

SMART SOLUTION FOR A
BETTER TOMORROW



SYNERGY

THE FUTURE OF **WATER PRODUCTION** IN TODAY'S DYNAMIC MARKET



SMARTER SOLUTION FOR A TOMORROW

Water remains the world's most valuable beverage category, as the need for affordable & hygienic water becomes ever more important. In addition to hygiene, water market demand is subject to shifting consumer needs and preferences.

TRENDS SUPPORTING INCREASED BEVERAGE DEMAND

- Increased urbanisation and unprecedented population growth
- Consumer demand for trustworthy and affordable premium brands
- Increased personalisation of products in terms of design and taste
- Polarisation in bottle formats – single serving vs. family size
- Need for convenience and increased demand for on-the-go products
- Greater spending power and increasing standards of living in emerging countries

INCREASED NEED FOR FLEXIBLE HIGH-SPEED PRODUCTION AND AGILE OPERATION

As consumer beverage preference broadens and overall demand increases, the ability of solutions to efficiently satisfy output requirements for new products – while utilising technologies that improve long-term viability – has become an essential key to success. Maximum product quality and differentiated branding are also of critical importance, as are issues of environmental impact and the need to keep production costs under control. A Synergy solution will help overcome these challenges.

THE COMBI IS THE IDEAL WAY TO ADD VALUE TO COMPLETE PACKAGING LINES

Traditional production lines require accumulation and an air conveyor or mechanical storage between the blow moulding machine and filler in order to smooth out any mini-shutdowns. But the Combi relies on perfectly synchronized, high-performance blow moulding and filling functions and positive bottle transfers that are 100% reliable. Combining several functions on the same piece of equipment reduces interface problems and improves overall efficiency.

SYNERGY COMBI DESIGNED AND ENGINEERED AS ONE SMART SOLUTION



REVOLUTIONIZING WATER PRODUCTION

To satisfy high demand with high production capability, while sustaining flexibility, a smarter solution is needed. Synergy Combi integrates four process steps – preform feeding, blowing, filling, and cap feeding & capping into a single system to deliver continuous production optimization and enhanced performance over time.

Combi machines eliminate conveying, empty bottle handling, accumulation and storage, which reduces the number of machines and improves production reliability. This makes it the ideal solution for maximizing water production and increasing line efficiency while reducing your TCO.

SYNERGY COMBI INTEGRATES

- Preform Feeding
 - Blowing
 - Filling
 - Cap Feeding
 - Capping
- into one smart solution

THE SMART WAY TO CONSISTENT PERFORMANCE

Through connected data analytics management and optimised maintenance services, the Synergy Combi is able to continuously sustain production efficiency.

- 95% overall efficiency
- Maximised uptime and production output at constant high speed

COMPREHENSIVE TCO REDUCTION

Synergy Combi allows you to minimise CAPEX and OPEX for the lowest production cost per square meter.

- All process steps integrated; no conveying
- Fewer operators required
- Reduced setup time
- Reduced maintenance time
- Lower energy consumption
- Ultra-lightweight PET bottles





PREFORM FEEDING

ELEVATE PRODUCTION FROM THE START

SYNERGY PREFORM FEEDER ENSURES PREFORM SAFETY, USER FRIENDLINESS AND HIGH-SPEED PERFORMANCE ALL AT ONCE. WITH THE COMPACT DESIGN AND REDUCED FOOTPRINT, IT IS ALSO EASY FOR INSTALLATION, SET UP & OPERATION.

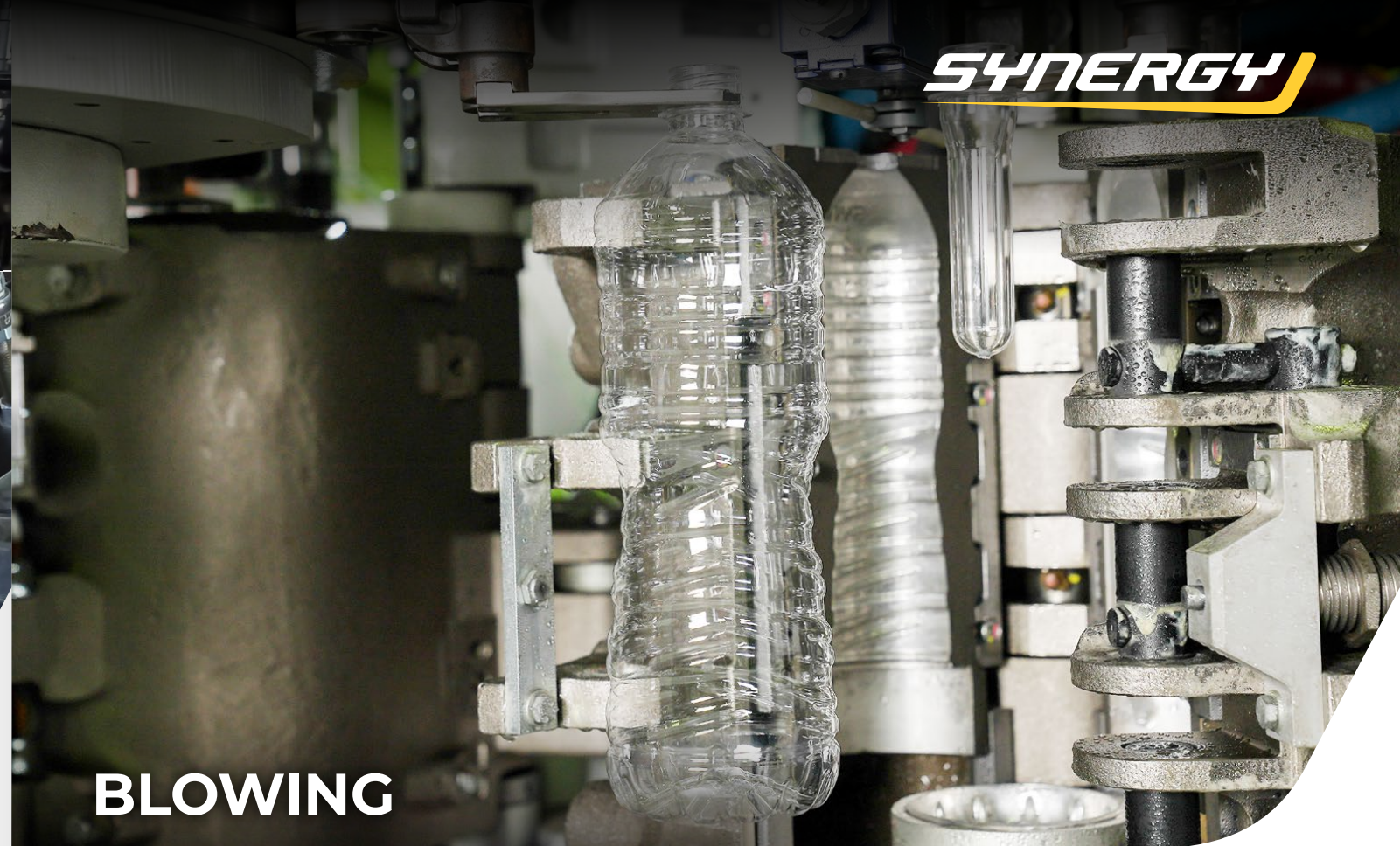
TOP-QUALITY PREFORMS & EASE OF USE

The preform quality is preserved all the way from the hopper to the oven, ensuring packaging integrity further down the line.

- Shortened preform path results in fewer damaged preforms
- Gentle handling ensures preform integrity
- Reduced preform stress through neck-handling
- Lightweight preform handling
- Precise orientation of preforms through double flapper system to avoid preform nesting
- Efficient preform transfer with gravity feeding technology for infeed rail to star wheel
- Minimal maintenance

PREFORM AIR RINSING UNIT

Ensures dust free preform transfer to blowing stage



BLOWING

ACHIEVE RELIABLE AND PERSISTENT PRODUCTION

UNCOMPROMISING EFFICIENCY, UNLIMITED FLEXIBILITY

COMBI BLOWER OPERATES AT HIGH OVEN EFFICIENCY WITH FAST CHANGEOVERS FOR INCREASED UPTIME, PROVIDING FOR THE LOWEST POSSIBLE TCO AND PUSHING THE BOUNDARIES OF LIGHTWEIGHT BOTTLE PRODUCTION AND HANDLING.

Flexibility

- Option to produce bottles in size and shape that best fit your specific needs

Top bottle quality

- Designed with the quality, integrity and consistency of your product in mind.
- High bottle quality
- Large process window allows for effective monitoring
- Control of material distribution improved by electrical stretching
- Consistent packaging quality and performance

High-speed, high-output

- Built for the most demanding production requirements, the Synergy Combi blower offers improved production capability that increases uptime.
- Best market uptime with production output of up to 2,250 bottles/mould/hour
- Quick changeovers

REDUCED ELECTRICITY CONSUMPTION

The Combi blower consumes less compressed air and electrical power. More energy efficiency can be gained by integrating proprietary **centralized oven technology**

- Up to 40-50% less electricity consumed



FILLING

INCREASE FILLING ACCURACY AND EFFICIENCY

PRECISE, HIGH-PERFORMANCE FILLING FOR WATER

The Synergy Combi filler ensures optimal quality with high filling efficiency, while maintaining maximum hygiene. Changeovers are quick, and the filler's tank is easy to clean, saving time for reduced costs.

- Simple & reliable gravitational filler valves for accurate water volume and float stoppage
- Smoother vertical movement by cams prevents spillage and bottle jams
- Reduced filler environment under positive pressure (Blower to filling wheel)

Maximum uptime and efficiency

- The Synergy Combi utilises gravity level filling technology to deliver precise filling performance and improved hygiene

- Ball acting as valve: It opens & closes the air vent – for filling
- Integrated silicon membrane ensuring hygiene
- Less downtime for maintenance due to reduced changeover time with tool-free format changeover
- Separate air return

Safer and easier cleaning

Dummy bottles simplify and accelerate internal cleaning of fill valves, including nozzle tip, filling tube and diaphragm.

- Hygienic design as no springs or rubber parts inside filling valve for easy cleaning
- Central filling tank made of SS 316L is integrated on the top of carousel
- Less energy to achieve correct temperature

CIP SYSTEM

- CIP system cleans all filling valves internally without manual intervention, preventing possible recontamination
- Less chemicals & water consumed in CIP cleansing cycle



CAP FEEDING & CAPPING

EFFECTIVE TECHNOLOGY WITH UNMATCHED ERGONOMICS

THE SYNERGY COMBI CAPPER UTILISES A CONTINUOUS, INDIVIDUAL CAP-ELEVATING SYSTEM FOR IMPROVED FEEDING EFFICIENCY WITH ENERGY SAVINGS

EASY MAINTENANCE

- Automatic overturned cap ejection system: A selection star-wheel stops the decent into the caps chute if caps are oriented incorrectly
- Automatic cap sorter feeding signals the automatic elevator when it is necessary to load/put a new quantity of caps
- Magnetic – tightening torque adjustment
- Spring loaded compensation system
- Adjustable capper height via turret

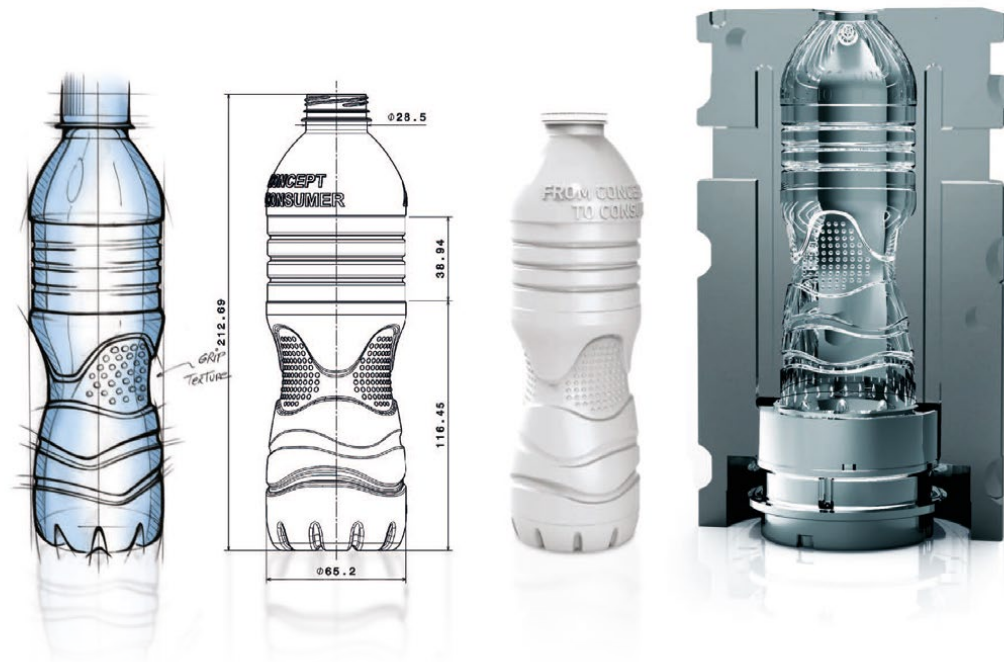


PACKAGING SERVICES

CREATING VALUE FROM CONCEPT TO CONSUMER

Synergy has a state of the art mould manufacturing facility, operational at Chakan since 2012. Equipped with the latest machinery, it can produce standard as well as hot fill moulds.

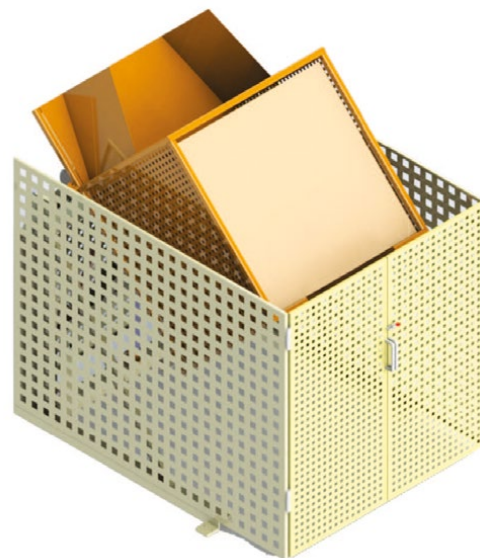
Synergy provides the most innovative PET packaging solutions with its in-house bottle design & development department along with the bottle test laboratory and vast bottle design library.



SUPPLEMENTARY PRODUCTS

PREFORM DUMPER

With increased output of the machine, customers are looking for the option to use preforms in Gaylords or boxes to reduce the loading cycle and manual labour, and to increase the automation. Identifying this customer need, we have developed a preform dumper capable of interfacing with the main PET Blower. A low level sensor on the Blower Hopper activates once the preform level in the hopper drops down below a specified limit. This triggers an input to the PLC on the preform dumper to lift the bin and drop the preforms slowly in the hopper minimizing the mishandling & scratches on the preform. We have customized preform dumpers suitable to handle Gaylord as well as preforms in carton to supplement all ranges of blowing machines. You need to pre-intimate the Gaylord or box type at the time of ordering.



ABOUT US

SYNERGY

Synergy delivers integrated line solutions and equipment for packaging beverages, food, home and personal care products in PET and recycled PET with easy and fast set-up. Built upon over 23 years of experience, Synergy solutions are sourced, manufactured, and assembled in India for customers globally. We work to provide agility, affordability and reliability, bringing you high performance, simply delivered.

Proven reliability and high performance is possible thanks to our vast packaging expertise, dedicated team, and trusted engineered technologies that are the right fit for your product, across formats from 30mL to 20L and from low to medium speed. Reliable packaging is also guaranteed thanks to our state-of-the-art mouldshop, with over 12 years of experience creating high performing and attractive moulds. The accessible and responsive Synergy team and lean and skilled operations make your Synergy experience easy, with a fast and efficient set-up. Local services and manufacturing help you maximise performance and minimise downtime.

Our advanced mouldshop in Pune, India provides optimised container design, development, testing and manufacturing with the same high global standards as Sidel's mouldshop facility in Octeville, France. Based in Pune, Synergy leverages a strong channel partner network spread throughout India, Africa, Middle East & Asia. Synergy is part of the larger Sidel Group and Tetra Laval, while delivering an independent portfolio of solutions with dedicated operations and services.

A BETTER TOMORROW

Synergy plays an important role in protecting people and the planet, from minimising resources and energy used in our solutions, to lightweighting packaging, to expertise in recycled PET, and continual improvement as we contribute to the sustainable transformation of the packaging industry. In addition to our products, our internal operations are also focused on sustainability, with the use of green energy on our site, ISO 14001 and 45001 certifications, and a strong commitment to a circular economy.

Synergy is a leading provider of equipment, services and integrated solutions for packaging beverages, food, home and personal care products in PET and recycled PET. Sourced, manufactured, and assembled in India for customers globally, our Synergy solutions satisfy evolving production needs with agility, affordability and reliability. We deliver fast set-up and ease of use thanks to our agile and lean operations, an expert team, packaging design leadership and our 23-year history. Connect with us for high performance, simply delivered.

Sidel India Private Limited

B-19, MIDC, Chakan Industrial Area,
Mahalunge Village, Taluka-Khed,
District Pune – 410501 India

Tel: +21 35 66 46 00

Fax: +21 00 00 00 00

www.synergymachinery.com

