Automated PACKAGING SYSTEMS

CASE STUDY

Contract Packaging 3.0

The amount of typical co-packing offered is almost negligible. In most cases it is actually limited to the usual manual or semi-automatic packaging. ESTB GmbH offers a complex service instead of classical contract packaging. The company utilizes efficient semi-automatic packaging systems for the purposes of implementing flexible packaging processes.

The Iserlohn-based ESTB GmbH was founded a decade ago as a pure contract packager. At that point in time, simple packaging and installation assignments were the bread and butter of their day-to-day business.

Complex Service

Today the share of simple contract packaging operations accounts for less than five percent of overall production time. The company is now broadly positioned and has developed into a holistic system provider for well known lighting and sanitation technology customers.

A particular strength of these packagers from South Westphalia resides in their managing of complete product groups. This includes the entire C-level management process, that is to say, from selection of suppliers through procurement, disposal and warehousing of purchased parts down to installation, as well as the manufacturing of products on in-house machines and the shipment of them to end customers. In this way, clients need no longer be bogged down with these tasks and can concentrate on core competencies. Even so, the company that has since grown to a staff numbering 140 employees has particularly scrutinized mechanical support and the automation of production processes which are organized as a stand-alone operation. Thus, even in the area of product packaging a search was conducted for more efficient and more flexible solutions.

Semi-Automatic Packaging Solution

The former manual packaging was to be superseded by semi-automatic packaging solutions. Söenke Kuehl, ESTB Managing Director, explains: “Earlier very many tasks were outsourced outside the company and performed as home labor. It stands to reason that this was very expensive and time consuming. As for a comprehensive overview of inventories, we barely had any transparency.” Since even Iserlohn workshop employees work in the packaging area, the packaging systems should be easy to operate and safe when in operation. Based on their own experiences at other companies, the ESTB officials went with Automated Packaging Systems (APS). APS employees investigated the current

Company Name
ESTB GmbH

Equipment Used
Autobag® AB 180™
Autobag® PS 125™ OneStep

Materials Used
Autobag® Bags-on-a-Roll

packaging process and jointly with the ESTB officials developed solution proposals for the use of semi-automatic packaging systems. In 2013 this resulted in the use of the first APS packaging system. Finally, a short time later, ever increasing packaging volumes resulted in the purchase of an additional packaging system and a tabletop packaging system from the same provider. "In the case of the Autobag® machine, we were convinced by its performance and packaging speed," says Söenke Kuehl. "In their flexibility the machines are up to the task with the product changes that are often a common part of our life, without contributing to long periods of downtime."

The bagging machines were combined into a packaging island. This is the destination point for the items to be packaged along with the accessories provided by ESTB. They go through semi-automatic packaging here and right after that the items packed into pouches are forwarded using an intralogistics solution.

Pouch Printing Included

The Autobag® AB 180™ packaging system featuring a thermal transfer printer combined with a Maximizer product feeding system is one of the machines used in Iserlohn. The product feeding system carries the product sets introduced by the operator to the AB 180 pouch bagger, which consist of up to 20 accessory items. Simultaneously, the feeding belt checks the number of items to be packaged per pouch. The bagger, in accordance with the customer order, uses an automated process to print labels and item data onto the packing pouches, fill the pouches with product sets, seal and send them off. The system can pack up to 80 pouches per minute. An integrated touch screen is used not only for operating the printing and packaging device, but it is also from here that all commands are given for simple operation and coordination of help, diagnostics, data processing as well as system monitoring functions. The operator is able to switch over the pouch format in less than two minutes. And finally, an integrated diagnostic tool, in conjunction with the replace-n-repair module, ensures a high level of system availability.

Additionally, in order to enable packaging pouches by target measurements for customer orders, an automatic control scale was integrated into one of the packaging systems.

The tabletop bagger PS 125™ OneStep, ordered for packaging smaller production volumes, is likewise a print-pack-combination. The machine, which only weighs 82 lbs., can pack up to 25 pouches per minute in continuous mode and needs merely 22" x 19" of installation area. By using the PS 125 OneStep, pouches, which are from 2" to 10" in width and from 4" up to 18" in length, can be filled by hand. A simple Push-to-Seal™ mode or the optional foot switch enables them to be automatically sealed and indexed. The tabletop device is equipped with an integrated thermal transfer printer PH 412 for printing directly on pouches. They can be printed on using barcodes, logos, free text or running serial or check numbers with a resolution of up to 200 dpi.

Data Interface

All the thermal transfer printers used in the APS packaging systems, just as the machines themselves, have separate USB ports as well as parallel and serial ports. This makes it possible to connect an external PC, notebook or proprietary information technology systems port for purposes of data transmission. The machines can even be fully integrated into available production processes. In this regard Jan Fischer, the company's Technology head, explains: "At the moment we have packaging data right on the machine. But we also have a very high performance ERP system at our company. Therefore, in the future we intend to incorporate the baggers into our ERP system."

Currently the Iserlohn crews package several million pouches per year and the trend is growing. Managing Director Sönke Kühl sums it up: "So far we are satisfied with the APS machines and service. If demand for our system services continues to grow in this way, of course we will also request additional packaging technology stock."

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