

FOOD-GRADE ROBOTS

FANUC
Robotics

Basic Description

Based on 15 years of experience in the food market, FANUC Robotics is proud to introduce the latest generation of Food-Grade Robots developed to meet the stringent requirements of the food industry. This category features an enclosed rust-free construction that can withstand sanitizers used in the food industry and prevents food contamination.

The LR Mate® 200iB/5WP Food Robot is the latest in the popular LR Mate series of mini robots, which has an installed base of over 10,000 units worldwide.

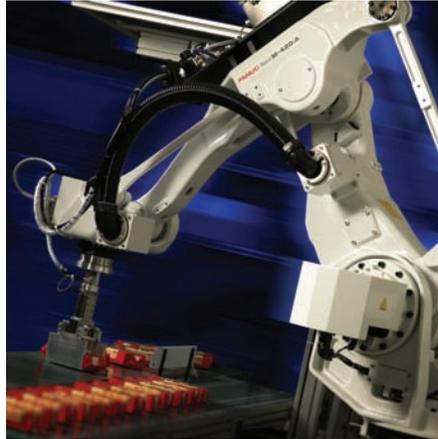
The M-420iA™ Food Robot is similar to the standard M-420iA and is a four-axis, modular construction, electric servo-driven robot designed for high-speed packing and material handling solutions. It is designed for a payload of 40 kg.

The Solutions for:

- High Speed Picking
- High Speed Packing
- Kitting
- Assembly
- Transfer
- Handling

Industries served

- Bakery
- Bottling/Beverages
- Confectionaries
- Dairy
- Fast Food/Snacks
- Produce
- Meat
- Stand-up pouches, sachets, pillow style pouches



Features and Benefits

- Ability to withstand chemical sanitizers (Chlorine and Quaternary Ammonia based) with water rinse and industry accepted cleaning methods.
- Use of food-grade grease eliminates the possibility of food contamination.
- Designed with no moisture retention areas, electroless nickel plating, aluminum casted motor covers, teflon gaskets for covers, fluorine rubber oil seals to eliminate rusting, resist bacteria growth and also make the robot easy to clean.
- Paint/Coating on the robots is USDA-certifiable.
- Mechanical unit is rated IP67 (entire LR Mate robot) or IP65 (entire M-420iA robot).
- Highly reliable robots at 62,000 hours MTBF.

- FANUC iRVision® visual tracking products provide the ability to pack randomly-oriented products that can be moving on a conveyor at high speed.
- Stainless steel plate covers and air-purge kit to purge the mechanical unit with low pressure air for waterproof performance (LR Mate).

Options

- M420iA high-speed wrist option; wrist speed increases from 350 to 720 degree/s for applications that require high-speed wrist motions. Maximum payload decreases from 40 kg to 30 kg.
- Available with one-phase 110V/220V options (LR Mate Food Robot).
- High-duty option (LR Mate).

Note: LR Mate® and iRVision® are registered trademarks of FANUC LTD.

FANUC Robotics' proposed procedure to clean food-handling (non-processing) equipment:

1. When the food-processing equipment around the robot is cleaned with strong acid/alkali agents, the robot must be covered with a protective bag to prevent spills of acid/alkali agents. However, it is expected that occasional spills or overspray of Blitz-Blue (pH 12.2 of 1% solution) or Litalox LF-Red (pH 1.9 of 1% solution) may occur. In that case, the customer is required to wash the spills/overspray immediately.
2. Perform cleaning of large, incidental food soils with a towel. Some neutral detergent cleaner may be used to remove greasy soils.
3. Spray with water.
4. Use hand-spray bottle to apply neutral sanitizer (Examples: Geron IV with pH 7.1 of Quaternary Ammonium Chlorides, or AFCO4312 - Vigilquat pH 6.7. Solution of 0.25-.68 oz. (8-20mL) of AFCO4312 per one gallon of water (3.8L)).
5. Rinse with water and air dry the robot.

The procedure can be performed daily on the Food Robot, but usually is done once per week.



Sanitizers approved for use on the Food Robot

Chemical Sanitizer	Commercial name ¹	Allowed
Quaternary Ammonium Chloride	GERON-IV, Vigilquat-4312, Ster-Bac®	Yes
Chlorine Based Sanitizer (12% Sodium Hypochlorite)	REG 13, Chlorilizerplus-0251, XY-12	Yes

¹ Contact FANUC Robotics to inquire about chemicals used at your facility.

Please refer to the LR Mate Series or M-420iA datasheets for further details.



Intelligent Robot Solutions



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