



***Almega Friendly series II***

# Medium Class Robot *FD-V25*



**Application range has  
been expanded  
due to increased  
maximum payload.**

**Improved in every aspect of  
performance!**



**Maximum payload of 25kg  
Interference behind the robot  
minimized by integrating cables into  
the lower arm**

# Application range has been expanded due to increased maximum payload.

# FD-V25

## Faster cycle time

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

## Stronger structure

The maximum payload has been increased by 25%, up to 25kg. Expands support for various handling applications.

## User-friendly operation

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

## More robust

Splash-proof and dust-proof design equivalent to IP64 enclosure rating

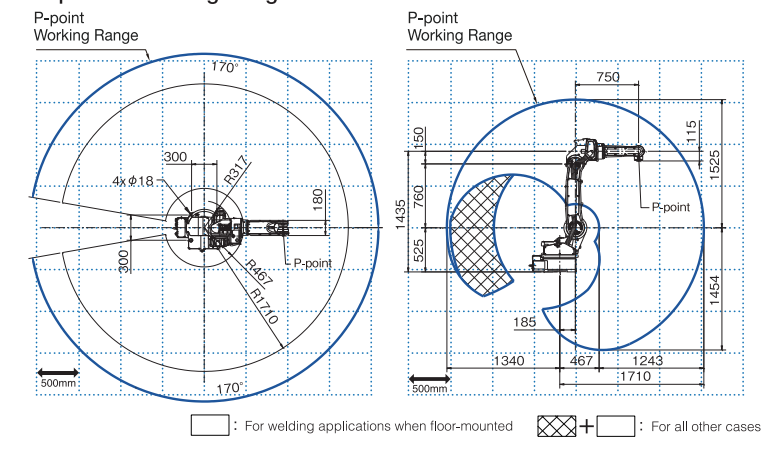
## Manipulator Specifications

		FD-V25
Structure		Vertical articulated type
Number of Axes		6
Max. Payload Capacity		25kg
Positional Repeatability		±0.07mm (Note 1)
Drive System		AC servomotor
Drive Capacity		5600W
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)	3.32rad/s{190°/s}
	J3 (Upper Arm)	3.14rad/s{180°/s}
	J4 (Swing)	6.98rad/s{400°/s}
	Wrist J5 (Bending)	6.98rad/s{400°/s}
	J6 (Twist)	10.47rad/s{600°/s}
Wrist Allowable Load	Allowable Moment J4 (Swing)	52.6N·m
	J5 (Bending)	52.6N·m
	J6 (Twist)	24.5N·m
	Allowable Moment of Inertia J4 (Swing)	1.24kg·m <sup>2</sup>
	J5 (Bending)	1.24kg·m <sup>2</sup>
	J6 (Twist)	0.33kg·m <sup>2</sup>
Arm Cross-sectional Area		5.27m <sup>2</sup> × 340°
Ambient Conditions		Temp: 0 to 45°C, Hmd: 20 to 80%RH (No Condensation)
Mass (weight)		278kg
Upper Arm Payload Capacity		10kg (Wrist capacity: 25kg) (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.

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