

## MULTI-AXIS ROBOTS

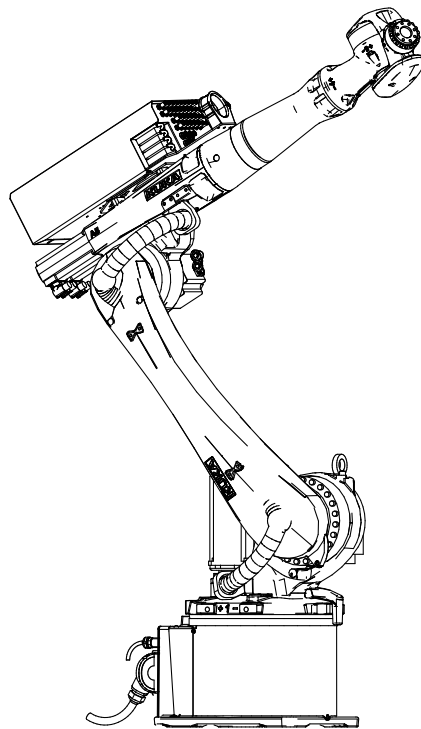
KUKA – POWERED BY ARBURG  
Handling weight: 6-120 kg

**ARBURG**

# MULTI-AXIS ROBOTS

Multi-axis robots		ALLROUNDER machine sizes / models												
KUKA - powered by ARBURG		Nominal load <sup>1</sup> [kg]	270	370	470	520	570	630	720	820	920	1120	375 V	T
KR10 R1100 AGILUS sixx	10		•											
KR 6 R1820 Cybertech nano	6		•	•	•	•	•						•	
KR 8 R1620 Cybertech nano	8		•	•	•								•	
KR 10 R1420 Cybertech nano	10		•	•	•								•	
KR8 R2010 Cybertech	8					•	•	•					•	
KR12 R1810 Cybertech	12			•	•	•	•	•					•	
KR16 R1610 Cybertech	16			•	•								•	
KR16 R2010 Cybertech	16					•	•	•	•	•	•		•	
KR20 R1810 Cybertech	20				•	•	•	•	•				•	
KR22 R1610 Cybertech	22				•	•							•	
KR30	30							•	•	•	•		•	
KR60	60							•	•	•	•		•	
KR90	90											•		
KR120	120								•	•	•			

**Plug and work:  
preconfigured  
valve technology  
and connection  
options**



**Wide range  
of customised  
solutions**

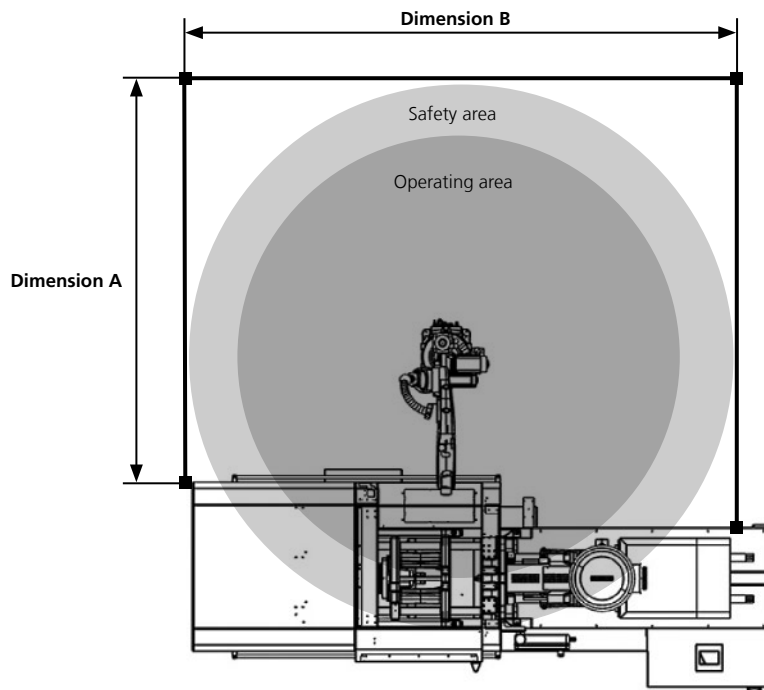
**Customer-specific  
installation options  
in addition to the  
upright version**

1) Depending on the centre of gravity of the gripper

# MULTI-AXIS ROBOTS

Multi-axis robots				ALLROUNDER machine sizes / models									
KUKA - powered by ARBURG	Nominal load <sup>1</sup> [kg]	Operating area - radius [mm]	In-line wrist [mm]	270		370		470		520		570	
				A*	B*	A*	B*	A*	B*	A*	B*	A*	B*
KR10 R1100 AGILUS sixx	10	1100	80	1973	2900								
KR 6 R1820 Cybertech nano	6	1820	80	3293	4340	3217	4540	3187	4740	3337	4840	3237	4940
KR 8 R1620 Cybertech nano	8	1620	80	2993	3940	2817	4140	2787	4340				
KR 10 R1420 Cybertech nano	10	1420	80	2593	3540	2367	3740	2437	3940				
KR8 R2010 Cybertech	8	2010	153							3650	5366	3550	5466
KR12 R1810 Cybertech	12	1810	153			3230	4666	3200	4866	3350	4966	3300	5066
KR16 R1610 Cybertech	16	1610	135			2780	4266	2900	4466				
KR16 R2010 Cybertech	16	2010	153							3800	5366	3700	5466
KR20 R1810 Cybertech	20	1810	153					3200	4866	3350	4966	3250	5066
KR22 R1610 Cybertech	22	1610	153					2850	4466	2900	4566		
KR30	30	2033	170										
KR60	60	2033	170										
KR90	90	2700	220										
KR120	120	2500	215										

## Installation dimensions A and B



\*) Installation dimensions A and B in mm  
 1) Depending on the centre of gravity of the gripper

# MULTI-AXIS ROBOTS

Multi-axis robots				ALLROUNDER machine sizes / models									
KUKA - powered by ARBURG	Nominal load <sup>1</sup> [kg]	Operating area - Radius [mm]	In-line wrist [mm]	630		720		820		920		1120	
				A*	B*	A*	B*	A*	B*	A*	B*	A*	B*
KR10 R1100 AGILUS sixx	10	1100	80										
KR 6 R1820 Cybertech nano	6	1820	80										
KR 8 R1620 Cybertech nano	8	1620	80										
KR 10 R1420 Cybertech nano	10	1420	80										
KR8 R2010 Cybertech	8	2010	153	3486	5586								
KR12 R1810 Cybertech	12	1810	153	3136	5186								
KR16 R1610 Cybertech	16	1610	135										
KR16 R2010 Cybertech	16	2010	153	3536	5586	3576	5766	3766	5966	3776	6166		
KR20 R1810 Cybertech	20	1810	153	3136	5186	3226	5366						
KR22 R1610 Cybertech	22	1610	153										
KR30	30	2033	170	3526	5666	3566	5846	3716	6046	3816	6246		
KR60	60	2033	170	3526	5666	3616	5846	3716	6046	3766	6246		
KR90	90	2700	220									4909	8080
KR120	120	2500	215			4578	6870	4678	7070	4728	7270		

Multi-axis robots		ALLROUNDER machine sizes / models			
KUKA - powered by ARBURG	Nominal load <sup>1</sup> [kg]	375 V (400 mm) <sup>2</sup>		T (600 mm) <sup>2</sup>	
		A*	B*	A*	B*
KR10 R1100 AGILUS sixx	10				
KR 6 R1820 Cybertech nano	6	3650	4600		
KR 8 R1620 Cybertech nano	8	3250	4200		
KR 10 R1420 Cybertech nano	10	2900	3800		
KR8 R2010 Cybertech	8	4015	5126		
KR12 R1810 Cybertech	12	3560	4726		
KR16 R1610 Cybertech	16	3110	4326		
KR16 R2010 Cybertech	16			3880	5526
KR20 R1810 Cybertech	20			3780	5126
KR22 R1610 Cybertech	22			3380	4726
KR30	30			4220	5606
KR60	60			4225	5606
KR90	90				
KR120	120				

\*) Installation dimensions A and B in mm  
 1) Depending on the centre of gravity of the gripper  
 2) Assumed gripper dimensions

# EQUIPMENT\* | MULTI-AXIS ROBOTS

**An ARBURG ALLROUNDER is required in order to use the multi-axis robot.**

## Pneumatic valves for grippers

- Pneumatic valve for actuating functions, such as grippers, gripper tongs, cylinders, lifting and units (see additional information):
  - 1 with blocked middle position (5/3)
- Additional pneumatic valves (maximum 15) in any combination of the following versions (see additional information):
  - with blocked middle position (5/3)
  - with vented middle position (5/3)
  - with spring return (2 x 3/2)

## Vacuum equipment for grippers

- Vacuum unit (venturi principle) for parts handling with suction pads
- Additional vacuum units (maximum 5)
- All vacuum units connected near the gripper. Including vacuum switches for parts monitoring
- Function for reliable part transfer
- Air-saving function

## Pneumatic maintenance unit

- One pneumatic maintenance unit
- Manually adjustable filter pressure reducing valve for adjusting the pressure level
- Pressure level monitoring
- Electric switch on/switch-to-standby function

## Control system

- Hand-held KUKA smartPAD programming device
- Implemented SELOGICA user interfaces
  - Uniform operating system: graphic sequence programming for machine and robotic system
  - Teach-in function
  - Screen selection via function and shortcut keys
  - Robotic system can be moved set-wise analogously to the cycle
  - Programmable sequence branches
- Interface between robotic system and injection moulding machine (EUROMAP 67)
- Varan interface for extended real-time communication with the injection moulding machine and:
  - Single data set for injection moulding machine and robotic system
  - Coordinated movement to home position
  - Separation of test samples, reject parts and sprue
  - Creation of individual sequences for the first and last cycle
  - Cycle time reduction by movement into the mould from stroke position marker
  - Communication with more than two core pulls possible

## Inputs/outputs for grippers

- Interface with 8 freely programmable inputs for querying sensors for gripper functions. All inputs connected to plugs, including mating plugs
- Additional interfaces (up to 3) for querying up to 24 sensors (in total)
- Freely programmable outputs for controlling pneumatic valves for gripper functions. All outputs directly connected to pneumatic valves

## Inputs/outputs for peripheral equipment

- Interface (24 V DC) with 4 freely programmable inputs and outputs for peripheral devices. Not potential-free. Connected to socket on control cabinet, including mating plug
- Additional interfaces (24V DC) with freely programmable inputs and outputs (up to 60). Not potential-free. Connected to socket on control cabinet, including mating plug
- Conveyor belt interfaces (maximum of 2, 230 V AC) for a conveyor belt to be supplied separately. Mating plug included.

## Additional options

- Clean-room version
- Fixed stop for limiting the operating zone of the multi-axis robot
- Conveyor belt for part set-down, including interface, expandable to include clearance key
- Base for multi-axis robotic system
- Material for fastening the robot to the floor

## Additional information

- 5/3 pneumatic valve with blocked middle position for gripper functions, the position of which should be maintained when not actuated, e.g. if the safety door is open, EMERGENCY STOP
- 5/3 pneumatic valve with vented middle position for gripper functions, which should be depressurised when not actuated, e.g. to ensure gentle transfer of parts by the ejector of the machine
- 2 x 3/2 pneumatic valve with spring return for gripper functions with spring return, e.g. for sprue grippers or single-acting pneumatic cylinders

\*) Applies to KUKA cybertec, cybertec nano, KR30-120; options for other devices on request

■ Basic machine

○ Option

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