

ARC Mate 100iBe & 120iBe

Basic Description

These value-oriented robots have been designed to deliver peak productivity for arc welding applications.

An exceptional reach/stroke ratio and high-axis speeds are at the core of this design. The controller has been integrated into the base of the robot to simplify installation and conserve production floor space. All basic arc welding software features are supported to provide superior performance for simple and complex arc welding applications.

Benefits

- Excellent reach versus stroke ratio.
- Compact design simplifies installation and transportation of system.
- Fast wrist axes reduces aircut times, thus improving throughput.
- Slim wrist design allows for operation in tight workspaces.

Features

- Advanced servo control features allow quick and smooth point-to-point motion, which increases arc on-time and throughput.
- Arc welding teach pendant with application-specific hard keys offers intuitive control over your process.
- Serial link construction eliminates the link arm and provides greater flexibility and fewer moving parts.
- RV reducer drivetrain with integral bearings provides rigidity and performance in a compact package.
- Proven FANUC AC servo motor with absolute encoder positioning.



P e r p e t u a l M o t i o n
FANUC
Robotics

Options

- Remote connection kit with 4, 7 and 14 meter cable lengths.
- 2 or 6 brakes.

R-J3iB Mate Controller Features

- Provides easy installation, startup, troubleshooting and maintenance.
- Integrated 24VDC I/O.
- a-i Series 6-channel amplifier with FSSB.
- FANUC I/O Link (master or slave).

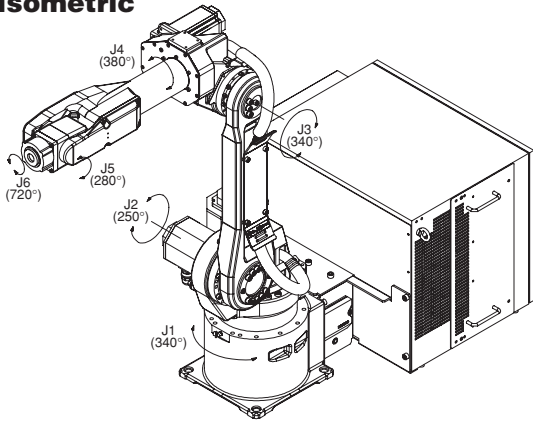
System Options

- **Arc Fast Easy Torch Recovery** protects not only end-of-arm-tooling, but also protects part tooling and the entire robot arm. It does this by instantly stopping robot motion when a collision is detected, reducing downtime associated with collisions.

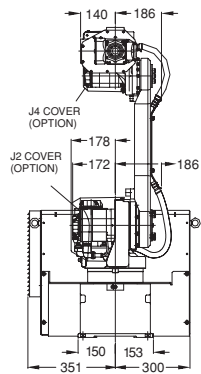
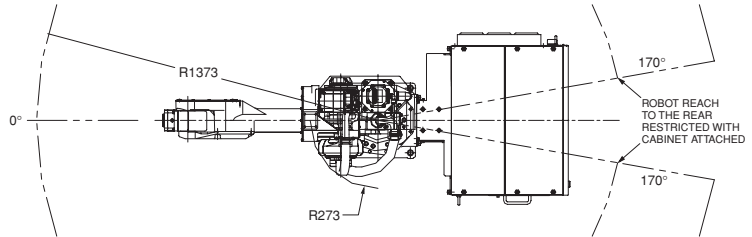
- **Data Monitor** tracks and records welding feedback for any user-defined weld. The monitoring function can be used to flag any weld where the feedback parameters do not stay inside a predefined window. Data files can be saved to a memory card for viewing on a personal computer.
- **Error Recovery** offers the user several options for arc fault recovery. Automatically-executed, user-defined programs enable the robot to move to a repair position, then return and resume welding after repairs have been made. This function reduces system downtime and scrap, keeping the pendant out of the operator's hands.
- **Password Protection** restricts user access beyond designated screens, preventing unauthorized modifying of critical data. Password protection offers four levels of protection with up to 100 users and text strings for each user name.

ARC Mate 100iBe Dimensions

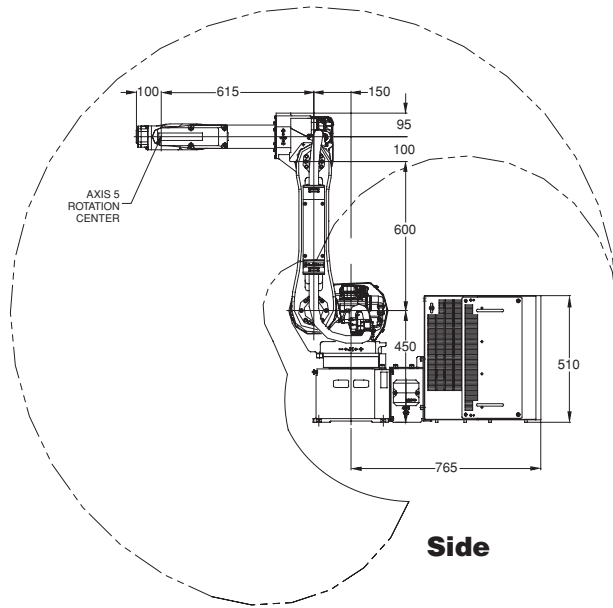
Isometric



Top

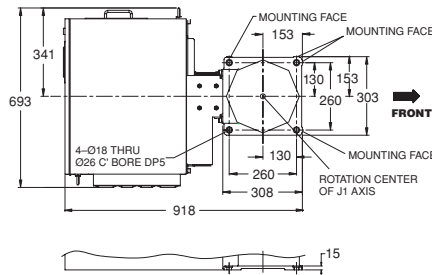


Front

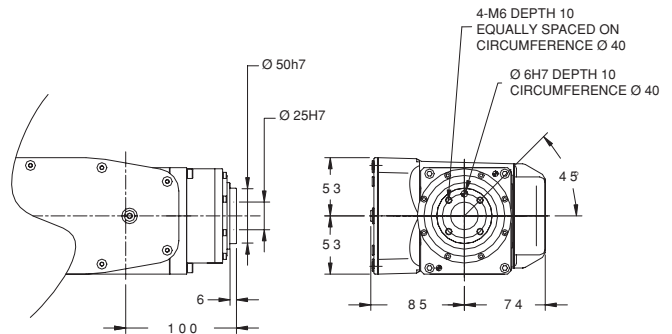


Side

Footprint



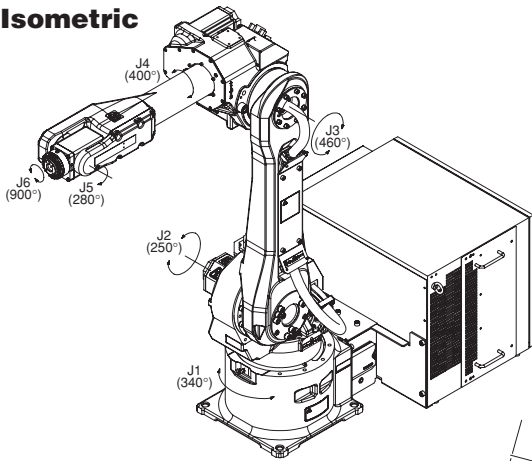
Wrist



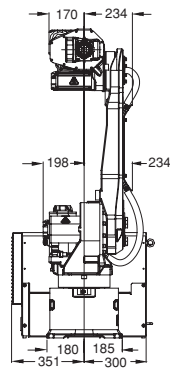
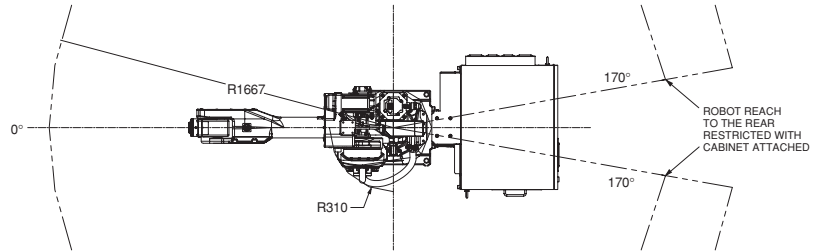
Note: Dimensions are shown in millimeters.

ARC Mate 120iBe Dimensions

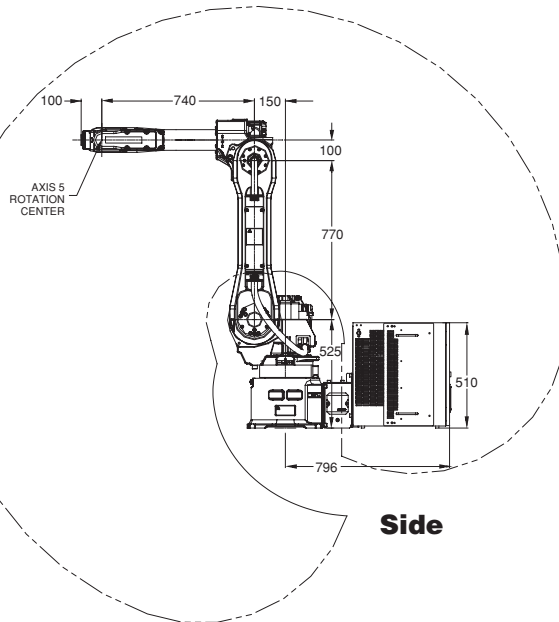
Isometric



Top

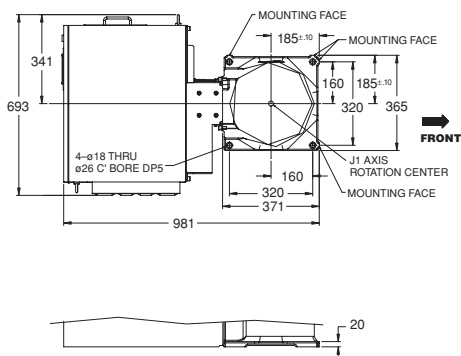


Front

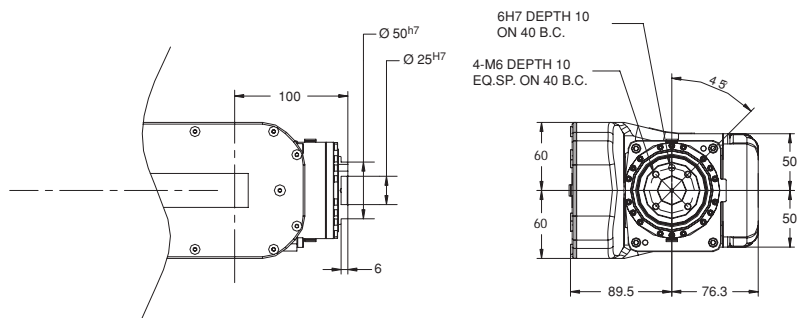


Side

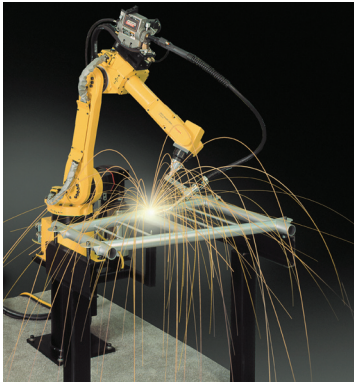
Footprint



Wrist



Note: Dimensions are shown in millimeters.



The ARC Mate 100iBe and the ARC Mate 120iBe, the solution for:

- Cost effective arc welding

ARC Mate 100iBe & 120iBe Specifications

Items	AM100iBe	AM120iBe
Axes	6	6
Payload (kg)	6	20
Reach (mm)	1373	1667
Repeatability (mm)	± 0.08	± 0.08
Interference radius (mm)	273	310
Motion range (°)	J1	340
	J2	250
	J3	340
	J4	380
	J5	280
	J6	720
Motion speed (°/s)	J1	150
	J2	160
	J3	170
	J4	400
	J5	400
	J6	520
Wrist moment (Nm)	J4	15.7
	J5	9.8
	J6	5.9
Wrist inertia (kgm ²)	J4	0.63
	J5	0.17
	J6	0.06
Mechanical brakes	All axes	All axes
Mechanical weight ¹⁾ (kg)	234/238	320
Mounting method	Floor	
Installation environment:		
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 allowed)	
Vibration (m/s ²)	4.9 or less	
Payload at axis 3 (kg)	12	12

¹⁾ Note:

Weight for 2 or 6 axis brake with controller

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

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

www.fanucrobotics.co.uk

FANUC Robotics
Perpetual Motion

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

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