



Almega Friendly series
Arc Welding Robot
FD-V8L



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

Improved in every aspect of
performance!



Long arm with a maximum payload of 8kg
The range of welding applications has
been expanded.

Improved in every aspect of performance! Slim rear design!

Faster cycle time

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

Slim design

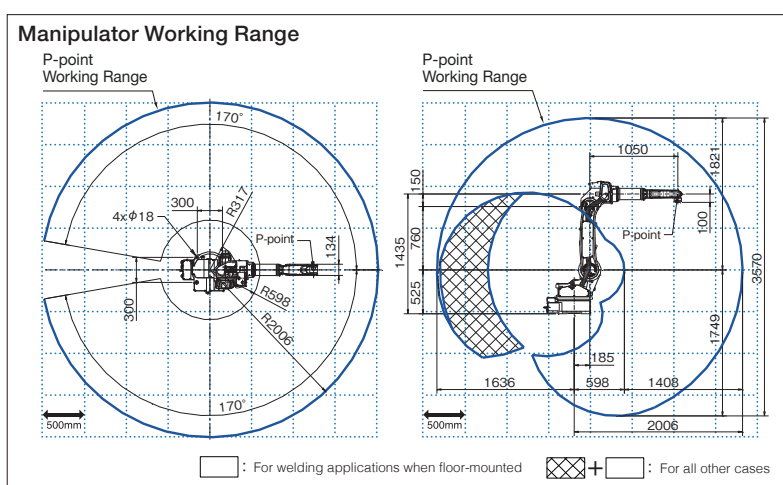
Slimmed lower arm and reduced rotating radius. Avoiding the interference with jigs or workpiece.

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-V8L
Structure		Vertical articulated type
Number of Axes		6
Max. Payload Capacity		8kg
Positional Repeatability		±0.08mm (Note 1)
Drive System		AC servomotor
Drive Capacity		5000W
Position Feedback		Absolute encoder
Working Range	Arm	J1 (Rotation) ±170° (±50°) (Note 2)
		J2 (Lower Arm) -155°~+100° (Note 3)
		J3 (Upper Arm) -170°~+260°
		J4 (Swing) ±180°
	Wrist	J5 (Bending) -50°~+230°
		J6 (Twist) ±360°
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) 10.99rad/s(630°/s)
Allowable Load	Allowable Moment	J4 (Swing) 17.6N·m
		J5 (Bending) 17.6N·m
		J6 (Twist) 7.8N·m
Wrist Allowable Load	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		7.48m ² × 340°
Ambient Conditions		Temp: 0 to 45°C, Hmd: 20 to 80%RH (No Condensation)
Mass (weight)		273kg
Upper Arm Payload Capacity		20kg (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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- The information contained in this catalog is current as of November 2017 and is subject to revision without notice.
- This catalog was printed with environmentally-friendly vegetable oil ink.