

FANUC Robot M-410*i*B



FEATURES

- M-410*i*B series are the intelligent palletizing robots which contribute for robotization of palletizing system.
- Suitable robot type can be selected according with workpieces.
 - FANUC Robot M-410*i*B/140H
140kg payload, high speed type
 - FANUC Robot M-410*i*B/160
160kg payload, high speed type
 - FANUC Robot M-410*i*B/300
300kg payload, heavy payload type
 - FANUC Robot M-410*i*B/450
450kg payload, heavy payload type
 - FANUC Robot M-410*i*B/700
700kg payload, extra heavy payload type
- Customer can use the latest intelligent function of *i*RVision and ROBOGUIDE.(option)
 - Detection of height of workpieces
 - Disquishment of a size or a kind
 - Visual inspection
 - Sorting of workpieces
 - Depalletizing the load on a received pallet
 - Easy to create a palletizing program
 - Motion optimization of a program

Application Examples



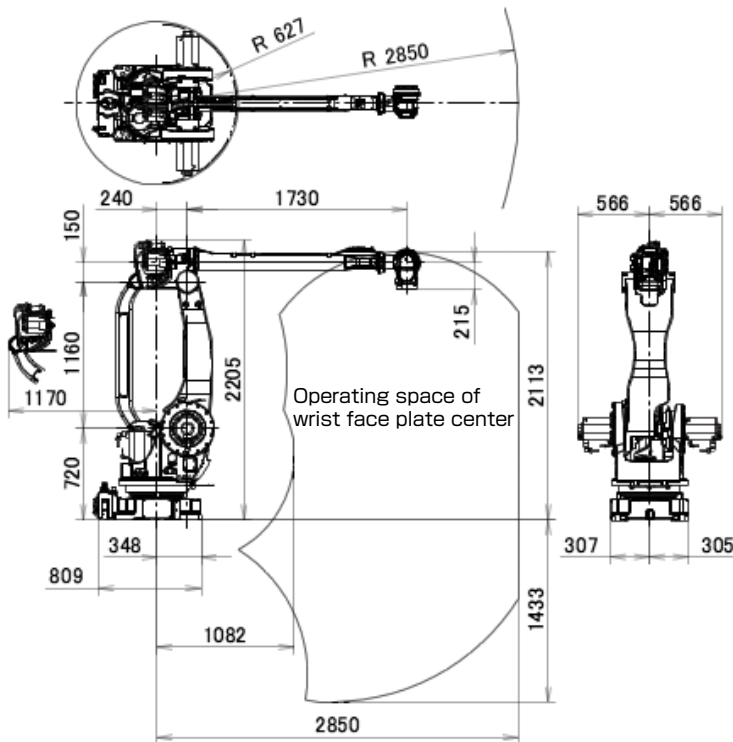
Boxes palletizing



Bags palletizing

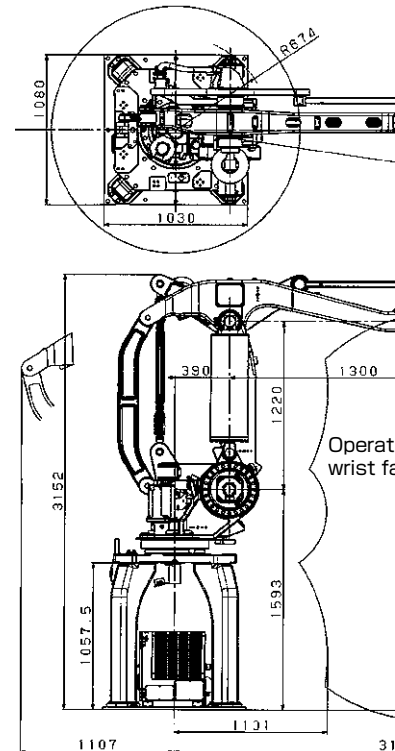
Operating space

M-410iB/140H



Operating space

M-410iB/160



Specifications

Model		M-410iB/140H
Type		Articulated Type
Controlled axes		5 axes (J1, J2, J3, J4, J5)
Reach		2850 mm
Installation		Floor
Motion range (Maximum speed) (Note1)	J1 axis rotation	360° (140° /s) 6.28 rad (2.44 rad/s)
	J2 axis rotation	155° (115° /s) 2.71 rad (2.01 rad/s)
	J3 axis rotation	112° (135° /s) 1.95 rad (2.36 rad/s)
	J4 axis wrist swing (Note2)	20° (135° /s) 0.35 rad (2.36 rad/s)
	J5 axis wrist rotation	720° (420° /s) 12.57 rad (7.33 rad/s)
	Max. load capacity at wrist	
Max. load capacity at J2 base		550 kg
Max. load capacity at J3 arm (Note3)		140 kg
Allowable load inertia at wrist	J4 axis	147 kg·m ² 1500 kgf·cm·s ²
	J5 axis	53 kg·m ² 540 kgf·cm·s ²
Drive method		Electric servo drive by AC servo motor
Repeatability (Note4)		± 0.05 mm
Mass (Note5)		1200 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) The wrist interface is always toward to down ward. The angle is variable up to 20 degrees width.

Note 3) Max. payload capacity at wrist are changed by wrist load.

Note 4) Compliant with ISO 9283.

Note 5) Without controller.

Specifications

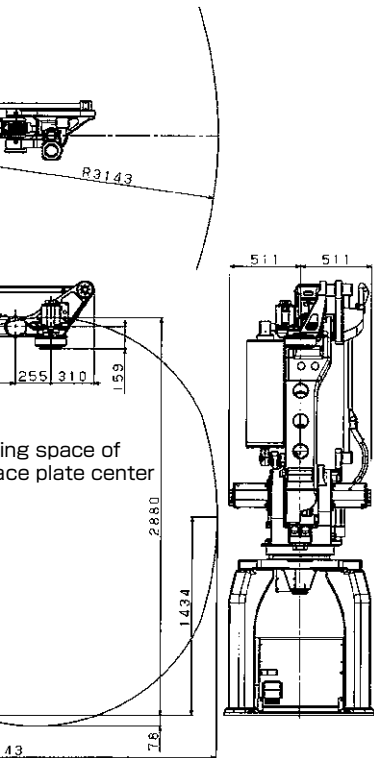
Model		M-410iB/160
Type		Articulated Type
Controlled axes		5 axes (J1, J2, J3, J4, J5)
Reach		2850 mm
Installation		Floor
Motion range (Maximum speed) (Note1)	J1 axis rotation	360° (140° /s) 6.28 rad (2.44 rad/s)
	J2 axis rotation	155° (115° /s) 2.71 rad (2.01 rad/s)
	J3 axis rotation	112° (135° /s) 1.95 rad (2.36 rad/s)
	J4 axis rotation	20° (135° /s) 0.35 rad (2.36 rad/s)
	J5 axis rotation	720° (420° /s) 12.57 rad (7.33 rad/s)
Max. load capacity at wrist		140 kg
Allowable load inertia at wrist		78 kg·m ²
Drive method		Elect
Repeatability		± 0.05 mm
Mass (Note2)		1200 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.

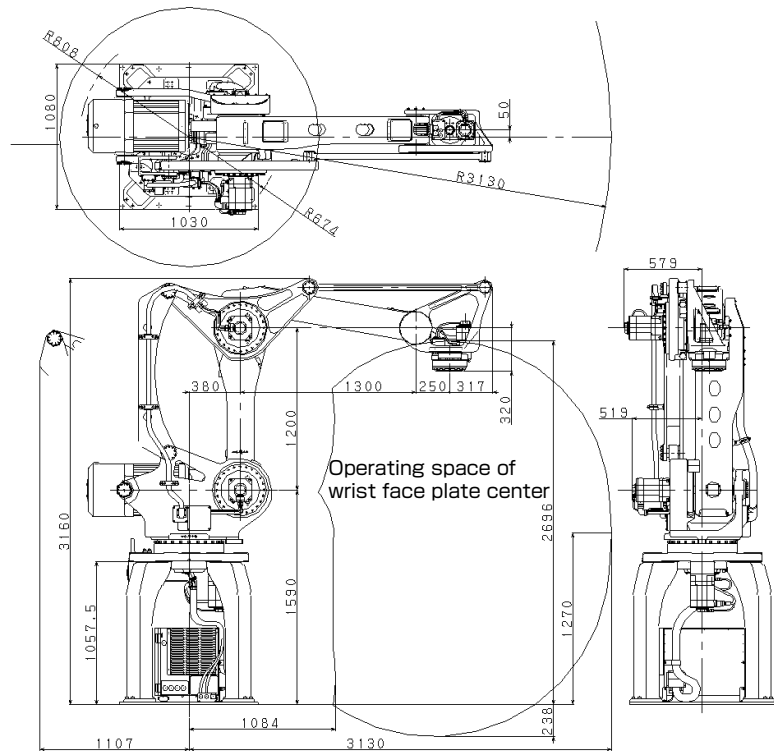
Note 2) Controller mass (120kg) is included.

Operating space

M-410iB/300



M-410iB/450



Specifications

M-410iB/160	M-410iB/300
Articulated Type	
4 axes (J1, J2, J3, J4)	
3143 mm	
Floor	
360° (130° /s)	360° (85° /s)
6.28 rad (2.27 rad/s)	6.28 rad (1.48 rad/s)
144° (130° /s)	144° (90° /s)
2.51 rad (2.27 rad/s)	2.51 rad (1.57 rad/s)
136° (135° /s)	136° (100° /s)
2.37 rad (2.36 rad/s)	2.37 rad (1.75 rad/s)
540° (300° /s)	540° (190° /s)
9.42 rad (5.24 rad/s)	9.42 rad (3.32 rad/s)
160 kg	300 kg
800 kgf·cm·s ²	137 kg·m ² 1400 kgf·cm·s ²
Electric servo drive by AC servo motor	
± 0.5 mm	
1940 kg	
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	

Axis speed may not reach the maximum value stated.

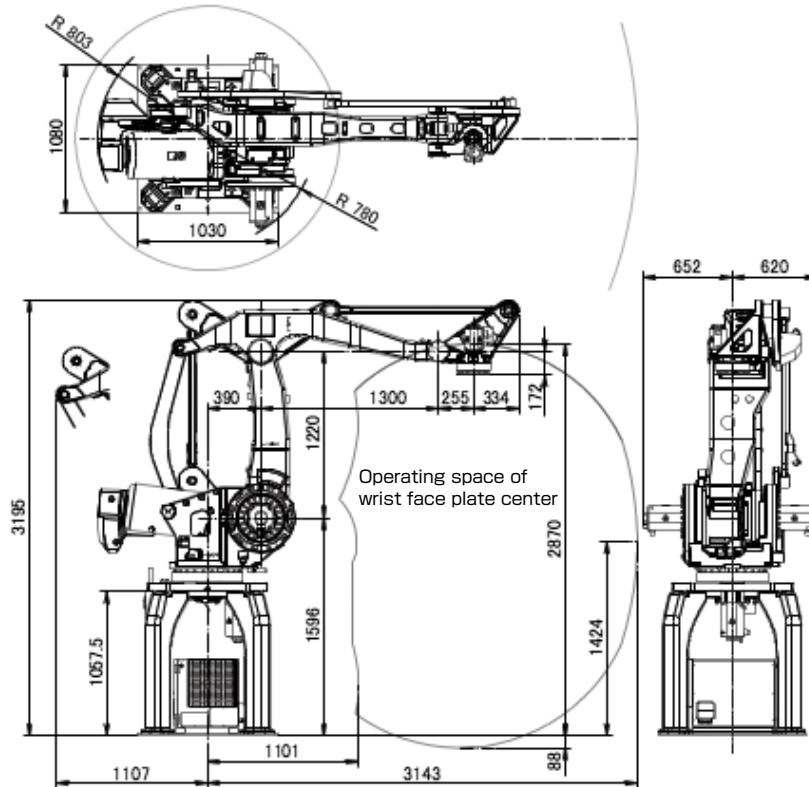
Model		M-410iB/450
Type		Articulated Type
Controlled axes		4 axes (J1, J2, J3, J4)
Reach		3130 mm
Installation		Floor
Motion range (Maximum speed) (Note 1)	J1 axis rotation	360° (70° /s) 6.28 rad (1.22 rad/s)
	J2 axis rotation	145° (70° /s) 2.53 rad (1.22 rad/s)
	J3 axis rotation	135° (70° /s) 2.36 rad (1.22 rad/s)
	J4 axis rotation	540° (180° /s) 9.42 rad (3.14 rad/s)
Max. load capacity at wrist		450 kg
Allowable load inertia at wrist		196 kg·m ² 2000 kgf·cm·s ²
Drive method		Electric servo drive by AC servo motor
Repeatability		± 0.5 mm
Mass (Note 2)		2430 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) Controller mass (120kg) is included.

Operating space

M-410iB/700



Specifications

Model		M-410iB/700
Type		Articulated Type
Controlled axes		4 axes (J1,J2,J3,J4)
Reach		3143 mm
Installation		Floor
Motion range (Maximum speed) (Note 1)	J1 axis rotation	360° (60° /s) 6.28 rad (1.05 rad/s)
	J2 axis rotation	144° (60° /s) 2.51 rad (1.05 rad/s)
	J3 axis rotation	136° (60° /s) 2.37 rad (1.05 rad/s)
	J4 axis rotation	540° (120° /s) 9.42 rad (2.09 rad/s)
Max. load capacity at wrist		700 kg
Allowable load inertia at wrist		490 kg·m ² 5000 kgf·cm·s ²
Drive method		Electric servo drive by AC servo motor
Repeatability (Note2)		± 0.05 mm
Mass (Note3)		2700 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) Controller mass (120kg) is included.

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RM-410iB(E)-09, 2018.4, Printed in Japan