

ARC Mate 100iB

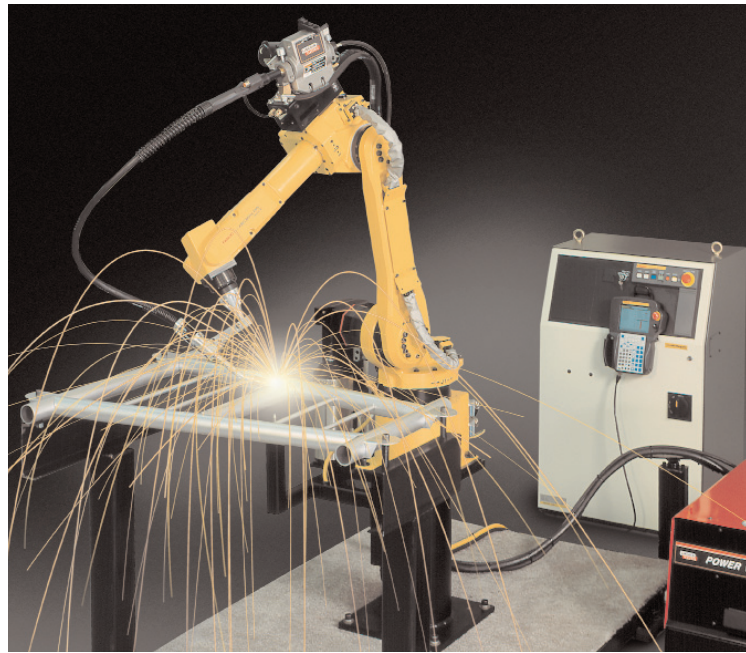
Basic Description

The ARC Mate 100iB 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 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, 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

- The motion envelope of the arm includes that of the previous model and has an 8% larger horizontal stroke.
- The wrist size has been reduced by 19%, enabling the robot to enter into smaller openings in the workspace.
- TurboMove™ advanced servo control features allow quick and smooth point-to-point motion, which increases arc on-time and throughput.
- Wire feed motor (up to 12 kg) mounted directly to robot's upper arm, shortens welding torch length, which improves wire feed reliability and arc start capability.
- Compatible with all major brands of welding equipment.
- Arc welding teach pendant with application-specific hard keys offers intuitive control over the process.
- Interfaces with most types of servo driven or indexing positioners.



- 1,373mm reach and 985mm stroke
- 6 kg payload on faceplate
- 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 drive train 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.
- The ARC Mate 100iB offers an extremely large work envelope useful for large parts or complex tooling.
- Extremely fast wrist axes reduces aircut times, thus improving

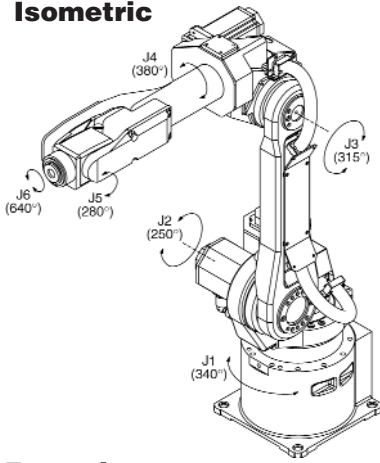
throughput.

Options

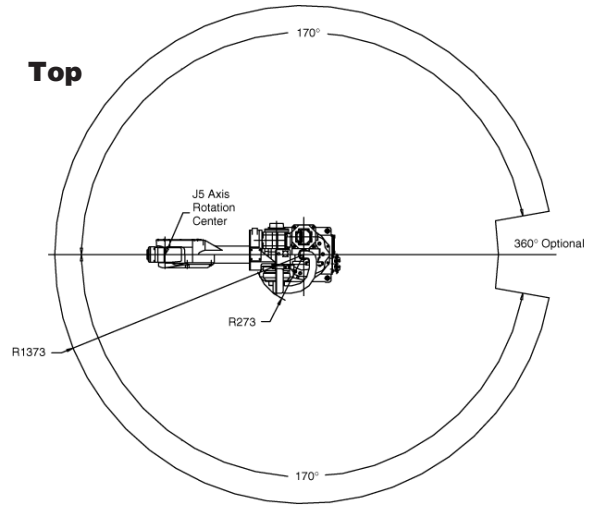
- EMI shielding kits for TIG (GTAW), plasma (PAW) and plasma cutting (PAC) allow operation in harsh EMI (electromagnetic interference) environments.
- Additional process welding I/O integrates multi-channel welding equipment such as 4 channel TIG and 3 channel MIG.
- Various robot connection cable lengths for flexible cabinet placement and optional track rated cables.
- J1 axis stroke modification kit.
- Auxiliary axis packages for integration into welding positioners.

ARC Mate 100iB

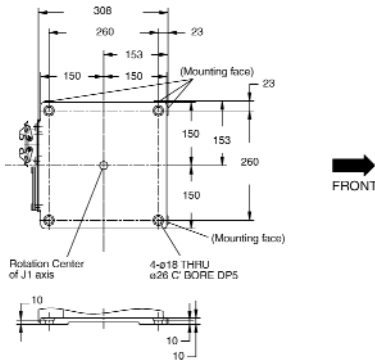
Isometric



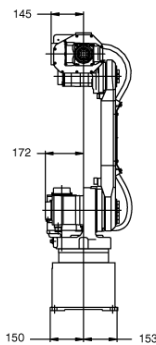
Top



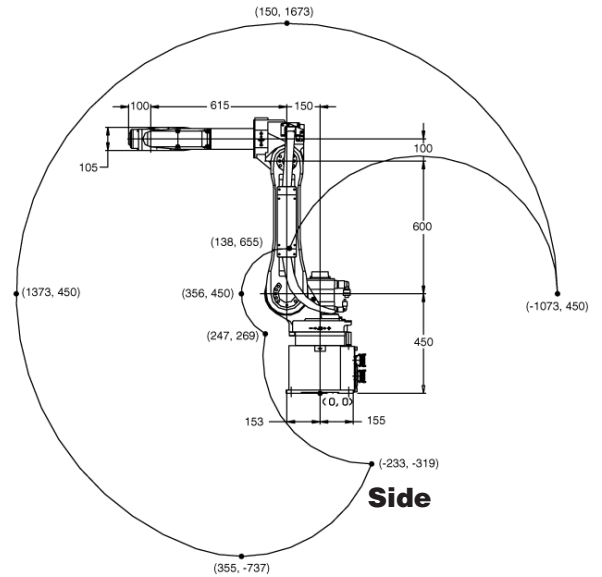
Footprint



FRONT



Front



Side

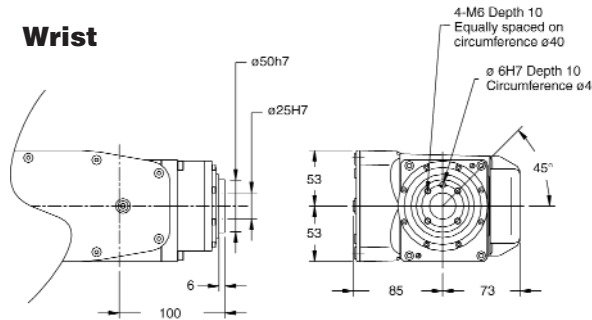
ARC Mate 100iB Specifications

Items		
Axes	6	
Maximum Payload (kg)	6	
Maximum Reach (mm)	1373	
Repeatability (mm)	±0.08	
Interference radius (mm)	273	
Motion range (degrees)	J1	340
	J2	250
	J3	315
	J4	380
	J5	280
	J6	640
Motion speed (degrees/sec.)	J1	150
	J2	160
	J3	170
	J4	400
	J5	400
	J6	500
Wrist moment (kgfcm)	J4	160
	J5	100
	J6	60
Wrist inertia (kgfcm ²)	J4	6.4
	J5	2.2
	J6	0.61
Mechanical brakes	All axes	
Mechanical weight (kg)	135	
Mounting method	Upright, inverted, wall and angle mount ⁽¹⁾	
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 Germany
+49-7158187-250

FANUC Robotics Spain
+34-93-664-1335

FANUC Robotics Italy
+39-02-9345-601

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

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

www.fanucrobotics.co.uk