



KMR CYBERTECH

Mobile robotics for production & logistics

KMR CYBERTECH

Automated machine loading - mobile, scalable, available at any time

Modern production is faced with an increasing number of variants, shorter cycle times and a growing shortage of skilled workers. This increases the need for manufacturing companies to implement flexible automation solutions. Added to this are physically demanding tasks such as lifting heavy parts or repetitive processes on machines. Automation systems such as the KMR CYBERTECH from BEC Robotics offer a powerful and scalable solution. Based on the proven technology of the KUKA CYBERTECH robot series and the omnidirectional KUKA Omnimove platforms, the KMR CYBERTECH combines high payload capacity, reach and mobility, which is well above the

performance range of many commercially available mobile robot systems.

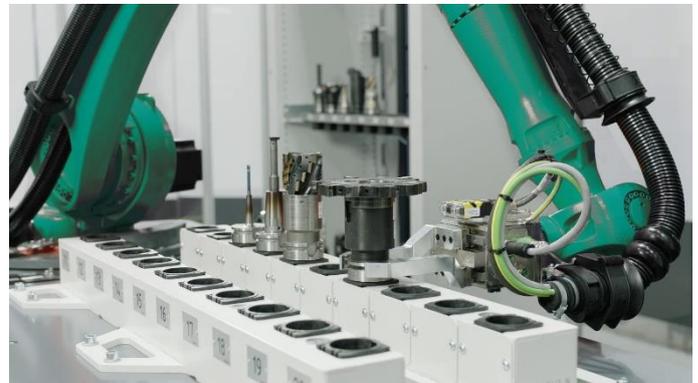
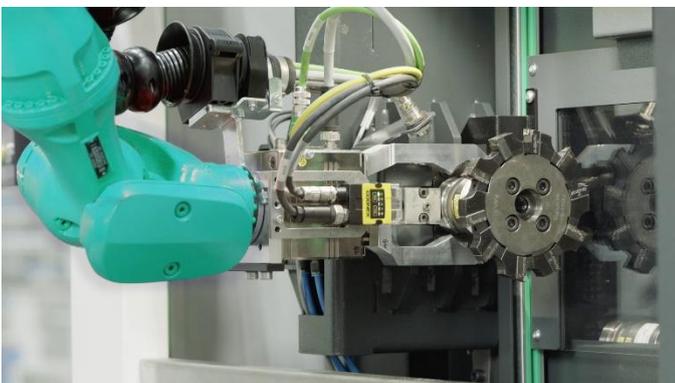


Intelligent production automation

Fully integrated, safe, efficient.

The KMR CYBERTECH is responsible for the automated loading and unloading of machining centers, CNC machines and production islands. It provides raw materials, removes finished parts and stores and retrieves components with precision. State-of-the-art sensor technology and AI-supported camera technology, coupled with on-board or stationary gripper changing systems, enable the reliable processing of a wide variety of workpieces. Interfaces to systems and the control system ensure

seamless integration into production processes. Manual processes such as opening and closing safety doors can also be performed by the robot. Thanks to inductive charging technology and in-process charging, continuous 24/7 operation is possible without scheduled charging breaks, for example when the robot is working in front of a machine – ideal for demanding production environments.



Smart Intralogistics even in the tightest of spaces

Tasks such as storage and retrieval as well as palletizing and depalletizing are performed fully automatically by the KMR CYBERTECH. The mobile platform offers sufficient space for transporting containers and workpieces, which can be flexibly picked up, moved and set down by the robot arm. With a load capacity of up to 22 kg and a working

area of up to 240 cm in height, the system is suitable for a wide range of application scenarios. Thanks to its compact design, its omnidirectional drive and its precise localization and navigation – even in dynamic environments – the KMR CYBERTECH ensures a smooth material flow, even in confined production or storage areas.



Relieve employees, unleash potential

The KMR CYBERTECH takes over physically strenuous and monotonous tasks and thus specifically relieves the strain on employees. This reduces sickness-related absences, increases team satisfaction and boosts the company's attractiveness

as an employer. At the same time, it frees up time for value-adding activities – the robot becomes a productive colleague that complements the team in a meaningful way.



Efficient automation - flexibly expandable

The KMR CYBERTECH can be easily integrated into new and existing production environments. By dispensing with stationary conveyor technology and intermediate storage, space is saved and processes are made more efficient. Whether as an individual application or in fleet operation, the scalable solution reduces costs, increases efficiency and improves overall system effectiveness. With the KMR CYBERTECH, BEC Robotics offers a powerful

automation solution that combines mobile robotics with industrial precision. By taking over physically demanding tasks, the robot creates the conditions for the ergonomic design of workstations. The system reliably automates production and logistics processes in continuous operation, relieves employees in a targeted manner and sustainably strengthens the competitiveness of manufacturing companies – a future-proof solution for Industry 4.0.

Mobile, strong, reliable

The Key Features at a glance

✓ High load capacity and long reach

Carries loads of up to 22 kg with a continuous working range from the floor to a height of 240 cm

✓ Proven industrial robotics from KUKA

Equipped with the powerful industrial robot from the CYBERTECH series and controlled via the reliable KUKA KRC5 controller.

✓ Precise and maneuverable drive system

Omnidirectional drive enables safe maneuvering even in tight production areas - ideal for existing systems and complex layouts.

✓ Adaptable to individual requirements

Available with various grippers, integrated or stationary gripper magazine and interfaces to systems and control systems.

✓ Inductive charging for 24/7 availability

Charging process takes place during operation (in-process charging) - for uninterrupted 24/7 continuous operation without fixed charging times

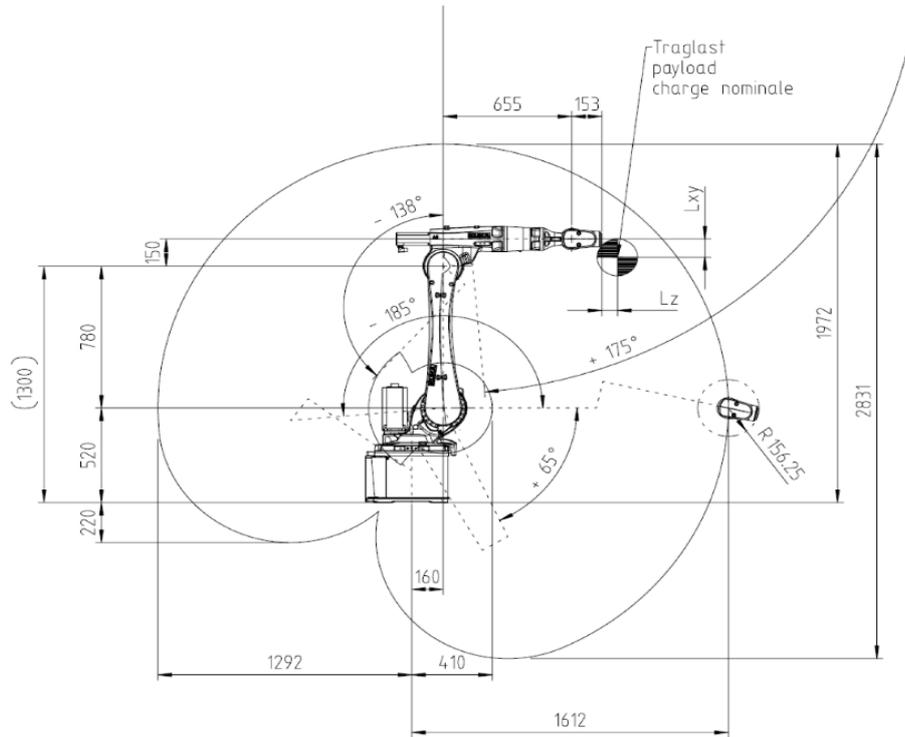
✓ SLAM navigation for high positioning accuracy

Reliable localization via natural environmental features - without any additional infrastructure.

Technical data at a glance

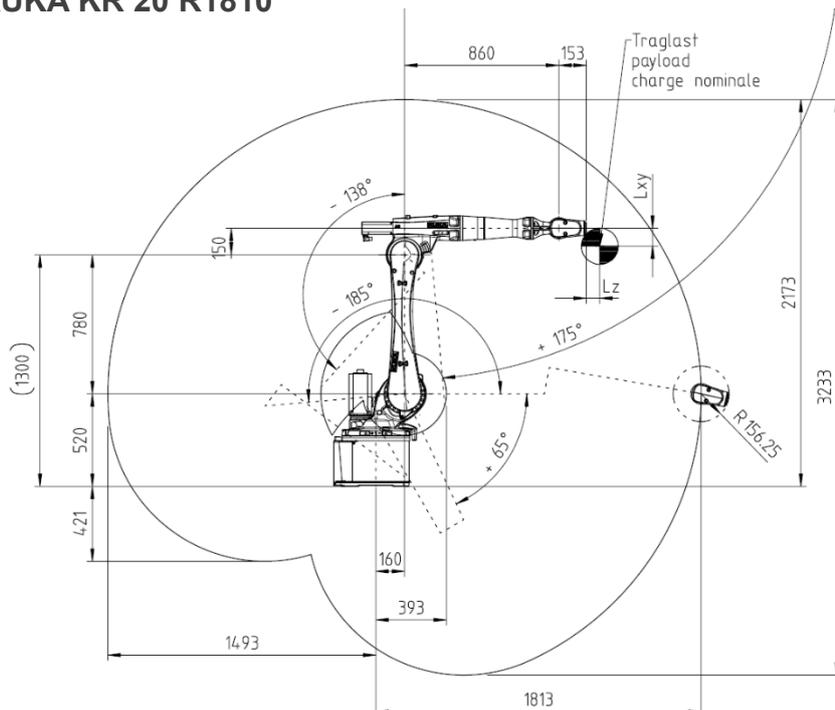
Working range KUKA KR 22 R1610

(in mm)



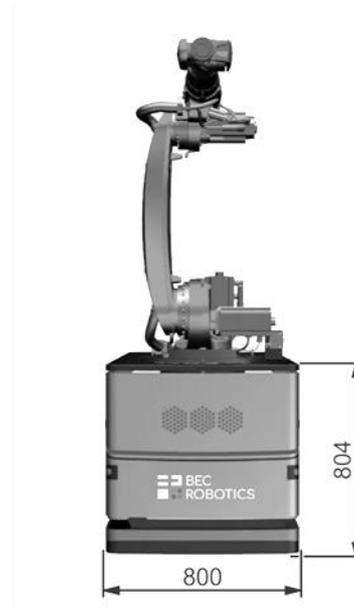
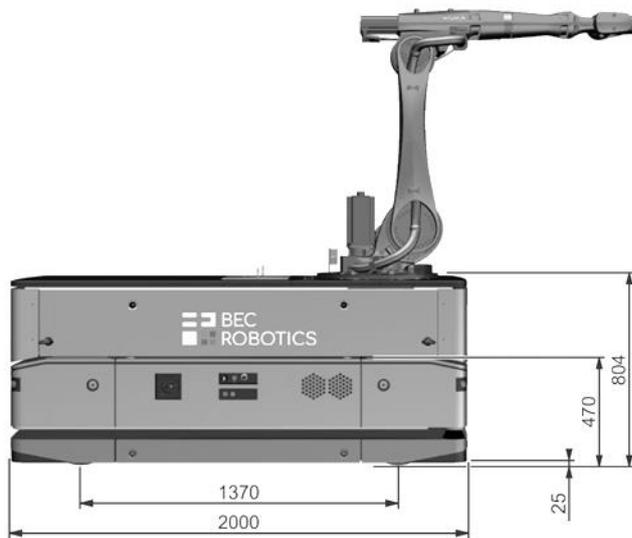
Working range KUKA KR 20 R1810

(in mm)



Dimensions

(in mm)



Weight

Total weight	1557 kg	Max. Payload (vehicle)	500 kg
Robot weight	255 kg	Max. total weight (with max. payload)	1957 kg

Vehicle

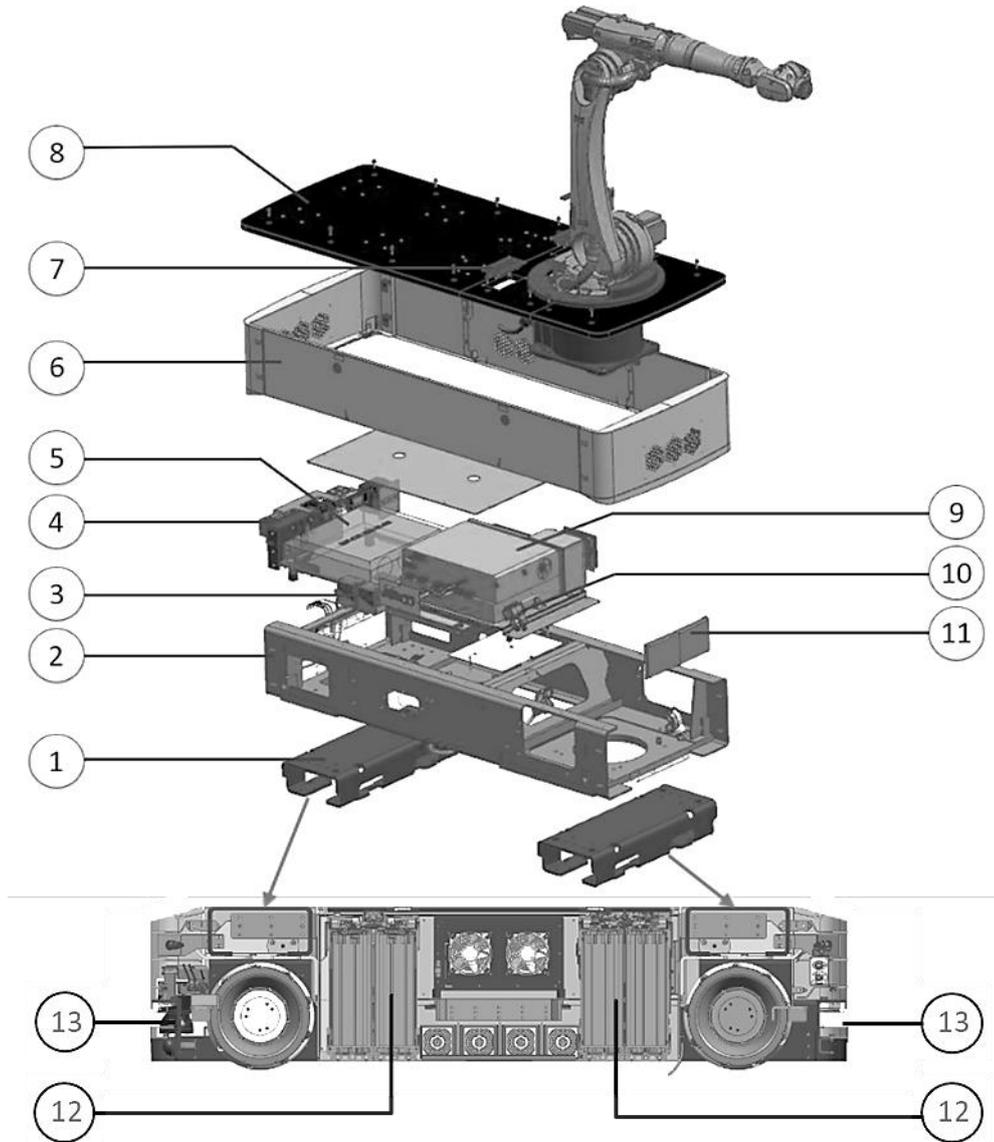
Based on the KUKA KMP 1500 omniMove system

Max. Speed in straight direction	1 m/s
Diameter Mecanum wheels (4 pieces)	310 mm
Track width (wheel center - wheel center)	495 mm
Wheelbase	1370 mm
Ground clearance	14 mm

Robot

	KR 20 R1810	KR 22 R1610
Max. Payload	20 kg	22 kg
Max. Reach	1810 mm	1610 mm
Max. Velocity	30%	30%

Systemkomponenten



1. Two consoles (mechanical interface to the KMP1500-3)
2. Base frame application level
3. Backup batteries KR C5 control board
4. Power converter 48V / 400VAC
5. Application level for robots
6. Cable entry - electrical interface
7. Mounting plate with fastening threads
8. KR C5 S robot controller
9. Electrical interface (27VDC / Ethernet)
10. Air filter mat
11. Lithium iron phosphate batteries
12. Laser scanner (PL-d, Cat. 3) for safety and navigation

BEC GmbH
Marktstrasse 195
72793 Pfullingen
Germany

info@bec-robotics.com
www.bec-robotics.com

© BEC GmbH 04-2025