19 August 2016

NISSEI ASB MACHINE CO., LTD.
(TSE 1st Section, Code Number: 6284)

ASB to Demonstrate Four High Performance Machines & Advanced Technologies at K2016

Nissei ASB Machine Co., Ltd. (Head office: Komoro-shi, Nagano-ken, Japan - President: Kota Aoki), a world leading manufacture of PET and plastic bottle stretch blow molding machines, will exhibit at K2016 (Hall 14 Booth No. B38), to be held in Duesseldorf, Germany from October 19th to 26th 2016.

ASB will be demonstrating four of its top-line molding machines,

- PF24-8B/12 1.5-step injection stretch blow molding machine,
- ASB-70DPW v4 1-step injection stretch blow molding machine,
- ASB-70DPH/DB 1-step double-blow heat-set injection stretch blow molding machine,
- ASB-12M/IBM Injection blow molding machine.

In addition, a range of ASB's specialized molding technologies and unique sample containers will be on display.

K2016

Held every 3 years in Duesseldorf, Germany, the K fair has long been regarded as the world's largest and most important international plastics exhibition. Spread over 171,245 square meters, K2013 saw 218,000 visitors from 108 countries pass through the doors to view exhibits from 3,220 companies. The importance of K for exhibitors can be easily understood by the fact that 66% of K2013 visitors came from top or middle management and 82% of visitors were directly involved in purchasing decisions with the result that 92% of exhibitors reported expectations of successful post exhibition business.

For K2016, ASB will conducting live molding demonstrations of the following exhibits throughout each day;

PF24-8B/12 – Molding Deep Grip Pinch Type Handle

High Performance 1.5-Step Injection Stretch Blow Molding Machine

The PF24-8B/12 machine uses ASB's unique and pioneering 1.5-step molding process to injection stretch blow mold PET bottles directly from raw material in an extremely compact space. In order to achieve the same output by alternative molding methods at least 2-3 times the factory floor area would be required.

Additionally, by molding the preform within the same machine that the bottle is blown, the quality and hygiene of the preform and finished bottle is of the highest possible level making the machine ideally suited to an in-line filling operation for food products.

At K2016, the demonstrated PF24-8B/12 machine will be molding an oval PET 3 liter container suitable for applications such as fabric conditioner or edible oil in a mold configuration of 12 preform cavities and 4 blow cavities.

The container features a deep pinch grip style handle that uses specially designed blow molds and advanced molding methods to fully form the handle by blow molding alone. No handle inserter or injection molded handle is required giving a container that is cheaper to produce, utilizes less molding energy, is easy and comfortable to hold in the hand, and is easier to recycle.

In addition, the machine will also be demonstrating a newly designed neck orientation system installed between the preform heating and the blow molding process that provides dual functions of ensuring optimized material distribution of ovalized preforms and ensuring that flip-top or

asymmetric caps are oriented correctly for pouring.

For increased versatility, the PF24 models can be converted at the customer's factory between 12 injection / 4 blow cavity molding for bottles up to 5 liters; and 24 injection / 8 blow cavity molding for bottles up to 1.5 liters. By changing cavity configuration and molds, the same PF24 model seen at the K2016 exhibition is equally at home molding lightweight water bottles at up to 9,000bph.

ASB-70DPH/DB – Double-Blow Heat-Set Molding in One Step

Mid-Range One Step Injection Stretch Blow Molding Machine with Heat-Set Capability

Due to its continual development and extreme molding versatility for a wide range of container designs and resins, the medium sized ASB-70DP range of one-step injection stretch blow molding machines have remained as one of ASB's best-selling products since their introduction resulting in the sale of more than 1,800 units.

Nissei ASB is also a world leader in technologies for molding heat resistant PET containers for a wide range of hot filling and pasteurizable food applications using its specialized HSB Series range of machines that apply the double-blow heat-set molding technique for very high heat resistance.

Taking the above advantages into consideration, ASB has now developed the all new ASB-70DPH/DB for global debut at K2016 that combines the versatility of the ASB-70DPH with the double-blow technique of the HSB series into a compact and versatile one-step injection stretch blow molding platform. It is expected to be a major opportunity for those smaller molding companies wishing to move into niche area hot filling, without incurring the investment costs and narrow product range of larger, more dedicated machinery.

To achieve this, the blow station has been heavily modified to incorporate two sets of blow molds mounted on a servo driven shuttle system. Since one-step molding cycle times are largely dependent on the preform molding time, the primary and final blow molds are able to mold PET containers that are hot fillable at up to 90°C, subject to container design, while operating within the same cycle time as a conventionally molded container.

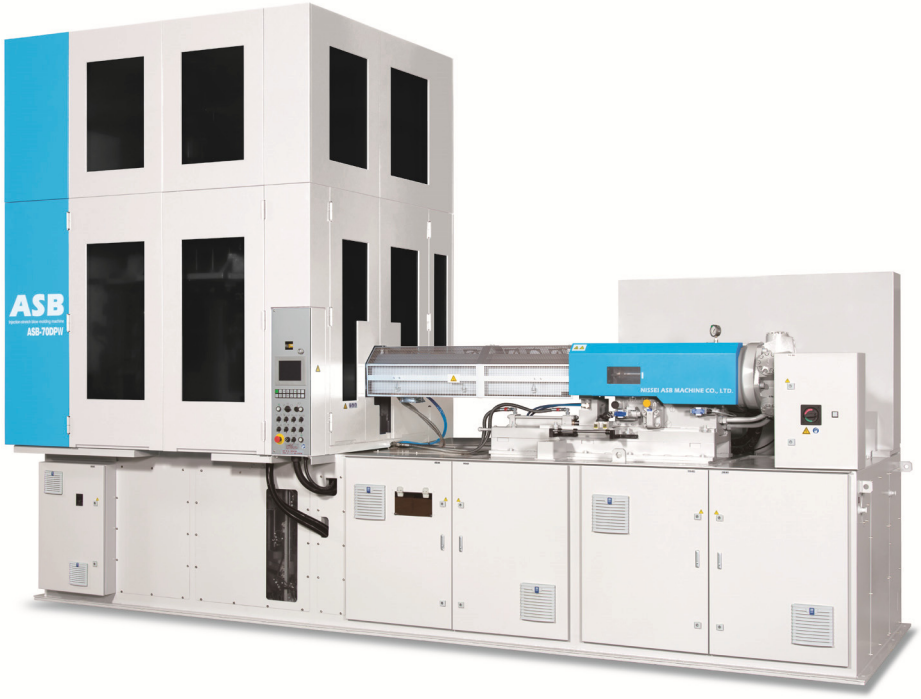
Servo driven hydraulic pumps are fitted as standard, contributing to major energy saving and offering clean, quiet operation while all motions above the molding plane are either pneumatic or servo motor actuated, as in the case of the stretch / blow unit, ensuring that molded products are free from the risk of contamination.

For increased versatility, the machine is also capable of molding conventional containers for a wide range of applications including jars and in a wide range of molding materials. Injection clamp daylight has been extended up to 700mm for even greater flexibility in molding of longer preforms as is often required when molding non-PET resins, and an optional injection unit with increased capacity further extends molding flexibility.

At K2016 the machine will be demonstrated molding a 500ml PET ketchup bottle in five cavities suitable for hot filling at up to 87°C.

ASB-70DPW v4 – Improved Output & Efficiency

Very High Output of Small Containers in Various Resins



K2016 represents the first time for ASB's 4th generation ASB-70DPW to be exhibited in Europe. Compared to the previous generation model, the v4 machine being demonstrated features a wide range of standard and optional equipment that provides lower energy consumption, greater productivity and improved reliability.

For energy saving, the optional servo hydraulic system provided power consumption savings of 30~40% over the same mold and cycle time, while the optional blow air recycle system has the capability to take exhausted blowing air back into the machine system for air cylinder operation thus saving energy at the operation (low pressure) air compressor.

The mechanical design of the blow station has been totally re-engineered permitting faster blow mold changeover times and providing enhanced reliability, while an enhanced mold changing system in all stations permits drastic reductions in overall mold change time. For a blow mold change, just 30% of the previous time is required while for a total and complete preform and blow mold change, around 50% of the previous time is required.

As with all ASB-70DPW models, the machine is dedicated to production of small bottles in molding configurations from 12 to 24 cavities and with the modified blow station, the maximum moldable container size has increased from 700ml to 1 liter along with numerous other cavitation improvements for other container specifications.

The safety door design has also been updated with a cleaner refreshed image that gives easier access for maintenance and also contributes to the reduced mold change times.

At K2016, the ASB-70DPW v4 will be molding a hotel style 30ml PET shampoo bottle in 24 cavities giving an output of 8,000bph.

ASB-12M/IBM – Injection Blow Molding Version for Added Versatility

Compact Molding with Advanced Efficiency

The ASB-12M is one of the smallest but most versatile machines in ASB's model line-up. For K2016 the exhibited machine is the ASB-12M/IBM variant which is dedicated to the production of small containers by the Injection Blow Molding (IBM) process and utilizes just two of the four molding stations in the regular machine. Although the IBM version is factory built for this process, should market changes demand it, the machine also has the capability to be re-engineered at the customer's site to the standard four station operation for regular one-step injection stretch blow molding, acting as a safeguard to the operator's investment.

This IBM version of this model utilizes ASB's unique vertical clamping system that allows the preform to be molded with no visible parting lines resulting in containers of particularly high visual quality for applications such as cosmetics and lamp covers. This model is equipped with servo hydraulic pumps as standard and for the exhibition, the machine will be fitted with real-time energy monitoring demonstrating just how little power this technology consumes.

At K2016 the ASB-12M/IBM will be molding a 46mm diameter polycarbonate lamp cover in 2 cavities for modern energy efficient LED bulbs in two cavities utilizing the IBM process with a side-gated cold runner system that gives the advantage of eliminating gating from the main body of the product, resulting in perfect optical quality where it matters.

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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 : 1,628 staff (Consolidated: September 2015)
Capital : 3.8 billion Japanese yen
Sales : 25.4 billion Japanese yen (Consolidated accounting: September 2015)

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