



***Almega Friendly series II***  
**Medium Class Robot**  
**NEW *FD-V25***

# Fast, Slim, User-Friendly

Improved with all performances!



**Max. payload 25kg.  
Interference behind  
the robot minimized by  
integrating cables  
into the lower arm**

## Improved with all performances!

### Fast

Industry leading level speed.  
Reduce cycle time

### Slim

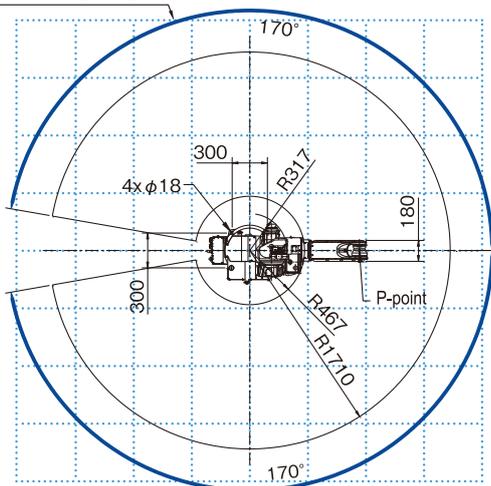
30% reduce in foot print  
High-density layout

### User friendly

Built-in application cable for  
various hand tools.

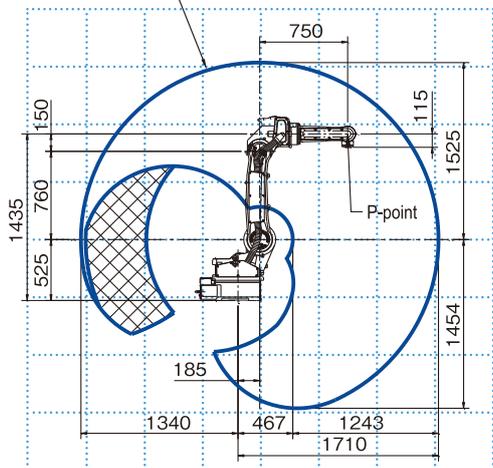
#### Manipulator Working Range

P-point Working Range



□ = 500mm

P-point Working Range



□ : For welding applications when floor-mounted    □+□ : For other than the above

#### Manipulator Specifications

		Specification	
Name		FD-V25	
Structure		Vertically articulated type	
Number of Axes		6	
Wrist Capacity		25kg	
Positional Repeatability (Note 1)		±0.04mm (Note 1)	
Driving Method		AC servo motor	
Driving Capacity		5400W	
Positional Feedback		Absolute encoder	
Working Range	Arm	J1 (Rotation)	±170°(±50°) (Note 2)
		J2 (Front/back)	-155°~+100°(Note 3)
		J3 (Up/down)	-170°~+260°(Note 5)
	Wrist	J4 (Swing)	±180°
		J5 (Bending)	-50°~+230°
		J6 (Twist)	±360°
Maximum Speed	Arm	J1 (Rotation)	3.93rad/s{225°/s} (3.05rad/s{175°/s})(Note 2)
		J2 (Front/back)	3.58rad/s{205°/s}
		J3 (Up/down)	4.45rad/s{255°/s}
	Wrist	J4 (Swing)	7.85rad/s{450°/s}
		J5 (Bending)	7.68rad/s{440°/s}
		J6 (Twist)	10.60rad/s{605°/s}
Wrist Allowable Load	Allowable Moment	J4 (Swing)	52.6 N·m
		J5 (Bending)	52.6 N·m
		J6 (Twist)	24.5 N·m
	Allowable Moment of Inertia	J4 (Swing)	1.24 kg·m <sup>2</sup>
		J5 (Bending)	1.24 kg·m <sup>2</sup>
		J6 (Twist)	0.33kg·m <sup>2</sup>
Arm Cross-sectional Area		5.27m <sup>2</sup> × 340°	
Environmental Conditions		Temp: 0~45°C, Hmd: 20~80%RH (No Condensation)	
Mass (weight)		241kg	
Capacity of Upper Arm		10 kg (Wrist capacity: 25kg)(Note 4)	
Installation Method		Floor-/Ceiling-/Wall-mounted	
Paint Color		White (Munsell notation 10GY 9/1)	

(Note 1) Positional repeatability of the tool center point (TCP) value complies with the JIS -B-8432 Standard.

(Note 2) Specifications for wall mounting appear in parentheses.

(Note 3) The working range of the J2 axis may be restricted when wall-mounted.

(Note 4) The capacity of the upper arm varies with the wrist capacity.

(Note 5) The operation range of the J3 axis is restricted to -170 degrees to +205 degrees when floor-based welding is applied.

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●The information contained in this catalog is current as of April 2021 and is subject to revision without notice.