

Worldwide addresses and contacts.

○ EUROPE

KUKA AUTOMATISERING + ROBOTS N.V.
Centrum Zuid 1031
3530 Houthalen . Belgium
P +32 11 516160
F +32 11 526794
info@kuka.be

KUKA ROBOTICS HUNGÁRIA IPARI KFT.
Fő út 140
2335 Taksony . Hungary
P +36 24 501609
F +36 24 477031
info@kuka-robotics.hu

**KUKA SVETSANLÄGGNINGAR +
ROBOTAR AB**
A. Odhners gata 15
42130 Västra Frölunda . Sweden
P +46 31 7266 200
F +46 31 7266 201
info@kuka.se

**KUKA ROBOTER GMBH –
GLOBAL SALES CENTER**
Hery-Park 3000
86368 Gersthofen . Germany
P +49 821 4533 0
F +49 821 4533 1616
info@kuka-roboter.de

KUKA ROBOTER ITALIA S.P.A.
Building Center Leonardo da Vinci
Via Pavia 9/a - int. 6
10098 Rivoli (To) . Italy
P +39 011 9595 013 r.a.
F +39 011 9595 141
kuka@kuka.it

KUKA AUTOMATISME + ROBOTIQUE SAS
Techvallée
6 . Avenue du Parc
91140 Villebon S/Yvette . France
P +33 1 6931660 0
F +33 1 6931660 1
commercial@kuka.fr

**KUKA ROBOTER GMBH –
VERTRIEBSBÜRO ÖSTERREICH**
Regensburger Strasse 9/1
4020 Linz . Austria
P +43 732 784752
F +43 732 793880
office@kuka-roboter.at

**KUKA SVEISEANLEGG +
ROBOTER AB**
Avd. Norway
Bryggeveien 9 . Postbox 17
2801 Gjøvik . Norway
P +47 61 133422
F +47 61 186200
info@kuka.no

**KUKA SISTEMAS
DE AUTOMATIZACIÓN S.A.**
Rua do Alto da Guerra nº50
Armazém 04
2910-011 Setúbal . Portugal
P +351 265 729780
F +351 265 729782
kuka@mail.telepac.pt

**KUKA SISTEMAS
DE AUTOMATIZACIÓN S.A.**
Pol. Industrial . Torrent de la Pastera
Carrer del Bages s/n
08800 Vilanova i la Geltrú
Barcelona . Spain
P +34 93 8142 353
F +34 93 8142 950
comercial@kuka-e.com

KUKA ROBOTER SCHWEIZ AG
Riedstrasse 7
8953 Dietikon . Switzerland
P +41 44 74490 90
F +41 44 74490 91
info@kuka-roboter.ch

KUKA AUTOMATION + ROBOTICS
Hereward Rise Halesowen
West Midlands B62 8AN GB
Great Britain
P +44 121 5850 800
F +44 121 5850 900
sales@kuka.co.uk

○ AMERICA

RUBEN COSTANTINI S.A.
Luis Angel Huergo 13 20
Parque Industrial
2400 San Francisco (CBA)
Argentina
P +54 3564 421033
F +54 3564 428877
ventas@costantini-sa.com

ROBOTEC S.A.
Santiago . Chile
P +56 9 8264467
robotec@robotec.cl

KUKA ROBOTER DO BRASIL LTDA.
Avenida Franz Liszt 80
Parque Novo Mundo
Jd. Guanã
CEP 02151 900 – Sao Paulo . Brazil
P +55 11 6984 4900
F +55 11 6201 7883
info@kuka-roboter.com.br

KUKA DE MÉXICO S. DE R.L. DE C.V.
Rio San Joaquín #339 . Local 5
Colonia Pensil Sur
México . D.F. C.P. 11490
P +52 55 52038 407
F +52 55 52038 148
info@kuka.com.mx

KUKA ROBOTICS CORP.
22500 Key Drive
Clinton Township
Michigan 48036 . USA
T 866 8735852 (gebührenfrei)
P +1 586 5692082
F +1 586 5692087
info@kukarobotics.com

○ AUSTRALIA

**MARAND PRECISION
ENGINEERING PTY. LTD.**
153 Keys Road
Moorabbin . Victoria 31 89
Australia
P +61 3 855206 00
F +61 3 855206 05
robotics@marand.com.au

○ ASIA

**KUKA FLEXIBLE MANUFACTURING
SYSTEMS (SHANGHAI) CO., LTD.**
Building No. 9 . Tianying Rd 502
Shanghai Qingspu Industrial Zone
201712 Shanghai . P.R. China
P +86 21 5922 8883
F +86 21 5922 8538
info@kuka.cn

**KUKA ROBOT AUTOMATION
KOREA CO. LTD.**
4 Ba 806 Sihwa Ind. Complex
Sung-Gok Dong . Ansan City
Kyunggi Do . 425-110 . Korea
P +82 31 49699 37
F +82 31 49699 39
info@kukakorea.com

**KUKA ROBOT AUTOMATION SDN BHD
SOUTH EAST ASIA REGIONAL OFFICE**
No. 24 . Jalan TPP 1/10
Taman Industri Puchong
47100 Puchong . Selangor . Malaysia
P +60 3 80610613
F +60 3 80617386
info@kuka.com.my

**KUKA ROBOT AUTOMATION
TAIWAN CO. LTD.**
136 . Section 2 . Huanjung East Road
Jungli City . Taoyuan
Taiwan 320
P +886 3 4371902
F +886 3 2830023
info@kuka.com.tw

**KUKA ROBOT AUTOMATION (M) SDN BHD
THAILAND OFFICE**
111/1-3 . Moo 12 . Kingkaew Road
Ratchatheva . Bangplee
Samutprakarn 10540 . Thailand
P +66 2 3124954 4955
F +66 2 7504399
nithipong@kuka.com.my

○ AFRICA

JENDAMARK AUTOMATION LTD.
76a York Road
North End
Port Elizabeth 6000 . South Africa
P +27 41 3914700
F +27 41 3733869
info@jendamark.co.za



KUKA ROBOTER GMBH | GLOBAL SALES CENTER . Hery-Park 3000 . 86368 Gersthofen . Germany
P +49 821 4533 0 . F +49 821 4533 1616 . info@kuka-roboter.de . www.kuka.com





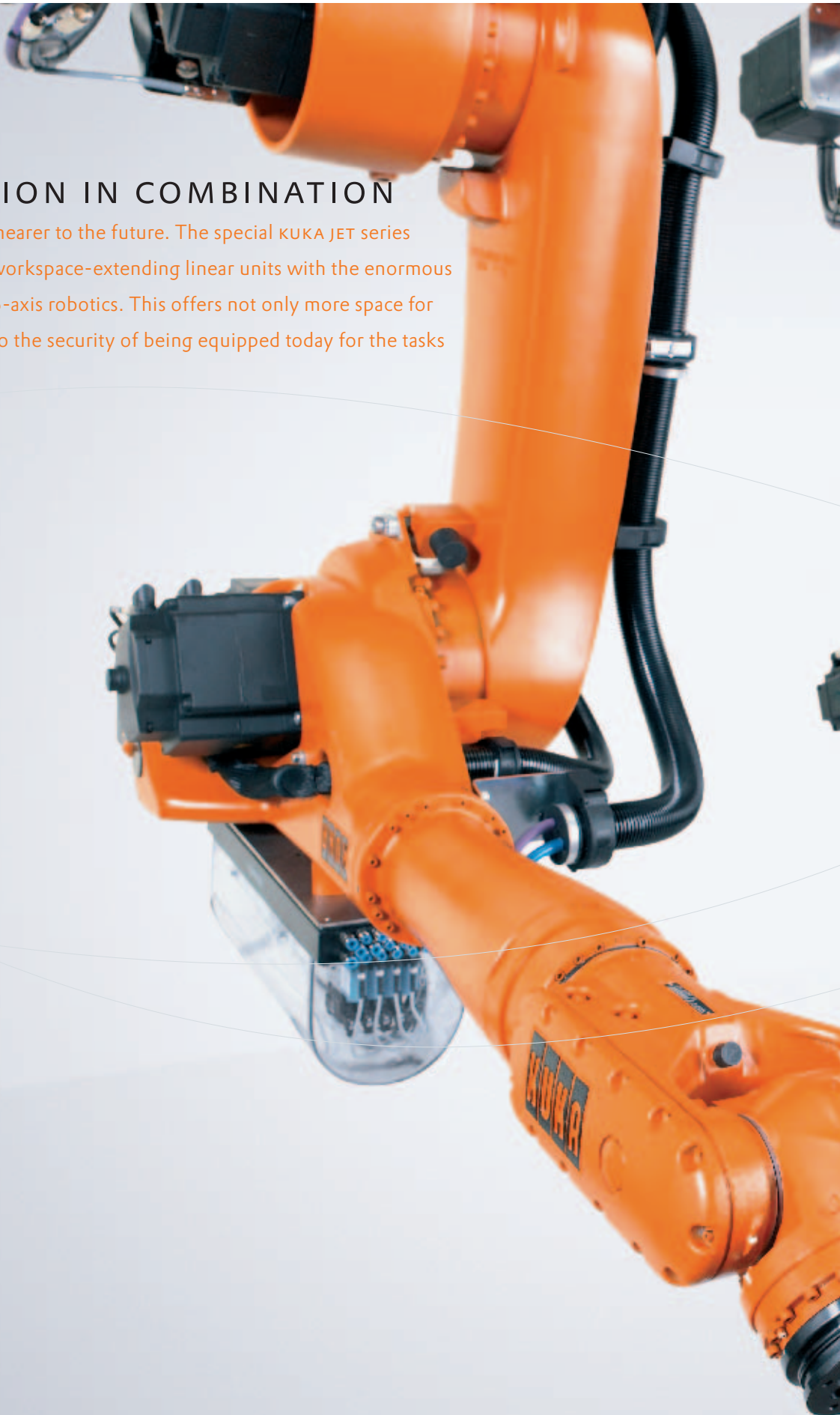
KUKA JET

LINEAR UNITS WITH JOINTED-ARM ROBOTS

- KR 30 JET
- KR 60 JET
- KR 60 L30 JET
- KR 60 L45 JET

THE SERIES ○ **PERFECTION IN COMBINATION**

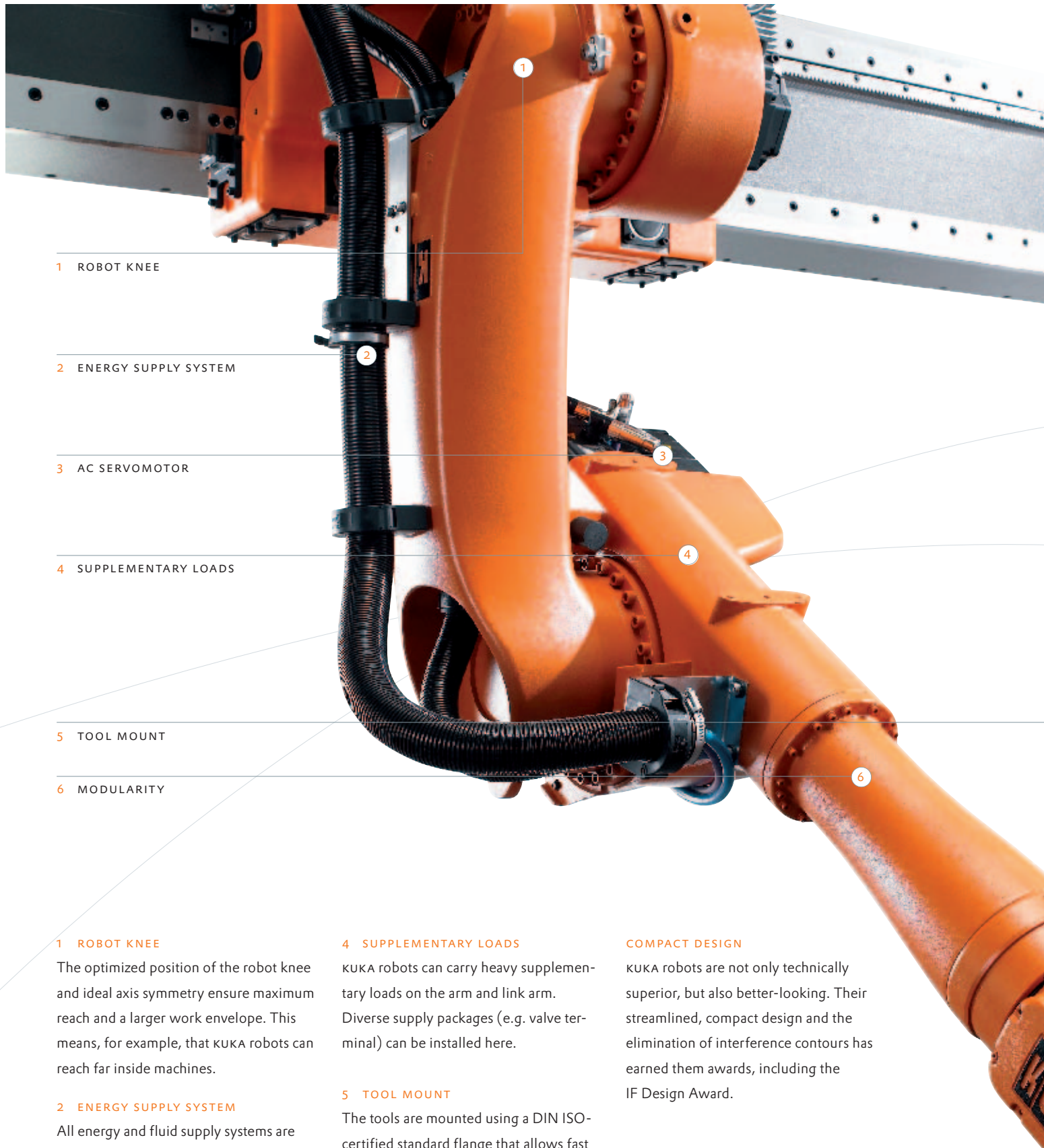
Those who think further are nearer to the future. The special KUKA JET series combines the advantages of workspace-extending linear units with the enormous potential of state-of-the-art 6-axis robotics. This offers not only more space for increased productivity but also the security of being equipped today for the tasks of tomorrow.



EFFICIENCY

GREATER PRODUCTIVITY AND MAXIMUM AVAILABILITY

The KUKA JET automates machine tending tasks and handling on production lines. As with all KUKA robots, the availability of the KUKA JET is extremely high, so that productivity gains of up to 30 % for a given application are not uncommon, while availability of 99.99 % is taken for granted.



1 ROBOT KNEE

2 ENERGY SUPPLY SYSTEM

3 AC SERVOMOTOR

4 SUPPLEMENTARY LOADS

5 TOOL MOUNT

6 MODULARITY

1 ROBOT KNEE

The optimized position of the robot knee and ideal axis symmetry ensure maximum reach and a larger work envelope. This means, for example, that KUKA robots can reach far inside machines.

2 ENERGY SUPPLY SYSTEM

All energy and fluid supply systems are routed in such a way as not to restrict the motion radii of the axes.

3 AC SERVOMOTOR

Proven KUKA technology, such as maintenance-free AC servomotors, tried and tested thousands of times around the world, ensure maximized operating times and high cost-efficiency.

4 SUPPLEMENTARY LOADS

KUKA robots can carry heavy supplementary loads on the arm and link arm. Diverse supply packages (e.g. valve terminal) can be installed here.

5 TOOL MOUNT

The tools are mounted using a DIN ISO-certified standard flange that allows fast tool changes. Tools for the most varied of applications can be mounted.

6 MODULARITY

The modular structure (e.g. arm extension) ensures that the overall system can be adapted at any time to individual customer requirements.

COMPACT DESIGN

KUKA robots are not only technically superior, but also better-looking. Their streamlined, compact design and the elimination of interference contours has earned them awards, including the IF Design Award.

THE KUKA PRINCIPLE ○ INNOVATION FROM TRADITION

KUKA robots have been automating the world. For more than three decades. With an innovative drive that has revolutionized industrial manufacturing. As a ground-breaking source of new ideas, setting the pace in the development of 6-axis robots, or as a pioneer in PC-controlled programming – KUKA has always been ahead of its time. Then as now. And also in the future, with the goal of continuously consolidating our technological and market leadership and keeping our customers a step ahead of the competition.



AC SERVOMOTOR



ARM EXTENSIONS



VALVE TERMINAL

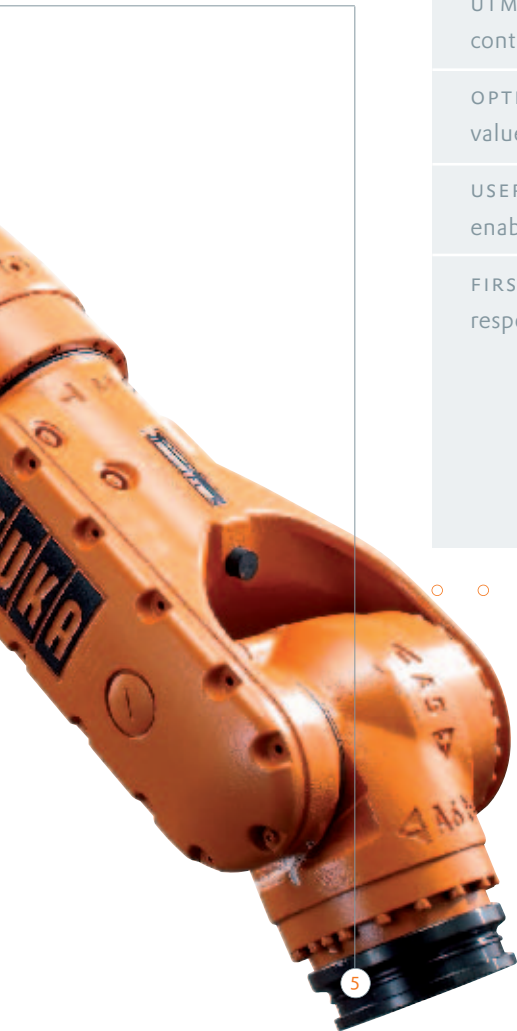
ADVANTAGES OF THE KUKA PRINCIPLE

UTMOST PRECISION: Highly accurate link-and-gear combinations and optimized control loops in the kinematic chain provide unrivaled repeatability.

OPTIMUM SPEED: The low weight of the robots ensures optimum acceleration values and maximum working velocities. This allows minimized cycle times.

USER-FRIENDLY CONTROLLER: Windows™-based KUKA control technology enables simple installation, start-up and programming of the robot.

FIRST-CLASS SERVICE: With the highest-density service network and the fastest response times, KUKA offers an unrivaled level of service.



5



THE TECHNOLOGY ○ **NEW DIMENSIONS**

The KUKA JET series, as a combination of linear unit and jointed-arm robot, stands out for its maximized work envelope. As a powerful alliance of state-of-the-art linear and jointed-arm robot technology that enables maximum speed in even the tightest spaces. As a system with extremely large and flexible workspaces, offering automated machine tending and material handling for the most diverse manufacturing processes. KUKA JET – more space for more productivity.

INCREASING FLEXIBILITY

KUKA JET can be mounted both overhead and to the side. A wide range of gantry variants and a linear unit that is specially adapted to the individual production requirements ensure that the best automation system is employed for every production process.

OVERCOMING DISTANCES

KUKA JET automates machine tending and material handling tasks in production processes. Even large distances of up to 20 m can be covered. The length of the linear unit can be adapted in gradations of 400 mm to the customer's requirements. There are also 3 different types of support element available.





OVERHEAD INSTALLATION
Overhead gantry variant with lateral support elements and 1 robot on a linear unit.

1-2 ENERGY AND FLUID SUPPLY SYSTEMS

There are many different options for energy and fluid supply, enabling the KUKA JET to be converted for any application required.

Through integration into the energy supply chain, long distances can be overcome without difficulty.

3 CARRIAGE

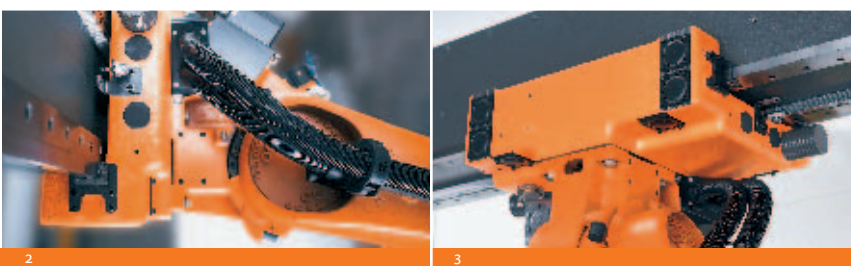
The KUKA JET needs only a little space to achieve greater results. The compact design and the carriage, which measures only 850 mm, ensure that its efficiency knows no bounds, even in the tightest spaces. The minimal zero travel of the carriage means that the full length of the linear axis can be used.

TOP PICTURE: SPEED

The extremely high working speeds of axis 1 make it possible to achieve short cycle times and productivity gains.

THE TECHNOLOGY ○ TOP TECHNOLOGY FOR THE FUTURE

Automation solutions today have to be able to do more than just optimize production processes. They have to increase the competitiveness of their users well into the future. The KUKA JET series is already ideally equipped for this task. With technological standards that point the way to the future.



VERSATILE

The modular design and the use of arm extensions ensure that KUKA JET can be adapted to any task required.

The KUKA JET can also carry out a range of different tasks in a single production process. It is much more flexible when it comes to complex removal operations and can be easily adapted to different component sizes.

REDUCING INVESTMENT COSTS

Complex operations and handling tasks can be solved much more flexibly and simply with a 6-axis robot than with customized linear handling systems. Our customers generally also benefit from significantly lower investment and maintenance costs.

NUMEROUS OPTIONS

There is a wealth of options available for KUKA JET. Such as a valve terminal for controlling customized gripper systems. Or an impact-resistant, corrosion-protected foundry wrist, which is resistant to both acids and alkalis and gives top performance even at temperatures of up to 180° C.

And, of course, our wide range of software solutions is also available for KUKA JET. For instance EUROMAP 67, an interface which optimizes communication between an injection molding machine and KUKA JET. Or the Safe Option, our software-based machine protection and operator safety package for maximum safety in the work envelope.

MINIMIZED CYCLE TIMES

The optimal interaction between the linear unit and the robot guarantees top speeds, resulting in minimized cycle times.



SERIES

KUKA PRINCIPLE

TECHNOLOGY

CONTROLLER

DATA



1



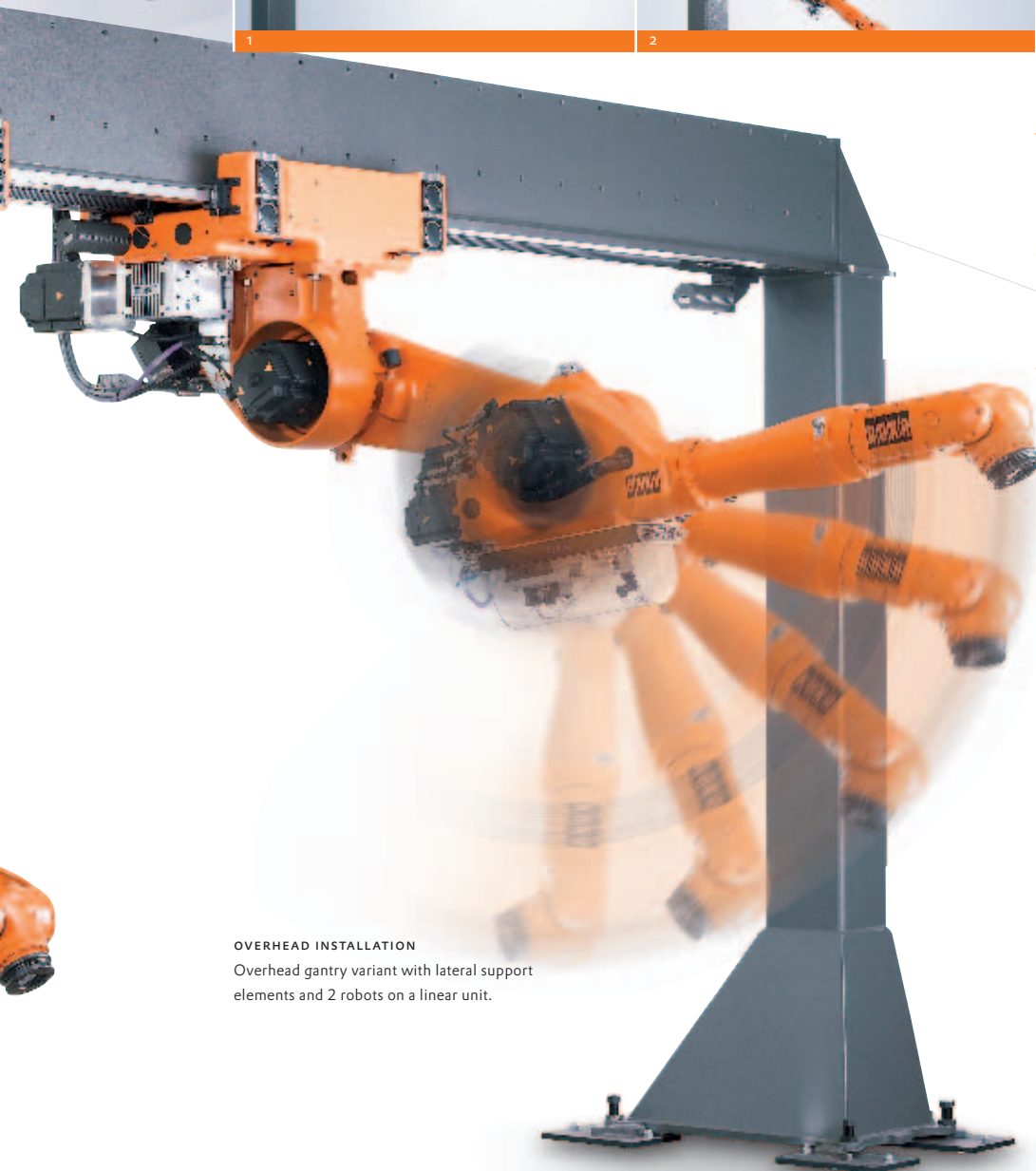
2



3

INSTALLATION EXAMPLES

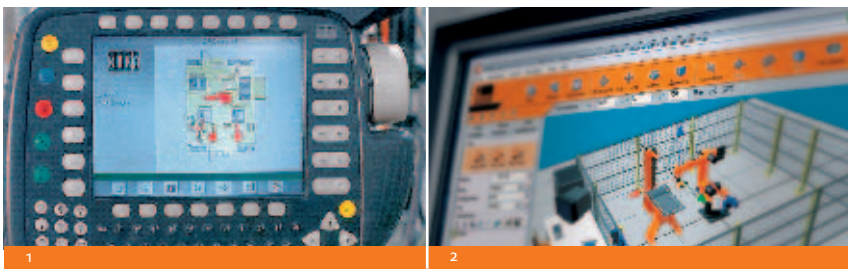
- 1 **SIDE INSTALLATION**
Gantry variant for side installation. The support elements are mounted below the track in this example.
- 2 **OVERHEAD INSTALLATION**
Overhead installation of the robot. The support elements are attached to the side of the track.
- 3 **EXTENSION**
KUKA JET enables the use of 2 robots on a single linear axis. This makes it possible to work on a number of machines or at different positions within a production process. They are controlled by the service-proven and user-friendly KR C2.



OVERHEAD INSTALLATION
Overhead gantry variant with lateral support elements and 2 robots on a linear unit.

THE CONTROLLER ○ COMMUNICATION THROUGH INTEGRATION

KUKA robots open up enormous potential. Intelligent control systems and software solutions from KUKA help to exploit this potential to the full. KUKA robot controllers are based on user-friendly Windows™-compliant user interfaces offering maximum functionality which can be mastered with a minimum of training. In this way, even the most complex systems can be started up quickly and easily and adapted at any time to new requirements or tasks.



1 SPS CONTROLLER (KUKA.PLC)

Integration of a KUKA Soft PLC allows the KUKA robot controller to assume control of the entire manufacturing cell. This saves high hardware costs and also makes the system significantly more flexible.

2 SIMULATION (KUKA.SIM)

KUKA.SIM makes it possible to simulate the planned application. This enables processes to be visualized and optimized before commissioning.

PERFORMANCE FEATURES OF THE KUKA CONTROL PANEL (KCP):

Ergonomic KUKA Control Panel for easy operation

Predefined forms for quicker entry of commands

Efficient operator guidance

Fast teaching with the 6D mouse

Familiar Windows™-style operation

KUKA CONTROL PANEL (KCP)

The KCP teach pendant is fitted with an 8" color display, 6D mouse and customer-specific softkeys and hardkeys to make handling the controller even easier.

PERFORMANCE FEATURES OF THE KUKA KR C2 ROBOT CONTROLLER:

Open, network-capable PC technology

Integrated control and drive concept for the entire robot range

Easy exchange of components, without the need for tools

DeviceNet (master) and Ethernet (in Windows™ system) as standard
Additional bus systems and real-time Ethernet optionally available

Room for installation of up to 2 external axes

Proven drive systems in conjunction with PC technology for industrial environments

Remote diagnosis options via modem or network

Compact control cabinet, small footprint (approx. 0.3 m²)

KUKA KR C2 ROBOT CONTROLLER

The KR C2 is highly versatile and can be expanded at any time and integrated into networks via bus. A wide range of software expansions is optionally available.

3 HUMAN MACHINE INTERFACE (HMI STUDIO)
 HMI studio provides components for quick and easy creation of extensive production screens and cell visualization. This means that even the most complex sequences can be clearly visualized in a way that is readily comprehensible to the operating personnel.

4 SAFE OPTION
 Safe option is a software-based machine protection and operator safety package that monitors the entire axis range and thus ensures maximum safety in the workspace

... and many more

KUKA SOFTWARE SOLUTIONS
 KUKA robots stand for maximum dynamism and innovative drive. Their intelligence is derived from a wide range of software options from the field of system integration and also from industry-specific software solutions.



3

4

THE DATA ○ ROBOT DATA

TECHNICAL DATA

	KR 30 JET	KR 60 JET	KR 60 L45 JET	KR 60 L30 JET
Payload	30 kg	60 kg	45 kg	30 kg
Supplementary load	35 kg	35 kg	35 kg	35 kg
Max. suppl. load, link arm / arm	65 kg	95 kg	80 kg	65 kg
Max. reach	820 mm	820 mm	1020 mm	1220 mm
Number of axes	6	6	6	6
Repeatability of complete system	±0.30 mm	±0.30 mm	±0.35 mm	±0.35 mm
Controller	KR C2	KR C2	KR C2	KR C2

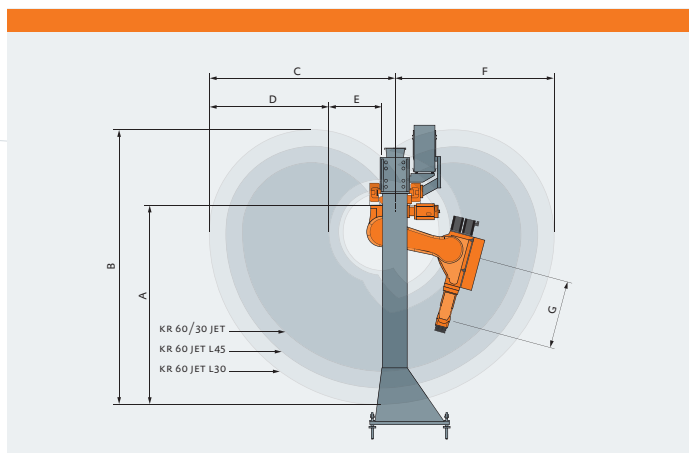
AXIS RANGES (SOFTWARE)

	KR 30 JET	KR 60 JET	KR 60 L45 JET	KR 60 L30 JET
Axis 1 (A1)	dependent on length	dependent on length	dependent on length	dependent on length
Axis 2 (A2)	+0°/-180°	+0°/-180°	+0°/-180°	+0°/-180°
Axis 3 (A3)	+158°/-120°	+158°/-120°	+158°/-120°	+158°/-120°
Axis 4 (A4)	+350°/-350°	+350°/-350°	+350°/-350°	+350°/-350°
Axis 5 (A5)	+119°/-119°	+119°/-119°	+119°/-119°	+119°/-119°
Axis 6 (A6)	+350°/-350°	+350°/-350°	+350°/-350°	+350°/-350°

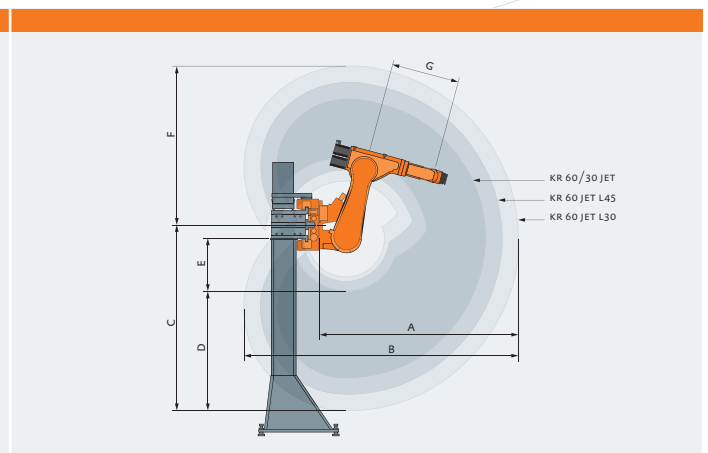
AXIS SPEEDS

	KR 30 JET	KR 60 JET	KR 60 L45 JET	KR 60 L30 JET
Axis 1 (A1)	3.2 m/s	3.2 m/s	3.2 m/s	3.2 m/s
Axis 2 (A2)	126°/s	120°/s	120°/s	120°/s
Axis 3 (A3)	140°/s	140°/s	140°/s	140°/s
Axis 4 (A4)	260°/s	260°/s	260°/s	260°/s
Axis 5 (A5)	245°/s	245°/s	245°/s	245°/s
Axis 6 (A6)	322°/s	322°/s	322°/s	322°/s

WORK ENVELOPE ○ Overhead installation



WORK ENVELOPE ○ Side installation

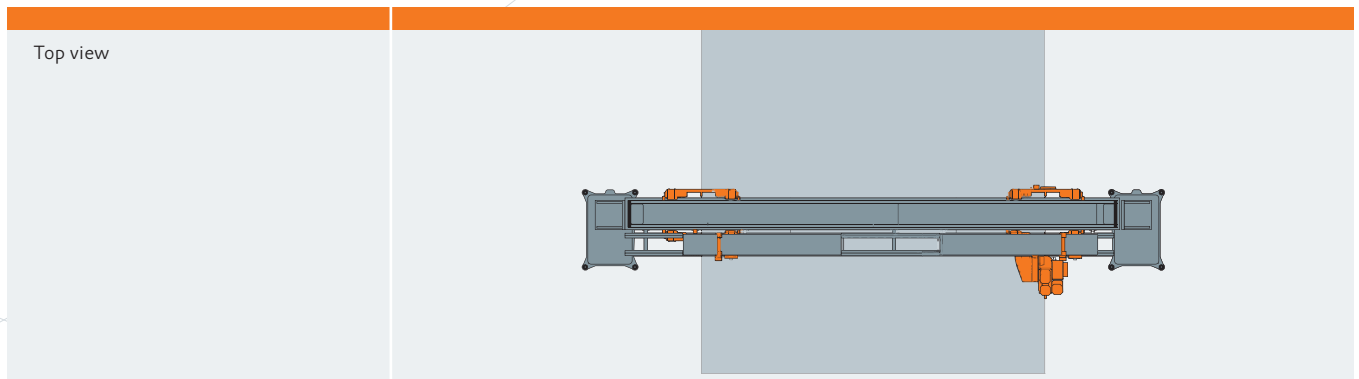
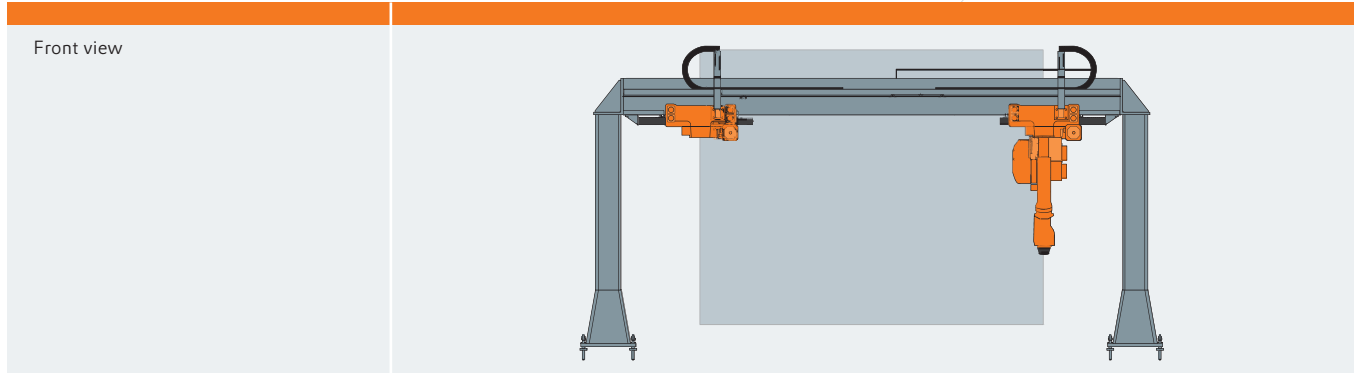


TECHNICAL DATA

	KR 30 JET	KR 60 JET	KR 60 L45 JET	KR 60 L30 JET
A	2000 mm	2000 mm	2200 mm	2400 mm
B	2515 mm	2515 mm	2915 mm	3315 mm
C	1847 mm	1847 mm	2047 mm	2247 mm
D	1218 mm	1218 mm	1363 mm	1446 mm
E	466 mm	466 mm	519 mm	638 mm
F	1518 mm	1518 mm	1718 mm	1918 mm
G	820 mm	820 mm	1020 mm	1220 mm

THE DATA ○ LINEAR UNITS

VARIANT 1 ○ Overhead installation with supports to the side



VARIANT 2 ○ Side installation with supports below

