

CUTTING-EDGE TECHNOLOGIES FOR EFFICIENT LINE END



Today, energy is an increasingly valuable asset and, as such, companies that handle large bottling and packaging systems are paying more and more attention to how to use it, and choose high-efficiency and low power consumption machines. When designing the line end solutions presented at Interpack in Düsseldorf (Stand 14D12), SMI kept in mind the needs of energy saving and environmental protection. In fact, SMI machines used for line end packaging are equipped with brushless motors without using geared motors; thanks to this choice, the production facilities have greater energy efficiency and consequently use up less electrical current.

The integrated “Packbloc” system displayed at Interpack 2014 for

secondary packaging, obtained by joining a Smiflexi packer with a Smipal palletizer, is driven solely by high efficiency brushless motors (yield up to 98%), which ensure a marked reduction in electricity consumption, maintenance costs and noise levels. The conveyor belts used in the system are equipped with drives that regulate motor speed based on the machine’s actual operational needs. As such, they provide the system with only the amount of energy required at a given time and ensure savings of up to 35% on electricity consumption.

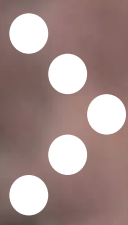
Smipal APS PLUS: the innovative “3 in 1” palletisation solution

The compact “Packbloc” system on display at Smigroup’s stand no. 14D12 at Interpack 2014 brings

ahead the conceptual innovations presented at the latest edition of Drinktec. In fact, SMI engineers have further optimized the compactness and flexibility of this system, which, as concerns the line-end palletisation, uses the advanced technology of the new APS PLUS series by Smipal.

The main and most innovative feature of the APS PLUS palletisers is the integration in the machine’s fixed column of all the mechanical components taking care of the pallet layers construction, the empty pallets feeding operation and the interlayer pads insertion.

The following three components move on this column: the layer-loading head-holding cross beam, which performs vertical movements; the loading head (the so-called “basket”) that, thanks to a system of tel-

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ECOBLOC®
INTEGRATED
SYSTEM OF
BLOWING, FILLING
AND CAPPING



ECOBLOC® integrated systems: a winning team work!

The compact integrated systems of Smiform's ECOBLOC® series combine into a single machine the operations of stretch-blow moulding, filling and capping of PET containers; thus, they're the ideal solution for bottling lines of still and sparkling beverages, milk and edible oil up to 36,000 bottles/hour featuring energy savings and low maintenance costs.



esopic guides, performs rapid and accurate horizontal movements along the cross beam and, lastly, an articulated arm based on SCARA technology that performs both vertical and horizontal movements for feeding the empty pallets and inserting the interlayers.

The aforesaid articulated mechanical assembly is housed on one side of the central column, perpendicular to the one that houses the cross beam bearing the loading head; the SCARA arm performs vertical movements by sliding on the central column to pick up and release the pallets and the interlayers and moves horizontally in a range of 180° to transfer the pallets and interlayers from their magazines to the palletising pallet.

These operations are handled by the machine's automation and control system in perfect synch with the operations performed by the layer-loading head, so that the vertical and horizontal movements of the various mechanical units installed on the central column can follow precise and coordinated trajectories that prevent any contact or interference between them.

Neat and logistically efficient end of line

The new palletisers of the Smipal APS PLUS series adopt a number of design features that, compared to traditional solutions, have led to a significant reduction in the size and overall dimensions of the system. Furthermore, the integration of multiple functions (all housed in one central column) offers considerable advantages as far as operative flexibility, workplace safety and machine maintenance are concerned. Another advantage of the compact design of the APS PLUS systems is the option of concentrating the use of forklifts, transpallets, etc. in a well-defined zone, optimizing the management of the loading and unloading areas.

In fact, since the pallets and interlayers are handled on the same side of the palletiser, this does not interfere with the other activities of the production line.

With its compact size, the Smipal system can be easily installed also in bottling and packaging lines, the end line area of which is enclosed in cramped spaces.

New APS 1550 P PLUS automatic system

The system exhibited at Interpack 2014 integrates Smiflexi LWP 30 model wrap-around casepacker with an APS 1550 P PLUS palletising system. This allows you to minimize the conveyour belts that connect the two machines, save on the initial investment and limit running and maintenance costs of line end packaging systems. Another innovative aspect of the model exhibited at Interpack is made up of the machine inlet and the layer pre-formation system, consisting of a cadencing belt, a product insertion belt, which forms the row, and a one-way translation system that contributes to forming the layer. The layer is transferred from the belt to the loading head smoothly and precisely as it exploits the belt's movement, and does not require the use of any mechanical layer translation components. Smipal's new automatic system, designed according to FCR (Full Cost Reduction) methods, is pre-tested at the factory and delivered to the customer fully assembled and wired. Hence, the time required for start-up is minimized to the benefit of the management operations and scheduled system maintenance. 