

M-2000iA™ Series

FANUC
Robotics

Basic Description

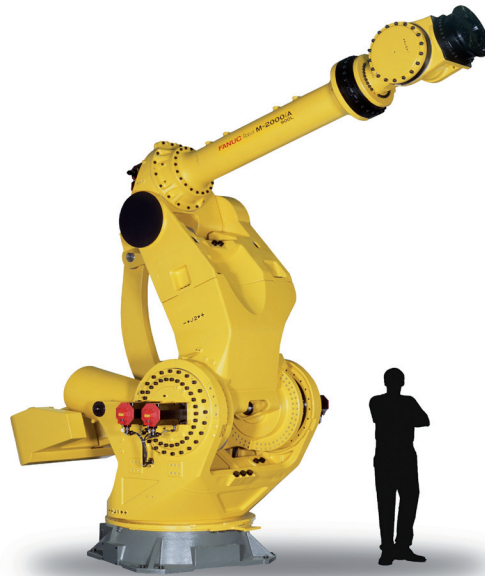
FANUC Robotics' M-2000iA series robot is engineered for applications which cannot be handled by traditional robots due to work piece size or distances they must be moved. The world's leading supplier of robots has now greatly expanded robot applications with the M-2000iA series. The M-2000iA series is the world's largest and strongest six-axis, modular construction, electric servo-driven family of robots designed for a variety of manufacturing and systems processes.

M-2000iA Series, the Solution for:

- Drop-Lifter
- Material handling
- Machine tool load/unload
- Large fabrication handling
- Large sheet or panel handling
- Glass handling
- Casting Operations

Benefits

- World's highest payload capacity of 1200 kg on the M-2000iA/1200 provides superior lifting capability
- World's longest vertical stroke, on the M-2000iA/900L, enables users to lift and transfer large parts more than 6.2 meters
- World's longest horizontal stroke, on the M-2000iA/900L, enables users to transfer large parts more than 8.2 meters
- World's strongest wrist axes, with "Best-in-Class" moments and inertia, meet a variety of super-heavy handling challenges
- Highly rigid construction provides stable transfer of super-heavy parts.
- Superior reliability compared to fixed (hard) automation



Features

Mechanical:

- 6 axes of motion provides superior dexterity compared to fixed automation and linear gantries
- Dual-motor drives on axes 2 and 3 provide increased duty cycle for loading and unloading.
- No motors at the wrist axes keeps them isolated from hot, wet or dirty environments.
- IP67 rated wrist allows wrist to handle parts in wet environments.

Control:

- Built-in support for machine vision applications for robot guidance and error proofing, without the need for a PC
- Dual-Check Safety (DCS) function achieves the highest level of safety for E-Stop and Fence Stop
- DCS supports safety monitoring of robot position and speed
- Easy connections to a variety of I/O, including a number of distributed I/O networks

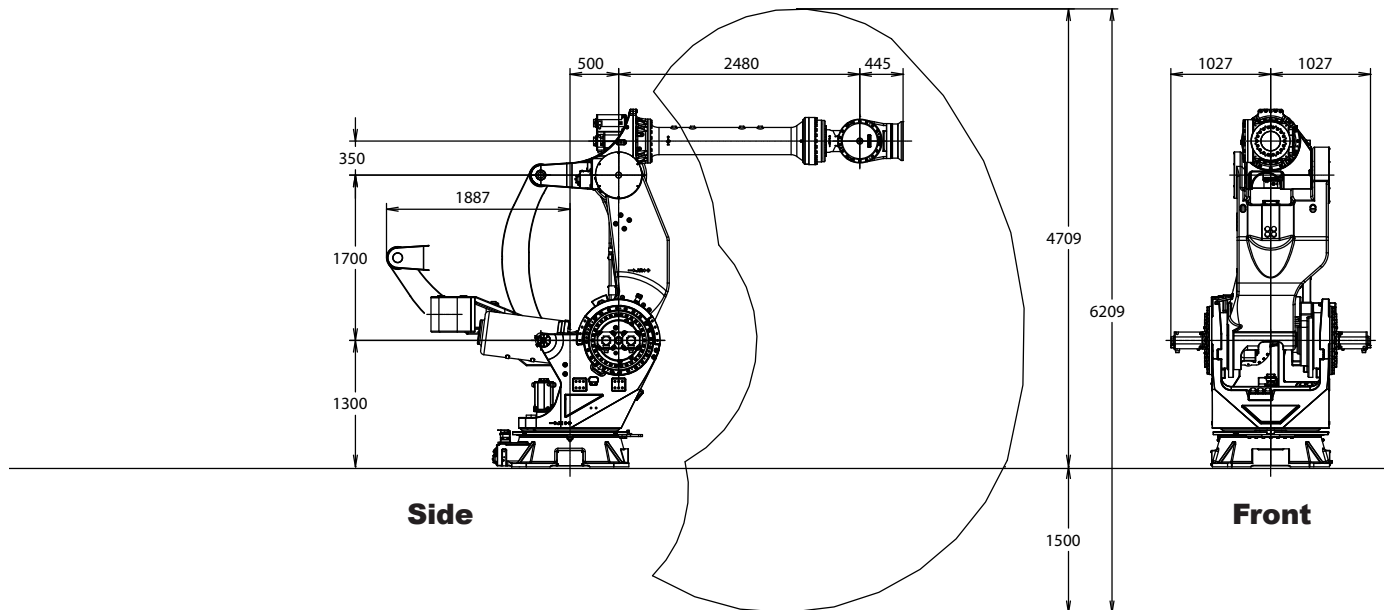
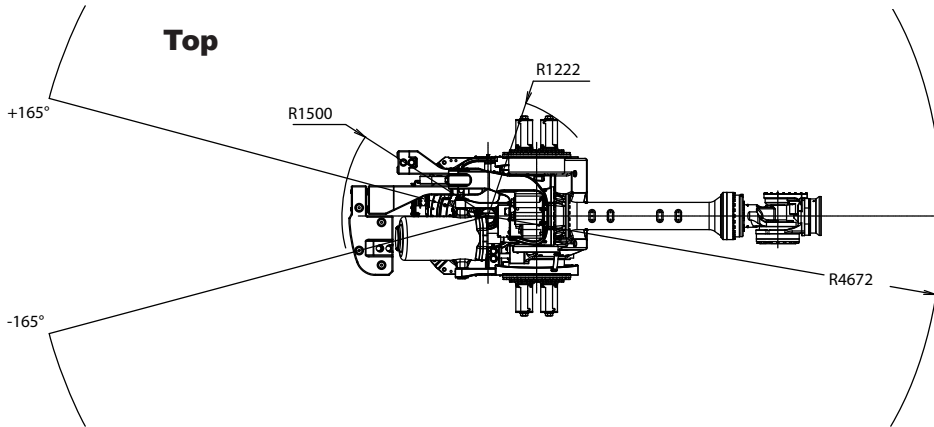
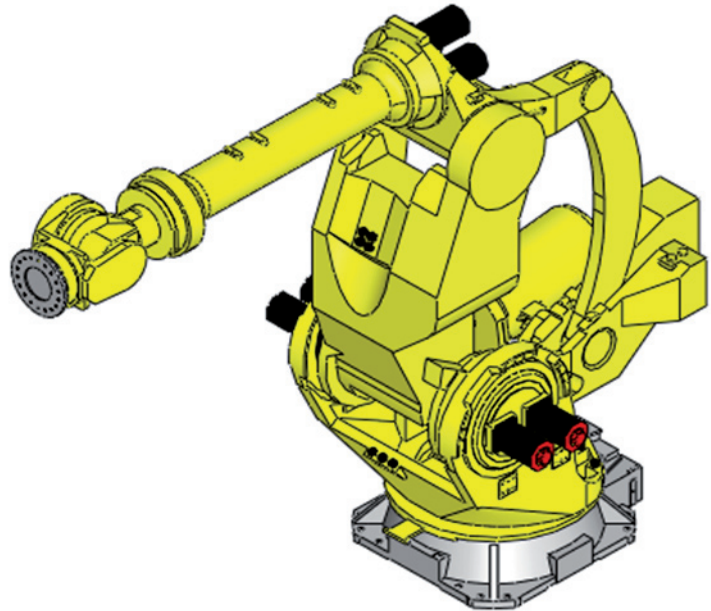
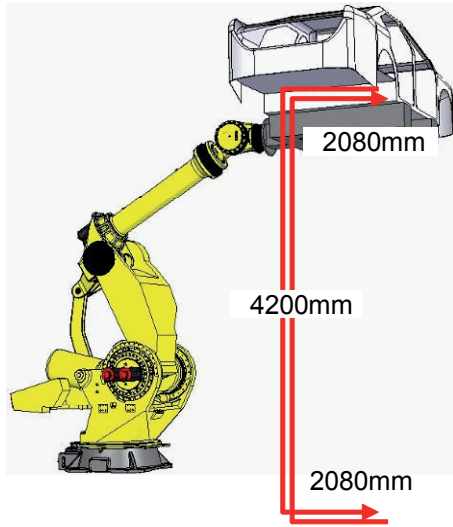
- iPendant™, a color, Internet-ready teach pendant for even easier programming and custom cell user interface design

Options

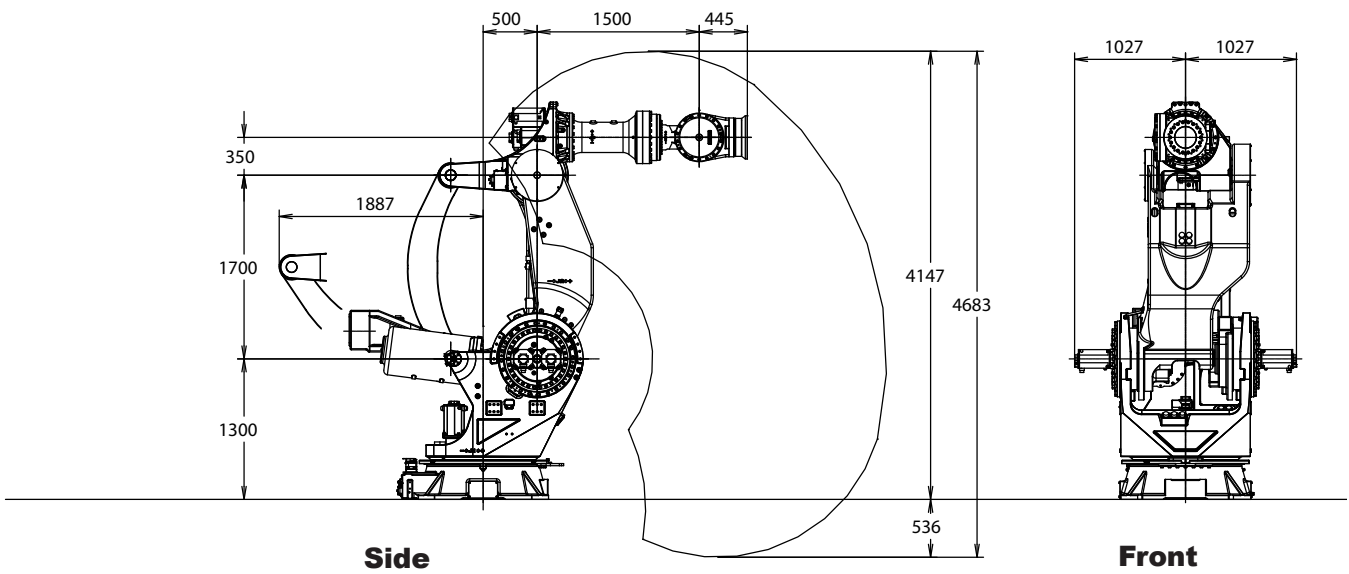
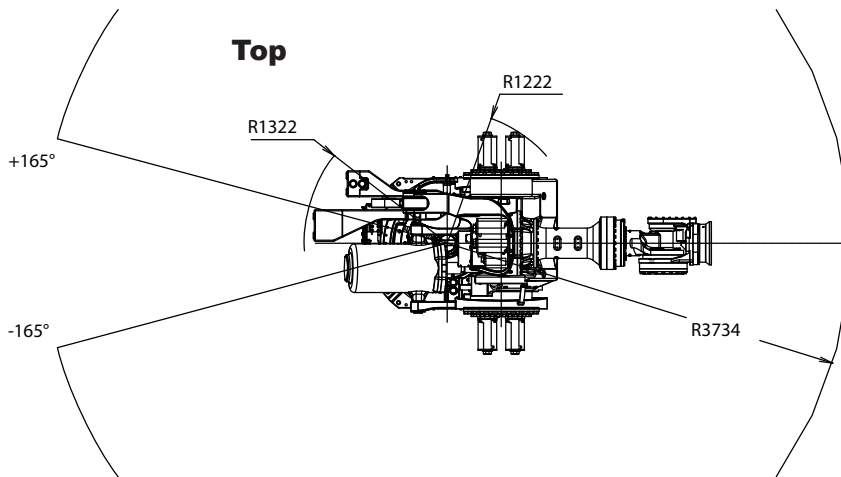
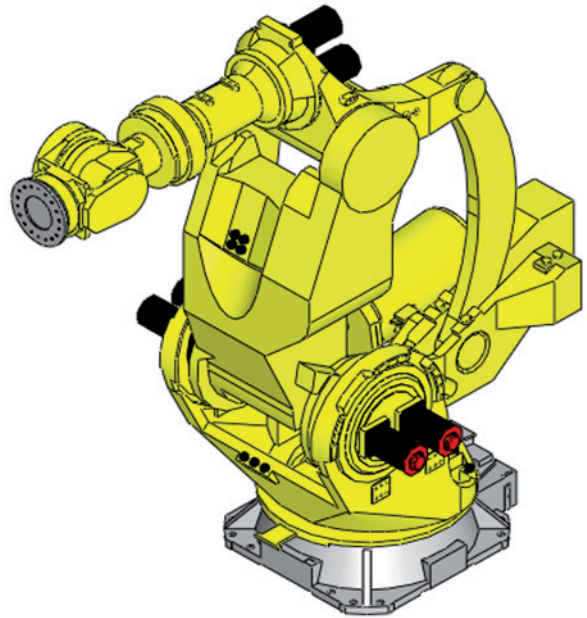
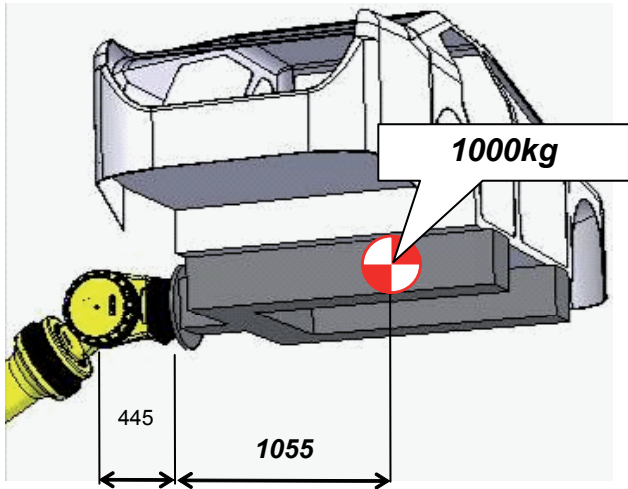
- Two-part epoxy paint for harsh environments
- Standard base plate for quick robot installation
- Adjustable hard stops for axes J1, J2 and J3
- Auxiliary axes packages for integration of peripheral servo-controlled devices
- Various robot connection cable lengths for flexible cabinet placement and optional track rated cables
- iPendant™ with touch screen for custom HMI applications
- FANUC's iRVision® (Integrated Robot Vision) system delivers high performance 2D and 3D machine vision capabilities with proven FANUC reliability to support:
 - 2D robot guidance
 - 3D robot guidance
 - Errorproofing of parts

Note: iRVision® is a registered trademark of FANUC LTD.

M-2000iA/900L Dimensions



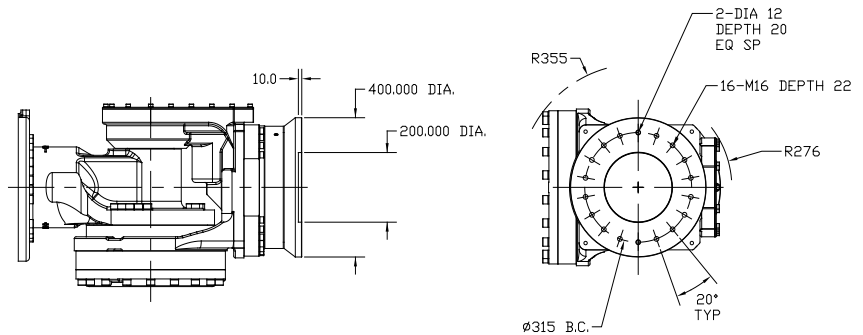
M-2000iA/1200 Dimensions



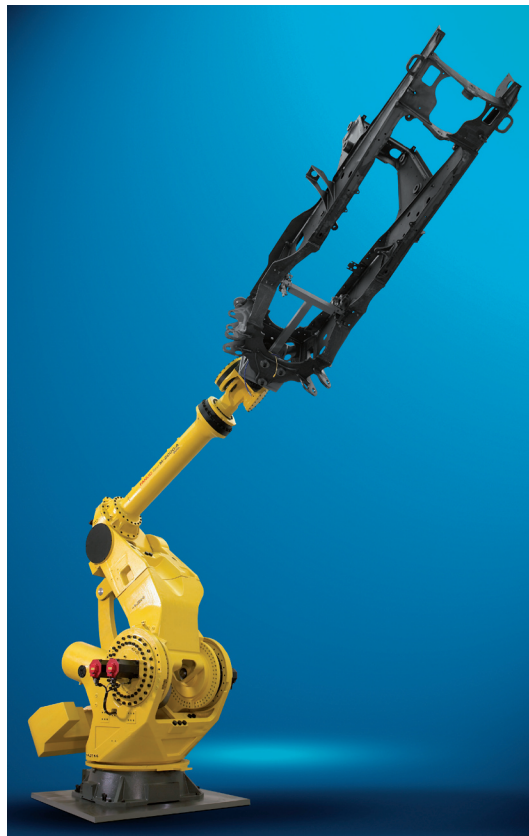
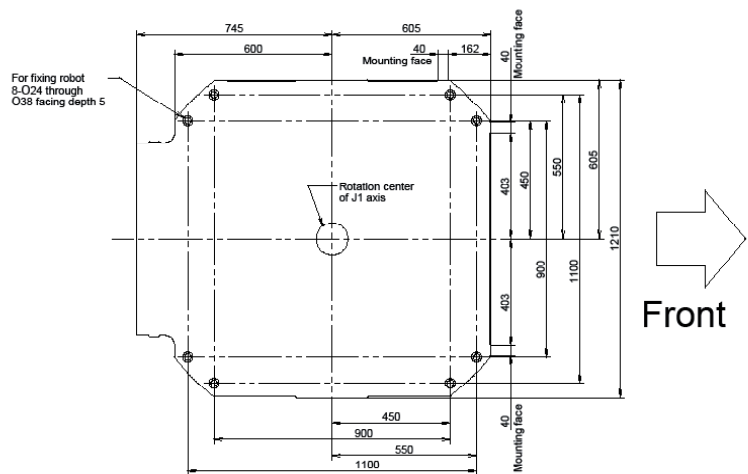
M-2000iA Series Specifications

Items	M-2000iA/1200	M-2000iA/900L
Axes	6	6
Payload - Wrist (kg)	1200	900
- J3 Arm (kg)	50	50
- J2 Base (kg)	550	550
Reach (mm)	3734	4638
Repeatability (mm)	±0.3	±0.5
Motion range (degrees)	J1	330 (±165)
	J2	160 (+100/-60)
	J3	165 (+35/-130)
	J4	720 (+/-360)
	J5	240 (+/-120)
	J6	720 (+/-360)
Motion speed (degrees/s)	J1	45
	J2	30
	J3	30
	J4	50
	J5	50
	J6	70
Wrist moments N-m (kgf-m)	J4	14700(1500)
	J5	14700(1500)
	J6	4900(500)
Wrist load inertia (kg-m²)	J4	2989
	J5	2989
	J6	2195
Mechanical brakes	All Axes	All Axes
Mechanical weight (kg)	8600	9600
Mounting method⁽¹⁾	Floor	
Installation environment	0 to 45	
Ambient Temperature (°C)	0 to 45	
Humidity	Normally: 75% or less Short term (within a month): 95% or less No condensation (No dew or frost)	
Vibration (m/s²)	4.9 or less (0.5G or less)	
IP Rating(s)	Wrist IP67, rest IP54	

Faceplate



Footprint



Note: Dimensions are shown in millimeters.
Detailed CAD data are available upon request.

Intelligent Robot Solutions

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