



Application - Robotic Palletizing

Cases | Bags | Rolls | Flat Material | Unitizing | Depalletizing

Level 4 Certified Servicing Integrator

We provide innovative robotic solutions from concept to install and 24/7 service and support for complete customer satisfaction.



A flexible palletizing system increases throughput and reduces costs. Motion Controls Robotics develops robotic palletizing systems that are highly reliable, flexible enough to handle various configurations, and allow for process adjustments on-the-fly.

Each palletizing application is custom designed to take into account the customer's process - considering options such as pallet size, tier sheets, inserts, top frames, and product order. Many of MCRI's palletizing systems are conveniently combined with pick and place applications to automate an entire end of line process.

"The almost infinite flexibility we have on this robot cell comes with minimal additional maintenance costs and enables us to react quickly to case size requests without the worry of increased labor. Perfect for anyone with a wide-variety portfolio."

~Manufacturing Engineer
Palletizing Customer

Palletizing Robots

FANUC America offers a variety of robots for palletizing applications. Palletizing robots generally are 4 or 5 axis with a variety of reach and payload options for the specific job.

FANUC Robots	payload	reach
M410 series	up to 700 KG	up to 3143 mm
R2000 series	up to 250 KG	up to 3500 mm
R1000 series	up to 100 KG	2230 mm
M710 series	up to 70 KG	up to 3123 mm

* Chart includes commonly used robots. Contact MCRI for the full range of hundreds of FANUC robots available for all your palletizing needs.



Applications

Case Palletizing/Depalletizing – single or mixed case palletizing systems that are easy-to-use and decrease costs with reductions in labor, ergonomic injuries and floor space.



Robotic Palletizing

Bag Palletizing/Depalletizing – Bags can be very heavy and awkward. Many companies have found automating bag palletizing is the best choice for employee safety.

Unitizing – Application perfect for distribution and warehousing where products need to be individually picked and palletized.

Freezer Palletizing/Depalletizing – Ceiling or floor mounted robot on a rail for flexibility in removing or adding items to a freezer area.

Roll Palletizing – Automation improves quality control of rolled product versus manual palletizing or hard automation.

Heavy/Bulky Material Palletizing/Depalletizing – This applies to items such as bricks, cement blocks, and panel stacking of boards, insulation, or cement.



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Custom Designed End of Arm Tooling



Watch Videos

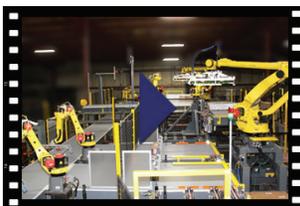
Click on images to watch videos



Multi-line & Sort Palletizing



Flexible Robotic Palletizer



Fully Automated System

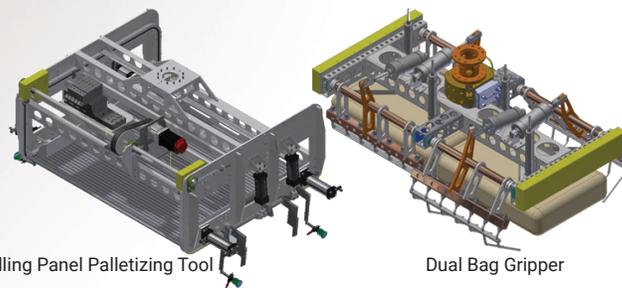
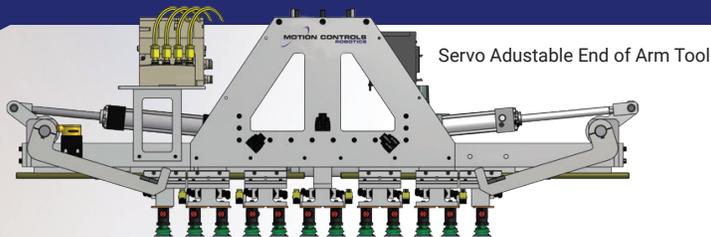


Full Layer Palletizing

End of arm tooling is an essential, custom designed solution of any robot system. Many times the final gripper design includes more than one type of gripper to meet all the needs of the application.

Gripper Types:

- Vacuum
- Mechanical
- Magnetic
- Servo
- Air flow



Benefits of Robotic Palletizing

Easy to use

- Intuitive operation with pattern teaching
- Operator pendant for recipe adjustments and error reporting
- Fixed and flexible end of arm tools with proven designs
- On-the-fly process adjustments
- Recipe keeps part data such as product size, packing pattern, place locations, and vacuum pattern

Increased throughput

- High reliability and uptime 80,000 hours mean time between failures
- High cycle rates up to 28 strokes per minute

Reduced costs

- Robotic palletizing reduces worker compensation costs
- Reduced floor space requirements

Flexible and precise

- Handles various stack patterns
- PalletPRO™ software allows easy creation of new patterns as well as modifications to existing patterns
- Quick changeover using adjustable tooling and stored recipe



Keeping Manufacturers Competitive with Quality Robotic Solutions

Robotic Palletizing