

Pick & Place Robotic Solutions

Complete automation for advanced high speed packaging machines



Extremely flexible architecture
Improve production capabilities
Quick Return On Investment

Pick & Place Solutions

A strong **focus** on Pick & Place applications: With 50 years **experience of automating** packaging machines combined with the **passion** of our specialised teams, we have developed the most integrated automation platform with robotic functionality.

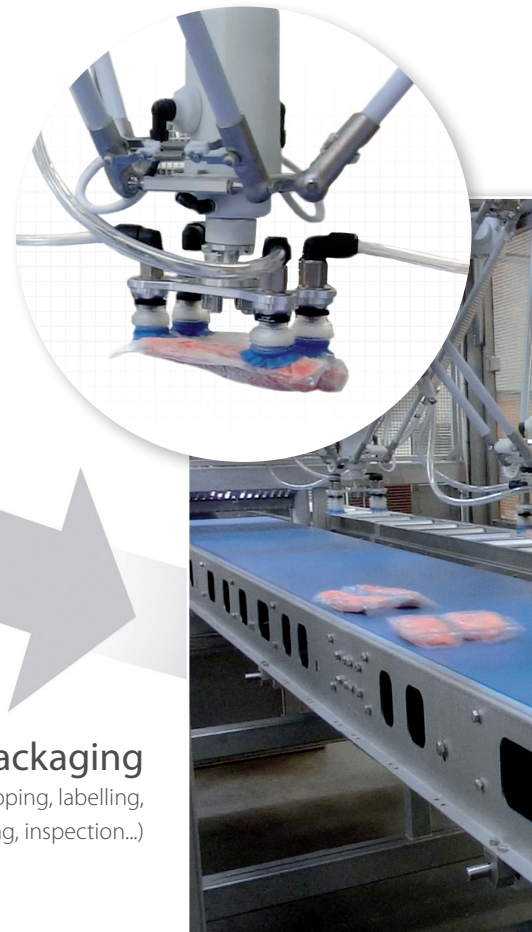
Our Sysmac robotic solution provides flexibility to the machine user, changing the setup with just “one click” to suit multiple product formats. Also the new solution is centred on the **fastest robotics technology** available, the **Delta robot**. It allows you to achieve very high throughput, each robot handling over 100 operations per minute, and up to eight robots connected to one controller. This performance will significantly increase your production capability to levels never before reached.

Manufacturing process

(Fresh food, dry & snack foods, bakery & biscuits, beverage...)



Management of different products:
Able to handle profiles with irregular
surfaces



Scalable solutions to cover the **entire packaging process** - for many different product formats.

Omron can provide a complete **automation solution** developed by our specialists based on experience of the most advanced packaging machines.

Primary packaging

(Filling, wrapping, labelling,
quality checking, inspection...)

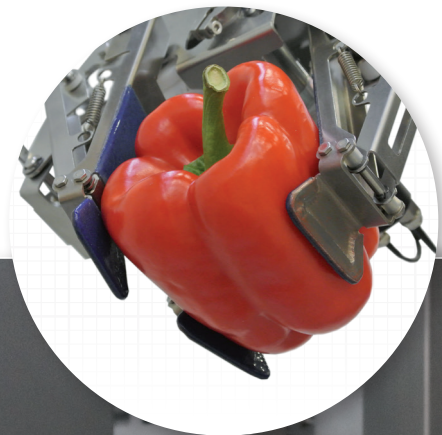
Applications

What is the most important factor of a successful packaging line?

We believe that the answer is know-how; having the knowledge about all of the handling, filling, wrapping and other advanced processes that, when fully understood, can be harmonised to truly create the optimum machine design.

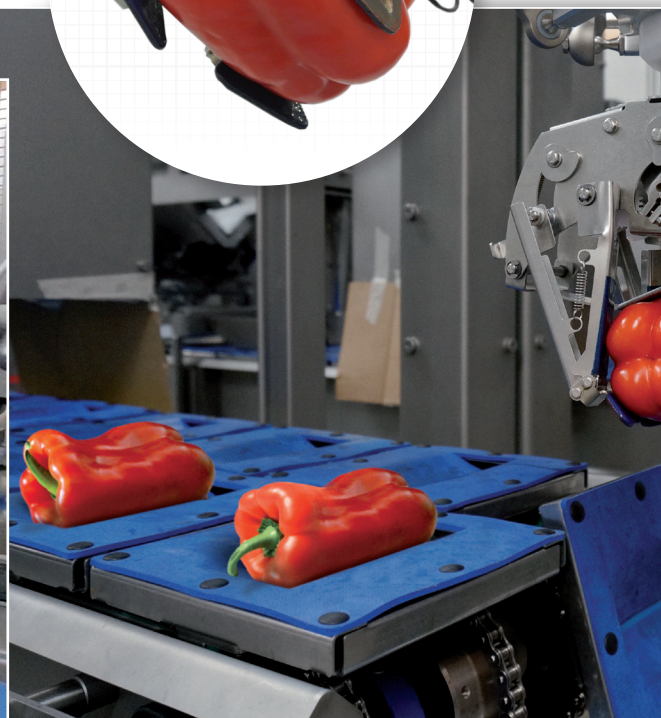
Any project, from those handling simple packed foods through to delicate fresh foods, can all benefit in terms of operational flexibility by utilising robotic systems, especially when combined with vision systems and compliant actuators.

- ✓ Increased production: up to 12,000 pcs/hour
- ✓ Return On Investment: 1.5 years
- ✓ Quality inspection: on-the-fly at high speed
- ✓ Easy cleaning: washdown design



Sliced salmon packs

Detect and pick the randomly oriented packs of salmon slices prior to loading into a cartoning machine.



Completely automatic handling of Peppers

Three Delta robots load a flow-wrapper by correctly ordering and aligning the different peppers on the in-feed conveyor.

SYSTMAC
always in control



Secondary packaging

(Cartoning, code verification...)

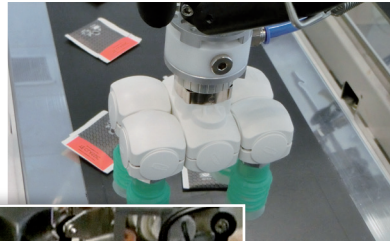
Packing cookies into plastic trays

Following a vision based quality inspection process, only the cookies with the correct properties are picked & placed on the fly into a plastic tray running at 0.7m/sec.



Packing tea bags

Multiple picking realised by a vacuum gripper mounted on a Delta robot system. The products are stacked into small cartons.

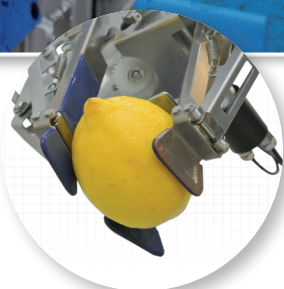


Tomato handling

Using an adaptative gripper to position the tomatoes into a plastic tray.



- ✓ Increased production: up to 10,000 pcs/hour
- ✓ Return On Investment: 1 year
- ✓ Easy cleaning: washdown design



Adaptive grippers: imitate the human grasp using force control functions

Benefits

We are committed to implementing the **latest technologies** into our automation platform, developing the most advanced packaging solutions for the market. Furthermore, we are able to provide the same level of support and expertise worldwide thanks to our established **global presence**.



Higher productivity

- Up to 8 robots controlled by a single controller
- Up to 100,000 product handling operations per hour
- Non-stop process with in-line quality inspection



Omron Global support

- More than 160 technical offices
- Located in 40 countries



Low maintenance

- Standard motion components used throughout, fewer parts required
- Robust design of mechanical parts



Quality inspection

- Vision systems and advanced sensors perform product detection and in-line quality inspection



High efficiency

- Return On Investment < 2years
- 24/7 operation



Flexible solution

- Quick product changeovers
- 3rd party connectivity
- Scalable Sysmac platform



24h · 7 days

- Extremely high reliability Omron products - Lower MTBF



Global standards

- IEC 61131-3 standard programming
- PLCopen Function Blocks

