

## SACS (Stella Alpina Cost Saving) project: the compact line which makes savings and respects the environment

A strong commitment to innovation and respect for the environment brought SMI to design "ex-novo" a complete bottling plant for still and sparkling water at Stella Alpina plant in Mojo de' Calvi (Bergamo).

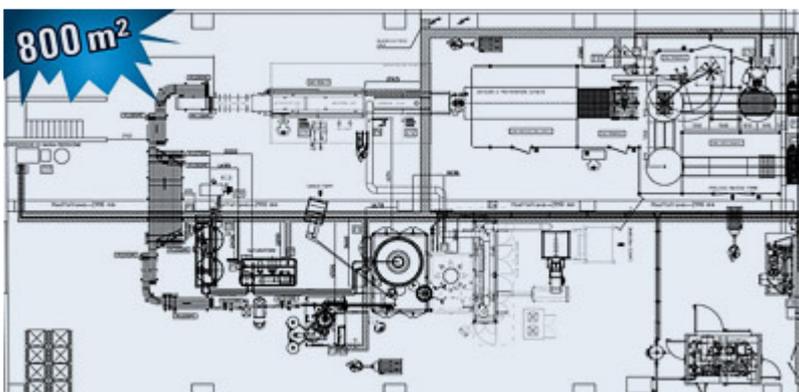
The new **SACS** (Stella Alpina Cost Saving) line was devised, designed and created by SMI - over a surface area of just 800m<sup>2</sup> - to produce up to 14,400 bottles per hour in a more efficient and economical way compared to the pre-existing bottling plant at that spring.



Advanced technical solutions enable to significantly **lower the costs of production** of every Stella Alpina bottle, in the full respect of the surrounding environment. If compared to the pre-existing bottling plant, SACS has delivered huge results in terms of **compact footprint, energy saving, production efficiency, operating flexibility and TCO (Total Cost of Ownership)**.

### **Up to a 20% reduction in the purchase, running and maintenance costs of the machines**

The new line is made up essentially of **just two machine blocks** which, conveniently integrated, allow for lower costs and consumption. The first block consists of the primary packaging unit **ECOBLOC® PLUS**, an integrated system of stretch-blow moulding, filling / capping and labelling, thus providing consistent **cutbacks** in terms of initial investment, maintenance costs and energy consumption.



The secondary packaging unit, designed by SMI from scratch and named **PACK BLOC**, is an innovative shrink film packaging system which includes high integration between the shrinkwrapper and the [palletiser](#); this solution has allowed for the area occupied by the end-of-line machines to be much smaller than usual due to the dramatic reduction in the quantity of conveyors connecting them.

### Lighter packaging material

SACS project stands out for the considerable reduction of primary and secondary packaging material:

» **up to a 30%** reduction in the plastic (PET) used to produce bottles, thanks to the design of new "ultra-light" containers, one for 0.5L and the other for 1.5L, obtained by stretch-blow moulding preforms of 11g and 23g respectively;

» **up to a 50%** reduction in thermo-shrinkable film, achieved by equipping the shrinkwrapping machine with a new knife with a motorised blade controlled by digital servo-drivers, which allows for the use of shrink film with a thickness less than 30 micron (as against the 50- 60 micron previously used by Stella Alpina) for the 3x2 format of 0.5L bottles.



### Low water and energy consumption

The consumption of water used for cleaning the plant has been reduced by **up to the 90%**, thanks to the "baseless" technology applied to the filler, which allows for the base of the machines to be "freed" from moving components and mechanical parts, where dirt and waste from the production process usually accumulates.



Also the energy consumption of the whole production line has been lowered by **up to the 15%**, thanks to the application of state-of-the-art technology solutions:

- compact footprint of the bottling line, requiring less conveyor belts for the connection of a low number of single modules;
- air recovery system, assembled as standard on the blow moulder, allowing for up to a 40% reduction in consumption of high pressure compressed air, with consequent need for a smaller compressor;
- recovery of heat from the blow moulder and air compression systems, partly used for pre-

heating the preforms and partly discharged to the shrinking oven in the end of line shrinkwrapper;

- use of lighter preforms and thinner shrink films which require less heat from IR lamps and electrically-heated resistances;

-less wear on the components, thanks to the reduction in moving parts and the use of more resistant materials;

-use of high energy-efficiency motors on the conveyors.

### **Reduction in CO2 emissions**

Thanks to the use of integrated machines, of high energy-efficient motors, of air and heat recovery systems, as well as to the lightening of primary and secondary packaging material, a reduction in CO2 emissions of **up to the 50%** has been accomplished.

Please get in contact with our Sales Department for further information about the SACS project and on all energy-saving solutions provided by SMI.

Best regards.

Marketing Department

SMI S.p.A.

E-mail: [info@smigroup.it](mailto:info@smigroup.it)

[www.smigroup.it](http://www.smigroup.it)

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SMI S.p.A.- Via Piazzalunga,30 - 24015 S.Giovanni Bianco BG - Italy - Tel.+39 0345 40111 -  
Fax.+39 0345 40209  
[www.smigroup.it](http://www.smigroup.it)