

FANUC Robot ARC Mate 100iC

Features

The FANUC ARC Mate 100iC series robot is specifically designed for arc welding applications. It features a hollow wrist for torch cable integration and highest motion performance for its class.

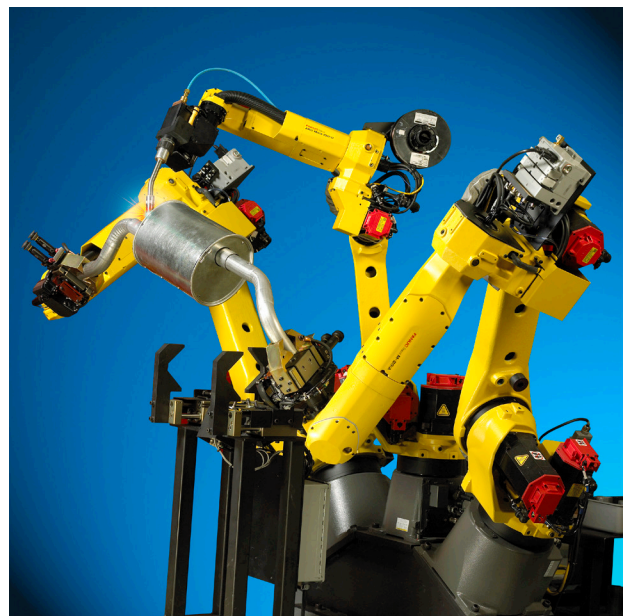
- A rigid arm combined with advanced servo technology enable maximum speed and acceleration performance. This reduces cycle time by up to 15%.
- A unique wrist axis drive mechanism encased within the slimmest wrist available in an ARC robot allows for operation in narrow spaces and high density installation.
- Smooth torch cable routing and easy maintenance through a hollow forearm provides excellent cable management with stable wire feeding for high performance welding.
- The robot can integrate weld power cables in addition to wire feeder control cables and assist gas hoses.
- Enhanced wrist load capacity allows support of various torch tools such as sensor units, Servo Torch and tandem torch.
- Various optional intelligent functions are available, such as iRVision, collision detection and coordinated motion.



Application system



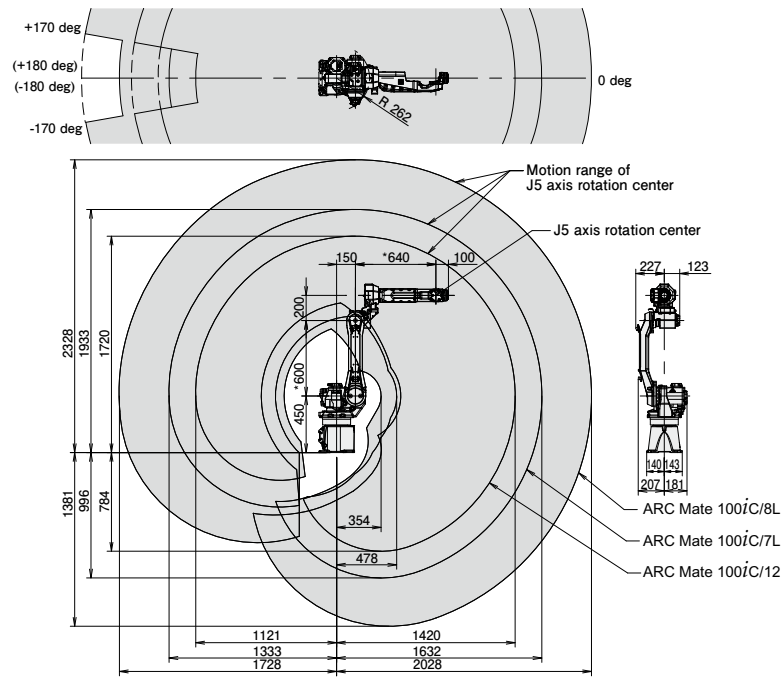
ARC Mate 100iC's with coordinated motion.



Triple ARM coordinated motion welding exhaust system.

Operating space

ARC Mate 100iC



*J2 arm length
 ARC Mate 100iC/12: 600 mm
 ARC Mate 100iC/7L: 600 mm
 ARC Mate 100iC/8L: 780 mm

*J3 arm length
 ARC Mate 100iC/12: 640 mm
 ARC Mate 100iC/7L: 860 mm
 ARC Mate 100iC/8L: 1080 mm

Specifications

Model		ARC Mate 100iC/12	ARC Mate 100iC/7L	ARC Mate 100iC/8L
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)		
Reach		1420 mm	1632 mm	2028 mm
Installation		Floor, Upside-down, Angle mount		
Motion range (Maximum speed) (Note 1, 2)	J1 axis rotation	340° / 360° (Option) (230°/s) 5.93 rad / 6.28 rad (Option) (4.01 rad/s)		340° / 370° (Option) (200°/s) 5.93 rad / 6.45 rad (Option) (3.49 rad/s)
	J2 axis rotation	250° (225°/s) 4.36 rad (3.93 rad/s)		255° (200°/s) 4.45 rad (3.49 rad/s)
	J3 axis rotation	445° (230°/s) 7.76 rad (4.01 rad/s)	447° (230°/s) 7.80 rad (4.01 rad/s)	462° (210°/s) 8.06 rad (3.67 rad/s)
	J4 axis wrist rotation	380° (430°/s) 6.63 rad (7.50 rad/s)		400° (430°/s) 6.98 rad (7.50 rad/s)
	J5 axis wrist swing	380° (430°/s) 6.63 rad (7.50 rad/s)		360° (430°/s) 6.28 rad (7.50 rad/s)
	J6 axis wrist rotation	720° (630°/s) 12.57 rad (11.0 rad/s)		900° (630°/s) 15.71 rad (11.00 rad/s)
	Max. load capacity at wrist	12 kg	7 kg	8 kg
Allowable load moment at wrist	J4 axis	22.0 N·m	15.7 N·m	16.1 N·m
	J5 axis	22.0 N·m	10.1 N·m	16.1 N·m
	J6 axis	9.8 N·m	5.9 N·m	5.9 N·m
Allowable load inertia at wrist	J4 axis	0.65 kg·m ²	0.63 kg·m ²	0.63 kg·m ²
	J5 axis	0.65 kg·m ²	0.38 kg·m ²	0.63 kg·m ²
	J6 axis	0.17 kg·m ²	0.061 kg·m ²	0.061 kg·m ²
Repeatability	± 0.08 mm			
Mass (Note 3)	130 kg	135 kg	150 kg	
Installation environment	Ambient temperature : 0 to 45°C Ambient humidity : Normally 75%RH or less (No dew nor frost allowed), Short term 95%RH or less (within one month) Vibration acceleration : 4.9m/s ² (0.5G) or less			

Note 1) In case of angle mounting, J1 and J2 axis motion range are restricted.

Note 2) In case of short distance motion, the axis speed may not reach the maximum value stated.

Note 3) Without controller

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