



Almega Friendly series II
Arc Welding Robot
NEW *FD-B6L*

Fast, Slim, User-Friendly

Improved all performances!
New robot with built-in cables



Best for large structures
by its long arm
All cables required for
synchro-feed welding are already
built into the robot



Improved all performances! New robot with built-in cables

FD-B6L

Fast

Industry leading level speed.
Reduce cycle time

Slim

30% reduce in foot print
High-density layout

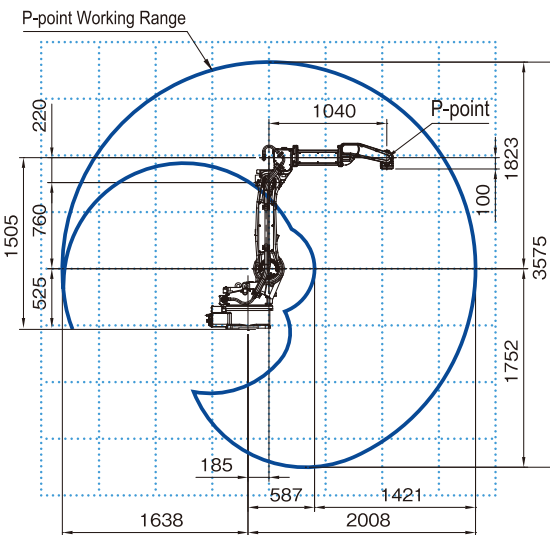
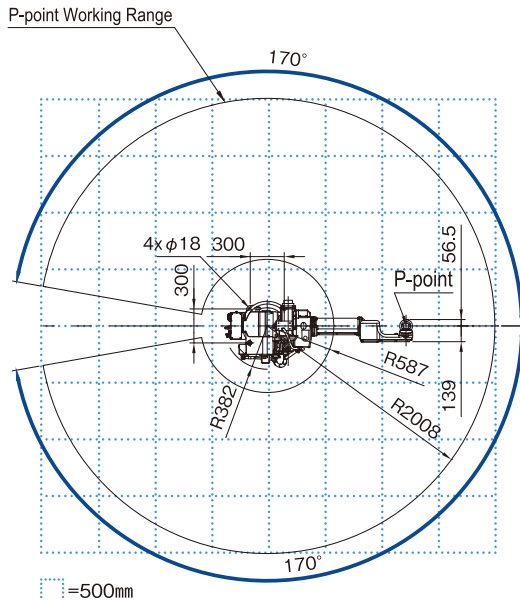
User friendly

All cables required for
synchro-feed welding are
already built into the robot

Powerful

Max. Payload 6kg
Allows to be equipped with various
torches and sensors

Manipulator Working Range



Manipulator Specifications

		Specification	
Name		FD-B6L	
Structure		Vertically articulated type	
Number of Axes		6	
Wrist Capacity		6 kg	
Positional Repeatability (Note 1)		±0.05mm (Note 1)	
Driving Method		AC servo motor	
Driving Capacity		4632W	
Positional Feedback		Absolute encoder	
Working Range	Arm	J1 (Rotation)	±170°(±50°) (Note 2)
		J2 (Front/back)	−155°~+100°(Note 3)
		J3 (Up/down)	−170°~+190°
	Wrist	J4 (Swing)	±155°(±170°) (Note 4)
		J5 (Bending)	−45°~+225° (Note 5)
		J6 (Twist)	±205°(±360°)(Note 4,5)
Maximum Speed	Arm	J1 (Rotation)	3.93rad/s {225°/s} (3.05 rad/s {175°/s}) (Note 2)
		J2 (Front/back)	3.58rad/s {205°/s}
		J3 (Up/down)	3.84rad/s {220°/s}
	Wrist	J4 (Swing)	7.50rad/s {430°/s}
		J5 (Bending)	7.50rad/s {430°/s}
		J6 (Twist)	11.00rad/s {630°/s}
Wrist Allowable Load	Allowable Moment	J4 (Swing)	10.5N・m
		J5 (Bending)	10.5N・m
		J6 (Twist)	5.9N・m
	Allowable Moment of Inertia	J4 (Swing)	0.28kg・m ²
		J5 (Bending)	0.28kg・m ²
		J6 (Twist)	0.06kg・m ²
Arm Cross-sectional Area		6.37m ² ×340°	
Environmental Conditions		Temp: 0~45℃, Hmd: 20~80%RH (No Condensation)	
Mass (weight)		237 kg	
Capacity of Upper Arm		20kg (Note 6)	
Installation Method		Floor-/Ceiling-/Wall-mounted	
Paint Color		White (Munsell notation 10GY 9/1)	

(Note 1) Positional repeatability of the tool center point (TCP) value complies with the JIS -B-8432 Standard.
 (Note 2) Specifications for wall mounting appear in parentheses.
 (Note 3) The working range of the J2 axis may be restricted when wall-mounted.
 (Note 4) This specification applies when a single-wire power cable is fed through the hollow part of J4 and J6.
 The value in parentheses represents all other specifications.
 (Note 5) Working range of J6 axis may be restricted by the position of J5 axis.
 (Note 6) The capacity of the upper arm varies with the wrist capacity.



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Note This product and the technologies (including software) used in the product are subject to Catch-All Controls. When exporting any of them, verify the users, applications, etc. according to the applicable laws and regulations and take appropriate procedures such as applications for export permission to the Minister of Economy, Trade and Industry if required.

●The information contained in this catalog is current as of April 2021 and is subject to revision without notice.

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