

Intelligent Heavy Payload Robot

# FANUC Robot M-900iB

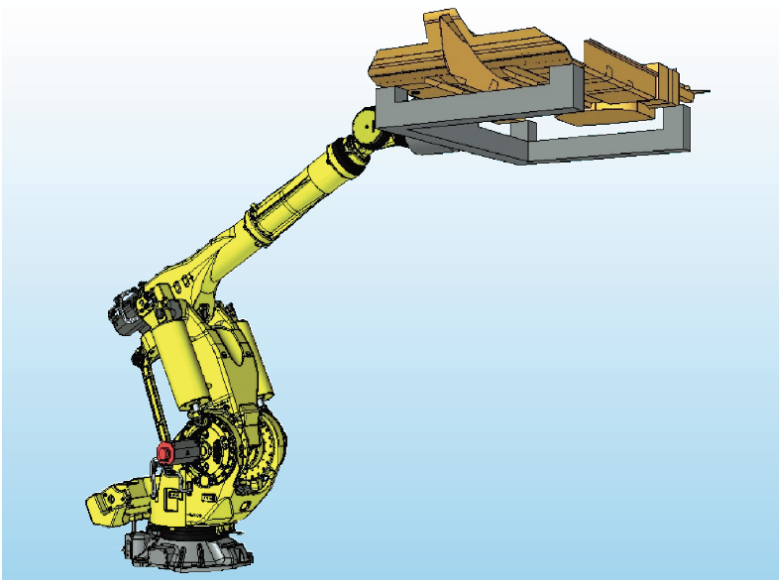


## Features

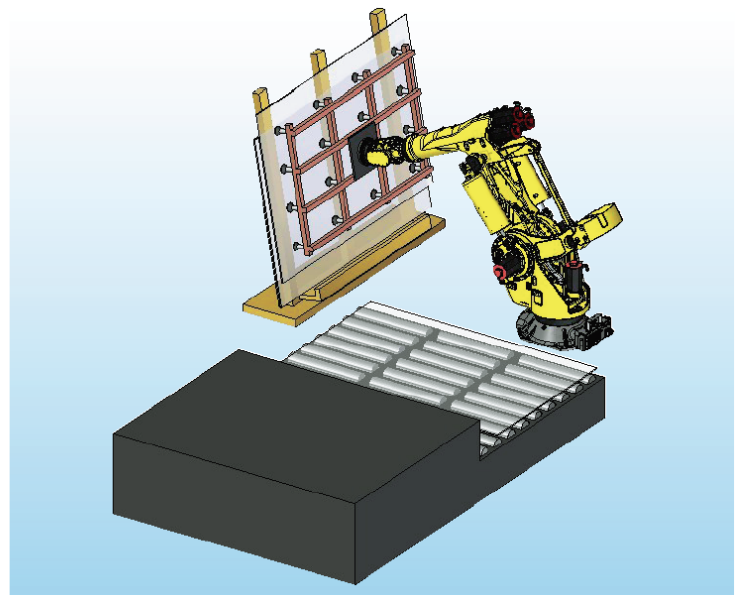
The M-900iB is a heavy payload robot with a wrist capacity of 280kg - 700kg.

- Five models are available for a variety of applications
  - **The M-900iB/700** has a strong wrist and wide motion envelope and a 700kg payload. This enables transfer of large parts such as glass panels, building construction frames and riveting for aircraft body panels.
  - **The M-900iB/400L** has a long arm with a 400kg payload and 3700mm reach. This model has a wide motion envelope and can be used to handle large parts.
  - **The M-900iB/360** is a high speed robot with a 360kg payload and a compact wrist. This robot is ideal for spot welding, part transfer and many other applications. It can also be ceiling mounted.
  - **The M-900iB/280L** has a long arm with a 280kg payload and a 3100mm reach, and can also be ceiling mounted.
  - **The M-900iB/280** has high rigidity with a 280kg payload and the same operating space as the M-900iB/360.
- An IP67-equivalent wrist allows for use in severe environments.
- Latest intelligent features with *iR*Vision are available.

## Application system



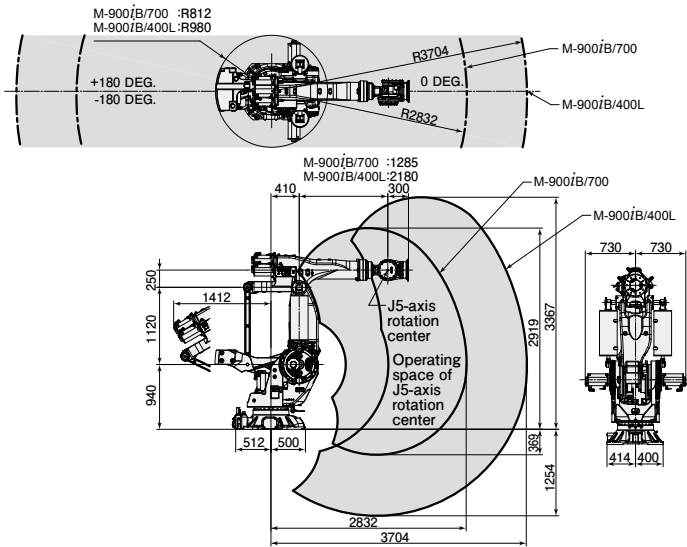
Car Body Transferring



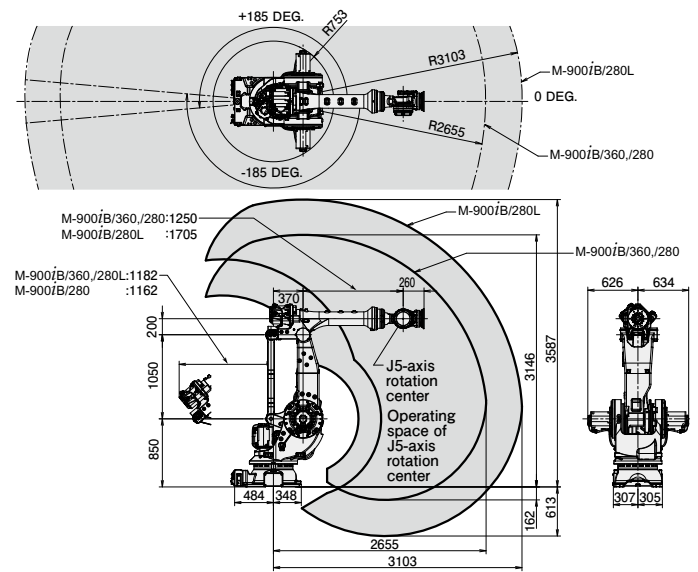
Large Glass Panel Handling

## Operating space

### M-900iB/700,/400L



### M-900iB/360,/280L,/280



## Specifications

Model		M-900iB/700	M-900iB/400L	M-900iB/360,/280	M-900iB/280L	
Type		Articulated Type				
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)				
Reach		2832 mm	3704 mm	2655 mm	3103 mm	
Installation		Floor		Floor, Upside-down, Angle mount		
Motion range (Maximum speed) (Note 1)	J1 axis rotation	360°(80°/s) 6.28 rad (1.40 rad/s)		370°(110°/s) 6.46 rad (1.92 rad/s)		
	J2 axis rotation	154°(80°/s) 2.69 rad (1.40 rad/s)		151°(105°/s) 2.64 rad (1.83 rad/s)		
	J3 axis rotation	160°(80°/s) 2.79 rad (1.40 rad/s)		223.7°(100°/s) 3.90 rad (1.75 rad/s)		
	J4 axis wrist rotation	720°(100°/s) 12.57 rad (1.75 rad/s)		720°(110°/s) 12.57 rad (1.92 rad/s)	720°(125°/s) 12.57 rad (2.18 rad/s)	
	J5 axis wrist swing	244°(100°/s) 4.26 rad (1.75 rad/s)		250°(110°/s) 4.36 rad (1.92 rad/s)	250°(125°/s) 4.36 rad (2.18 rad/s)	
	J6 axis wrist rotation	720°(160°/s) 12.57 rad (2.79 rad/s)		720°(180°/s) 12.57 rad (3.14 rad/s)	720°(205°/s) 12.57 rad (3.58 rad/s)	
Max. load capacity at wrist		700 kg	400 kg	360kg (M-900iB/360) 280kg (M-900iB/280)	280 kg	
Max. load capacity at J2 base		550 kg				
Max. load capacity at J3 arm		25 kg		50 kg		
Allowable load moment at wrist	J4 axis	3400 N·m 347 kgf·m	2744 N·m 280 kgf·m	1960 N·m 200 kgf·m	1700 N·m 174 kgf·m	
	J5 axis	3400 N·m 347 kgf·m	2744 N·m 280 kgf·m	1960 N·m 200 kgf·m	1700 N·m 174 kgf·m	
	J6 axis	1725 N·m 176 kgf·m		1050 N·m 107 kgf·m	950 N·m 97 kgf·m	
Allowable load inertia at wrist	J4 axis	1098 kg·m <sup>2</sup>	11200 kgf·cm·s <sup>2</sup>	260 kg·m <sup>2</sup> 2653 kgf·cm·s <sup>2</sup>	215 kg·m <sup>2</sup> 2194 kgf·cm·s <sup>2</sup>	
	J5 axis	1098 kg·m <sup>2</sup>	11200 kgf·cm·s <sup>2</sup>	260 kg·m <sup>2</sup> 2653 kgf·cm·s <sup>2</sup>	215 kg·m <sup>2</sup> 2194 kgf·cm·s <sup>2</sup>	
	J6 axis	444 kg·m <sup>2</sup>	4532 kgf·cm·s <sup>2</sup>	160 kg·m <sup>2</sup> 1633 kgf·cm·s <sup>2</sup>	140 kg·m <sup>2</sup> 1429 kgf·cm·s <sup>2</sup>	
Drive method		Electric servo drive by AC servo motor				
Positioning accuracy		±0.3 mm	±0.5 mm	±0.3 mm		
Mass (Note 2)		2800 kg	3150 kg	1540kg (M-900iB/360) 1700kg (M-900iB/280)	1600 kg	
Installation environment		Ambient temperature : 0~45°C Ambient humidity : Normally 75 %RH or less (No dew nor frost allowed) Short term 95 %RH or less (within one month) Vibration acceleration : 4.9 m/s <sup>2</sup> (0.5G) or less				

Note 1) During short distance motions, the axis speed may not reach the maximum value stated.

Note 2) Without controller.

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