



***Almega Friendly series II***

# **Arc Welding Robot FD-B6**

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

**A fully re-designed robot with built-in cables  
completely new and improved!**



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



## A fully re-designed robot with built-in cables completely new and improved!

### 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

Payload increased 1.5X for various range of welding tasks. It also is good for handling application.

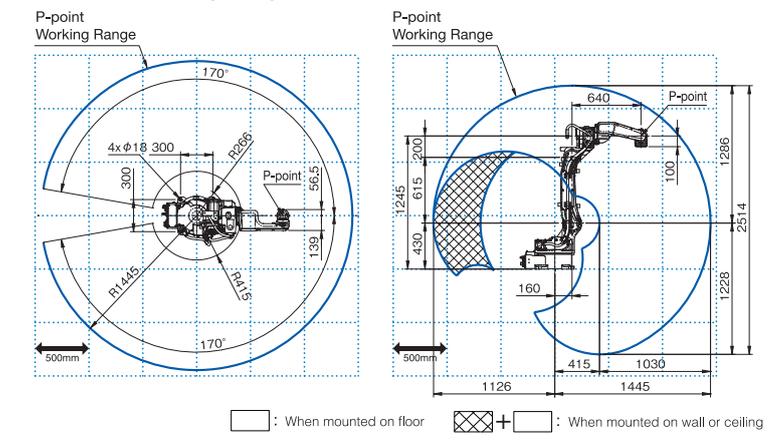
### Manipulator Specifications

		FD-B6
Structure		Vertical articulated type
Number of Axes		6
Max. Payload Capacity		6 kg
Positional Repeatability		±0.08mm (Note 1)
Drive System		AC servomotor
Drive Capacity		3132 W
Position Feedback		Absolute encoder
Working Range	Arm	J1 (Rotation) ±170° (±50°) (Note 2)
		J2 (Lower Arm) -155° to +90° (Note 3)
		J3 (Upper Arm) -170° to +245° (Note 4)
		J4 (Swing) ±155° (±170°) (Note 5)
	Wrist	J5 (Bending) -45° to +225° (Note 6)
		J6 (Twist) ±205° (±360°) (Notes 5 and 6)
Maximum Speed	Arm	J1 (Rotation) 4.19rad/s [240°/s] (3.32rad/s [190°/s]) (Note 2)
		J2 (Lower Arm) 4.19rad/s [240°/s]
		J3 (Upper Arm) 4.01rad/s [230°/s]
		J4 (Swing) 7.50rad/s [430°/s]
	Wrist	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 <sup>2</sup>
		J5 (Bending) 0.28kg·m <sup>2</sup>
		J6 (Twist) 0.06kg·m <sup>2</sup>
Arm Cross-sectional Area		3.59m <sup>2</sup> × 340°
Ambient Conditions		Temp: 0 to 45°C, Hmd: 20 to 80%RH (No Condensation)
Mass (weight)		145kg
Upper Arm Payload Capacity		10kg (Note 7)
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. When this unit is mounted on the floor, the working range of the J3 axis is restricted to between -170° and +180°.
5. 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.
6. The working range of the J6 axis may be restricted by the specific posture of the J5 axis.
7. The capacity of the upper arm varies with the wrist capacity.

### Manipulator Working Range



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.

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 ● This catalog was printed with environmentally-friendly vegetable oil ink.