Cable Integrated Robot

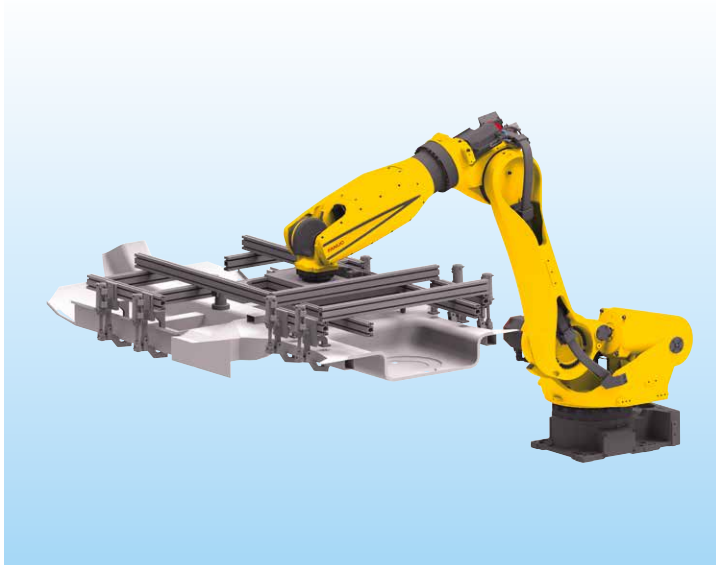
FANUC Robot R-2000*i*D

Features

FANUC Robot R-2000*i*D is a large size robot based on the renowned technology and reliability of R-2000*i* series, with the wrist cables integrated into the stylish and compact hollow arm.

- The installation area is reduced by 23%, the mass of the mechanical unit by 10%, and the interference radius of the wrist by 13%, compared with the existing robot. The robot is suitable for various processes in dense layout work cells.
- Off-line teaching can be performed, without concerns about the behavior of cables that are difficult to predict, by mounting the wrist cables inside the hollow arm.
- Extensive options will support your needs in various applications, such as spot welding, material handling and assembly, including the spot welding solution arm.
- The R-30*i*B Plus controller is used to control the robot, where the energy regeneration option provides energy saving and the user interface *i*HMI realizes ease of use.
- Various features are available such as Maintenance Reminder, Learning Vibration Control, Bin Picking, Force Sensor.

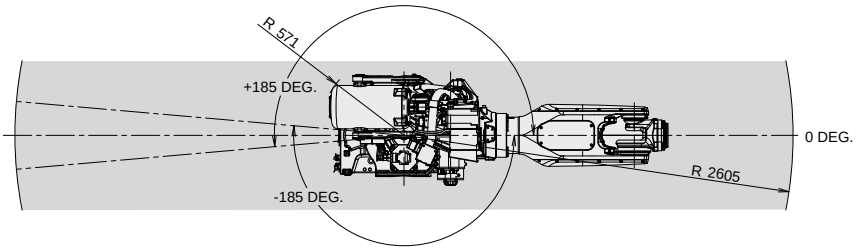
Application Example

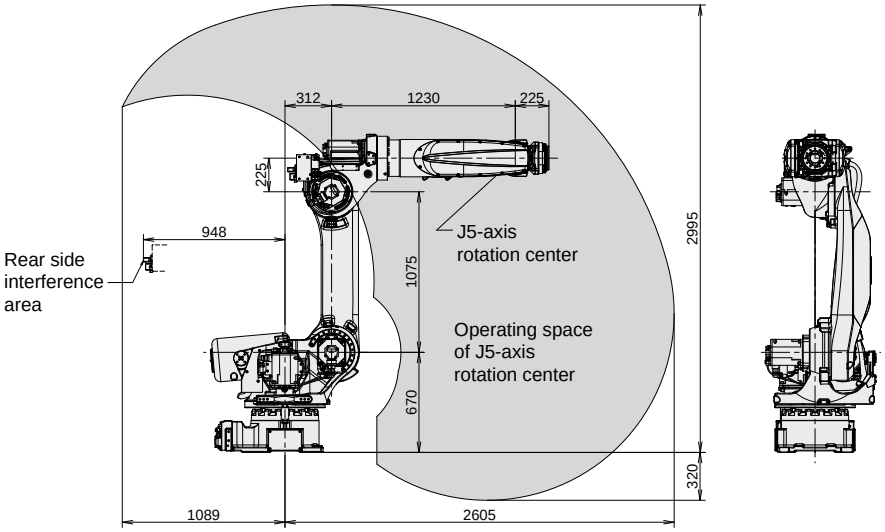


Large Panel Handling

High Speed Spot Welding

Operating space R-2000*i*D/210FH,165FH,100FH





Specifications

Model		R-2000*i*D/210FH	R-2000*i*D/165FH	R-2000*i*D/100FH
Type		Articulated Type		
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)		
Reach		2605 mm		
Installation		Floor		
Motion range (Maximum Speed) Note 1)	J1 axis rotation	370° (120°/s) 6.46 rad (2.09 rad/s)	370° (130°/s) 6.46 rad (2.27 rad/s)	370° (105°/s) 6.46 rad (1.83 rad/s)
	J2 axis rotation	140° (90°/s) 2.44 rad (1.57 rad/s)	140° (110°/s) 2.44 rad (1.92 rad/s)	140° (130°/s) 2.44 rad (2.27 rad/s)
	J3 axis rotation	236.6° (100°/s) 4.13 rad (1.75 rad/s)	236.6° (115°/s) 4.13 rad (2.01 rad/s)	236.6° (130°/s) 4.13 rad (2.27 rad/s)
	J4 axis wrist rotation	420° (140°/s) 7.33 rad (2.44 rad/s)	420° (175°/s) 7.33 rad (3.05 rad/s)	420° (200°/s) 7.33 rad (3.49 rad/s)
	J5 axis wrist swing	250° (130°/s) 4.36 rad (2.27 rad/s)	250° (170°/s) 4.36 rad (2.97 rad/s)	250° (160°/s) 4.36 rad (2.79 rad/s)
	J6 axis wrist rotation	420° (220°/s) 7.33 rad (3.84 rad/s)	420° (280°/s) 7.33 rad (4.89 rad/s)	420° (300°/s) 7.33 rad (5.24 rad/s)
Max. load capacity at wrist		210 kg	165 kg	100 kg
Max. load capacity at J2 base		550 kg	550 kg	550 kg
Max. load capacity on J3 casing		20 kg	20 kg	50 kg
Allowable load moment at wrist	J4 axis	1380 N·m 141 kgf·m	1000 N·m 102 kgf·m	850 N·m 86.7 kgf·m
	J5 axis	1380 N·m 141 kgf·m	1000 N·m 102 kgf·m	850 N·m 86.7 kgf·m
	J6 axis	735 N·m 75 kgf·m	620 N·m 63 kgf·m	450 N·m 45.9 kgf·m
Allowable load inertia at wrist	J4 axis	228 kg·m² 2327 kgf·cm·s²	122 kg·m² 1245 kgf·cm·s²	90 kg·m² 918 kgf·cm·s²
	J5 axis	228 kg·m² 2327 kgf·cm·s²	122 kg·m² 1245 kgf·cm·s²	90 kg·m² 918 kgf·cm·s²
	J6 axis	196 kg·m² 2000 kgf·cm·s²	100 kg·m² 1020 kgf·cm·s²	50 kg·m² 510 kgf·cm·s²
Drive method		Electric servo drive by AC servo motor		
Repeatability Note 2)		± 0.05 mm		
Mass Note 3)		1150 kg		
Installation environment		Ambient temperature : 0 to 45°C Ambient humidity : Normally 75 %RH or less (No dew. nor frost allowed) Short term Max. 95 %RH or less (within one month) Vibration acceleration : 4.9 m/s² (0.5G) or less		

Note 1) During short distance motions, the axis speed may not reach the maximum value stated.
Note 2) Compliant with ISO 9283.
Note 3) Without controller.

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