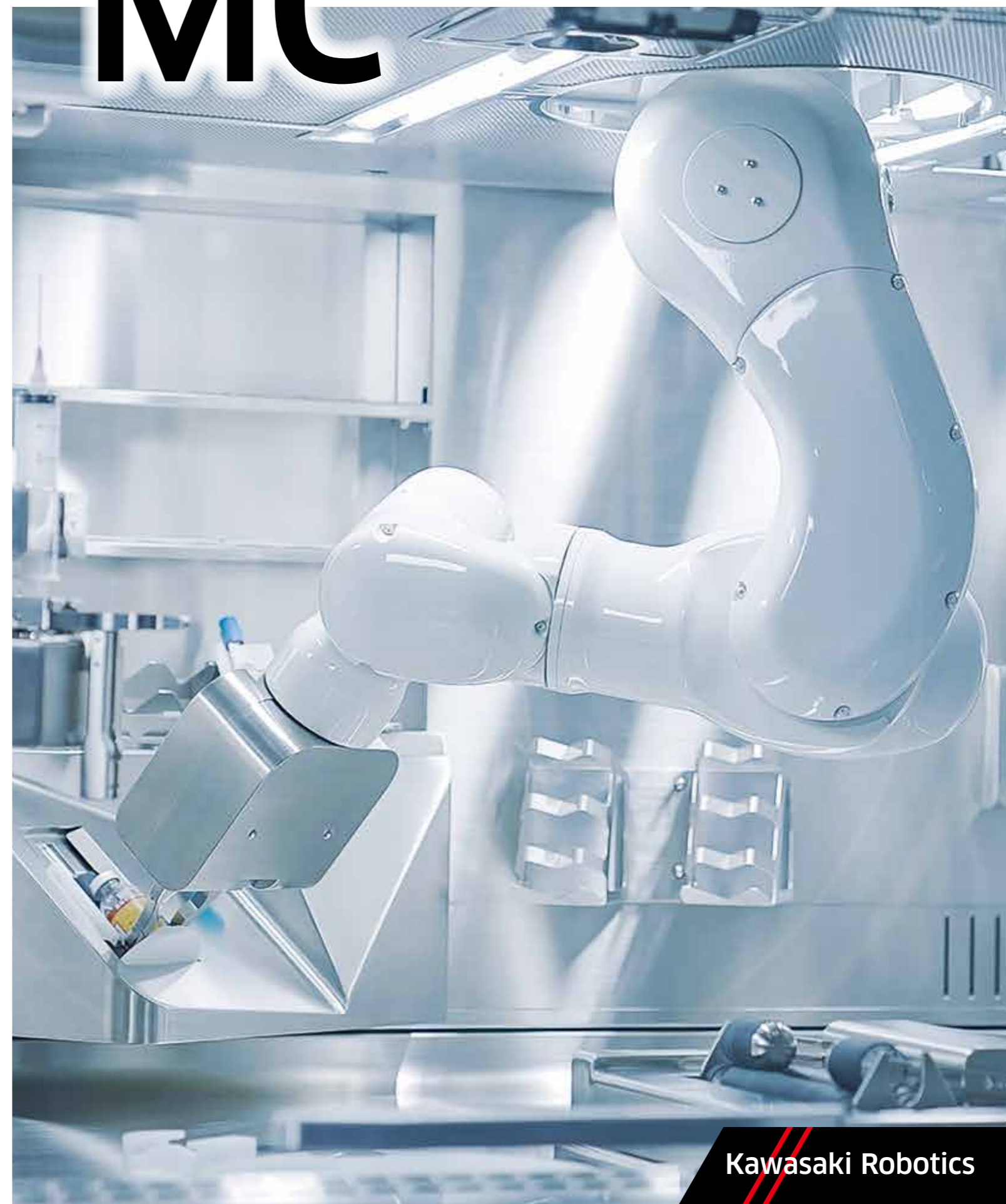


MEDICAL & PHARMACEUTICAL ROBOTS

MC Series



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Kawasaki Robotics website
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Kawasaki Robostage (showroom)
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CAUTIONS TO BE TAKEN TO ENSURE SAFETY

- For any persons involved with the operation / servicing of your system, including Kawasaki Robot, they must strictly observe all safety regulations at all times. Please carefully read the Manuals and other related safety documents.
- Products described in this catalogue are general industrial robots. Therefore, if a customer wishes to use the Robot for special purposes, which might endanger operators, or if the Robot has any problems, please contact us. We will be happy to help you.
- Please be careful as Photographs illustrated in this catalogue are frequently taken after the removal of safety fences and other safety devices stipulated in the safety regulations from the Robot operation system.

Medical and Pharmaceutical Robots

Robotics automation is required in the medical and pharmaceutical industries to avoid human errors, contamination and exposure risks to high potency active pharmaceutical ingredients such as anticancer drugs.

MC series

The streamlined arm with a special surface treatment is chemical-resistant, allowing for sterilization by VHP.

Features

- Hollow wrist for built-in cables and hoses.
- Compatible with ISO Class 5 (Fed-class 100) without vacuum piping.
- Special sealing material that enables sterilization by VHP. (MC004V/MC006V)
- Improved glossy plating, which offers a resistance to a wider range of chemicals. (MC006V)



[Applications]

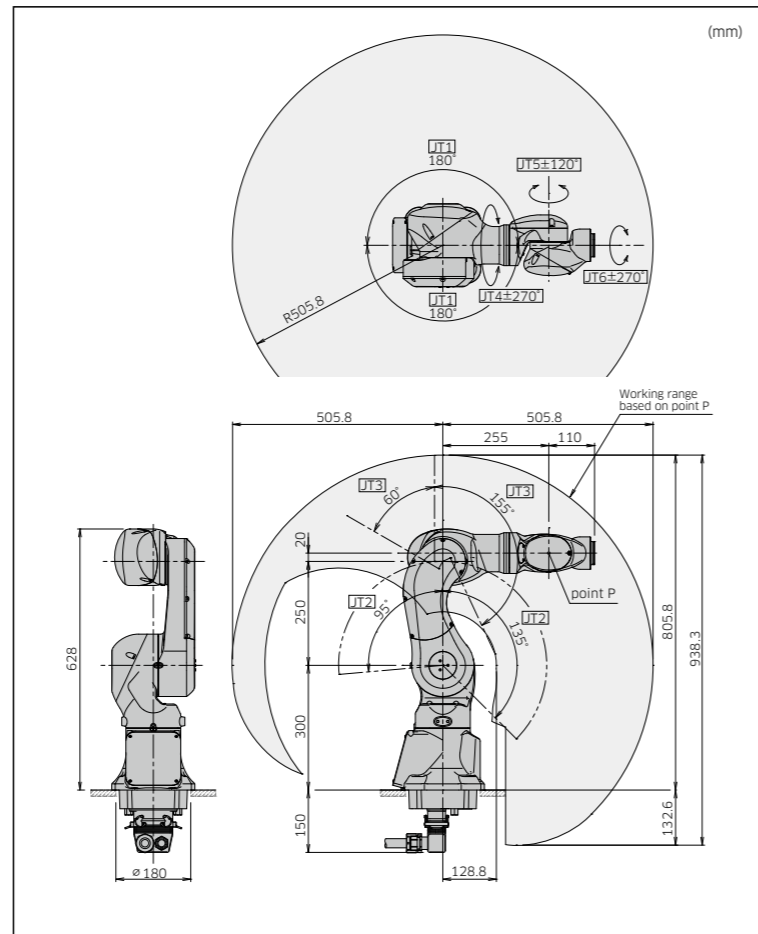


Pharmaceutical

MC004N / MC004V

Standard Specifications

Type	Articulated robot	
Degree of freedom (axes)	6	
Payload (kg)	4	
Max. reach (mm)	505.8	
Position repeatability*1 (mm)	±0.028	
Motion range (°)	Arm rotation (JT1)	±180
	Arm out-in (JT2)	+135 - -95
	Arm up-down (JT3)	+60 - -155
	Wrist swivel (JT4)	±270
	Wrist bend (JT5)	±120
	Wrist twist (JT6)	±270
Max. speed (°/s)	Arm rotation (JT1)	200
	Arm out-in (JT2)	180
	Arm up-down (JT3)	225
	Wrist swivel (JT4)	700
	Wrist bend (JT5)	500
	Wrist twist (JT6)	350
Allowable moment (N·m)	Wrist swivel (JT4)	8.5
	Wrist bend (JT5)	8.5
	Wrist twist (JT6)	4.0
Allowable moment of inertia (kg·m ²)	Wrist swivel (JT4)	0.2
	Wrist bend (JT5)	0.2
	Wrist twist (JT6)	0.1
Mass (kg)	25	
Mounting	Floor, Ceiling	
Installation environment	Ambient temperature (°C)	10 - 35
	Relative humidity (%)	35 - 85 (No dew, nor frost allowed)
Degree of protection*2	Wrist : IP67 or equivalent Base axes : IP65 or equivalent	
Controller/Power requirements	F60/2.0kVA	



*1: Conforms to ISO9283
*2: The flange must be closed in case of using the built-in piping.
*3: Special sealing material that enables sterilization by VHP. (MC004V)

F60

Features

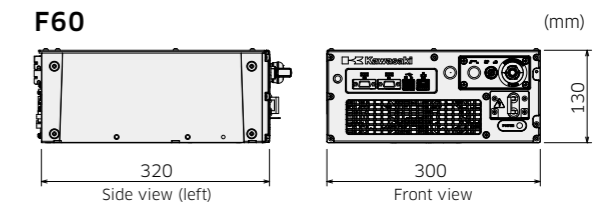
- Universal controller has common specifications to be used worldwide.
- Drastic downsizing has achieved very compact dimensions and light weight (8.3kg). It is easy for a person to carry the controller.

Standard Specifications

Dimensions (mm)	W300×D320×H130	
Type	Open type indirect cooling system (IP20 or equivalent)	
Controlled (axes)	6	
Memory capacity (MB)	16	
I/O signals	External operation	Motor power off, Hold
	Input (Channels)	16
	Output (Channels)	16
Cable length	Teach pendant (m)	5
	Robot-controller (m)	5
Mass (kg)	8.3	
Power requirements	AC200 - AC230V ±10%, 50/60Hz, 1Φ Max. 2.0kVA	
Installation environment	Ambient temperature (°C)	0 - 45
	Relative humidity (%)	35 - 85 (No dew, nor frost allowed)
Teach pendant	TFT color LCD display with touch-panel, E-Stop switch, Teach lock switch, Enable switch	
Operation panel	E-stop switch, teach/repeat switch	



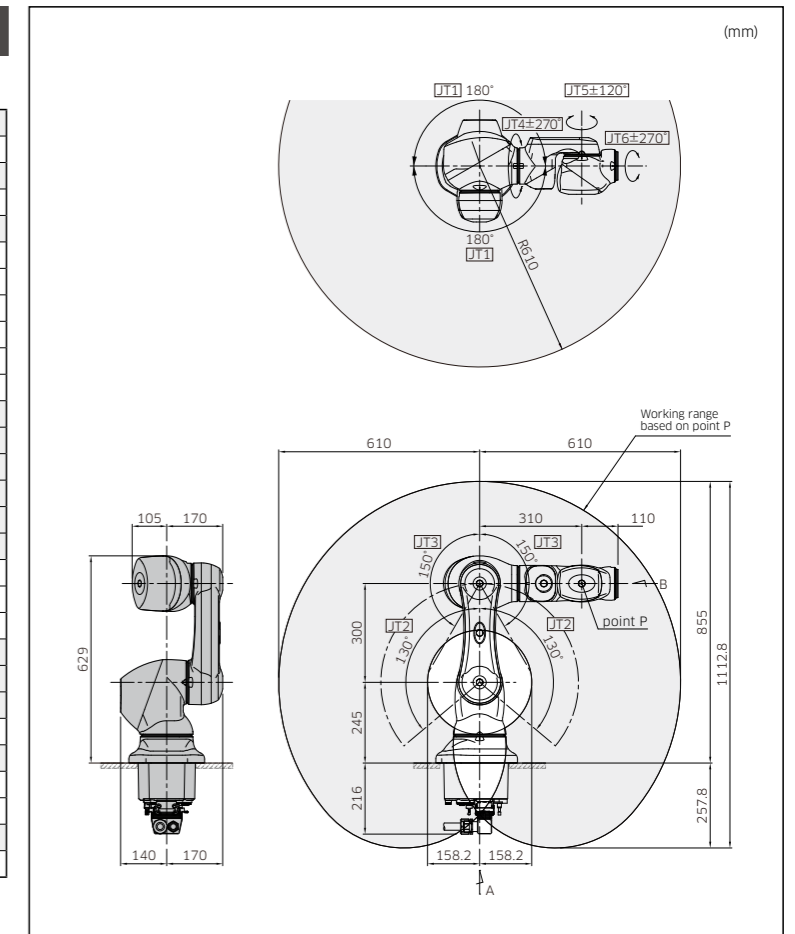
External view and dimensions



MC006V

Standard Specifications

Type	Articulated robot	
Degree of freedom (axes)	6	
Payload (kg)	6	
Max. reach (mm)	610	
Position repeatability*1 (mm)	±0.3	
Motion range (°)	Arm rotation (JT1)	±180
	Arm out-in (JT2)	+130
	Arm up-down (JT3)	+150
	Wrist swivel (JT4)	±270
	Wrist bend (JT5)	±120
	Wrist twist (JT6)	±270
Max. speed (°/s)	Arm rotation (JT1)	400
	Arm out-in (JT2)	300
	Arm up-down (JT3)	420
	Wrist swivel (JT4)	450
	Wrist bend (JT5)	450
	Wrist twist (JT6)	700
Allowable moment (N·m)	Wrist swivel (JT4)	13.0
	Wrist bend (JT5)	13.0
	Wrist twist (JT6)	7.0
Allowable moment of inertia (kg·m ²)	Wrist swivel (JT4)	0.5
	Wrist bend (JT5)	0.5
	Wrist twist (JT6)	0.2
Mass (kg)	44	
Mounting	Floor, Ceiling, Wall	
Installation environment	Ambient temperature (°C)	10 - 35
	Relative humidity (%)	35 - 85 (No dew, nor frost allowed)
Degree of protection*2	IP67 or equivalent	
Controller/Power requirements	F60/2.0kVA	



*1: Conforms to ISO9283
*2: The flange must be closed in case of using the built-in piping.
*3: Special sealing material that enables sterilization by VHP.