

NEW "BFS HC" SERIES Integrated systems of blowing-filling-capping for High Capacity containers

SMI laboratories' relentless engagement in Research & Development activities led to the launch on the market of innovative **integrated systems of stretch-blow moulding, filling and capping of PET containers**; in fact, the **new BFS series** crowns the whole range of Smiform products dedicated to the "Liquid Food & Beverages" sector.

BFS 4-14-4 HC and BFS **6-18-4 HC** integrated systems can be conveniently employed in the bottling lines of still water and edible oil. Their compact modular frame and the use of state-of-theart technology ensure a **perfect synchronization between the "dry" environment of the stretch-blow moulding module and the "wet" environment of the filling module**. Moreover, outstanding price/quality ratio and dramatic cutback of operating costs make of BFS series the ideal solution for manufacturing, filling and capping **PET containers with capacity from 4 to 10 liters up to 6,600 bph** (depending on the machine model and on the container characteristics).



When choosing an integrated solution

Combining stretch-blow moulding, filling and capping operations in one single machine offers major benefits if you are looking for a cost-cutting, space-saving solution and for easier maintenance operations. The direct connection between the blowing module and the filling module **reduces the number of machines installed**, as there is no need for a rinser, accumulation conveyours and conveyours between the blower and the filler



Why choosing BFS integrated systems

Quick and easy changeover

Each container's manufacturing parameters are stored in the operator control panel, from which the machine operator can conveniently select the required format by a simple "touch" on the screen. While in the filling module the changeover **doesn't require any mechanical part replacement**, in a few minutes the machine operator can complete the stretch-blow moulding module's mechanical adjustments, the mould and the equipment replacement (if necessary) using the tool kit included in the machine supply.



Easy access and maintenance operations

Thanks to the "Baseless" technology employed, the BFS integrated system features a compact and operator-friendly design, as **the area underneath the bottles is completely clear, facilitating the operator's access to the machine for maintenance and cleaning operations**.



High reliability of the stretch-blow moulding process

The stretch-blow moulding process is based on a highly reliable cam-controlled technology; furthermore, the **direct control of each single blowing station** from the POSYC operator panel provides, in case of failure, the possibility to stop the troubled blowing stations only, without interrupting the bottle manufacturing process.

All BFS integrated systems are equipped with an **air recovery**

system, an eco-compatible and cost-saving solution providing up to **40% cutbacks** on compressed air consumption, as a part of the high pressure air circulating in the blowing circuit is recovered and recycled.

Electronic filling: high precision and low operating costs

Smiform BFS integrated systems rely on an **electronic filling process**, which can be:

- **volumetric**, based on magnetic flow meters, for conductive liquids such as flat water;

- **massic**, with mass meters based on the Coriolis' principle, for non conductive liquids such as edible oil.

The filling process is carried out without any contact between the bottle and the filling valve, thus reducing the moving mechanical parts (there is no need of jacks lifting the bottle) and preserving the integrity and quality of the liquid being bottled.



Compact, clean and safe equipment

The filling module of Smiform BFS systems has been designed as a **"filling room"**, where the absence of moving parts underneath the bottles allows to keep the whole equipment **clean and safe**. Motors are placed in a totally dry spot of the machine's upper section, fully insulated from the working environment, in order to protect them from any damage caused by liquids or powders and to prevent the fall of lubricants on the underlying filling and capping modules.



The capping module: high precision and easy access

The capping module of Smiform BFS systems is equipped with servo-motorised control of the capping heads, so as to grant high precision in the application of screw caps. The cap feeding hopper **is positioned outside the machine**, at an easyaccess height for the operator. Caps are fed to the capping module through an air-thrust horizontal channel, so as to ensure a **quick reset of the capping module operation** in case of cap jam and to provide an effective cap accumulation buffer capable of balancing machine breakdowns. For further information on the new range of **Smiform BFS integrated systems**, please contact our Sales Department.

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