

# M-6*i*B Series

## Basic Description

The M-6*i*B series is a six-axis, modular construction, electric servo-driven family of robots designed for a variety of industrial applications. Based on its simple and reliable construction, the M-6*i*B series provides sophisticated motion control and consistent performance with high productivity. The SYSTEM R-J3*i*B Controller and easy-to-use HandlingTool application software provide accurate and consistent path performance.

The M-6*i*B series, the latest generation material handling robot, has a compact design with superior motion range and speed. The compact yet flexible design simplifies installation, maximizes reach capability within confined areas and enables high-density installation of robots and peripherals.

## M-6*i*B Series, the Solution for:

- Material handling
- Machine load/unload
- Packing
- Material removal
- Dispensing
- Assembly

## Benefits

- Features highest motion speeds in its class for maximum performance and productivity.
- Best in its class reach versus stroke ratio.
- Standard, fail-safe brakes on all six axes increase safety, functionality and control.
- Compact design of the servo motors minimizes interference and simplifies installation of the robot system.
- Extremely fast wrist axes reduce air move times, thus improving throughput.



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## Features

- Large work envelope with 1,373 mm (M-6*i*B) or 951 mm (M-6*i*B/6S) maximum reach.
- Compact wrist enables the robot to enter into small openings in the workspace.
- Repeatability of  $\pm 0.08$  mm at full speed and full payload within entire work envelope.
- Dedicated pneumatic and electrical (with eight digital inputs and eight digital outputs) connections on J3 axis to simplify user's end-of-arm tooling design, integration and communication.
- Material handling style teach pendant with large LCD screen and ergonomic design offers intuitive control over the process.
- 6 kg payload on faceplate with an additional 12 kg payload on J3 axis.
- Multiple mounting positions include upright, inverted, wall or angle mount with no changes to the mechanical unit.

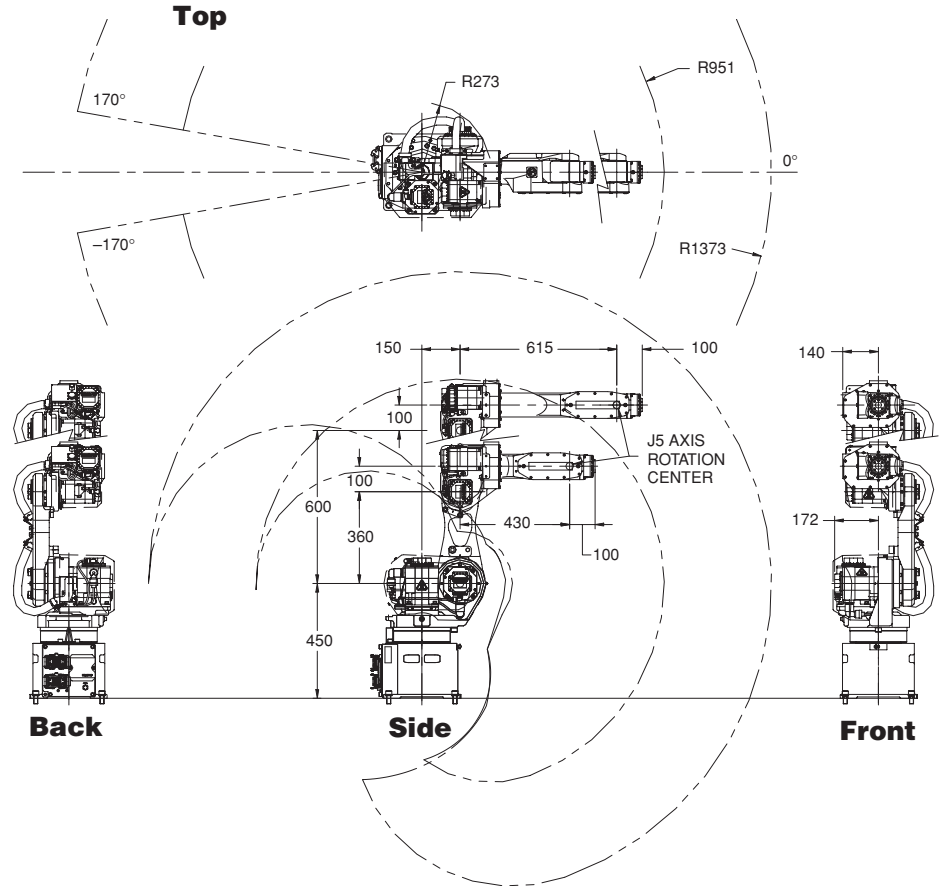
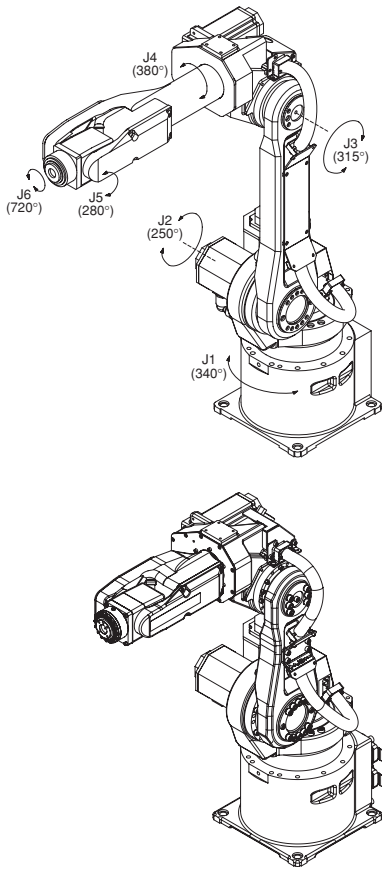
- Sealed bearings and brushless AC motor drives provide protection and improve reliability.
- RV reducer drivetrain with integral bearings provides rigidity and performance in a compact package.

## Options

- *i* Pendant, a color, Internet-ready teach pendant for even easier programming and custom cell user interface design.
- J1 stroke modification kit.
- J1 axis 360-degree motion range.
- Various robot connection cable lengths for flexible cabinet placement and optional track rated cables.
- Auxiliary axis packages for integration of peripheral servo-controlled devices.
- Severe dust and liquid protection package for harsh environments.

# M-6iB Series Dimensions

## Isometric



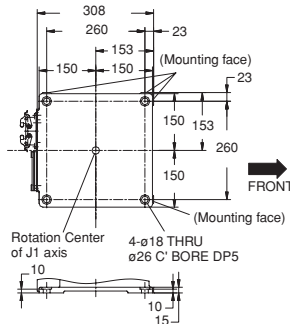
## M-6iB Series Specifications

Items	M-6iB	M-6iB/6S
<b>Axes</b>	6	6
<b>Payload (kg)</b>	6	6
<b>Reach (mm)</b>	1373	951
<b>Repeatability (mm)</b>	±0.08	±0.08
<b>Interference radius (mm)</b>	273	273
<b>Motion range (°)</b>		
J1	340	340
J2	250	250
J3	315	310
J4	380	380
J5	280	280
J6	720	720
<b>Motion speed (°/s)</b>		
J1	150	200
J2	160	200
J3	170	260
J4	400	400
J5	400	400
J6	500	720
<b>Wrist moment (Nm)</b>		
J4	15.7	15.7
J5	9.8	9.8
J6	5.9	5.9
<b>Wrist inertia (kgm<sup>2</sup>)</b>		
J4	0.63	0.63
J5	0.22	0.22
J6	0.06	0.06
<b>Mechanical brakes</b>	All axes	
<b>Mechanical weight (kg)</b>	138	135
<b>Mounting method</b>	Upright, inverted, wall and angle mount <sup>(1)</sup>	
<b>Installation environment</b>		
Temperature °C	0 to 45	
Humidity	Normally: 75% or less Short term (within a month): 95% or less No condensation	
Vibration (m/s <sup>2</sup> )	4.9 or less	
<b>Payload at axis 3 (kg)</b>	12	

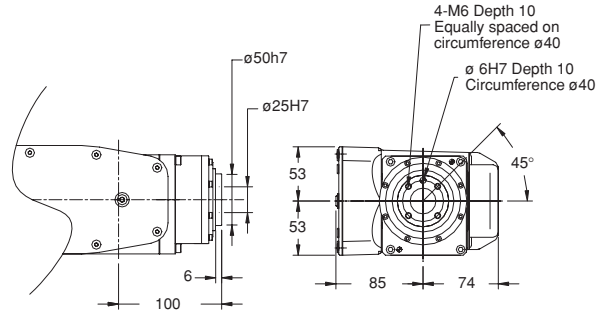
**Notes:**

(1) Motion range is de-rated for wall and angle mount.

## Footprint



## Wrist



**Note:** Dimensions are shown in millimeters.

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