

## New Arc Welding Robot

# FANUC Robot ARC Mate 0iA



## Features

The FANUC ARC Mate 0iA Robot is an extremely lightweight and compact robot, specifically designed for arc welding applications. The ARC Mate 0iA will work for a wide variety of arc welding applications, including smaller parts that are normally done with manual welding.

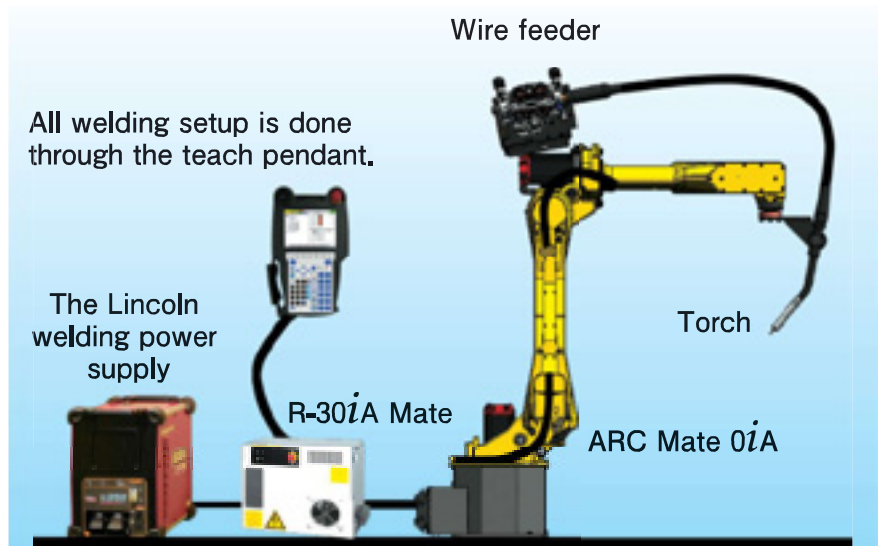
- The lightweight and compact arm design of ARC Mate 0iA provides a highly reliable package that is optimized for arc welding applications.
- The latest servo technology provides high-speed and accuracy of the robot motion and minimizes the interaction of the operator to increase the efficiency of the arc welding system.
- Digital communication between the latest Lincoln Arc Welding Power Supply and the ARC Mate 0iA provides superior control and performance, creating (or delivering) the highest quality weld.
- Various welding waveforms such as thin metal spatter-less welding and highly-controlled pulse welding can be applied to almost any application for an optimized weld.

## Application system



ARC Mate 0iA

Small part arc welding system with the ARC Mate 0iA



Wire feeder

All welding setup is done through the teach pendant.

The Lincoln welding power supply

R-30iA Mate

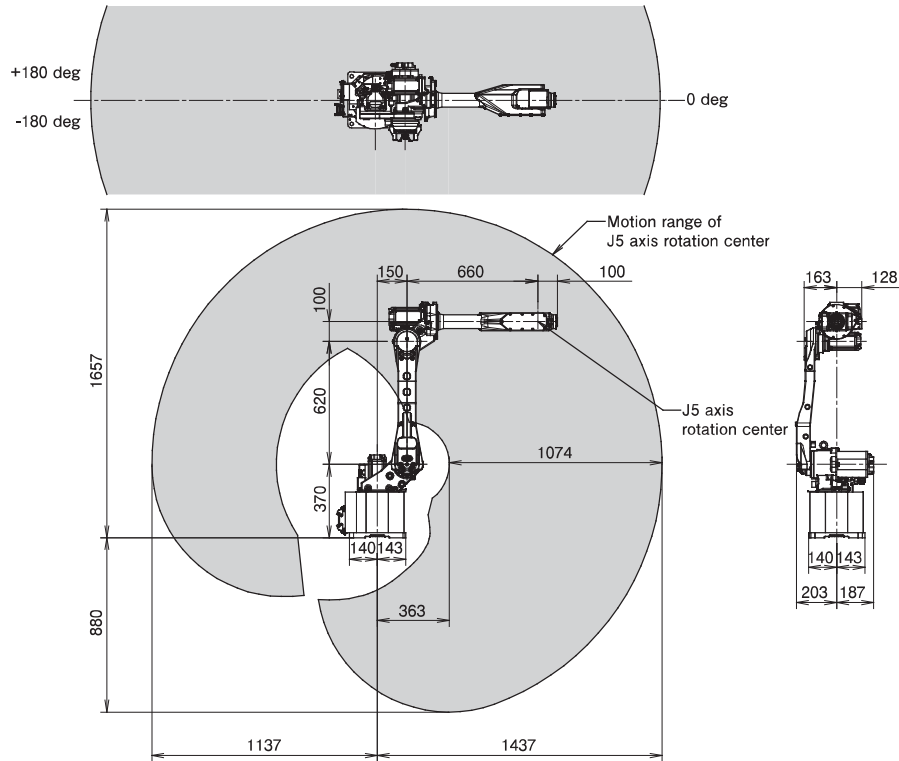
Torch

ARC Mate 0iA

Arc welding robot package with ARC Mate 0iA

# FANUC Robot ARC Mate 01A

## Operating space



## Robot Specifications

Model	ARC Mate 01A	
Controlled axes (Note 1)	6 axes (J1、J2、J3、J4、J5、J6)	
Reach	1,437mm	
Installation	Floor, Upside-down, Angle mount	
Motion range (Maximum speed) (Note 2, 3)	J1 axis rotation	360°(225°/s) 6.28 rad ( 3.93 rad/s)
	J2 axis rotation	250°(215°/s) 4.36 rad ( 3.75 rad/s)
	J3 axis rotation	455°(225°/s) 7.94 rad ( 3.93 rad/s)
	J4 axis wrist rotation	380°(425°/s) 6.63 rad ( 7.42 rad/s)
	J5 axis wrist swing	280°(425°/s) 4.89 rad ( 7.42 rad/s)
	J6 axis wrist rotation	720°(625°/s) 12.57 rad (10.91 rad/s)
Maximum load capacity at wrist	3kg	
Allowable load moment at wrist	J4 axis	8.9 N·m
	J5 axis	8.9 N·m
	J6 axis	3.0 N·m
Allowable load inertia at wrist	J4 axis	0.280 kg·m <sup>2</sup>
	J5 axis	0.280 kg·m <sup>2</sup>
	J6 axis	0.035 kg·m <sup>2</sup>
Repeatability	± 0.08mm	
Robot mass	110kg	
Installation environment	Ambient temperature : 0 ~ 45°C Ambient humidity : Normal 75%RH or less (No dew nor frost allowed) Short term : 95%RH or less (within one month) Vibration : 0.5G or less	

Note 1) In case of using robot combined with aux. axis, please consult with FANUC.  
 Note 2) In case of short motion distance, the axis speed does not reach it's maximum.  
 Note 3) Motion range of wrist axis may be restricted by torch to less than the values given.



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