



Almega Friendly series II **Arc Welding Robot** *FD-V8*



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

**Improved in every aspect of
performance!**



**The maximum payload is increased to 8kg.
Application for the welding usage has been
expanded.**

Improved in every aspect of performance!

Faster cycle time

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

Slim design

Slimmed lower arm and reduced rotating radius. Avoiding the interference with jigs or workpieces.

User-friendly operation

All cables required for Synchro-feed welding are also built in the lower arm. Avoiding the interference behind the arm.

Stronger structure

The maximum payload has been increased by 30%, up to 8kg. Enabling the use of a variety of torches and sensors. It is also good for handling application.

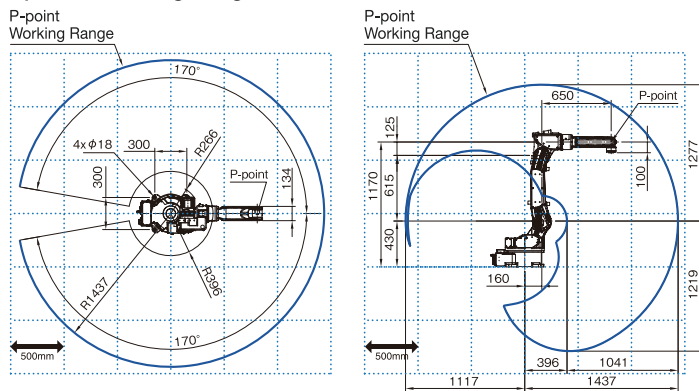
Manipulator Specifications

	FD-V8	
Structure	Vertical articulated type	
Number of Axes	6	
Max. Payload Capacity	8kg	
Positional Repeatability	±0.08mm (Note 1)	
Drive System	AC servomotor	
Drive Capacity	3016W	
Position Feedback	Absolute encoder	
Working Range	J1 (Rotation)	±170° (±50°) (Note 2)
	Arm	
	J2 (Lower arm)	-155°~+90°
	J3 (Upper arm)	-170°~+190°
	J4 (Swing)	±180°
	Wrist	
J5 (Bending)	-50°~+230°	
J6 (Twist)	±360° (Note 3)	
Maximum Speed	J1 (Rotation)	4.19rad/s (240°/s) (3.32rad/s (190°/s)) (Note 2)
	Arm	
	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	J4 (Swing)	17.6N·m
	J5 (Bending)	17.6N·m
	J6 (Twist)	7.8N·m
Allowable Moment of Inertia	J4 (Swing)	0.43kg·m ²
	J5 (Bending)	0.43kg·m ²
	J6 (Twist)	0.09kg·m ²
Arm Cross-sectional Area	3.11m ² ×340°	
Ambient Conditions	Temp: 0 to 45°C, Hmd: 20 to 80%RH (No Condensation)	
Mass (weight)	140kg	
Upper Arm Payload Capacity	10kg (Note 4)	
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. 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.

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:



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 November 2019 and is subject to revision without notice.
- This catalog was printed with environmentally-friendly vegetable oil ink.