



for a greener tomorrow



# MITSUBISHI SOLUTIONS

## Rotary Bottle Filling Machine



### TYPICAL USE CASES

Bottling filling machines can be used for the following applications:

- Water bottle filing
- Dry food bottle filing
- Lotion bottle filing
- Beer bottle filing

### OVERVIEW

There are four core demands that are most important for bottling filling machines – speed, accuracy, synchronization, and flexibility. The Mitsubishi Electric smart machine solution facilitates interactions between operators and machines, while providing solid recipe options changeover which shortens machine downtime. Advanced motion control ensures fantastic performance of the machine, and intelligent electronic camming provides high precision at a fast feed rate when this application is running.

# Rotary Bottle Filling Application Guide

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## MITSUBISHI SOLUTION

**PLC:** iQ-R Series

**Motion Control:** RD77GF Simple Motion

**HMI:** GT27 Series

**Network:** CC-Link IE Field

**Pump:** FR-A800 Series

**Conveyors:** FR-A800 Series

**Turret:** MR-J4-GF Series

**Bottle elevators:** MR-J4-GF Series  
(Inlet, outlet star wheels: MR-J4-GF Series)

## KEY PRODUCT ATTRIBUTES

- Advanced servo tuning
- Seamless connectivity
- Highly integrated PLC, HMI, motion controls
- Remote monitoring with security

## THE BOTTOM LINE

- 20% reduced wiring setup time (plug and play wiring)
- Less machine downtime
  - No hassle from noise interruption
- Less development time
  - User-friendly HMI screens monitor servo amplifier alarms
  - Integrated PLC and motion programming
- Less maintenance time
  - Real-time machine analysis
  - Predictive maintenance function
  - Accurate and sufficient production and diagnosis information
  - Adjust servo amplifier parameters from HMI
- Prevent untimely shutdown
  - Monitor mechanical degradation
  - Backup/restore PLC program, VFD and servo parameters from HMI
  - Remotely check machine status while machine is operating
- Handle multiple products and bottle formats
  - Touchscreen recipe control
  - Rapid changeover
- Industry-leading motion and servo features
  - Advanced servo tuning function for optimized mechanism performance
  - Synchronization with high speed and accurate position
- Streamlined packaging line
  - Machine to machine communication with upstream and downstream processes
  - Comply with reporting regulations
  - Transfer data to upper level IT network
- Reduced operating and support costs
  - Reduce travel and support expenses
  - Reduced MTTR (Mean Time to Repair)

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