



***Almega Friendly series II***  
**Arc Welding Robot**  
**NEW *FD-V8L***

**Fast, Slim,  
User-Friendly**

**Improved with all  
performances!**



**Long arm with a max.  
payload 8kg**

**The range of welding applications  
has been expanded.**

## Improved with all performances!

### Fast

Industry leading level speed.  
Reduce cycle time

### Slim

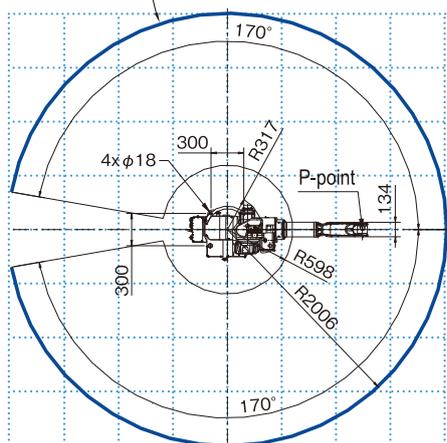
30% reduce in foot print  
High-density layout

### User friendly

All cables required for Synchro-feed welding  
are also built in the lower arm.  
Avoiding the interference behind the arm.

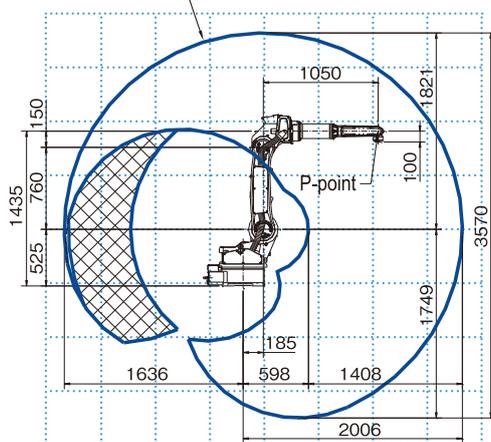
#### [ Manipulator Working Range ]

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-V8L
Structure		Vertically articulated type
Number of Axes		6
Wrist Capacity		8 kg
Positional Repeatability (Note 1)		±0.05mm (Note 1)
Driving Method		AC servo motor
Driving Capacity		4800W
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) 3.93 rad/s {225°/s} (3.05rad/s {175°/s})(Note 2) J2 (Front/back) 3.58 rad/s {205°/s} J3 (Up/down) 4.45 rad/s {255°/s}
Wrist Allowable Load	Wrist	J4 (Swing) 7.85 rad/s {450°/s} J5 (Bending) 7.50rad/s {430°/s} J6 (Twist) 11.00rad/s {630°/s}
	Allowable Moment	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		7.48m <sup>2</sup> ×340°
Environmental Conditions		Temp: 0~45°C, Hmd: 20~80%RH (No Condensation)
Mass (weight)		237kg
Capacity of Upper Arm		20kg (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.