

FANUC Robot M-950

FANUC Robot M-1000

Features

FANUC Robot M-950 / M-1000 is a heavy payload robot series with the capacity of 500kg - 1000kg.

- These series have a J3 arm which can stand upright above and rotate backwards of the robot. Due to the wide motion range, these series can adapt various layout.
- Due to a strong wrist and a high rigidity design, these series are available for handling of large and heavy workpieces.
- Three models are available to meet a variety of applications.

FANUC Robot M-950/500F-28A

In addition to handling large and heavy workpieces, this model can support the application such as friction stir welding, drilling and riveting.

FANUC Robot M-1000/1000F-33A

Due to 1000kg payload capacity, this model can handle large and heavy workpieces such as battery units of EVs, long building structures, and is available for machining such as drilling.

FANUC Robot M-1000/550F-46A

Due to 550kg payload capacity and long reach, this model is available for various application including mold release agent spray and handling work pieces for Giga Cast.

- The wrist has IP67-equivalent resistance to environmental conditions (dust and dips) and can be used in harsh environments with confidence.
- *i*RVision and various intelligent features are available. These enable to built robot systems flexibly.



Application Examples



Large Casting Handling



Battery Unit Handling
(Transporting to backwards of robot)

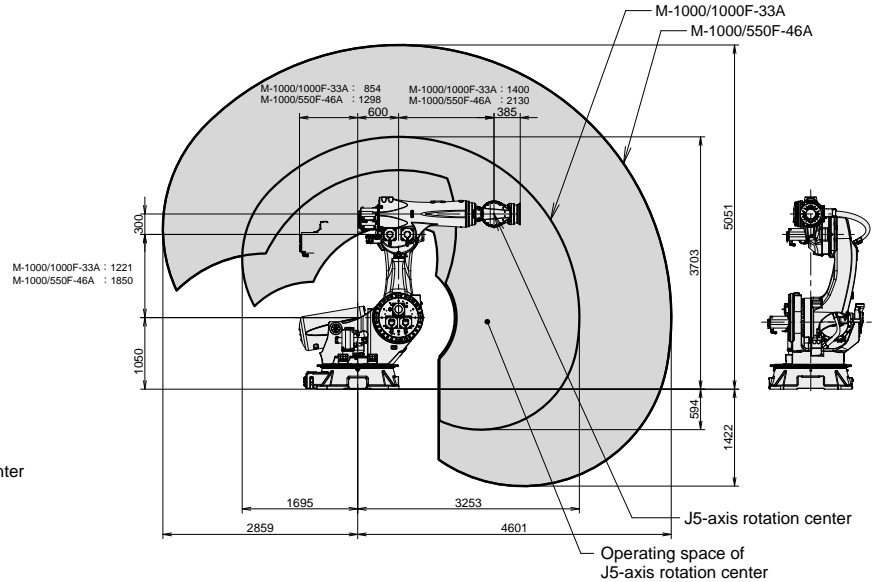
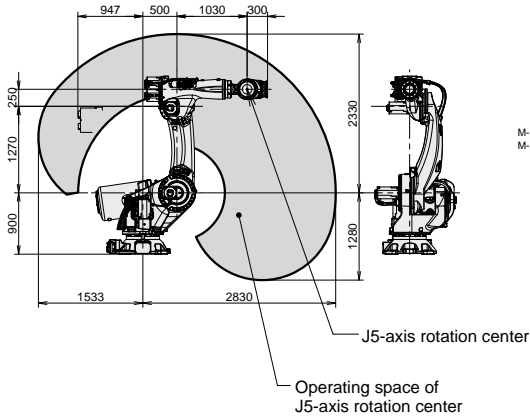
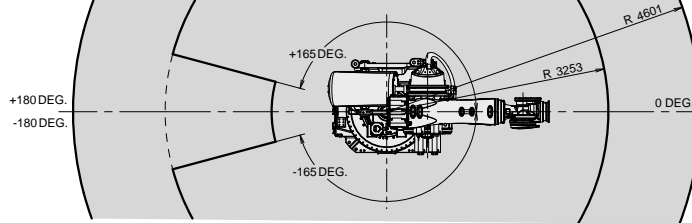
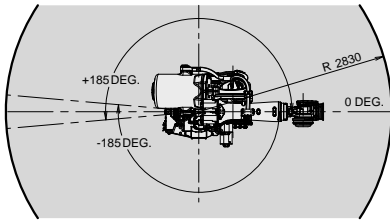


Mold Release Agent Spray
for Giga Cast

Operating space

M-950/500F-28A

M-1000/1000F-33A, 550F-46A



Specifications

| Model | | M-950/500F-28A | M-1000/1000F-33A | M-1000/550F-46A |
|--|------------------------|--|--|--|
| Type | | Articulated Type | | |
| Controlled axes | | 6 axes (J1, J2, J3, J4, J5, J6) | | |
| Reach | | 2830 mm | 3253 mm | 4601 mm |
| Installation | | Floor | | |
| Motion range (Maximum speed) (Note 1) (Note 2) | J1 axis rotation | 370°(100°/s) 6.46 rad (1.75 rad/s) | 360°(60°/s) 6.28 rad (1.05 rad/s) | 360°(75°/s) 6.28 rad (1.31 rad/s) |
| | J2 axis rotation | 150°(80°/s) 2.62 rad (1.40 rad/s) | 145°(50°/s) 2.53 rad (0.87 rad/s) | 145°(60°/s) 2.53 rad (1.05 rad/s) |
| | J3 axis rotation | 394.5°(80°/s) 6.89 rad (1.40 rad/s) | 324°(50°/s) 5.65 rad (0.87 rad/s) | 330°(60°/s) 5.76 rad (1.05 rad/s) |
| | J4 axis wrist rotation | 720°(110°/s) 12.57 rad (1.92 rad/s) | 720°(70°/s) 12.57 rad (1.22 rad/s) | 720°(85°/s) 12.57 rad (1.48 rad/s) |
| | J5 axis wrist swing | 244°(110°/s) 4.26 rad (1.92 rad/s) | 240°(70°/s) 4.19 rad (1.22 rad/s) | 240°(85°/s) 4.19 rad (1.48 rad/s) |
| | J6 axis wrist rotation | 720°(170°/s) 12.57 rad (2.97 rad/s) | 720°(85°/s) 12.57 rad (1.48 rad/s) | 720°(115°/s) 12.57 rad (2.01 rad/s) |
| Max. load capacity at wrist | | 500 kg | 1000 kg | 550 kg |
| Max. load capacity at J2 base | | 550 kg | | |
| Max. load capacity at J3 arm | | 50 kg | | |
| Allowable load moment at wrist | J4 axis | 3420 N·m 349 kgf·m | 8800 N·m 898 kgf·m | 5280 N·m 539 kgf·m |
| | J5 axis | 3420 N·m 349 kgf·m | 8800 N·m 898 kgf·m | 5280 N·m 539 kgf·m |
| | J6 axis | 1850 N·m 189 kgf·m | 5800 N·m 592 kgf·m | 2520 N·m 257 kgf·m |
| Allowable load inertia at wrist | J4 axis | 1100 kg·m ² 11224 kgf·cm·s ² | 1750 kg·m ² 17857 kgf·cm·s ² | 1100 kg·m ² 11224 kgf·cm·s ² |
| | J5 axis | 1100 kg·m ² 11224 kgf·cm·s ² | 1750 kg·m ² 17857 kgf·cm·s ² | 1100 kg·m ² 11224 kgf·cm·s ² |
| | J6 axis | 445 kg·m ² 4541 kgf·cm·s ² | 840 kg·m ² 8571 kgf·cm·s ² | 750 kg·m ² 7653 kgf·cm·s ² |
| Drive method | | Electric servo drive by servo motor | | |
| Repeatability (Note 3) | | ±0.08 mm | ±0.10 mm | |
| Mass (Note 4) | | 2500 kg | 5300 kg | 5800 kg |
| Installation environment | | Ambient temperature : 0 to 45°C Ambient humidity : Normally 75 %RH or less (No condensation allowed) Short term (within one month) Max. 95 %RH or less (No condensation allowed) 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) When a mechanical stopper is installed on the M-1000/1000F-33A, motion range of the J1 axis is limited to 330° (5.76 rad).

Note 3) Compliant with ISO 9283.

Note 4) Without controller.

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RM-950(E)-02, 2026.2, Printed in Japan