



Almega Friendly series

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

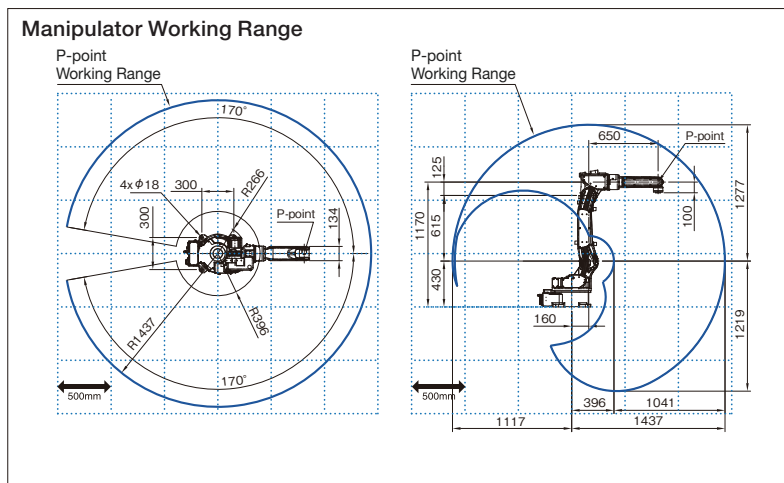
Slimmed lower arm and reduced rotating radius. Avoiding the interference with jigs or workpieces.

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	Arm	J1 (Rotation)	±170° (±50°) (Note 2)
		J2 (Lower arm)	-155°~+90°
		J3 (Upper arm)	-170°~+190°
	Wrist	J4 (Swing)	±180°
		J5 (Bending)	-50°~+230°
		J6 (Twist)	±360° (Note 3)
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)
	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)	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.

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.