

KUKA



Mobile robotics_KMR QUANTEC



KMR QUANTEC

A new dimension in robotics –
with service-proven KUKA quality

It works with the utmost precision using the latest KR QUANTEC shelf-mounted robots and KUKA's service-proven KR C4 controller. It moves to the exact position required by way of a KUKA omniMove platform. This allows the KMR QUANTEC to master almost every scenario. It can be equipped with any KR QUANTEC shelf-mounted robot. Grippers, tools and special equipment can also be transported and supplied with power on the KMR QUANTEC. The power is supplied by standard commercial lead batteries via a converter. Adapt the position and number of robots installed to your requirements, as well as the size and payload capacity of the platform. The KMR QUANTEC shown here is just one of many examples.



Maximum flexibility and unrestricted maneuverability. Production processes are having to be adapted more and more frequently and quickly. Manufacturers who are able to react more flexibly have a competitive edge. With the KMR QUANTEC, it is possible to adapt quickly to new tasks. The robot moves to the workpiece. Complex transport operations to machining stations are no longer necessary. Thanks to the omnidirectional wheel concept, it can move in any direction from a standing start. Its working range is virtually limitless, which opens up entirely new production concepts and increases cost-effectiveness in production processes.



Autonomous navigation. The KMR QUANTEC uses built-in laser scanners to monitor its work environment, the integrated control software for navigation and motion responding intelligently to the surroundings. This enables work sequences to be carried out in a reliable and flexible manner. An autonomous power supply assures independence and long operating times. It is based on high-performance batteries. The KMR QUANTEC makes use of industrial WLAN technology, thus eliminating the need for cables and ensuring greater adaptability. At the same time, this wireless network allows for safe monitoring of the robot. The "KUKA Navigation Solution" navigation software enables collision-free path planning in the work environment. Implementation is quick and straightforward.

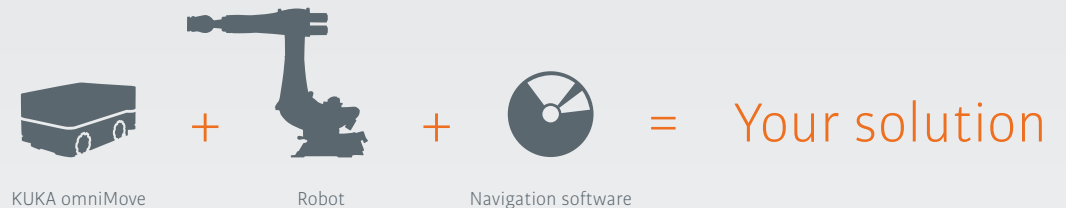
KMR QUANTEC – Mobile robotics for the precision machining of XXL components. It is now possible to achieve greater flexibility and productivity even when working on large-scale, heavy components that are barely transportable. The mobile industrial robot system KMR QUANTEC from KUKA puts precision robotics right where it is needed. Thanks to its e-mobility and KUKA intelligence, the system works to the highest level of precision in the construction of ships, aircraft and wind power plants.



_Utmost precision

_Maximum flexibility

_Autonomous navigation



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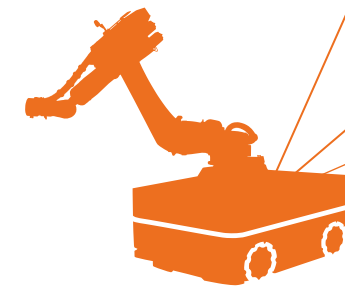


Maximum flexibility and unrestricted maneuverability. Production processes are having to be adapted more and more frequently and quickly. Manufacturers who are able to react more flexibly have a competitive edge. With the KMR QUANTEC, it is possible to adapt quickly to new tasks. The robot moves to the workpiece. Complex transport operations to machining stations are no longer necessary. Thanks to the omnidirectional wheel concept, it can move in any direction from a standing start. Its working range is virtually limitless, which opens up entirely new production concepts and increases cost-effectiveness in production processes.



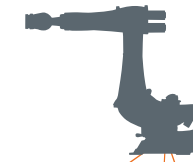
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Multitude of options
Configure the dimensions and payload capacity of your KMR QUANTEC solution individually to increase your productivity potential. Every KUKA omniMove UTV-2 can be adapted to meet your specific requirements.



KMR QUANTEC
The robot and mobile platform are not only connected in a physical manner. They are also connected by way of the intelligent KUKA KR C4 controller and its corresponding software. This results in a comprehensive solution offering uniquely high performance.

The KR QUANTEC series
represents industry-leading robotic technology with a particularly high power density. The robots combine precision, speed and an intelligently structured payload capacity spectrum.



KUKA omniMove
Select from a wide variety of standard variants to create a KUKA omniMove meeting your specific requirements.



Utmost precision and simple operator control. With the omnidirectional wheel technology, the KMR QUANTEC moves safely to the desired position, even in confined spaces. The platform achieves a positioning accuracy of ± 5 mm with ease, irrespective of whether the travel distance to the workstation is 5 m or 150 m. The KMR QUANTEC makes it possible to utilize the efficiency and reliability of KUKA robotic technology to machine extra-large components.



Freely scalable modular system. The KMR QUANTEC pushes boundaries. Also the limits of customization. It is freely scalable in terms of size, width and length. For you, this means: productivity without compromises. Adapt your KMR QUANTEC solution exactly to your specific requirements. And choose the ideal payload variant from the wide range of robots available in the KR QUANTEC series. The result: flexibility in XXL format.

Mobile robotics from KUKA

Assemble your own customized KMR QUANTEC.

KUKA robot

KR QUANTEC	KR 120 R2500 pro	KR 90 R2700 pro
Max. reach	2,500 mm	2,700 mm
Rated payload	120 kg	90 kg
Rated supplementary load, arm/link arm/rotating column	50 kg / - / -	50 kg / - / -
Rated total load	170 kg	140 kg
Pose repeatability	± 0.06 mm	± 0.06 mm
Number of axes	6	6

KR QUANTEC	KR 210 R2700 extra	KR 180 R2500 extra	KR 150 R2700 extra	KR 120 R2900 extra	KR 90 R3100 extra
Max. reach	2,696 mm	2,496 mm	2,696 mm	2,896 mm	3,095 mm
Rated payload	210 kg	180 kg	150 kg	120 kg	90 kg
Rated supplementary load, arm/link arm/rotating column	50 kg / - / -	50 kg / - / -	50 kg / - / -	50 kg / - / -	50 kg / - / -
Rated total load	260 kg	230 kg	200 kg	170 kg	140 kg
Pose repeatability	± 0.06 mm	± 0.06 mm	± 0.06 mm	± 0.06 mm	± 0.06 mm
Number of axes	6	6	6	6	6

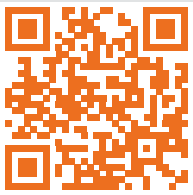
KR QUANTEC	KR 240 R2500 prime	KR 240 R2700 prime	KR 210 R2700 prime	KR 180 R2900 prime	KR 150 R3100 prime
Max. reach	2,496 mm	2,696 mm	2,696 mm	2,869 mm	3,095 mm
Rated payload	240 kg	240 kg	210 kg	180 kg	150 kg
Rated supplementary load, arm/link arm/rotating column	50 kg / - / -	50 kg / - / -	50 kg / - / -	50 kg / - / -	50 kg / - / -
Rated total load	290 kg	290 kg	260 kg	230 kg	200 kg
Pose repeatability	± 0.06 mm	± 0.06 mm	± 0.06 mm	± 0.06 mm	± 0.06 mm
Number of axes	6	6	6	6	6

KR QUANTEC	KR 300 R2500 ultra	KR 270 R2700 ultra	KR 240 R2900 ultra	KR 210 R3100 ultra
Max. reach	2,496 mm	2,696 mm	2,896 mm	3,095 mm
Rated payload	300 kg	270 kg	240 kg	210 kg
Rated supplementary load, arm/link arm/rotating column	50 kg / - / -	50 kg / - / -	50 kg / - / -	50 kg / - / -
Rated total load	350 kg	320 kg	290 kg	260 kg
Pose repeatability	± 0.06 mm	± 0.06 mm	± 0.06 mm	± 0.06 mm
Number of axes	6	6	6	6

KUKA omniMove UTV-2

Wheel sizes E375	3000	8000	12000	16000	20000
Payload	3,000 kg	8,000 kg	12,000 kg	16,000 kg	20,000 kg
Height	415 mm	415 mm	415 mm	415 mm	415 mm
Length	2,400 mm	3,200 mm	3,200 mm	4,000 mm	4,800 mm
Width	1,700 mm	1,700 mm	2,200 mm	2,200 mm	2,200 mm
Number of wheels	4	8	12	16	20
Weight	3,000 kg	4,000 kg	6,000 kg	7,000 kg	8,000 kg
Velocity	3.0 km/h	3.0 km/h	3.0 km/h	3.0 km/h	3.0 km/h

Wheel sizes E575	7000	15000	25000	35000	45000
Payload	7,000 kg	15,000 kg	25,000 kg	35,000 kg	45,000 kg
Height	650 mm	650 mm	650 mm	650 mm	650 mm
Length	3,000 mm	4,200 mm	4,800 mm	6,000 mm	7,200 mm
Width	1,850 mm	1,850 mm	1,850 mm	1,850 mm	1,850 mm
Number of wheels	4	8	12	16	20
Weight	4,500 kg	7,500 kg	10,000 kg	12,500 kg	15,000 kg
Velocity	3.0 km/h	3.0 km/h	3.0 km/h	3.0 km/h	3.0 km/h



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