



***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

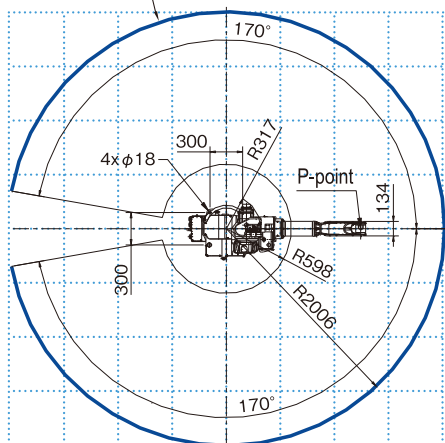
30% reduce in foot print  
High-density layout

### User friendly

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

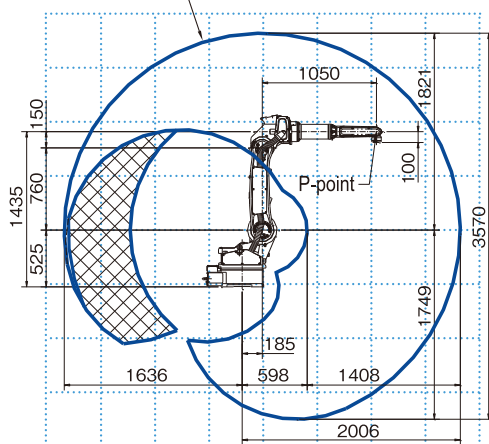
#### [ Manipulator Working Range ]

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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Daihen Robot Site

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Note This product and the technologies (including software) used in the product are subject to Catch-All Controls. When exporting any of them, verify the users, applications, etc. according to the applicable laws and regulations and take appropriate procedures such as applications for export permission to the Minister of Economy, Trade and Industry if required.

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