

KUKA



Global. Customer. Services.
Our pledge for your robot systems



We create success Together. Worldwide.

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.

_About KUKA

A tradition at KUKA: Innovation for more value creation

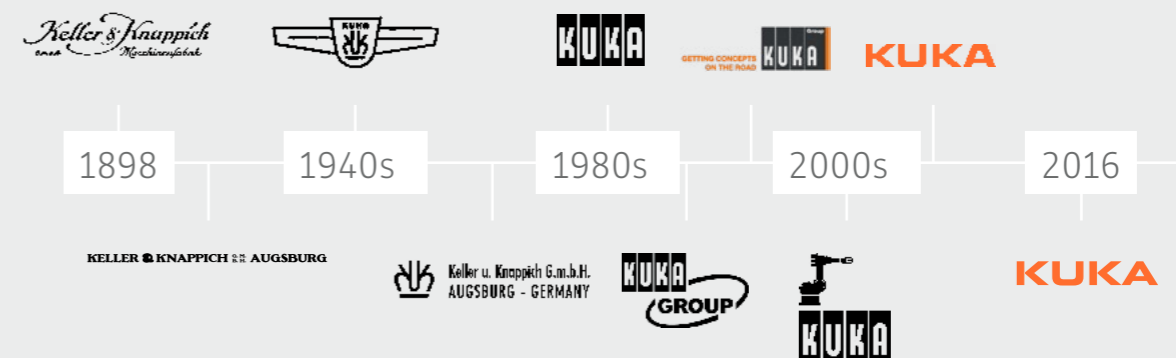
KUKA is a global automation specialist with sales of over 2.6 billion euro and more than 14,000 employees. Our headquarters are in Augsburg. As one of the world's leading suppliers of intelligent automation solutions, KUKA offers its customers everything they need from a single source – from robots and cells to fully automated systems and their networking. We are active in markets such as automotive, electronics, metal & plastic, consumer goods, e-commerce/retail and healthcare.

Our company is firmly rooted in its home city of Augsburg. This is where the success story began in 1898, when Johann Josef Keller and Jakob Knappich founded an acetylene plant for lighting. The telegram abbreviation from the initial letters of the company name ("Keller und Knappich Augsburg") became the brand name: KUKA. Innovation is more than a hundred-year-old tradition at KUKA.

KUKA has grown strongly over the decades and has developed into a global group. As one of the world's leading automation specialists, we are the driving force when it comes to intelligent automation – from the digital networking of production to modular and flexible manufacturing concepts and even entirely new business models. Thanks to decades of experience in automation, broad process expertise, comprehensive industry knowledge and digital services, we give our customers a real edge while optimizing value creation and serving as a key factor in their competitiveness.



KUKA's headquarters in Augsburg:
the Development and Technology Center.



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.



Kai Bisgwa
Senior Vice President Global Customer Services

“Service quality plays a decisive role in efficient production sequences – over the entire life cycle of the product. This is why KUKA has made Global Customer Services a main discipline. With the best range of services that you will find around the world.”

1,000 **8,000** different parts in stock
deliveries per week

More than **200,000**
industrial robots on the market

70 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:
www.kuka.com/customer-service

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

46 College sites

with more than **19,000** participants

KUKA Global Customer Service

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 products offered by Customer Service were designed with one goal in mind: maximizing your success. And we bring our passion and enthusiasm to this endeavor.

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

Hotline

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.

Consulting

customerservice@kuka.com

Consulting

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.

www.my.kuka.com

my.KUKA

Self-Service with my.kuka

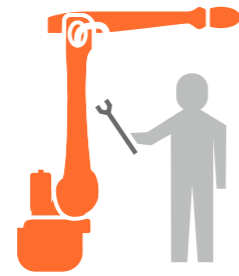
My.kuka.com is a powerful self-service platform. Registering your robot fleet gives you access to tailored product documentation and the Xpert database for fault analysis including valuable work instructions. Beyond this, my.kuka links your robot fleet to the KUKA marketplace – thus making the search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



KUKA Customer Services – Portfolio

Because we live 360° support.

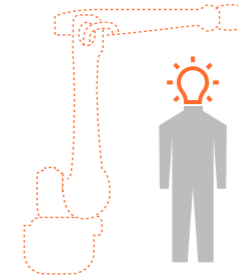
A timely upgrade or refurbishment ensures the sustainable use of robotic automation. Depending on your operating parameters and requirements, experts from KUKA renew your system – from selective upgrades to renewal of the entire robot system. This assures a second life cycle of your investment.



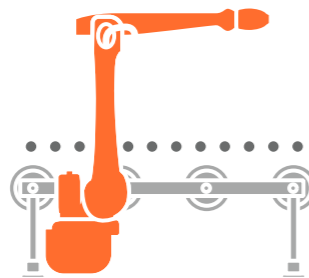
Upgrade & Refurbish

Plan & Select

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



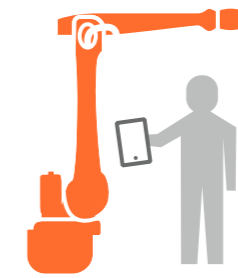
Availability, performance and quality are the key factors in successful production. Our preventive maintenance and flexible service levels – along with a guaranteed supply of spare parts – assure high availability of your robot. Qualified performance checks by KUKA experts additionally identify optimization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



Operate & Maintain

Setup & Program

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.

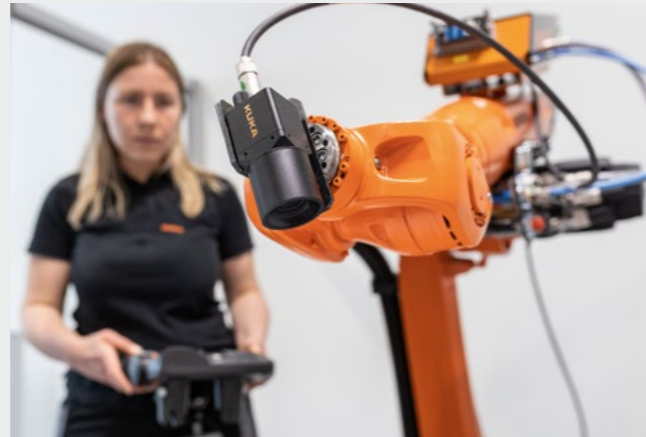


Good planning is half the battle

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



1. 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.

2. 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.

3. KUKA Safety Services

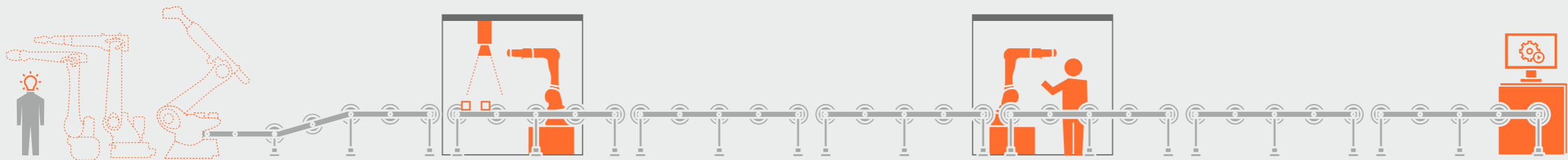
Considering safety right from the planning phase

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.

4. KUKA.Sim

Efficient planning through simulation

Well-grounded simulation of the robot cell minimizes risks in terms of accessibility and cell layout. Beyond this, the cycle time can be determined and already optimized offline. This guarantees a rapid, efficient planning phase and lays the foundation for a successful project.



KUKA College

The easiest & 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.

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.

Added value for you

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

In-person training at KUKA College

50:50 theory/practice combinable with online modules

Certified trainers

Highly qualified and evaluated

On-site training sessions

We come to you, anywhere & anytime

Online

E-learning modules and interactive online webinars from 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 professional life

Xpert

Knowledge base – Expertise on demand

Target groups and course offering

To ensure learning success, the KUKA course offering is geared to the respective target groups.

• For complete range of courses, see www.college.kuka.com

- All technologies
- All locations



Operator – can operate the equipment, make program adjustments and resolve problem situations

Course offering – Operator course, Operator Pro



Programmer – creates the robot programming and the entire application program

Course offering – Programming 1 and 2



Start-up technician – configures the safety and interfaces to PLC and peripherals

Course offering – SafeOperation, Profinet Configuration



Maintenance technician – analyzes malfunctions and rectifies electrical or mechanical problems

Course offering – Mechanical Servicing, Electrical Servicing



Planner/Designer – plans, simulates and ensures the correct design of the robot

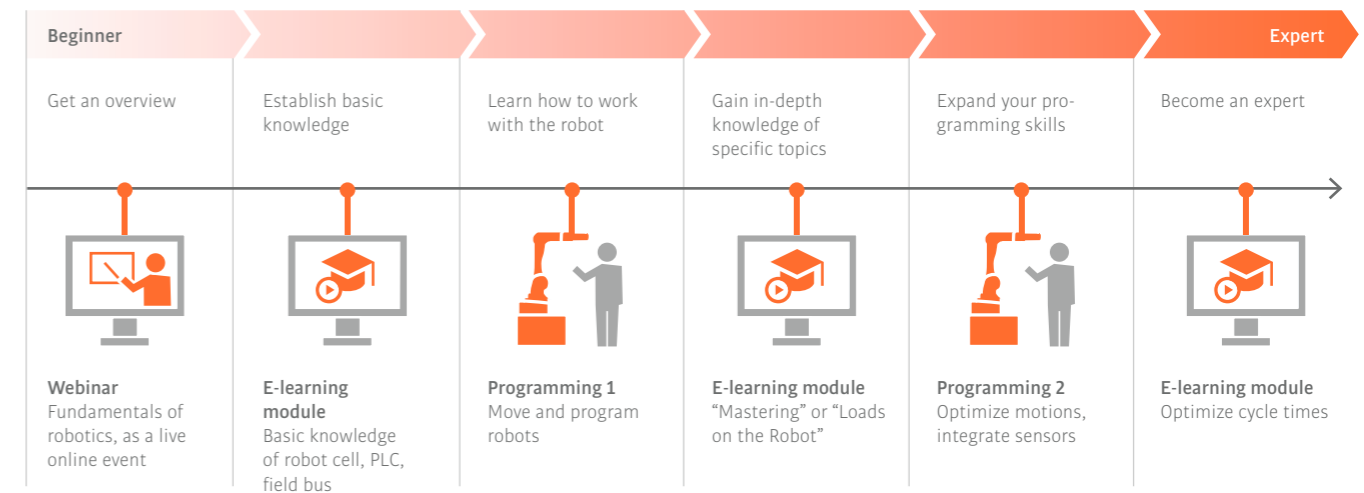
Course offering – KUKA Sim, Robot Selection and Integration, Cell Safety



Manager – decides on the application of robots with regard to safety, ROI and technology

Course offering – Training for managers, individual points of emphasis

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 programming support

Your choice for fast and efficient robot programming

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.

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

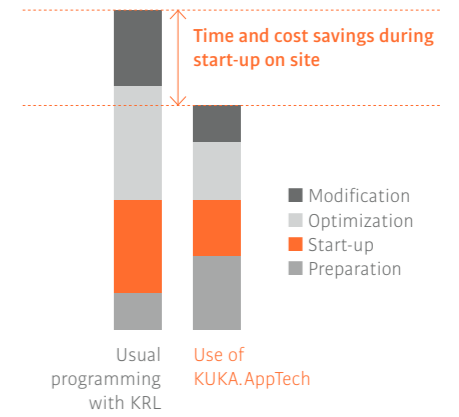
Even easier – with the KUKA programming standard

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 retooling 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



+

Production output



+

Production quality



- Maintenance agreements and service levels
- Extension of warranty
- 24/7 hotline support and availability
- Preventive maintenance management
- Detailed analysis and performance check
- Cycle time optimization
- Adaptation of cell layout and arrangement
- Improvement of ease of operation
- Detailed analysis and performance check
- Process optimization
- Hardware and software upgrade
- Enhancement of process stability



Global. Customer. Services.

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 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 | | Preventive maintenance | | Warranty |
|---|---------------|-----------|------------------------|----------------|-------------|
| | Parts24 | Service24 | Combi24Pro | MaintenancePro | WarrantyPro |
| 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 | ✓ | ✓ | ✓ | | + |
| KUKA Xpert license (web-based knowledge base) | + | + | ✓ | + | + |
| Analysis and error processing on the basis of submitted program printouts and files | ✓ | ✓ | ✓ | | ✓ |
| Service call-out on site | | ✓ | ✓ | | ✓ |
| Annual preventive maintenance | | | ✓ | ✓ | ✓ |
| Warranty extension to 5 years | | | | | ✓ |
| Documentation and maintenance certification | | | ✓ | ✓ | ✓ |
| Travel costs and expenses for the annual maintenance visit (weekdays) | | | + | + | ✓ |

- ✓ Service included in the price of the agreement
- ✓ Service covered by the agreement and invoiced on a time and material basis and at agreed flat rates
- + Service optionally available as part of the agreement



Spare parts & repairs

Maximum availability. Anywhere. Anytime.

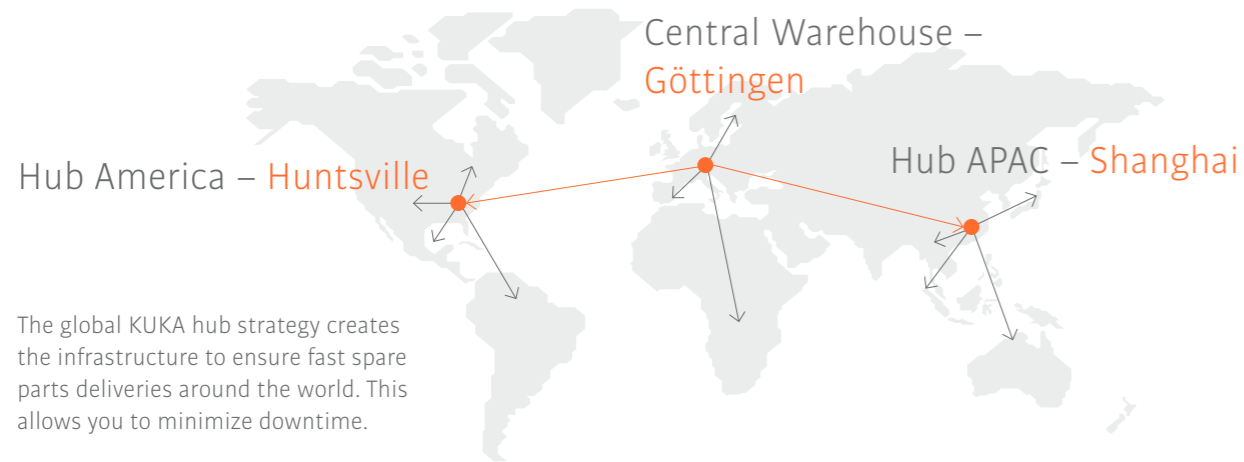
Even the tiniest of parts can have a huge impact if they no longer work correctly. So benefit from our KUKA spare parts service:

- 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 and wearing parts packages
- Exchange, reuse and repair of defective components in our KUKA repair center

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. In any case, 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

Create your support requests online and view the processing status. Remain up to date at all times and promptly receive the support you need.

Use the Spare Parts Finder to quickly and easily select and order the spare part you need for your robot.

The KUKA Xpert digital knowledge base provides comprehensive technical information, such as instructions and documentation for your KUKA products.



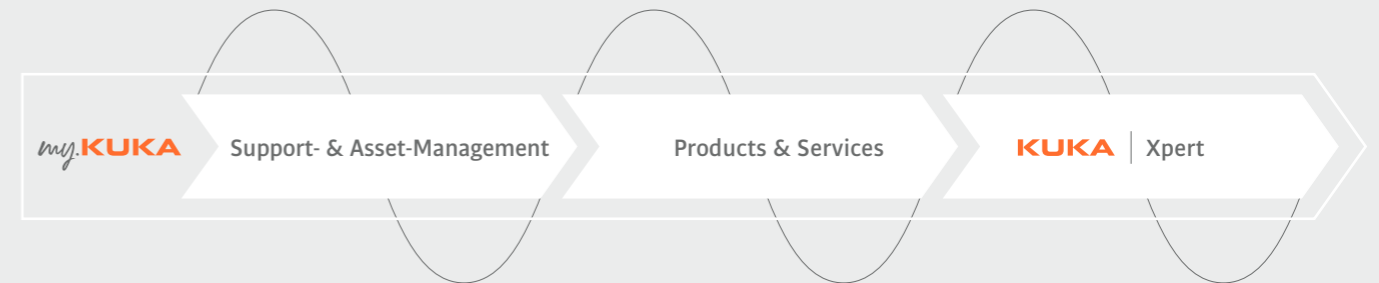
Self-Service



Spare Parts Finder



Digital knowledge base



Manage your robots, training modules & licenses



Service portfolio



Work instructions

Register your KUKA products quickly and easily online and receive access to complete product documentation. Manage your KUKA licenses and stay up to date on employee training and development.

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.

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 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 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

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 & 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

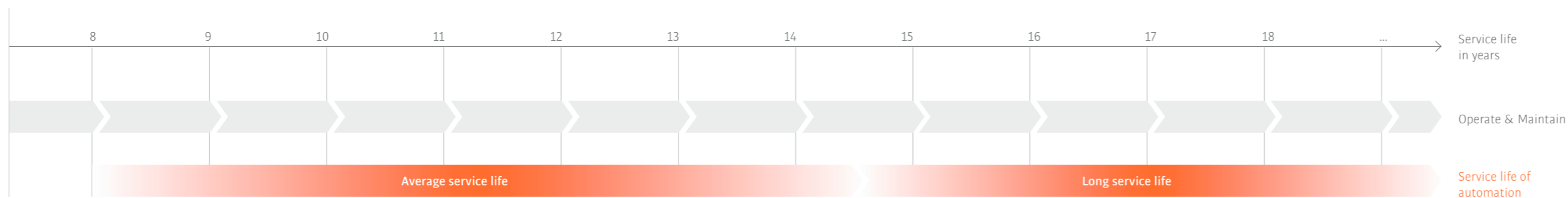
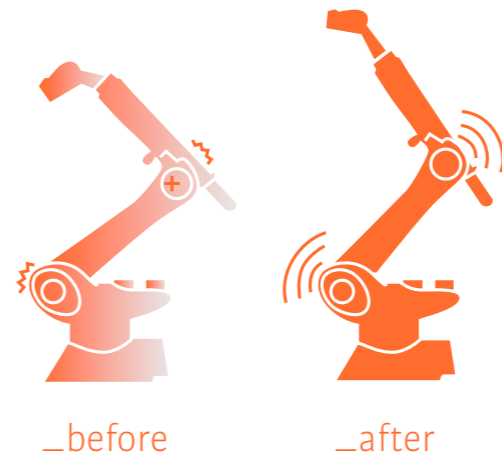
KUKA Upgrade & Refurbishment Services

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 also becomes necessary when spare part availability and support options can no longer be guaranteed. If a robot system is then 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
- Everything from a single source along with expertise directly from the manufacturer



KUKA Refurbishment Services

KUKA Refurbishment Services make your robot and system fit 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

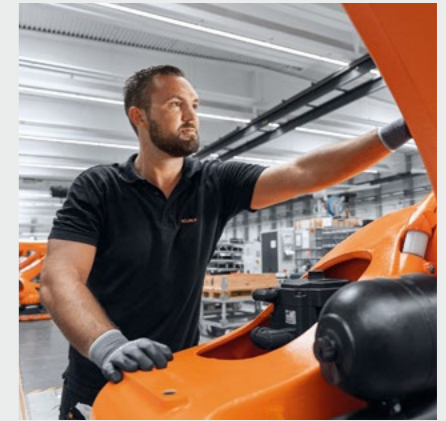
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| <p>KUKA Robot Refresh Packages Complete overhaul of your robot arm including exchange of all common wearing parts.</p> | |
| <p>KUKA KSS Upgrades Software and PC upgrade for a future-proof robot system</p> | <p>KUKA CBS Service Bundles Worry-free exchange concept for counterbalancing systems</p> |

KUKA Retrofit Services

Particularly where systems with a long service life are concerned, a detailed look is warranted. Our KUKA engineers are 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

| |
|--|
| <p>KUKA Retrofit Check</p> <ul style="list-style-type: none"> • Well-founded analysis of the current state on site • Coordination of customer requirements • Determination of retrofit measures • Project preparation |
| <p>KUKA Retrofit Project</p> <ul style="list-style-type: none"> • 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 & 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
- Good condition or top level: through three reliable quality categories (Superior, Premium and Certified)
- Tested quality and warranty on all parts

Please feel free to contact us if you would like to sell your used KUKA robot.



-  kuka.com/contacts
-  facebook.com/kukaglobal
-  youtube.com/kukarobotgroup
-  twitter.com/kukaglobal
-  linkedin.com/company/kukaglobal

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