

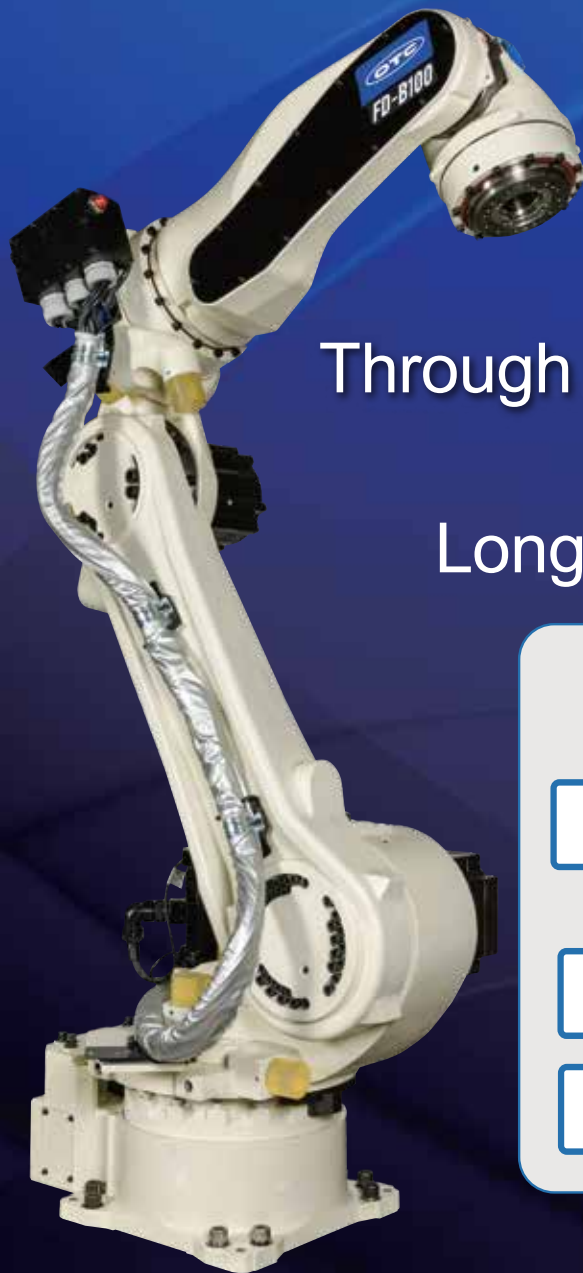


Almega Friendly series II

High-Payload Robot

FD-B100

100kg Payload Hollow Arm Multipurpose Robot



Clean Cable Management
Through Hollow Wrist and Shoulder.

Longest Reach in Class at 2.1m.

PICKING

SPOT WELDING

CUTTING

ASSEMBLY

Applications

LOAD / UNLOAD

FINISHING

ARC WELDING

SORTING

High-density layout

- Slim design avoids interference with robots and Jigs
- Wide operating range and narrow interference radius

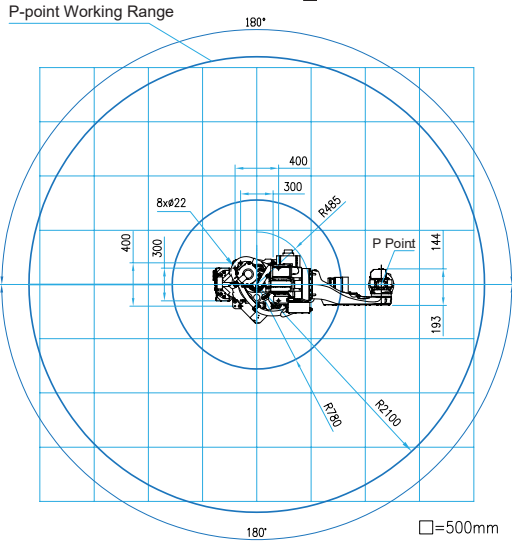
Reducing cycle time

- Top level speed in the class

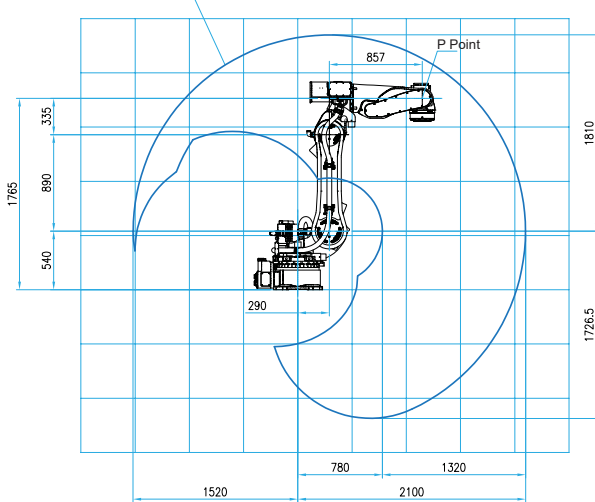
Easy communication with peripherals

- Support with application cables of various communication standards
- Built-in cable from robot base to shoulder

Manipulator Working Range



P-point Working Range



Manipulator Specifications

		Specification	
Name		NB100	
Structure		Vertically articulated type	
Number of Axes		6	
Wrist Capacity		220lb (100kg)	
Positional Repeatability (Note 1)		±0.06mm (Note 1)	
Driving Method		AC servo motor	
Driving Capacity		16kW	
Positional Feedback		Absolute encoder	
Working Range	Arm	J1 (Rotation)	±180°
		J2 (Front/back)	-155°~+90°
		J3 (Up/down)	-185°~+170°
	Wrist	J4 (Swing)	±210°
		J5 (Bending)	-35°~+215°
		J6 (Twist)	±210°
Maximum Speed	Arm	J1 (Rotation)	2.44rad/s{140°/s}
		J2 (Front/back)	1.92rad/s {110°/s}
		J3 (Up/down)	2.44rad/s{140°/s}
	Wrist	J4 (Swing)	3.58rad/s{205°/s}
		J5 (Bending)	3.67rad/s{210°/s}
		J6 (Twist)	5.67rad/s{325°/s}
Wrist Allowable Load	Allowable Moment	J4 (Rotation)	650N·m
		J5 (Swing)	650N·m
		J6 (Twist)	294N·m
	Allowable Moment of inertia	J4 (Rotation)	60kg·m ²
		J5 (Swing)	60kg·m ²
		J6 (Twist)	33.7kg·m ²
Arm Cross-sectional Area		6.21m ² × 360°	
Environmental Conditions		Temp: 0~45°C, Hmd: 20~80%RH (No Condensation)	
Mass (weight)		1748lb (793kg)	
Capacity of Upper Arm		110lb (50kg) (Note 2)	
Installation Method		Floor-/Ceiling-	
Paint Color		White (Munsell notation 10GY 9/1)	

Notes:

1. Positional repeatability of the tool center point (TCP) value complies with the JIS-8-8432 Standard.
2. The capacity of the upper arm varies with the wrist capacity.
3. The positional data of absolute encoder is backed up by the battery. The battery backup period with the primary power OFF is approx 3 years. Exceeding this period will require battery replacement and absolute offset adjustments.
4. The battery backup period may be shorter depending on the surrounding environment and usage conditions.
5. Holding brakes are provided on all axes.



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