

# APPLICATION & DESIGN

## Bulletin



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### QUICK FACTS

- **Solution:** Robotics
- **Speed:** Varies, depending on the application and product being handled
- **Industry:** Any industry utilizing traditional packaging methods
- **Application:** Carton loading, case packing/unpacking, palletizing, de-palletizing, material handling, etc.

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## Robotics, Robotics, Robotics

The buzz swirling around the use of robots within the packaging machinery industry continues to grow louder. A quick survey of leading industry (packaging) trade publications shows numerous cover stories, articles and advertisements devoted to this hot topic.

Much of this buzz is due not only to the increased media coverage, but also the increased acceptance of robotics as a viable packaging automation solution.

Why robotics? For starters, the consumer marketplace continues to change, with new products, trends and retail outlets (e.g. club stores) emerging almost daily. To keep pace with this dynamic arena, packaging solutions must be extremely flexible and robotics offers the utmost in flexibility, whether it be for product changeovers or simply changing pack patterns.

Furthermore, the advent of touch-pad, pendant HMI interfaces, with Windows-based compatibility, has eased many robotic fears and greatly simplified robotic setup, programming and changeovers. This, coupled with an increased number of robotic options (both in size and payload capacity) and advanced end-of-arm tooling, has removed much of the uncertainty surrounding robots in packaging.



With our roots tied to traditional primary and secondary packaging machinery, SWF Companies moved into the robotics arena with the early 2004 acquisition of GSMA Systems (Palm Bay, Florida), a leading integrator of robotic automation solutions.

Since that time, SWF has witnessed a dramatic influx of requests and orders incorporating robotics. From typical robotic packaging solutions such as palletizing, to

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# Innovative Packaging Automation

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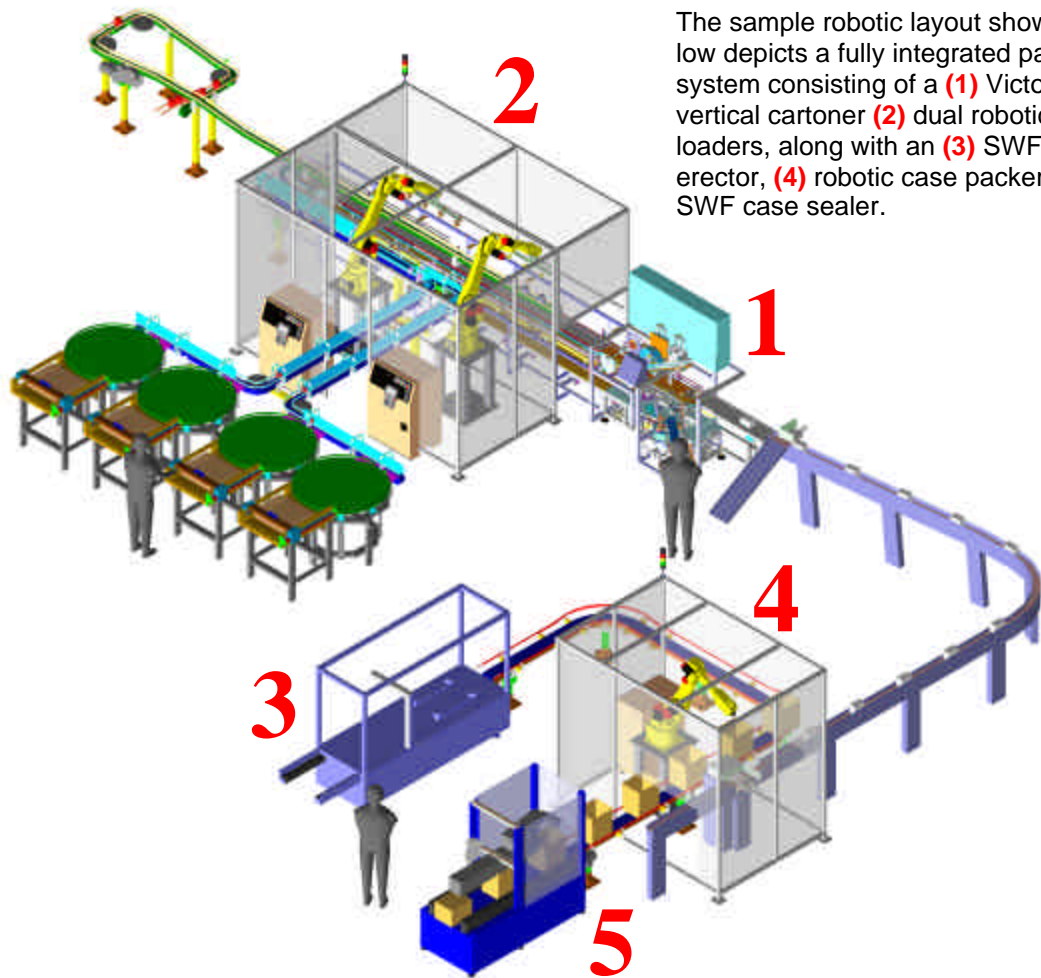
robotics systems for carton loading, case packing and material handling.

The durability and repeatability of robotics lends itself to an almost unlimited range of packaging applications and opportunities. For SWF, our primary robotics focus is on top load case packing, carton loading and bottle packing/unpacking.

With regards to case packing, robotics and the necessary end-of-arm tooling can be customized to handle an extensive range of products. In addition to cartons, cans and jars, traditionally difficult to handle products such as pouches and flexible bags, are easily packaged utilizing robotics. Furthermore, SWF's existing case/tray erectors and sealers are easily integrated with robotics, to form a fully automated system.

For bottle packing, robots also represent an ideal solution, with the ability to both unpack and pack bottles of various shapes, sizes and materials types. A change in the end-of-arm tooling (either through manual operation or an automated changeover using only the robot), enables each robotic packing system to be quickly changed over for new pack patterns or different sized products.

Traditionally, the use of robots within packaging has been limited to secondary packaging. To our pleasant surprise, robots are increasingly seen as a viable primary packaging alternative. They can easily transform a semi-automatic/hand-load cartoning operation to a fully automatic system and take much of the risk out of difficult infeed/product handling projects.



The sample robotic layout shown below depicts a fully integrated packing system consisting of a (1) Victory 100 vertical cartoner (2) dual robotic carton loaders, along with an (3) SWF case erector, (4) robotic case packer and (5) SWF case sealer.