

KUKA



**Series 2000:
The stacking experts for
top dynamic performance**

**Series 2000
KR 100-2 PA,
KR 180-2 PA**


product
design
award
2002


reddot design award
winner 2002

»KR 100-2 PA AND KR 180-2 PA: OUR MOST POPULAR PALLETIZERS

Higher, faster, further: KUKA makes things easy for you – with the most extensive range of palletizing robots in the world. A total of eleven models are available for your palletizing, order picking and handling tasks: with payloads from 40 to 1,300 kg and reaches from 1,991 to 3,600 mm. This unique comprehensiveness gives you the flexibility to use the robot that is perfectly dimensioned for your requirements.

For individual models, various options are available: different arm extensions and the use of H1 oil approved for applications in the food industry. You can also decisively expand the work envelope of any model by mounting it on a KUKA linear unit. A further decisive factor: you benefit from top quality and shorter cycle times. **The advantages: a high degree of planning reliability and security of investment.**

»EXTREMELY FAST – EXTREMELY OPTIMIZED

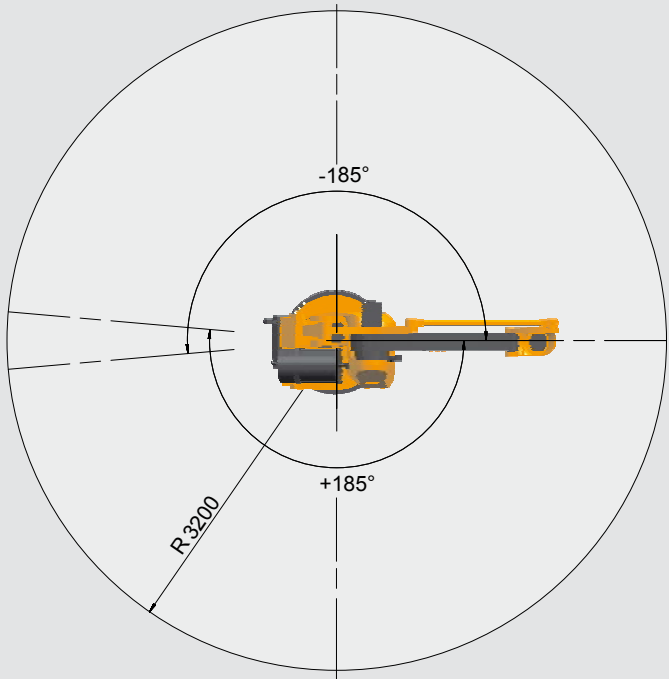
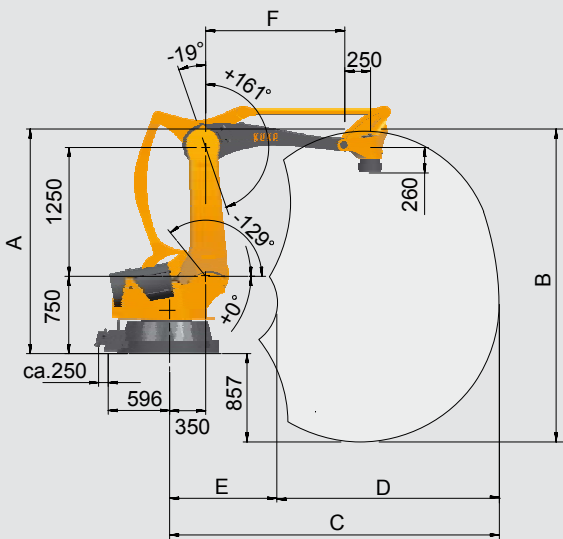
Increase your output: the KR 100-2 PA and KR 180-2 PA belong to the 2000 Series and thus have particularly powerful motors and high-performance gear units. These ensure top dynamic performance and fast production at approx. 30 cycles per minute. And thanks to the optimized design, these stacking specialists are able to stack multiple pallets up to great heights with ease. **The advantages: shorter cycle times and greater productivity.**

»EXTREMELY POWERFUL – EXTREMELY RELIABLE

With their carbon-fiber-reinforced components, the KR 100-2 PA und KR 180-2 PA score in more ways than one: firstly, the mass to be moved is reduced, thereby greatly increasing performance and reducing energy consumption. Secondly, the usual high stiffness is maintained, ensuring reliable operation for every requirement. Thirdly, the resulting functional design has already won many awards. **The advantages: greater performance and lower energy consumption.**

»TECHNICAL DETAILS KR 100-2 PA AND KR 180-2 PA

Dimensions: mm



Work envelope	Dimensions ¹⁾						Volume
	A	B	C	D	E	F	
KR 100-2 PA	2,180 mm	3,037 mm	3,200 mm	2,160 mm	1,040 mm	1,350 mm	72.7 m³
KR 180-2 PA	2,180 mm	3,037 mm	3,200 mm	2,160 mm	1,040 mm	1,350 mm	72.7 m³

¹⁾ Relative to intersection of axes 4/5

»EXTREMELY COLD-PROOF – EXTREMELY COST-SAVING

Engineered for deep-freeze environments: The KR 180-2 PA is also available as the special Arctic variant for reliable palletizing down to -30 °C. The special Arctic equipment ensures reliable operation and protects all drive units and electric cables. This robot needs neither a protective suit nor special heating for the mechanical system, which significantly reduces costs and maintenance requirements. **The advantages: optimal availability and utmost reliability.**



Fast, light, precise – and a great design: the use of carbon-fiber-reinforced components opens up many advantages.

»EXTREMELY SIMPLE – EXTREMELY VERSATILE

KUKA has the right software package for your palletizing tasks: for example, KUKA.Pallet Pro for planning and controlling cells, or KUKA.GripperTech for simple gripper programming. For offline simulations and cycle time optimization we offer the program KUKA.Sim. Programming is also made easy by the intuitive user interface and clear visualization. **The advantages: maximum ease of operation and rapid commissioning.**



Whether mounted on the floor or on a pedestal (as seen here): with approx. 30 cycles per minute, the KR 100-2 PA and KR 180-2 PA excel all down the line.

Type	KR 100-2 PA	KR 180-2 PA
Maximum reach	3,200 mm	3,200 mm
Rated payload	100 kg	180 kg
Suppl. load, arm/link arm/rotating col.	50/-/200 kg	50/-/200 kg
Suppl. load, arm + link arm, max.	50 kg	50 kg
Maximum total load	350 kg	430 kg
Number of axes	4	
Mounting position	Floor	
Variant		Arctic
Positioning repeatability*	±0.25 mm	
Path repeatability*		
Controller	KR C2 edition2005	
Weight (excluding controller), approx.	1,200 kg	1,200 kg
Temperature during operation	+10 °C to +55 °C	
Protection classification	IP 65	
Robot footprint	1,006 mm x 1,006 mm	
Connection	13.5 kVA	
Noise level	< 75 dB	

Drive system, electromechanical with brushless AC servomotors

Cycle: 400/2,000/400 mm

*to ISO 9283

Axis data	Range (software)	Speed with rated payload	
		100 kg	180 kg
Axis 1 (A1)	±185°	105°/s	105°/s
Axis 2 (A2)	0°/-129°	105°/s	105°/s
Axis 3 (A3)	+161°/-19°	105°/s	95°/s
Axis 4 (A4)	±350°	300°/s	300°/s

Details provided about the properties and usability of the products are purely for information purposes and do not constitute a guarantee of these characteristics. The extent of goods delivered and services performed is determined by the subject matter of the specific contract. No liability accepted for errors or omissions.



»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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