

# M-900iA

**PAYLOAD: 200-700KG**

THE M-900iA SERIES ROBOT IS ENGINEERED FOR PRECISE, VERY HIGH PAYLOAD/HIGH SPEED OPERATION, USER-FRIENDLY SETUP AND MAXIMUM RELIABILITY SUPPORTED BY OUR EXTENSIVE SERVICE AND PARTS NETWORK. THE M-900iA SERIES IS A SIX AXIS, ELECTRIC SERVO-DRIVEN FAMILY OF ROBOTS DESIGNED FOR A VARIETY OF MANUFACTURING AND SYSTEMS PROCESSES.



Five M-900iA models are available for a variety of applications:

- M-900iA/350 - standard reach, 350kg payload, floor, ceiling, or angle mount
- M-900iA/260L - long reach, 260kg payload, floor, ceiling, or angle mount
- M-900iA/600 - standard reach, 600kg (700kg option) payload, floor mount
- M-900iA/400L - long reach, 400kg payload, floor mount
- M-900iA/200P - long reach, 200kg payload, rack mount

#### FEATURES AND BENEFITS:

- "Best in class" wrist moments and inertia meet a variety of heavy handling challenges.
- Proven, reliable FANUC servo drives provide highest uptime and productivity.
- Stationary outer arm simplifies hose and cable dressout and prolongs service life.
- Slim arm and wrist assemblies minimize interference with system peripherals and allow operation in confined spaces.
- Rugged, IP67 rated wrist design performs reliably even in the harshest manufacturing environments.
- A camera for iRVision (built-in) can be integrated into the robot for vision guidance and error-proofing applications.
- Ceiling mount installation is possible on the M-900iA/350 & M-900iA/260L where space is a concern.
- Robust mechanical design reduces down time, increases mean time between failure (MTBF) and minimizes spare part requirements.
- Optional enhanced severe dust and liquid protection package with two-part epoxy paint for harsh environments.
- High inertia mode software allows handling of very large parts with minimal cycletime penalty.



Engine block handling and deflashing with Intelligent M-900iA/350 and F-200iB robots.



Door frame handling with M-900iA/350 in the bodyshop.

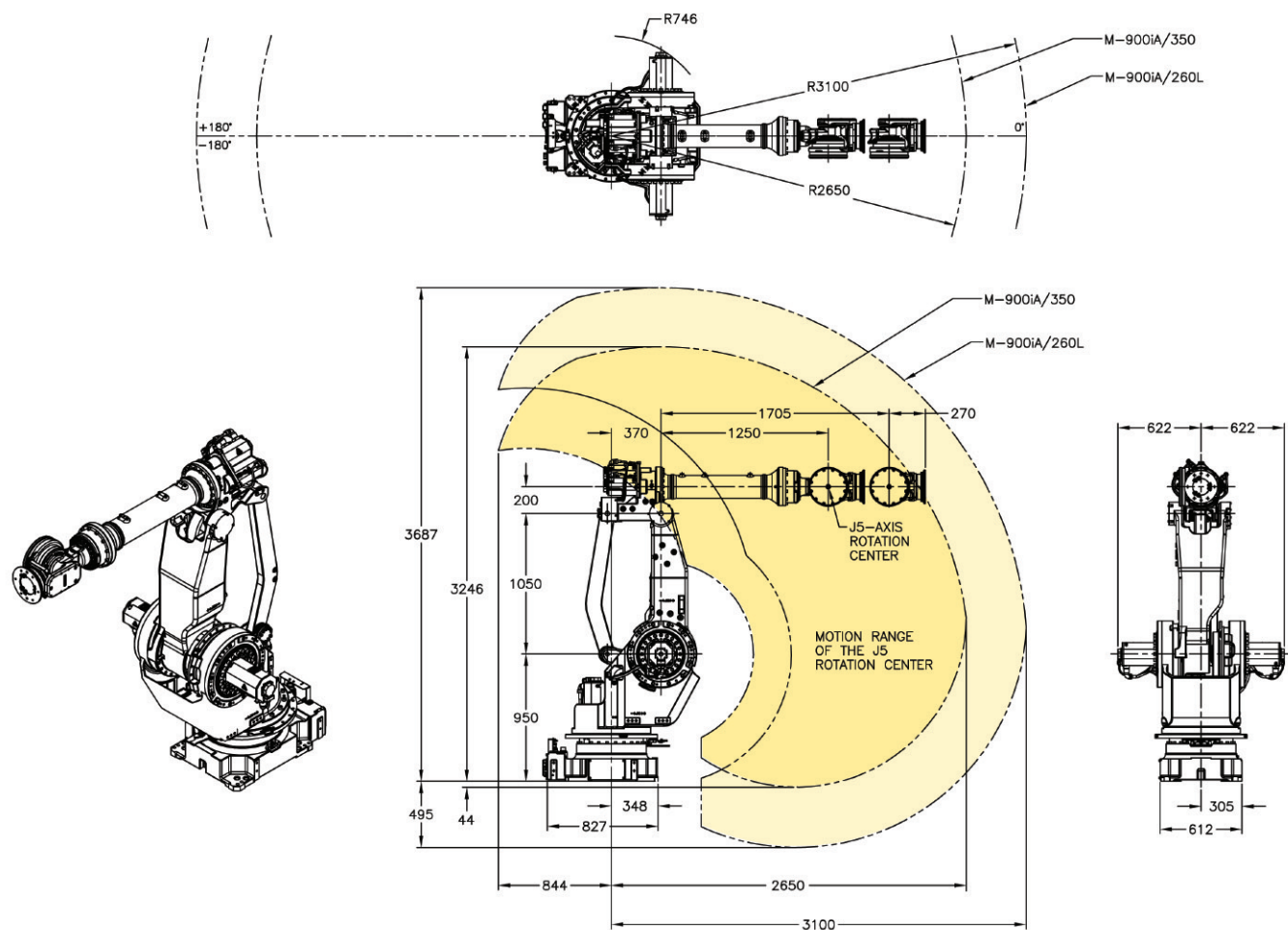


Sand core handling with M-900iA/600.

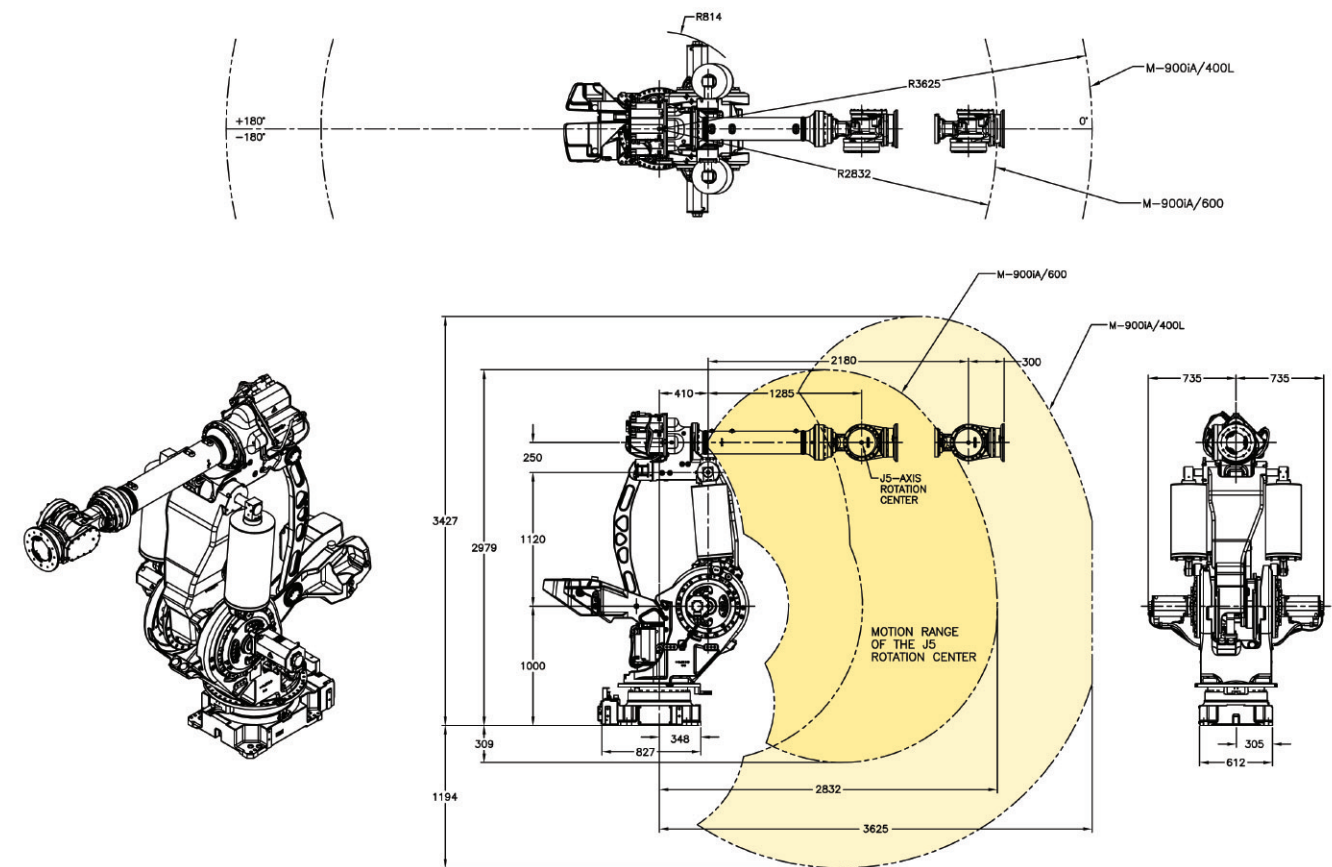
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M-900iA/350 & M-900iA/260L DIMENSIONS:

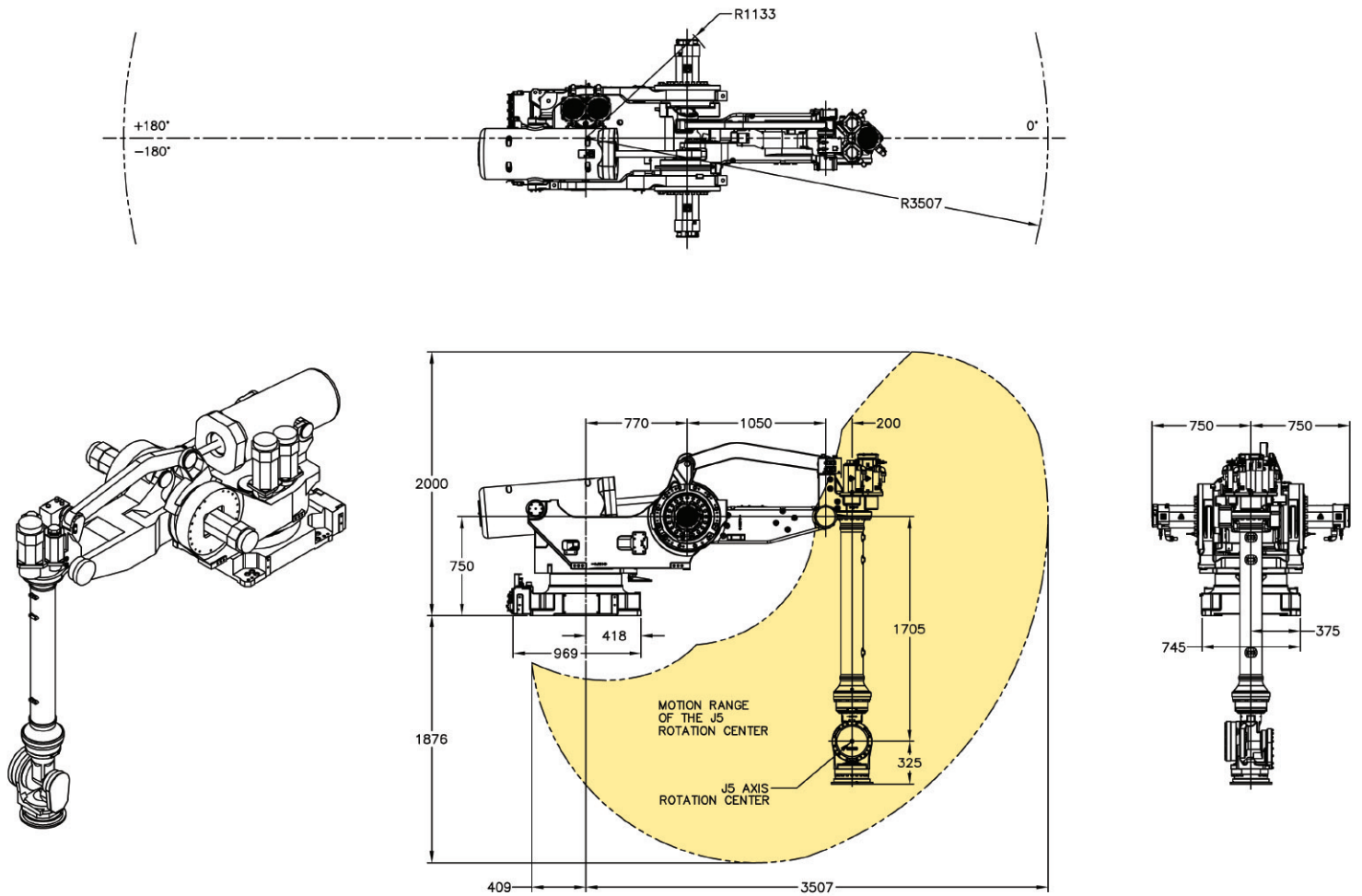


M-900iA/600 & M-900iA/400L DIMENSIONS:





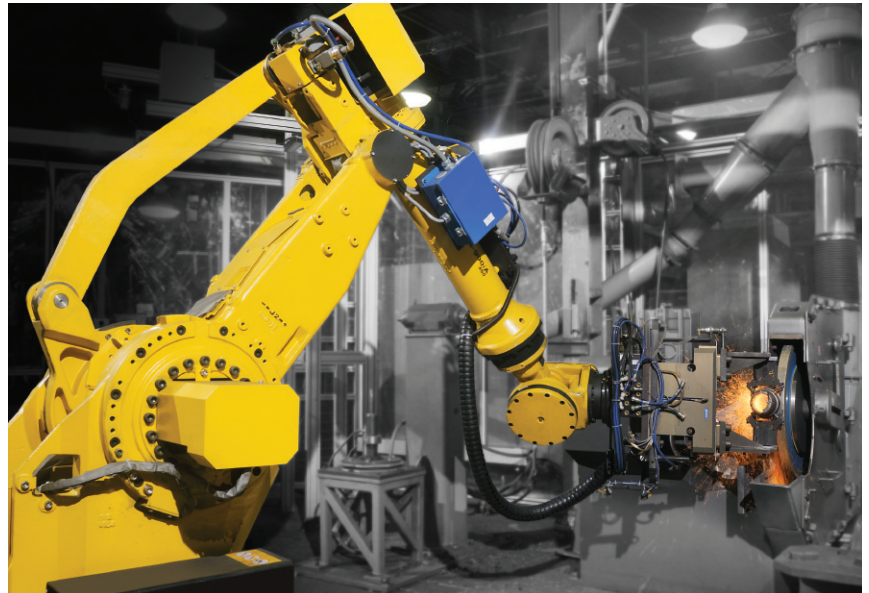
## M-900iA/200P DIMENSIONS:



## ADDITIONAL M-900iA APPLICATIONS:



Ceiling mounted M-900iA/350 unloading trucks.



M-900iA/350 grinding risers and heavy flash from ductile iron parts.

# M-900iA

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## M-900iA SERIES SPECIFICATIONS:

ITEMS		M900iA/350	M900iA/260L	M900iA/600	M900iA/400L	M900iA/200P
Axes		6	6	6	6	6
Payload - wrist (kg)		350	260	600 (std) / 700 (option)	400	200
-J3 Arm (kg)		25	25	25	25	25 <sup>(3)</sup>
-J2 Base (kg)		550	550	550	550	-
Reach (mm)		2650	3100	2832	3625 <sup>(4)</sup>	3507
Repeatability (mm)		±0.3	±0.3	±0.3	±0.5	±0.3
Interference Radius (mm)		746	746	814	980	1133
Motion range (degrees)	J1	360	360	360	360	360
	J2	150	150	154	154	180
	J3	223	211	160	160	180
	J4	720	720	720	720	720
	J5	250	250	244	244	230
	J6	720	720	720	720	720
Motion Speed (degrees/sec.)	J1	100	100	80	80	110
	J2	95	105	80	80	95
	J3	95	95	80	80	95
	J4	105	120	100	100	95
	J5	105	120	100	100	95
	J6	170	200	160	160	165
Wrist Moment N*m(kg*f*m)	J4	1960 (200)	1666 (170)	3381 (345)	2744 (280)	2200 (224)
	J5	1960 (200)	1666 (170)	3381 (345)	2744 (280)	2200 (224)
	J6	892 (91)	715 (73)	1725 (176)	1725 (176)	715 (73)
Wrist Inertia <sup>(1)</sup> kg*m <sup>2</sup>	J4	235 / 392	188 / 313	510 / 1097	510 / 1097	431
	J5	235 / 392	188 / 313	510 / 1097	510 / 1097	431
	J6	156 / 352	117 / 225	320 / 444	320 / 444	392
Mechanical brakes		All Axes	All Axes	All Axes	All Axes	All Axes
Mechanical weight (kg) <sup>(5)</sup>		1720	1800	2800	3150	2670
Mounting Method <sup>(2)</sup>		Floor, ceiling & angle	Floor, ceiling & angle	Floor	Floor	Rack
Installation Environment		0 to 45				
Ambient temperature °C		Normally: 75% or less				
Humidity		Short term (within a month): 95% or less				
		No condensation (No dew or frost allowed)				
Vibration (m/s <sup>2</sup> )		0.5G or less				
IP Rating		Wrist & J3 arm IP67, driving unit of the body IP66, main body IP54 (IP56 optional)				Wrist & J3 arm IP67, rest IP54

### Notes:

- (1) Allowable load inertia at wrist can be switched by software parameters; acc/dec are slightly longer but all other specifications are unchanged.
- (2) Motion range will be derated for angle mount.
- (3) For M-900iA/200P Robot, wrist load + J3 arm load cannot exceed 200kg.
- (4) When the reach is between 3136mm and 3350, CG of the workpiece should be within 30 degrees from the wrist downward direction.  
When the reach is over 3350mm, CG of the workpiece should be downward from the wrist.
- (5) Without controller

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