



Almega Friendly series
Arc Welding Robot
FD-B6L



**Faster, Slimmer
& more User-Friendly**

**A fully redesigned robot with
built-in cables – completely
new and improved!**



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

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FD-B6L

Faster cycle time

Due to the industry's fastest speeds, cycle times are reduced.

Slim design

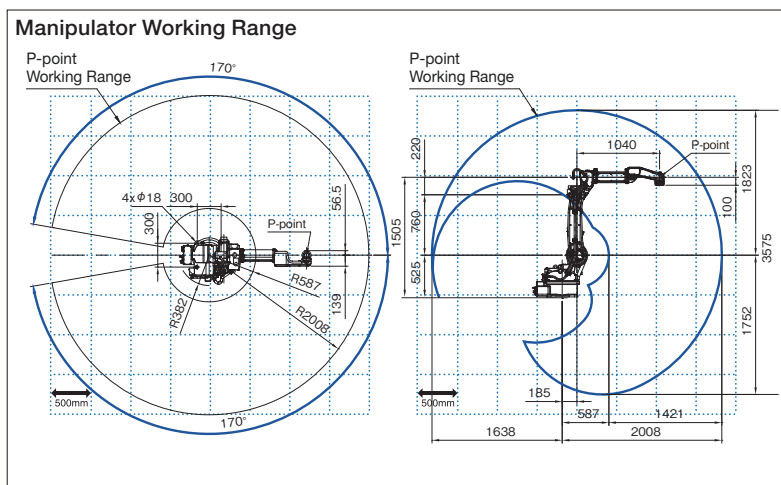
Built-in wrist motors avoid interference with jigs and workpieces.

User-friendly operation

Designed to avoid interference behind the arm (All cables required for synchro-feed welding are already built into the robot)

Stronger structure

Maximum payload is 6kg. Can be equipped with various torches and sensors. It is good for handling application.



Manipulator Specifications

	FD-B6L	
Structure	Vertical articulated type	
Number of Axes	6	
Max. Payload Capacity	6kg	
Positional Repeatability	±0.08mm (Note 1)	
Drive System	AC servomotor	
Drive Capacity	4832W	
Position Feedback	Absolute encoder	
Working Range	Arm	
	J1 (Rotation)	±170° (±50°) (Note 2)
	J2 (Lower Arm)	-155°~+100° (Note 3)
	J3 (Upper Arm)	-170°~+190°
	J4 (Swing)	±155°(±170°) (Note 4)
	Wrist	
J5 (Bending)	-45°~+225° (Note 5)	
J6 (Twist)	±205°(±360°) (Note 4, 5)	
Maximum Speed	Arm	
	J1 (Rotation)	3.40rad/s (3.05) {195°/s (175°/s)} (Note 2)
	J2 (Lower Arm)	3.49rad/s(200°/s)
	J3 (Upper Arm)	3.49rad/s(200°/s)
	J4 (Swing)	7.50rad/s(430°/s)
	Wrist	
J5 (Bending)	7.50rad/s(430°/s)	
J6 (Twist)	11.00rad/s(630°/s)	
Allowable Load	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°	
Ambient Conditions	Temp: 0 to 45°C, Hmd: 20 to 80%RH (No Condensation)	
Mass (weight)	278kg	
Upper Arm Payload Capacity	20kg (Note 6)	
Installation Type	Floor, wall, or ceiling	
Paint Color	White (Munsell notation 10GY 9/1)	

Notes

1. Positional repeatability of the tool center point (TCP) value complies with the JIS-B-8432 Standard.
2. Specifications for wall mounting appear in parentheses.
3. The working range of the J2 axis may be restricted when wall-mounted.
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.
5. The working range of the J6 axis may be restricted by the specific posture of the J5 axis.
6. The capacity of the upper arm varies with the wrist capacity.

In accordance with DAIHEN's policy to make continuing improvements, design and/or specifications are subject to change without notice and without any obligation on the part of manufacturer.

DAIHEN Corporation

4-1, Koyochonishi, Higashinada-ku, Kobe, Hyogo 658-0033, Japan
 Phone: (Country Code 81) 78-275-2006
 Fax: (Country Code 81) 78-845-8159

Distributed by:



In Vilnius:
 Savanorių pr. 176F,
 Vilnius, 033154, Lietuva
 Tel.: +370 5 250 2777
 Faks.: +370 5 250 2778
 www.atcbaltic.com
 sales@atcbaltic.com

In Šiauliai:
 Algirdo Julius Greimo g. 77,
 Šiauliai, 77165, Lietuva
 Tel.: +370 41 200 220
 www.atcbaltic.com
 sales@atcbaltic.com

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