# FANUC Robot M-31A



#### **FEATURES**

FANUC Robot M-3iA is a large-sized parallel link robot for high speed picking and assembly.

The exclusive 6 axes type of parallel link robot expanded robotization of transferring and assembling application.

- Three models are available to meet a variety of applications.
  - FANUC Robot M-3iA/6S
     Total 4 axes robot including single axis rotation at wrist.
     The maximum payload is 8kg (option), suitable for high speed arranging and handling of multi work pieces at the same time on the conveyer.
  - FANUC Robot M-3iA/6A
     Total 6 axes robot including three rotation axes at wrist.
     This model can change wrist direction freely and suitable for assembling application.
  - FANUC Robot M-3*i*A/12H

    Total 3 axes and 12kg payload robot without rotation axes at wrist. This model is suitable for high speed picking of plenty work pieces on the conveyor.
- IP67 of enclosed mechanical unit realized reliable water and dust proof ability.
- Food adaptation option is available that adopts suitable material, high durability surface treatment and food grade lubricant. It will progress robotization of food market.
- Various intelligent functions are available, such as iRVision (integrated vision) and iRPickTool.

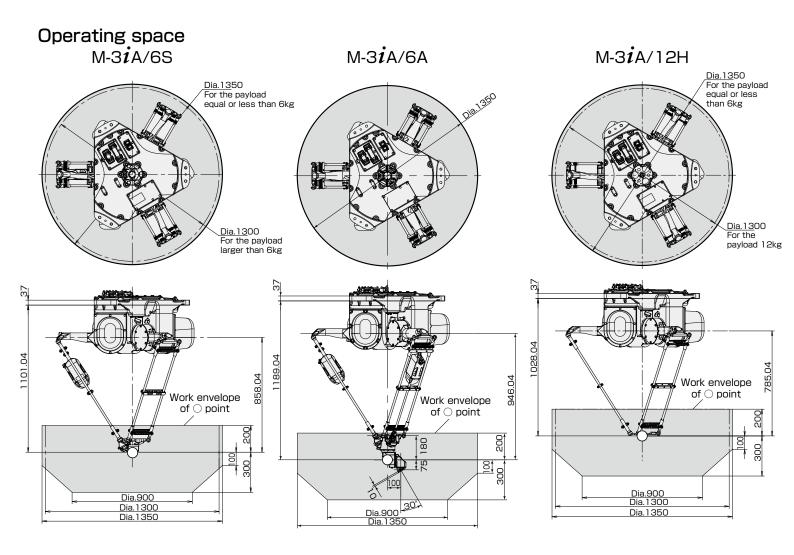
## Application Examples



Standing the bottles by M-3*i*A/6A



High speed arranging the foods by M-31A/6S



### **Specifications**

Model	M-3 <i>i</i> A/6S	M-3 <i>i</i> A/6A	M-3 <i>i</i> A/12H
Type	Parallel link mechanism		
Controlled axes	4 axes (J1, J2, J3, J4)	6axes (J1, J2, J3, J4, J5, J6)	3axes (J1, J2, J3)
Installation	Ceiling mount		
Motion range J1-J3	Diameter 1,350 mm, height 500 mm Note 4)		
(Maximum speed)	720° (4000°/s) 12.57 rad (69.81 rad/s)	720° (2000°/s) 12.57 rad (34.90 rad/s)	_
	_	300° (2000°/s) 5.24 rad (34.90 rad/s)	_
	-	720° (2000°/s) 12.57 rad (34.90 rad/s)	_
Max.payload at wrist	6 kg (8 kg with an option)	6 kg	12 kg
Repeatability Note2)	±0.03 mm		
Drive method	Electric servo drive by AC servo motor		
Mass Note3)	160 kg	175 kg	155 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: 4.9m/s²(0.5G) or less			

- Note 1) During short distance motions, the axis speed doesn't reach maximum one.
- Note 2) Compliant with ISO9283.
- Note 3) Without controller.
- Note 4) For M-3iA/6S and M-3iA/12H, in case the payload is larger than 6 kg, there is a limitation on the work envelope.

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