



*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

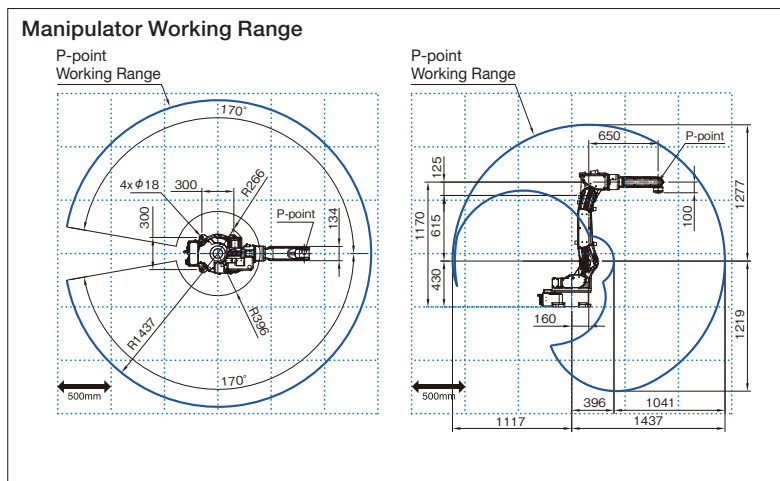
Slimmed lower arm and reduced rotating radius. Avoiding the interference with jigs or workpieces.

### 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	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	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}
	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 <sup>2</sup>
	J5 (Bending)	0.43kg·m <sup>2</sup>
J6 (Twist)	0.09kg·m <sup>2</sup>	
Arm Cross-sectional Area	3.11m <sup>2</sup> ×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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