

Data sheet

## Small Lot Solutions

### From modular machine concepts to supply-on-demand solutions

#### The current situation

Both the pharmaceutical research industry and the generics industry are being confronted with challenges which are fundamentally changing methods of packaging medicinal products. In the next few years a large number of the major pharma companies' blockbusters will lose patent protection. At the same time the development and licensing of new blockbusters is becoming more and more difficult.

In parallel, a structural change is taking place in the packaging of pharmaceutical products. Increasing market and product segmentation, for example through personalized medicine or the increase in different language and country versions, not to mention the way modern medicines work, mean that the variety of secondary packaging for pharmaceutical products is constantly increasing. As a result, the lot sizes of prescription medicines - original products as well as generics - are continuously falling.

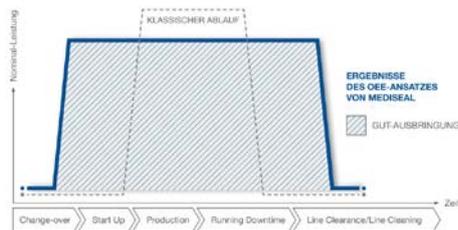
The trend towards small lot sizes is a challenge for the pharma industry. Up to 30% losses in terms of overall equipment effectiveness (OEE) are not a rarity. Improving the flexibility and overall efficiency of the packaging process, including the supplier chain, is becoming ever more important.

## Approaches to finding solutions

Solutions can be found at different levels:

- at the level of the individual machine or plant (line level).
- at site level.
- at corporate level.
- In the area of supply chain management through supply- on-demand solutions

Expertise in machines, lines and processes is essential for making the right decision about which screws to turn to meet the numerous requirements of the pharma industry. Dividella, Mediseal and Rondo offer their customers from the pharma industry different solutions, depending on the customer's own requirements.



At line level, the focus is on technical optimization of the individual machine or system. High reliability, low maintenance, short set-up times, quick format changes and flexible infeeds ensure flexibility and cost-effectiveness. The modular, expandable construction of the machines enables manufacturers of pharmaceutical products to ensure that their systems can adapt to changing requirements.



At site level, Mediseal's LSC® "Late Stage Customization" concept enables manufacturers to cleverly combine small batches of packaging and assemble them later. Standardized, unprinted or partly printed blisters are collected in BIB-BOB modules and later printed and cartoned together for specific customers.



By applying its White Line technology, Mediseal provides solutions for the "corporate level". Here the packaging of a pharmaceutical product takes place in a single production process, without the time-consuming and expensive setting-up of the machine for specific national markets which would otherwise be necessary. All elements for country-specific printing, such as the base film, continuous paper for inserts and white secondary packaging printed only with colored logos, enter the packaging line blank, i.e. "white".



Rondo supports pharmaceutical manufacturers in the handling of small lot sizes with its Supply-on-Demand solution. The concept of demand-driven supply covers the supply of small delivery quantities of consistently high quality within short delivery times of less than one week. Integration of security features as well as inline serialization - with accurate batch-based delivery for EU codes - are also possible.

Thanks to the workflow link (Rondo/pharma company), the application of new technologies for printing and processing, plus harmonization of quality processes (incoming goods inspection taken on by Rondo), turn-around times and re-procurements costs can be substantially reduced for customers. Storage on the customer's premises is eliminated; the goods are brought directly to the production line.

interpack exhibits

At interpack 2017 **Dividella** is exhibiting its highly flexible **NeoTOP toploading machine**. This is equipped with a manual inserter module and is ideal for processing small lot sizes. For the greatest possible filling flexibility Dividella has opted for the collaborative YuMi robot from ABB. This fills the topload folding boxes with syringes, pens and other products, depending on the order. The **syringe infeed** to the machine is by **Fargo Automation**. The system fills boxes (100% monomaterial) which are provided by **Rondo** with a **China code**. The boxes and flutes, which are fed in flat, are erected and glued inline; the flutes are perfectly aligned with the delicate products and ensure optimal product protection. In addition, variable data such as the personalized patient's name can be printed inline. The China code is checked by an integrated **Seidenader Track&Trace system**.

**Mediseal** is presenting its new **BE Blister Series**. This modular machine can be optimally matched to individual requirements as a customized variant. Thanks to shorter change-over and cleaning times it features high machine availability. To achieve this, the number of parts involved in a change-over has been significantly reduced. Furthermore, fewer settings are required on the part of the operator, who can perform his or her tasks more quickly thanks to the improved accessibility of all areas. This also affects cleaning times, which have been further shortened thanks to an ingenious cleaning concept (including rounded corners and the comprehensive elimination of dirt traps). The machine is therefore also ideally suitable for many different formats and small lot sizes.

Visitors can engage in one-to-one discussions with **Rondo** about the **possibilities of the new Supply-on-Demand solution** for their individual requirements.

Further information

Dividella:

- <http://www.dividella.ch/en/machines/neotop-x/>

Mediseal:

- „For more productive time: Mediseal presents new BE Blister Series at interpack“, press release, 21.04.2017
- <http://www.blister-expert.com>

Rondo:

- „Folding boxes on demand: Rondo's Supply on Demand solution enables small lot sizes to be handled efficiently“, press release, 06.04.2017

Picture material



*Dividella NeoTOP x – highly flexible TopLoad packaging machine for processing small to medium lot sizes, equipped with a collaborative robot for the greatest possible filling flexibility.*



*Offline solutions, where secondary packaging is serialized directly by the folding-box manufacturer, combined with sophisticated data flow architectures, are an alternative to inline serialization.*



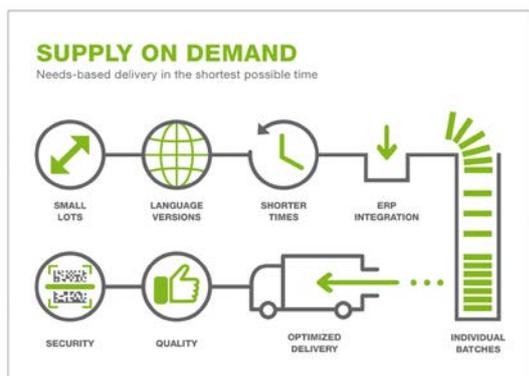
*Mediseal BE Blister Series: "More productive time and joy in production" – by applying this watchword, Mediseal has broken new ground in designing the new Blister Series - in development, design and control concept.*



*Mediseal BE Blister Series: The entire front of the machine opens, for optimal change-overs, cleaning and maintenance. When it is open, neither pillars nor supports obstruct access to the machine.*



*Mediseal BE Blister Series: The circulating blue line maps the flow of product through the machine and as it narrows it symbolizes the merging of the product. In the event of faults, it serves as an illuminated display element to provide rapid assistance to the operator.*



*Rondo's Supply on Demand solution - Needs-based delivery in the shortest possible time*

These images and texts can be downloaded at:

<http://www.interpack.medipak-systems.com/en/press-center>



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