



Almega Friendly series II

NEW High-Payload Robot
FD-V80/V100/V130

PICKING	SPOT WELDING	
CUTTING	Used for...	ASSEMBLY
LOAD/UNLOAD	FINISHING	
ARC WELDING	SORTING	

100 kg PAYLOAD CLASS
MULTIPURPOSE ROBOT
THREE NEW MODELS



FD-V80

80 kg payload
Reach 2501 mm



FD-V100

100 kg payload
Reach 2236 mm



FD-V130

130 kg payload
Reach 2139 mm

High-density layout is possible

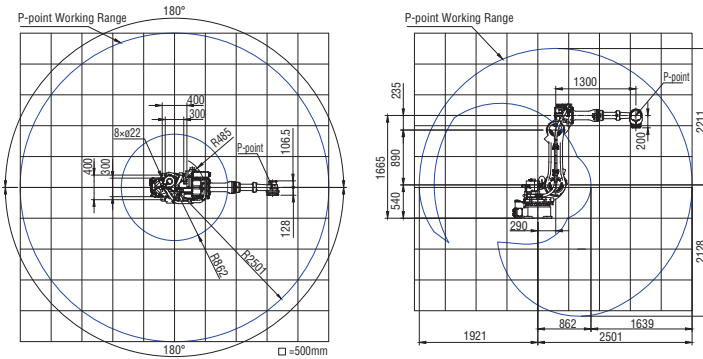
Cycle times are reduced

Easy communication with external devices

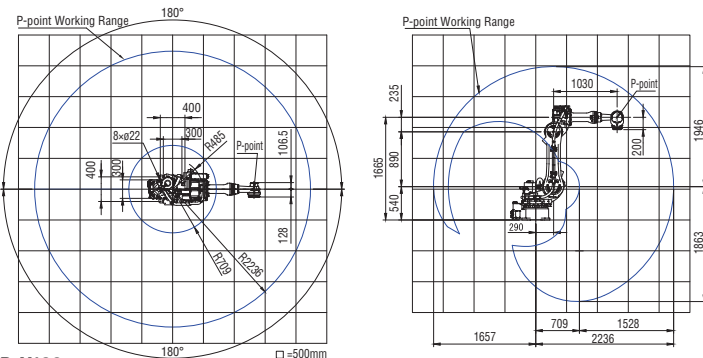
- Avoiding the interference with jigs or workpieces by slim design.
- Compatible wide operating range and narrow interference radius
- Due to the industry's fastest speeds.
- Compatible with application cable of various communication standards
- Built-in cable from robot base to shoulder.

MANIPULATOR WORKING RANGE

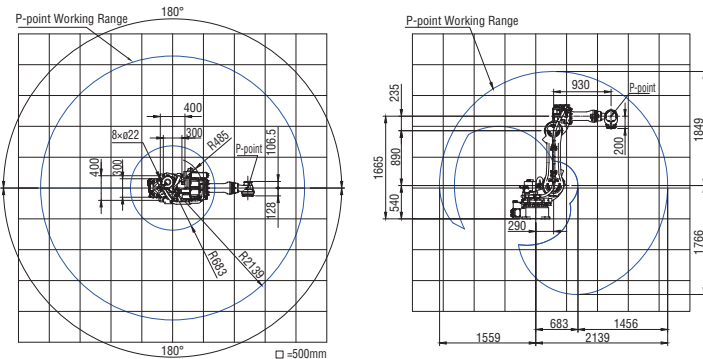
FD-V80



FD-V100



FD-V130

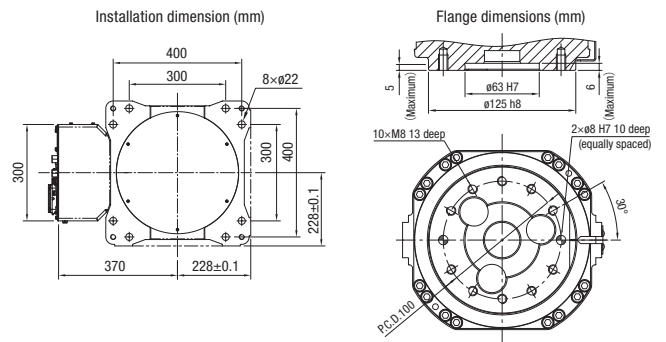


MANIPULATOR SPECIFICATIONS

		FD-V80	FD-V100	FD-V130
Structure		Vertical articulated type		
Number of Axes		6		
Max. Payload Capacity		80 kg	100 kg	130 kg
Positional Repeatability		±0.08 mm (Note 1)		
Drive System		AC servomotor		
Drive Capacity		15kw		
Position Feedback		Absolute encoder		
Working Range	Arm	J1 (Rotation)	±180°	
		J2 (Lower arm)	-155° ~ +90°	
		J3 (Upper arm)	-185° ~ +220°	
	Wrist	J4 (Swing)	±360°	
		J5 (Bending)	-35° ~ +215°	
		J6 (Twist)	±360°	
Maximum Speed	Arm	J1 (Rotation)	2.44 rad/s [140°/s]	
		J2 (Lower arm)	1.92 rad/s [110°/s]	
		J3 (Upper arm)	2.44 rad/s [140°/s]	
	Wrist	J4 (Swing)	3.05 rad/s [175°/s]	
		J5 (Bending)	3.05 rad/s [175°/s]	
		J6 (Twist)	4.45 rad/s [255°/s]	
Wrist Allowable Load	Allowable Moment	J4 (Swing)	433 N · m	721.0 N · m
		J5 (Bending)	430 N · m	721.0 N · m
		J6 (Twist)	294 N · m	294.0 N · m
	Allowable Moment of Inertia	J4 (Swing)	31.4 kg · m ²	60.0 kg · m ²
		J5 (Bending)	31.4 kg · m ²	60.0 kg · m ²
		J6 (Twist)	11.9 kg · m ²	33.7 kg · m ²
Arm Cross-sectional Area		9.53 m ² × 360°	7.56 m ² × 360°	6.83 m ² × 360°
Ambient Conditions		Temp: 0 to 45°C, Hmd: 20 to 80%RH (No Condensation)		
Mass (weight)		780 kg	770 kg	765 kg
Upper Arm Payload Capacity		25 kg		
IP Code		Base axes (J1, J2, J3 Axis) IP54 Wrist axes (J4, J5, J6 Axis) IP67/69 (Note 2)		
Installation Type		Floor or wall		
Paint Color		White (Munsell notation 10G9 9/1)		

Notes

1. Positional repeatability of the tool center point (TCP) value complies with the JIS-B-8432 Standard.
2. IP code is based on IEC60529.



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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