Data sheet

Packaging expertise

From packaging design via product protection to smart packaging

The current situation

In relation to secondary packaging, according to a survey by Packaging Digest magazine, three main themes are preoccupying the pharma industry: product identification and protection from falsification, usage variants and cost reduction. Just on the basis of the impending entry into force of EU Directive 2011/62/EU and for compliance with global standards and regulations, the majority of companies envisage higher financial outlay.

In terms of the development of new secondary packaging, its use is seen particularly in these product features:

(1) The packaging must be user-friendly and must take into account conditions such as, for example, reduced motor skills of end users (due, for example, to ageing or the illness concerned) or reliable protection from opening by children.

(2) The packaging must be designed so that it contributes to reducing the product's manufacturing and distribution costs.

(3) The packaging must be attractive and must be able to be used as an advertising medium for the company and for direct communication with the end user. Added-value communication for customers must be made possible using new features (e.g. smart packaging).

(4) The secure packaging of products is seen as a matter of course – and must not be neglected. Products must be protected from glass breakage and climatic factors.

Approaches to finding solutions

Expertise in packaging development and know-how in mechanical engineering come together in customized packaging solutions from Rondo and Dividella. In the development of individual Topload packs or tamper evidence solutions for TopLoad cartoners which have the characteristics described above, different factors play an important part, depending on the customer's requirements:

Protection of products from damage in transit and in storage or from climatic factors, as well as **reduction of manufacturing and distribution costs** through the use of monomaterial and optimization of the pack volume (in particular for cold chain distribution).

A wide range of **security solutions for compliance with statutory requirements** such as, for example, tamper evidence or visible and concealed security features.
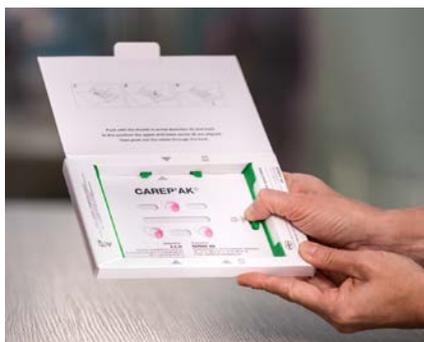
MEDIPAK SYSTEMS
KÖRBER SOLUTIONS

Ease of handling for improved patient compliance.

New digital solutions (**smart packaging**) such as Near-Field Communication (NFC) or Augmented Reality with hidden information for developing customer loyalty, readable with a smartphone.

Innovative packaging design to meet marketing and customer needs as well as the **development of customized packaging concepts** for special or particularly challenging products.

The close co-operation between Rondo and Dividella brings about solutions which above all feature optimal **machinability**, in addition to the factors cited above. Medipak Systems companies have also received many awards for selected packaging solutions for pharma customers, for example the **German Packaging Award**, the **Swiss Packaging Award** and the **WorldStar Award**.

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interpack exhibits

At interpack 2017 **Rondo** is introducing new possibilities for using smart packaging, using an app. This app reads reference points on the pack which are invisible to the naked eye and generates an **Augmented Reality** on the smartphone. Manufacturers of pharmaceutical products will be inspired by the new opportunities in terms of product information (e.g. administration instructions) and customer loyalty which will be possible in the future.

Rondo is continuing to opt for the application of **NFC technology**. An NFC chip integrated in the pack is used to demonstrate four possible applications. (1) In the context of clinical studies, data specific to an individual patient can be written to the chip. Via an app which the physician and patient download onto their mobile phone, both can communicate and exchange data during the study. (2)In addition, the chip can also be used to remind the patient to take their medicines, to increase compliance. The patient scans the pack of medicine once with the Rondo app. (3) The patient can be provided with additional information. For example, the enclosed leaflet can be read from the app. (4) Furthermore, the

NFC chip can be used to verify whether the identification number stored on it exists only once. For this purpose the data can be compared using the app. This means that the chip can be used as a safety check in the same way as a serial number.

Rondo is presenting a solution for a new type of **child-proof packaging** for blistered solid products – the **CAREP' AK**. Solids can be pressed out from the pack only if a safety mechanism is operated. This mechanism must be operated each time a product is removed. Unlike customary childproof systems, which often protect the carton from children only before it is opened, the CAREP'AK is safe until the last product is removed. For the technical solution, Rondo has developed a folding box into which the system is individually fitted.

Visitors can obtain information on the use of preserialized folding boxes using the **NeoTOP x** cartoner from **Dividella**. For the greatest possible flexibility in filling, the system is equipped with the collaborative YuMi robot from ABB. It fills the Topload folding boxes with syringes, pens and other products, depending on the order. The boxes, which are 100% monomaterial, have been 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. Shorter change-over and cleaning times result in 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 improved accessibility to 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 suited for many different formats and small lot sizes.

At interpack, Mediseal is presenting for the first time its **P5000 high-speed cartoner**, which can fill 500 cartons per minute. Its extensive format range enables it to handle dimensions up to 150 x 110 x 200 mm. The P5000 can be seen inline with **Mediseal's CP600 high-speed blister machine**. The two machines are perfectly matched and guarantee reliable production output.

<u>Further information</u>

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
- „Mediseal P5000: Say HI to High-Speed-Packaging", press release, 22.03.2017

Rondo:

- „Rondo CAREP'AK: Child-proof to the last tablet ", press release, 29.03.2017

MEDIPAK SYSTEMS
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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.

Dividella: product protection and compact design.

Dividella Tamper Evidence solution

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.

Always the highest quality - and always at full speed: the new Mediseal P5000 high-speed cartoner
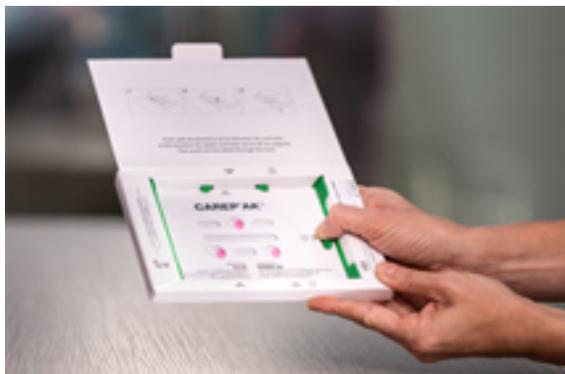

The Rondo app reads reference points on the pack which are invisible to the naked eye and generates an Augmented Reality on the smartphone.

Rondo uses NFC chips integrated in the pack to improve patient communication.

The NFC chip is incorporated when the packaging is manufactured and transmits its information by radio as soon as a terminal which can read it is within range.

The CAREP'AK ® mechanism must be operated when each product is removed: for reliable protection from access by children until the last tablet is removed.

Rondo has designed the packaging for the CAREP'AK® so that blisters with different tablet sizes and tablet quantities can be integrated into the pack.

These images and texts can be downloaded at:

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

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