

IBP PET & PVC DEVELOPMENTS

Compact Line for Large Containers

The proper design of a complete production line, the appropriate sizing of machines and plants and the smooth operation of the entire system are all essential to enable companies to produce products efficiently, cost-effectively and with a good competitive margin on the markets in which they operate.



This is the job of SMI's System Engineering Department (SED), which study and develop innovative solutions in terms of line engineering like a fully compact, efficient and environmentally sustainable line for the bottling and packaging of large plastic containers from 5 to 10 litres.

The solution proposed by SMI, which entails the installation of a turnkey production system over a surface of less than 1000 m², includes:

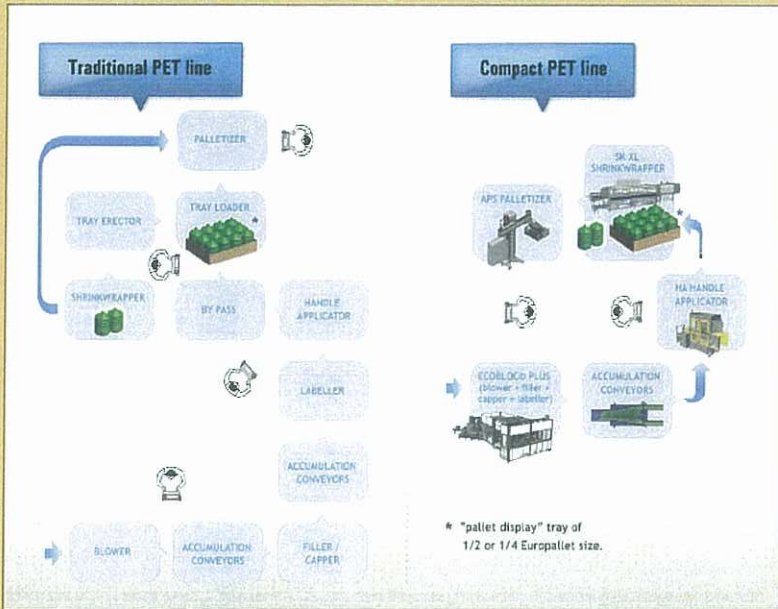
- an integrated system for the stretch blow-moulding, filling and capping of 5, 8 and 10 litre PET containers at the maximum speed of 6,60 b.p.h;
- an automatic shrinkwrapper for packaging in just film and/or just tray in "pallet display" collation, either ¼ pallet or ½ pallet;
- an automated palletising system;
- a limited number of conveyor belts for the handling of the empty containers and

This compact line ensures significant advantages to end users compared to traditional solutions. First of all, it allows you to reduce the production costs of each individual container thanks to the technical solutions applied to the machines in the line, the use of high energy efficiency motors and savings obtained by means of devices designed for the recovery of compressed air, heat and packaging materials.

A substantial simplification of the production line is achieved by the particular integration of different machines:

- Upstream, a single blowing, filling and capping machine (Smiform's ECOBLOC® integrated system) that does all the work that traditionally is performed by at least two different machines;
- Downstream, the compact system for the end of the line requires the installation of only two machines: a Smiflexi shrinkwrapper and a Smipal palletiser. The secondary packaging is performed by a single packer capable of processing the classic bundles in just film and the "very big" corrugated cardboard trays in the "pallet display" collation of either ½ pallet or ¼ pallet.

The entire system is therefore configured as one large, fully automatic machine, in which the various units perform, in perfect synchronism, a sequence of packaging operations that generates a continuous production flow from the PET perform to the finished pallet. A system thus conceived also allows the user to almost completely eliminate the traditional storage pallets and the resulting stress from pressure and crushing on the loose containers.



The reduction in the number of standalone machines in the line allows you to move quickly from one type of production to another and from one pack collation to another, according to market demands, and optimise the customer's user's initial financial investments for purchasing the plant.

The use of highly integrated systems allows cutting maintenance costs as well as the cost of personnel running the line, in fact one operator alone is sufficient. All this translates into a general reduction in the TCO (Total Cost of Ownership) of the whole plant during the entire lifecycle.

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