



Superior Quality Bottles - Case study (150 ml)



CBF

Compression Blow Forming for the Pharmaceutical Industry



SACMI



Compression Blow Forming

Key factors and main competitive advantages



Superior Quality Bottles

Key product advantages and case study



◀ **superior neck quality and consistency:** improved CRC features, improved sealing performance, higher consistency and repeatability of all bottle specifications.

◀ **100% perfect bottles:** thanks to a fully integrated vision quality control system, CBF grants full compliance with specifications for all bottles produced.

◀ **no gate:** superior performance against stress cracking & improved product appearance.

State-of-the-art technology

CBF (Compression Blow Forming) is a unique combination of compression molding and blow-molding. The process begins with the resin being introduced into a continuously operating extruder. The extruder provides a constant supply of resin which is cut into predetermined precise pellets which are inserted into an open compression mold. The compression cycle provides the preform for final blow-molding into the final shape.

Total cost of the bottle

- Higher efficiency
- Lower start-up time
- Lighter bottle with improved mechanical properties
- Reduced labour requirements
- Less floor space

Superior Bottle Quality

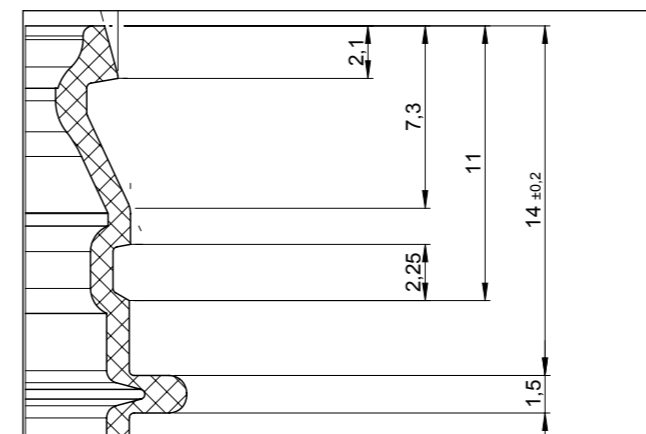
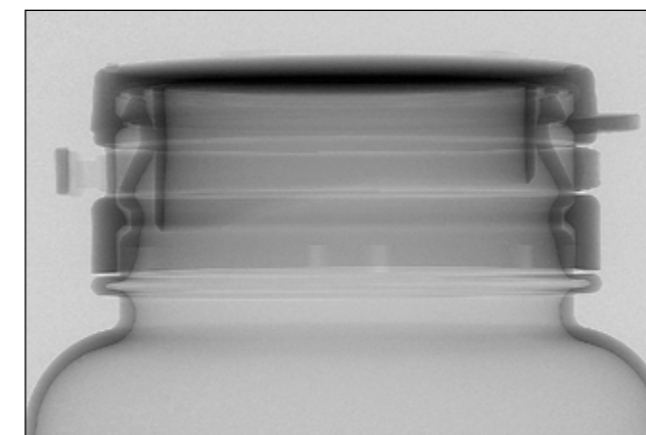
- CBF technology reduces variability, improving tolerances and statistical capability
- Highly repetitive manufacturing process delivering superior consistency
- Hot-runner free extruding system
- No gate, no welding lines
- Zero resin scrap during production
- Improved sustainability and purity due to lower melt temperature

Sustainability

- Lowest power consumption in the industry
- Lower scrap rate during production
- Less material wastage during color change



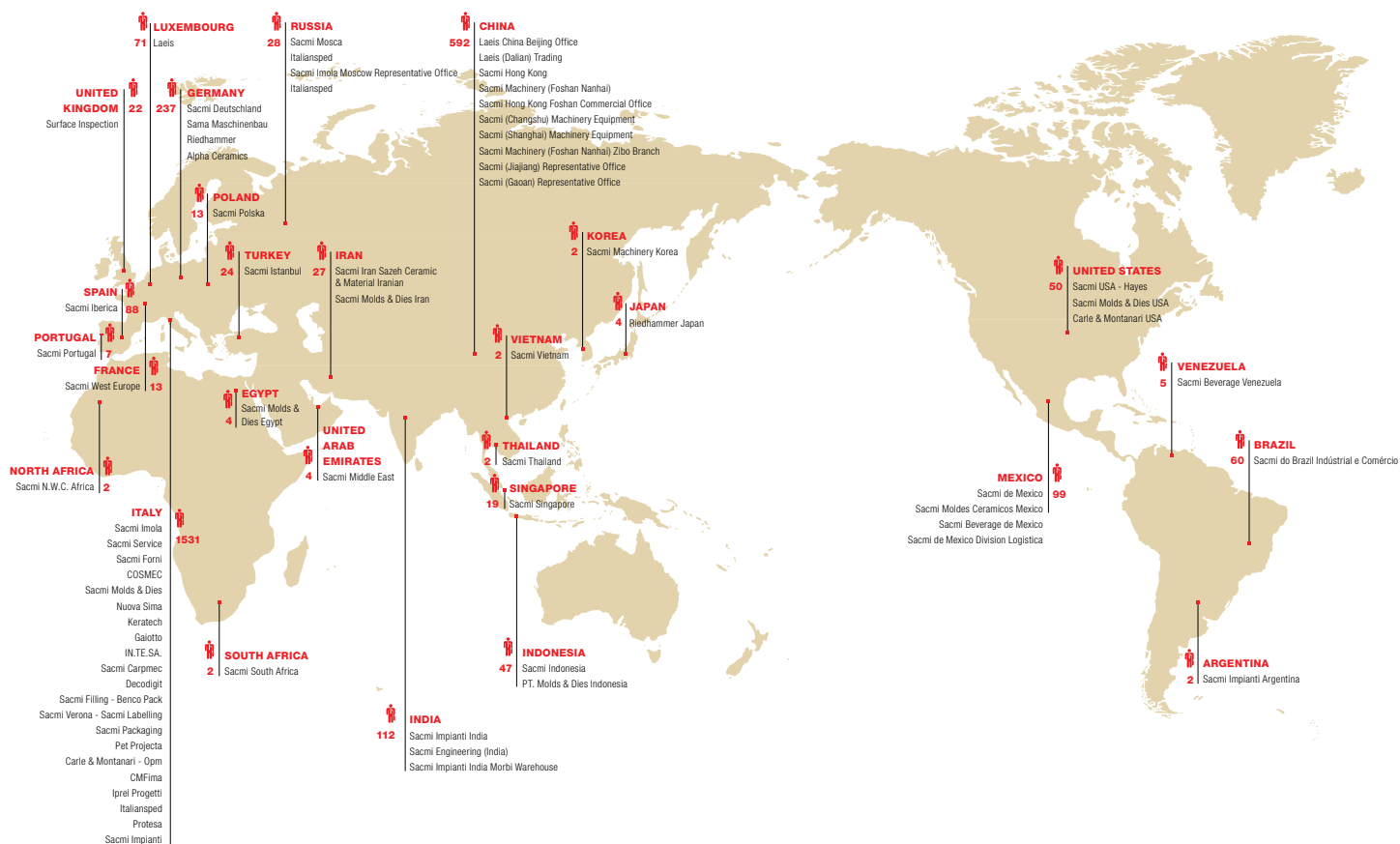
find out more about CBF



Case Study - Summary Data

| | |
|-------------------------|----------------|
| nominal capacity | 150 ml |
| resin | HDPE |
| master | white colorant |
| overall weight | 16.0 g |
| bottle weight St. Dev. | 0.02 g |
| bottle weight range | ± 0.06 g |
| bottle height | 105 mm |
| bottle diameter | 50 mm |
| mean body thickness | 0.8 mm |
| top load resistance | 300 N |
| max top load resistance | > 400 N |

Sacmi machines and plants for pharmaceutical containers: know-how and certified solutions



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customers can count not only on a fast, efficient spare parts warehouse but also on remote diagnostic services where specialised SACMI technicians work alongside the customer to analyse individual machines and find solutions to any production issues. The Sacmi Group's technological/market leadership position within its various businesses areas, not to mention the Group's financial solidity, provides customers with production effectiveness and efficiency they can count on, achievement of expected results and a fast return on investment.



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