

FANUC Robot ARC Mate 100*i*C FANUC Robot ARC Mate 120*i*C



FEATURES

FANUC Robot ARC Mate 100*i*C / 120*i*C is the cables integrated arc welding robot.

- ARC Mate 100*i*C Standard type, short arm type (12S), long arm type (7L) and ARC Mate 120*i*C Standard type, long arm type (12L) are available for various application adaptations.
- High rigidity arm and advanced servo technology enable to increase acceleration performance. This decreases cycle time and realizes high productivity.
- The unique drive mechanism in wrist axis realizes the slim arm in torch cable integrated robot.
- Smooth hand cable routing and easy maintenance by cantilevered fore arm provides excellent cable management with stable wire feeding.
- Thanks to stable hand 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

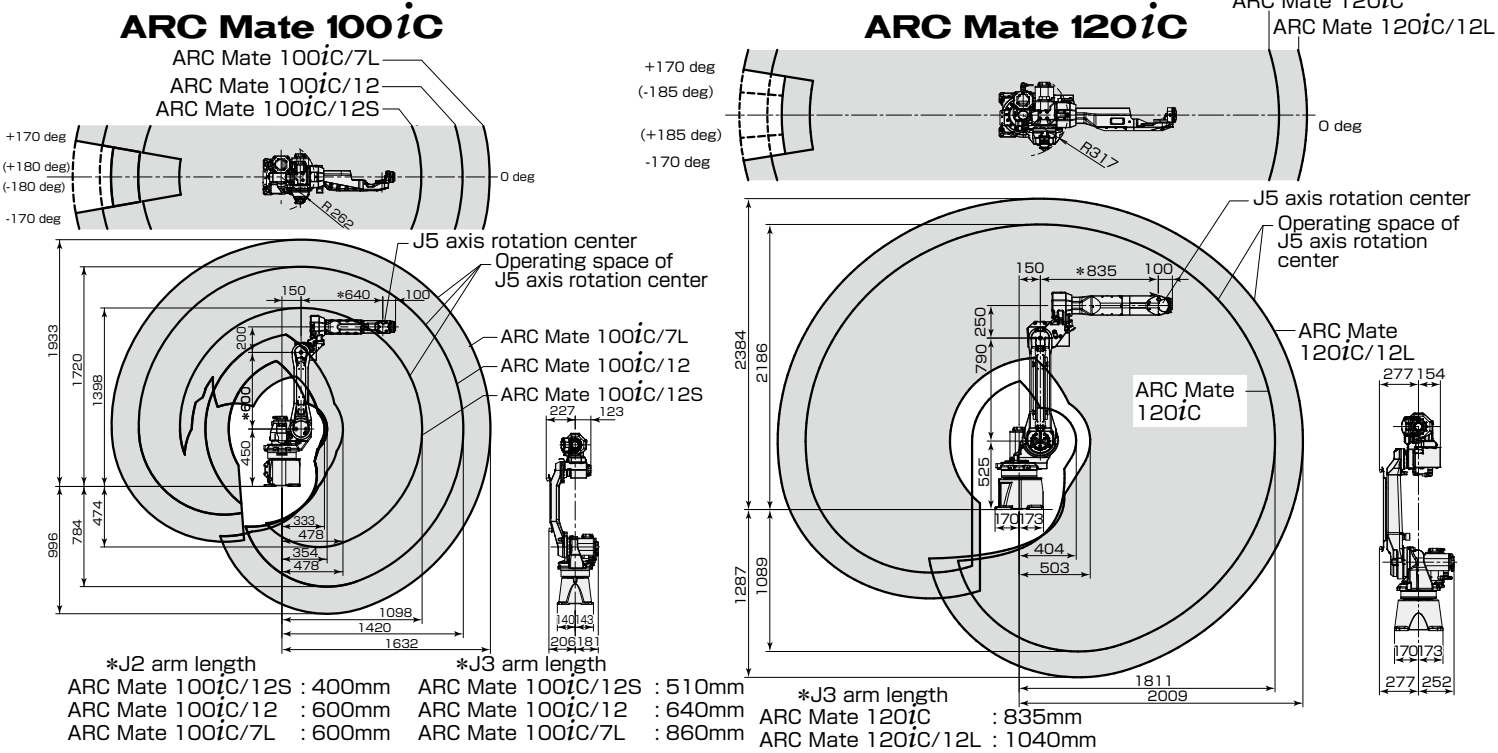


Automobile part arc welding with Servo Torch



Architectural part arc welding with *i*RVision

Operating space



Specifications

Model		ARC Mate 100iC/12S	ARC Mate 100iC/12	ARC Mate 100iC/7L	ARC Mate 120iC	ARC Mate 120iC/12L
Type		6 axes (J1, J2, J3, J4, J5, J6)				
Reach		1098mm	1420mm	1632mm	1811mm	2009mm
Installation		Floor, Upside-down, Angle mount				
Motion range (Maximum speed) Note 1, 2)	J1 axis rotation	340°/360° (option) (260°/s) 5.93 rad/6.28 rad (option) (4.54 rad/s)	340°/360° (option) (230°/s) 5.93 rad/6.28 rad (option) (4.01 rad/s)	340°/360° (option) (195°/s) 5.93 rad/6.45 rad (option) (3.40 rad/s)	340°/370° (option) (200°/s) 5.93 rad/6.45 rad (option) (3.49 rad/s)	340°/370° (option) (200°/s) 5.93 rad/6.45 rad (option) (3.49 rad/s)
	J2 axis rotation	250° (280°/s) 4.36 rad (4.89 rad/s)	250° (225°/s) 4.36 rad (3.93 rad/s)	260° (175°/s) 4.54 rad (3.05 rad/s)		
	J3 axis rotation	340° (315°/s) 5.93 rad (5.50 rad/s)	445° (230°/s) 7.76 rad (4.01 rad/s)	447° (230°/s) 7.80 rad (4.01 rad/s)	458° (180°/s) 8.00 rad (3.14 rad/s)	460° (190°/s) 8.04 rad (3.32 rad/s)
	J4 axis wrist rotation	380° (430°/s) 6.63 rad (7.50 rad/s)		400° (360°/s) 6.98 rad (6.28 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° (360°/s) 6.28 rad (6.28 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° (550°/s) 15.71 rad (9.60 rad/s)		900° (630°/s) 15.71 rad (11.0 rad/s)
Maximum load capacity at wrist		12 kg		7 kg	20 kg	12 kg
Allowable load moment at wrist	J4 axis	22.0 N·m		15.7 N·m	44.0 N·m	22.0 N·m
	J5 axis	22.0 N·m		10.1 N·m	44.0 N·m	22.0 N·m
	J6 axis	9.8 N·m		5.9 N·m	22.0 N·m	9.8 N·m
Allowable load inertia at wrist	J4 axis	0.65 kg·m ²		0.63 kg·m ²	1.04 kg·m ²	0.65 kg·m ²
	J5 axis	0.65 kg·m ²		0.38 kg·m ²	1.04 kg·m ²	0.65 kg·m ²
	J6 axis	0.17 kg·m ²		0.061 kg·m ²	0.28 kg·m ²	0.17 kg·m ²
Repeatability Note 3)		± 0.03 mm				
Mass Note 4)		130 kg		135 kg	250 kg	
Installation environment		Ambient temperature : 0 to 45°C Ambient humidity : Normal 75%RH or less (No dew not 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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