

# A compact system for hermetically sealed packages

## Microtitration plates in pillow packs

Sigpack Systems, a Bosch Packaging Technology company, has supplied Siemens Healthcare Diagnostics with a compact packaging system for hermetically sealed packages.

Siemens Healthcare Diagnostics is the world largest company specializing in clinical diagnostics. It offers products and services for the efficient provision of tests for diagnosing diseases and monitoring patient care. The company's broad product portfolio offers a wide choice of analysis systems.

In diagnostics, Siemens has invested in a new packaging system for microtitration plates (MTP). At its Marburg location in Germany, the company produces MTPs

for worldwide distribution. Its principal clients are blood donor centers, laboratories and clinics.

### System requirements

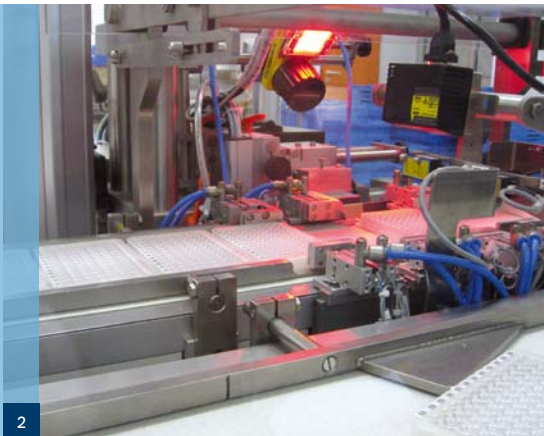
The main task was to transfer the product to an upstream machine, label it using a labeling unit provided by Siemens Healthcare Diagnostics, and then guide it to the packaging machine via a transportation belt system. Other tasks were the insertion of a desiccant bag and the integration of a camera system for printed image control.

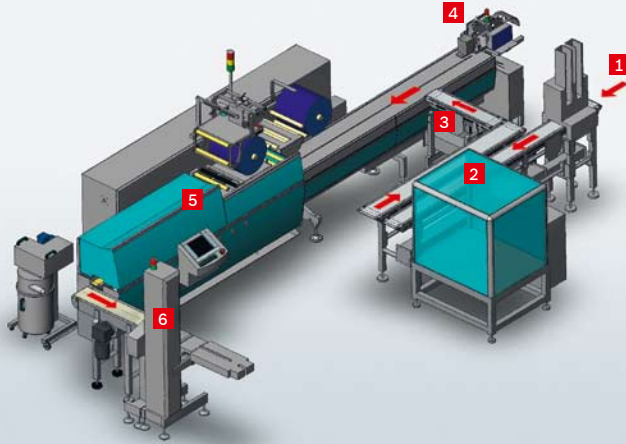
As would be expected in pharmaceutical primary packaging, the principal requirement of the packaging material was its complete tightness.

### Packaging line

After passing the upstream production line the MTPs are transferred to an accumulation area alongside the labeling unit, where labels are attached in predetermined positions. At the same time, the bar codes are checked by a vision system. In case of missing labels or unreadable bar codes, the product is ejected and the successful ejection is verified. Then, the MTPs are transferred, via transportation belts, to the infeed chain of the **HBL** horizontal pillow-pack wrapping machine.

The MTPs are then pushed at a 90° angle into the infeed chain. During this operation, the desiccant bag is inserted via a





- 1 Product infeed from upstreaming production line respectively manuel product infeed
- 2 Labeling unit an vision system
- 3 Cross transportation with product orientation
- 4 Desiccant dispenser
- 5 Horizontal pillow pack machine *HBL* for hermetic sealing
- 6 Checkweigher

dispenser fitted with a cutter. Together with the desiccant bags, the MTPs are then hermetically sealed as pillow packs. Batch number, date and product type are printed on the foil. A Cognex vision

system then reads the printed data (OCR). Finally, there is a further check for any faulty products, which are ejected with verification.

**For more information please contact:**

**Benjamin Leins**

Phone +41 52 674 7268

[benjamin.leins@bosch.com](mailto:benjamin.leins@bosch.com)

**Interview with Timo Vaupel (Head of MTP manufacturing division, left in the picture) and Tobias Schaub (production engineer, right) at Siemens Healthcare Diagnostics.**



**What were the principal reasons behind this new investment?**

One reason was that the existing machine was ageing and had become increasingly susceptible to faults. Another reason was our intention to change our packaging concept, which would not have been possible with the old installation.

**Why did you change your packaging style from aluminum trays to horizontal pillow packs?**

The aluminum trays had the disadvantage that we had only one supplier. The change meant that we gained more flexibility in the choice of supplier, but we also took account of

a study which showed that huge savings could be made by using flexible foil. As a result, we opted for the pillow pack solution.

**Why did you choose Sigpack Systems as your partner?**

Very important, of course, was what we had seen for ourselves. In particular, we were won over by the detail engineering and the progressive refinement of products, even under time pressure. We consistently increased our demands but Sigpack Systems, time and again, came up with convincing solutions. Despite a tight timeframe of only four weeks, the delivery of the project was spot-on: disassembly of the old unit, assembly of the new installation and, of course, qualification in order to ensure speedy recommissioning of the entire line. The result speaks for itself.

**Why would you recommend Sigpack Systems?**

We deliberately went for the best offer overall and did not automatically opt for the cheapest solution. It was an ambitious project and we needed to be sure that we had a supplier that would be able to support us in every aspect. With Sigpack Systems, we had this assurance from the start. The cooperation was solid, professional and based on trust. We have achieved all our objectives and are more than happy with the result.