

Industrial Robot Series

Faster | More Reliable | More Precise

ROKAE

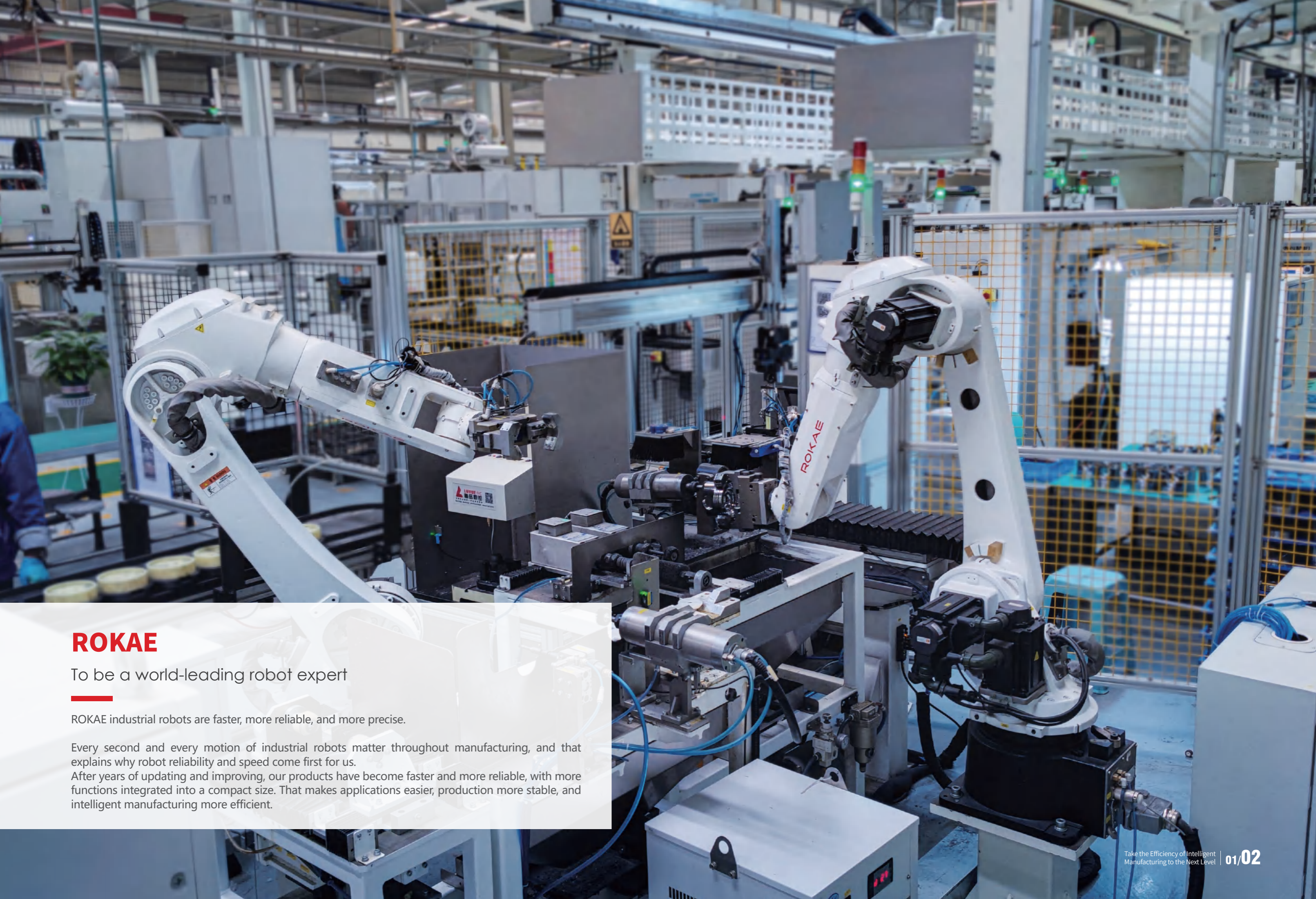


JAEGER ENGINEERING

+49-7725-494999-3

www.rokae.eu

info@jaeger-engineering.de



ROKAE

To be a world-leading robot expert

ROKAE industrial robots are faster, more reliable, and more precise.

Every second and every motion of industrial robots matter throughout manufacturing, and that explains why robot reliability and speed come first for us.

After years of updating and improving, our products have become faster and more reliable, with more functions integrated into a compact size. That makes applications easier, production more stable, and intelligent manufacturing more efficient.



Product Advantages



Faster - Efficient Production

- Optimal hardware performance powered by self-developed control systems
- Remarkably adroit motion backed by modularized control architecture



More Reliable - Stable Operation

- Rigorous design and continuous improvement bring you a reliable partner in industrial production
- IP67, CE, and CR certifications



More Precise - Flexible Integration

- Easier deployment thanks to the compact structure and hollow wrist
- Broader application due to various interfaces



Easier to Use - Worry-free Operation

- Simple maintenance with timely, professional, and efficient service



Product series

XB16

Payload: 16 kg
Reach: 2013 mm
Repeatability: ± 0.05 mm

XB20

Payload: 20 kg
Reach: 1813 mm
Repeatability: ± 0.05 mm

XB25

Payload: 25 kg
Reach: 1617 mm
Repeatability: ± 0.05 mm

XB10

Payload: 10 kg
Reach: 1206 mm
Repeatability: ± 0.05 mm

XB7XL

Payload: 7 kg
Reach: 1206 mm
Repeatability: ± 0.05 mm

XB7L

Payload: 7 kg
Reach: 906 mm
Repeatability: ± 0.03 mm

XB7

Payload: 7 kg
Reach: 707 mm
Repeatability: ± 0.02 mm

XB4

Payload: 4 kg
Reach: 596 mm
Repeatability: ± 0.02 mm

NB4

Payload: 4 kg
Reach: 475 mm
Repeatability: ± 0.02 mm

NB4

- Lighter, faster, and more compact compared to XB4
- IP67 rating
- More reliable for applications in tight spaces and harsh environments

Model		NB4
DOF		6
Drive mode		AC servo
Reach		475 mm
Repeatability		±0.02 mm
Payload		4 kg
Range of motion (maximum speed)	Axis 1	-170° to +170° (450°/s)
	Axis 2	-90° to +130° (380°/s)
	Axis 3	-200° to +55° (375°/s)
	Axis 4	-170° to +170° (610°/s)
	Axis 5	-120° to +120° (510°/s)
	Axis 6	-360° to +360° (920°/s)
Operating temperature		0°C to +40°C
Storage temperature		-10°C to +55°C
IP rating		IP67
Mounting method		Floor, Ceiling
Noise level		≤ 70 dB(A)
Weight		About 20 kg
AIR		4-Φ4, 5bar
Signal		8 channels

Applications



Loading and unloading



Deburring



Inspection



Gluing



Assembly



Handling



XB4

- Compact design with built-in air pipe and optional hollow wrist
- Easy integration into small automation units to accomplish various tasks efficiently
- Satisfactory quality and takt time thanks to the amazing stability and best-in-class motion control

Model		XB4	XB4h
DOF		6	
Drive mode		AC servo	
Reach		596 mm	
Repeatability		±0.02 mm	
Payload		4 kg	
Range of motion (maximum speed)	Axis 1	-170° to +170° (440°/s)	
	Axis 2	-80° to +144° (355°/s)	
	Axis 3	-194° to +54° (440°/s)	
	Axis 4	-170° to +170° (490°/s)	
	Axis 5	-119° to +119° (450°/s)	
	Axis 6	-360° to +360° (720°/s)	-360° to +360° (900°/s)
Operating temperature		0°C to +40°C	
Storage temperature		-10°C to +55°C	
IP rating		IP67	
Mounting method		Floor, Ceiling	
Noise level		≤ 70 dB(A)	
Weight		About 32 kg	
AIR		4-Φ4, 5bar	
Signal		8 channels	

Applications



XB7

- Flexible reach choices: 707/906/1206 mm
- Satisfactory quality and takt time thanks to the amazing stability and best-in-class motion control
- Easy and compact deployment made possible by the hollow wrist

Model	XB7	XB7h	XB7L	XB7Lh	XB7XL	XB7XLh	
DOF	6						
Drive mode	AC servo						
Reach	707 mm		906 mm		1,206 mm		
Repeatability	±0.02 mm		±0.03 mm		±0.05 mm		
Payload	7 kg						
Range of motion (maximum speed)	Axis 1	-170° to +170° (440°/s)		-170° to +170° (355°/s)		-170° to +170° (297°/s)	
	Axis 2	-96° to +135° (355°/s)		-96° to +130° (355°/s)		-95° to +125° (223°/s)	
	Axis 3	-195° to +65° (440°/s)		-195° to +65° (355°/s)		-195° to +65° (297°/s)	
	Axis 4	-170° to +170° (480°/s)					
	Axis 5	-120° to +120° (450°/s)					
	Axis 6	-360° to +360° (705°/s)	-360° to +360° (900°/s)	-360° to +360° (705°/s)	-360° to +360° (900°/s)	-360° to +360° (705°/s)	-360° to +360° (900°/s)
Operating temperature	0°C to +40°C						
Storage temperature	-10°C to +55°C						
IP rating	IP67		IP67		IP54		
Mounting method	Floor, Ceiling						
Noise level	≤ 70 dB(A)	≤ 75 dB(A)	≤ 70 dB(A)	≤ 75 dB(A)	≤ 70 dB(A)	≤ 75 dB(A)	
Weight	About 50 kg		About 52 kg		About 76 kg		
AIR	4-Φ4, 5bar						
Signal	8 channels						

Applications



XB10

- All-cast aluminum body for the lightest weight and highest speed in its class
- Easy and compact deployment made possible by the fully enclosed arm with internal cables and hollow wrist

Model		XB10
DOF		6
Drive mode		AC servo
Reach		1,206 mm
Repeatability		±0.05 mm
Payload		10 kg
Range of motion (maximum speed)	Axis 1	-170° to +170° (297°/s)
	Axis 2	-95° to +125° (223°/s)
	Axis 3	-195° to +65°~ (223°/s)
	Axis 4	-170° to +170° (480°/s)
	Axis 5	-120° to +120° (360°/s)
	Axis 6	-360° to +360° (705°/s)
Operating temperature		0°C to +40°C
Storage temperature		-10°C to +55°C
IP rating		IP54
Mounting method		Floor, Ceiling
Noise level		≤ 70 dB(A)
Weight		About 76 kg
AIR		4-Φ4, 5bar
Signal		8 channels

Applications



XB16 XB20 XB25

- A wide range of automation needs addressed by three payload choices of 16/20/25 kg and a larger range of motion than competitors
- Faster motion supported by the highly rigid arm
- Better protection against harsh environments thanks to the optimized sealing design

Model		XB25	XB20	XB16
DOF		6		
Drive mode		AC servo		
Reach		1,617 mm	1,813 mm	2,013 mm
Repeatability		±0.05 mm		
Payload		25 kg	20 kg	16 kg
Range of motion (maximum speed)	Axis 1	-180° to +180° (204°/s)		
	Axis 2	-99° to +156° (186°/s)		
	Axis 3	-200° to +75° (183°/s)		
	Axis 4	-180° to +180° (492°/s)		
	Axis 5	-135° to +135° (450°/s)		
	Axis 6	-360° to +360° (705°/s)		
Operating temperature		0°C to +40°C		
Storage temperature		-10°C to +55°C		
IP rating		IP65 (Wrist IP67)		
Mounting method		Floor, Ceiling		
Noise level		≤ 75 dB(A)		
Weight		About 252 kg	About 256 kg	About 264 kg
AIR		2-Φ8, 8bar		
Signal		24 channels		

Applications



XB12

- Customized for special industry with high ROI
- Satisfactory quality and takt time for segment customers thanks to the amazing stability and best-in-class motion speed
- Long-term reliable operation due to high stiffness and high inertia design
- Easy and compact deployment made possible by the fully enclosed arm with internal cables

Model		XB12 R707-4	XB12 R906-4
DOF		4	4
Drive mode		AC servo	
Reach		707 mm	906 mm
Repeatability		±0.02 mm	±0.03 mm
Payload		12 kg	
Range of motion (maximum speed)	Axis 1	-96° to +135° (297°/s)	-126° to +100° (297°/s)
	Axis 2	-195° to +65° (297°/s)	
	Axis 3	-120° to +120° (360°/s)	
	Axis 4	-360° to +360° (356°/s)	-360° to +360° (356°/s)
Operating temperature		0°C to +40°C	
Storage temperature		-10°C to +55°C	
IP rating		IP54	
Mounting method		Floor, Ceiling	
Noise level		≤ 70 dB(A)	
Weight		About 45kg	About 46kg
Signal		8 channels	

Applications



Horizontal handlingHorizontal handling



XBC3 Series Controllers

- Responsive yet stable motion control enabled by ROKAE's proprietary Titanite control system
- Profinet, Ethernet/IP, TCP/IP, and other communication methods supported

XBC3

- Compact design and small footprint
- Flexible deployment through vertical/horizontal installation



XBC3E

- Convenient maintenance thanks to a quick-release design



Controller	XBC3	XBC3E
Dimensions (W×D×H)	469 mm × 497 mm × 261 mm	560 mm × 485 mm × 758 mm
Weight	30 kg	75 kg
Standard I/O	Input: 16; output: 16	
IP rating	IP40	
Power supply	230VAC, voltage fluctuation within -15% to +10%, frequency variation within ±2%	3 x 380VAC, voltage fluctuation within -15% to +10%, frequency variation within ±2%
Rated power	1.5kw (XB4, XB4h), 1.7kw (XB12), 2.5kw (XB7, XB7h, XB7L, XB7Lh, XB7XL, XB7XLh, XB10)	9.5kW (XB16, XB20, XB25)
Operating temperature	0°C to +40°C	
Storage temperature	-10°C to +55°C	
Maximum humidity for operation/storage	≤ 80% (non-condensing)	

xPad

Dimensions	9.7 inches
Weight	1.15 kg (without cable)
Connection	Wired
Display	Resolution 1024×768
IP rating	IP65

XBC5 Series Controllers

- Responsive yet stable motion control enabled by ROKAE's proprietary Titanite and xCore control systems
- Profinet, Ethernet/IP, TCP/IP, and other communication methods supported

XBC5M

- Compact design and small footprint
- Flexible deployment through vertical/horizontal installation



XBC5

- More convenient deployment with a size only 50% that of the previous generation
- Suitable for wet, acidic, and alkaline gas environment thanks to internal and external dual cycle cooling system and IP54 protection
- All ROKAE robots supported



Controller	XBC5M	XBC5
Dimensions (W×D×H)	445 mm × 448 mm × 277 mm	405 mm × 512 mm × 425 mm
Weight	25 kg	30 kg
Standard I/O	Input: 16; output: 16	
IP rating	IP20	IP54
Power supply	230VAC or 3×380VAC*1, voltage fluctuation within -15% to +10%, frequency variation within ±2%	
Rated power	1.5kw (XB4, XB4h), 1.7kw (XB12), 2.5kw (XB7, XB7h, XB7L, XB7Lh, XB7XL, XB7XLh, XB10), 9.5kw (XB16, XB20, XB25)	
Operating temperature	0°C to +45°C	
Storage temperature	-25°C to +55°C	
Maximum humidity for operation/storage	≤ 80% (non-condensing)	≤ 95% (non-condensing)

*1: 3x380VAC power supply for XB16, XB20, XB25, and 230VAC power supply for the rest.

xPad2

- Modern ergonomic design
- Large multi-touch HD Screen
- Plug & play connection and shareable between robots
- Only 800g for easy teach programming
- Intuitive UI layout allowing quick start within 10 minutes



xPad2

Dimensions	290 mm × 190 mm × 13 mm
Weight	800 g
Connection	Wired
Display	10.1-in LCD with a resolution of 1920×1080
IP rating	IP54

Applications

ROKAE has built high-quality industrial robot platforms on modular technology. By satisfying the market needs with multi-function products that are more efficient, reliable, and compact, ROKAE empowers efficient intelligent manufacturing and drives innovations in different industries.



Automatic sewing



Auto parts



Electronics



Research and education



Machine tools



Metals



Assembly



Handling



Inspection



Sorting



Grinding



Deburring



Loading and unloading



Gluing

Electronics

Outperforming competitors in speed, reliability, and size, ROKAE industrial robots have found wide applications in consumer electronics, glass cover, PCB, and other segments.

Loading and unloading

Assembly

Gluing

Inspection

Loading & Unloading for Mobile Phone Inspection



Loading and unloading for inspection equipment of mobile phones and other electronic products

Notebook Package Labeling



Labeling on the outer package of notebooks

Loading & Unloading for Mobile Phone Screen Processing



Loading and unloading for CNC engraving machine to process the glass cover of electronic products

Mobile Phone Backboard Polishing



Grinding and polishing of the metal backboards of mobile phones and other electronic products

Relay Gluing



Encapsulating and gluing of relays and other electronic components

PCB Board Handling



Handling of large inertia PCB boards in the PCB industry

Auto Parts

ROKAE serves Tier 1 auto part suppliers and their factories across the globe. Thanks to superior trajectory accuracy and stiffness, ROKAE robots ensure consistent trajectory in automated applications such as part grinding and gluing.

Loading and unloading

Gluing

Grinding

Rail Grinding



Chamfering and deburring of different end surfaces of auto linear guides

Piston Grinding & Deburring



Fine grinding and deburring of piston products (including valves, oil holes, inner pin holes, and other complex parts)

Plastic Part Grinding



Grinding and polishing of interior and exterior plastic trims, such as door handles and three-spoke steering wheels

Lock Gluing



Plasma cleaning and sealant application for car locks

Casting Grinding



Grinding and deburring of cast iron parts, aluminum and magnesium alloy die-cast parts, and steel machined parts

Front-End Module Inspection



Flexible automatic inspection of different types of automotive front-end modules

Metals

Equipped with proprietary control systems, constant force control software process kit, and intelligent vision planning system, the IP67 protected ROKAE robots automate most of the tool production processes with improved productivity and quality. ROKAE has now grown into one of the best robot brands for manufacturing hardware including knife and shear.

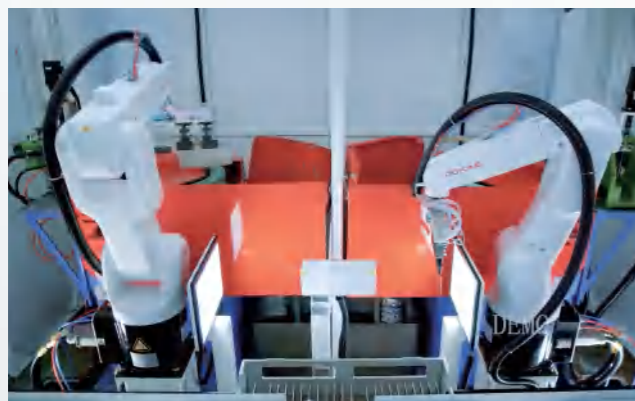
Wet sanding

Chamfering

Blade cutting

Deburring

Automatic Loading & Unloading for Wet Sanding



Automatic Blade Cutting



Automatic Chamfering



Automatic Deburring



Automatic Sewing

Thanks to the proprietary control system and intelligent vision planning system, ROKAE robots have addressed the challenges of flexible cloth gripping and sewing machine speed coordination. They have been widely adopted for sweatshirt pocket, shirt sleeve kerf, and 3D non-woven sewing, promoting more efficient intelligent manufacturing in the traditional sewing industry.

Overlock sewing

Flat sewing

Loading and unloading

Sweatshirt Pocket Sewing



Shirt Sleeve Kerf Sewing



Sofa Cover Sewing



3D Non-woven Sewing

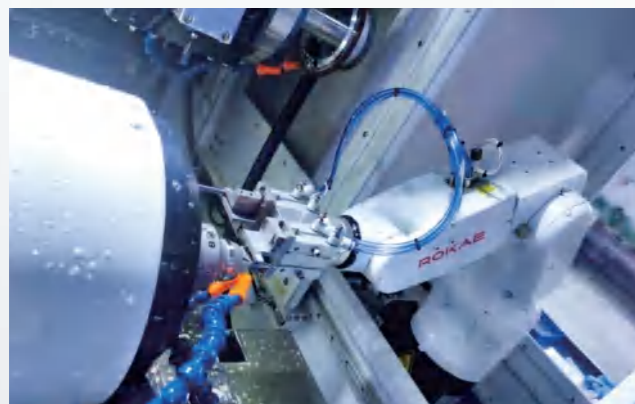


Machine Tending

Powered by high-performance motion control and other platform-based technologies, the IP67 protected ROKAE robots have become the ideal choice for the machine tool industry due to their high protection level, compact design, and outstanding precision. Equipped with the hollow wrist, they allow for long-term stable loading and unloading inside and outside machine tools. That wins it the reputation of the No. 1 domestic brand in the segment.

Loading and Unloading

Loading and Unloading for Tool Grinding Machine



Loading and Unloading for CNC Engraving Machine



Loading and Unloading for Injection Moulding Machine



Loading and Unloading for Water Truck



With its cutting-edge expertise, reliable products, comprehensive solutions, and professional support and services, ROKAE empowers thousands of enterprises in their automated and intelligent manufacturing transformation. By constantly creating new values for customers, it plays a vital role in driving and accelerating the development of intelligent manufacturing.