

APPLICATION & DESIGN

Bulletin



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QUICK FACTS

- **Machine:** Victory 100
- **Speed:** Up to 200 cartons per minute
- **Industry:** Health & Beauty
- **Application:** Fully automatic vertical bottle loading
- **Other Applications:** Shelf-pack pharmaceuticals, top-load food, end-load automotive/electronics, etc.



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Repeat Customer Finds Victory 100 Platform Perfect for Bottle Loading

As a growing manufacturer and packager of beauty products, including press-on nails and nail polish, JC Solutions (Kiss Products) has come to realize the benefits of packaging automation.



Tisma's end tooling, attached to robotic unit, places bottles in 2 x3 pattern into the carton.

A customer of SWF Companies' Tisma Division since 2000, JC Solutions is always looking to improve their operational efficiencies and productivity whenever possible. One of their first automation steps, was the purchase of a Tisma TC 600 horizontal cartoner to sleeve trays of press-on nails.

As the company continued to grow, so did its packaging needs. Most recently, JC Solutions came to Tisma searching for a way to automate the cartoning of multiple bottles of nail polish.

At the time, JC Solutions was carton erecting, bottle collating, bottle loading and carton sealing by hand. Not only was this expensive from a labor standpoint, but the throughput was not able to keep up with their production needs.

Specifically, the application called for the vertical cartoning of three and six bottles of nail polish into a carton. The bottles were both round and oval in shape, while the carton was a glue bottom, with tuck top closing. The three count carton needed to run at 50 cartons per minute, while the six-count carton at 30 per minute.



The Victory 100 carton track provides opportunities for robotic integration, while also allowing for hand loading or other auto load components.

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Innovative Packaging Automation



With the recent introduction of the Victory 100, Tisma knew they had the right machine, the issue was how to effectively load the bottles into the carton. While Tisma's standard "gripper track" is perfect for many bottle loading applications, this particular application proved difficult due to the customer's array of bottles.

Understanding the need for an alternate loading solution, Tisma made a departure from traditional technology and with the assistance of a third-party sup-

plier, came up with a robotics solution. Not only could the two-axis robot handle the array of bottles, but this ultimately proved a better, less expensive solution.

All told, using the Victory 100 as the base, the project included an infeed side belt transfer, lane diverter, inline reject diverter, custom end effector tooling and two-axis robotic pick-and-place unit.

While special carton flap manipulation had to be taken into account, to accommodate robotic loading (as opposed to hand loading), installation went smoothly.

Payback for this project is estimated to be less than six months, while output has more than doubled.

In addition to their existing Tisma equipment, JC solutions currently has three active projects in the pipeline, scheduled to close this year.



Victory 100 platform allows for full and semi-automatic configurations.

SWF Enhances Packaging Solutions with Robotics

As a packaging solutions provider, being the "Supplier of Choice" entails providing leading-edge technologies. It is this philosophy which has led SWF Companies, in partnership with GSMA Systems, to provide **robotic automation solutions**.

While robots have been touted as an emerging technology for



many years, it is not until recently that they have gained greater acceptance within the packaging machinery industry. Easily integrated with a wide variety of packaging equipment, robots provide a unique solution which yield simple, flexible and highly reliable results.

With a small footprint and less maintenance requirements due to minimal electrical and mechanical components, robots have the ability to use 6 degrees-of-freedom for optimum packaging and line design.

Robots also have the ability to pick-and-place from multiple locations, feature very quick or automatic changeovers, can operate with little or no human interaction, while also providing greater speed-to-market (shorter lead times) when compared to



non-robotic, alternative packaging solutions.

SWF robotic solutions, include:

- Case and Tray Packing / Unpacking
- Carton Loading
- Palletizing & De-Palletizing
- Partition/Divider Inserting
- Mixing/Combination Packing
- Product Orienting/Collation
- Repacking



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