

FANUC Robot R-2000iD



Features

FANUC Robot R-2000iD is a large size robot based on the renowned technology and reliability of R-2000i 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-30iB Plus controller is used to control the robot, where the energy regeneration option provides energy saving and the user interface iHMI realizes ease of use.
- Various features are available such as Maintenance Reminder, Learning Vibration Control, Bin Picking, Force Sensor.

Application Example

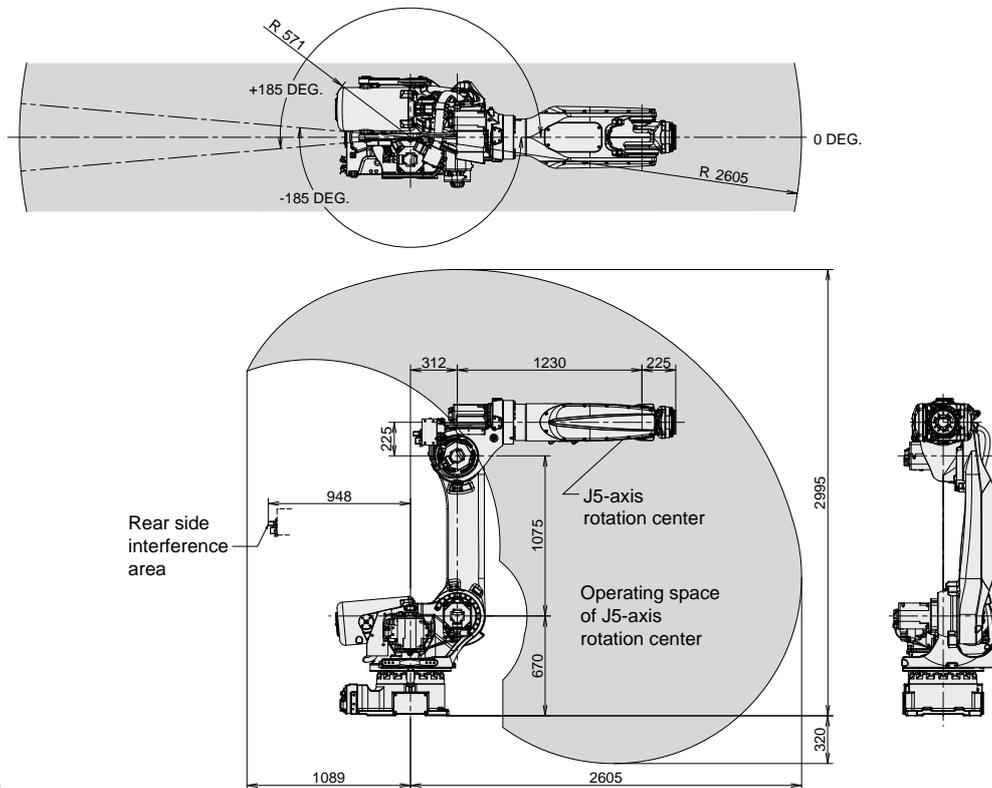


Large Panel Handling



High Speed Spot Welding

Operating space R-2000iD/210FH,165FH,100FH



Specifications

Model		R-2000iD/210FH			R-2000iD/165FH			R-2000iD/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·m ² 2327 kgf·cm·s ²			122 kg·m ² 1245 kgf·cm·s ²			90 kg·m ² 918 kgf·cm·s ²		
	J5 axis	228 kg·m ² 2327 kgf·cm·s ²			122 kg·m ² 1245 kgf·cm·s ²			90 kg·m ² 918 kgf·cm·s ²		
	J6 axis	196 kg·m ² 2000 kgf·cm·s ²			100 kg·m ² 1020 kgf·cm·s ²			50 kg·m ² 510 kgf·cm·s ²		
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/s ² (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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