

FANUC Robot ARC Mate 100iC



FEATURES

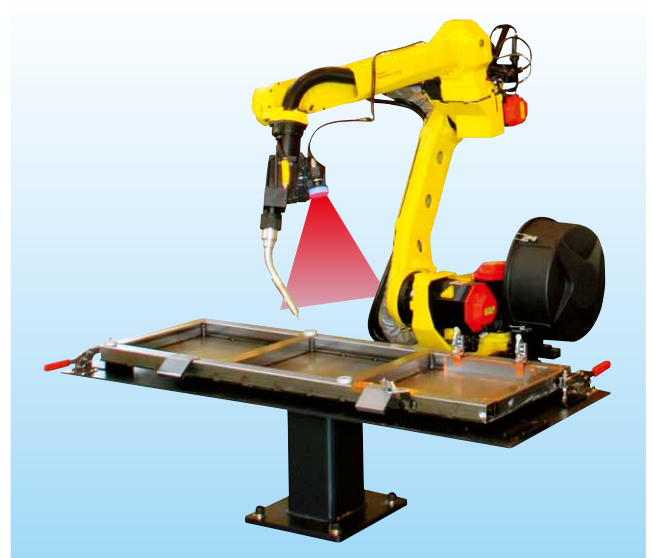
FANUC Robot ARC Mate 100iC is the cables integrated intelligent arc welding robot.

- The robot covers the motion range from 1.4m to 2.0m reach for various application adaptation. Spare parts such as motor, reducer and controller are communized among all ARC Mate 100iC model.
- The robot can position the tip of wire without vibration, even after high speed air cut motion. High speed and high accuracy motion can improve the productivity of the system.
- The unique gear drive mechanism in wrist axes realizes the slim arm in torch cable integrated robot.
- Welding cable utilities are integrated in the arm. It makes system setup easy.
- Thanks to torch cable management, off-line teaching function by ROBOGUIDE (Option) reduces teaching cost.
- Various intelligent functions with *i*RVision (integrated vision) and coordinated motion with positioner are available.

Application Examples



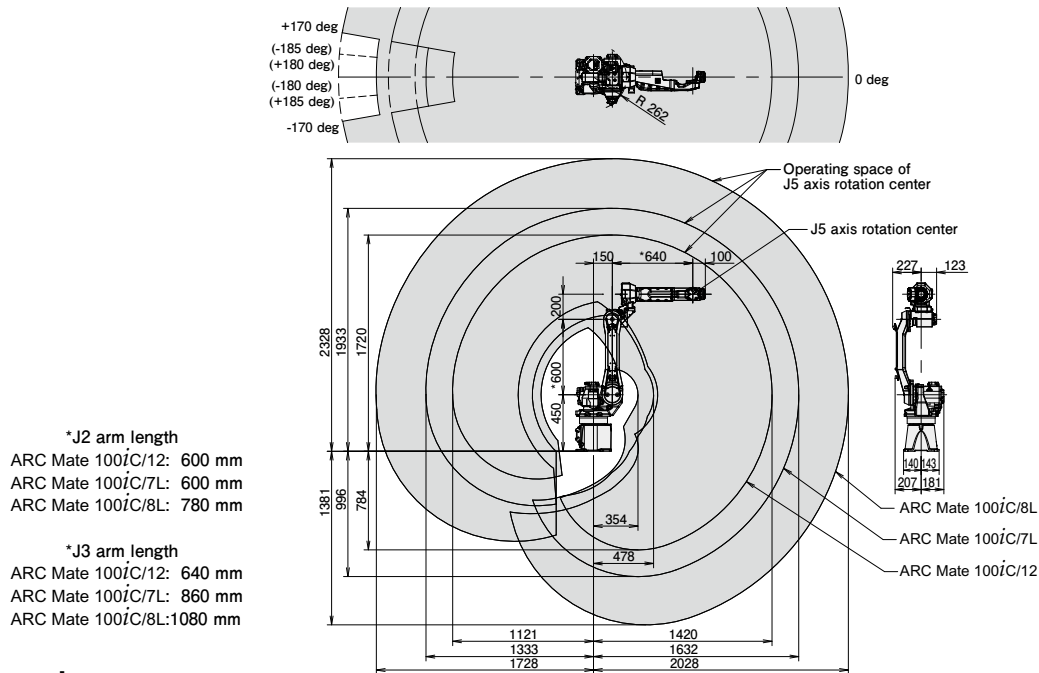
Automobile part arc welding with Servo Torch



Architectural part arc welding with *i*RVision

Operating space

ARC Mate 100iC



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 (11.0 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 Note 3)		± 0.03 mm		± 0.035 mm
Mass Note 4)		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) Compliant with ISO 9283.

Note 4) Without controller

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