

# KUKA



Biggest portfolio in the low payload class  
\_KR CYBERTECH



For your maximum productivity,  
we set ourselves no limits.



**\_new**

World's Biggest Robot  
Portfolio in low payload class

# Perform \_unlimited

The biggest robot portfolio in the low payload class is still growing – and providing a maximum boost to your productivity. That is because KR CYBERTECH robots are tailored to your specific applications. You will thus quickly find the perfect robot for your automation task, combined with minimal investment and energy costs.

# The KR CYBERTECH robots \_Productivity maximized

Entrust your automation to high-performance professionals: the KR CYBERTECH robots. No other portfolio in the low payload class offers a comparable combination of high power density, compact masses and application-relevant specialization.



**\_new**

World's Biggest Robot  
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**Where the selection is large, there is no need to compromise.**

With their extreme range of potential use, the KR CYBERTECH robots are heralding a new era in the low payload class. The focus is on your specific application and your requirements for an efficient solution that is as cost-effective as possible.

And the selection is becoming ever greater. You can now choose the ideal solution for your handling tasks, continuous-path applications and machining tasks from a highly specialized range. It has never been easier to find the right robot for first-class process results, for which KUKA offers maximum planning reliability and security of investment.

## KR CYBERTECH

Type	Reach	Rated payload
KR 22 R1610	1,610 mm	22 kg
KR 20 R1810 *	1,810 mm	20 kg
KR 16 R2010	2,010 mm	16 kg
KR 16 R1610	1,610 mm	16 kg
KR 12 R1810	1,810 mm	12 kg
KR 8 R2010	2,010 mm	8 kg
KR 8 R2100 arc HW	2,100 mm	8 kg

## KR CYBERTECH nano

Type	Reach	Rated payload
KR 10 R1420	1,420 mm	10 kg
KR 10 R1420 <b>HP</b>	1,420 mm	10 kg
KR 8 R1620	1,620 mm	8 kg
KR 8 R1620 <b>HP</b>	1,620 mm	8 kg
KR 6 R1820	1,820 mm	6 kg
KR 6 R1820 <b>HP</b>	1,820 mm	6 kg
KR 8 R1420 arc HW	1,420 mm	8 kg
KR 8 R1620 arc HW	1,620 mm	8 kg
KR 6 R1820 arc HW	1,820 mm	6 kg

\* available in diverse special variants

**HP** High Protection

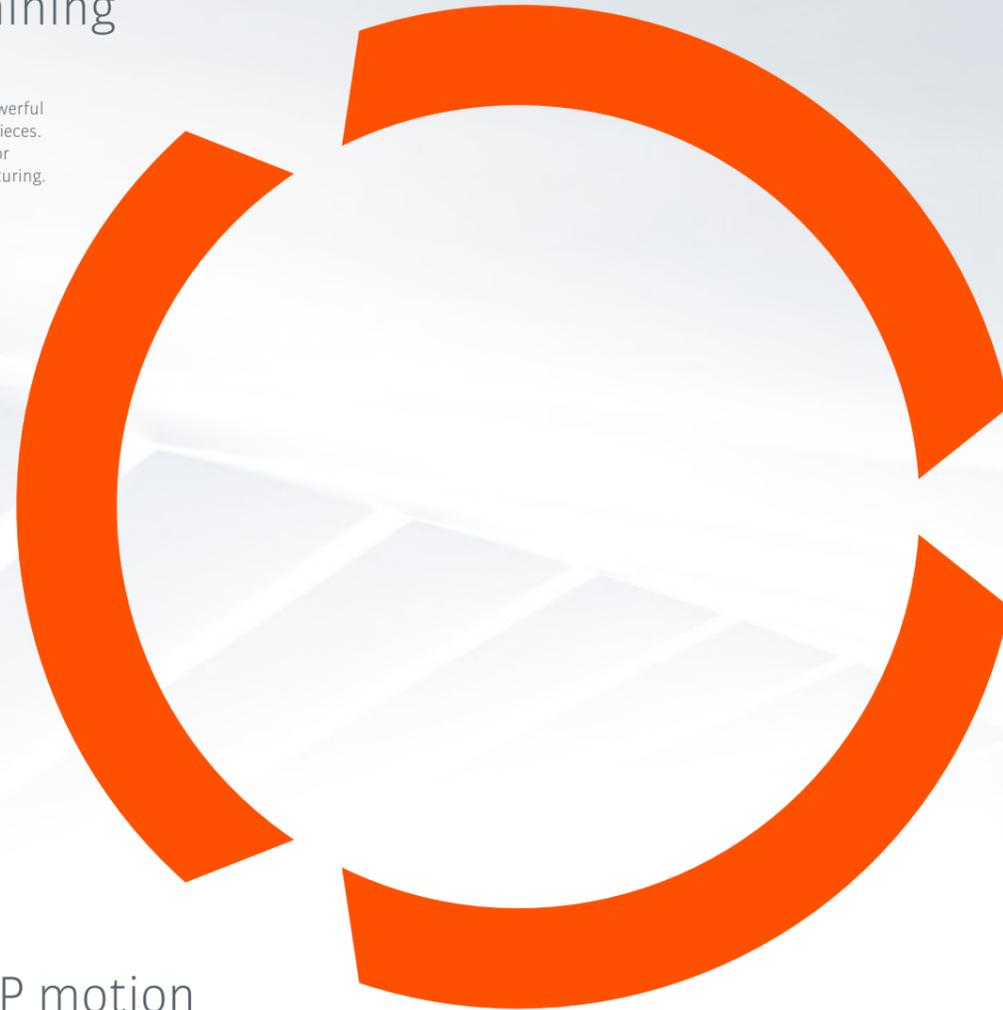


## The right solution for every task \_Specialization perfected

Perfect machining, precise continuous-path applications or fast handling are disciplines for born specialists. They all bear the name KR CYBERTECH and are available as high-performance special variants for specific tasks, e.g. for cleanroom applications or equipped with an innovative hollow wrist. Find the ideal choice for your demanding automation task in the extensive KR CYBERTECH portfolio.

### \_precise machining

The KR CYBERTECH portfolio includes powerful robots for the precise machining of workpieces. The KR CYBERTECH thus paves the way for precision in many other areas of manufacturing.



### \_reliable handling

KR CYBERTECH robots are the highly productive solution for component handling, automated assembly and palletizing, as well as arc welding processes.

### \_high-accuracy CP motion

Thanks to new controller structures, all KR CYBERTECH robots work with extremely high path accuracy and speed. Their acceleration values and the new ergonomic design with minimized disruptive contours already reveal their talent for automation at the highest level.



# Maximum performance in every dimension

## \_Payload differentiated

The optimal robot for your automation task is one that brings exactly the required performance. Nothing more and nothing less. That is why KR CYBERTECH robots have finely differentiated payload capacities. Each robot offers performance at the highest level, based on innovative concepts and KUKA's many years of experience in the development of industrial robots.

Payload gradation of the KR CYBERTECH robots

Robots available	6 kg	8 kg	10 kg	12 kg	14 kg	16 kg	18 kg	20 kg	22 kg
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**Compact, light, fast: The KR 6 nano R1820.**  
At the start of the payload spectrum, it offers a convincing combination of extreme precision, high speed and agility. It is available on request with an in-line wrist with protection rating IP 67.

# 6 to 22 kg

**Fine gradation of payload capacities in 2 kg intervals.**  
The KR CYBERTECH robots demonstrate as early as the selection phase that they are high-precision devices. In fine intervals, they cover the entire spectrum of the low payload class.



**Strong, streamlined, precise: The KR 22 R1610.**  
The KR 22 R1610 can lift the heaviest loads in the KR CYBERTECH portfolio and also features an impressive reach. In every installation position.

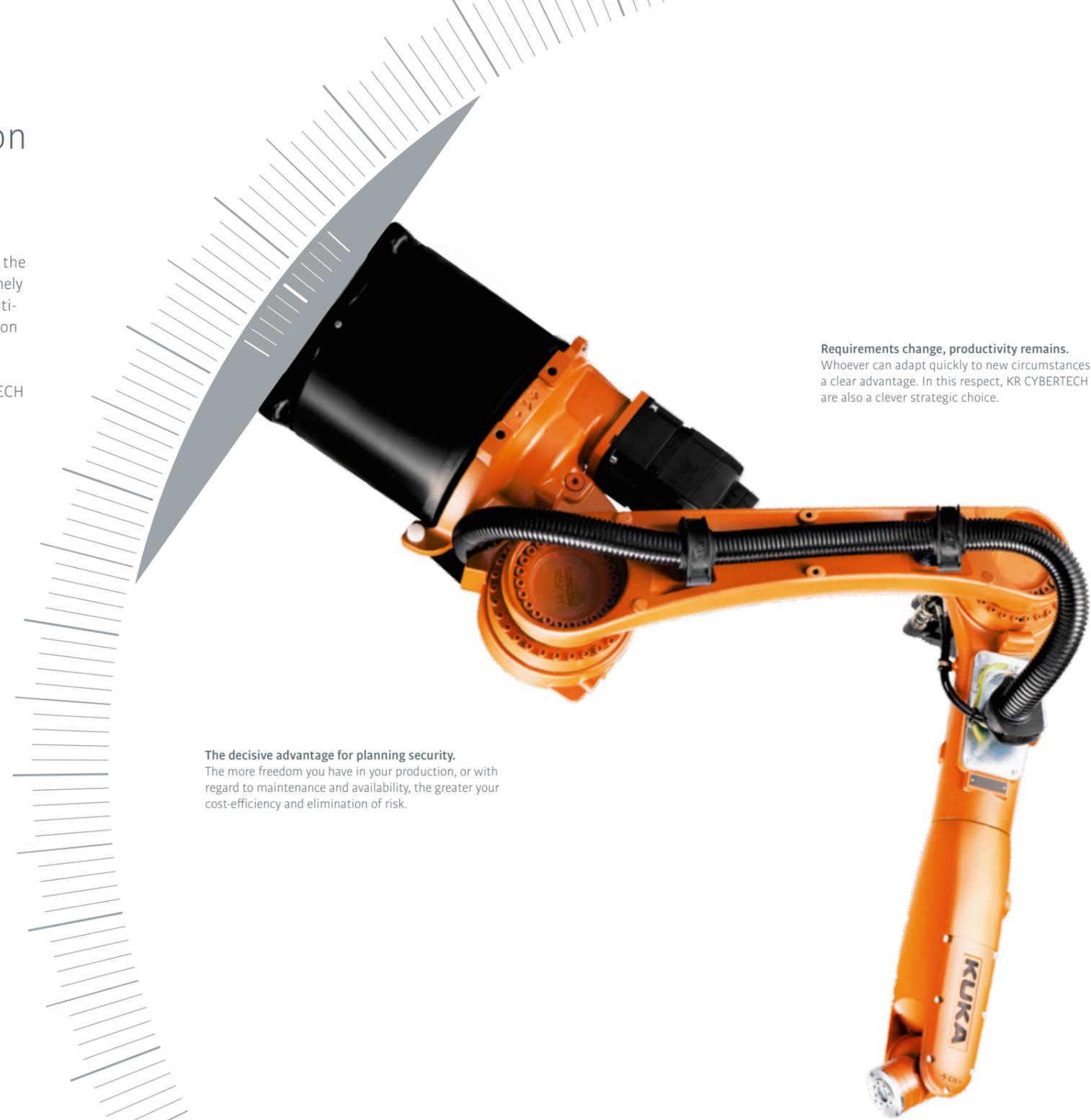
**\_new**  
World's Biggest Robot  
Portfolio in low payload class

# Enabling first-class production in any position \_Flexibility perfected

Flexible production has long since become normal. With the new KR CYBERTECH generation, it has also become extremely cost-effective. This is because every robot model is systematically designed to adapt flexibly to ever-changing production circumstances.

From confined spaces to large distances – the KR CYBERTECH robots can master a wide range of different requirement profiles in any desired installation position. Ex works. On the floor, wall or ceiling, or at any other angle.

Space-saving and intelligently integrated cabling ensures that the KR CYBERTECH robots have maximum freedom of motion in any installation position.



**Requirements change, productivity remains.**  
Whoever can adapt quickly to new circumstances is at a clear advantage. In this respect, KR CYBERTECH robots are also a clever strategic choice.

**The decisive advantage for planning security.**  
The more freedom you have in your production, or with regard to maintenance and availability, the greater your cost-efficiency and elimination of risk.

# 360°

**Maximum performance in every installation position.**  
The standard versions of all KR CYBERTECH robots are suited to any installation position and can be installed at any angle relative to the workspace with no detrimental effect on their performance.



# The key to excellent manufacturing quality \_Precision multiplied

Extremely high-performance robots play a decisive role when it comes to the optimal efficiency of your production operations. That is why KUKA has gone for an entirely new development with the KR CYBERTECH generation and equipped the robots with many innovative technical details for the highest precision in the low payload class.

Measurable evidence of their superiority: a repeatability of 0.04 mm. And the KR CYBERTECH robots take full advantage of this strength even at high speed. Benefit from this impressive dynamic performance and the optimal motion characteristics throughout the workspace for constant, homogeneous production quality at the highest level.



#### Accurate and fast CP motion.

Consistent and reliable precision is of the utmost importance in continuous-path applications. That is why KUKA uses innovative controller structures for the KR CYBERTECH robots. Result: fast work with extreme path accuracy, even deep inside workpieces.



#### The master of mobility.

##### The new KUKA hollow wrist.

With the KR CYBERTECH portfolio, KUKA is also introducing a particularly compact hollow-shaft wrist. At 150.2 mm, it is around 52 % more streamlined than that of the KR 16 arc HW. Its streamlined design enables the automation of manufacturing processes even in cramped spaces that could not previously be accessed.



# 0.04 mm

#### The KR CYBERTECH. Perfected for handling.

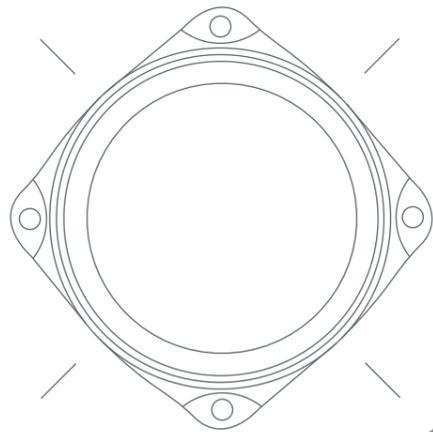
Where high repeatability and exactitude are required, KR CYBERTECH robots are in their element. They enable manufacturing quality at the highest level. Thanks to their robust design, they work with constant precision throughout the work envelope.

# Minimal footprint creates maximum freedom

## \_Compactness increased

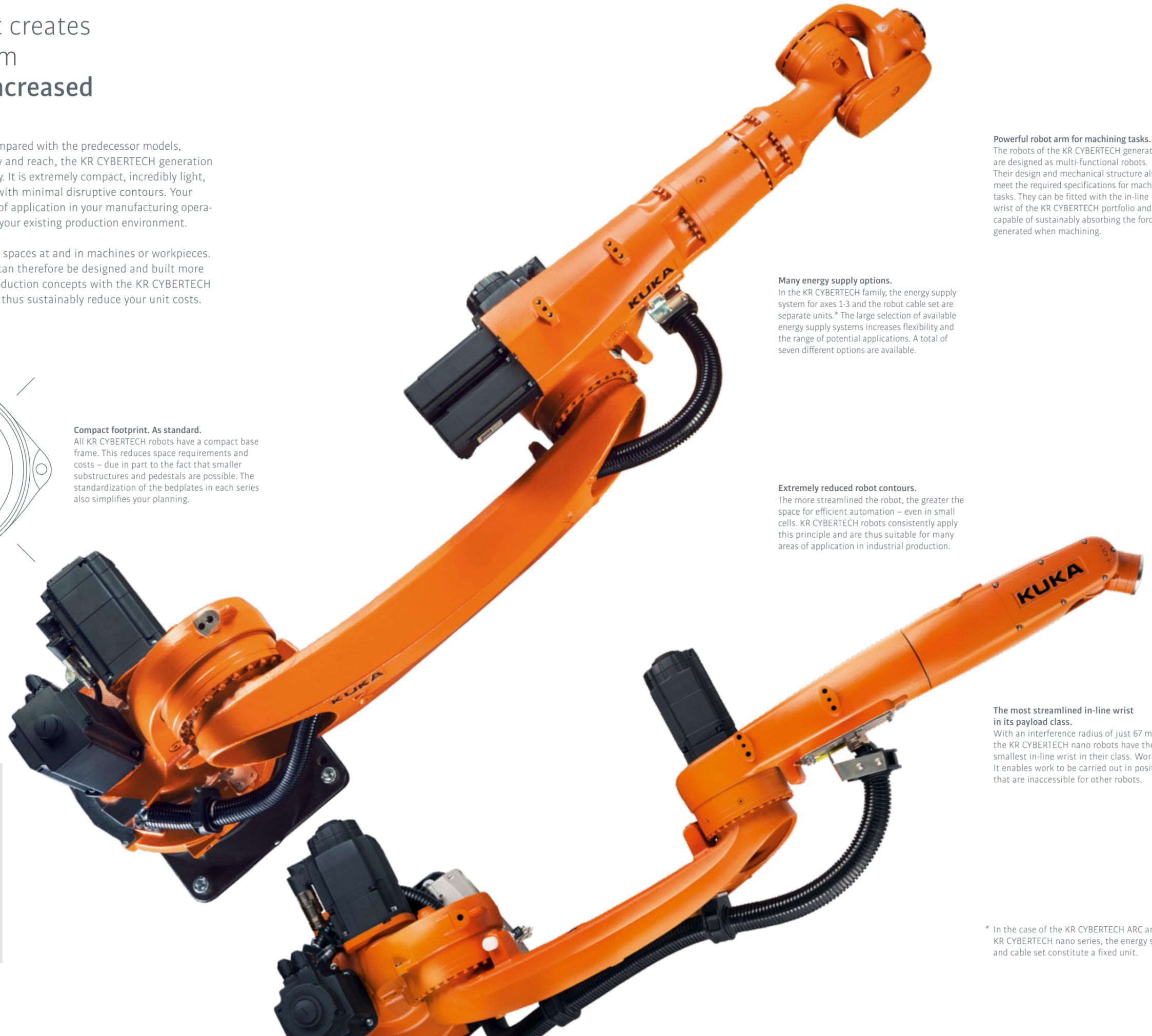
With up to 47% reduction in volume compared with the predecessor models, combined with greater payload capacity and reach, the KR CYBERTECH generation represents a quantum leap in technology. It is extremely compact, incredibly light, and combines maximum performance with minimal disruptive contours. Your advantage: more possibilities and areas of application in your manufacturing operations as well as simpler integration into your existing production environment.

KR CYBERTECH robots work in confined spaces at and in machines or workpieces. Highly productive manufacturing cells can therefore be designed and built more compactly. Implement space-saving production concepts with the KR CYBERTECH that boost your production density and thus sustainably reduce your unit costs.



**Compact footprint. As standard.**  
All KR CYBERTECH robots have a compact base frame. This reduces space requirements and costs – due in part to the fact that smaller substructures and pedestals are possible. The standardization of the bedplates in each series also simplifies your planning.

Through the vertical integration of connections, KR CYBERTECH robots reduce space requirements within the cell and create greater scope for the efficient design of automation processes.



**Powerful robot arm for machining tasks.**  
The robots of the KR CYBERTECH generation are designed as multi-functional robots. Their design and mechanical structure also meet the required specifications for machining tasks. They can be fitted with the in-line wrist of the KR CYBERTECH portfolio and are capable of sustainably absorbing the forces generated when machining.

**Many energy supply options.**  
In the KR CYBERTECH family, the energy supply system for axes 1-3 and the robot cable set are separate units.\* The large selection of available energy supply systems increases flexibility and the range of potential applications. A total of seven different options are available.

**Extremely reduced robot contours.**  
The more streamlined the robot, the greater the space for efficient automation – even in small cells. KR CYBERTECH robots consistently apply this principle and are thus suitable for many areas of application in industrial production.

**The most streamlined in-line wrist in its payload class.**  
With an interference radius of just 67 mm, the KR CYBERTECH nano robots have the smallest in-line wrist in their class. Worldwide. It enables work to be carried out in positions that are inaccessible for other robots.

\* In the case of the KR CYBERTECH ARC and KR CYBERTECH nano series, the energy supply and cable set constitute a fixed unit.

# With outstanding reach in every dimension \_Workspace expanded

KR CYBERTECH robots push back boundaries – and that includes spatial boundaries. With their streamlined design, low disruptive contours and lightweight construction, they command an incredibly large workspace. Up to 36.58 m<sup>3</sup>. Due to their long reach, KR CYBERTECH robots increase reachability in the ceiling-mounted position. This frees up more floor space for other peripheral equipment. As a consequence, you can design processes more flexibly and achieve cost savings with compact cell concepts.

**Productive also to the rear.**  
KR CYBERTECH robots have a large workspace to the rear. This enables innovative production processes.

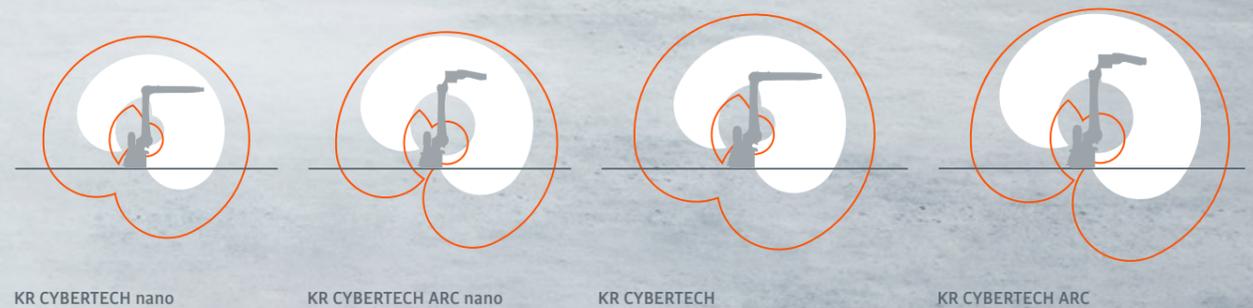
**Long downward reach.**  
The KR CYBERTECH robots also have a longer downward reach than most others. Space can thus be optimally utilized for automation.



**Covers long distances.**  
The longest arm currently available for the KR CYBERTECH series has a reach of 2,100 mm. For new efficiency in your production system. Robots of the KR CYBERTECH series have a large workspace to the rear. This enables innovative production processes. The robots of the KR CYBERTECH family also have a longer downward reach than most.

# 36.58 m<sup>3</sup>

■ KR CYBERTECH robots  
□ Predecessor models



# The KR CYBERTECH Ready Packs \_Delivery time minimized

KR CYBERTECH Ready Packs are particularly beneficial product bundles, consisting of optimally coordinated components. They are generally ready for delivery within just 3 weeks. This means that you benefit particularly quickly from all the strengths of the KR CYBERTECH: extremely short cycle times, utmost reliability, maximum flexibility and top precision in automated production. This all comes on favorable terms and manufactured in customary KUKA quality.



**KR C4 compact / KR C4 smallsize-2**  
For optimal control of the KR CYBERTECH robot within your production environment, these controllers offer the high performance and reliability of the KR C4 technology in a compact design. Their flexible configuration and the expansion capability that results from this make them real all-rounders.



**KUKA smartPAD**  
It supports intuitive robot operation with a large, high-resolution touch screen. Intelligent, interactive dialogs present operations transparently to the user and provide him with those operator control elements that are currently required. This makes automation simpler, faster and more efficient.



**Software**  
KUKA offers you expandable system software and ready-made robotic applications, integrated Soft PLC and extensive simulation tools – in familiar Windows style, adapted to your automation solution and 100 % compatible. With software from KUKA, your robots and systems are always programmed for productivity.



KR C4 standard



KUKA smartPAD



Software

## KR CYBERTECH nano Pack

KR 10 R 1420

KR C4 smallsize-2 / KR C4 compact

Cable set A1–A3

Freely configurable software types

Connecting cable set (software)

Accessories

## KR CYBERTECH Pack

KR 16 R1610 with / without defined ES

KR C4 standard

Ready-to-use controller

Freely configurable software types

Connecting cable set (software)

Accessories



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