

KUKA

**The world's first
robot with a 1,000 kg
payload capacity**

KR 1000 titan



reddot design award
winner 2002

»KR 1000 TITAN: THE HEAVY-DUTY PROFESSIONAL WITH THE COMPACT DESIGN

From engine blocks to aircraft parts, marble blocks to concrete: the KR 1000 titan makes light work of such “heavyweights”. As the world’s first robot that can effortlessly handle loads of up to 1,000 kg, it also bridges gaps of up to 6.5 m with ease. A further strength is its compact design: size and dynamics in perfect balance.

The versatile KR 1000 titan is also available with an arm extension as the KR 1000 L750 titan: for payloads of up to 750 kg, the reach can thus be extended by 400 mm. With or without an arm extension: thanks to optimized components such as the lifetime-lubricated main axes and brushless servomotors, the KR 1000 titan is low on maintenance and equipped for the future. **The advantages: high degree of planning reliability and security of investment.**

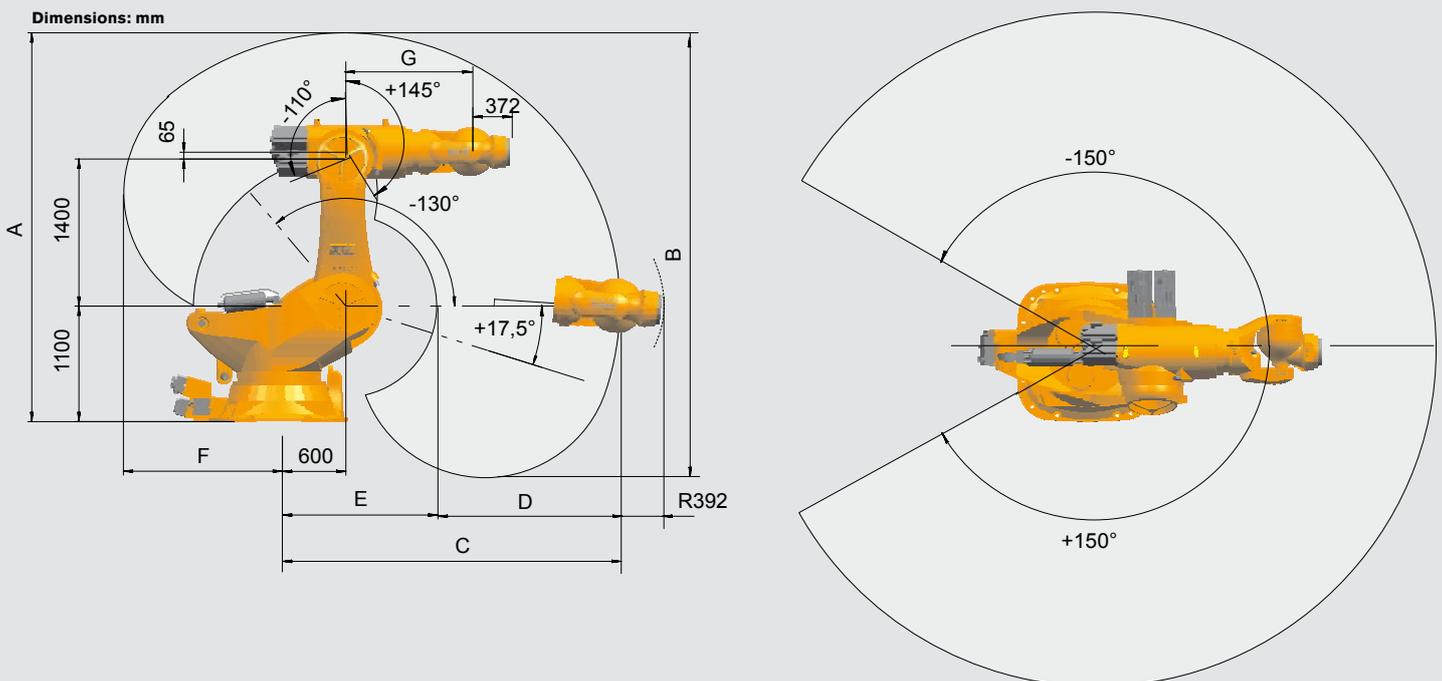
»EXTREMELY COMPACT – EXTREMELY COST-EFFECTIVE

All because it’s so compact: the KR 1000 titan allows space-saving cell designs, thus reducing shop costs. Minimal disruptive contours allow positioning close to the application and extend the available workspace. Further costs can be saved thanks to easy integration into existing systems: its optimized weight means that no adaptation of the foundations is necessary. **The advantages: reduced space requirements and lower costs.**

»EXTREMELY FAST – EXTREMELY PRECISE

Short cycle times, dynamic acceleration and high speed: with its low weight and nine powerful motors, the Titan is especially fast. Add to this a repeatability of less than ± 0.2 mm, and you benefit from greater productivity, fewer rejects, and lower costs – in short: greater efficiency. **The advantages: increased output and higher quality.**

»TECHNICAL DETAILS KR 1000 titan



Work envelope	Dimensions ¹⁾							Volume
	A	B	C	D	E	F	G	
KR 1000 titan	3,702 mm	4,225 mm	3,202 mm	1,732 mm	1,470 mm	1,502 mm	1,200 mm	79.8 m ³
KR 1000 L750 titan	4,101 mm	5,024 mm	3,601 mm	2,022 mm	1,579 mm	1,901 mm	1,600 mm	122.6 m ³

¹⁾ Relative to intersection of axes 4/5

» **EXTREMELY ROBUST - EXTREMELY RESISTANT**

Engineered for extreme conditions: the KR 1000 titan is available with or without an arm extension in the special Foundry variant (F) with a protection rating of IP 67 for environments with a high degree of fouling and high temperatures. Its features: an in-line wrist that is heat-resistant to 180 °C, heat-reflecting triple-coat paintwork, and maximum resistance to dust, lubricants, coolants and water vapor. **The advantages: top performance and utmost reliability.**

» **EXTREMELY VERSATILE - EXTREMELY SAFE**

KUKA offers you a comprehensive range of software: from ready-made application software for the most common applications to simulation programs for planning robot cells and Safe Robot Technology for monitoring safety zones. And for precisely coordinated teamwork with several robots, we offer the RoboTeam application package. **The advantages: maximum scope and maximum safety.**



Mechanical components of ductile cast iron and cast aluminum ensure maximum stability combined with maximum dynamic performance.

Two motors and gear units in axis 2 and a new drive concept in axis 1 ensure maximum accuracy with heavy payloads.

Type	KR 1000 titan	KR 1000 L750 titan
Maximum reach	3,202 mm	3,601 mm
Rated payload	1,000 kg	750 kg
Suppl. load, arm/link arm/rotating col.	50/-/- kg	
Suppl. load, arm + link arm, max.	50 kg	
Maximum total load	1,050 kg	800 kg
Number of axes	6	
Mounting position	Floor	
Variant	Foundry	
Positioning repeatability*	±0.20 mm	
Path repeatability*		
Controller	KR C2 edition2005	
Weight (excluding controller), approx.	4,690 kg	4,740 kg
Temperature during operation	+10 °C to +55 °C	
Protection classification	IP 65	
Robot footprint	2,000 mm x 2,000 mm	
Connection	13.5 kVA	
Noise level	< 75 dB	

Axis data	Range (software)	Speed with rated payload	
		1,000 kg	750 kg
Axis 1 (A1)	±150°	58°/s	58°/s
Axis 2 (A2)	+17.5°/-130°	50°/s	50°/s
Axis 3 (A3)	+145°/-110°	50°/s	50°/s
Axis 4 (A4)	±350°	60°/s	60°/s
Axis 5 (A5)	±118°	60°/s	60°/s
Axis 6 (A6)	±350°	72°/s	72°/s

Drive system, electromechanical with brushless AC servomotors

*to ISO 9283

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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