

FANUC Robot M-20*i*A/35M

FANUC CORPORATION

Export Control:

- Controlled (Related item No. of Foreign Exchange Order Attachment List of Japan:)
- Non-controlled for item No. 2 to 15 of Foreign Exchange Order Attachment List of Japan

High wrist payload type of M-20*i*A/20M

35kg Payload Handling robot is realized based on the current M-20*i*A/20M.

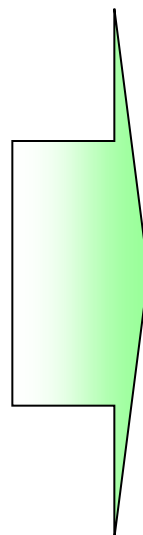


M-20*i*A/35M

- ◆ Higher wrist payload from 20kg to 35kg
- ◆ Enhance wrist moment by 2~2.4 times, and wrist inertia by 1.5~2 times for M-20*i*A/20M
- ◆ The smart robot can be applied in handling applications with narrow space
- Same kinematics and same engineering with M-20*i*A/20M

Enhanced wrist payload capability

		M-20 <i>i</i> A/20M
Max. load at wrist [kg]		20
Reach [mm]		1,813
Max. speed [deg/sec]	J1	195
	J2	175
	J3	180
	J4	405
	J5	405
	J6	615
Allowable load moment at wrist [Nm]	J4	45.1
	J5	45.1
	J6	30.0
Allowable load inertia at wrist [kgm ²]	J4	2.01
	J5	2.01
	J6	1.01

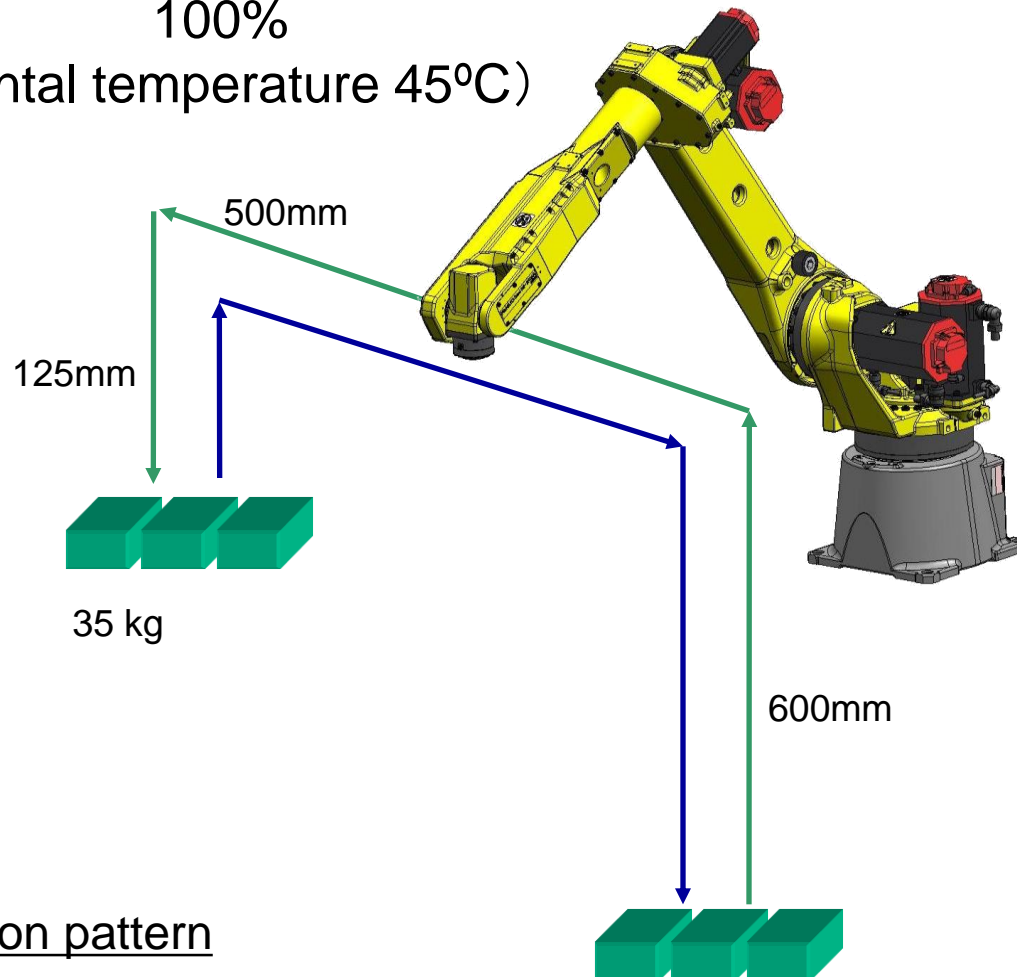


M-20 <i>i</i> A/35M	Ratio to M-20 <i>i</i> A/20M
35	75% up↑
1,813	-
180	8% down↓
180	3% up↑
200	11% up↑
350	14% down↓
350	14% down↓
400	35% down↓
110.0	244% up↑
110.0	
60.0	200% up↑
4.00	199% up↑
4.00	
1.50	149% up↑

Throughput ability in packing motion

Throughput ability; 25 (cycle/min)
(2.4 s/cycle)

Duty; 100%
(Environmental temperature 45°C)



Application example



Routing of molding parts



Mini Palletizing Cell



Packing Cell



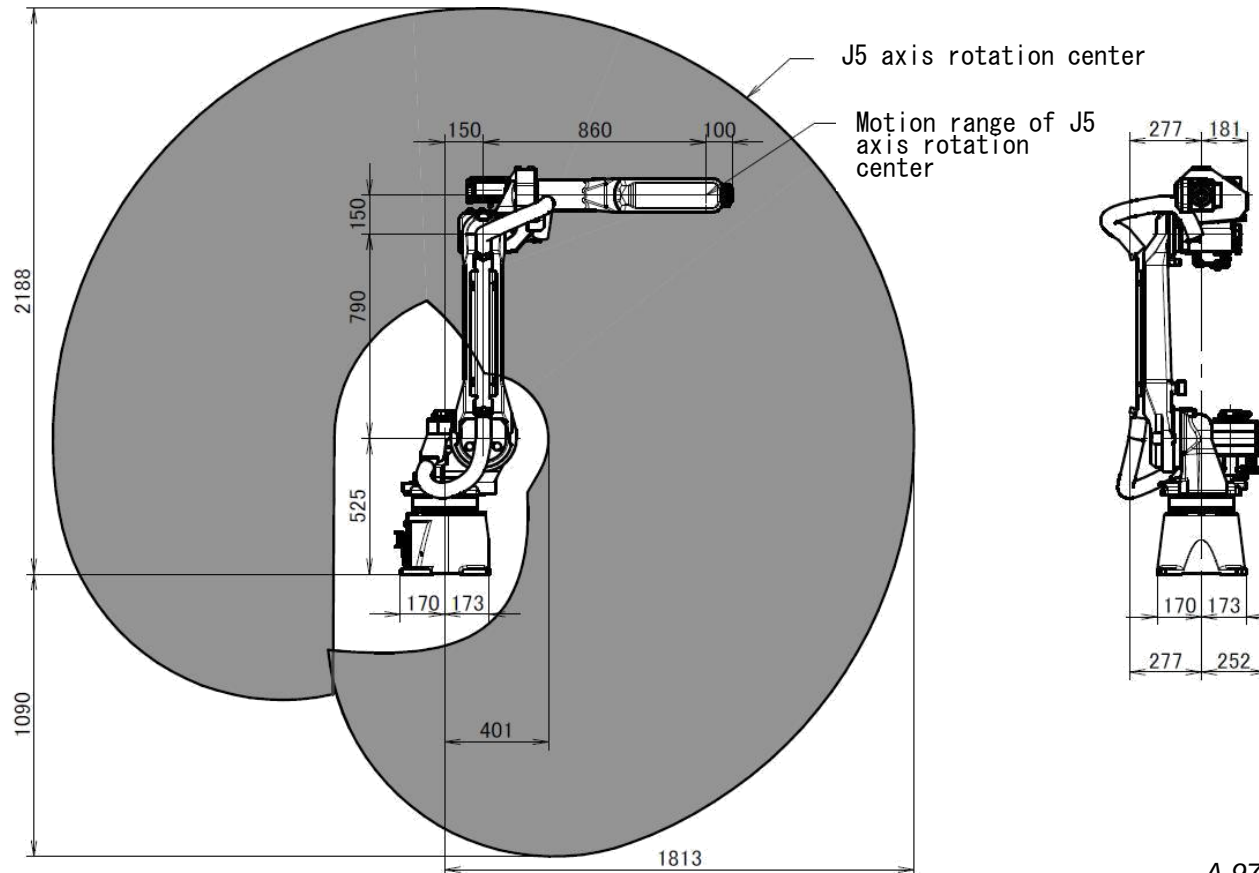
Machine Tending Cell

Outline

Same kinematics and same engineering with M-20*i*A/20M.

The interface of end effector mounting and robot installation are also same as M-20*i*A/35M.

Hand cable can be integrated to wrist unit by J4 through hole which is same to M-20*i*A/35M.



Specifications

Item	Specification	
Controlled axes	6 axes (J1, J2, J3, J4, J5, J6)	
Reach	1.81m	
Installation	Floor, upside-down, wall & angle mount	
Motion range (Maximum speed) (Note 1), (Note 2)	J1 axis rotation	340°/370°(Option) (180°/s) 5.93 rad/6.45rad(Option) (3.14 rad/s)
	J2 axis rotation	260°(180°/s) 4.54 rad (3.14 rad/s)
	J3 axis rotation	458°(200°/s) 8.00 rad (3.49 rad/s)
	J4 axis wrist rotation	400°(350°/s) 6.98 rad (6.11 rad/s)
	J5 axis wrist swing	280°(350°/s) 4.89 rad (6.11 rad/s)
	J6 axis wrist rotation	900°(400°/s) 15.71 rad (6.98 rad/s)
Max. load capacity at wrist	35kg	
Allowable load momen at wrist	J4 axis	110.0 Nm
	J5 axis	110.0 Nm
	J6 axis	60.0 Nm
Allowable load inertia at wrist	J4 axis	4.00 kgm ²
	J5 axis	4.00 kgm ²
	J6 axis	1.50 kgm ²
Repeatability	±0.08mm	
Mass (Note 3)	252kg	
Acoustic noise level	Less than 70dB	
Installation environment	Ambient temperature : 0 ~ 45°C Ambient humidity : Normally 75%RH or less (No dew nor frost allowed) Short term 95%RH or less (within one month) Vibration : 0.5G or less	

Note 1) In case of angle mounting, J1 and J2 axis motion range are restricted.

Note 2) In case of short distance motion, the axis speed doesn't reach maximum one.

Note 3) Without controller.