

ARC Mate 100iB/6S

Basic Description

The ARC Mate 100iB/6S is a six-axis, modular construction, electric servo-driven robot designed for precise, high-speed welding and cutting. Based on its simple and reliable construction, the ARC Mate 100iB/6S provides accurate and consistent path performance. The R-J3iB Controller and easy-to-use ArcTool software provide reliable performance with high productivity.

The new ARC Mate 100iB/6S, the latest generation arc welding robot, has a compact design with improved 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.

Features

- Slim wrist size enables the robot to enter into smaller openings in the work space.
- 951 mm reach.
- 622 mm stroke.
- 6 kg payload on faceplate.
- All axes mechanical brakes.
- Absolute encoder positioning.
- Advanced servo control features allow quick and smooth point-to-point motion, which increases arc on-time and throughput.
- Compatible with all major brands of welding equipment.
- Arc welding teach pendant with application-specific hard keys offers intuitive control over the process.
- Multiple mounting positions include upright, inverted, wall or angle mount with no changes to the mechanical unit.



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

Benefits

- Features highest motion speeds in class for maximum performance and productivity.
- Best in class reach versus stroke ratio.
- Compact design simplifies installation and transportation of system.
- Fastest wrist axes in class minimizes air cut time by quickly reorienting the weld torch.
- High axis speeds maximize product throughput.
- Design allows for extremely small weld cells or a high density of arc welding torches in a given area.

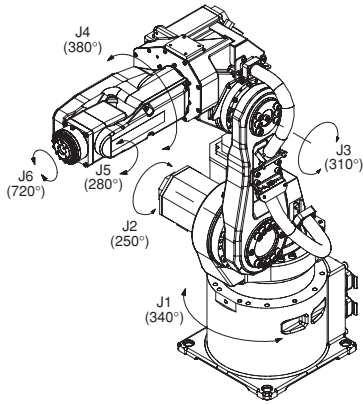
Options

- EMI shielding kit for TIG allows operation in harsh EMI (electro-magnetic interference) environments.
- Additional process welding I/O integrates multi-channel welding equipment.
- Various robot connection cable lengths for flexible cabinet placement and optional track rated cables.
- J1 axis stroke modification kit.
- Auxiliary axis packages for integration into welding positioners.

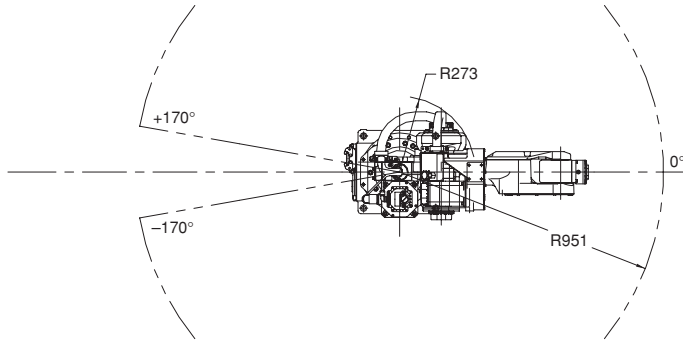
Note: ARC Mate is a registered trademark of FANUC LTD.

ARC Mate 100iB/6S

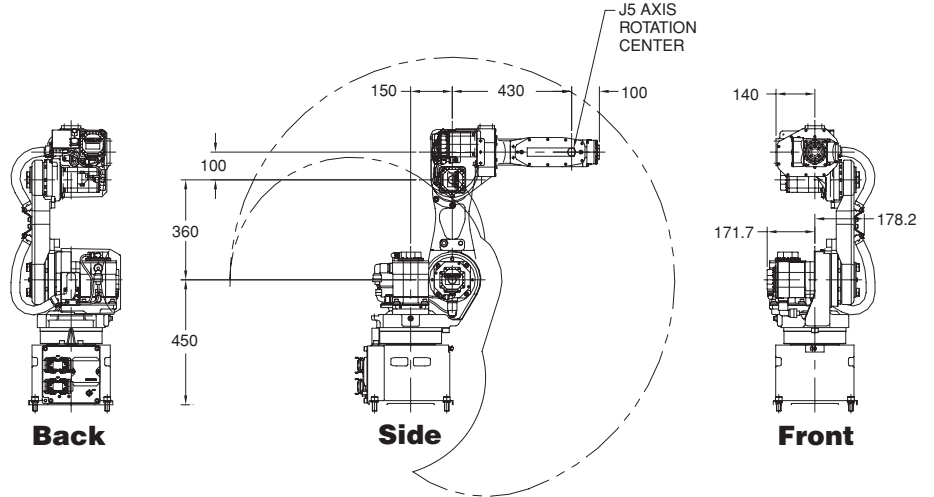
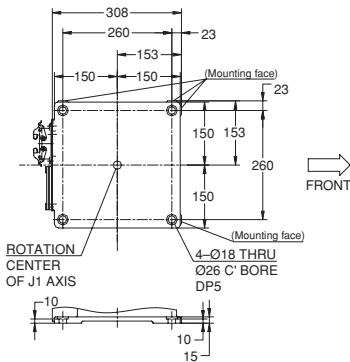
Isometric



Top



Footprint



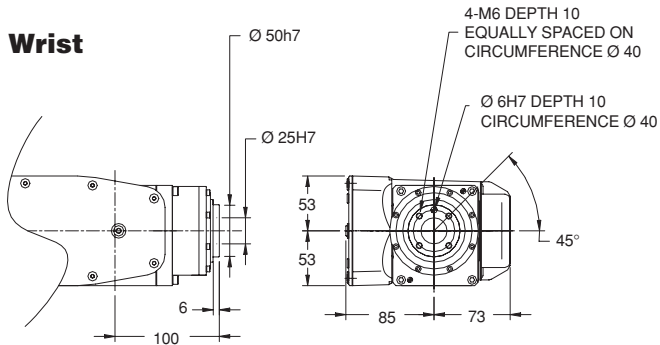
ARC Mate 100iB/6S Specifications

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

Notes:

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

Wrist



Note: Dimensions are shown in millimeters.

FANUC Robotics
Perpetual Motion

FANUC Robotics (UK) Ltd.
Seven Stars Industrial Estate
Quinn Close, Whitley
Coventry CV3 4LB

FANUC Robotics Benelux
+32-3-844-71-30

Tel +44 24 76 63 96 69
Fax +44 24 76 30 43 33

FANUC Robotics France
+33-1-69-89-7000

FANUC Robotics Germany
+49-7158187-250

FANUC Robotics Italy
+39-02-9345-601

FANUC Robotics Spain
+34-93-664-1335

www.fanucrobotics.co.uk