# FANUC Robot M-21A

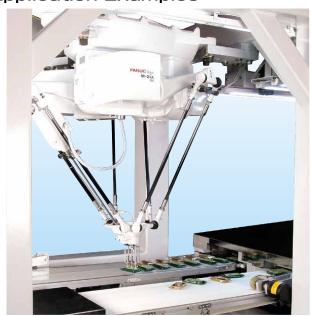


### Application Examples

# FEATURES

FANUC Robot M-2*i*A is a medium-sized parallel link robot for high speed picking and assembly.

- Six models are available to meet a variety degree of freedom at wrist and operating space.
  - FANUC Robot M-2*i*A/3A, M-2*i*A/3AL Using 3 axes at wrist, this model is suitable for complicated task, for example, arranging and assembling operations which need to change posture freely.
  - FANUC Robot M-2iA/3S, M-2iA/3SL Using single axis rotation at wrist, this model is suitable for high speed picking of plenty work pieces on the conveyor while aligning direction of each work piece.
  - FANUC Robot M-2*i*A/6H, M-2*i*A/6HL It is a total 3 axes robot without rotation axis at wrist with 6kg payload. This model is suitable for high speed picking of work pieces.
  - Among above six models, M-2iA/3AL, M-2iA/3SL and M-2iA/6HL cover wider operating area with its longer arm.
- Withstand a high pressure stream cleaning with IP69K of enclosed mechanical unit.
- Food option is available with appropriate materials and surface treatment for food sanitation as well as food grade grease. It contributes to the automation in the food market.
- Various intelligent functions are available, such as tRVision (integrated vision) and tRPickTool.



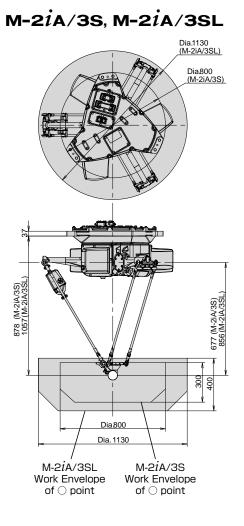
Fast arranging of food by M-2iA/3S



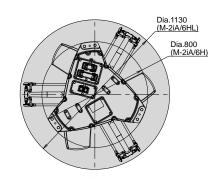
Fast packaging of gift box by M-2iA/3A

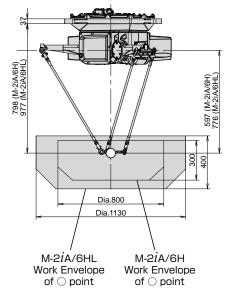
### **Operating space** M-2iA/3A, M-2iA/3AL

# Dia. 1130 (M-2iA/3AL) Dia 800 (M-2iA/3A) (M-2iA/3A) (M-2iA/3AL) (M-2iA/3A) (M-2iA/3AL) 930 109 729 908 300 400 Dia. 800 Dia. 1130 M-2iA/3AL M-21A/3A Work Envelope Work Envelope of $\bigcirc$ point of $\bigcirc$ point



## M-21A/6H, M-21A/6HL





#### Specifications

| Model                                      |       | M-21A/3A, M-21A/3AL Note 4)  | M-21A/3S, M-21A/3SL Note 4)           | M-21A/6H, M-21A/6HL Note 4) |
|--|-------|--|---------------------------------------|-----------------------------|
| Туре                                       |       | Parallel link mechanism  |                                       |                             |
| Controlled axes                            |       | 6 axes (J1, J2, J3, J4, J5, J6)  | 4 axes (J1, J2, J3, J4)               | 3 axes (J1, J2, J3)         |
| Installation                               |       | Ceiling mount  |                                       |                             |
| Motion range<br>(Maximum speed)<br>Note 1) | J1-J3 | Diameter 800 mm, height 300 mm (Note4 Diameter 1130 mm, height 400 mm)   |                                       |                             |
|  | J4    | 720° (1700°/s) 12.57 rad (29.67rad/s)  | 720° (3500°/s) 12.57 rad (61.06rad/s) | -                           |
|  | J5    | 300° (1700°/s) 5.24 rad (29.67rad/s)   | -                                     | _                           |
|  | J6    | 720° (1700°/s) 12.57 rad (29.67rad/s)  | -                                     | -                           |
| Max. payload at wrist                      |       | 3 kg   | 3 kg                                  | 6 kg                        |
| Repeatability Note 2)                      |       | ± 0.03 mm  |                                       |                             |
| Drive method                               |       | Electric servo drive by AC servo motor   |                                       |                             |
| Mass Note 3)                               |       | 140 kg   | 130 kg                                | 125 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 : 4.9 m/s² (0.5G) or less |                                       |                             |

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

Note 2) Compliant with ISO9283.

Note 3) Without controller.

Note 4) For long arm specification (M-21A/3AL, M-21A/3SL, M-21A/6HL).

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