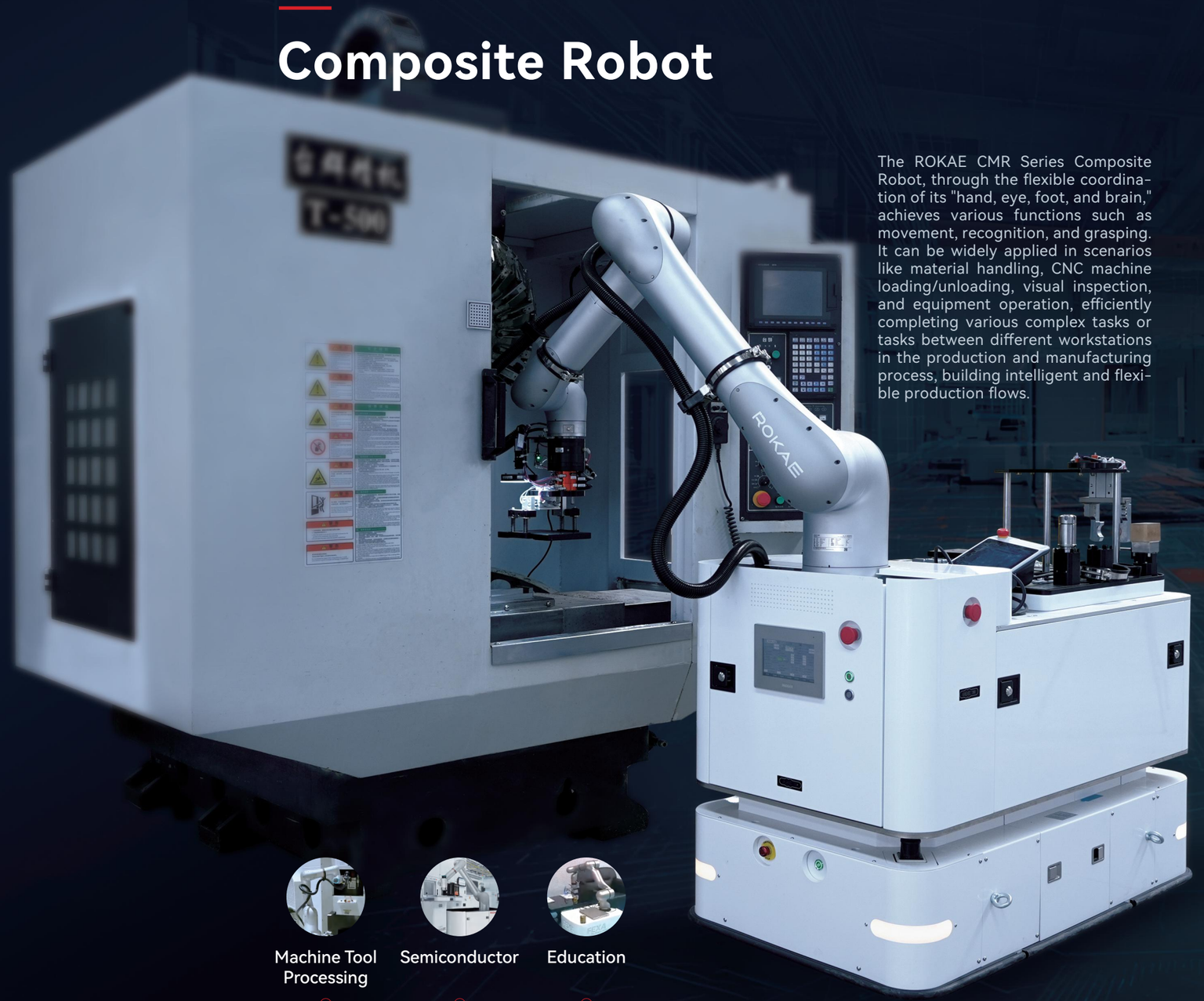
ROKAE

ROKAE CMR Series

Composite Robot



The ROKAE CMR Series Composite Robot, through the flexible coordination of its "hand, eye, foot, and brain," achieves various functions such as movement, recognition, and grasping. It can be widely applied in scenarios like material handling, CNC machine loading/unloading, visual inspection, and equipment operation, efficiently completing various complex tasks or tasks between different workstations in the production and manufacturing process, building intelligent and flexible production flows.

Machine Tool Processing

Semiconductor

Education

ROKAE

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Product Specifications

CMR-CR Differential Drive Series

- Supports 7–20 kg Cobots
- Suitable for applications with aisle widths greater than 1.5 m
- Vehicle body remains unaffected in light oil-contaminated environments
- Supports material placement up to 700 × 600 mm on the platform
- Supports payloads up to 100 kg
- Equipped with lifting supports to enhance robot arm stability during operation



Model	CMR-CR-V1SD5
Dimensions	1100×700×780 mm
Chassis Weight	500 kg
Max. Moving Speed	1.4 m/s
Travel Mode	Forward/Backward
Positioning Accuracy	±10 mm，±0.5°
Navigation Method	Laser SLAM 2, Front/Rear Diag.
Operating Time	7 h
Battery Capacity	48V，60AH
Charging Method	Charging
Payload	12 kg / 20 kg
Working Range	1,413 mm

CMR-CR Omnidirectional Battery-Swapping Series

- Supports 7–20 kg Cobots
- Four-directional mobility, capable of passing through aisles as narrow as 1 m
- Equipped with a 100 Ah high-capacity battery, supporting fast battery swapping with uninterrupted operation
- Supports material placement up to 700 × 700 mm on the platform
- Supports payloads up to 150 kg



Model	CMR-CR-V3SO6	CMR-CR-V3RO6
Dimensions	1200×700×800 mm	1200×700×800 mm
Chassis Weight	600 kg	500 kg
Max. Moving Speed	1.5 m/s	1.4 m/s
Travel Mode	Fwd/Bwd + Traverse	Fwd/Bwd + Traverse
Positioning Accuracy	±10 mm，±0.5°	±10 mm，±0.5°
Navigation Method	Laser SLAM 2, Front/Rear Diag.	Laser SLAM 2, Front/Rear Diag.
Operating Time	7 h	7 h
Battery Capacity	48V100AH(Main)+ 48V20AH(Sub)	48V100AH(Main)+ 48V20AH(Sub)
Charging Method	Charging + Swap	Charging + Swap
Payload	12 kg / 20 kg	12 kg / 20 kg
Working Range	1,413 mm	1,413 mm

CMR-L Large-Payload Series

- Supports CR Series 35 kg and 45 kg AC-powered large-payload Cobots
- Equipped with a 200 Ah high-capacity battery
- Four-directional mobility
- Supports material placement up to 1,000 × 1,000 mm on the platform



Model	CMR-L-V6SOF
Dimensions	1600×1000×950 mm
Chassis Weight	1,500 kg
Max. Moving Speed	1.3 m/s
Travel Mode	Fwd/Bwd + Traverse
Positioning Accuracy	±10 mm，±0.5°
Navigation Method	Laser SLAM 2, Front/Rear Diag.
Operating Time	12 h (No Load), 8 h (Full Load)
Battery Capacity	48V，200AH
Charging Method	Charging
Payload	35 kg / 45 kg
Working Range	2,246 mm / 1,947 mm

CMR-S Lightweight Series

- Supports SR Series, CR7 and CR12 Cobots
- Capable of passing through aisles as narrow as 800 mm
- Supports material placement up to 560 × 400 mm on the platform
- Supports payloads of 20 kg / 100 kg



Model	CMR-S-V4SD1	CMR-S-V4SD3
Dimensions	800×560×950 mm	1000×700×950 mm
Chassis Weight	150 kg	300 kg
Max. Moving Speed	1.4 m/s	1.4 m/s
Travel Mode	Forward/Backward	Forward/Backward
Positioning Accuracy	±5 mm，±0.5°	±5 mm，±0.5°
Navigation Method	Laser SLAM 2, Front/Rear Diag.	Laser SLAM 2, Front/Rear Diag.
Operating Time	12 h	12 h
Battery Capacity	48V，100AH	48V，100AH
Charging Method	Charging	Charging
Payload	7 kg	12 kg
Working Range	988 mm	1,434 mm

Product Features

Adapts to Oily Environments

- Anti-slip tire design
- Reinforced support and suspension modifications
- ±10mm positioning accuracy on oily floors



Rapid Deployment

- Modular programs for easy replication
- Single machine tool debugging enables batch deployment



Flexibility and Agility

- Force control and mechanical accuracy compensation ensure end-effector precision
- Multiple 2D/3D engineered vision application solutions ensure accurate positioning
- Laser SLAM navigation technology enables automatic map building, requires no environmental modifications



High Protection Level

- End-effector IP67 rating, suitable for environments with oil splashing



Safety and Reliability

- Real-time spatial obstacle detection
- 360° radar for all-around protection
- Robot collision detection
- Four-side emergency stop and anti-collision bumper protection



Open and Compatible

- No control cabinet design for enhanced overall flexibility
- Multi-sensor integration, adaptable to complex, highly dynamic work scenarios

