



GF S.p.A. Polypropylene division

# ISBM

## BOTTLE OR BAG?

This is not be a problem anymore. With ISBM lines both bottles and bags can be produced in the same line, simply changing molds.

## FLEXIBILITY

The ISBM lines are flexible in all aspects. Containers shape, filling volumes, closures, and line configuration.

## PRODUCTION RATES

The production speed of 15.000 containers/hour can be reached by one line, reducing the need of multiple machines.

## PRODUCTION COSTS

This technology, allows saving more than 30% of the raw material necessary to produce the same container by BFS machines.

## STERILIZATION

The containers made by this technology can be sterilized at 121 °C. Is that enough to inactivate all bacteria, viruses, fungi, and spores?

## CONTAINERS QUALITY

No scraps removal points, no mold signs, and clear/transparent walls as same as glass.



GF is now manufacturing new injection stretch blow molding (ISBM) filling lines for plastic containers suitable to package hospital products. The technology used over the last thirty years in the food sector has been modified and adapted to produce polypropylene (PP) bottles and IV bags, replacing PET/PE containers.

Fifteen complete processing lines have already been delivered to well-known pharmaceutical multinationals.

A rapid sales growth is now expected. In fact, despite of the initial capital investment, companies are able to recover costs in a short time, usually after one year.

ISBM technology, initially exclusive at European level, has also been approved by FDA, which means it can be exported to US and Japan.

GF equipment offers several benefits, the most relevant one being the lower expense if compared to the traditional Blow Fill Seal (BFS) technology based on plastic extrusion.

Furthermore, ISBM process is characterized by zero waste of material and it guarantees a sensible reduction

of running costs (30% for a standard 500 ml bottle).

The container itself shows better optical properties (transparency), which make the visual inspection process more accurate and reliable.

The system is provided with a simple operator interface and does not require the supervision of highly qualified personnel.

Its flexibility allows producing a wide range of filling volumes and container shapes, as well as different closure applications depending on the final product use destination (infusion or irrigation).

The sterility of the product produced with such technology is another important aspect. In fact, PP bottles and IV bags can undergo terminal sterilization at 121 °C – a significant higher temperature than PET/PE containers can stand.

GF then offer all means to produce PP containers by a more reliable and economical manufacturing process.

For any further information, please visit our dedicated website [www.isbm.it](http://www.isbm.it) or contact us at [gfe@gfe.it](mailto:gfe@gfe.it)

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