

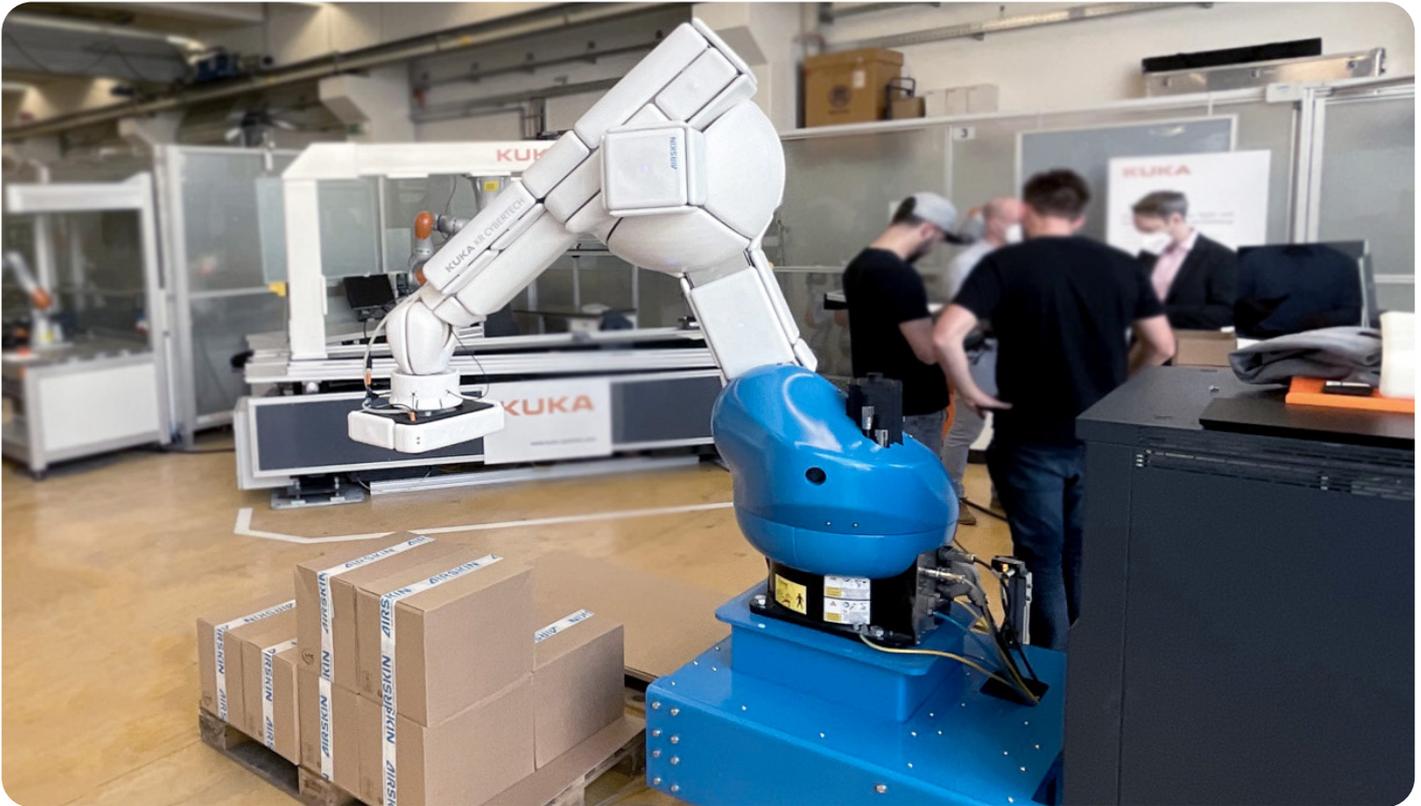
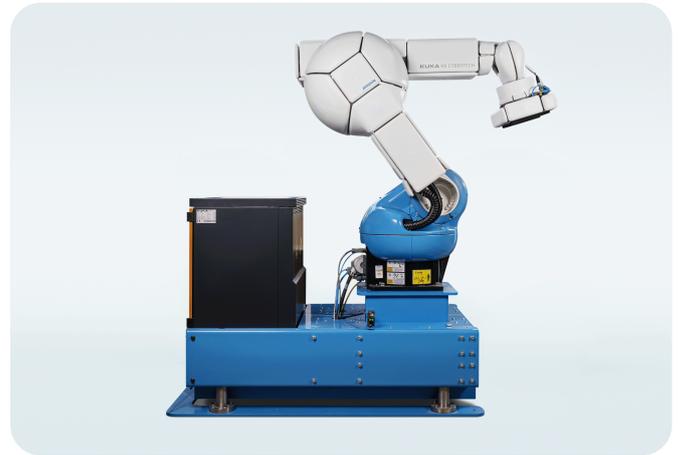
AIRSKIN® Cellcore

AIRSKIN Cellcore provides the **easiest, safest, and fastest solution** to building open and flexible applications.

AIRSKIN Cellcore combines an industrial robot and controller on a base, and the integrated AIRSKIN allows fenceless operation.

Due to the **unbeaten high collaborative speed of up to 2 m/s** in free space, AIRSKIN Cellcore provides fenceless/collaborative robotics without compromises in productivity.

AIRSKIN Cellcore can be equipped with a **KUKA Cybertech** model of the customer's choice and **base pedestals** of different heights.



Fenceless production with AIRSKIN

AIRSKIN enables the open and flexible manufacturing environments of the future by allowing industrial robots to work efficiently without fences.

AIRSKIN combines the **best of 2 worlds**:

accuracy, repeatability, speed, reach, payload and durability of KUKA industrial robots together with the fencelessness and flexibility of collaborative robots.

Applications with AIRSKIN guarantee

- highest **speed**
- smallest floor **space**
- maximum **flexibility**
- and highest **safety level** on the market, PLe / Cat. 3.

Your advantages

AIRSKIN Cellcore speeds up the planning, building and integration of fenceless and collaborative robot applications significantly. Customers get a **turnkey solution** for the inner core: The base, the robot with the controller and the already implemented safety system, all combined and ready to go.

AIRSKIN Cellcore is **perfect for any applications in open and flexible production environments**, where fences would obstruct the product flow and keep the production rigid and hard to reorganize, and where high productivity is demanded.

Example applications are

- **end of line palletizing**
- **machine tending**
- support with **production peaks** between different production lines
- and many more.

AIRSKIN® Cellcore

Dimensions

Size	1650 x 940 x 1900 mm
Weight	R1610-2: 800 kg R1810-2: 800 kg R2010-2: 800 kg

Available platform heights

600 mm	800 mm	1000 mm
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Robot payload with AIRSKIN

PA - Robot with activated palletizing mode (KUKA software option). When using an AIRSKIN Safetyflange, the expansion of the robot flange by the height of the AIRSKIN Safetyflange must also be taken into account.

Height of the AIRSKIN Safetyflange 10: 83.6 mm

Height of the AIRSKIN Safetyflange 20: 137.45 mm

Payload in kg	Without AIRSKIN	With AIRSKIN	PA mode
KR 8 R2010-2	9.8	7.1	7.7
KR 12 R1810-2	14.5	11.0	12.0
KR 16 R2010-2	19.2	14.9	16.1
KR 16 R1610-2	20	17.4	19.2
KR 20 R1810-2	23.9	19.8	21.6
KR 22 R1610-2	27.3	25.0	27.7

Robot motion range with AIRSKIN

PA (palletizing) mode includes a Palletizing Safetyflange. All models, in °

	Nominal		with AIRSKIN	
A1	-185	185	-185	185
A2	-185	65	-163	27
A3	-138	175	0	174
A4	-350	350	-350*	-350*
A5	-130	130	-44	107
A6	-350	350	-350*	350*

* Limitation by cable length

Operating conditions

Ambient temperature during operation	5–50 °C
Humidity level	0–85 %
IP rating	IP54

Electrical connection

Rated supply voltage	AC 3x380 V, AC 3x400 V AC 3x440 V or AC 3x480 V
Rated connected load	3.30 kVA

Certificates

ISO 13849-1	PLe / Cat 3
EN/IEC 62061	SIL CL 3
UL 1740:2018	
ANSI/RIA R15.06-2012	
CAN/CSA-Z434-14 + G11	
Flammability	UL 94 V-2
EC type examination Nr.	TÜV-A-MHF/MG17-00411
TUV Rheinland certificate Nr.	CU 72192170 0001
PFHd [1/h]	<= 2.7e-8
MTTFd	91 Years, DC = 99%

Components

- KUKA Cybertech-2 robot (all models)
- KUKA KRC4/5 included
- Software packages (KUKA.SafeOperation, KUKA.PalletTech)
- Cellcore Base with floor mounting for easy switching between workplaces
- AIRSKIN for Cybertech-2
- AIRSKIN Safetyflange (depending on application)
- AIRSKIN for tool (depending on application)

Safety skin

Reaction time	< 9 ms
Actuation force	-5 N

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