



***Almega Friendly series II***  
**Arc Welding Robot**  
**NEW *FD-B6L***

# Fast, Slim, User-Friendly

Improved all performances!  
New robot with built-in cables



Best for large structures  
by its long arm  
All cables required for  
synchro-feed welding are already  
built into the robot



## Improved all performances! New robot with built-in cables

**Fast**

Industry leading level speed.  
Reduce cycle time

**User friendly**

All cables required for  
synchro-feed welding are  
already built into the robot

**Slim**

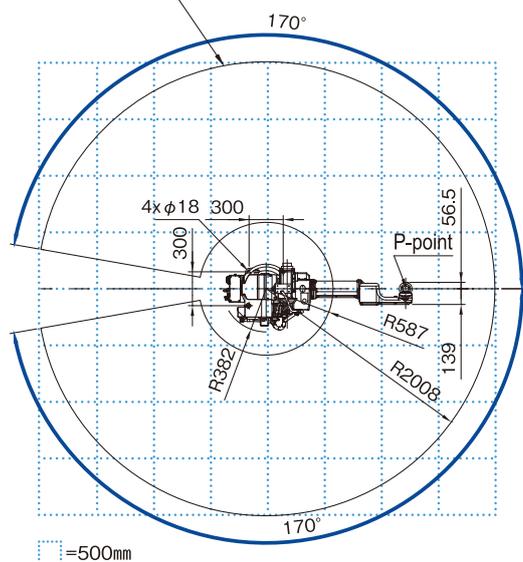
30% reduce in foot print  
High-density layout

**Powerful**

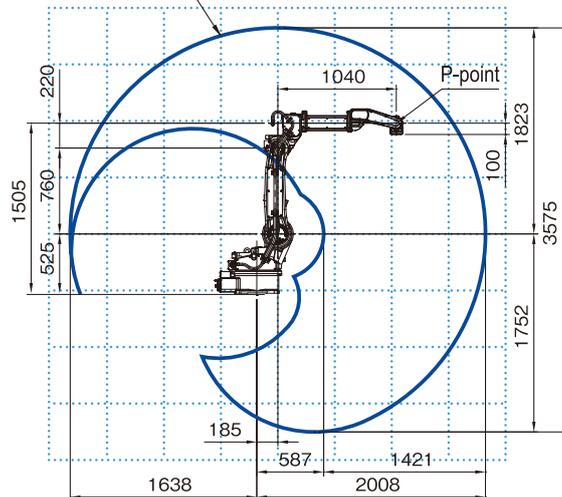
Max. Payload 6kg  
Allows to be equipped with various  
torches and sensors

### Manipulator Working Range

P-point Working Range



P-point Working Range



### Manipulator Specifications

		Specification		
Name		FD-B6L		
Structure		Vertically articulated type		
Number of Axes		6		
Wrist Capacity		6 kg		
Positional Repeatability (Note 1)		±0.05mm (Note 1)		
Driving Method		AC servo motor		
Driving Capacity		4632W		
Positional Feedback		Absolute encoder		
Working Range	Arm	J1 (Rotation)	±170°(±50°) (Note 2)	
		J2 (Front/back)	-155°~+100°(Note 3)	
		J3 (Up/down)	-170°~+190°	
Working Range	Wrist	J4 (Swing)	±155°(±170°) (Note 4)	
		J5 (Bending)	-45°~+225° (Note 5)	
		J6 (Twist)	±205°(±360°)(Note 4,5)	
Maximum Speed	Arm	J1 (Rotation)	3.93rad/s {225°/s} (3.05 rad/s {175°/s}) (Note 2)	
		J2 (Front/back)	3.58rad/s {205°/s}	
		J3 (Up/down)	3.84rad/s {220°/s}	
	Working Range	Wrist	J4 (Swing)	7.50rad/s {430°/s}
			J5 (Bending)	7.50rad/s {430°/s}
			J6 (Twist)	11.00rad/s {630°/s}
Wrist Allowable Load	Allowable Moment	J4 (Swing)	10.5N·m	
		J5 (Bending)	10.5N·m	
		J6 (Twist)	5.9N·m	
	Allowable Moment of Inertia	Wrist	J4 (Swing)	0.28kg·m <sup>2</sup>
			J5 (Bending)	0.28kg·m <sup>2</sup>
			J6 (Twist)	0.06kg·m <sup>2</sup>
Arm Cross-sectional Area		6.37m <sup>2</sup> × 340°		
Environmental Conditions		Temp: 0~45°C, Hmd: 20~80%RH (No Condensation)		
Mass (weight)		237 kg		
Capacity of Upper Arm		20kg (Note 6)		
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) This specification applies when a single-wire power cable is fed through the hollow part of J4 and J6.  
 The value in parentheses represents all other specifications.  
 (Note 5) Working range of J6 axis may be restricted by the position of J5 axis.  
 (Note 6) The capacity of the upper arm varies with the wrist capacity.

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[www.daihen-robot.com/en/](http://www.daihen-robot.com/en/)

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