# FANUC Robot M-4101C



# FEATURES

- M-410*i*C is an intelligent palletizing robot which contributes for robotization of palletizing system.
- Suitable robot models can be selected according with the work pieces.

-M-410*i*C/110 Payload 110kg -M-410*i*C/185 Payload 185kg -M-410*i*C/315 Payload 315kg -M-410*i*C/500 Payload 500kg

- M-410 $\dot{\imath}$ C/110 has a compact body and high throughput.
- M-410iC/185, /315 and /500 support two types of base.

### Pedestal type base :

The controller can be placed under the pedestal. It eliminates cabling at installation, and saves the installation space.

### Compact base :

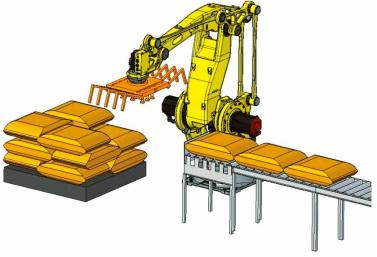
The base minimizes the robot maximum height. It is suitable for low ceiling location, or for integration into a manufacturing system.

- M-410*i*C/185, /315 and /500 have the hollow wrist that enables easy wiring to a gripper.
- Advanced intelligent functions are available as an option, such as iRVision (integrated vision).

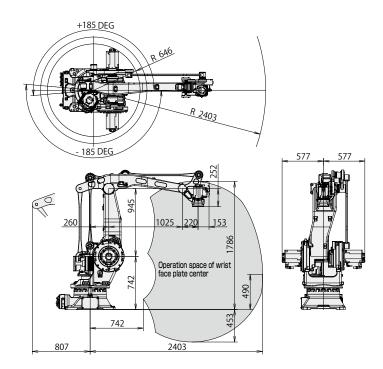
# **Application Examples**



**Boxes Palletizing** 



M-410*i*C/110

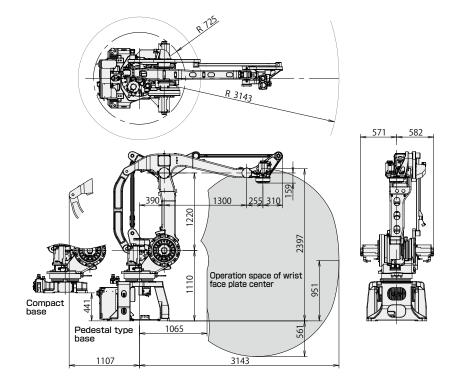


# Specifications

Model		M-410 <i>i</i> C/110	
Туре		Articulated Type	
Controlled axes		4 axes (J1,J2,J3,J4)	
Reach		2403 mm	
Installation		Floor	
Motion range (Maximum speed) (Note 1)	J1 axis rotation	370° (145°/s)	
		6.46 rad (2.53 rad/s)	
	J2 axis rotation	125° (130°/s)	
		2.18 rad (2.27 rad/s)	
	J3 axis rotation	140° (140°/s)	
		2.44 rad (2.44 rad/s)	
	J4 axis wrist rotation	720° (420°/s)	
		12.57 rad (7.33 rad/s)	
Max. load capacity at wrist		110 kg	
Max. load capacity at J2 base		550 kg	
Max. load capacity at J3 arm (Note 2)		30 kg	
Allowable load inertia at wrist		53 kg·m <sup>2</sup> 540 kgf·cm·s <sup>2</sup>	
Drive method		Electric servo drive by AC servo motor	
Repeatability (Note 3)		± 0.05 mm	
Mass		1030 kg (Note 4)	
Installation environment		Ambient temperature: 0 to 45°CAmbient 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/s² (0.56) or less	

Note 1) During short distance motions, the axis speed may not reach the maximum value stated. Note 2) Max. payload capacity at wrist are changed by wrist load. Note 3) Compliant with ISO 9283. Note 4) Controller mass (120kg) is not included.

M-410*i*C/185, /315

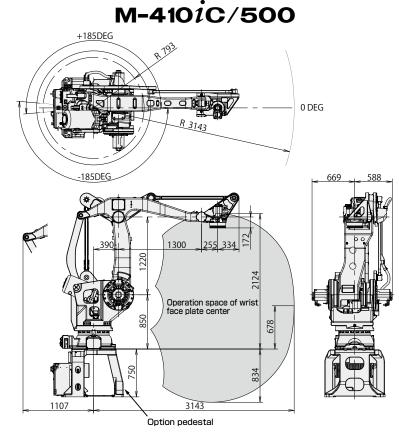


## **Specifications**

Model		M-410 <i>i</i> C/185	M-410 <i>i</i> C/315
Туре		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° (140°/s)	360° (90°/s)
		6.28 rad (2.44 rad/s)	6.28 rad (1.57 rad/s)
	J2 axis rotation	144º (140º/s)	144º (100º/s)
		2.51 rad (2.44 rad/s)	2.51rad (1.75 rad/s)
	J3 axis rotation	136º (140º/s)	136º (110º/s)
		2.37 rad (2.44 rad/s)	2.37 rad (1.92 rad/s)
	J4 axis wrist rotation	720° (305°/s)	720° (195°/s)
		12.57 rad (5.32 rad/s)	12.57 rad (3.40 rad/s)
Max. load capacity at wrist		185 kg	315 kg
Max. load capacity at J2 base		550 kg	
Max. load capacity at J3 arm (Note 2)		30 kg	
Allowable load inertia at wrist		88 kg·m <sup>2</sup> 898 kgf·cm·s <sup>2</sup>	155 kg·m <sup>2</sup> 1580 kgf·cm·s <sup>2</sup>
Drive method		Electric servo drive by AC servo motor	
Repeatability (Note 3)		± 0.05 mm	
Mass	Pedestal type	1600 kg (Note 4)	
	No pedestal	1330 kg (Note 5)	
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/s² (0.5G) or less	

Note 1) During short distance motions, the axis speed may not reach the maximum value stated. Note 2) Max. payload capacity at wrist are changed by wrist load. Note 3) Compliant with ISO 9283. Note 4) Controller mass (120kg) is included. Note 5) Controller mass (120kg) is not included.

## **Operating Space**



Specifications

Model		M-410iC/500	
Туре		Articulated Type	
Controlled axes		4 axes (J1,J2,J3,J4)	
Reach		3143 mm	
Installation		Floor	
Motion range (Maximum speed) (Note 1)	J1 axis rotation	370° (85°/s)	
		6.46 rad (1.48 rad/s)	
	J2 axis rotation	144° (85°/s)	
		2.51 rad (1.48 rad/s)	
	J3 axis rotation	136° (85°/s)	
		2.37 rad (1.48 rad/s)	
	J4 axis wrist rotation	720° (200°/s)	
		12.57 rad (3.49 rad/s)	
Max. load capacity at wrist		500 kg	
Max. load capacity at J2 base		550 kg	
Max. load capacity at J3 arm (Note 2)		30 kg	
Allowable load inertia at wrist		250 kg·m <sup>2</sup> 2550 kgf·cm·s <sup>2</sup>	
Drive method		Electric servo drive by AC servo motor	
Repeatability (Note 3)		± 0.05 mm	
Mass	Pedestal type	2410 kg (Note 4)	
	No pedestal	1910 kg (Note 5)	
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/s² (0.5G) or less	

Note 1) During short distance motions, the axis speed may not reach the maximum value stated.

Note 2) Max. payload capacity at wrist are changed by wrist load.

Note 3) Compliant with ISO 9283.

Note 4) Controller mass (120kg) is included. Note 5) Controller mass (120kg) is not included.



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