

Dishwasher Tabs

High-Performance Packaging

Fast changeover between heat sealing, cold sealing and cut-off welding



Mifa AG

Mifa AG is the largest detergent and cleaning products manufacturer in Switzerland and part of the Migros retail group there.

Mifa AG sells around 83 million dishwasher tabs per year which corresponds to 1,412 tons per year. The products are known on the market under the brand names Handy Matic, M-Budget and M-Classic brands, among others. To wrap the "naked" tabs for the end consumer in flow packs, the company has been using an FPC5 tabs packaging machine from Theegarten-Pactec since 2014. Due to the positive experience with the system and the after-sales service, Mifa placed their repeat order with the Dresden-based packaging machine manufacturer.

Theegarten-Pactec had a clear definition of Mifa's requirements. The packaging machine should process the tabs in both water-soluble and non-water-soluble films at high cycle rates. Since various products are packaged in different films on the machine, the system had to ensure a quick changeover between sealing and cut-off seam welding.



High Performance Solution

Theegarten-Pactec fully integrated its FPC5 packaging machine into the existing production line. By doing so, the company ensured that the interfaces between the feeding and processing systems interlocked optimally to guarantee an efficient production and packaging process. In particular, this included integrating the FPC5 into the customer's own extraction system, which prevents tab dust from entering the production environment. This means that the machine operator does not have to pick up any unpackaged product. At the same time, air pollution is kept at the lowest possible level.

The line currently packages classic rectangular tabs and round tabs in flow packs with water-soluble and non-water-soluble films. Water-soluble films offer end users the advantage that they do not have to touch the aggressive tab material. In processing, however, handling is usually even more difficult: since the films are very thin and sensitive to tearing, they are generally difficult to process at high output. However, Theegarten-Pactec's FPC5 machine guarantees a maximum output of 1,500 cycles per minute for both cold sealing of non-water-soluble films and cut-off seam welding for water-soluble films. The packaging machines at Mifa currently run at an overall equipment effectiveness (OEE) of approximately 97 percent.

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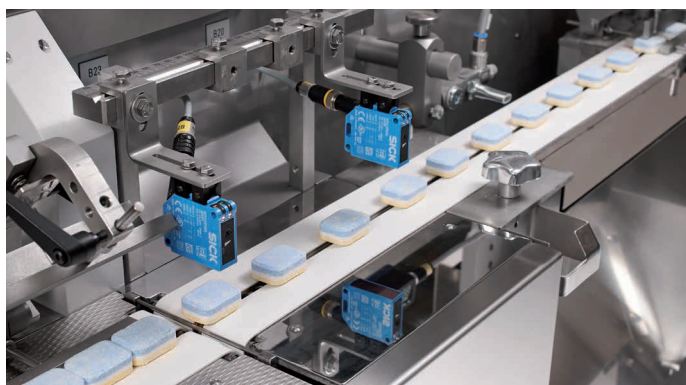


Multiple Sealing Methods

The change between the sealing types is fast and easy: One just need to replace the cross-sealing unit which takes 20 minutes only. The cross-sealing unit is available as a complete assembly including an integrated servo motor. To change the sealing type, only a few screws need to be extracted to remove the cross-sealing station and replace it with the new unit. Electronic cables are equipped with connectors for plug-and-play connection. The individual parameters of the different sealing stations - such as the servo motors - are stored in the recipe management system, which can be easily accessed via the intuitive control panel with touchscreen. To support the fast changeover process, Theegarten-Pactec also offers its customers a storage device on which the cross-sealing units can be safely placed.

Tailor-Made for Tabs

The entire packaging line is easily accessible for maintenance and cleaning. Product residues are collected below the feeding belts in swiveling flaps and can be extracted during full machine operation. The FPC5 is made entirely of corrosion-resistant materials for the components in contact with the product, so that the machine is effectively protected from the aggressive cleaning materials of the tabs.



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"The quality and performance of the packaging machine and its integrated parts have impressed us just as much as the machinery's simple, intuitive operation," states Julien Streun, assembly manager at Mifa. "In Theegarten-Pactec, we have a skilled and capable partner who have already provided us in the past with reliable service. The company's very committed staff have always addressed our needs as customers. Especially when looked at from a 'total cost of ownership' standpoint, we know that we can be sure of Theegarten-Pactec's reliable spare parts management system."

1

Flexibility

Switching between cold sealing, heat sealing or cut-off seam welding is possible in just 20 minutes.

2

High Performance

Up to 1,500 wrapped tabs per minute in cold seal foil or by means of cut-off seam welding without a cross fin. Up to 1,200 wrapped tabs per minute in heat seal foil.

3

Experience

For over 20 years, Theegarten-Pactec has been operating in the detergent sector with packaging machinery for products consisting of compressed powders such as washing machine and dishwasher tabs. The customers are producers of major retail brands as well as small and medium-sized companies from this industry.

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