauble, Product Manager at KUKA.

	KMP 250P
Dimensions (L×W×H)	800×520×300
Weight	120 kg
Rated payload	up to 250 kg
Maximum speed	2 m/s
Maximum acceleration/deceleration	0.6 m/s²
Maximum braking deceleration (safety stop)	1.25 m/s²
Operating time	up to 8 h
Charging time	2 h
Stroke (optional)	60 mm
Positioning accuracy (SLAM/QR)	±10 mm, ±1° / ±5 mm, ±0,5°

KMP 250P-T. Tugger AMR for loads up to 300 kg.

From 2026, the tugger variant KMP 250P-T will extend the platform family: as an under-ride tugger, the AMR docks to carts from below and safely pulls loads of up to 300 kg through production.





KMP 600P

600 kg
2 m/s
±10 mm

KMP 600P

KMP 600P

The KMP 600P is a compact all-rounder that can transport up to 600 kilograms and is particularly suitable for cramped production environments. The autonomous mobile robot (AMR) offers an excellent price/performance ratio and, thanks to inductive charging, enables 24/7 operation and extended battery life.

Easy integration into any production process. The KMP 600P is the perfect solution for optimizing intralogistic systems. It improves storage processes, increases the flexibility of assembly lines and makes material flow more efficient in complex industrial environments. Since the platform is VDA 5050 compatible, it can be easily and quickly integrated into any existing production system. It shows its strengths thanks to its compact dimensions of 980×686×270 mm as well as its flexible mobility thanks to differential drive technology: Not only can it move forwards and backwards, but it can also turn on the spot and take curves with a defined radius. Remote control allows you to choose between SLAM navigation and QR codes on the floor, the latter being advantageous for production environments that change often.

click for more

Efficiency meets user-friendliness. Opportunity charging for 24/7 operation. On the one hand, the KMP 600P is charged at conductive charging stations, which it controls independently. Above all, however, the new inductive charging option during the ongoing production process brings a significant increase in efficiency: As part of this, the AMR is on an inductive charging pad that can be flexibly integrated into the process. Thanks to short charging times and contact-free charging, inactive phases in which the AMR does not move can be used for charging. This enables continuous operation. It also significantly extends the life of the battery. This has a positive effect on the operating cost.

Simple and intuitive configuration without programming. The user-friendly KUKA.AMR Fleet software enables effortless start-up without program code lines. Thanks in particular to the easy-to-understand drag-and-drop function and an extensive function library, workflow can be optimized quickly. This allows, for example, AMR routes to be intuitively replanned or modified in a map. Special programming is not necessary to configure the platform – thus saving time and resources.

Autonomous navigation
- Free navigation: SLAM method
- Camera under the mobile platform reads QR codes for high positioning accuracy of ±5 mm
- Simple integration, operator control and maintenance thanks to the no-code platform KUKA.AMR Fleet
- Connection via Wi-Fi, 5G-capable

Highest safety standards
- Laser scanner for safe obstacle detection and avoidance
- Two 3D cameras detect obstacles – thus protecting AMR and cargo
- Safety bumper for improved platform safety
- Acoustic and optical signals as well as 4 emergency stops (on each corner of the platform)

Intelligent charging management
- Lithium iron phosphate battery for up to 8 hours of operation
- Inductive charging allows 24/7 operation and significantly increases battery life
- No installation of special power supply required (since single-phase)
- Charge from 10% to 100% within 2 hours

Extras for flexible use
- Optional lift module with versatile plate; Lifting height: 80 mm
- Max. speed: 2 m/s without payload, 1.5 m/s with payload
- Camera on the platform for QR load detection
- Sound module for messages, alarms, music

	KMP 600P
Dimensions (L×W×H)	980×686×270
Weight	160 kg
Rated payload	up to 600 kg
Maximum speed straight ahead	2 m/s
Maximum acceleration	0.8 m/s²
Maximum braking acceleration	1.25 m/s²
Operating time	up to 8 h
Charging time	2 h
Optional integrated lifting device	80 mm stroke (25 mm clearance height)
Positioning accuracy (SLAM/QR)	±10 mm

KMP 600W. The cost-effective alternative for unmanned operation.

The KMP 600W is the cost-effective solution for work environments without human presence. This AMR is made for applications behind the fence. Saving the complexety of secure technology, makes this AMR simple and fast (2 m/s). Nevertheless it is highly accurate, thanks to the use of QR Code navigation.



KMP 1500P

1,500 kg
1.8 m/s
±10 mm

KMP 1500P



KMP 1500P

The autonomous mobile platform, is designed to enhance intralogistics, material supply for production lines and process linkage applications. With its cutting-edge SLAM navigation, precision positioning, advanced load identification, 3D cameras, and innovative charging technology, this AMR offers a package of high-performance features, safety, and flexibility in automated transport and material handling.

The smart AMR platform maximizes efficiency in production halls and warehouses. The autonomous mobile robot (AMR) is a game-changing solution to optimize intralogistics operation. The KMP 1500P lifts all types of load carriers and can be easily implemented into existing industrial projects to deliver exceptional solutions, whether it is optimizing warehouse processes, streamlining assembly lines, or enhancing material handling in complex industrial environments.

The AMR platform can identify the load due to its technology and QR code readers, which improves material traceability and operational efficiency. In addition, the 3D cameras provide an additional layer of safety, detecting obstacles in three-dimensional space, and ensuring the well-being of the AMR, the load and equipment.

The KMP 1500P offers easy programming that allows workflows to be quickly adapted and optimized, reducing the time and resources required for implementation, and resulting in increased operational efficiency and flexibility.

click for more

Demands on mobile robotics in the age of smart factories. The autonomous mobile platform KMP 1500P provides a safe and autonomous transport solution in factories and logistics centers. With its flexible movement, the KMP 1500P can navigate complex and dynamic environments, adapt to changing requirements and optimize material flow. This provides agility and versatility in operations, ultimately helping businesses to respond quickly to evolving market demands and achieve higher productivity.

Versatile use of driverless robotics in intralogistics. The AMR automatically delivers the required goods and raw materials to the right place at the right time. The Autonomous Mobile Robot (AMR), with its differential drive technology, is optimally equipped for tasks in production and in-plant logistics. A wide range of applications can be supported.

Process linkage/chaining. Autonomous transport of components and workpieces from station to station by the KMP 1500P increases the flexibility in the production and makes unflexible conveyers obsolete.

Material supply to stations and lines. Enables efficient just in time material supply from the warehouse or supermarket to stations, assembly and preassembly lines.

Commissioning. Flexible picking processes, goods-to-person, autonomous piece picking or flexible sorting.

Warehousing and point-to-point transports. Reliable stock management and inventory control thanks to the KMP 1500P and its capable fleetmanager KUKA.AMR Fleet.

Autonomous navigation
- SLAM-Navigation
- Camera underneath the mobile platform, reading QR-codes for high positioning accuracy ±5 mm
- Easy to integrate, operate and maintain due to No-Code-Platform KUKA.AMR Fleet
- Connection via Wi-Fi, 5G capable

Highest safety standards
- Laser scanners for safe obstacle detection
- 3D cameras additionally detect obstacles, protecting AMR and load
- Safety Bumper/safety edge for extra safety
- Acoustic and optical signals, as well as 4 emergency stop switches (at each corner of the platform)

Intelligent charging management
- Docking station for conductive charging with digital touch screen
- As soon as the battery level gets low, the AMR is automatically routed to a free charging station
- No installation of special power supply required due to single phase
- 2 hours charge for up to 10 hours of use
- Charge from 20% to 80% within 1 hour
- Inductive charging for 24/7 operation

Extras for flexible use
- Optional lift module with versatile plate; Lifting height: 60 mm
- High load capacity up to 1.5 t
- Max. speed: 1.8 m/s without load, 1.5 m/s loaded
- On-platform camera for QR load identification
- Sound module for notifications, alarms, music

International certification
- IP 54 protection class: protection against splash water, dust, and chips
- CE-marked and fulfills North American market access standards

	KMP 1500P
Dimensions (L×W×H)	1,300×900×263
Weight	270 kg
Rated payload	up to 1,500 kg
Maximum speed straight ahead	1.8 m/s
Maximum acceleration	0.6 m/s²
Maximum braking acceleration	1.25 m/s²
Operating time	up to 10 h
Charging time	2 h
Optional integrated lifting device	60 mm stroke (25 mm clearance height)
Positioning accuracy (SLAM/QR)	±10 mm

KMP 3000P

3,000 kg
1.2 m/s
±15 mm

KMP 3000P



KMP 3000P

The autonomous mobile platform transports the heavyweights in intralogistics. It can carry up to three tons and moves omnidirectionally in space. Thanks to its new inductive charging concept, the KMP 3000P is ready for operation around the clock. Integrated 3D cameras and laser scanners ensure the flexibility and safety when working with humans.

KMP 3000P keeps every production in constant motion. The autonomous mobile platform is ready for use 24/7 thanks to its inductive charging concept. The platform can be charged both at central charging stations and decentrally at the workstations – i.e. in the process. With the ability to move up to 3 tons, it opens up a wide range of possible applications. Regardless of whether it is used for material supply in production, process interlinking without conveyor belts or classic point-to-point transportation – the KMP 3000P masters the transportation of large, unwieldy and heavy components without any problems. It benefits from its compact dimensions of 2.200×1.200×370 mm.

click for more

Intelligent maintenance concepts. The KMP 3000P transport platform is characterized not only by its high performance, but also by its ease of maintenance. Thanks to its modular design, the components are easily accessible. Replacement is therefore quick and cost-effective.

- Dismantling the wheel from the side – lifting or removing the housing is not necessary.
- The inductive charging coil is easy to dismantle.
- Quick replacement of critical parts in just a few minutes via the maintenance flap.

Smooth driving thanks to innovative propulsion concept. The new, omnidirectional drive concept of the KMP 3000P is particularly user-friendly: the powered swivel castors ensure smooth running and enable high speeds. Each of the two drive units consists of two wheels. The fact that the weight is distributed over two wheels results in a lower point load on the individual wheel, which means less abrasion. In addition to replacing the entire drive unit, it is also possible to replace the lining of individual rollers as required.

Smart navigation: versatile & simple

- SLAM navigation via laser scanner
- QR code navigation via 3D cameras on the underside of the platform
- Innovative omnidirectional wheel technology
- Easy integration, operation and maintenance thanks to intelligent fleet management
- Simple manual control
- VDA 5050 interface for easy integration into 3rd party fleet management solutions

Highest safety standards

- 2× laser scanners at the corners for reliable obstacle detection
- 4× 3D cameras on all 4 sides detect obstacles in 3D, which additionally ensures the safety of the platform and load
- 6× emergency stop switches (at each corner of the platform and on the sides)
- Bumper bar around the vehicle
- Acoustic and visual signals
- Upward facing camera for QR code rack detection

Intelligent charging management

- Inductive charging with charging pad at the bottom of the transport platform
- Wear-free charging in the process
- When the battery is low, the platform is automatically navigated to a free charging station
- No installation of a special power supply required as it is single-phase

Proven excellence

- High load capacity: up to 3 t
- Positioning accuracy: ±15 mm, ±1° (SLAM);
- ±5 mm, ±0,5° (QR-Code)
- Max. Speed: 1.2 m/s without payload; 1.0 m/s with payload
- Integrated lifting devices:
- Lifting height: 100 mm
- Turning radius on the spot: 1,3 m

	KMP 3000P
Dimensions (L×W×H)	2,200×1,200×370
Weight	850 kg
Rated payload	3,000 kg
Maximum speed straight ahead	1.2 m/s
Maximum acceleration	0.4 m/s²
Maximum braking acceleration	0.6 m/s²
Operating time	up to 8 h
Charging time	2 h
Integrated lifting device	100 mm stroke
Positioning accuracy (SLAM/QR)	±10 mm, ±1°/±5 mm, ±0,5°

click for more

KMR iisy



11–15 kg
1.5 m/s
±0.05 mm

KMR iisy-2

KMR iisy

Autonomous, flexible and with an eye on all obstacles – the KMR iisy is a smart partner in warehouse logistics and production as a fully integrated combination of robot and transport platform.

Flexibility and reliability combined: the autonomous mobile robot as the optimal solution for industrial environments. The autonomous mobile robot KMR iisy enables the dynamic use of a robot at different workstations and is therefore indispensable as an automation solution. With the KMR iisy, we offer an AMR (Autonomous Mobile Robot) that can move quickly and safely. This is made possible by safety scanners and 3D cameras in combination with the LBR iisy. It detects humans around the platform with its lidar scanner in order to avoid potential collisions. 3D cameras spot obstacles up to two meters above the ground.

Mobile robots in cleanrooms: efficient automation for demanding environments. Due to its low particle and emission levels and its ESD certification, the KMR iisy is also suitable for use in cleanrooms. Pick-and-place applications, material transport and palletizing tasks in the semiconductor or electronics industry can be carried out more efficiently and cost-effectively.

Get more out of Industry 4.0 with the use of mobile robot platforms. Automation of more complex, physically demanding tasks for humans, flexible travel paths, collision protection and uninterrupted operation – the autonomous mobile robot KMR iisy offers numerous advantages for loading and unloading, quality testing in the production line as well as workpiece and material transport. It enables companies to design processes more cost-effectively and efficiently than before.

Direct value creation with the mobile robot along production and logistics processes. With its differential drive, the KMR iisy is optimally equipped for most production halls and warehouses. It can move freely in a straight line, turn and rotate around its own axis. This makes it mobile for many applications in production and logistics.

Commissioning
- Transport of the goods to the staging point
- Provision by pick-and-place
- Removal of the empty containers

Palletizing applications
- Loading and unloading of pallets and conveyors
- Transporting products to the palletizing station

Machine Tending
- Loading of tooling and CNC machines
- Pick-and-place tasks
- Handling of components
- Material transport

Workpiece transportation
- Transport of components to different stations
- Transport of the robot to different application stations

Flexible and cost effective transportation
The KMR iisy connects any number of stations in the desired sequence, without the limitations of conventional material transport solutions. In addition, the mobile robot enables faster and more cost-effective switching between different products.

Smart operation
Both the robot and the mobile platform are controlled by a single teach pendant. This can be the KUKA smartPAD pro or smartPLUG. The KUKA smartPAD pro is integrated into the platform and acts as a status display. By using the KUKA smartPLUG instead, users can connect their own devices for operation.

Autonomous navigation
Free navigation via SLAM ensures that the robot can drive autonomously and stop in front of unforeseen obstacles. QR codes can be used to increase the positioning accuracy in workstations.

High safety
The AMR is equipped with safety components. Torque Sensors, safety scanners and 3D cameras detect workers and obstacles up to 2 m above the ground. A high level of collision protection is guaranteed.

Predictability
KMR iisy documents its tasks automatically and on-the-fly and constantly transmits its coordinates, so the status and location of the load is known at any time. This increases the material traceability, prevents failures in the material supply.

24/7 operation
The AMR platform can be used in 24/7 operation thanks to its inductive charging pads. The lithium-ion battery can be charged in a charging station as well as in workstation during the process.

Easy maintenance
Maintenance on the KMR iisy is quick and easy. The platform components are easily accessible via the large access hatches on both broad sides. A control cabinet provides space for additional customer-specific applications.

Protected construction
IP 54 protection makes the KMR iisy a reliable AMR solution in demanding environments. Clean room class 3 and ESD protection to ISO 61340-5-1 and ANSI ESD S20.20 further qualify it for sensitive workspaces.

Designed to work dynamically
- Load capacity robot: 11 kg or 15 kg
- Mobile platform capacity: up to 200 kg
- Size of platform area: 695 × 1,120 mm
- Max. speed: 1.5 m/s

International certification
- The mobile robot meets the requirements of various national and international safety standards

KMF 1500P

1,500 kg
1.25 m/s

KMF 1500P-CB
KMF 1500P-PS



KMF 1500P-CB

The KMF 1500P-CB is a counterbalanced forklift AMR for fully automated pallet transport and rack loading. With a payload of up to 1,500 kg and lifting heights of up to 3 m, it reliably handles typical warehouse and production tasks without a driver.

Controlled by KUKA.AMR OS and orchestrated via KUKA.AMR Fleet, the KMF 1500P-CB can be seamlessly integrated into mixed fleets and existing intralogistics. Certified safety technology ensures safe interaction with people, vehicles and infrastructure while the truck navigates autonomously, detects obstacles and positions pallets with high precision.

click for more

Smooth processes with autonomous forklifts. Modern warehouse and production environments must reliably handle high throughputs and complex transport processes. Without autonomous forklifts, growing volumes quickly lead to bottlenecks and inefficient workflows – making a solution with a clear return on investment essential.

Self-driving forklift AMRs from KUKA ensure continuous, stable material flows – in the warehouse as well as in production. They increase efficiency, improve safety and make optimal use of existing space. Thanks to intelligent navigation, advanced sensor technology and powerful battery systems, AMR forklifts automate pallet handling and sustainably reduce operating costs.

Fleet management.
Central control of multiple vehicles in real time:
- Optimised task allocation in real time
- Route planning with minimal empty runs
- Transparent control of the entire AMR fleet
- Dynamic adaptation in case of disruptions for stable operation
- Coordinated vehicle movements for high process reliability

Precise pallet handling.
Accurate handling of load carriers:
- Sensor-based detection and 3D localisation of pallets
- High positioning accuracy when approaching and picking up
- Automated hand-over without manual correction
- Safe handling even with varying hand-over positions
- Reproducible processes for consistent quality

Autonomous operation & efficiency.
24/7 use for efficient workflows:
- Reduced transport costs
- Independent order processing without manual control
- Continuous operation for high availability
- Fewer interruptions in the material flow
- Relief for personnel

Intelligent navigation.
Flexible navigation without fixed infrastructure:
- SLAM-based map creation and updating
- LiDAR and additional sensors for real-time obstacle detection
- Dynamic route adjustment
- Precise positioning right up to the pallet

Intelligent safety in mixed environments.
Robust operation in dynamic surroundings:
- 360° monitoring via laser scanners
- Real-time reaction to deviations
- Collision protection through environment analysis
- Safe human–machine interaction through integrated safety functions
- Optical pedestrian warning (blue light, red area light)
- Acoustic warning signals

Connectivity & integration.
Seamless integration into existing systems:
- Connection to WMS / ERP / MES
- Integration into existing production and logistics processes
- Central control of all transport tasks
- Scalable for growing requirements and fleets

	KMF 1500P-CB	KMF 1500P-PS
Dimensions (L×W×H)	2,750×1,022×2,305	1,805×1,000×2,115
Weight	2,800 kg	1,050 kg
Rated payload	up to 1,500 kg	up to 1,500 kg
Maximum speed straight ahead	1.25 m/s	1.25 m/s
Maximum acceleration	–	–
Maximum braking acceleration	–	–
Operating time	up to 8 h	up to 8 h
Charging time	–	–
Integrated lifting device	–	–
Lifting height	3 m	2.5 m
Positioning accuracy (SLAM)	–	–

_Education

Knowledge meets practice. Learning at the pulse of automation.

Robotics is becoming a permanent part of the working world – and hands-on learning builds the skills required. KUKA Education introduces school and university students as well as trainees and professionals in continuing education to industrial robotics and automation at an early and practical stage. With industry-grade hardware and software, modular training cells and didactically prepared learning materials, theory turns into applicable knowledge – for the skilled workforce of today and tomorrow.



Education Cell



Education Cell lite



Education Kit



Education Kit AMR

click for more

KUKA Education. Modular training cells for vocational and higher education.



AI-enabled robotics for the skilled workers of tomorrow

KUKA training cells are preconfigured, compact training stations with fully integrated robot system, controller, safety concept and application area. They are supplied as robust metal structures with integrated KR C5 micro controller and electric gripper and are quickly ready for operation after being connected to the power supply. The modular cells offer excellent visibility and are available – depending on requirements – with both conventional industrial robots and modern cobots. All variants are based on iiQKA.OS and are designed so that learners use the same operating concepts and software environments as in modern industrial applications.

Modular learning environments. The KUKA Education portfolio offers six preconfigured training cell types as well as a solution for mobile robotics. Optional application packages – for example for pick-and-place tasks, path motions, machine vision or PLC programming – extend the cells with practical training content and allow training environments to be expanded step by step.

Autonomous mobile robotics in education. KUKA offers an AMR solution with real robots, accessories and software specifically tailored to educational use. Students and trainees program and test autonomous workflows directly on real AMRs – in lecture halls or labs – gaining hands-on experience in navigation, sensing, safety and system integration.

KUKA Education supports companies and educational institutions in providing hands-on training in robotics, programming and automation according to industrial standards for employees, pupils and students. Modular training cells for modern, data-driven applications, combined with didactic teaching materials, enable direct use in vocational and higher education.

Benefits for companies and educational institutions:

- systematically build robotics, programming and automation skills to industrial standards
- test new and existing automation tasks on the training cell before safely transferring them to production
- reduce operating errors, downtimes and ramp-up times by practising processes in a realistic environment
- firmly establish robotics and automation know-how within their organisation
- prepare pupils and students optimally for their career entry

Your benefits

- Training on genuine KUKA industrial hardware
- Modular training cell with cTUVus and CE marking
- Didactically prepared training materials for instructors and learners
- Fast and easy commissioning

Attractive special conditions. KUKA Education supports educational institutions with attractive special conditions to facilitate access to modern automation technology and to ensure its long-term use in teaching, training, and research.

Education Curriculum. For schools, universities and training partners, KUKA Education provides a customised curriculum for the selected training cell on request.

Course content. From the basics of robotics through to programming complex path motions and automated applications.

Course structure. Compact learning units of around 45 minutes, clearly structured and designed separately for teachers and learners.

- Attractive conditions for educational institutions to enable long-term use in teaching, training and research after registration in the my.KUKA portal
- Integrated exercises, learning objective checks and repetition units
- For training inquiries and further information, please contact: contact-education@kuka.com

click for more

KUKA Education portfolio.
Application packages and features at a glance.



iiQKA Education Cell. Flexible training cell with an industrial robot for hands-on robotics training. Modularly expandable, including a PLC package for advanced automation tasks and, depending on the configuration, with a vision package.
Available in two versions:
- Cell without vision
- Cell with prepared vision integration

Education Kit AMR. Extends the KUKA Education portfolio with mobile robotics based on the KMP 250P and teaches key concepts such as navigation, transport tasks and interaction with stationary robots.

iiQKA Education Cell lite. Compact and easy-to-use entry-level cell, ideal for basic training and first exercises, optionally expandable with a vision package.
Available in two versions:
- Industrial robot
- Cobot

iiQKA Education Kit. Open base module without safety fencing for building modular training cells. It can be used as a standalone unit or integrated into other training solutions.
Available in two versions:
- Industrial robot for integration into an existing or larger training solution (without CE marking)
- Cobot including CE and UL marking

Übersicht/Features	Education Cell	Education Cell Vision	Education Cell lite	Education Cell lite Cobot	Education Kit	Education Kit Cobot
Industrial robot KR 4 R600	✔	✔	✔		✔	
Cobot LBR iisy 3 R760				✔		✔
KUKA smartpad pro	✔	✔				
KUKA smart plug			✔	✔	✔	✔
Electric gripper	✔	✔	✔		✔	
Electric MRK gripper				✔		✔
CE Marking	✔	✔	✔	✔		✔
cUL certification	✔	✔	✔	✔		✔
Vision application package (optional)	✔	✔	✔	✔		
PLC application package (optional)	✔	✔				
Roller attachment kit			✔	✔	✔	✔
Base frame					✔	✔

All listed models include: KR C5 micro controller, iiQKA.OS2 operating system, preparation for the Pro application package, spindle table, drives ready lamp (NA/UL compliant), training materials.

Pro application package. The Pro application package covers typical, practice-oriented industrial tasks.
Training content includes:
- Pick-and-place training
- Practising precise path motions (e.g. along contours)
- Pen-and-paper tasks simulating welding and bonding processes

Vision application package. The vision package provides an introduction to AI-supported image processing.
Training content includes:
- Integrated Cognex smart camera
- Optics and illumination
- Fundamentals of image analysis for detection, alignment and quality control

PLC application package. The PLC application package provides training for advanced users on integrating programmable logic controllers.
Training content includes:
- Connecting the training cell to a PLC
- Programming PLC signals to trigger typical automation sequences
- In-depth understanding of the interaction between robot program and PLC logic, including operation in automatic modes



_Robot controller

Intuition meets performance. The beating heart at the center of tomorrow's production.

Maximized performance, connectivity and flexibility – with the ground-breaking latest generation of robot controllers from KUKA that set the pulse of automated production racing: the KR C5 can be seamlessly integrated into existing infrastructures, and immediately delivers added value with more efficient performance in all areas of application.

The KUKA smartPAD teach pendant portfolio was designed to master even complex operating tasks easily. With KUKA smartPAD (KSS), KUKA smartPAD pro (iiQKA.OS2) and KUKA smartPLUG (iiQKA.OS2) you have always the best solution in your hand.

KSS



KR C5
KR C5 micro



KUKA smartPAD

iiQKA.OS2



KR C5 for iiQKA.OS2



KR C5 micro for iiQKA.OS2
KR C5 slim for iiQKA.OS2



KUKA smartPAD pro
KUKA smartPLUG

KR C5 controller.
The heartbeat of intelligent automation.

The production of the future is smart and operates on a whole new level with the KR C5. KUKA's latest platform for robot controllers enables space-saving solutions, delivers supremely efficient performance and conserves resources. It can thus also be seamlessly integrated into heterogeneous automation landscapes, enabling a wide variety of robot applications.

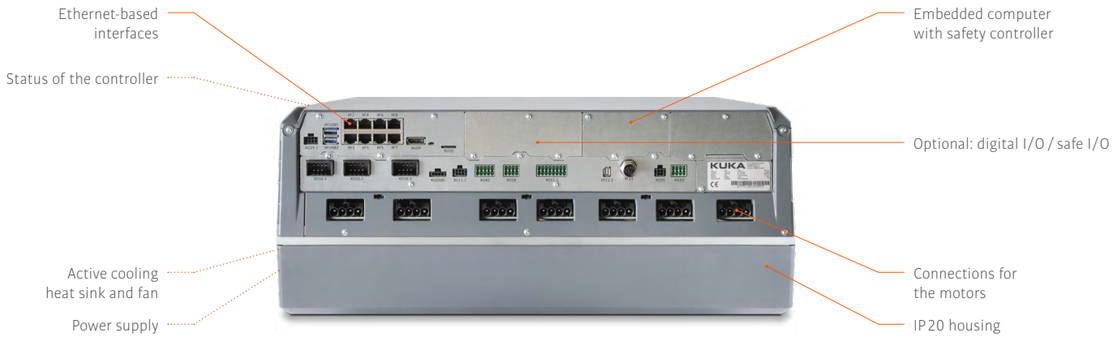
The reduced hardware and lower energy requirements offer more application options with maximum cost-effectiveness. And thanks to the interconnectivity of the open platform design, mere data is transformed into valuable information.

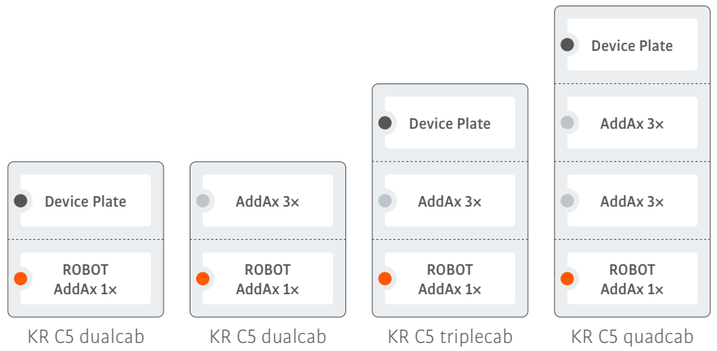
Compatibility. The current system software is functionally compatible with the KR C4 and has identical software applications and software technologies.

Low training requirements. The easy integration into control cabinets and the availability of service-proven system software enable a fast start-up.

Many control options. Diverse options and hardware expansion possibilities, e.g. various IO and communication options for a wide variety of system concepts.







The cabinets of the KR C5 are available in different sizes and can be equipped in a modular fashion.

click for more

Interfaces for input / output signals
16 input / output signals 24 V
Safe signals for cell safety
Safe signals for SafeOperation technologies
PROFInet / PROFIsafe
EthernetIP / CIP Safety
Expansion module EtherCAT Slave / FSoE
Expansion module PROFIbus Master / Slave
Expansion module DeviceNet Master / Slave
Integrated Ethernet switch

Supplied accessories
KUKA smartPAD
Plug pack

Controller options
Reserved installation space and device plate
US1 / US2 peripheral power supply
Various IO and communication options
Front panel interfaces
Various cabinet locks
Set of rollers
Cable holder
Fork slots
Exchangeable SSD mass storage medium
KUKA smartPAD cable reel
Transformer

Supported robot series
KR CYBERTECH nano
KR CYBERTECH nano ARC
KR CYBERTECH
KR CYBERTECH ARC
KR IONTEC
KR QUANTEC
KR FORTEC
KR 1000 titan
Palletizing robots

Technical data	
Operating system (robot)	KSS
Infeed	380–480 V AC 3-phase (without transformer), 380–575 V AC 3-phase (with transformer)
Axes	6 robot axes, up to 6 additional external axes
CPU ARChitecture	Intel X86 (main CPU) + ARM (for safety functions)
Internal memory	60 GB (SSD M.2)
Dimensions (H × W × D)	dualcab 720 × 720 × 600 mm triplecab 960 × 720 × 600 mm quadcab 1,210 × 720 × 600 mm Controller 207 × 392 × 500 mm
Weight	dualcab approx. 83 kg triplecab approx. 107 kg quadcab approx. 131 kg Controller approx. 22 kg
Protection rating	IP 54 (for the cabinet)
Ambient temperature during operation	0 °C to +45 °C
Safety	ISO 10218-1 Robots and robotic devices, ISO 13849-1 Cat. 3 / Performance Level d

KR C5 micro.
Small footprint with big-time performance.

Maximum performance, connectivity and flexibility in the smallest of spaces. This is the new KR C5 micro robot controller for small robots. The KR C5 controller generation from KUKA is programmed for the future. For instance, the KR C5 micro unites robot, PLC, motion and safety control in an ultra-compact housing of 16 liters.



Smaller, more flexible, smarter. Developed as an open and flexible platform with no compromises, the KR C5 micro represents the next quantum leap in robot control. Not only can the controller integrated seamlessly into existing automation landscapes, for example, but it can also easily take on KR C4 applications as a "functional twin".

The wide range of technology products enables the quick and easy implementation of robot applications. The controller meets current field bus standards for cell and line integration via software options. At the same time, the KR C5 micro is equipped with the necessary hardware resources and flexible I/O ports in order to adapt quickly to future tasks and standards.



The KR C5 micro cabinet is the complete control cabinet solution in protection class IP 54 for the operation of KUKA small robots and also offers optional space for compact additional axis drives and further peripheral functions.

click for more

Ready for digital
- Seamless integration into OT, IT and cloud environments
- Ethernet and digital I/O interfaces, supports various cloud systems

Compatibility
- Simple integration into existing infrastructures
- Seamless integration into the KUKA robot portfolio
- Easy and intuitive to operate via KUKA smartPAD (KSS)

Low TCO
- Reduced energy consumption
- Minimized complexity
- Increased reliability

Ready for use worldwide
- Meets globally relevant ISO standards
- 25 languages available, including the most widely-spoken Asian languages



Features	Supplied accessories	Supported robot series
Drive axes (6 axes)	KUKA smartPAD	KR CYBERTECH nano
Embedded computer with safety controller	External battery box	KR AGILUS
Ethernet interfaces	Plug pack	KR DELTA
Digital I/O interfaces	Mounting brackets	KR SCARA
Discrete safety signals	Power supply lead	LBR iisy
Active cooling		

Technical data	
Operating system (robot)	KSS
Infeed	200–240 V AC, 1-phase 50–60 Hz, 2-phase
Axes	6 axes / 3 × 12 A + 3 × 5 A
CPU ARChitecture	Intel X86 (main CPU) + ARM (for safety functions)
Internal memory	60 GB (SSD M.2)
Dimensions (L × W × H)	392 × 300 × 134 mm (without attachments and without bases)
Weight	9.8 kg
Protection rating	IP 20
Wide range of line integration options	Digital I/O: 16 inputs / 16 outputs (pnp or npn) EtherCAT (KUKA Extension Bus) PROFINET + PROFIsafe EthernetIP+CIP Safety EtherCAT slave + FSoE (via external gateway)
Ambient temperature during operation	0 °C to +45 °C
Safety	ISO 10218-1 Robots and robotic devices, ISO 13849-1 Cat. 3 / Performance Level d

click for more

KR C5 for iiQKA.OS2

The KR C5 for iiQKA.OS2 stands out as an innovative robot controller for all applications – with maximum reliability, versatility, efficiency and superior safety.

Versatile, powerful and future-orientated industrial robot controller. With our KR C5 robot controller based on the iiQKA.OS2 operating system, you can experience efficiency at a new level. The controller's innovative, space-saving design enables seamless integration into versatile automation environments - with maximum conservation of resources and cost-effectiveness. Perfectly tailored to the highest requirements, the KR C5 controller not only delivers impressive performance, but also meets the strict requirements of ISO 10218-1:2024. Set new standards in robotics and make your production smarter, more flexible and more sustainable.

High connectivity
- Seamless integration into OT, IT and cloud environments
- Ethernet and digital IO interfaces
- Seamless integration into existing systems
- Integration into heterogeneous production systems

Extensive flexibility
- Modular cabinet system
- Multiple devices can be stacked on top of each other
- US1/US2 power supply
- Additional peripherals and interfaces
- Customer's peripheral devices can be integrated

Low TCO
- Optimized energy consumption
- Simple hardware structure
- Intelligent design for easy operation and maintenance
- Low training costs

Future-proof
- MASCHVO-safe
- ISO 10218:2024-compliant
- IEC 62443-compliant
- Cyber Resilience (HW-side)
- SoC architecture
- Safe Boot



Compact, scalable control for KR CYBERTECH with iiQKA.OS2. The KR C5 slim for iiQKA.OS2 is the dedicated controller for KR CYBERTECH and KR CYBERTECH nano robots, offering one of the smallest IP54 cabinets with full KR C5 peripheral and interface compatibility. Optional transformer and NVIDIA-based AI modules, hardware-level cyber resilience and readiness for ISO 10218:2025 make it a future-proof, low-TCO platform for modern automation cells.

click for more

KR C5 micro for iiQKA.OS2

The robot controller combines maximum performance, connectivity and flexibility in the smallest of spaces. It integrates seamlessly into existing automation landscapes and adapts quickly to new tasks and safety standards - smart, efficient, future-proof and scalable.

Small robot controller for every application: AI-ready, compact and flexible. With the compact KR C5 micro – in combination with KUKA software and based on the iiQKA.OS2 operating system – a wide range of applications can be implemented quickly and effortlessly. The ultra-thin small robot controller supports all current fieldbus standards for seamless cell and line integration, featuring the necessary hardware resources and flexible IO ports. As a result, the controller can also handle computationally intensive, AI-based technologies such as vision applications. The KR C5 micro also meets the special safety requirements for robot systems in industrial environments, such as the strict specifications of ISO 10218-1:2024, making it the ideal solution for automating your production.

Smart & flexible
- Seamless integration into OT, IT and cloud environments
- Ethernet- und digitale IO-Schnittstellen
- 16 digital IN/OUT IOs integrated in each case
- AI-capable with optional Nvidia extension

Compact & efficient
- Ultra-thin: 449×300×89 mm (25% smaller volume than previous model)
- Network interfaces: KSI/KONI/KLI/KEI
- All interfaces on one side for better access
- Reduced energy consumption

Future-proof & secure
- MASCHVO-safe
- ISO 10218:2024-compliant
- IEC 62443-compliant
- Cyber Resilience (HW-side)
- SoC architecture
- Safe Boot

Extendable & scalable
- Up to three devices can be stacked on top of each other
- Physical IO interfaces [12 IN/8 OUT]
- Optional fieldbus hardware
- One to two additional axes with external additional drive board (EADB), 2-channel hardware (up to 12 A), software-activated
- OPSU: Optional 24V power supply



KUKA smartPAD.
A firm grip on all tasks.

Simple programming of KSS systems with the KUKA smartPAD. Whether you're a novice or programming expert, the KUKA smartPAD will help you achieve your goal quickly. It offers the suitable programming options for every requirement. This single control panel enables you to perform the most varied of tasks.

Incredibly efficient: programming with inline forms. KSS-based KUKA robot controllers offer inline forms for fast, error-free programming of tasks and motion steps. They can be called via menus and are available as standard. This even simplifies the programming of RoboTeams, with up to six synchronized robots.

Customer-defined program modules. KUKA integrators can expand the library of available KUKA inline forms according to customer requirements. This leads to the creation of special applications which can easily be programmed for recurring tasks. A competitive advantage for system integrators: specially developed inline forms allow for unique solutions, optimally tailored to the requirements of the companies which use them.



KUKA smartPAD cable reel – simple, flexible, safe. With the KUKA smartPAD cable reel, KUKA offers a functional retraction system for the KUKA smartPAD connecting cable. The system convinces through its easy handling and installation while also ensuring a safe work environment.



Universally deployable in the KUKA world. All KUKA robots running on KSS and Sunrise.OS can be operated in the desired language with the KUKA smartPAD.

Comfortable handling. Straps and handgrips that can be used with both hands greatly ease operator control. An optional shoulder strap enables the operator to work without tiring – particularly during time-intensive projects.

Simple robot jogging with ergonomic 6D mouse. The 6D mouse offers intuitive jogging and reorientation of the robot in three or six degrees of freedom.

Eight jog keys. Up to eight axes or external axes can be controlled directly using separate jog keys on the KUKA smartPAD with no switching required.

Integrated protectors. Integrated protectors offer the greatest possible protection in the event of dropping. The scratch-resistant display and IP54 protection rating enable operation in harsh industrial environments.

Simple data transmission. Two easily accessible USB ports enable direct saving and loading of application programs and connection of other supported USB devices.

Efficient operator control. Inputs are made quickly and easily via a brilliant, capacitive touch display with an 8.4" screen and high luminosity.

Maintenance-friendly design. A service flap enables simple exchange of the cable as required.

click for more



Integrated protectors. This provides the KUKA smartPAD with maximum protection in the event of dropping. The scratch-resistant display and IP54 protection rating enable operation in harsh industrial environments.



Comfortable, relaxed handling. The KUKA smartPAD features impressively pleasant handling. Straps and handgrips that can be used with both hands greatly ease operator control. An optional shoulder strap enables the operator to work without tiring – particularly during time-intensive projects.



State-of-the-art hardware. Thanks to the latest hardware, the KUKA smartPAD will impress you with its strong performance. Two easily accessible USB ports enable direct saving and loading of application programs and connection of other supported USB devices.



Simple robot jogging with the ergonomic 6D mouse. It offers intuitive jogging and reorientation of the robot in three or six degrees of freedom.



Efficient operator control with brilliant, capacitive touch display. Input can be made quickly and easily via the 8.4" screen.



Elements for ergonomic left- and right-handed operation. The user-friendliness of the KUKA smartPAD is topped off with a service flap for easy cable exchange.

KUKA smartPAD	
Dimensions (L × W × H)	292 × 247 × 63 mm
Weight	1,100 g
Display	Scratch-resistant industrial touch display
Display dimensions	8.4"
Operating system (robot)	KSS

KUKA smartPAD pro. Maximum performance, best usability and proven KUKA reliability.

The KUKA smartPAD pro was designed to master even complex control processes easily. It can be used universally and is intuitive and easy to use, even for inexperienced users.

Smart robot operation in harsh industrial environments. Our KUKA smartPAD pro sets your robot in motion and opens up almost unlimited application options. With its intuitive operator control, it allows even complex tasks to be solved quickly and precisely – without programming knowledge. It also guarantees safe control in demanding environments. The application options are clearly displayed on the display of the KUKA smartPAD pro, so that you can get started directly as an operator.



Robust
- Protection class IP 54
- Fall-proof from a height of up to 1.5 meters
- Optimized for industrial applications

Versatile
- One of the largest display dimensions in market
- User-defined hard keys or soft keys
- Frontside USB-C interface for backup/restore

Flexible
- Cable connection at the KUKA smartPAD pro allow flexible cable length from 5 up to 50 m and easy cable exchange
- Can be operated with a finger, glove or a capacitive stylus
- Multiple Hand postures possible
- Language selection possible

Ergonomic
- Fatigue-free use, even when in use for long periods
- Intuitive user interface
- Two-handed operation possible with straps
- Lightweight

	KUKA smartPAD pro
Dimensions (L × W × H)	320 × 220 × 125 mm
Weight	1.4 kg
Protection class	IP 54
Interfaces	1 × USB-C
Display	Capacitive, operation with finger, pen, gloves
Display dimensions	10.1", 1280 × 800 px
Operating system (robot)	iiQKA.OS2
Ambient temperature operation	from -5°C to 45°C
Extras	Illuminated emergency stop
Optional	Ergonomic 6D mouse

KUKA smartPLUG. Your device empowered for endless possibilities.

The KUKA smartPLUG concentrates all safety-relevant functions in a compact device, forming the secure core of the iiQKA.OS2 operating concept. It allows robots to be operated with modern, familiar user interfaces while keeping safety and standards compliance under full control.

KUKA smartPLUG unlocks new possibilities in robot operation by enabling powerful “bring your own device” scenarios – making it one of the most versatile and compatible solutions on the market. Laptops and tablets running Windows, macOS, Android or iOS connect seamlessly via USB-C, giving direct access to robot control, software tools, tutorials and online resources from a single device. Its award-winning, slim design with intuitive plug-and-play setup and an ergonomic, ambidextrous form factor ensures effortless use in any situation. KUKA smartPLUG delivers proven KUKA quality at a fair price and is the ideal entry point into modern robot pendant solutions.



KUKA quality at fair price
- Protection class IP 54
- Fall-proof from a height of up to 1.5 meters
- Voltage supply for tablet

New usage scenarios
- Access to all needed software and internet in one device
- Access to contents in KUKA Xpert, video tutorials, etc. on the same device as operating the robot

Flexible
- Most compatible use your own device solution in the market
- Compatible devices: Laptops: Windows, Mac OS, Tablets: Android, IOS, Windows

Ergonomic
- Plug & Play behavior
- Award winning lean design
- Suitable for right- and left-handed users
- Easy online or offline installation

Flexible operating concept for modern robotics. With smartPLUG, KUKA introduces a new operating concept that bundles all safety-relevant functions and thus provides the basis for meeting the latest standard requirements. Via USB-C, any end device such as a tablet or laptop can be connected and used as a full-fledged teach pendant – including the familiar iiQKA.OS2 user interface. Thanks to internet access, camera and remote functions, video calls, online support and remote access are possible directly at the cell. Many integrators use the smartPAD pro during commissioning and then hand over a lean setup to the customer, where only the compact smartPLUG remains permanently on site.

	KUKA smartPLUG
Dimensions (L × W × H)	180 × 72 × 45 mm
Weight	0.3 kg
Protection class	IP 54
Interfaces	1 × USB-C
Display	own tablet or laptop display
Compatible host systems (app)	Windows, macOS, Android, iOS
Operating system (robot)	iiQKA.OS2
Ambient temperature operation	from -5°C to 45°C
Extras	plug & play when connected to your own tablet or laptop



_Robot controller

KUKA.Handguiding with ready2_pilot.
Guide your production to success.

click for more

Teaching instead of programming. Robot handling is easier than ever. As the world's first control package of its type, KUKA.ready2_pilot makes robot control mere child's play. The package is quickly mounted on the robot and can be used immediately, without complex programming. Manual guidance of the robot is all that is required to teach it the desired sequences. From precise welding to rough palletization, and from small robots such as the KUKA KR AGILUS to heavy-duty giants such as the KUKA KR 1000 titan, KUKA.ready2_pilot enables you to easily master a wide range of different requirements.

Intuitive, reorienting 6D mouse. Operation of KUKA.ready2_pilot is child's play and is carried out using an intuitive 6D mouse with no training required. Fastened with adapter plates, this mouse can be used from different positions, always within the user's reach.

Freedom of motion to the right degree. Move the robot exclusively on the desired paths by simply deactivating directions that are not required. This prevents unintentional slipping during motion and saves time-consuming corrections.

Connectivity and flexibility. The wireless concept of KUKA.ready2_pilot is compatible with all standard KUKA robots and offers maximum freedom for operator control.

Adaptable navigation buttons. Two buttons on the side of the 6D mouse enable quick access to freely selectable functions. From opening and closing a gripper to adjusting process parameters or saving motions in the robot program – a simple click suffices and saves precious time.



Open, flexible, powerful and intuitive. KUKA operating systems for the reliable implementation of your application.

The linchpins of the entire control system for KUKA industrial robots are the operating systems iiQKA.OS2, KUKA.SystemSoftware, and KUKA Sunrise.OS.

iiQKA.OS2
Compatible software uses the iiQKA. prefix

KSS
Compatible software uses the KUKA. prefix

KUKA Sunrise.OS



_System software iiQKA.OS2

One central system. Control automation consistently and commission virtually.

The central OS for KUKA robotics: operate, program, and expand within a consistent toolset. With the Virtual Robot Controller, you can run simulation, offline programming, and virtual commissioning – for faster ramp-ups and reduced costs. Linux-based, cyber-resilient, and prepared for ISO 10218:2025 and the Machinery Regulation.

Application software Simulation software System expansions

click for more

iiQKA.OS2. One central OS for all robotics requirements.

Control all your KUKA robots with a single, flexible, customizable, and scalable operating system for an outstanding user experience. iiQKA.OS2, as a virtual robot controller (VRC), offers comprehensive engineering and innovative features that enable efficient virtual startup and optimized processes. Developed for maximum performance, it is both standard-compliant and cyber-resilient.

iiQKA.OS2 meets all automation requirements as an operating system. By combining decades of development experience from KUKA System software (KSS) with state-of-the-art tech stacks and the latest web technologies, it offers completely new options – not only in terms of functionality, but also in terms of user experience and workflows. With iiQKA.OS2, you can control all KUKA robot kinematics – from Delta and Scara robots to 6-axis robots of all payloads. AI-capable, ready for ISO 10218:2025 and new machinery regulations – iiQKA.OS2 makes your production future-proof.

The heart of digital manufacturing: Operating system as virtual robot controller. As a virtual robot controller (VRC), the iiQKA.OS2 operating system is the main element of digital manufacturing. It enables the simulation, offline programming and control of robots in a virtual environment before physical systems are used.

You can rely on virtual start-up for more efficient processes

- Reducing costs through early error detection.
- Using resources efficiently.
- Adhering to schedules.
- Minimizing risks through tests and simulations in a secure, virtual environment.
- Simulation of multiple robots and their peripherals with the advanced iiQWorks engineering suite.
- Making changes and adjustments quickly and easily without physical hardware.
- Putting systems more quickly into operation.

Expandable: An operating system that grows with your goals. Whether you are a small, medium-sized or OEM company – with iiQKA.OS2, we offer the right solution. Our portfolio includes a wide range of software and modular extensions that can be installed to adapt the robot system to your requirements.



Easier to use

- Virtual start-up: Preparation in advance before the robot arrives
- Web-based user interface with statement-based programming
- Advanced KRL with many programming options
- Modern engineering with iiQWorks
- Intuitive setup and operator control
- Easy operator control with clear functions

Safe & strategic

- LINUX-based system
- Ready for ISO 10218:2025
- Cyber-resilient and IEC 62443 certified
- Compliant with the machinery regulations (MACH REG)
- Functional safety based on the KUKA ARGUS safety solution

Holistic solution

- ONE operating system for KUKA's entire portfolio
- Standardized toolset for all KUKA products
- All primary application cases and functions for robot applications are covered
- Accompanied by a KUKA ecosystem that offers further solutions

Planned expandability

- Customer-specific customizing and planned expandability
- Definition & rollout of customer standards
- Consolidated workflow for extensions
- User-optimized toolkit
- Prepared for the development of a KUKA ecosystem

Competitive

- Virtual start-up
- Cost and time savings
- State-of-the-art engineering
- Current technology standard
- Availability of KUKA ecosystem partners
- Support for common fieldbus systems
- Expandable system
- Supportive and user-friendly



_Application software for iiQKA.OS2

Supremely equipped for all tasks. Application software for successful robotic automation.

The software options are tailored to the most common robot applications – each application is easy to program, ensuring high process reliability. The optional features can be installed on the controller easily and quickly and can also be tailored to the specific production environments.

iiQKA.ArcTech
iiQKA.SeamTech
iiQKA.TouchSense
iiQKA.TCP-Check
iiQKA.LaserTech

iiQKA.ForceTorqueControl
iiQKA.StateControl Family
iiQKA.ServoGun
iiQKA.ConveyorTech
iiQKA.AI Vision

iiQKA.ArcTech. For automated arc welding with easy programming and fast operation.

The iiQKA.ArcTech family adds intuitive commands, structured menus and practical status keys to a KUKA robot system for robotic ARC welding.

With our application packages for ARC welding, KUKA offers a wide range of functions enabling easy operation of ARC welding processes as well as efficient and fast programming. Preconfigured libraries ensure high compatibility with all power sources commonly available on the market and enable uncomplicated integration into the production facility.

Areas of application: additive manufacturing, 3D printing, ARC welding, other welding



Easy start-up and programming for fast start-up time
- Simple and fast configuration based on predefined weld power sources
- Fast programming with statements – accessible via the "EasyTeach" row of keys

Flexibility and a wide range of applications
- Large number of predefined weld power sources as well as the possibility of integrating any weld power source via customized configuration
- Various weave patterns enable easy and flexible implementation of a wide range of different welding tasks
- Individual enabling of additional functions opens up the possibility of perfect adaptation of the parameters to the required process

Assures performance and welding quality
- Optimization of the welding process while an application is running via online modification of the weld parameters
- User-defined "weld parameter sets" – defined in advance by welding experts – prevent operator errors by limiting the permissible range of values during programming and operation
- Display of important weld parameters from the power source on the KUKA smartPAD – no need to look at the welding source or go into the cell to monitor all system parameters
- Easy fault diagnosis through continuous logging of process data with the 'ArcTech Technology LogBook' in iiQWorks.Sim
- Avoidance of quality problems through continuous monitoring of the correct weld-seam length
- Predefined strategies for responding to typical welding errors

iiQKA.SeamTech. For operating line laser sensors for seam detection and tracking purposes.

The iiQKA.SeamTech Tracking and iiQKA.SeamTech Finding application software can be optionally added to the KR C5-2 robot controller. With the aid of an intelligent triangulation sensor, the robot can use iiQKA.SeamTech Finding to detect components and seams prior to welding and use iiQKA.SeamTech Tracking to track edges and seams during the welding process.

Areas of application: additive manufacturing, 3D printing, ARC welding, adhesive bonding, sealing, laser welding and cutting, measuring and inspection

Smooth communication between sensor and controller. iiQKA.SeamTech Finding and Tracking are options for controlling and programming intelligent triangulation sensors via Ethernet – SeamTech Tracking even makes use of a powerful real-time protocol.

Programming made easy with KUKA programming aids. The application programming of robot sensor commands is carried out with intuitive statements that can be programmed quickly. Status keys which enable robot and sensor functions to be operated quickly also support this process.

Flexibly combinable technology packages. iiQKA.SeamTech Finding and Tracking are independent technology packages that can be combined with other options, for example with ArcTech Basic, ArcTech Advanced, LaserTech or GlueTech.

iiQKA.TouchSense. Deviations in shape or position of workpieces are reliably detected and compensated.

iiQKA.TouchSense is an option package that determines and compensates for deviations in the shape or position of weld seam preparations and workpieces by means of comparative measurements prior to welding. The application software is normally used for ARC welding tasks.

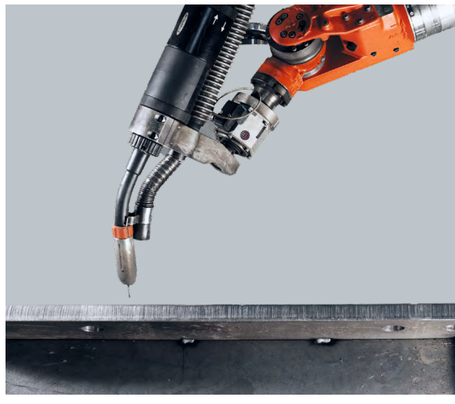
The component position can be determined by tactile or non-contact methods. Any deviations that occur can be compensated in up to six dimensions. Combining this with fast measurement input enables a higher search velocity and more precise measurement results.

Highly precise measurement results. Very precise position data can be determined using fast measurement input.

Custom-tailored correction calculation. Fast and custom-tailored application programming through preconfigured correction commands.

Programming made easy with KUKA programming aids. The application programming of robot sensor commands is carried out with intuitive statements that can be programmed quickly. Status keys which enable speedy operator control during start-up and maintenance also support this process.

Areas of application: ARC welding, other welding



_Arc Welding series

iiQKA.TCP-Check. Robots automatically monitor and update the TCP in production operation.

iiQKA.TCP-Check is a highly precise software- and hardware-based TCP (Tool Center Point) calibration and checking system. iiQKA.TCP-Check is normally used for spot welding, ARC welding and adhesive application tasks.

The option package determines the actual TCP values (X, Y, Z) and thus ensures correct positioning on the workpiece. This safeguards productivity and process reliability, which can be impaired by welding torch deformation or the production-related tolerances of wearing parts, among other things. iiQKA.TCP-Check requires a fork-type photo-electric barrier and a connecting cable.

Areas of application: additive manufacturing, 3D printing, palletizing, painting, ARC welding, adhesive bonding, sealing, other welding

Highly precise measurement results. Very precise TCP position data is determined via the unique measuring algorithm.

Full system integration. The measuring system includes a comprehensive interface to the higher-level controller.

Transparent measurement results. The measurement results are saved and depicted graphically over time.

_Laser series

iiQKA.LaserTech. Easy to program and quick to implement laser welding and laser cutting.

iiQKA.LaserTech is an add-on option package for configuring and programming laser applications – for example, for laser cutting or laser welding.

iiQKA.LaserTech enables the integration of laser controllers and other devices of the application periphery, e.g. gas valves, consumables (welding wire, welding powder) and optics, into the robot controller.

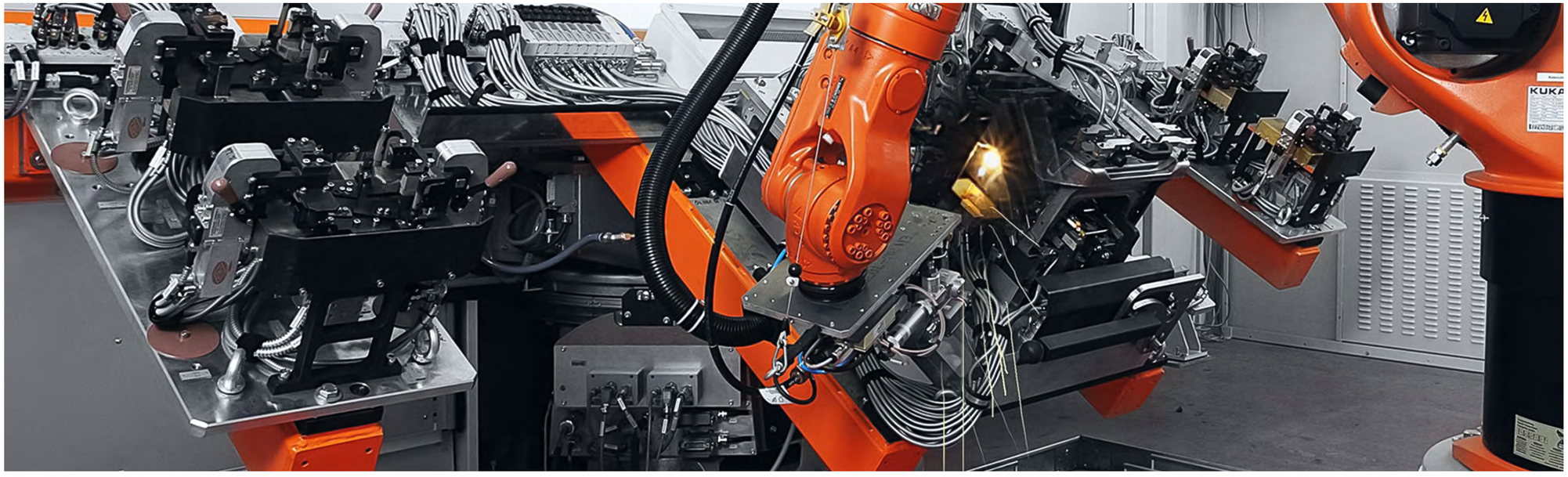
Areas of application: additive manufacturing, 3D printing, cutting, deburring, laser welding and laser cutting

Flexibility
- One software package for various laser applications, for example, welding, cutting, brazing or soldering
- Close cooperation with partners to integrate processing optics
- Interfacing of laser equipment possible, using various field buses
- Combinable with other KUKA software packages such as iiQKA.SeamTech for straightforward integration of sensor systems, seam tracking and component detection

Quality
- Control of the laser power proportional to the velocity
- Support for extremely precise motion sequences
- Time and distance-based slopes for laser power

User-friendly design
- Quick and simple programming of process commands using intuitive statements
- All process-relevant parameters (laser, wire, gas, etc.) can be controlled via the robot
- Quick access to important functions using icon status keys

Productivity
- Access to the laser can be switched between several robots very quickly in order to optimize utilization of the laser source
- Numerous functions to facilitate programming – for example, the step seam function, ready-made geometries and wire cutting function



_Vision & Sensors series

iiQKA.ForceTorqueControl.
Allows the use of a force/torque sensor.

The iiQKA.ForceTorqueControl option package allows the use of a force/torque sensor on the robot for implementing special applications in which the robot has to apply defined forces and torques or modify its behavior on the basis of the forces and torques that occur.

Areas of application: assembly, deburring, machining and polishing, riveting, clinching, fastening, grinding, polishing, screw-driving

Integration
- Intuitive programming interface for creating force-controlled tasks: iiQKA.ForceTorqueControl wizard and statements
- Graphic representation of the process: forces, torques, detected paths and angles via FTCtrl – RSI monitoring function
- Sensor connection possible via any supported fieldbus system

Performance
- Best control performance in its class: iiQKA.ForceTorqueControl processes within 4 milliseconds
- Distinction between gravity and applied forces and torques: integrated gravitational force compensation
- Implementation of assembly in motion tasks: combinable with iiQKA.ConveyorTech

Flexibility
- Expert programming for the implementation of sophisticated applications: FTCtrl jobs customizable and expandable through RSI Visual



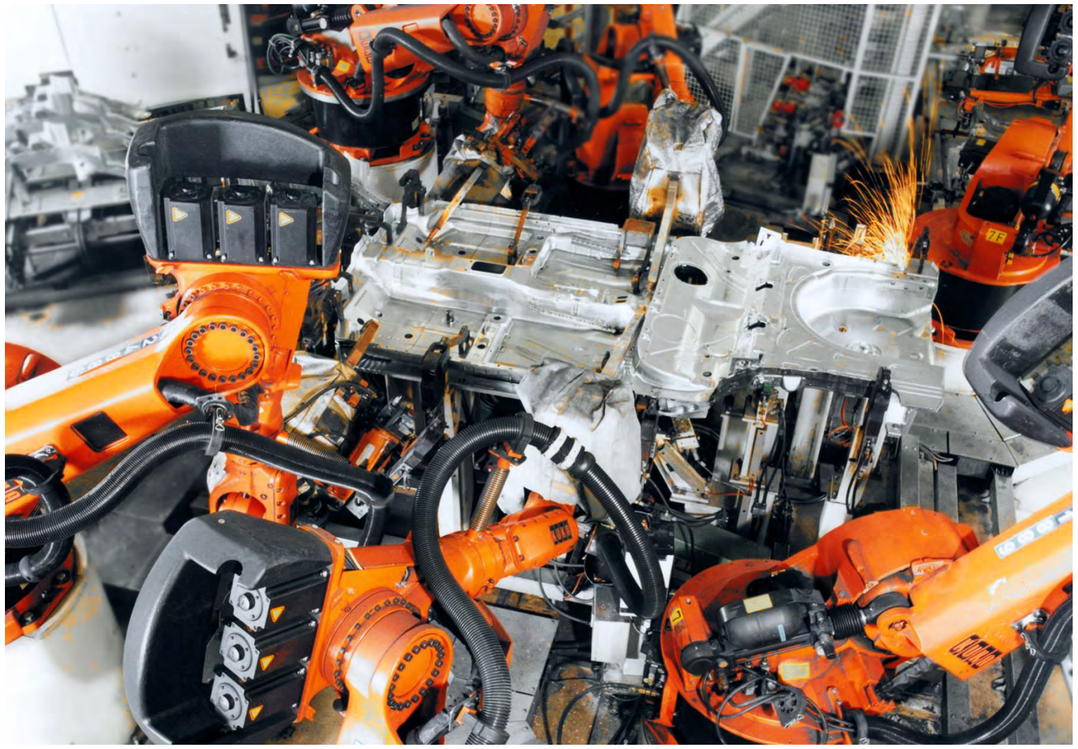
_Handling series

iiQKA.StateControl Family.
Tool and gripper management made easy.

With iiQKA.GripperControl and iiQKA.StateControl, tool and gripper management in robotics becomes simple, efficient, and transparent. Benefit from clear device states, flexible error strategies, and fast, intuitive configuration. While iiQKA.GripperControl is designed to be used for simple mechanical and pneumatical grippers with only few signals, therefore providing a lean user interface, iiQKA.StateControl provides a much bigger toolbox to handle more complex devices, and provides and provides reasonably more configuration options.

Areas of application: handling, control of I/O-based devices (clamping fixtures, pneumatic spot weld guns, etc.)

Advantages
- 32 freely configurable devices with up to 16 signals each
- 32 switching states per device (GripperControl: max. 3 states)
- Predefined programming statements for selecting and querying switching states
- StateControl: integrated load data switching for gripper applications



click for more

iiQKA.ServoGun. Spotlight on resistance spot welding.

The iiQKA.ServoGun product family offers advanced technology packages designed for resistance spot welding applications utilizing servo-driven spot weld guns. Regardless of the specific joining requirements, iiQKA.ServoGun provides reliable solutions to meet your needs.

Areas of application:
resistance spot welding

iiQKA.ServoGun Basic

As the head of the iiQKA.ServoGun product family, ServoGun Basic offers precise position-based process force control and all essential features for fast, accurate spot welding setup.

Precise force control. Featuring a patented position-based process force control mechanism, ServoGun Basic delivers consistently high process force accuracy of 3–7 % while minimizing calibration frequency, lowering TCO significantly.

Easy configuration. Quickly set up your system with iiQWorks.Sim using ready-made configuration elements for weld timers and servo gun motors, then start offline programming and simulation immediately.

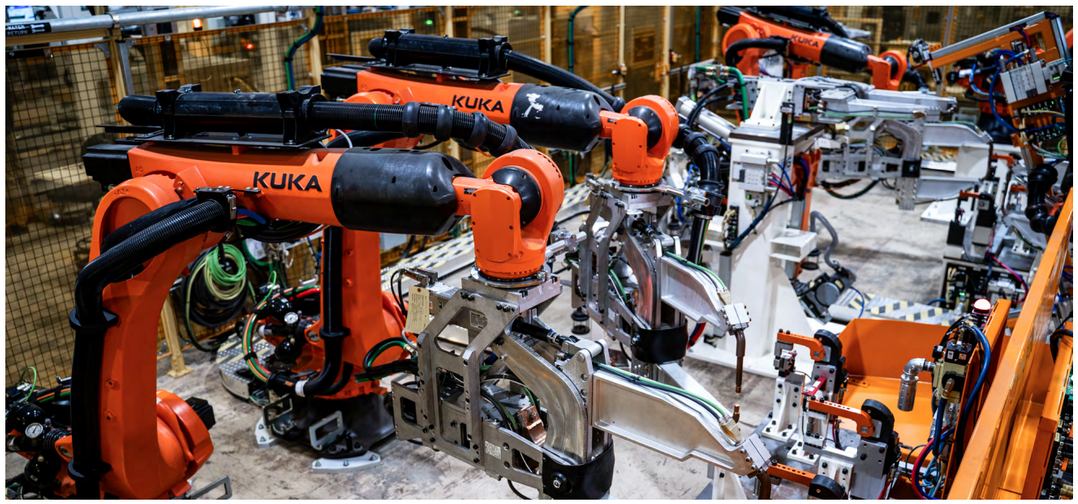
Accurate Compensation. ServoGun Basic offers comprehensive functionality to address process-force induced gun deflection, ensuring precise weld gun positioning for consistently high-quality spot welds.

iiQKA.ServoGun Advanced

ServoGun Advanced provides sensor-based force control for precise, continuous force monitoring during spot welding. It supports motor-integrated or gun-integrated sensors and provides 1–3 % force accuracy. Besides the advanced force regulation mechanism, ServoGun Advanced provides an identical feature set like ServoGun Basic.

With its ability to respond to process force deviations with near real-time speed, it is ideally suited for demanding joining applications, including aluminum spot welding and nut welding.

ServoGun Advanced can be used in combination with iiQKA.ServoGun EqualizingTech and iiQKA.ServoGun RoboSpin.



iiQKA.ServoGun ExternalControl

ServoGun Basic and ServoGun Advanced use servo weld guns that operate as extra robot axes. In contrast, ServoGun ExternalControl offers an interface to BOSCH Rexroth welding cabinets, which feature an integrated servo drive for the weld gun.

While this system excels in process control and quality, weld gun compensation and part equalizing are challenging. ServoGun ExternalControl addresses these issues and enables the use iiQKA.ServoGun EqualizingTech and iiQKA.ServoGun RoboSpin.

iiQKA.ServoGun EqualizingTech

EqualizingTech is an optional package available for ServoGun Basic, Advanced and ExternalControl. It allows the robot to compensate for misalignment of work pieces by automatically adjusting the joining position.

There is no need for pneumatic equalization with EqualizingTech, reducing both mechanical and pneumatic components. This cuts initial investment and lowers maintenance costs throughout the system's lifecycle.

iiQKA.ServoGun RoboSpin

RoboSpin is an optional package designed for ServoGun Basic, Advanced and ExternalControl. It facilitates rotational movement around the TCP during the welding process, ensuring minimal contact resistance between weld electrodes and the workpiece. This enhancement results in improved weld quality and fewer required tip dressing cycles, leading to decreased tip wear.

Clamping Force Sensor CFS10

CFS10 is a highly recommended hardware option for ServoGun Basic and ServoGun Advanced*, delivering optimal force calibration accuracy in much less time than traditional clamping force gauges.

Where conventional calibration methods involve significant manual work and are prone to errors, CFS10 provides an automatic calibration process with direct feedback to the robot controller – making calibration repeatable, reliable, and fast.

* Since ServoGun ExternalControl does not operate in conjunction with a robot axis for weld gun control, the use of CFS10 is not applicable in this context.



iiQKA.ConveyorTech. Organizes the coordination of robot actions and conveyor motions.

The iiQKA.ConveyorTech option package is designed as a solution for applications that require synchronization between the robot motion and the motion of workpieces through a conveyor system. Through synchronization, the robot can process, grip or set workpieces down on the conveyor system. The position of the workpiece on the conveyor system and the motion of the conveyor system must be clearly known for this purpose. Conveyors of various designs or mobile platforms can be used as conveyor systems.

Areas of application: handling, material transport



Shorter cycle times. The robot uses the IiQKA.ConveyorTech software in the background to synchronize with the conveyor motion. This means that it is not necessary to stop the conveyor during the production process.

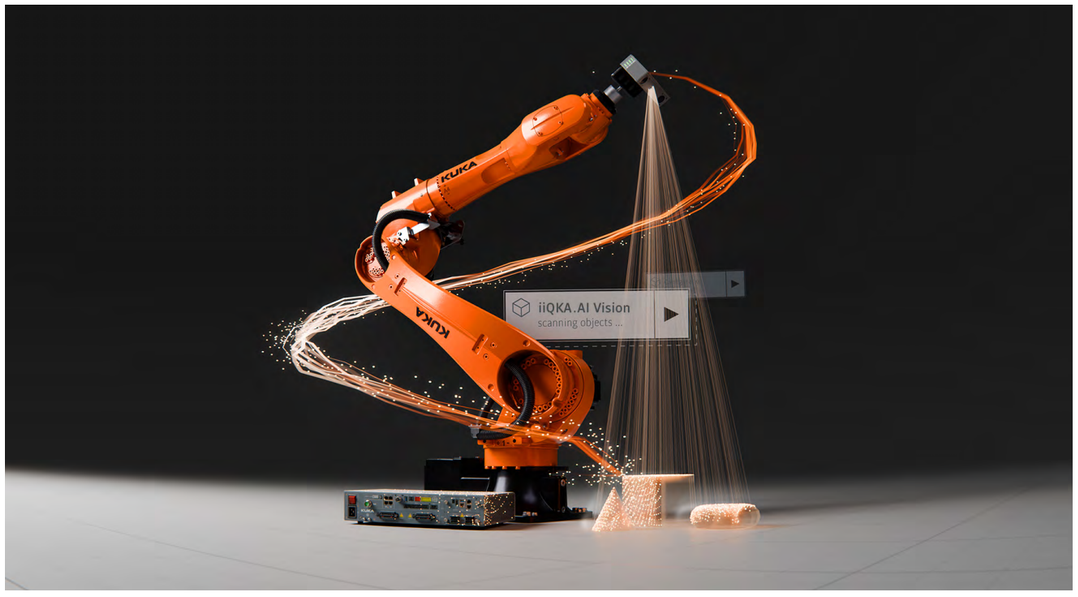
Synchronization "on the fly". When changing from a non-synchronized to a synchronized program section, the software independently calculates the motion to be synchronized with the conveyor. As the conveyor runs continuously, the entire production process is thus more flexible. Robot and conveyor can be stopped synchronously in case of a stop request (e.g. Emergency Stop).

Greater flexibility. The IiQKA.ConveyorTech technology package will impress you with its high precision which means that it can also be used flexibly in assembly processes. External axes (linear units) can be coupled to the conveyor progress (EO driver), with the result that the robot can work longer parallel to the conveyor.

iiQKA.AI Vision. Industrial image processing for robots.

iiQKA.AI Vision. Integrated 2D and 3D vision software embedded in the robot controller enables faster deployment of vision-guided applications. No-code engineering in iiQWorks simplifies bin picking, depalletizing, positioning and guiding while reducing integration effort.

Areas of application: 3D bin picking of unordered parts, 2D and 3D machine loading and unloading, 3D depalletizing, 2D/3D conveyor tracking, 2D and 3D positioning and guiding of components, quality inspection and presence/position checks.

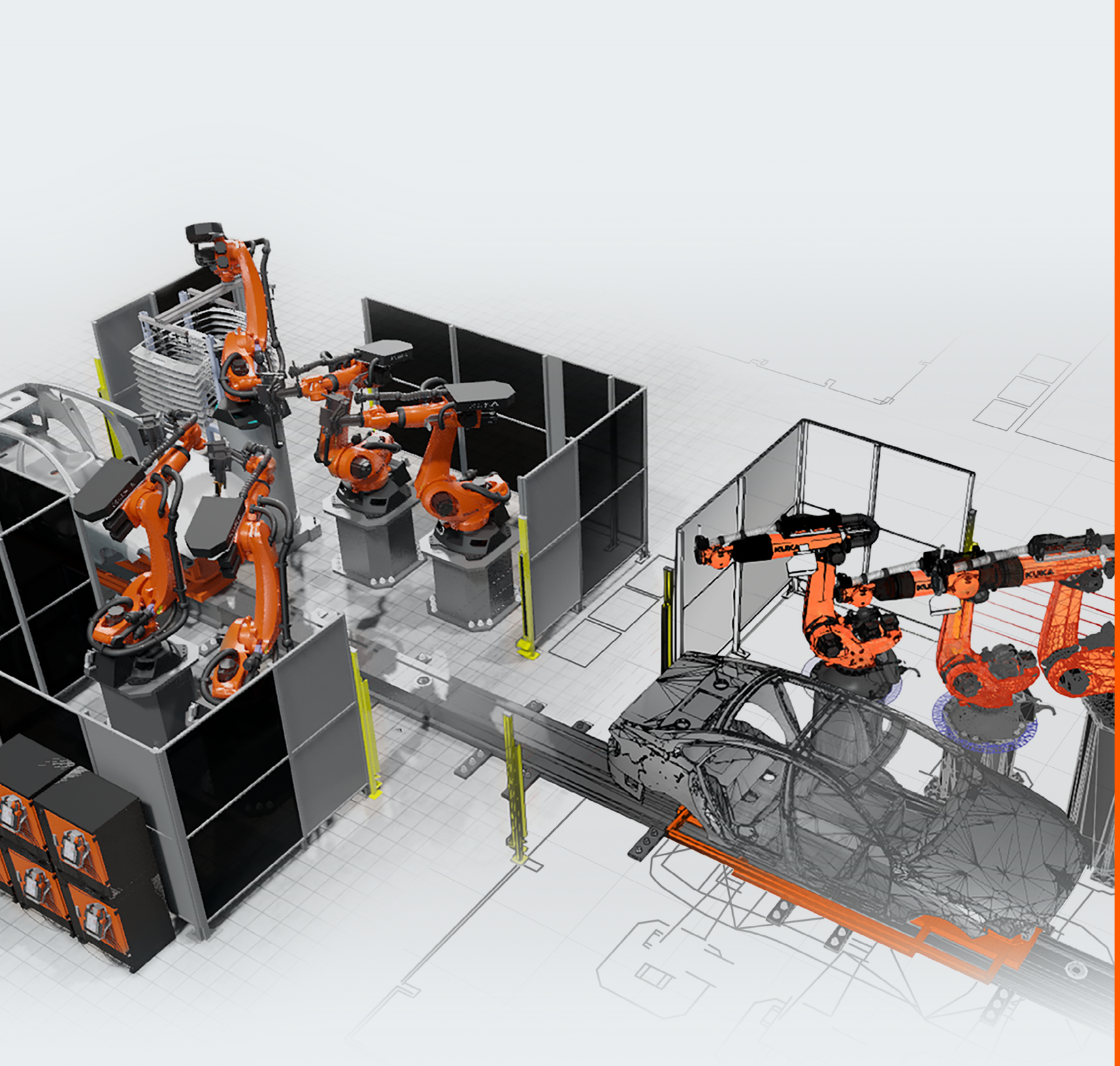


Fast path to a productive vision application. Visual configuration via drag-and-drop in iiQWorks, templates for typical tasks and guided workflows from setup to commissioning.

Lower costs and reduced complexity. No external IPC hardware required, fewer interfaces and system components, less integration and maintenance effort.

Robust image processing. Precise 2D and 3D object detection, automatic pose estimation and gripping-point calculation, reliable even with varying parts and lighting conditions.

End-to-end system from engineering to operation. Seamless integration into iiQWorks and robot control, consistent workflow from configuration to deployment and central monitoring via web UI.



_Simulation software for iiQKA.OS2

Planning reliability and time savings. Realistic simulation for rapid integration.

Our program modules will support you in planning your new systems or optimizing existing ones. They enable you to plan and calculate future production processes with a high degree of reliability.

iiQWorks.Sim
iiQWorks.Copilot

iiQWorks.Sim



With the simulation software iiQWorks.Sim, you can program KUKA robots running iiQKA.OS2 efficiently offline, without any production interruptions. iiQWorks.Sim offers fast optimization and full control, from the configuration to simulation to virtual commissioning.

User in Focus: Optimized Robot Simulation thanks to Digital Twin

Simulation software enables precise modeling and optimization of relevant processes in robot simulation. With iiQWorks.Sim, you can create a complete Digital Twin of your KUKA robot system. This allows you to simulate exact results for your robot project in advance. The Digital Twin helps you plan new robot cells, expand and optimize existing ones, and test your project for practical feasibility.

Virtual reality for real success: More efficient projects with simulation software

iiQWorks.Sim is the ultimate simulation software for anyone working with KUKA robots – from programmers and (virtual) commissioning engineers to technical sales engineers and project managers. With features such as fieldbus configuration, I/O mapping, TechPackages, and SafeOperations, iiQWorks.Sim provides everything you need. Peripheral components like conveyor belts can be integrated into the 3D scene, including signals such as light barriers. In combination with the iiQKA.OS2 operating system, iiQWorks.Sim enables faster and more efficient commissioning, making your production significantly more competitive.

click for more

The advantages of the simulation software

Plan your setup
Quickly, easily, and individually plan your system and robot concepts – without the need for physical construction.

Present with impact
iiQWorks.Sim supports your sales team in professionally presenting your solutions to end customers, enhancing your sales success.

Offline programming
Design system concepts in advance with highly accurate cycle times for increased planning reliability and competitiveness.

Simulate the system
With reachability analysis and collision detection, you ensure that your robot programs and cell layouts are feasible.

Modular Software: flexible, scalable, and tailored to your needs

With iiQWorks.Sim, you benefit from a flexible and long-lasting modular approach: In terms of a modular software architecture, the free tool iiQWorks.Sim Basic can be expanded with iiQWorks.Sim Advanced through add-ons. This allows you to customize the robot simulation software to meet your specific needs.

iiQWorks.Sim Basic. iiQWorks.Sim Basic is free: Start directly with configuring your KUKA robot, take advantage of the many features of the basic version of the simulation software, and make your robotic cell and its program more efficient! With the basic package, you can already create a complete configuration of your iiQKA.OS2 robot, including the I/O configuration, tool and base management, offline programming, integration of all supported TechPackages and SafeOperation. Then directly deploy it to a real robot controller or make a virtual presentation.

iiQWorks.Sim Advanced. The advanced package offers a full simulation for multiple KUKA robots including material flow of your manufacturing. In addition to that the full Roundload capability between the real Robot Controller, the Robot Controller Simulation and the Virtual Robot Controller supports you during virtual commissioning. You have access to various add-ons that allow you to scale the software flexibly and tailor it to the specific needs of your production. The add-ons are available separately, so you only pay for what you truly need. And if your requirements change in the future, you can easily add more add-ons.

iiQWorks.Sim Modeling. Refine and simplify imported data or model kinematics with the Modeling add-on of iiQWorks.Sim Advanced. Customize your own CAD data and store it in the iiQWorks library. Create new sensors, conveyors or cables and enhance them with physics behaviors or python scripts. Reduce file sizes and improve performance with automatic geometry simplification and the automatic creation of simple 3D models.

iiQWorks.Sim Connectivity. With the iiQWorks.Sim Connectivity add-on, you can establish various connections to other systems, such as a PLC. The connection can be made via protocols like OPC-UA, for example. You can also enable your system to communicate with other software, such as behavior simulations. These simulations can represent the behavior of components (like a sensor) and transmit the information to iiQWorks.Sim using the defined format.

iiQWorks.Copilot

With iiQWorks.Copilot, you can create and control robot simulations using natural language directly in iiQWorks.Sim. It enables fast layout generation and simulation setup, from concept to execution in just minutes.

The fully integrated AI assistant facilitates workflows, allowing you to add, modify, and optimize simulation elements efficiently. Engineers can validate and refine results interactively before deployment, ensuring full control in the virtual environment iiQWorks.Sim. This reduces complexity, saves engineering time, and increases productivity across simulation projects.

User in focus: Plan robot cells by talking to your simulation
iiQWorks.Copilot is designed to support the way engineers actually think about their projects. Whether it is an open question such as “What components are needed for a machine tending application?” or a precise instruction like “Place a KR 240 R2900-2 robot here and add a conveyor in front of it”, Copilot interprets the request and applies it directly in iiQWorks.Sim. Components are positioned, properties are set and workflows are prepared so that users can concentrate on validating concepts instead of configuring details.

From concept to virtual cell in minutes
Because iiQWorks.Copilot is fully integrated into iiQWorks.Sim and runs on the engineering PC, all AI-generated layouts can be checked and refined before anything is deployed to the real system. Engineers can quickly test alternatives, optimize cell layouts and compare scenarios without interrupting production. This supports more simulation in everyday engineering work – and leads to better-founded decisions for new or existing automation projects.

Better results with AI-assisted simulation

Natural language. iiQWorks.Copilot lets users formulate tasks and commands in their own language. No special KUKA terminology or programming knowledge is required, which lowers the entry barrier for simulation and supports interdisciplinary teams.

Automatic layout generation. From text to layout in seconds: commands such as “Add a palletizing layout with CYBERTECH nano” or “Create a fenced cell with two conveyors” are executed directly by the system. Robots, conveyors, pallets and other components are inserted via prompts instead of drag & drop, significantly reducing manual work.

Automated workflows and quicker implementation. Multiple actions can be combined in a single prompt, for example placing several components and starting a simulation run. This automation of recurring steps speeds up engineering, helps to standardize workflows and supports a higher number of projects with the same resources.

Immediate feedback and continuous optimization. Simulations can be iteratively adjusted through further prompts and tested in real time. Engineers receive direct visual feedback, refine the configuration step by step and converge more quickly on layouts that meet performance, safety and space requirements.

Secure, scalable AI for global teams. iiQWorks.Copilot uses a secure, Azure-based backend developed in close collaboration with Microsoft. Data is processed in line with current cybersecurity standards, while anonymized usage helps to continuously improve the product. Natural-language prompting in multiple languages supports globally distributed engineering teams and makes AI-assisted simulation usable across sites and regions.

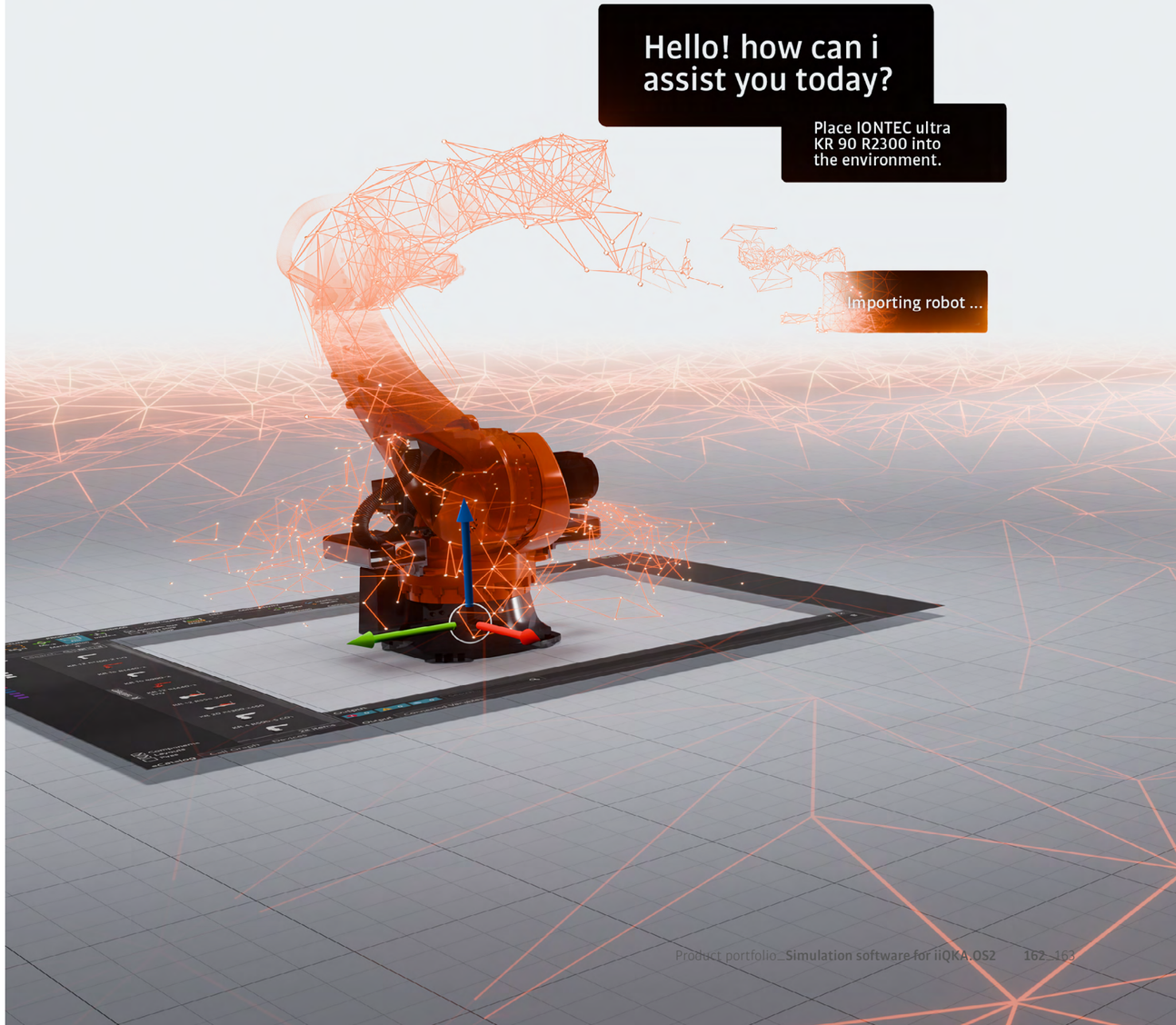
click for more

More projects. Less effort. Higher productivity.

User-friendliness
- **Natural language:** Control simulations and robots simply by entering text.
- **Efficient workflows:** Add components, move them, change properties or start simulations – quickly and easily.

Cost savings
- **Reduced barriers to entry:** Intuitive use without prior knowledge
- **Credit-based pricing model:** Individually scalable credit quota per month.

Technical security
- **Azure cloud operation:** Data processing in accordance with current cybersecurity standards.





_System expansions for iiQKA.OS2

Here's to great coop-eration. Software packages for the co-operation of machine, human, and robot.

Base technologies can be used with any KUKA robot – irrespective of the payload, variant or application. Be it software for sensor communication, for the intelligent networking of robots or for enabling human-machine interaction: KUKA base technologies boost the flexibility and competitiveness of your production operations.

iiQKA.mxAutomation iiQKA.SafeOperation iiQWorks.App Builder

iiQKA.mxAutomation. The convenient, universal interface makes KUKA robots extremely easy to operate.

Operate robot-based production machines independently of the controller. With the iiQKA.mxAutomation control software, external controllers can command KUKA robots with all basic motion commands. This provides an easy route to implementing a central, customer-friendly operator control concept for robot-controlled production machines. The outstanding kinematic and safety-relevant functions of the KUKA controller are still available. This is because the mxAutomation command interpreter of the robot controller communicates the commands to the path-planning system, which sets the robot in motion with the usual precision and reliability.



Simple programming. With iiQKA.mxAutomation, the user requires minimal knowledge of robot programming. The mxAutomation function blocks allow the KUKA robot to be commanded within the familiar programming environment.

High flexibility. If the requirements in production are changed, the appropriate modifications or expansions can be implemented at any time with mxAutomation-based operator control. The flexibility made possible by using robots with regard to processing new series of parts or performing additional tasks is made available for the operator in his usual environment.

Certified in accordance with PLCopen. The iiQKA.mxAutomation interface meets the requirements of the PLCopen Organization. Access functions predefined by KUKA are available to the customer.

Picking up moving workpieces. Connecting iiQKA.mxAutomation to iiQKA.ConveyorTech enables robots to pick up moving workpieces. The motions of the robot are adapted by the application software to those of assembly lines and conveyors. Using iiQKA.VectorMove enables the robot to be switched vectorially to "soft" mode in order to facilitate the removal of components from injection molding machines and die-casting machines.

Simple control. The combination of robot and machine control by means of iiQKA.mxAutomation enables KUKA robots to be integrated effortlessly into existing operator control concepts. The robot can therefore also be controlled via the customary human-machine interface. Teach pendants for the machine can be used for setting the robot as well, provided appropriate safety precautions are implemented. A good integration example in this context is the incorporation of KUKA robots into the Sinumerik/Simatic world on the basis of mxAutomation, as offered by Siemens®.

Support of SRCI. With the new iiQKA.mxAutomation, KUKA not only enables communication via existing libraries but also offers seamless integration through the Standard Robot Command Interface (SRCI).

iiQKA.SafeOperation. Safe human-robot collaboration.

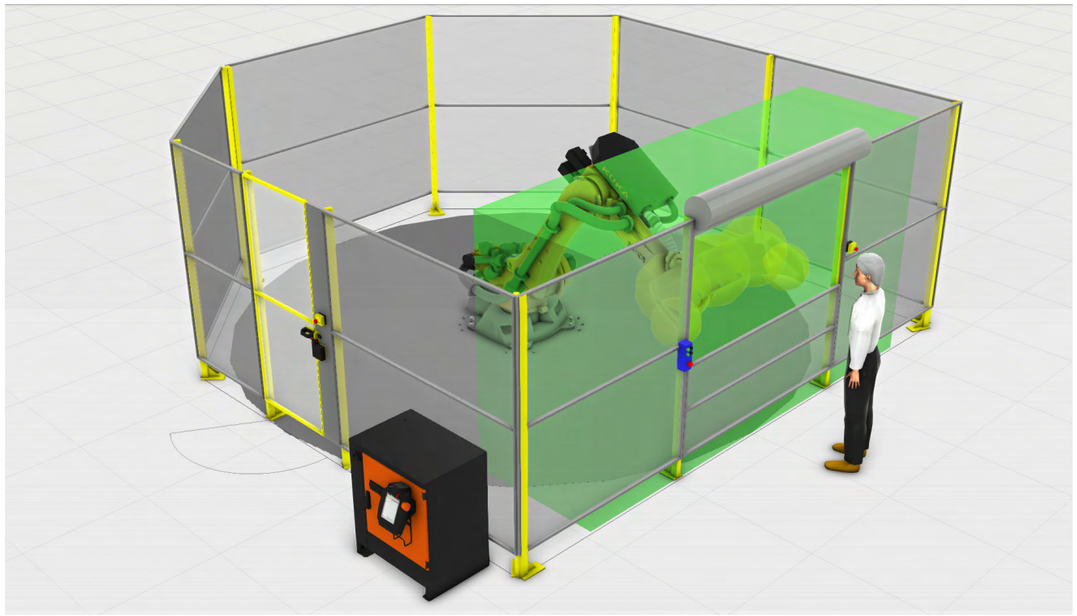
You want to produce quickly, safely and in a space-saving manner? The iiQKA.SafeOperation software supports human-robot collaboration in every respect.

iiQKA.SafeOperation combines the latest safety-relevant software and hardware components. You can simultaneously define and monitor the workspaces and protected spaces. In this way, you can dispense with mechanical monitoring of the workspaces. Moreover, you reduce the cycle times. iiQKA.SafeOperation supports safe and efficient cooperation by means of human-robot collaboration (HRC). Safe operational stop can be used in manual loading stations, for example, to reduce the distance to the operator.

Monitoring spaces with iiQKA.SafeOperation. The focus is on safety. The software package provides up to 16 monitoring spaces and a fixed cell area for safe reduction of the theoretical workspace – the definition of these monitoring spaces determines the response of the robot.

Each area can be defined individually. Choose between Cartesian and axis-specific definition. A further distinction is made between these types of space:

- Workspace
- Protected space
- Alarm protected space (non-stopping)
- Alarm workspace (non-stopping)
- Cell area



click for more

iiQWorks.App Builder. Build custom robot applications faster – with a structured, scalable workflow.

iiQWorks.App Builder is designed for engineering custom robot applications in a structured way – from assembling the required application elements to keeping them consistent across projects. It helps you turn engineering intent into reusable application building blocks, so you can implement, maintain, and roll out applications with less effort and more standardization.

Productivity & safety
- Create custom robot applications with a consistent, repeatable structure
- Reduce engineering effort through standardized building blocks and clearer application organization
- Improve maintainability by keeping application content organized and easier to validate

Efficiency & convenience
- Faster application engineering through a guided, structured build approach
- Easier collaboration and handover thanks to a clear application organization
- Reuse and adapt application elements across projects to reduce rework

Cost-effectiveness
- Lower engineering and maintenance effort through standardization and reuse
- Reduce rework by keeping application elements structured and consistent
- Scale application rollouts more efficiently across robots/cells



HMIEasy-Editor. Create clear, task-focused operator interfaces – fast and without programming.

Within iiQWorks.App Builder, another integrated module is the HMIEasy-Editor, enabling you to build custom user interfaces for iiQKA.OS 2 as part of the same application – not as a standalone product. The HMIEasy-Editor enhances the standard interface with a custom, user-friendly HMI tailored to the operator's task – for processes that require less training and result in fewer errors. Configuration is designed to be straightforward, using a "what you see is what you get" approach and drag & drop. Multilingual user interfaces support consistent operation across teams and locations.

Together with the other integrated editors in iiQWorks.App Builder, the HMIEasy-Editor supports a consistent, maintainable approach to building complete custom robot applications – covering both logic and operator interaction.

Productivity & safety
- Provide guided work instructions via HMI for operational steps (e.g., start-up & tool change)
- Visualize current/target status and support targeted fault diagnosis through fault visualization
- Show frequently used KPIs for process control for faster decisions on the shopfloor

Efficiency & convenience
- "What you see is what you get" editor approach for fast UI creation
- Simple configuration using drag & drop
- No programming knowledge required

Cost-effectiveness
- No additional editor required
- Reduce rework by standardizing UI patterns across similar cells and applications
- Lower training effort through task-optimized, intuitive user interfaces

UserTech-Editor. Create your own commands and status keys for intuitive robot operation.

Within iiQWorks.App Builder, the integrated UserTech-Editor lets you create and maintain custom statements and status keys as part of your overall robot application – not as a standalone product. For faster and safer operation, custom statements and status keys can be configured. The setup is designed to be quick and intuitive – supporting consistent inputs by detecting and preventing inconsistent entries. Custom commands can be grouped into optional packages, saved, and reused across robots to standardize operation and reduce engineering effort.

As part of iiQWorks.App Builder, the integrated UserTech-Editor helps you deliver complete custom robot applications with consistent commands and status keys across deployments.

Productivity & safety
- Configure custom statements on the user interface
- Prevent inconsistent entries through immediate validation feedback
- Support safer manual intervention and maintenance workflows via guided input and status keys

Efficiency & convenience
- Configure status keys and scripted actions flexibly for your application needs
- Add variables and create new functions to tailor commands quickly
- Package, save, and reuse created commands for other robots to reduce repetition

Cost-effectiveness
- Reduce engineering time by reusing command packages across robots
- Lower training effort by providing application-specific commands without expert programming skills
- Standardize operator interactions to minimize downtime caused by input errors



iiQKA.App Runtime. The required controller-side runtime for deploying custom robot applications.

iiQKA.App Runtime is an enabling base product that must be purchased and installed on each target system whenever it is extended with a custom app (.kop) created in iiQWorks.App Builder. Without iiQKA.App Runtime, the user-specific app cannot be deployed to the controller. In practice, any .kop created with iiQWorks.App Builder carries a dependency on iiQKA.App Runtime, meaning it must be installed alongside App Builder-created packages to enable deployment.

Efficiency & convenience
- Only one license per controller is needed for deploying custom apps built with iiQWorks.App Builder
- Once installed on the controller, any number of custom apps can be deployed to that controller
- Available for installation as a .kop from the iiQWorks.Cockpit Software Repository



_System software KSS

Simple and proven. The heart of robot control.

KSS is the operating system and core of KUKA robot control for a large part of the portfolio – from classic 5-/6-axis robots to SCARA and DELTA. As an open, flexible, and secure platform, KSS supports the entire lifecycle: planning, installation, commissioning, operation, and maintenance. With inline forms and KRL, robust fieldbus and connectivity support, user rights management, and a wide range of options and engineering tools such as WorkVisual, simulation, and OfficeLite, the controller can be tailored precisely to your application.

Application software
KUKA.ArchTech
KUKA.SeamTech
KUKA.Track TCP
KUKA.LaserTech
KUKA.ForceTorqueControl
KUKA.CNC
KUKA.GripperTech & SpotTech
KUKA.ServoGun
KUKA.EqualizingTech
KUKA.RoboSpin
KUKA.ProcessScreen
KUKA.HMI
KUKA.ConveyorTech
KUKA.UserTech
KUKA.VisionTech

Simulation software
KUKA.Sim
KUKA.MixedRealityAssistant
KUKA.OfficeLite

System expansions
KUKA.PLC mxAutomation
KUKA.SafeOperation
KUKA.RoboTeam

KUKA.SystemSoftware.

Established, flexible and safe: the open operating system for the entire robot control system.

The KUKA.SystemSoftware – KSS for short – is the operating system and thus the heart of the entire robot controller for the majority of the KUKA robot portfolio – including traditional five-axis and six-robots, as well as the new SCARA and DELTA robots.

KSS enables you to implement an extensive range of robot-based applications. KSS helps you to achieve your goals faster and more efficiently, whether you are planning, installing, commissioning, operating or maintaining a robot-based system. It is subjected to continuous further development by KUKA as an open, flexible and secure platform to meet the high demands in the robotics environment.

Open & flexible

As the only system software from a major robot manufacturer that is based on Windows 10, KSS offers a number of unique advantages. There are no limits to your imagination when it comes to using KUKA robots and the connected peripheral equipment. Whatever it is, KSS makes it possible, with unrivaled access to modification and adaptation for your solution within a familiar and convenient platform.

Secure & protected

In today's world, where productivity and competitiveness are heavily dependent on networked hardware and software, it has never been more important to ensure a stable and protected system. Safety and security at the highest level – KUKA is synonymous with safety and security. For us, there is no middle ground on this issue, which is why we place it at the foundation of every KUKA.SystemSoftware development.

Get it done faster

With industry-leading connectivity options based on an open and flexible platform, the "functional twins" KSS 8.6 and 8.7 provide a solid foundation for getting your work done faster – and we have incorporated additional user-friendly functions to reduce commissioning and integration times.



Designed for any application. The "functional twins" KSS 8.6 and 8.7 offer new functions without changing the existing programming environment and user interface – if you are familiar with KUKA.SystemSoftware and KRL, you will immediately feel at home. And thanks to the expertise that we have built up over decades, combined with feedback from our customers, the current KSS versions 8.6 and 8.7 are the result of internal and external feedback. In combination with assistance from inline forms, project-based engineering and project-independent online programming, it is clear that KUKA has listened to the suggestions and wishes of users during the development of KSS.

Basic functions

Programming for different skill levels. From simple programming using inline forms to expert programming in the high-level language KRL (KUKA Robot Language).

Interpreter. In addition to the robot interpreter, up to eight parallel cyclical (submit) interpreters are available.

Field bus communication. Configuration and I / O mapping of the field buses supported by the KUKA.SystemSoftware (ProfiBus, DeviceNet, PROFINET, ETHERNET / IP, EtherCAT) is carried out via KUKA.WorkVisual.

Multilingual user interface. Up to 26 languages are available for selection in the KUKA.SystemSoftware user interface.

Rights management. The system is supplied with the rights for operating modes and functions preassigned to the hierarchical user groups so that no adaptation is required for most customers. Nevertheless, this assignment can be configured by the administrator via function groups if required.

Flexible configuration of additional drives and / or customer kinematic systems. Operation of asynchronous, infinitely rotating or force-controlled external axes and master-slave drives in a group.

Backup / restore. Server-triggered, project-based backups of the system configuration and installed options through the integrated backup manager.

Connection to iiQoT pre-installed. With the pre-installed KUKA.DeviceConnector, KUKA systems are quickly integrated and connected to iiQoT – the Industry 4.0 solution from KUKA.

Optional functions

Safe robot. Extended safe monitoring of the robot and assurance of system safety with KUKA.SafeOperation, KUKA.SafeRangeMonitoring or KUKA.SafeSingleBrake.

Cooperating robots. Both in terms of shared workspaces and in the form of load sharing between multiple robots in teams of up to 6 robots using KUKA.RoboTeam.

Data exchange. TCP / IP data communication (binary / xml) to external systems with KUKA.EthernetKRL.

Sensor applications. Real-time capable sensor connection / communication through KUKA.RobotSensorInterface or iiQKA.ForceTorqueControl.

IT security. Protection of the controller against malware through the KUKA.Ikarus antivirus solution or the KUKA.CPC whitelisting procedure.

Conveyor. Synchronization of robot motion with the motion of components / conveyor systems using iiQKA.ConveyorTech.

Safe communication. Available as a discrete dual-channel technology interface or as safe field bus communication via Ethernet-based protocols to the safety PLC (PROFIsafe via KUKA.Profinet M / S, CIP Safety via KUKA.EthernetIP or FSoE via EtherCAT master-master gateway).

User login. Additional login methods – enabled by KUKA.Userkey.

Expansion of the basic functionality. Integrated deterministic Soft PLC with all the advantages of access to the I / O system and the existing system through KUKA.ProConOS.

Customer-defined technology modules. KUKA integrators and end customers can expand the library of available KUKA inline forms and status keys according to customer requirements by using KUKA.UserTech technology. In interaction with the KUKA.OptionPackageEditor, these modules can be quickly and easily integrated into a KUKA system. Other possible modules are represented by preconfigurations (including dependency mapping) of KUKA technology packages – such as a KUKA.HMI solution, a KUKA.GripperSpotTech configuration or a KUKA.RobotSensorInterface context.

Customer-specific interfaces. With the KUKA HMI product family, we provide the capability of entering the domain of customer-specific user interfaces at two different levels of complexity. For simple applications – KUKA.HMI Easy – and for the demanding user – KUKA.HMI Zenon.

Vision – in 2D and 3D. KUKA.VisionTech offers tools for 2D object recognition, quality recognition, and code and optical character recognition (OCR). KUKA.PerceptionTech enables the perception of the environment in 3D. Customers can implement any of the 3D vision applications from Roboception.

Engineering functions

Project-based. Configuration of the controller using database and catalog-based projects – created using KUKA.WorkVisual.

Soft PLC interface. Integrated interface in KUKA.WorkVisual to KUKA.Multiprog – the Soft PLC engineering environment of KUKA.ProConOS.

Load data determination. Determination of the load parameters of real tool attachments by means of pendulum motions using the KUKA.LoadDataDetermination option.

Simulation. Installation and evaluation of complete robotic cells using KUKA.Sim.

Virtual robot controller. Virtualized version of KUKA.SystemSoftware KSS available as KUKA.OfficeLite.

Customer-specific technology packages. Creation of your own customer-specific software packages using KUKA.OptionPackageEditor. Further modules are provided here by the add-on technologies KUKA.UserTech and KUKA.HMI Easy.

Recovery. Image-based backup solutions through KUKA.Recovery.

_Cloud-based services

Keep an eye on your robot systems. Wherever you are.

Cloud-based software is one of the cornerstones of Industry 4.0. Cloud-based services from KUKA digitalize and optimize your production.

KUKA iiQoT KUKA Xpert

KUKA iiQoT. Our robot-centric cloud-based platform, enhances transparency and robot availability.

What condition is your robot in? What happened before a crash? When was the last basic inspection? And what about your company's entire robot fleet?

With KUKA.iiQoT you can provide answers to these and many other questions.

KUKA iiQoT keeps track of all condition data: from hardware to software to the controller. The central platform leverages the advantages of the Industrial Internet of Things (IIoT). Monitor and secure your production intelligently, save time and counteract the shortage of skilled workers. You can access it around the clock from any location.

iiQoT.Basic

With the basic version, you can fully harness our IIoT solution for robot monitoring: any number of robots, no time limit. With my.KUKA, you can connect your entire robot fleet (KSS 8.3 and later) to the iiQoT platform without additional sensors.

Asset manager. An overview of all relevant information regarding the hardware, software, mechanical equipment and controller.

Messages. Allows critical events and fault hotspots to be quickly identified.

Condition monitoring. Current and historical condition data of the robot.

Change log. A detailed list of all changes – automatically and in digitalized form.

Fault diagnosis. A module for detecting causes of faults.

Notifications. Informed immediately: Receive information about relevant robot events.

Maintenance manager. Identification of maintenance requirements for all robots.

iiQoT.Advanced

With the advanced version, we offer you additional features beyond the core functions that enable you to avoid downtime by anomaly detection, enhance lifetime of your robots and to ensure a solid backup management.

Anomaly detection. Avoid unexpected downtime with diagnosis of changes and anomalies.

Energy monitoring. Know how much energy your robot consumed for days, weeks and months.

KUKA.Load analyse. Increased durability for your robot arm, along with optimal positioning accuracy and path planning.

Backup management. Automatically save data of the current work project in the cloud.

Transparency
Stay informed and inform others

Troubleshooting
Detect errors and transfer data easily

Maintenance planning
Plan and execute tasks efficiently

Prevent defects
Turn unplanned downtime into planned maintenance



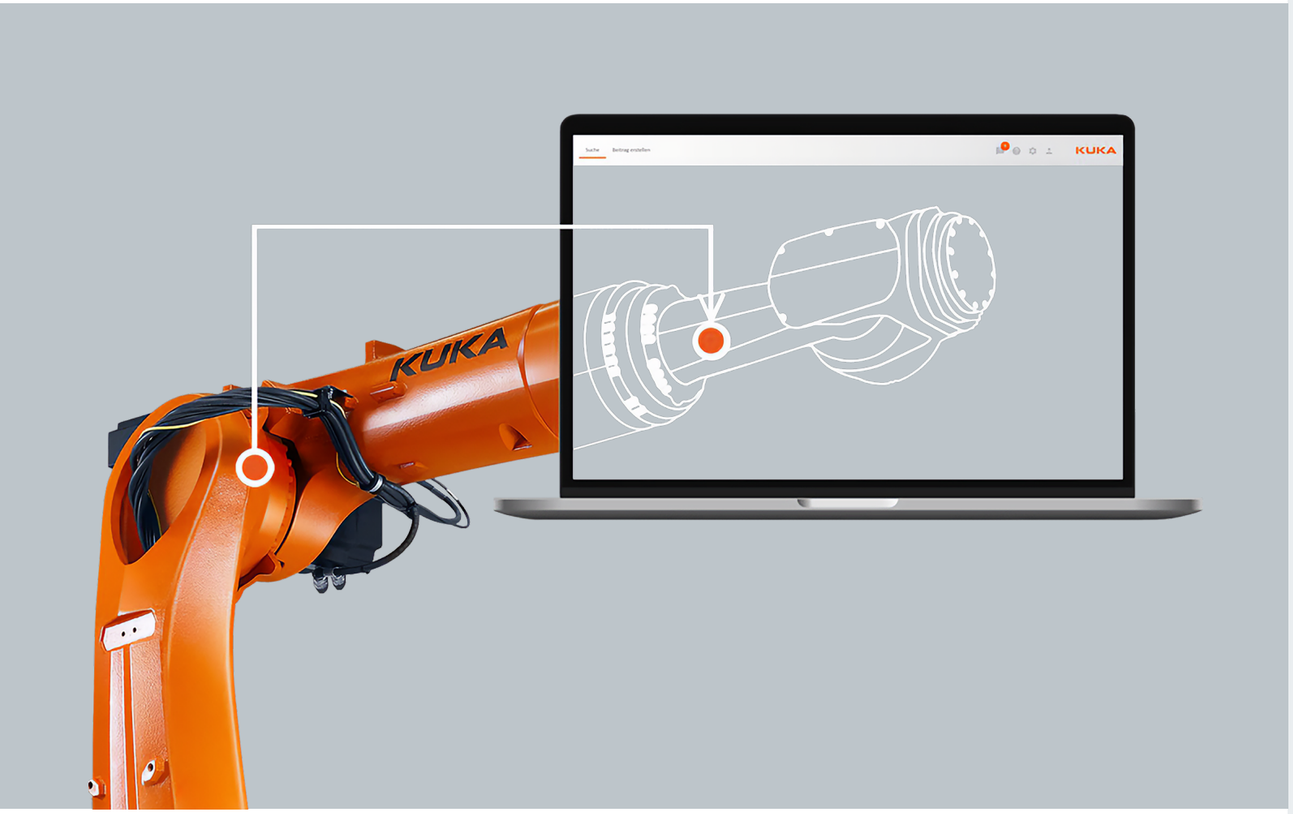
Benefit on corporate level
Global plant overview of whole robot fleet

Benefit on office level
Local plant overview of performance and maintenance planning

Benefit on operation level
Clear asset data for comparison and proof for optimization

Benefit on shopfloor level
Clear notifications for alerts and warnings

KUKA Xpert. Knowledge. Anytime. Anywhere.



A digital knowledge database covering all KUKA products, accessible from anywhere, at any time. KUKA Xpert provides comprehensive technical information especially for service technicians, planners, programmers, operators and start-up technicians.

Instructions and documentation for all KUKA products always at hand. With our digital knowledge database for technically relevant information and documentation about all KUKA products. Independently solve problems as they arise and save valuable time.

Manuals, product instructions and more: what content does KUKA Xpert offer? KUKA Xpert offers you bundled and digitalized know-how about KUKA products in a web-based application. In addition to the paid version KUKA Xpert Pro, the free version KUKA Xpert Basic is also available for our customers, containing all the required documents and information for your KUKA products.

click for more

	KUKA Xpert Pro	KUKA Xpert Basic
Product Information	✔	✔
Spare Parts	✔	✔
Specifications	✔	✔
Safety	✔	✔
Assembly Instruction	✔	✔
Instruction Manual	✔	✔
Operating / Programming Instructions	✔	✔
CAD & Simulation Data	✔	✔
Case Database with Symptom, Cause and Solution	✔	
Detailed Operating Instructions	✔	
KSS System Variables	✔	
Compatibility Overviews	✔	
Guidelines	✔	
Function Descriptions	✔	
Downloads of Code and Configurations	✔	

Minimize downtimes. Gain a better understanding of system messages through causes, symptoms, and solutions. Fix problems with high-quality work instructions.

Increase your efficiency. Find urgently needed information with the help of free text search and filters for products and information types.

High-quality content. The content is created by technical editors and reviewed by product experts. KUKA Xpert is also used by KUKA Support.

Knowledge available 24/7. Get the right information when you need it most, without wasting valuable time.

Linked and interactive information. Interactive content such as videos* with semantically linked data help you to obtain all relevant information for the selected product.

Helping people to help themselves. Work instructions help you to complete tasks from commissioning to maintenance and repair of KUKA products.



_Global Customer Services

Our service.
Your success.

German engineering, quality, creativity and a tireless commitment to our users: at KUKA, this has been the basis for decades of exceptional technologies that have helped our customers gain a decisive competitive advantage. We were the pioneers in the world of robotics. Today, we are a global leader in innovation. Our passion is to create future-oriented solutions that make even complex automation tasks easy.

KUKA Global Customer Services.
For perfect customer service.

With our global network, and by using the latest means of communication, we can offer our customers the outstanding service of a global market leader.

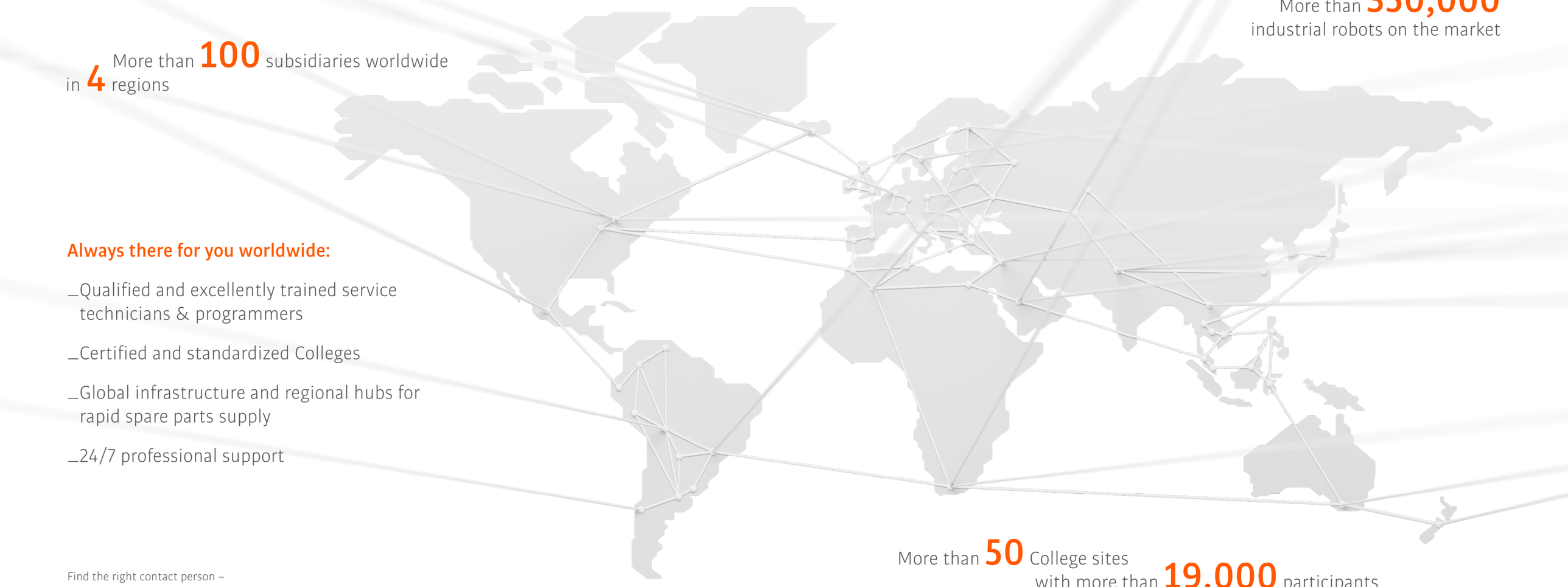
Speed, reliability and professionalism are essential in guaranteeing efficient production processes – throughout the entire life cycle of your automation solution.

For this reason, we take an open-minded approach to your specific and individual requirements. In addition to our experience from everyday operations and findings from research and development, feedback from our customers also helps us to deliver the best service possible.

9,500 different parts in stock
1,100 deliveries per week

More than **350,000**
industrial robots on the market

More than **100** subsidiaries worldwide
in **4** regions



Always there for you worldwide:

_Qualified and excellently trained service technicians & programmers

_Certified and standardized Colleges

_Global infrastructure and regional hubs for rapid spare parts supply

_24/7 professional support

Find the right contact person –
we will be happy to help you:
KUKA.com/customer-service

Over **1,400** employees
in Customer Service

More than **50** College sites
with more than **19,000** participants
worldwide per year

KUKA Global Customer Services.
To maximize your success.

Our business does not end with the sale of a robot. We offer a wide range of services for the robot, stretching from the decision phase for automation to training, programming, maintenance and refurbishment of used machines.

All the products offered by Customer Service have been designed with one goal in mind: maximizing your success. We exercise our passion and enthusiasm to this end.

We are always there for you – whether you need technical assistance or advice on the optimal maintenance philosophy or production optimization.

Hotline
customerservice@KUKA.com

The **KUKA Hotline** provides expert assistance for technical challenges regarding the robot. A globally standardized ticket system enables seamless collaboration, no matter where the robot is located. Use my.KUKA.com in conjunction with the KUKA Hotline for an even faster response time and greater transparency.

Self-Service
my.KUKA.com

My.KUKA.com is a powerful self-service platform. Registering your robot fleet gives you access to tailored product documentation and the KUKA Xpert database for fault analysis including valuable work instructions. Beyond this, my.KUKA links your robot fleet to the KUKA Shop – thus making the search for the right spare parts or available services a breeze.

Our **Customer Service consultants** will advise you individually on site and deliver customized solutions that meet your exact requirements. With the right answers regarding spare parts, maintenance, programming & optimization as well as retrofits, the consultants ensure your success.

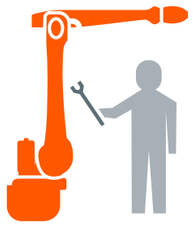


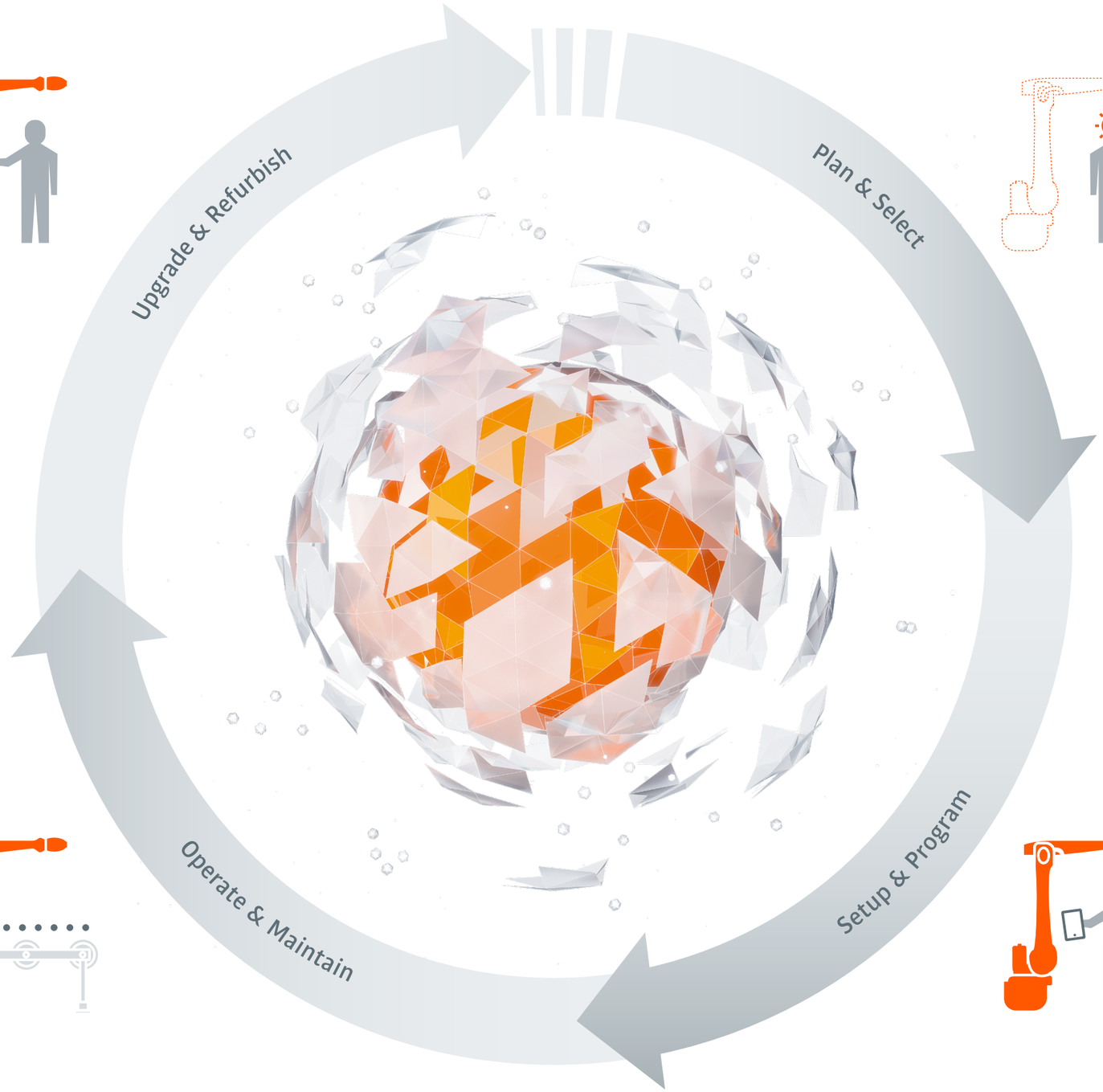
click for more

KUKA Customer Services – Portfolio.

Because we live and breathe 360º support.

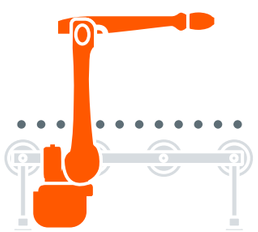
A timely upgrade or refurbishment ensures the sustainable use of robotic automation. Depending on your operating parameters and requirements, experts from KUKA renew your system – from selective upgrades to renewal of the entire robot system. This assures a second life cycle of your investment.





The optimal choice of the robot type and the implemented technologies lay the foundation for successful robot automation. Simulation, feasibility studies and test setups by our KUKA technology experts reduce risks and guarantee minimum planning times.

Availability, performance and quality are the key factors in successful production. Our preventive maintenance and flexible service levels – along with a guaranteed supply of spare parts – assure high availability of your robot. Qualified performance checks by KUKA experts additionally identify optimization potential in terms of performance and quality.



In the Setup & Program phase, KUKA technicians undertake the programming work, develop intelligent application solutions and ensure smooth installation of the robots. We do everything to make sure that every start of production is successful and that the quality is right.

Good planning. Fast, safe and successful implementation.

KUKA supports you with four important modules to ensure that your project idea and requirements can be turned into a complete implementation concept with minimum effort and cost.

Added value for you
- Use KUKA robots and technologies correctly and get the most out of them
- Reduce project costs and risks through professional support and analysis
- Effective safety concepts and minimized cell sizes



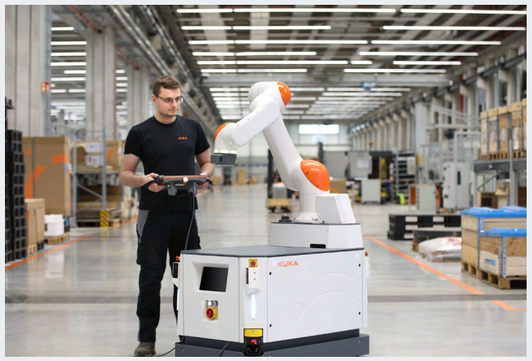
KUKA Technology Packages. The right robot and the right technology.

KUKA experts advise you on the selection of the most suitable robot as well as the appropriate technologies and components for your application.



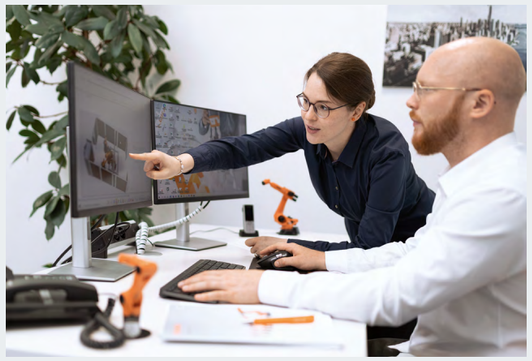
KUKA Application Center. Tests and feasibility studies.

With comprehensive test setups and feasibility studies – whether for welding, image processing or other applications – we ensure the correct design of the components and are able to test critical areas of your application. This provides reliable results even before the actual project is launched, thus minimizing planning risks.



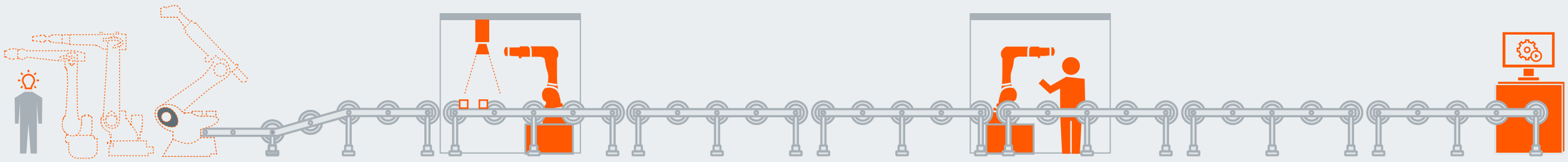
KUKA Safety Services. Considering safety right from the planning phase.

From conventional safety concepts to human-robot collaboration – we are happy to advise and support you, for safe implementation in accordance with current safety standards.



KUKA Simulation Services. Efficient planning through 3D-visualization.

Well-grounded simulation of the robot cell minimizes risks in terms of accessibility and cell layout. Beyond this, the movement times can be determined and already optimized offline. This guarantees a rapid, efficient planning phase and lays the foundation for a successful project. Moreover, we provide 3D measurement services as an optional add-on for existing facilities.



KUKA College. The easiest and most modern way to work with robots.

KUKA leaves nothing to chance in this area and offers state-of-the-art methods for the training and development of your employees.

Your company benefits from your employees' capability to
- successfully implement the project through correct planning and assessment of risks
- ensure targeted programming and implementation
- increase productivity and safety in your system
- respond quickly and efficiently to production changes

Added value for you
- Globally certified standards for the training process & trainers
- State-of-the-art infrastructure
- Trainers with practical experience
- 50% practical content

KUKA College supports your employees – from beginners to experts – with an intelligent combination of digital media and practical in-person training – a powerful learning platform that can be expanded with customized training as needed.

In-person training at KUKA College
50:50 theory/practice combinable with online modules

Certified trainers
Highly qualified
and evaluated

KUKA Xpert
Knowledge base – expertise on demand

Online
E-learning modules and interactive online webinars in the comfort of your own home



Modern training environment
Certified Colleges – worldwide

Custom-tailored workshops
Training modules tailored exactly to your individual requirements

Digital Learner Platform
Digital support through videos, tutorials and self-study modules throughout your professional life

On-site training sessions
We come to you, anywhere & anytime

click for more

Target groups and courses. To ensure learning success, the KUKA courses are geared to the respective target groups.

- For complete range of courses, see **college.kuka.com**
- All technologies
- All locations

Operator. Can operate the equipment, make program adjustments and resolve problem situations

Course. Operator course, Operator Pro

Programmer. Creates the robot programming and the entire application program

Course. Programming 1 and 2

Start-up technician. Configures safety and interfaces to PLC and peripherals

Course. SafeOperation, Profinet Configuration

Maintenance technician. Analyzes malfunctions and rectifies electrical or mechanical problems

Course. Mechanical Servicing, Electrical Servicing

Planner/Designer. Plans, simulates and ensures the correct design of the robot

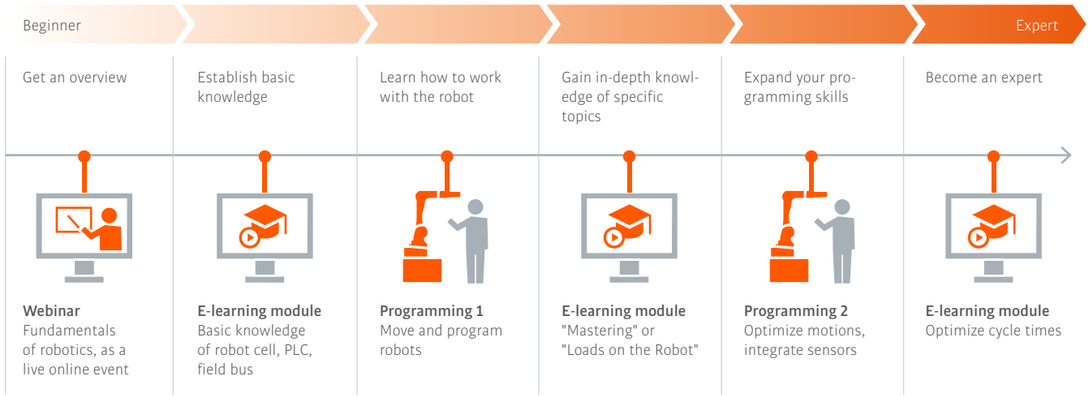
Course. KUKA.Sim, Robot Selection and Integration, Cell Safety

Manager. Decides on the application of robots with regard to safety, ROI and technology

Course. Training for managers, individual focal points

The modular and flexible course structure precisely targets the needs of the respective user. Modern e-learning modules and webinars complement the practical seminars at KUKA College.

The following example shows how you can leverage this to become a programming expert:



KUKA application programming.
Launch and adapt applications quickly and efficiently.

Highly qualified and dedicated staff will support you throughout the entire programming and start-up phase. Whether it is just a matter of minor program changes or the application implementation of a complete robot cell: the KUKA engineering team is the right partner for your project – in practically every technical discipline.

For the deployment of an autonomous mobile robot fleet, the KUKA AMR-fleet management offers the simplest prerequisites: Numerous industrial scenarios in complex production environments can be set up and controlled via the software. In the event of obstacles and changes in the production process, routes are automatically adjusted in real time. Programming couldn't be easier: you can configure logistics processes using drag-and-drop and put the AMR directly into operation.

Added value for you
- Experienced programmers guarantee fast and competent implementation of the application
- We know how to apply our technology packages. This enables us to reduce unnecessary project risks
- Comprehensive offline preparation of the application ensures the shortest possible start-up times on the real system

Choose the appropriate programming support to match your project-specific circumstances

Comprehensive

Complete cell and robot programming
From the first simulation to the ramp-up phase and acceptance – the complete handover for your automation project.

Flexible

Programming support via support quotas
Support your robot programming through flexible quotas.

Individual

Hand-in-hand programming support
Execution of specific project phases of your automation.

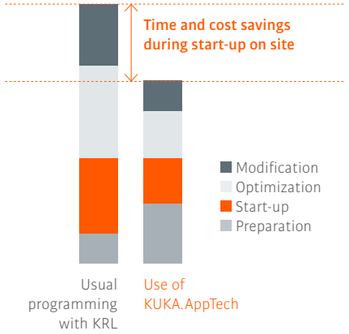


KUKA.AppTech. Reach your goal faster with established standards.

Our option package provides the common thread in application programming with defined interfaces, ready-made program structures and modules.

KUKA.AppTech includes
- Proven station and component program templates
- A comprehensive library of customizable and expandable function blocks
- PLC function and data blocks for seamless, optimized PLC programming for common PLC manufacturers

With KUKA.AppTech as the company standard, you save valuable time since the program logic and operator control concept are always identical.



Installation and configuration.
Professional, precise installation and start-up support.

We install and assemble your equipment. Through error-free initial start-up and installation, we ensure correct operating parameters of the robot components. This increases durability, avoids unwanted problems when replacing components and reduces maintenance costs.

Our scope of services
- Initial robot start-up and configuration
  - Correct configuration of the load cases, robot check
  - Load data determination, correct adjustment of the energy supply system
- Robot and KL assembly
  - Precise installation according to specifications
  - Acceptance report

Added value for you
- Less wear and longer service life of your equipment
- No reteaching after maintenance and repair
- Correct configuration and function right from the start



Customized concepts.
For every maintenance philosophy.

We are driven by the will to actively maximize our customers' productivity. Our highly qualified service personnel is available to you with short response times via remote and on-site support.

Our customized service concepts adapt to your maintenance philosophy and requirements. We proactively support you in maximizing all production parameters.

Added value for you
- Short response times, thanks to 24/7 service and KUKA technicians on site
- Preventive maintenance avoids unplanned downtime
- Certified technicians and manufacturer quality ensures a high first-time fix rate
- Leveraging optimization potential through KUKA process and robot specialists

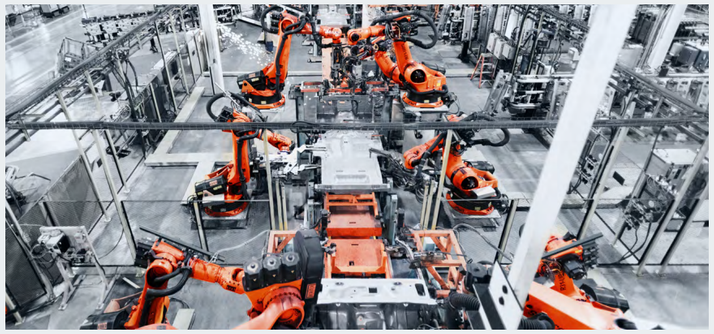
System availability
- Maintenance agreements and service levels
- Extension of warranty
- 24/7 hotline support and availability
- Preventive maintenance management

+

Production output
- Detailed analysis and performance check
- Cycle time optimization
- Adaptation of cell layout and arrangement
- Improvement of ease of operation

+

Production quality
- Detailed analysis and performance check
- Process optimization
- Hardware and software upgrade
- Enhancement of process stability



_Operate & Maintain

click for more

KUKA maintenance agreements and service levels.
For maximum availability of your system.

Regular preventive maintenance is the cornerstone of high availability for your system. By choosing the appropriate service level, the response time can be reduced to a minimum: in case of unexpected problems, you can reach our technicians 24/7, 365 days a year. For new systems, we also offer the option of a warranty extension to a total of 5 years. This rules out any surprises for you.

All measures pursue one goal: maximum availability of your system.

Added value for you
- Prevention and avoidance of unplanned downtime
- Guaranteed fast start of technician call-out and rapid provision of spare parts 24/7 and 365 days a year
- Plannable costs for maintenance and repairs
- 100% expertise around the globe

Service-Level	Warranty / Maintenance			
	Parts24	Service24	Combi24Pro	MaintenancePro
Qualified technical hotline support from KUKA robot specialists with exclusive priority switching 24 hours a day, 365 days a year	✓	✓	✓	
Guaranteed start-of service specialist call-out within max. 2 hours of the call, 24 hours a day, 365 days a year		✓	✓	
Guaranteed provision of standard spare parts within max. 2 hours of the call, 24 hours a day, 365 days a year	✓	✓	✓	
Maintenance of robots / systems			✓	✓

✓ Service included in the price of the agreement



Spare parts and repairs.
Maximum availability. Anywhere. Anytime.

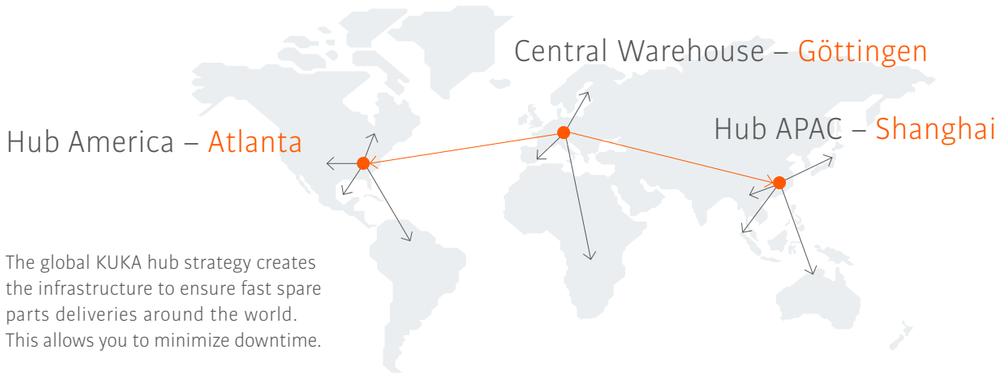
Even the tiniest of parts can have a huge impact if they no longer work correctly. Benefit from our KUKA spare parts service:

- Utmost quality thanks to perfect matching to our robots, cells and systems
- Fast and comprehensive spare parts supply via our modern central warehouse in Göttingen
- Creation of individual spare-parts and wearing-parts packages
- Exchange, reuse and repair of defective components in our KUKA repair center

We offer a flexible repair concept for the KUKA smartPAD, tailored to the specific model: choose the option that best suits your needs from three services: Whether you need a replacement device as good as new or your own repaired device, a quick replacement or a cost-effective service with a waiting period - you decide what you need and we will take care of a reliable repair.

Added value for you
- Extended cut-off times / acceptance times
- Order management around the globe 24/7, 365 days a year
- Worldwide customs clearance
- Maximum parts availability
- Uniform processes and utmost transparency

Global Hub Strategy



The global KUKA hub strategy creates the infrastructure to ensure fast spare parts deliveries around the world. This allows you to minimize downtime.

KUKA repair and exchange concept. The KUKA repair and exchange concept offers a safe and cost-effective alternative to new parts for many components. Our intelligent exchange concept reduces repair costs to a minimum compared to the price of a new part. The average cost of an exchange repair is significantly less than the price of a new part and is based on the actual repair requirements. You benefit from the cost advantage – regardless of the condition of the defective part.

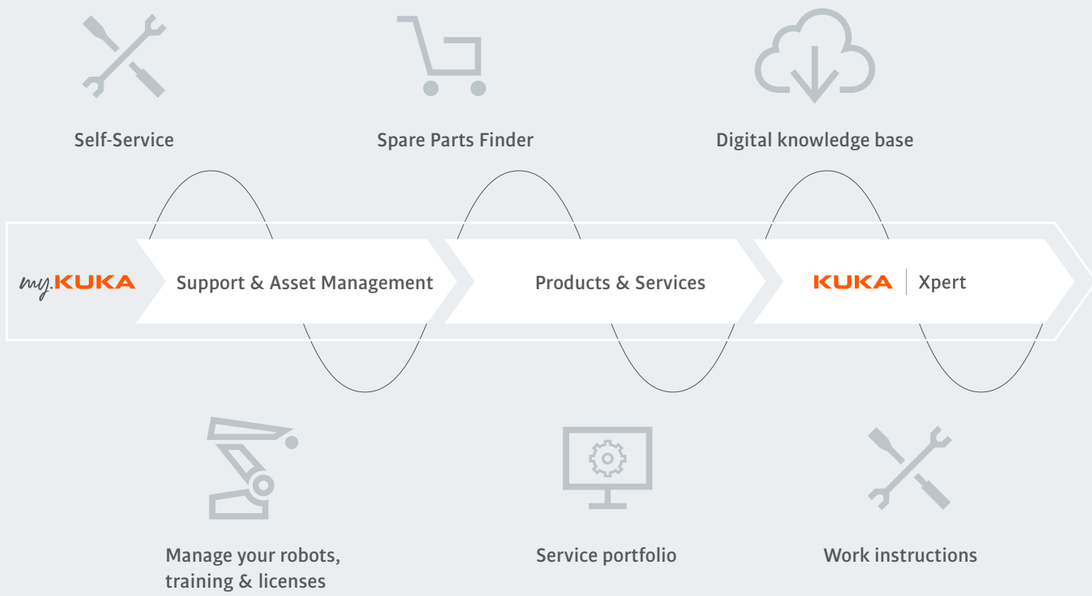
Added value for you
- Cost savings with the repair and exchange concept
- Quick response time due to advance shipment of the spare part and later return of the defective part
- Manufacturer-certified repair and quality standards

KUKA Digital Touchpoints.
Your digital connection to the world of KUKA.

Self-Service. Create your support requests online and track the processing status. Remain up-to-date at all times, and promptly receive the support you need.

Spare Parts Finder. Use the Spare Parts Finder to quickly and easily select and order the spare part you need for your robot.

Digital knowledge base. The KUKA Xpert digital knowledge base provides comprehensive technical information, such as instructions and documentation for your KUKA products.



Manage your robots, trainings & licences. Manage your (installed) KUKA robots and licenses online. In addition, discover suitable training and development opportunities for your employees in the 'Trainings' section and book them directly online: **my.kuka.com/s/training**

Service portfolio. The digital product catalog provides you with a comprehensive overview of our service portfolio, spare parts and our digital products. Buy products directly online or submit a quotation request.

Work instructions. Get 24/7 direct access to work instructions as well as to fault diagnosis and troubleshooting options for your KUKA assets.

Increase output.
Competent. Reliable. Trustworthy.

Challenges in your production
The success of automated production is based on improvement of the relevant operating parameters. Important parameters that need to be optimized on an ongoing basis include:

- Productivity
- Cost-effectiveness
- Connectivity
- Process quality
- User-friendliness
- Availability

Added value for you
- Analysis and identification of optimization potential by experienced KUKA application engineers
- Targeted and fast implementation of measures based on initial analysis
- Highest standard of certification and safety
- Enhancement of process accuracy, reliability and product quality

In two steps we can support you in optimizing your operating parameters.

KUKA Performance Check
Experts from KUKA carry out a comprehensive analysis of your system on site.



- Well-founded analysis of optimization potential by experienced KUKA application engineers
- Uncovering of unused potential by identifying downtime or malfunctions
- In-depth process analysis to rectify quality issues
- Identification of potential for optimization in cell layout and step sequence

Action Plan

KUKA Programming & Engineering
The KUKA team implements the optimization measures defined in the action plan.

- Robot programming
- PLC programming
- Upgrade and refurbishment measures
- Process optimization
- Software and plug-in development
- Digital services



Further KUKA services for your Operate and Maintain phase

KUKA Backup Services
- Automation and integration of your backup strategy into existing infrastructures
- Storage locations on external drives for centralized archive management
- Individual configuration of backup mechanisms

KUKA Safety Checks
- Check of the safe configuration
- Comparison of existing safety spaces with the layout
- Check of the clearances and stopping distances at space boundaries
- Safeguarding of HRC applications including force measurement

Added value for you
- Fast resumption of production in a backup situation
- Continuous alignment with the latest safety standards
- Assurance of the work safety of your automation

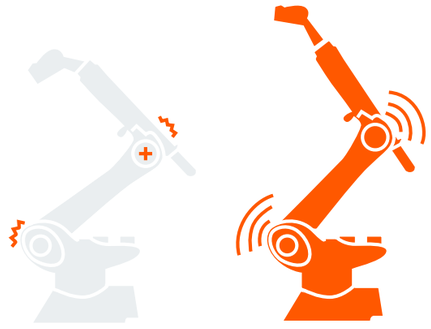
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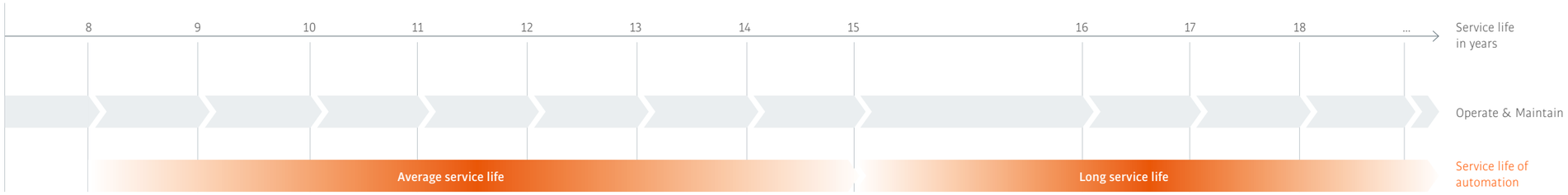
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KUKA Upgrade and Refurbish Services.
Extend the service life of your robot automation.

When systems are in use for a prolonged period, it may be necessary to make adjustments. This is the case, on the one hand, when production conditions have changed. On the other hand, an upgrade will become necessary when spare part availability and support options can no longer be guaranteed. If a robot system is not brought up to date, there is a greater risk of unplanned downtime and maintenance costs. With Upgrade & Refurbishment Services, KUKA ensures the maximum service life of your robot systems.

Added value for you
- Maximization of the technical availability of your system
- Securing of your competitiveness through the latest technologies and high availabilities
- Maximization of your productivity and reduction of rejects and follow-up costs
- All from a single source, along with expertise directly from the manufacturer





KUKA Refurbishment Services

KUKA Refurbishment Services prepare your robot and system for their second life cycle. Besides targeted individual measures, KUKA offers attractive refurbishment bundles at your site. Our KUKA experts work with you to determine the necessary scope of the refurbishment project.

The KUKA refurbishment modules

KUKA Robot Refresh Packages
Complete overhaul of your robot arm including exchange of all common wearing parts.

KUKA KSS Upgrades
Software and PC upgrade for a future-proof robot system

KUKA CBS
Service Bundles
Worry-free exchange concept for counterbalancing systems

KUKA Retrofit Services

Particularly where systems with a long service life are concerned, a close inspection is guaranteed. Our KUKA engineers will be at your side for your retrofit project, and work with you to develop a strategy for future-proof automation.

Our range of services for your retrofit project

KUKA Retrofit Check
- Well-founded analysis of the current state on site
- Coordination of customer requirements
- Determination of retrofit measures
- Project preparation

KUKA Retrofit Project
- Mechanical and electrical design
- Simulation and offline programming (robot and PLC)
- Dismantling of the old equipment
- Installation and start-up on site, programming
- Issue of the CE declaration of conformity
- Production support and optimization

Used robots and machines: your cost-effective entry into robot automation

In addition to new products, KUKA also offers used industrial robots. These are extensively inspected by us, overhauled if necessary and offered with a warranty on all parts. Whether to rent, loan or purchase, used robots from KUKA offer the opportunity of a particularly cost-effective entry into robot-based automation.

Added value for you
- Customer-specific adaptations possible at any time (e.g. energy supply systems)
- Short delivery times through robots available from stock
- Three reliable quality categories: Superior, Premium and Certified
- Tested quality and warranty on all parts

Circular Services

We support you in establishing a sustainable circular economy in your production. Benefit from KUKA services for a green future.

kuka.com/circular-services



kuka.com/contacts
facebook.com/kukaglobal
youtube.com/kukarobotgroup
linkedin.com/company/kukaglobal
instagram.com/kukaglobal

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