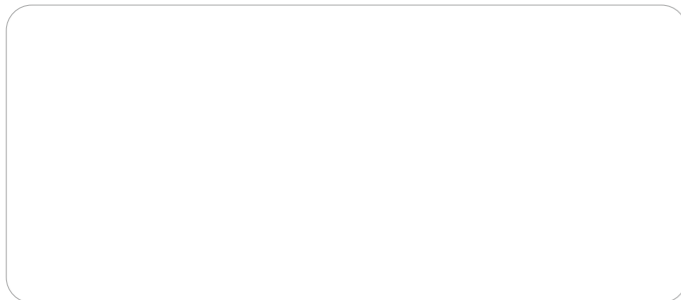


SMS Series *PET Stretch-blow Molding Machine*



Smargon Plastic Machinery Co., Ltd.
www.smargon.com

Innovative: Shining points more than expectation

- 01** Manufactured under ISO 9001 standard and comply with essential requirements of EC directives applied
Ensure quality with reliable safety
- 02** Industrial-use SIEMENS PLC control system (34-point)
Offers a precise time control
- 03** Brand pneumatic elements, including SMC (Japan) cylinder and solenoid valve; Lucifer (Swiss) high-pressure valve
Guarantee high action precision, long using life and wonderful performance
- 04** Chain-wheel type preform transferring device
Prevent preform holder frame from touching, reduce the wear and tear to minimum level
- 05** Heating unit with considerable heating reserves for optimum performance
Offers a broader window of processability to handle a wide variety of preform thickness and lengths
- 06** Powerful, continuous and uniform ventilation on the heating oven
Ensures the internal temperature at a sufficiently low level and avoid excessively high temperature on the external wall of the preforms
- 07** Adopt circulation of cold water and the blowing of air onto the preform necks during the entire thermal conditioning cycle
Avoid overheating the necks of the preforms

- 08** Vertical toggle clamping system with large torsion moment and pneumatic compensation ensures powerful clamp force
Short moving stroke, fast cycle and low vibration

- 09** Mechanical type connecting system between clamping toggle and mold-base moving device, makes mold close-open and bottom up-down actions finish at the same time
Reduce cycle time, increase the output



- 10** Adopt high quality THK (Japan) sliding rail and block
Reduce machine linear action's frictional resistance
- 11** Powerful shock absorber adopted on preform transferring system and clamping system
Ensure the machine with high speed but as low as possible shaking
- 12** Double sealing cylinders and inner-sealing mode
Provide balance and reliable sealing result without any air leakage during blowing
- 13** Mechanical type stretching stroke control device
Adjust stretching stroke and prevent the stretching bar from impacting the mold bottom on each cycle
- 14** Pre-blow function has been adopted as standard
Ensure machine to be good enough to produce various shape of bottle, including round, square, off-center, petaline bottom, oval, etc
- 15** Double exhaust circuit work together for one cavity
Quicken the exhaust speed and shorten the cycle time
- 16** Uniform water, air & power supply arrangement, convenience for quick start-up
Simplify the installation work



High performance with a system and perfection in detail

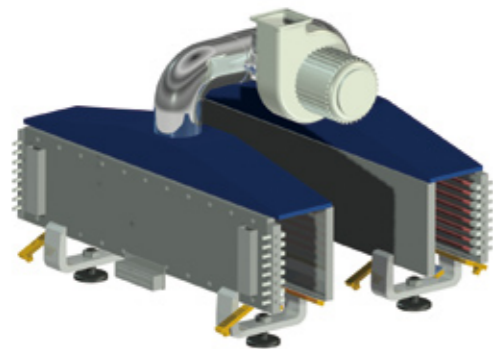
Control System

SMS machine has a user-friendly control system, based on quality 34-point SIEMENS PLC, allowing easy programming of all action parameters. Concealed behind this simple user interface, there is a fully digital regulation and control of the entire blow-molding process from preform transferring to bottle discharging.



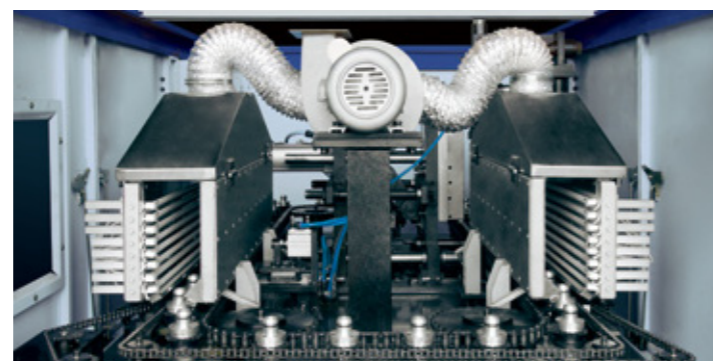
Pneumatic System

High quality pneumatic elements from SMC (Japan) and LUCIFER (Swiss), have been equipped on SMS machine. High action precision, long using life and wonderful performance are their common merits. And, the customer can also enjoy these international companies' prompt after-sale service locally for their products used on SMS machine.



Heating System

Each of parallel heating ovens is equipped with 8 infrared lamps that can be individually adjusted in order to obtain an optimal longitudinal thermal profile of the preforms. During the heating phase, the preforms, neck down, are constantly rotated for a perfectly symmetrical distribution of heat. The ovens are ventilated in order to maintain their internal temperature at a sufficiently low level and avoid excessively high temperature on the external wall of the preforms.



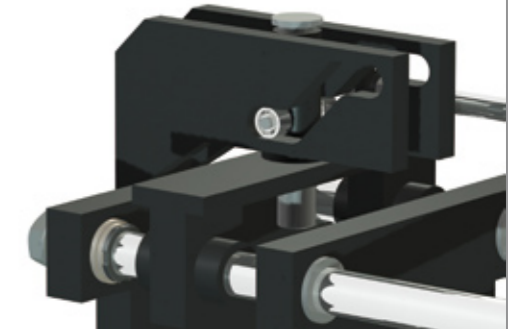
Two protection ramps make it possible to avoid overheating the necks of the preforms. This is achieved by the circulation of cold water, and the blowing of air onto the necks during the entire thermal conditioning cycle.



Clamping System

Vertical type clamping toggle system has been adopted, whose moving stroke will be just half as horizontal one. For one-cavity mold's clamping requirement, clamping toggle and mold-plate have been designed very compact and double clamping cylinders will ensure reliable clamping result.

Mechanical connecting system between clamping toggle and mold-bottom moving device on SMS machine make mold close-open and bottom up-down actions finish at the same time, which will do great help to reduce cycle time and get high output.



Stretch & Seal System

Separate cylinders are used to be in charge of stretch and seal action correspondingly. Double sealing cylinders and inner-sealing mode provide more balance and reliable sealing result without any air leakage during blowing. Mechanical stretching-stroke control device can adjust stretching stroke according to bottle's height, and prevent the stretching bar from impacting the mold bottom on each cycle.



Sliding Rail & Block

High quality THK (Japan) LM Guide (HSR series, full-ball type) has been widely used on SMS machine for horizontal moving guide, including mold open&close and preform's transferring. The LM block can receive a well-balanced preload, increasing the rigidity in the four directions while maintaining a constant, low friction coefficient. With the low sectional height and the high rigidity design, it achieves highly accurate, stable straight motion, high wear resistance and long-term maintenance of accuracy.



Shock Absorber

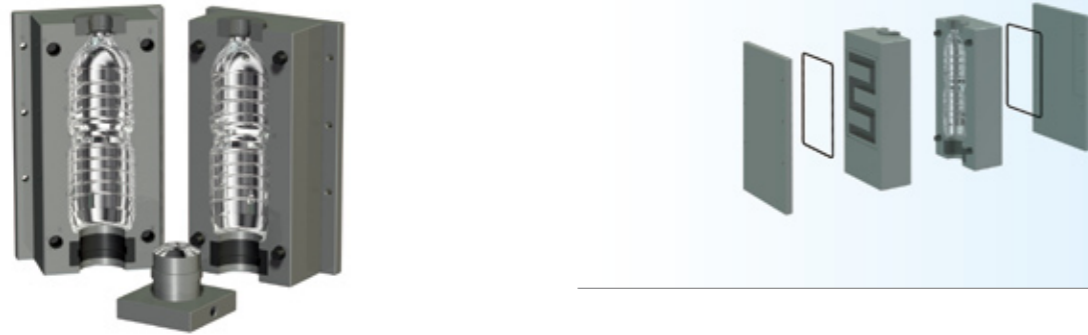
For machine, lower shock during running means lower wear and tear and longer service life. Thanks for RB series shock absorber's adoption, SMS machine can run with very low shock during the whole process.

The RB shock absorber can withstand an impact speed of 16 ft/sec and has a specially designed orifice that compensates for varying speeds and loads to consistently decelerate loads. The double seal enclosure consists of a scraper and a rod seal, provides extra insurance against leakage.



Suitable Blow Mold

The mold for SMS machine is made up of three parts: two half-molds and one separate mold bottom. To meet fast production cycle's requirement, low-density-high-rigidity aluminum alloys are used for mold building, and wide cooling channels have been machining on both mold body and bottom. Besides, there is also special designed air blowing channels on the mold bottom, which can carry out air cooling and blow doffing function to prevent bottle bottom from shrinking and being caught by the mold bottom.



Special attention has been paid to minimize the mold change-over time from one bottle production to another, even in case of neck change. Thus, the blowing molds, including mold bottom, are pre-assembled and preset on a separated mold-holding plate, providing quick pre-positioning and installation of the mold sets on the machine.



After-sales Service

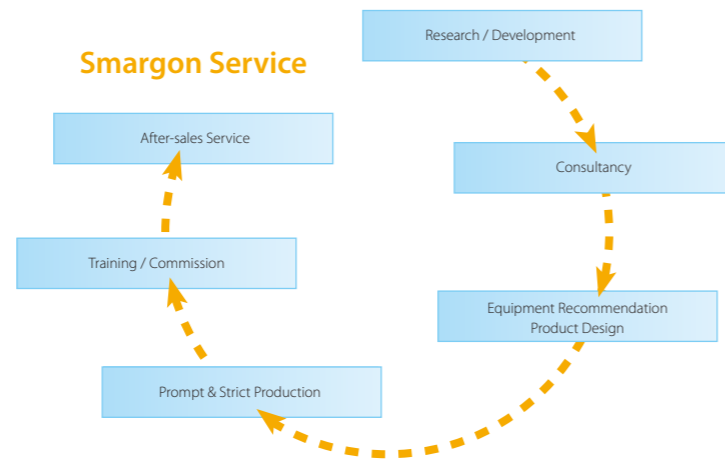
At Smargon Plastic, service means a great deal more than the delivery of spare parts on time. It is much rather concerned with providing customers with a comprehensive support package and quickly in any situation.

A highly qualified team of engineers is available to you especially when it comes to the planning and implementation of complete production system.

By down-to-earth training at Smargon, we give you the certainty that you and your employees will be able to operate our blow-molding machine optimally and efficiently.

After purchase of equipment from Smargon Plastic, our customers can count on a reliable, non-bureaucratic and fast after-sales service and Smargon support for a long equipment life.

Smargon provides the total availability and quick transaction of spare part orders in full with a 24-hour service on 7 days per week and comprehensive stocks of spare part at headquarters and with local agent.



Specification

Model		SMS600	SMS1500	SMS2250	SMS2500J
Mold Cavity	number	1	1	1	1
Max Body Diameter	mm	70	90	110	130
Max Body Height	mm	240	320	350	280
Neck Range	mm	15~30	15~30	15~30	50~100
Bottle Volume	liter	up to 0.6	up to 1.5	up to 2.25	up to 2.5
Max Nominal Output	b/h	1500	1300	1000	700
Heating Capacity	kw	12	18	26	26
Total Installed Power	kw	13	19	27	27
Mold Thickness	mm	170	170	170	220
Operating Pressure	bar	8~10	8~10	8~10	8~10
Blowing Pressure	bar	25~35	25~35	25~35	25~35
Temp. Control Point	pc	5	8	8	8
Dimension(LxWxH)	mm	2000x1300x1400	2300x1300x1600	2500x1300x1800	2750x1300x1800
Net Weight	kg	1200	1500	1800	1700

Output rates are indicative and subject to confirmation by our technical dept. for any specific application.

Operating Description

- 01 Input preform onto machine's preform holder
- 02 Transfer the preform along the moving rail
- 03 Heat the preform
- 04 Blow the heated preform into bottle
- 05 Discharge the bottle from the machine

