Reduce, reuse and recycle: SMI solutions for a compact, eco-sustainable end of line

Reduce, reuse and recycle are three imperatives (the so-called 3Rs) on which the packaging industry is focusing, in order to provide food & beverage manufacturers with innovative technical solutions that are in line with the market changes and that allow cost reduction, energy saving and increase in competitiveness.

Among the packaging materials, thanks to the high recycling rate, cardboard is considered a pioneer of circular economy, as it fully complies with the 3Rs.

Furthermore, cardboard is characterized by a high percentage of recycle and reuse.

The end-of-line solutions presented by **SMI** at booth B15, Hall 13 at Interpack 2023 international trade fair in Düsseldorf meet the requirements of a market that has been paying attention to plastic-free solutions and to the issues of reducing, reusing and recycling.

Secondary packaging in eco-sustainable multipacks

Suitable for all beverage bottlers who want to equip themselves with plastic-free solutions, the TPP ERGON (acronym for Top Pad Packer) multipack packer is the ideal choice for obtaining efficient productions up to 300 packs/minute.

The new TPP automatic packer is a technologically advanced packaging solution that stands out for respect for the environment, advanced automation and flexibility of use. It was created for the secondary packaging of various types of cans by means of the application of a cardboard pad positioned in the upper part of the pack. The TPP 300 ERGON model, presented at Interpack trade fair, packs 0.33 L cans in 2x3 format.

In the pack formation area, the cans are grouped continuously in the desired format by means of electronically synchronized separation fingers. At the same time, a flat layer of cardboard is deposited over the cans in transit, by means of an interlocking system. The flat cardboard pad is taken from the pad magazine, located in the upper part of the machine, by means of a rotary movement picker. The new SMI packer allows to reduce the amount of packaging material, without compromising the product protection and the pack functionality.

The new multipacks, which do not require the use of glue, meet the growing market demands for environmentally sustainable packaging solutions.

Re-packing in resistant and ergonomic cardboard boxes

Packaging plays a key role in the marketing strategies of consumer goods manufacturers.

Cardboard box is an example of a packaging with a simple, but effective design, optimized according to the size of the product



to be packed and ideal to maximize the visibility of the brand on the shelves in the points of sale, thanks to the possibility of graphic customization of the case.

With the automatic pick & place case packer from the ACP ERGON, SMI enters the sector of packaging in RSC cardboard cases (the so-called "American boxes") and offers customers a valid alternative to the traditional packaging in wrap-around boxes.

At Interpack 2023 trade fair, SMI will showcase an ACP 20 S ERGON case packer that processes multipacks of 2x3 cans coming from the TPP ERGON, stacking them on two layers within the box; the result of the packaging process is a robust and resistant pack, firmly closed by adhesive tape. The same machine is also available in ACP G version with box sealing by means of hot melt glue.

Compactness, easy management and advanced automation

ACP 20 case packers by SMI feature a solid monobloc structure in which all machine functions are grouped: product separation, placement in boxes with loose product top loading, cardboard magazine, box sealing.

The packaging process is alternate (stop & go) and uses a pick & place system, capable of realizing RSC packs at the maximum production speed of 20 packs/minute (depending on the format). The ACP ERGON series can pack several types of products, such as bags of pasta, rice and coffee, as well as oval containers (shampoo, liquid soap, detergents) and briks (tea,



juices) simply by changing the picking gripper/suction cup.

Thanks to the pick & place system, this machine range can process very delicate and exclusive products such as wines, sparkling wines and liquors, without damaging the glass bottle labels during processing.

The compactness of the end of the line presented at Interpack is enhanced by the presence of the new APS 620 ERGON automatic palletizing system, that allows to efficiently and cost-effectively automate the end-of-line operations at a production speed of 20 packs per minute (depending on the palletizing pattern).

With the palletizers from the APS range, SMI offers a versatile solution for processing products, which is flexible in adapting to format changeover and efficient in avoiding damages during the handling operations.

The advantages of APS 620 ERGON system:

 compact and ergonomic structure, that guarantees a considerable space saving within the production line and allows the operator to easily and safely perform all activities related to the installation, management and maintenance operations

- use of innovative technical solutions that ensure advantages in terms of operational flexibility and economic competitiveness
- TCO optimized thanks to low management and maintenance costs
- possibility to create several palletizing patterns
- operations managed by a user-friendly machine automation and control system, thanks to an extremely intuitive graphic interface
- electrical cabinet, located outside the protection barriers, that remains cabled during transport and that can then be immediately installed at the customer's plant.

(SMI - Via Carlo Ceresa 10 -24015 San Giovanni Bianco - BG

Italy - email: info@smigroup.itwww.smigroup.it)