

FANUC Robot M-900

FANUC Robot M-910



FEATURES

FANUC Robot M-900 / M-910 is a heavy payload robot series with the capacity of 200 - 700 kg.

- Seven models are available to meet a variety of applications.

FANUC Robot M-910/700F-28B, /400F-37B

These models are heavy payload type.

M-910/700F-28B can be applied to large glass handling, drilling and riveting for aircraft body panel with strong wrist and high rigidity.

The long arm type M-900/400F-37B has wide operating space and it can be applied to car body lifting and large size structure handling.

FANUC Robot M-900/360-27B, /280-31B, /280-27B, /330F-32B

These models are high speed type. Compact wrist and high speed motion will meet the needs in various applications, such as transferring, spot welding.

M-900/280-27B is a high rigidity type.

FANUC Robot M-900/200R-35A

This model is a high-speed press handling type which mounted on a rack.

- The wrist can be used in severe environment because it has durability equivalent to IP67 (dust proof and drip-proof).
- Various features are available such as Maintenance Reminder, Learning Vibration Control, Bin Picking, Force Sensor.

Application Examples



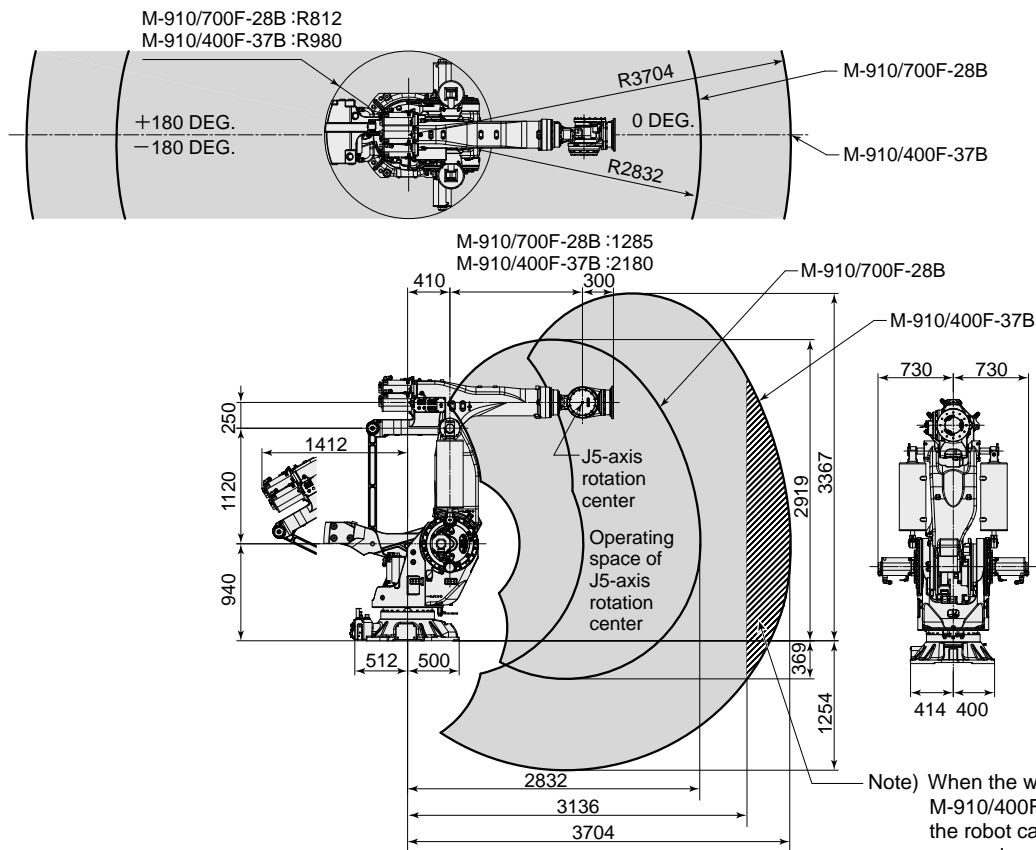
FSW: Friction Stir Welding



Heavy Workpiece Handling

Operating space

M-910/700F-28B, /400F-37B



Specifications

Model		M-910/700F-28B	M-910/400F-37B
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
Max. load capacity at J2 base		550 kg	
Max. load capacity at J3 arm		25 kg	
Allowable load moment at wrist	J4 axis	5000 N·m 510 kgf·m	2744 N·m 280 kgf·m
	J5 axis	5000 N·m 510 kgf·m	2744 N·m 280 kgf·m
	J6 axis	2800 N·m 286 kgf·m	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 servo motor	
Repeatability Note 3)		±0.1 mm	
Mass Note 4)		3030 kg	3150 kg
Installation environment		Ambient temperature : 0 to 45°C Ambient humidity : Normally 75 %RH or less. (No condensation allowed.) Short term (within one month) Max 95 %RH (No condensation allowed.) 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.

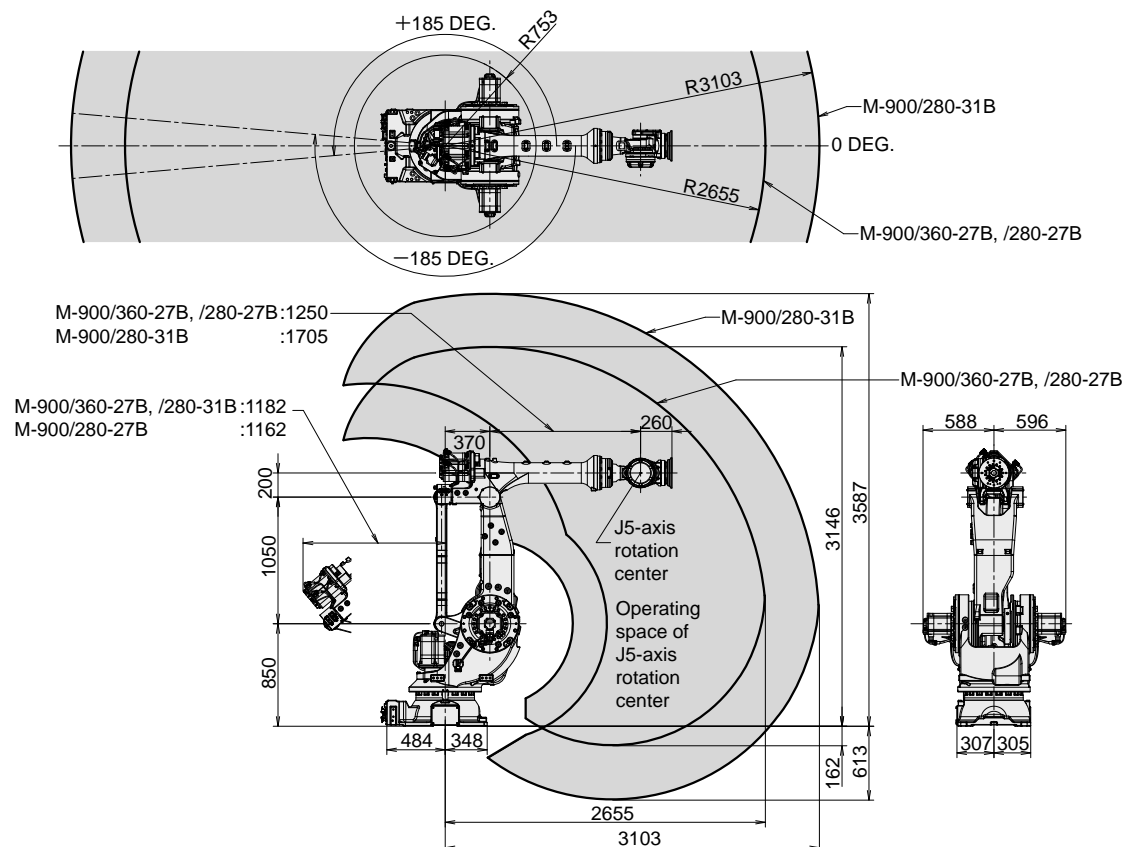
Note 2) During short distance motions, the axis speed may not reach the maximum value stated.

Note 3) Compliant with ISO 9283.

Note 4) Without controller.

Operating space

M-900/360-27B, /280-31B, /280-27B



Specifications

Model		M-900/360-27B	M-900/280-31B	M-900/280-27B
Type		Articulated Type		
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)		
Reach		2655 mm	3103 mm	2655 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)	720°(110°/s) 12.57 rad (1.92 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)	250°(110°/s) 4.36 rad (1.92 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)	720°(180°/s) 12.57 rad (3.14 rad/s)
Max. load capacity at wrist		360 kg	280 kg	
Max. load capacity at J2 base		550 kg		
Max. load capacity at J3 arm		50 kg		
Allowable load moment at wrist	J4 axis	2330 N·m 238 kgf·m	1700 N·m 174 kgf·m	1960 N·m 200 kgf·m
	J5 axis	2330 N·m 238 kgf·m	1700 N·m 174 kgf·m	1960 N·m 200 kgf·m
	J6 axis	1280 N·m 131 kgf·m	950 N·m 97 kgf·m	1050 N·m 107 kgf·m
Allowable load inertia at wrist	J4 axis	500 kg·m ² 5102 kgf·cm·s ²	215 kg·m ² 2194 kgf·cm·s ²	260 kg·m ² 2653 kgf·cm·s ²
	J5 axis	500 kg·m ² 5102 kgf·cm·s ²	215 kg·m ² 2194 kgf·cm·s ²	260 kg·m ² 2653 kgf·cm·s ²
	J6 axis	360 kg·m ² 3673 kgf·cm·s ²	140 kg·m ² 1429 kgf·cm·s ²	160 kg·m ² 1633 kgf·cm·s ²
Drive method		Electric servo drive by servo motor		
Repeatability Note 2)		±0.1 mm		
Mass Note 3)		1540 kg	1600 kg	1700 kg
Installation environment		Ambient temperature : 0 to 45°C Ambient humidity : Normally 75 %RH or less. (No condensation allowed.) Short term (within one month) Max 95 %RH (No condensation allowed.) Vibration acceleration : 4.9 m/s ² (0.5G) or less		

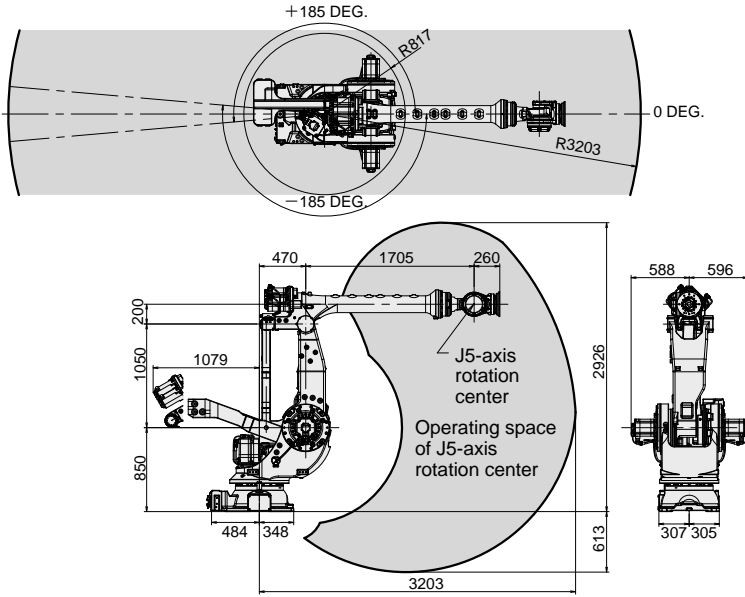
Note 1) During short distance motions, the axis speed may not reach the maximum value stated.

Note 2) Compliant with ISO 9283.

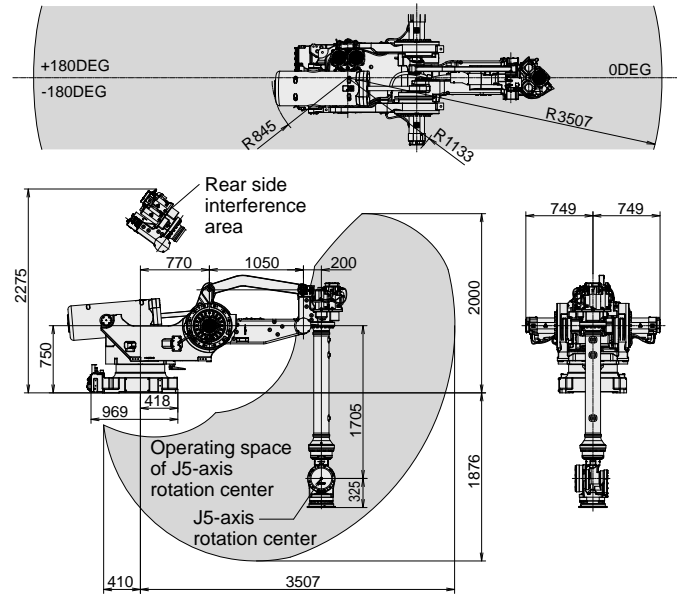
Note 3) Without controller.

Operating space

M-900/330F-32B



M-900/200R-35A



Specifications

Model		M-900/330F-32B	M-900/200R-35A
Type		Articulated Type	
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)	
Reach		3203 mm	3507 mm
Installation		Floor	Rack mount
Motion range (Maximum speed) Note 1)	J1 axis rotation	370° (100°/s) 6.46 rad (1.75 rad/s)	360° (110°/s) 6.28 rad (1.92 rad/s)
	J2 axis rotation	151° (85°/s) 2.64 rad (1.48 rad/s)	180° (95°/s) 3.14 rad (1.66 rad/s)
	J3 axis rotation	163.7° (85°/s) 2.86 rad (1.48 rad/s)	180° (95°/s) 3.14 rad (1.66 rad/s)
	J4 axis wrist rotation	720° (90°/s) 12.57 rad (1.57 rad/s)	720° (95°/s) 12.57 rad (1.66 rad/s)
	J5 axis wrist swing	250° (85°/s) 4.36 rad (1.48 rad/s)	230° (95°/s) 4.01 rad (1.66 rad/s)
	J6 axis wrist rotation	720° (165°/s) 12.57 rad (2.88 rad/s)	720° (165°/s) 12.57 rad (2.88 rad/s)
Max. load capacity at wrist		330 kg	200 kg (A)
Max. load capacity at J2 base		550 kg	-
Max. load capacity at J3 arm		50 kg	25 kg (B)
Allowable load moment at wrist	J4 axis	2205 N·m 225 kgf·m	2200 N·m 225 kgf·m
	J5 axis	2205 N·m 225 kgf·m	2200 N·m 225 kgf·m
	J6 axis	1200 N·m 122 kgf·m	715 N·m 73 kgf·m
Allowable load inertia at wrist	J4 axis	340 kg·m ² 3470 kgf·cm·s ²	431.2 kg·m ² 4400 kgf·cm·s ²
	J5 axis	340 kg·m ² 3470 kgf·cm·s ²	431.2 kg·m ² 4400 kgf·cm·s ²
	J6 axis	220 kg·m ² 2245 kgf·cm·s ²	392 kg·m ² 4000 kgf·cm·s ²
Drive method		Electric servo drive by servo motor	
Repeatability Note 2)		±0.1 mm	
Mass Note 3)		1780 kg	2670 kg
Installation environment		Ambient temperature : 0 to 45°C Ambient humidity : Normally 75 %RH or less. (No condensation allowed.) Short term (within one month) 95 %RH or less (No condensation allowed.) 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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RM-900(E)-01, 2024.4, Printed in Japan