

Your local contact person Page 10



Service quality plays a decisive

role in efficient production sequences –

and that for the entire life cyle of the

product. That's why KUKA has made

Global Customer Services a main discipline.

With the best range of services

you will find around the world.

Listen to what the customer wants. And then develop appropriate solutions.

Perfect automation demands an open ear for concrete, individual customer requirements. The KUKA Engineering Team takes a great deal of time for the detailed analyses, design and simulation required for a tailor-made application. Only once all of the customer's needs have been defined, do we, together with our KUKA system partners, begin the specific robot selection and integration. That's how KUKA ensures that your automation solution renders the maximum possible efficiency and cost-effectiveness in the long term.







One of our most important promises:

perfect »Customer Services«.

KUKA is passionately and enthusiastically committed to your success. This is best proved by our Customer Services. Wherever our customers are, we have extremely well-trained engineers and technicians.

They can advise and train your staff as well as take care of the commissioning, programming, preventive and corrective maintenance of your robot systems.

Excellent service for our customers is at the core of our business philosophy. That's why KUKA offers an active expert hotline where our specialists can help your employees solve problems right over the phone. They provide qualified technical advice and ensure the availability of your production through pinpoint fault diagnosis. That reduces downtime to a minimum. Beyond that, we are constantly enhancing preventive maintenance management in order to preclude unscheduled production stoppages.

Fast-track availability of spare parts worldwide is a further building block of our Customer Services. Our repair service carries out all kinds of repairs and ensures immediate exchange deliveries as well as maximum robot availability through state-of-the-art logistics. Highly qualified service technicians guarantee the fastest possible troubleshooting on-site if required.

We have regional subsidiaries around the world with certified training centers to keep your staff up-to-date on the latest technology. That's how efficient work with our systems is assured. Whether at the end of a robot life cycle or in the case of system adaptations, we ensure professional refurbishment and safeguard the future of your production.

For us, Customer Services are a comprehensive responsibility that we fulfill with passion and dedication. That's what we mean by perfect Customer Services.

Yours,

Arnd Sett, Director Global Customer Services

A strong service partner

is your competitive advantage.

Industry experts by your side

All project phases in expert hands

Best-practice solutions

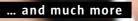
State-of-the-art training strategies

Excellent, skilled employees

Local support in your language

Shortest response times

Maximum productivity





What role do Customer Services play at KUKA?

SANTJOHANSER: A very important one. Customer satisfaction is the number-one priority. That's why we care for customers long after the actual investment with consultation and training as well as with comprehensive spare parts supply.

Customers demand a high availability of spare parts. How does KUKA handle that?

SANTJOHANSER: On the one hand, we are available for our customers 24 hours a day and 7 days a week in most countries. We set the delivery process in motion right away and reduce shipment times thanks to a terrific logistics network. On the other hand, we keep even spare parts for the older generations of robots in stock so as to avoid delays.

How long do you stock spare parts after the sale of a product?

SANTJOHANSER: At least ten years from the time that a model series is phased out and we no longer market the corresponding products. We can, for the most part, however, still deliver spare parts well after this ten-year period. >





Does KUKA only supply new spare parts?

SANTJOHANSER: No, we supply most electric and mechanical components through an exchange and repair service. This means that defective components are not repaired at the customer's location, but rather at the KUKA Repair Center. The defective part is replaced with one that has been completely overhauled and is as good as new in order to minimize downtime. That saves time and money since the exchange and repair service costs considerably less than a new part.

Customer satisfaction is an often-used term.

How do you approach it in spare parts services?

SANTJOHANSER: The customer will only be satisfied when we have solved their problem in the shortest possible time. That's why it's important for us to deliver everything in a single package that is required for replacement of a part. If important small parts like screws or assembly grease are missing, then even the fastest delivery is worthless. Our customers therefore receive so-called spare parts bundles. They include all the parts necessary for the replacement to be carried out.

What are your most important logistical processes?

SANTJOHANSER: All of our warehouses worldwide undergo continuous auditing so that they have the latest hardware and firmware. Unified standards are defined for all warehouses, and these allow us to ensure the correct charge of components such as batteries before shipment. The top priority is the complete, quick delivery of all required spare parts to any production location of our customers. In emergencies, we deliver around the clock and, if desired, by express courier 24 hours a day, 365 days a year.

»We replacecomponentsimmediately.That reduces downtimeto a minimum.«

What tasks lie ahead for KUKA Customer Services?

SANTJOHANSER: We at KUKA Customer Services are constantly thinking about what we do and how we do it. Have we best served our customers? Is there anything we can do even better? Here too, advanced technology helps us to find new answers. Good service 20 years ago would be poor service today. Perfection requires constant change. That's what we are working on. For today and for the future.



All products offered by

KUKA Global Customer Services

were designed with

one goal in mind:

to maximize your success.

KUKA Global Customer Services – a unique portfolio.

Global presence, local availability

Worldwide system partner network

Specific industry experience

Full coverage of the product life cycle

Proven Best-Practice concepts

Worldwide training standards

Needs-based service products

24-hour support in your language

... and much more



Your competitive advantage with KUKA: flexibility, speed, cost-efficiency.

Whether production needs to be throttled, increased or a sequence needs to be completely changed, KUKA robots are with you every step of the way thanks to excellent **Customer Services. The entire KUKA Customer Services** program is built to improve the cost-efficiency of your production, to respond quickly and to minimize downtime in emergencies.

That means we replace parts at the right time in order to maintain the full performance of robot systems even after years of use. It also means that training programs enable your employees to optimize the system on their own, that you can always reach our experts, that required spare parts and service technicians will be on their way to you in the shortest amount of time.

We at KUKA take an integrated approach to Customer Services that extends from system installation and programming through to maintenance and technical support, not to mention training programs for your employees. This means you get a single, competent and fast point of contact for all tasks related to automation. And that helps you work more quickly, flexibly and cost-effectively in your market than the competition. Those in turn are the best conditions to not just survive in your market but to build on your position there.

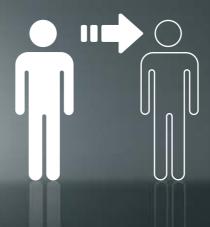


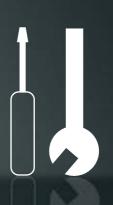
20 \ Global. Customer. Services. \ Four Building Blocks

Four building blocks, one goal: perfect Customer Services for you.

Robotic Consulting & Engineering, KUKA College, Technical Support and Refurbishment – four building blocks through which we guarantee our customers perfectly integrated Customer Services. From planning to maintenance, and of course supplying older robots with the necessary spare parts. Our service personnel are all excellently trained and up to speed on the latest technology. They install, replace, repair and are there when you need them – without exceptions.











COMPREHENSIVE ADVICE: KUKA ROBOTIC CONSULTING & ENGINEERING. Our Engineering Team supports you in the design and implementation of new automation systems and optimizes existing ones. This way, the systems provide optimal support for your production at all times – even under altered operating conditions.



ONGOING QUALIFICATION: KUKA COLLEGE.

KUKA College is our answer to the everincreasing training needs of your employees. Nothing is as old as yesterday's knowledge. That's why KUKA College teaches the knowledge of tomorrow.



ROUND-THE-CLOCK ASSISTANCE:

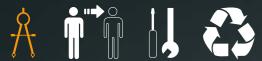
KUKA TECHNICAL SUPPORT. Regular maintenance, spare parts supply and fast technical assistance in emergencies: these are the tasks of our Technical Support. Competent service professionals are always nearby when you need them, at a speed and with an expertise that are unbeatable.



READY FOR THE FUTURE:

KUKA REFURBISHMENT. When times change, KUKA robot systems can be easily adapted to meet new production and safety demands. KUKA Refurbishment gets the robot system ready for its second product life cycle. This adds value and brings your system up-to-date in a cost-efficient manner.









KUKA Robotic Consulting & Engineering.

Every solution has

individual requirements.

KUKA covers them all.

Automation solutions need to be unique since our customers use them for very specific goals. Our goal is to equip you with custom-made systems that can be optimally integrated into your existing production processes.

To achieve this, our Robotic Consulting & Engineering Team prefers quick and direct routes of communication – from day one until the complete implementation of your project. KUKA supports you in the planning and optimization of your system designs with professional virtual simulation tools. We also provide you with application-specific programming for robots using scalable software solutions as well as the development of specific program commands, plug-ins and complete technology packages. Beyond this, we create and implement application-specific software and hardware technology tailored to your needs, calculate the necessary load data for selection of the correct robots and plan the appropriate payload

The end result is perfection and a system that is as unique as









KUKA College.

Hands-on training for smart knowledge transfer.

Machines alone cannot optimize a production process. Successful automation requires the perfect harmony of man and machine.

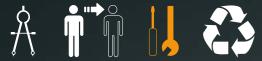
That is the reason why KUKA College trains your employees all over the world in the use of our systems. Specially trained and certified instructors equip them to become system supervisors, system operators, robot programmers or service technicians. They teach the necessary knowledge and skills with the aid of state-of-the-art technical equipment. The methodology and didactics of the offered training programs meet the same high standards worldwide.

Seminars can also take place right on-site. KUKA makes mobile training cells available for just this purpose. At the end of each seminar, your employees receive a certificate and are optimally trained to work with our robot systems. That's how you get the most out of the potential of automation.

8000

AND MORE
TRAINING PARTICIPANTS
EACH YEAR GO THROUGH OUR
ROBOT TRAINING WORLDWIDE.











100% expertise –

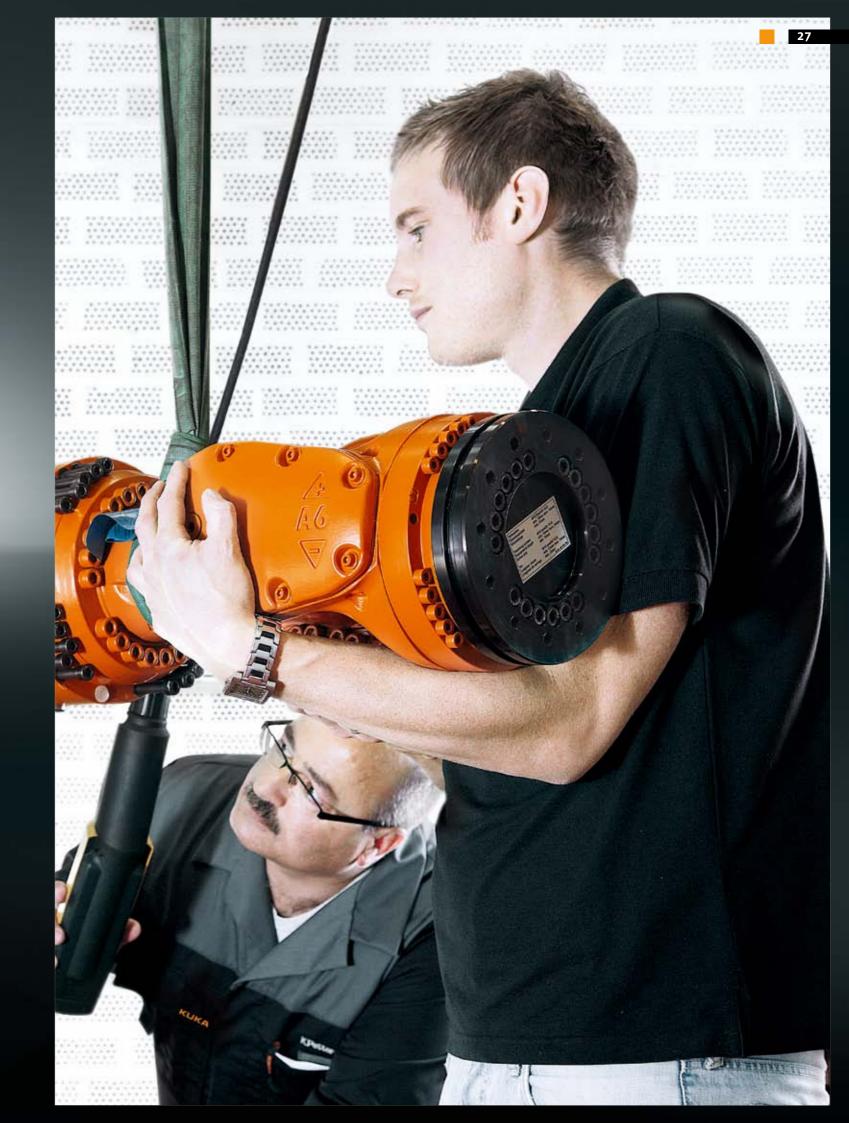
direct from the manufacturer.

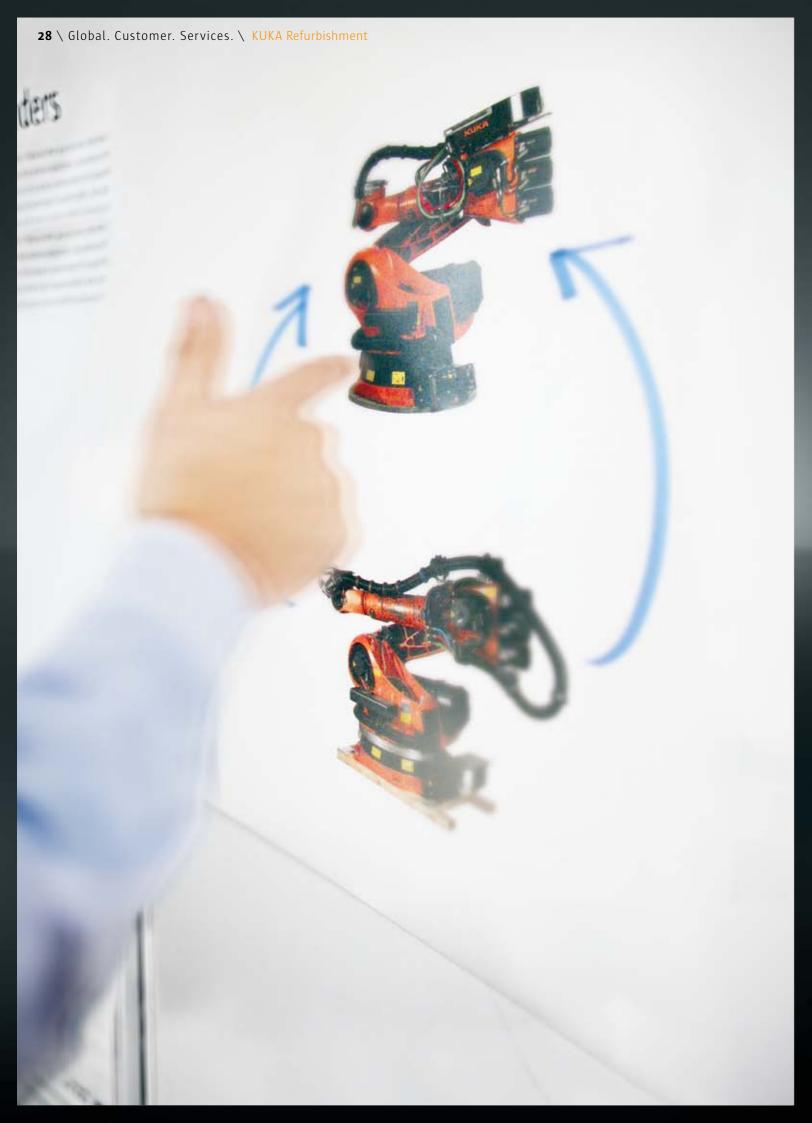
A global service network, 24-hour hotline support, and spare parts as well as maintenance management are the four pillars of Technical Support at KUKA. Each one is important. Through the Technical Support centers of the KUKA service network, with more than 500 professionals in more than 30 countries, our robot specialists are there for you day or night.

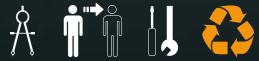
In most countries in the world, we deliver the necessary spare parts within 24 hours on average. Through KUKA Hotline Support, we also offer a 24-hour standby number for you to speak directly with highly qualified robot specialists. In order to minimize downtime, KUKA Technical Support provides rapid and precise fault analysis over the phone. KUKA maintenance management is carried out by the very people who developed and built the robot. Thanks to this unique expertise, they can recognize and correct weak points more quickly than anyone else. They continuously add breadth and depth to their knowledge at KUKA's own College.

For Technical Support, we offer the following service packages: KUKA Service24, KUKA MaintenancePro and the KUKA Combi24Pro combo package. With KUKA Service24 you have access to the 24-hour standby number and much more, with KUKA MaintenancePro you are guaranteed the expertise of KUKA robotics specialists in carrying out yearly preventive measures.

IN STOCK AND AVAILABLE TO YOU







KUKA Refurbishment.

Age is only a number. For KUKA robots, too.

Experts from our Refurbishment department adapt KUKA robots to meet new challenges. They get them ready for further product life cycles and take care of comprehensive testing, assembly and transportation.

Three packages are available for the overhaul of your KUKA robots. The "Basic" package offers the exchange of wearing parts as well as maintenance service on all robot axes, inlcuding wear measurement. Besides all of the services in the "Basic" package, the "Pro" package includes extremely precise calibration of the manipulators as well as remastering. The "Extra" package, in turn, includes all of the services in the "Pro" package as well as the cosmetic upgrade of your KUKA robot (for example, painting of the manipulator and controller). The result of the comprehensive KUKA Refurbishment is impressive: your completely overhauled KUKA robot is as good as new – both technically and optically.

Three further packages cover scopes of services ranging from robot testing to recommissioning, including logistics. With the "Removal" package, the robots are carefully removed from the old systems and properly packaged ready for shipping. With the "Analysis" package, we examine your robots beforehand and collect information about the state of the system along with overhaul measures that are due. The "Logistics" package incorporates the transport, storage and project management of your systems until reuse.

All six KUKA Refurbishment packages mentioned can be flexibly and individually tailored to your needs in order to provide optimal support for your productivity.

181

ROBOT VARIANTS

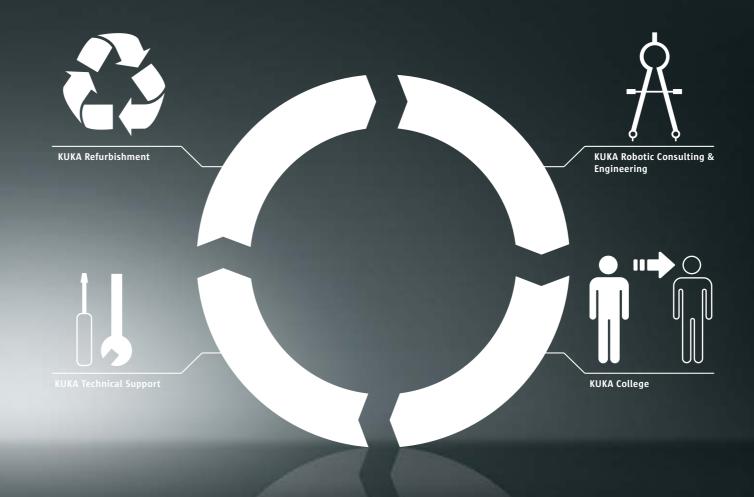
EACH ONE READY FOR MORE THAN ONE LIFE CYCLE.

30 \ Global. Customer. Services. \ Product Life Cycle

We combine our efforts for your productivity.

»Listen, Understand, Get Going« stands for the comprehensive commitment of KUKA Customer Services. We listen to you, provide you with access to a valuable informational advantage and act in your interest to increase your competitiveness through automation.

That's why we organize our service in the four working areas of "Robotic Consulting & Engineering", "College", "Technical Support" and "Refurbishment". Beyond installing automation systems, we offer maintenance, support and refurbishment as well as training for your employees to create the best possible interaction of man and machine. At KUKA, these individual areas mesh together and shape each other in order to develop optimal service solutions for our customers. Good Customer Services demand an integrated concept. We have tailor-made it for you.





Your advantages as a KUKA contract customer

Individual 24-hour standby number -

Remote diagnosis via direct online access to your system controller

Immediate coordination of spare parts shipping outside of working hours

Coordination of required service visits outside of working hours



More about the service packages
can be found on our website
www.kuka-robotics.com/germany/en/support

32 \ Global. Customer. Services. \ Think global – act local

33

Wherever you are. KUKA is close by.

Good Customer Services require a quick local response. That's why KUKA is present all over the globe. When needed, just pick up the telephone. KUKA experts are available for you 24 hours a day, every day of the year. They can help you right over the phone and in your language. KUKA maintains a worldwide service network with over 500 qualified emplyees in more than 30 countries.

We not only offer quick help in emergencies, but also individual services throughout the entire life cycle of your robots. The qualified specialist for the task at hand is close by, wherever your site is located.



24

HOURS

IS WHAT WE NEED ON AVERAGE TO DELIVER SPARE PARTS TO ANYWHERE IN THE WORLD.

