

FANUC Robot M-710*i*C

Features

The M-710*i*C is a medium payload robot with a wrist payload of 20, 50 or 70kg.

- Five models are available which can be used in a wide variety of applications.
 - **FANUC Robot M-710*i*C/50, /70**
Wide motion envelope and enough wrist load capacity to handle a large panel.
M-710*i*C/50 : Payload capacity 50kg
M-710*i*C/70 : Payload capacity 70kg
 - **FANUC Robot M-710*i*C/50S**
This model has a compact body that is suitable for narrow work environments. (Payload capacity 50kg)
 - **FANUC Robot M-710*i*C/20L**
Long reach and high motion performance make it suitable for various applications, such as material handling, sealing and arc welding. (Payload capacity 20kg)
 - **FANUC Robot M-710*i*C/50H**
This five-axes model is designed for the high speed transferring of parts. The ceiling mount option is ideal for compact handling systems. (Payload capacity 50kg)
- The full cover provides IP67-equivalent resistance to environmental conditions (dust and liquid). The M-710*i*C is reliable for various applications, such as load/unload for machined parts, de-burring and die cast loading.

Application system



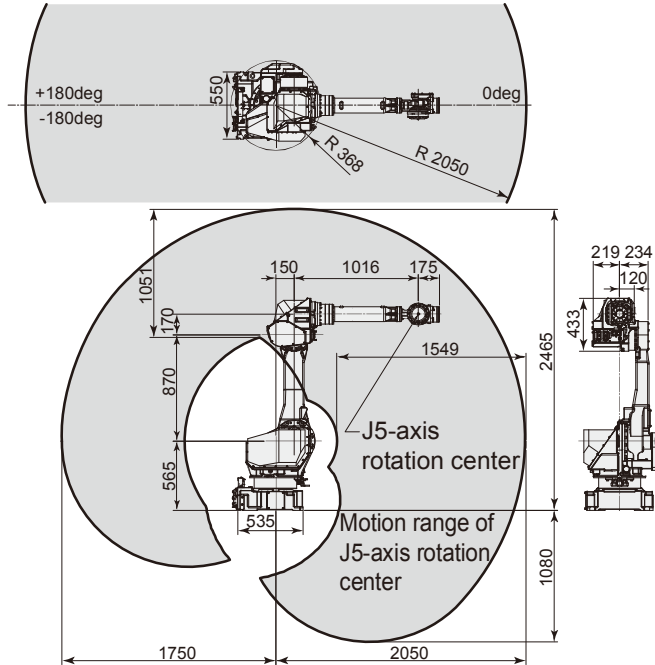
Bin picking of cylindrical parts



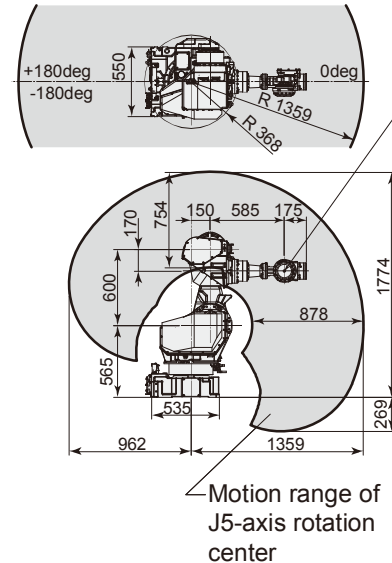
Car body sealing

FANUC Robot **M-710iC/50, /70, /50S, /20L**

Operating space (M-710iC/50, /70)



Operating space (M-710iC/50S)



Specifications

Item		Specification	
		M-710iC/50	M-710iC/70
Type		Articulated Type	
Controlled axes		6 axes (J1, J2, J3, J4, J5, J6)	
Reach		2.05m	
Installation (Note 1)		Floor, Upside-down, Angle mount	
Motion range (Maximum speed) (Note 2)	J1 axis rotation	360°(175°/s) 6.28 rad (3.05 rad/s)	360°(160°/s) 6.28 rad (2.79 rad/s)
	J2 axis rotation	225°(175°/s) 3.93 rad (3.05 rad/s)	225°(120°/s) 3.93 rad (2.09 rad/s)
	J3 axis rotation	440°(175°/s) 7.68 rad (3.05 rad/s)	440°(120°/s) 7.68 rad (2.09 rad/s)
	J4 axis wrist rotation	720°(250°/s) 12.57 rad (4.36 rad/s)	720°(225°/s) 12.57 rad (3.93 rad/s)
	J5 axis wrist swing	250°(250°/s) 4.36 rad (4.36 rad/s)	250°(225°/s) 4.36 rad (3.93 rad/s)
	J6 axis wrist rotation	720°(355°/s) 12.57 rad (6.20 rad/s)	720°(225°/s) 12.57 rad (3.93 rad/s)
Max. load capacity at wrist		50kg	70kg
Max. load capacity at J3 arm (Note 3)		15kg	
Allowable load moment at wrist	J4 axis	206 N·m 21 kgf·m	294 N 30 kgf·m
	J5 axis	206 N·m 21 kgf·m	294 N 30 kgf·m
	J6 axis	127 N·m 13 kgf·m	147 N 15 kgf·m
Allowable load inertia at wrist	J4 axis	28 kg·m ²	286 kgf·cm·s ²
	J5 axis	28 kg·m ²	286 kgf·cm·s ²
	J6 axis	11 kg·m ²	112 kgf·cm·s ²
Drive method		Electric servo drive by AC servo motor	
Repeatability		± 0.07 mm	
Mass (Note 4)		560 kg	
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 the angle mounting, the 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) Max. load capacity at J3 casting is limited by payload at wrist.

Note 4) Without controller.

Specifications

Item		Specification	
Type			
Controlled axes			
Reach			
Installation (Note 1)			
Motion range (Maximum speed) (Note 2)	J1 axis rotation		
	J2 axis rotation		
	J3 axis rotation		
	J4 axis wrist rotation		
	J5 axis wrist swing		
	J6 axis wrist rotation		
Max. load capacity at wrist			
Max. load capacity at J3 arm (Note 3)			
Allowable load moment at wrist	J4 axis		
	J5 axis		
	J6 axis		
Allowable load inertia at wrist	J4 axis		
	J5 axis		
	J6 axis		
Drive method			
Repeatability			
Mass (Note 4)			
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 the angle mounting, the J1 and J2 axis motion range are restricted.

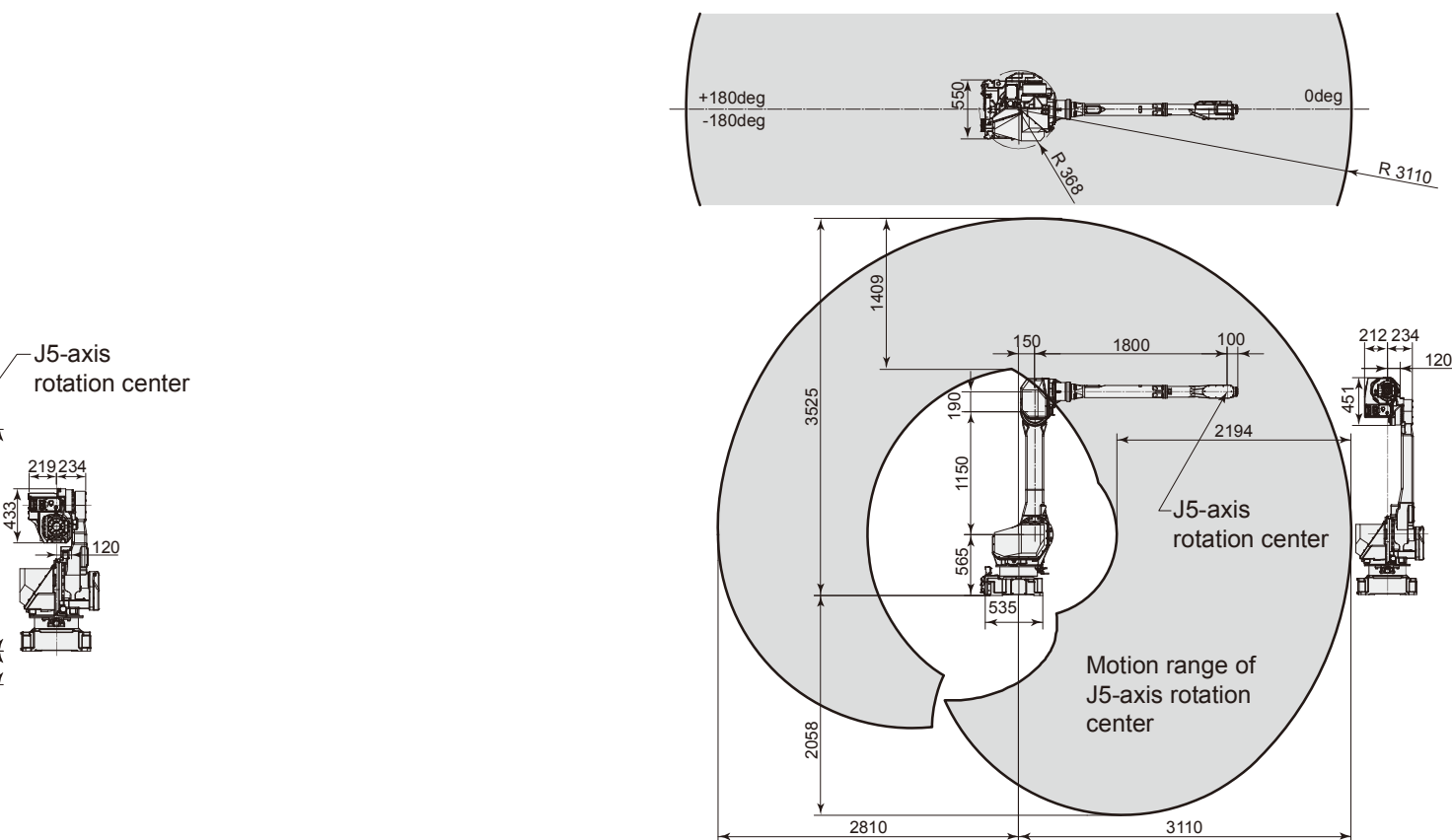
Note 2) In case of short distance motion, the axis speed doesn't reach maximum one.

Note 3) Max. load capacity at J3 casting is limited by payload at wrist.

Note 4) Without controller.

b)

Operating space (M-710iC/20L)



Specifications

Specification
M-710iC/50S
Articulated Type
6 axes (J1, J2, J3, J4, J5, J6)
1.36m
Floor, Upside-down, Angle mount
360°(175°/s)
6.28 rad (3.05 rad/s)
169°(175°/s)
2.95 rad (3.05 rad/s)
376°(175°/s)
6.56 rad (3.05 rad/s)
720°(250°/s)
12.57 rad (4.36 rad/s)
250°(250°/s)
4.36 rad (4.36 rad/s)
720°(355°/s)
12.57 rad (6.20 rad/s)
50kg
15kg
206 N·m 21 kgf·m
206 N·m 21 kgf·m
127 N·m 13 kgf·m
28 kg·m ² 286 kgf·cm·s ²
28 kg·m ² 286 kgf·cm·s ²
11 kg·m ² 112 kgf·cm·s ²
Electric servo drive by AC servo motor
± 0.07 mm
545 kg
Operating temperature : 0~45°C
Operating 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

Item	Specification
	M-710iC/20L
Type	Articulated Type
Controlled axes	6 axes (J1, J2, J3, J4, J5, J6)
Reach	3.11m
Installation (Note 1)	Floor, Upside-down, Angle mount
Motion range (Maximum speed) (Note 2)	J1 axis rotation
	360°(175°/s)
	6.28 rad (3.05 rad/s)
	J2 axis rotation
	225°(175°/s)
	3.93 rad (3.05 rad/s)
	J3 axis rotation
J4 axis wrist rotation	432°(180°/s)
	7.54 rad (3.14 rad/s)
	J5 axis wrist swing
	400°(350°/s)
J6 axis wrist rotation	6.98 rad (6.11 rad/s)
	280°(360°/s)
Max. load capacity at wrist	4.89 rad (6.28 rad/s)
	900°(600°/s)
Max. load capacity at J3 arm (Note 3)	15.71 rad (10.47 rad/s)
	20kg
Allowable load moment at wrist	24kg
	J4 axis
	39.2 N·m 4.0 kgf·m
Allowable load inertia at wrist	J5 axis
	39.2 N·m 4.0 kgf·m
	J6 axis
Drive method	19.6 N·m 2.0 kgf·m
	J4 axis
	0.88 kg·m ² 9.0 kgf·cm·s ²
	J5 axis
Repeatability	0.88 kg·m ² 9.0 kgf·cm·s ²
	J6 axis
	0.25 kg·m ² 2.5 kgf·cm·s ²
Mass (Note 4)	Electric servo drive by AC servo motor
	± 0.15 mm
	540 kg
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 the angle mounting, the 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) Max. load capacity at J3 casting is limited by payload at wrist.

Note 4) Without controller.

