

FANUC Robot M-900iB

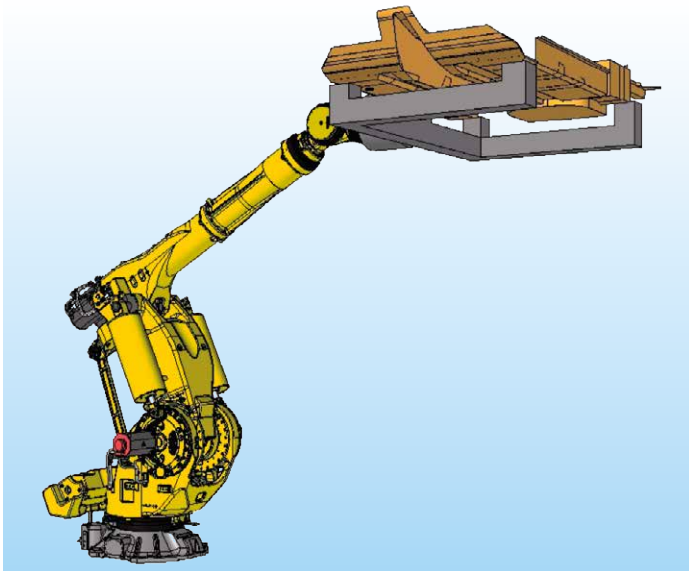


FEATURES

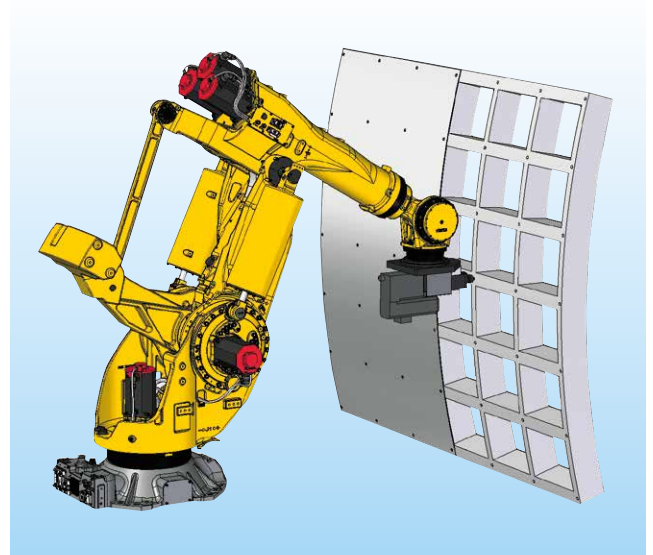
FANUC Robot M-900iB is an intelligent heavy payload robot series with the capacity of 280 - 700 kg.

- Six models are available to meet a variety of applications.
 - **FANUC Robot M-900iB/700, /400L**
These models are heavy payload type. They can be applied to large glass handling, drilling and riveting for aircraft body panel. The long arm type 400L has wide operating space and it can be applied to car body lifting and large size structure handling.
 - **FANUC Robot M-900iB/360, /280L**
These models are high speed type. Compact wrist and high speed motion will meet the needs in various applications, such as transferring, spot welding. These models can be also mounted on a ceiling.
 - **FANUC Robot M-900iB/280**
This model is a high rigidity type which has 280 kg payload capacity and the same operating space as M-900iB/360.
 - **FANUC Robot M-900iB/330L**
This model is a high payload and long arm type which can cover the application range between M-900iB/400L and M-900iB/280L.
- The wrist can be used in severe environment because it has IP67-equivalent durability (dust and drip).
- Latest intelligent functions with *iR*Vision (integrated vision) are available.

Application Examples



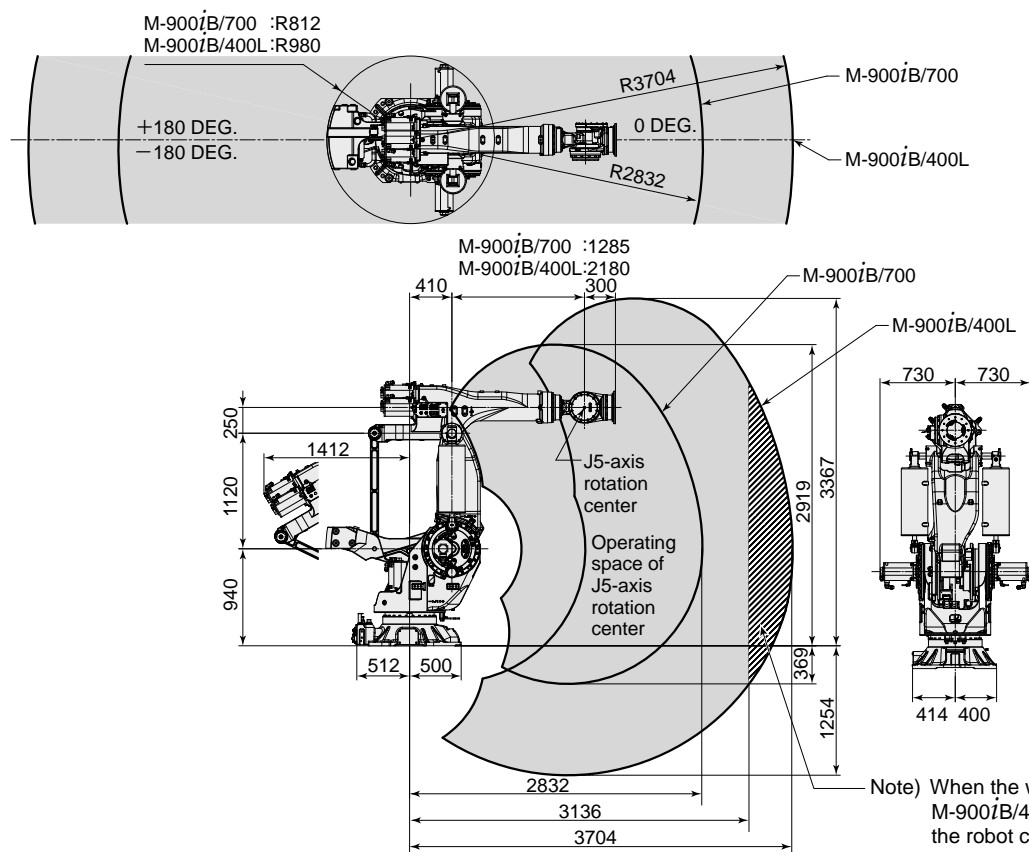
Car body panel lifting



Aircraft body panel drilling

Operating space

M-900iB/700,/400L



Specifications

Model		M-900iB/700	M-900iB/400L
Type		Articulated Type	
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)	
Reach		2832 mm	3704 mm Note 1)
Installation		Floor	
Motion range (Maximum speed) Note 2)	J1 axis rotation	360°(80°/s) 6.28 rad (1.40 rad/s)	
	J2 axis rotation	154°(80°/s) 2.69 rad (1.40 rad/s)	
	J3 axis rotation	160°(80°/s) 2.79 rad (1.40 rad/s)	
	J4 axis wrist rotation	720°(100°/s) 12.57 rad (1.75 rad/s)	
	J5 axis wrist swing	244°(100°/s) 4.26 rad (1.75 rad/s)	
	J6 axis wrist rotation	720°(160°/s) 12.57 rad (2.79 rad/s)	
Max. load capacity at wrist		700 kg	400 kg
Max. load capacity at J2 base		550 kg	
Max. load capacity at J3 arm		25 kg	
Allowable load moment at wrist	J4 axis	3400 N·m 347 kgf·m	2744 N·m 280 kgf·m
	J5 axis	3400 N·m 347 kgf·m	2744 N·m 280 kgf·m
	J6 axis	1725 N·m 176 kgf·m	
Allowable load inertia at wrist	J4 axis	1098 kg·m ² 11200 kgf·cm·s ²	
	J5 axis	1098 kg·m ² 11200 kgf·cm·s ²	
	J6 axis	444 kg·m ² 4532 kgf·cm·s ²	
Drive method		Electric servo drive by AC servo motor	
Repeatability Note 3)		±0.1 mm	
Mass Note 4)		2800 kg	3150 kg
Installation environment		Ambient temperature : 0 to 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 ² (0.5G) or less	

Note 1) Wrist motion is restricted when the wrist payload is over 300 kg. Refer to the figure of Operating space.

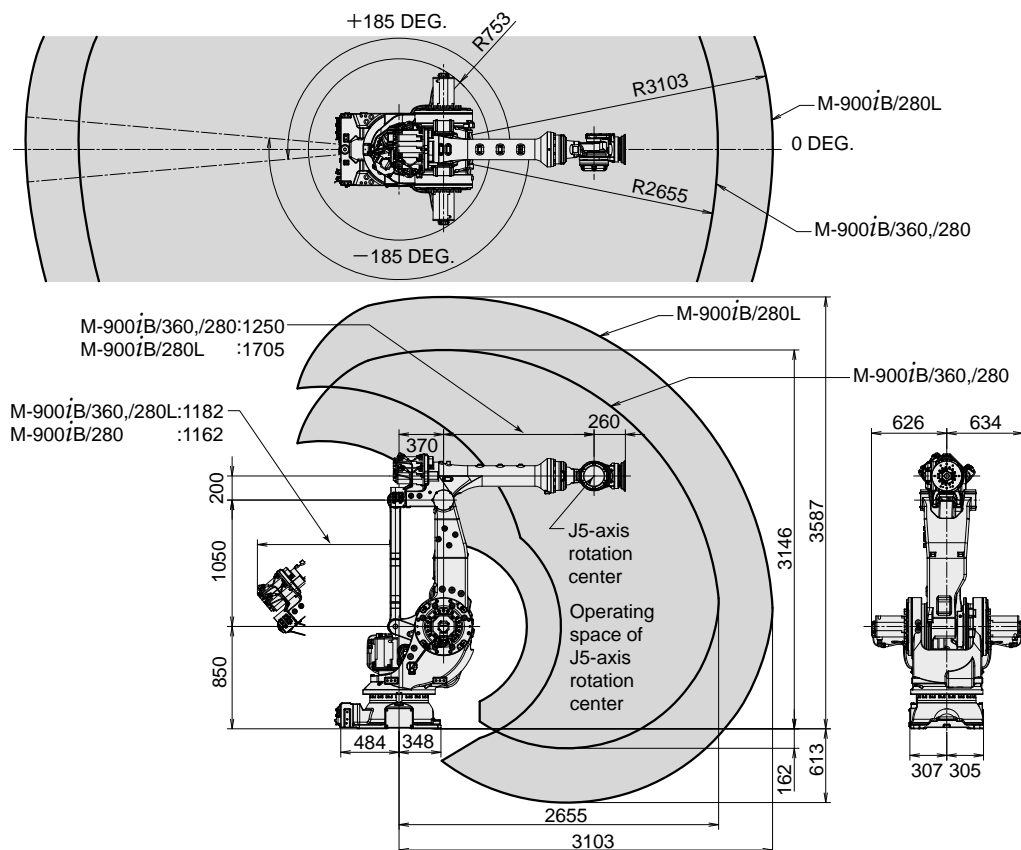
Note 2) During short distance motions, the axis speed may not reach the maximum value stated.

Note 3) Compliant with ISO 9283.

Note 4) Without controller.

Operating space

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



Specifications

Model		M-900iB/360,/280	M-900iB/280L
Type		Articulated Type	
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)	
Reach		2655 mm	3103 mm
Installation		Floor, Upside-down, Angle mount	
Motion range (Maximum speed) Note 1)	J1 axis rotation	370°(110°/s) 6.46 rad (1.92 rad/s)	
	J2 axis rotation	151°(105°/s) 2.64 rad (1.83 rad/s)	
	J3 axis rotation	223.7°(100°/s) 3.90 rad (1.75 rad/s)	
	J4 axis wrist rotation	720°(110°/s) 12.57 rad (1.92 rad/s)	720°(125°/s) 12.57 rad (2.18 rad/s)
	J5 axis wrist swing	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°(180°/s) 12.57 rad (3.14 rad/s)	720°(205°/s) 12.57 rad (3.58 rad/s)
	Max. load capacity at wrist		360kg (M-900iB/360) 280kg (M-900iB/280)
Max. load capacity at J2 base		550 kg	
Max. load capacity at J3 arm		50 kg	
Allowable load moment at wrist	J4 axis	1960 N·m 200 kgf·m	1700 N·m 174 kgf·m
	J5 axis	1960 N·m 200 kgf·m	1700 N·m 174 kgf·m
	J6 axis	1050 N·m 107 kgf·m	950 N·m 97 kgf·m
Allowable load inertia at wrist	J4 axis	260 kg·m ² 2653 kgf·cm·s ²	215 kg·m ² 2194 kgf·cm·s ²
	J5 axis	260 kg·m ² 2653 kgf·cm·s ²	215 kg·m ² 2194 kgf·cm·s ²
	J6 axis	160 kg·m ² 1633 kgf·cm·s ²	140 kg·m ² 1429 kgf·cm·s ²
Drive method		Electric servo drive by AC servo motor	
Repeatability Note 2)		±0.1 mm	
Mass Note 3)		1540kg (M-900iB/360) 1700kg (M-900iB/280)	1600 kg
Installation environment		Ambient temperature : 0 to 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 ² (0.5G) or less	

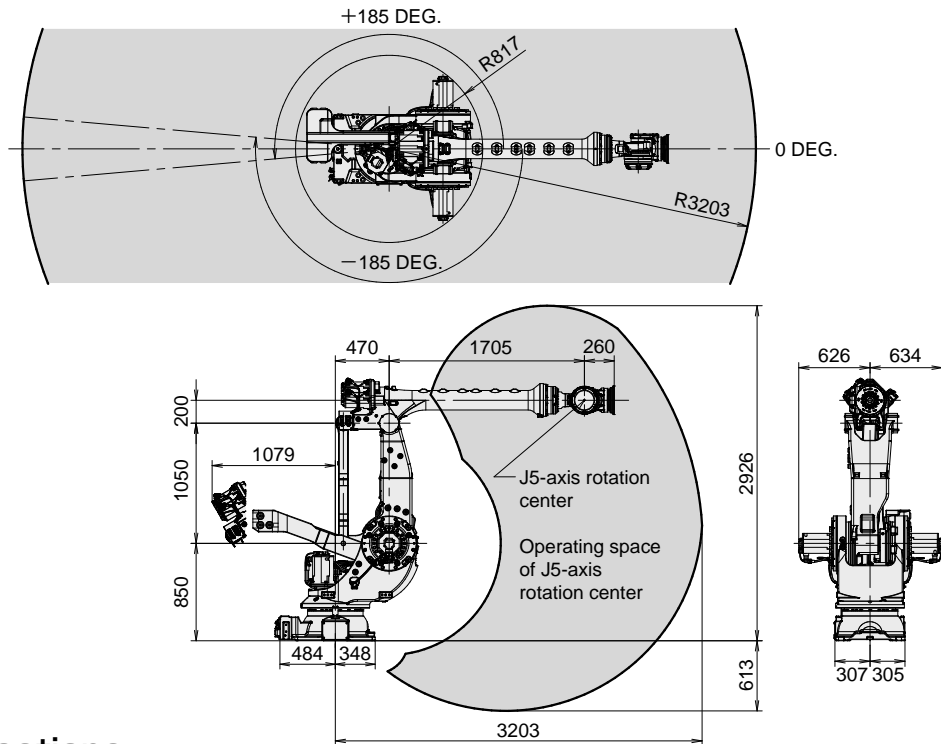
Note 1) During short distance motions, the axis speed may not reach the maximum value stated.

Note 2) Compliant with ISO 9283.

Note 3) Without controller.

Operating space

M-900iB/330L



Specifications

Model		M-900iB/330L	
Type		Articulated Type	
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)	
Reach		3203 mm	
Installation		Floor	
Motion range (Maximum speed) Note 1)	J1 axis rotation	370° (100%/s) 6.46 rad (1.75 rad/s)	
	J2 axis rotation	151° (85%/s) 2.64 rad (1.48 rad/s)	
	J3 axis rotation	163.7° (85%/s) 2.86 rad (1.48 rad/s)	
	J4 axis wrist rotation	720° (90%/s) 12.57 rad (1.57 rad/s)	
	J5 axis wrist swing	250° (85%/s) 4.36 rad (1.48 rad/s)	
	J6 axis wrist rotation	720° (165%/s) 12.57 rad (2.88 rad/s)	
Max. load capacity at wrist		330 kg	
Max. load capacity at J2 base		550 kg	
Max. load capacity at J3 arm		50 kg	
Allowable load moment at wrist	J4 axis	2205 N·m 225 kgf·m	
	J5 axis	2205 N·m 225 kgf·m	
	J6 axis	1200 N·m 122 kgf·m	
Allowable load inertia at wrist	J4 axis	340 kg·m ² 3470 kgf·cm·s ²	
	J5 axis	340 kg·m ² 3470 kgf·cm·s ²	
	J6 axis	220 kg·m ² 2245 kgf·cm·s ²	
Drive method		Electric servo drive by AC servo motor	
Repeatability Note 2)		±0.1 mm	
Mass Note 3)		1780 kg	
Installation environment		Ambient temperature	: 0 to 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 ² (0.5G) or less

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

Note 2) Compliant with ISO 9283.

Note 3) Without controller.

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