



Almega Friendly series
Handling Robot
FD-V8L



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

**Improved in every aspect of
performance!**



**Long arm with a maximum payload of 8kg
Optimized for the high-speed handling**

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 arm design for high-density layout

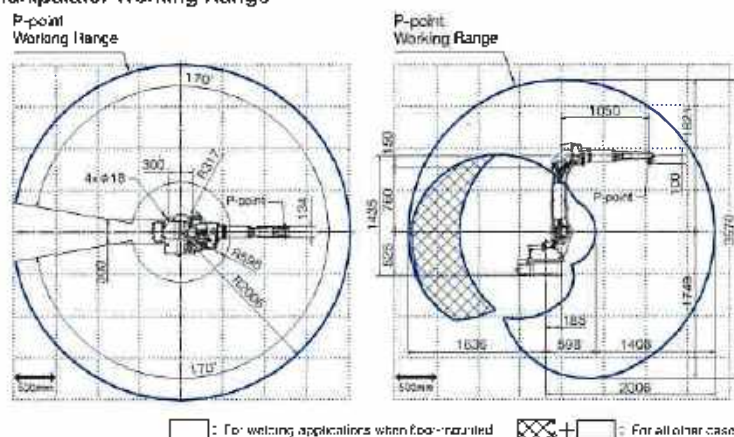
User-friendly operation

Integrated signal cables and air hoses to accommodate a variety of end effectors

Stronger structure

The maximum payload has been increased by 30%, up to 8kg.

Manipulator Working Range



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)	-165° ~ +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)	3.48rad/s(200°/s)
	J3 (Upper Arm)	3.48rad/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)
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)	0.08kg·m ²
Arm Cross-sectional Area		7.46m ² × 340°
Ambient Conditions		Temp: 0 to 45°C, Humd: 20 to 80%RH (No Condensation)
Mass (weight)		275kg
Upper Arm Payload Capacity		20kg (Note 4)
Installation Type		Floor, wall, or ceiling
Paint Color		White (Munsell notation 10GY 9/1)

Notes

- Positional repeatability of the tool center point (TCP) value complies with the JIS-B-8432 Standard.
- Specifications for wall mounting appear in parentheses.
- The working range of the J2 axis may be restricted when wall-mounted.
- 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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