

**KUKA**



**The specialist for  
arc welding**

**KR 5 arc HW**

»KR 5 arc HW: THE PROFESSIONAL WITH THE LONGEST SERVICE LIFE

Arc welding is a job for professionals – like the KR 5 arc HW. One highlight of this arc welding specialist is its hollow-wrist design with a 50 mm opening. All common types of hollow-wrist dress packages can be routed in the protected interior of the arm, with easy access for quick exchange if necessary. This simplifies offline programming and extends the service life of the dress package. It also prevents undesirable whiplash during reorientation of the robot.

The KR 5 arc HW is also built to endure, with protection rating IP54 for harsh conditions and the longest service life in its class: with 40,000 hours of guaranteed production and maintenance intervals of over 20,000 hours, it sets the highest standards. **The advantages: high planning reliability and security of investment.**

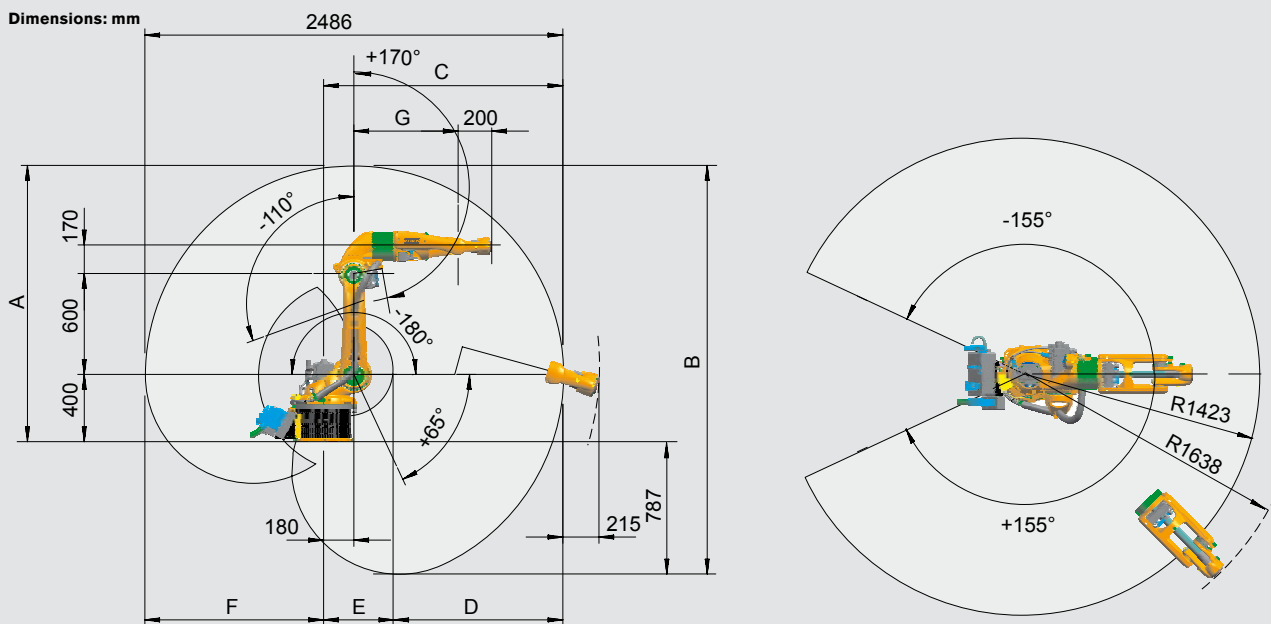
»EXTREMELY FAST – EXTREMELY POWERFUL

Increase the output of your welding systems: the infinitely rotating axis 6 means that it is not necessary to rotate the wrist back again between work cycles. Furthermore, the combination of powerful AC motors and a weight of only 126 kg gives the KR 5 arc HW a very high dynamic performance and thus significantly greater production capacity. **The advantages: shorter cycle times and greater productivity.**

»EXTREMELY ROBUST – EXTREMELY PRECISE

Utmost precision ensures maximum process quality for arc welding: the robust arm design with double-sided mounting of the robot wrist results in increased stiffness and reduced vibrations – and is resilient in the case of minor collisions. In combination with high-precision gear units, this welding professional achieves a repeatability of less than ± 0.04 mm. **The advantages: optimum process results and fewer rejects.**

»TECHNICAL DETAILS KR 5 arc HW



Work envelope	Dimensions <sup>1)</sup>							Volume
	A	B	C	D	E	F	G	
KR 5 arc HW	1,643 mm	2,430 mm	1,423 mm	967 mm	456 mm	1,063 mm	620 mm	9.8 m <sup>3</sup>

<sup>1)</sup> Relative to intersection of axes 4/5

» **EXTREMELY SPACE-OPTIMIZED – EXTREMELY FLEXIBLE**

Even when things get tight: the reduced interference contours and the large distance between axis 5 and the robot flange allow welding deep within the workpiece, greatly increasing the work envelope. The KR 5 arc HW is also highly flexible due to a wide range of mounting options – floor, ceiling or linear unit. And the KUKA Posiflex positioner system ensures fast, precise positioning of workpieces. **The advantages: reduced space requirements and improved accessibility.**

» **EXTREMELY VERSATILE – EXTREMELY SAFE**

KUKA has the right software package for your welding application: for example, KUKA.ArcTech for fast start-up, KUKA.SeamTech for automatic seam tracking, or KUKA.TouchSense for tactile seam searching. The monitoring of safety zones is provided for by Safe Robot Technology. And if the coordinated teamwork of several robots is required, we offer the RoboTeam application package. **The advantages: maximum scope and maximum safety.**



The opening with a diameter of 50 mm in the arm and wrist leaves space for additional fluids in the dress package.



The optimally protected dress package is an integral part of the welding equipment.

Type	KR 5 arc HW
Maximum reach	1,423 mm
Rated payload	5 kg
Suppl. load, arm/link arm/rotating col.	12/~/20 kg
Suppl. load, arm + link arm, max.	-
Maximum total load	37 kg
Number of axes	6
Mounting position	Floor, ceiling
Variant	-
Positioning repeatability*	±0.04 mm
Path repeatability*	
Controller	KR C2 edition2005
Weight (excluding controller), approx.	126 kg
Temperature during operation	+10 °C to +55 °C
Protection classification	IP 54
Robot footprint	324 mm x 324 mm
Connection	7.3 kVA
Noise level	< 75 dB

Axis data	Range (software)	Speed with rated payload
		5 kg
Axis 1 (A1)	±155°	156°/s
Axis 2 (A2)	+65°/-180°	156°/s
Axis 3 (A3)	+170°/-110°	227°/s
Axis 4 (A4)	±165°	390°/s
Axis 5 (A5)	±140°	390°/s
Axis 6 (A6)	Infinitely rotating	858°/s

This robot type is also available as a standard model without the hollow-wrist design, under the model name KR 5 arc.

Drive system, electromechanical with brushless AC servomotors

\*to ISO 9283

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## »THE KUKA ROBOT GROUP: YOUR STRONG PARTNER

Quality made in Germany, creativity and the utmost commitment to customers and business partners: these form the basis on which KUKA develops the best possible technologies and thus the optimal automation concepts. The result is that you receive custom-tailored solutions and benefit from decisive process optimization.

Genuine passion for the fascination of robotics is reflected in our slogan “KUKA YOUR IDEAS”, which is also our promise to you: Whatever you want to do, and however unusual your idea may be, with us you can implement anything – irrespective of the specific branch of industry and irrespective of whether or not a similar application has existed before.

Whatever task you give us, KUKA has the required specialists. In close cooperation with experienced system partners with competence in their respective industries, we do everything in our power to implement your ideas. Let us work on them together.

## »KUKA SERVICES: ALWAYS THERE FOR YOU

You can rely on us to stand by you in every phase of a project: from planning and commissioning to maintenance and conversion. 24 hours a day. 365 days a year. The high-density KUKA service network ensures that we are always in your vicinity and can start your production in record time.

# KUKA YOUR IDEAS

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