

FANUC Robot R-1000



FEATURES

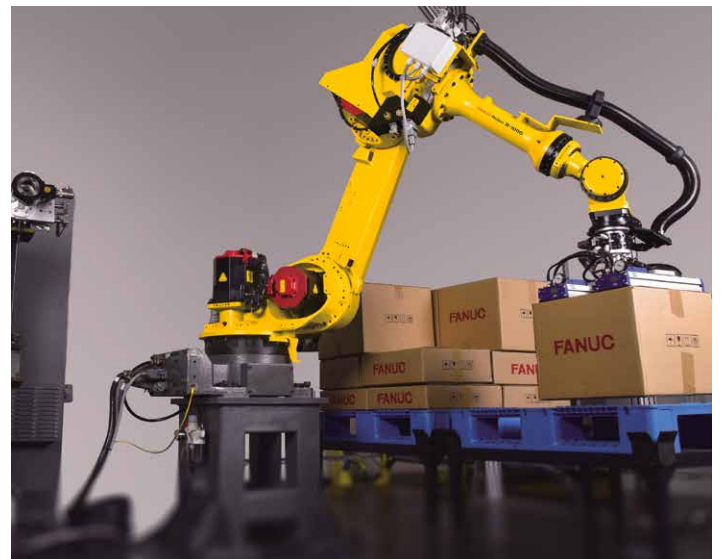
The FANUC Robot R-1000 is a compact and high-speed robot having a wrist capacity of 80kg to 130kg. Compact mechanical unit and outstanding motion performance are suitable for handling, spot welding and palletizing in dense layout work cells.

- These robots have a large operating space (including its rear and downward side) and can also be installed upside down. The slimmest design in width makes it possible to locate the robot close to neighboring robots, fixtures and workpieces. High-speed approach from home to working position and fast positioning in a short pitch motion can minimize a throughput.
- The R-50iA controller provides energy saving by improving control performance.
- Various features are available such as Maintenance Reminder, Force Sensor and Vision Sensor.

Application Examples



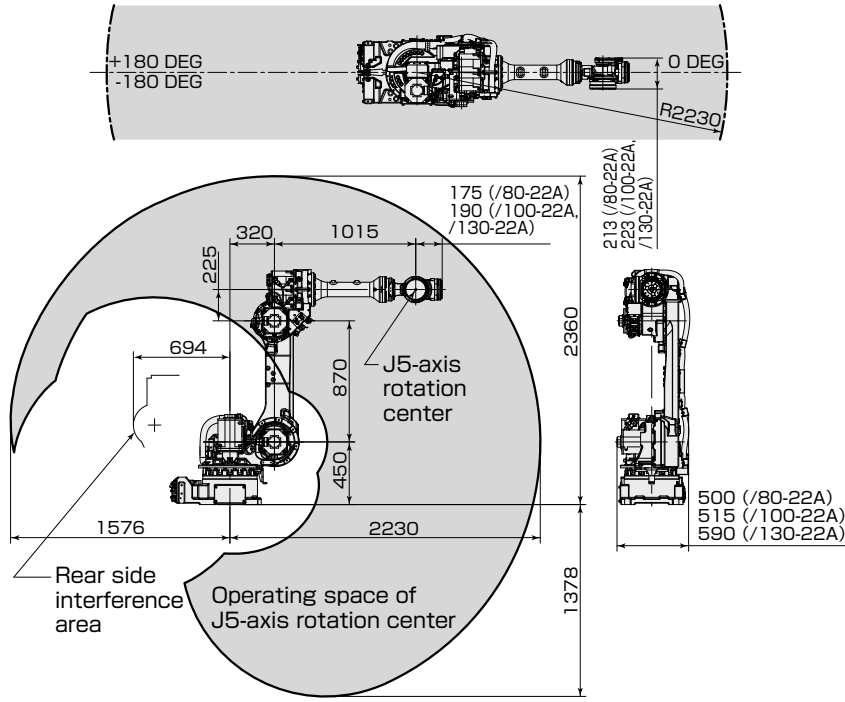
High Speed Spot Welding



Palletizing

Operating space

R-1000/80-22A, /100-22A, /130-22A



Specifications

Model		R-1000/80-22A	R-1000/100-22A	R-1000/130-22A
Type		Articulated Type		
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)		
Reach		2230 mm		
Installation		Floor, Upside-down		
Motion range (Maximum speed) Note 1)	J1 axis rotation	360° (170°/s) 6.28 rad(2.97 rad/s)	360° (130°/s) 6.28 rad(2.27 rad/s)	360° (130°/s) 6.28rad(2.27rad/s)
	J2 axis rotation	245° (140°/s) 4.28 rad(2.44 rad/s)	245° (110°/s) 4.28 rad(1.92 rad/s)	245° (110°/s) 4.28rad(1.92rad/s)
	J3 axis rotation	360° (160°/s) 6.28 rad(2.79 rad/s)	360° (120°/s) 6.28 rad(2.09 rad/s)	360° (120°/s) 6.28rad(2.09rad/s)
	J4 axis wrist rotation	720° (230°/s) 12.57 rad(4.01 rad/s)	720° (170°/s) 12.57 rad(2.97 rad/s)	720° (170°/s) 12.57rad(2.97rad/s)
	J5 axis wrist swing	250° (230°/s) 4.36 rad(4.01 rad/s)	250° (170°/s) 4.36 rad(2.97 rad/s)	250° (170°/s) 4.36rad(2.97rad/s)
	J6 axis wrist rotation	720° (350°/s) 12.57 rad(6.11 rad/s)	720° (250°/s) 12.57 rad(4.36 rad/s)	720° (250°/s) 12.57rad(4.36rad/s)
Max. load capacity at wrist		80 kg (A)	100 kg	
Max. load capacity on J3 arm		-	(A)+(B) < 80kg	
Max. load capacity on J3 casing		15 kg (B)	20 kg (C) 20 kg (D)	(C)+(D) < 20kg
Allowable load moment at wrist	J4 axis	380 N·m 38.8 kgf·m	690 N·m 70.4 kgf·m	800 N·m 81.6 kgf·m
	J5 axis	380 N·m 38.8 kgf·m	690 N·m 70.4 kgf·m	800 N·m 81.6 kgf·m
	J6 axis	200 N·m 20.4 kgf·m	260 N·m 26.5 kgf·m	360 N·m 36.7 kgf·m
Allowable load inertia at wrist	J4 axis	30 kg·m ² 306.1 kgf·cm·s ²	57 kg·m ² 581.6 kgf·cm·s ²	71 kg·m ² 724.5 kgf·cm·s ²
	J5 axis	30 kg·m ² 306.1 kgf·cm·s ²	57 kg·m ² 581.6 kgf·cm·s ²	71 kg·m ² 724.5 kgf·cm·s ²
	J6 axis	20 kg·m ² 204.1 kgf·cm·s ²	32 kg·m ² 326.5 kgf·cm·s ²	38 kg·m ² 387.8 kgf·cm·s ²
Drive method		Electric servo drive by servo motor		
Repeatability Note 2)		± 0.03 mm		
Mass Note 3)		620 kg	665 kg	675 kg
Installation environment		Ambient temperature : 0 to 45°C Ambient humidity : Normally 75%RH or less (No condensation allowed.) Short time (Within 1 month) 95%Rh or less (No condensation allowed.) Vibration acceleration : 4.9m/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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