

25 August 2025

NISSEI ASB MACHINE CO., LTD.
(TSE Prime Section Code Number 6284)

Nissei ASB Unveils Latest Innovations at K2025 Under “All-in-One Sustainable Bottle Solutions”, Featuring Advanced Machines, Molding Technologies, and Cutting-Edge Bottle Designs

Nissei ASB Machine Co., Ltd. (Head office: Komoro-shi, Nagano-ken, Japan - President: Makoto Fujiwara), a world leading manufacture of machines and molds for injection stretch blow molding of PET and other plastics, will demonstrate live molding of four separate technologies at the K 2025 exhibition (Hall 14 Booth B38), to be held in Düsseldorf, Germany from 8th to 15th October 2025.

Global Debuts

Four machines, each from a different Series in the ASB line-up and each showcasing improvements in productivity and efficiency using various technologies, will make live molding demonstrations, with three of the four making their global debuts at the K 2025 exhibition.

1. **PF36/36-600** (high output) – 1.5-Step Injection Stretch Blow Molding + 13 gram, 500ml water bottle at 18,000bph in 100% R-PET.
2. **PM-90/111N** (global debut) – Vertical Clamp Compact Preform Injection Molding + 10-gram PET preform at 20,000pph in 100% R-PET
3. **ASB-70DPH/50E** (global debut) – 1-Step Hybrid-Electric Injection Stretch Blow Molding with low energy consumption + 500ml HDPE oval “trigger” style bottle for household cleansers.
4. **HSB12-4N/111N** (global debut) – 1.5-Step, Injection Stretch Double Blow Heat-Set Molding + 2-liter Returnable & Refillable PET Bottles for carbonated soft drinks (CSD) – 7.5% lighter than industry standard with exceptional performance.

1. PF36/36-600 + 500ml water bottle



Redefining PET Bottle Production with the Power of 1.5-Step Molding.

The PF36 Series is a line of PET injection stretch blow molding machines that merge 1-Step and 2-Step processes into a “1.5-Step” system. The displayed model has 36 injection cavities and 12 blow cavities, producing 500ml bottles at 18,000 units per hour.

Its 3:1 blow-to-injection ratio ensures high efficiency, shorter cycles, and lower operating costs. Compared to equivalent 2-Step systems, it requires only one-third of the floor space, consumes up to 20% less energy by using residual heat from injection, and delivers higher, more consistent product quality without dependence on external preforms.

The machine uses hybrid actuation systems of hydraulics, pneumatics, and servo motors, all managed by ASB’s Vision1™ control system, which supports OPC UA standards for advanced connectivity, integration, remote monitoring, and diagnostics.

Pure Performance: Precision-Molded 500ml Generic Water Bottle

The 500ml, 13gram water bottle is a typical design used in global markets. In line with circular-economy trends the PF36/36-600 will demonstrate molding using 100% recycled PET (R-PET) material without compromising output or product quality.

2. PM-90/111N + Preform Molding



Global Debut: Setting the Standard in Compact Preform Molding

The PM-90/111N, ideal for small to medium-scale preform production, offers 12, 18, 24, or 36 cavities depending on preform size.

Its vertical mold clamping and injection system, derived from the proven PF36 Series, delivers precise high-speed performance while minimizing the machine's footprint. Preforms pass through an integrated cooling system for 3.5 cycles, ensuring stable, fully cooled output resulting in top-quality bottles.

Internal studies show around 40% lower investment cost, 30% less floor space, and up to 20% lower energy use per preform compared to similar machines. Control and monitoring are managed via ASB's Vision1™ system as standard.

High-Quality Preforms Molded to Perfection

The 10gram preform is suited to generic 500ml water bottles with the neck design conforming to the current European standard for tethered cap retention after opening. Molding resin is 100% R-PET.

3. ASB-70DPH/50E + 500ml HDPE trigger spray



The Next Generation Hybrid Electric for Smarter, Cleaner Bottle Production.

The ASB-70DPH/50E is a fully re-engineered version of ASB's best-selling model, now featuring electric operation of all major movements, including the advanced injection unit and preform stretching, with hydraulics used only where high clamping force is needed.

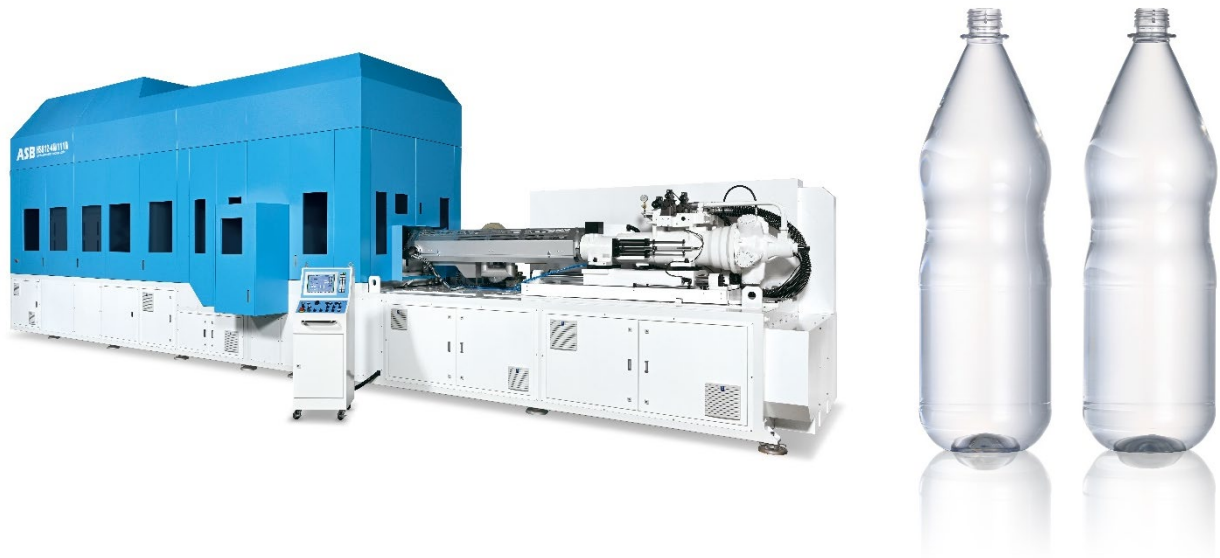
This hybrid design minimizes energy use, hardware cost, and maintenance while enhancing control and productivity. Energy consumption for driving power is reduced by an estimated 25% compared to the hydraulic version, while faster, more precise servo movements shorten cycle times, boost output, and ensure smoother, quieter operation. Servo-driven stretch rods improve molding consistency, especially with sensitive resins or complex designs.

The machine comes standard with ASB's Vision1™ control and monitoring system and remains fully compatible with existing mold sets.

Advanced Innovation: Enhanced HDPE Designs Molded by ISBM

HDPE resin offers strong resistance to household products containing chlorine or bleach, while the flawless neck finish, and no weld lines that ensures leak-free performance from the ISBM process has driven steady growth in ASB's HDPE projects. While ISBM has traditionally produced simple round HDPE containers, ASB's advanced preform conditioning station now enables non-round and specialty shapes. The high-precision front-face parting line of the blow mold further boosts productivity, increasing moldable cavities of the demonstrated container from 5 to 7—a 40% rise over conventional designs

4. HSB12-4N/111N + 2L Returnable & Refillable CSD bottle



ASB Unveils World's First 1.5-Step Double Blow Heat-Set Machine – Advancing Sustainable Bottle Production.

ASB introduces the world's first 1.5-Step machine capable of molding double blow heat-set returnable and refillable PET bottles directly from resin. Combining the strengths of 1-Step and 2-Step molding, it delivers high-quality output in a compact footprint. ASB's Double Blow Heat-Set technology increases material crystallinity and reduces stress, enhancing thermal stability and resistance to environmental stress cracking—ensuring high reusability even at lighter weights. With sustainability in focus, ASB leverages its packaging expertise and advanced molding systems to meet the growing demand for eco-friendly solutions.

Engineered for Sustainability: CSD Bottles Built for 25+ Return and Refill Cycles

The bottle meets stringent global standards with a 4.2 gas volume rating, making it suitable for all leading carbonated soft drink brands and capable of more than 25 return and refill cycles. Weighing just 90 grams—7.5% lighter than the industry standard—and made with up to 30% R-PET, it offers superior sustainability. Returnable and refillable PET bottles are about 90% lighter and have a 30% lower carbon footprint than glass. Though twice as heavy as single-use PET bottles, their extended lifespan of around 25 refills means that only 8-10% of PET material is consumed for an equivalent volume of filled product.

Additional Information

The molding machines will be demonstrated at K 2025 together with a range of matched upstream & downstream ancillary equipment including chiller, resin dryer, mold temperature controller, mold dehumidifier, conveyor systems, etc.

ASB's stand will also be exhibiting an exciting range of new developments and packaging technologies including; Through-hole handle molding, Zero Cooling, Returnable & Refillable, lightweight collapsible water servers, canted/tilted neck bottles, HDPE bottles by ISBM, thick wall / base cosmetic bottles, etc.

Images

(high resolution images are available separately)

#

| |
|------------------------------|
| NISSEI ASB MACHINE CO., LTD. |
|------------------------------|

NISSEI ASB MACHINE CO., LTD. is a major stretch blow molding machine manufacturer for the production of plastic containers including PET bottles.

Head Office Address: 4586-3 Koo, Komoro-shi, Nagano-ken, Japan

Foundation: 8th November 1978

Employees: 2,142 staff (Consolidated: 30th September 2024)

Capital: 3.8 billion Japanese yen

Sales: 36.8 billion Japanese yen (Consolidated accounting: September 2024)

#

Inquiries:

NISSEI ASB MACHINE CO., LTD.

Sales Coordination Group

International Sales Department

4586-3 Koo, Komoro-shi, Nagano-ken, Japan 384-8585

Tel : +81 (0)267 23 1565 Fax : +81 (0)267 23 1564

E-mail: sales@nisseiasb.com URL: www.nisseiasb.co.jp