



Acmi



**Omnia
Technologies**
Enabling Evolution

SMARTBLO

High performance, flexible formats, hygiene and safety, low running and maintenance costs

The SmartBlo range provides a perfect response to all your stretch-blow molding needs.

SMARTBLO

4.0 Stretch-Blow-Forming Machine

THE SMARTBLO RANGE OFFERS STATE-OF-THE-ART BLOW MOLDING TECHNOLOGY, MAXIMUM PRODUCTIVITY, AGILE FORMAT CHANGEOVERS, EASY MAINTENANCE, PROCESS SAFETY AND HYGIENE

DOUBLE CAVITY, DOUBLE SPEED

- For output rates of up to 81,000 bottles/hour
- Compact overall machine size

EFFICIENCY AND SUSTAINABILITY

- 100% r-PET and lightweight preform-compatible
- Energy & air consumption monitoring directly via HMI
- Optimized recipes with lower consumption can be set up and recalled

BRUSHLESS MOTORS

- Optimized power management
- Higher quality, more precise handling

EASY MAINTENANCE

- Low running and maintenance costs
- Easy access to machine



100,000 bottles/hour

Max. speed

5,000 bottles/hour

Per mold (on double cavity version)

HYGENIC AN SAFE

- Zero lubricants in the oven
- Blowing valves easily cleaned and maintained, no contaminants in product
- Sealed environment with filtered air

EASY CHANGEOVER

- Fast, agile format changeovers
- Direct set-up via HMI



Sizes



Standard/ Double cavity

- Maximum speed - 100,000 bph (2b) - 52,800 bph (1b)
- Maximum size - 3.3 l



Large single cavity

- Maximum speed - 16,800 bph (4 l) - 24,000 (up to 3 l)
- Format - US gallon



Extra Large (XL Configuration)

- Maximum speed - 8,400 bph
- Maximum size - 12 l

Smarter, automated, ergonomic



- **Automatic monitoring** of blowing parameters for each blown bottle, defective bottle reject.
- **Innovative low pressure design of the mold bases** maximizes reliability and speed of changeovers, reducing TCO.
- Grippers with **smart position adjustment** for gentle, precision handling of preforms and blown bottles.
- Outstanding **ergonomics**, excellent **accessibility** to all machine parts.



Oven

The highest **process quality**, the lowest **running and maintenance costs** (no belts or cogs). All operations are lubricant-free. The result: **zero risk of preform contamination** during the stretch-blow process.

Reduced, **predictive maintenance**: structural chain parts never need replacing, wear on chain components is continuously monitored by advanced sensors.

LOWER RUNNING COSTS

- **20% reduction in oven length** compared to previous versions
- **Modular lamps, easy access** for inspection and replacement
- **U-shaped infrared lamps**: high energy density, more compact oven, smaller footprint, less scrap
- **Aluminum polished lamp reflectors (patented)**, specially shaped for optimized heating efficiency; easy to clean compared to ceramic panels
- **Automatic adjustment of heating parameters** as a function of inlet and outlet preform temperature and ambient temperature; same blowing recipe independently of season, night or day
- Automatic checking of **oven chain position, no replacement needed** during entire machine lifetime, **bearing mandrels** do not need replacing before **12,000 working hours** (the chain has the same lifetime as the machine, so does not need replacing)

HIGHER-QUALITY PREFORM HEATING PROCESS

- Cooling system **separated** from bottle neck
- **Consistent** finish, thanks to lamps that heat the PET under the neck ring
- **No condensation in the oven** during the preform neck cooling process, enhanced **heat exchange** due to high efficiency cooling shield 'wings'



SUSTAINABILITY

- Designed to accommodate **lightweight preforms**
- Heating time adjustable **according** to preform thickness
- **Electricity consumption 25% lower** than conventional solutions



OPTIONALS

- Optional mechanical control system for **correct insertion of preform** (automatic rejection in case of incorrect insertion)
- Integration with vision system



Blower

Featuring high **mechanical efficiency**, maximum **product safety** and outstanding **quality and hygiene**, the blower can also perform **dual-cavity molding**, thus doubling productivity and/or optimizing machine use according to the customer's real needs. Maximum versatility: fast format changeovers make this an **optimized-productivity format-specific solution**. Reduced maintenance requirements are combined with enhanced sustainability (**lightweighting, r-PET compatibility**).

STANDARD/DOUBLE CAVITY

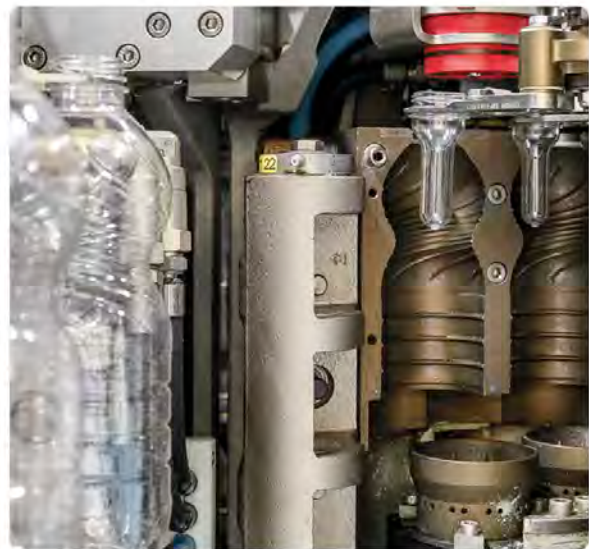
- **Productivity doubled (100,000 bottles per hour)**
- **Smaller footprint**, output remaining equal
- **Accelerated format changeovers** (machine can easily be retooled with single or double cavity molds)

HIGH EFFICIENCY

- Up to **26% surface gain** compared to alternative solutions (stand-alone blowers)
- **Strong frame**, no flexing during installation or production
- Stretching rod system with servo motor: reduces preform weight and increases blowable stretching ratio
- **Mold opening system** integrated with the base mold: less vibration, faster format changeovers
- Blowing carousel and transfer starwheels with servo motor, high precision, easy set-up
- Hard-wearing, innovatively designed grippers, with mechanical safety system and quick gripper changeover; high accuracy, no neck deformation

LOWER RUNNING COSTS

- **Air recovery system** (up to 20%): higher efficiency and less air consumption. Air can be retrieved directly from blower to filler and cap system, no low-pressure compressor needed
- **Low pressure** mold base design, up to 15 bar for 1.5 l water bottles
- Energy recovery from main motor during braking
- Easy accessibility for smooth format changeover and unhindered maintenance



PROCESS QUALITY

- Direct settings via HMI, continuous monitoring of **parameters** for each blown bottle, **automatic rejection** of faulty bottles.

OPTIONAL

- **Recovery valve block** inside blowing carousel: purging of air introduced into the mold takes place in two stages, allowing recovery of part of the compressed air during the process; this provides **total air flow savings of up to 20%**.
- Integration with Preform and **Bottle Vision System** or 100% quality control of output



Vision system for preform and bottles

SmartBlo can also be integrated with complete vision systems for 'total quality control' of production specifically, this allows:

Thanks to new dedicated image acquisition units, the inspection system can identify the tiniest defects and gather statistics.

These system families also allow for in-line control of 100% of production, thus providing valuable information on machine performance and early warning of any drifts away from process parameters.



Customer service

Being able to count on consultancy and support from the ACMI Global Network provides further guarantees for customers, ensuring they get the most out of their investment in ACMI technology

for the entire lifespan of the machine or plant: all thanks to the trust that stems from close relations with customers, and meticulous attention to maintenance of the productive assets that are vital to a return on investment.



