

# Horizontal flow wrapper

Machine Case Study



- Highspeed controller and Fieldbus
- Application specific function blocks
- Total machine automation supplier

## Horizontal flow wrapper

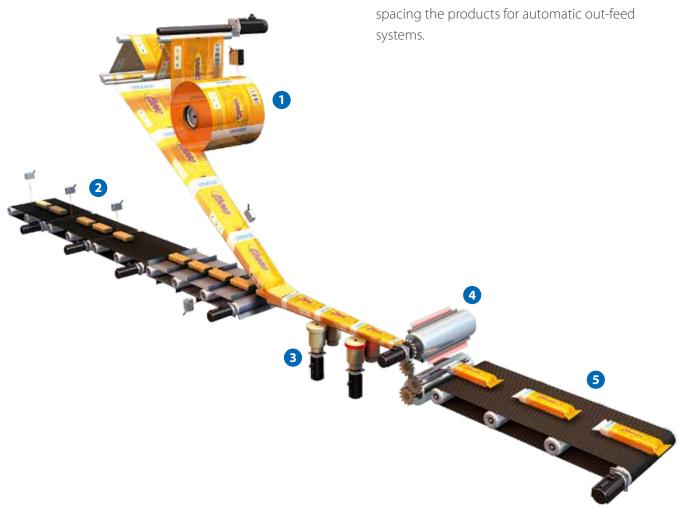
#### Machine description

With the packaging material mounted on top of the product feed, Horizontal Form, Fill and Seal (HFFS) flow wrapping machines operate horizontally to surround the product with a film. After sealing it longitudinal under the product, the rotary knifes seal the edges transversal and at the same time cut into individual packs.

HFFS flow wrappers are suitable to pack large quantities of solid products at high speed. Chocolate candy bars are usually packed with non-heated sealing knifes. This cold-seal technology uses an, on the foil pre-applied glue, which is pressed to close the packs.

#### **Machine Function**

- 1 Foil Unwind Provides foil with the right tension.
- 2 Product feed and detection Gives perfect spacing and 'no product no bag' identification.
- 3 Longitudinal pull and seal Lengthwise film transport, positioning and sealing with integrated mark correction.
- 4 Transversal seal and cut Separates the packs after sealing the edges using rotary knife.
- 5 Packed product out-feed Transport to secondary packaging, optionally spacing the products for automatic out-feed





### Your automation partner in packaging

We Automate Machines! We supply all the automation products for HFFS flow wrappers, including the logic and motion or hybrid controller. In addition we provide all motors, drives, position sensors, safety devices, temperature sensors and other panel components. All devices are easy to integrate and carry the Omron mark of quality and reliability.

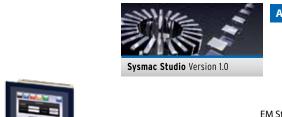
#### A Sysmac Studio: One Software!

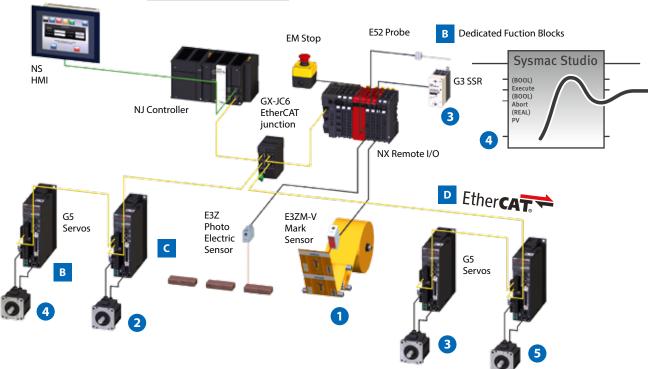
To develop fast, test as one and secure it all is something Omron can proof. Sysmac Studio is one software to control and configure the entire machine via a single connection gives you the power and efficiency to develop and create like never before.

#### B Application specific function blocks

In Form, Fill and Seal machines it is key to create the perfect seal each time and right from the start. For this Omron Sysmac is the solution to integrate temperature control and seal-jaw pressure and timing.

Performance is raised and engineering time is reduced when using function blocks (FB) Omron developed for Form, Fill and Seal machines, like the Rotary Knife FB and the Direct Power temperature Control FB.





### c Exact spacing on product feed

Create exact product spacing with the E3Z photo electric sensor and G5 servo connected one controller. The integrated motion and logic engine of the NJ machine controller makes it easy to change spacing of products, even during production.

#### Synchronized High Speed network

Synchronizing the seal-knifes with the film and product feed, reaction to no product / no seal and 'film slip' situations are significantly improved when using a high speed and synchronized network like EtherCAT between the controller and the actuating servos.



Would you like to know more?

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