



Forming Tomorrow. Today!

PET Servo Stretch Blow Moulding Machines

Electropneumatics &
Hydraulics (India) Pvt. Ltd.

Machine
Manufacturing
Division (MMD)

Electropneumatics

Electropneumatics has been designing and building sophisticated metal forming machines for more than forty five years with total indigenous capability. Pioneers in several forming technologies and recipient of many technology awards in India, Electropneumatics has today more than 5000 machines around the world performing deep drawing, hot moulding, powder compacting, honing, stretch blow moulding, bending and other forming operations. Modern design capabilities, strong R&D foundation, well-equipped, state-of-the-art manufacturing facilities and ISO 9001:2008 certification assures best practices and quality in machine building and testing.

Plastic Machinery Division

Complementing its range of metal forming machines, Electropneumatics has successfully introduced in the field a range of PET Stretch Blow Moulding Machines for making bottles for water, juice, liquor, syrups, edible oil, carbonated drinks, medicines, cosmetics, detergents and cleaning liquids, pesticides etc. It now introduces its second generation of machines which are faster, more efficient and provide the lowest operating costs in the industry.



Machine Assembly Section

ElectroPET

The ElectroPET series, in line with the latest technological trends, brings to you a whole new concept of speed and efficiency. To get the most heating efficiency, the preforms mounted on carrier mandrels are made to move through the oven at a smaller pitch and close to the heaters so that the heating zones have minimum overlap thus ensuring that heat is concentrated exactly where needed. Preforms are heated in the neck down position to prevent distortion of the neck and are then rotated through 180 degrees and placed between the mould halves in the neck up position. The stretching and blowing are thus done downwards in line with the gravitational force, ensuring perfect centering and distribution of material.

16500
BPH



Key features at a glance

- 01** Up to 16500 BPH
- 02** Highly Flexible: From 160ml to 2L
- 03** Lowest operating cost
- 04** Lowest air consumption
- 05** Fastest mould change time (20 mins)
- 06** Replaces multiple old, slow & inefficient machines with a single machine
- 07** Most energy efficient

Unique Features

Servo stretching

- Servo stretching as a standard feature provides flexibility and easy setting
- Fast and energy efficient
- Stepless programming of stretching speed and position
- Accurate and repeatable
- No mechanical settings for different bottle sizes
- Smooth and silent operation with no jerks or vibrations
- Maintenance free



No mould loading crane required

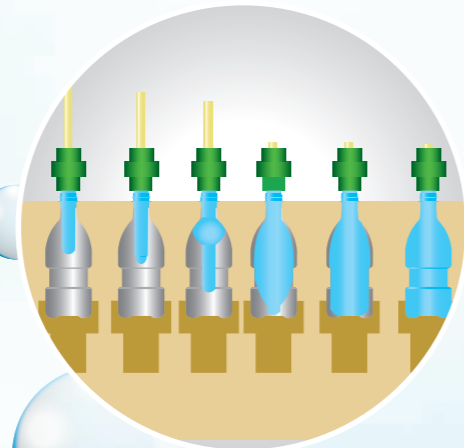
Loading time is less than 20 mins!

Our unique clamp unit design enables the easiest mould change arrangement in the industry. The moulds can be rolled in on a trolley and just slid-in on our die rails. Fasten the bolts and you are ready to go.

Downward stretching like all rotary machines

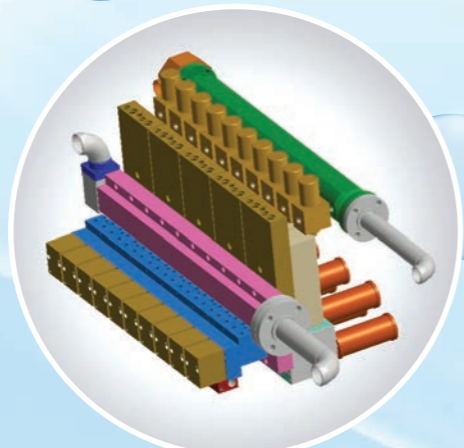
Ensures perfect centering and material distribution!

The stretching and blowing are done downwards as in rotary machines, in line with the gravitational force, ensuring perfect centering and distribution of material.



Best in class air recovery and management system

Years of in-house knowledge in pneumatic technologies have enabled Electropneumatics to design the most optimized and sophisticated air recovery and management system for guaranteed lowest air consumption. The custom blow pin cylinders ensure maximum seal life with minimal operating air pressure. Custom manifold blocks with optimised piping further ensure minimal air wastage and maximum recovery.



Virtually noiseless indexing

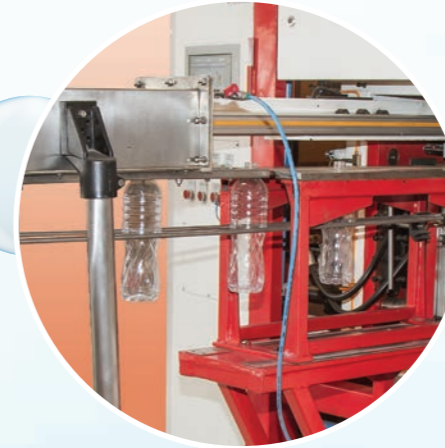
Clappers are indexed in a circular guided rail with a single servo actuator for virtually noiseless indexing. All clappers are made of metal and are indexed on roller bearings for frictionless motion with no wear and hence are maintenance free for life.



Direct feed to air conveyor. No cumbersome bottle tilting or re-orientation required

Feeds the air conveyor directly!

- Bottles are blown "neck up" and hence, no inversion of bottles required
- The bottles exit from the mould and are fed directly into the air conveyor
- High speed servo motor controlled "pick and place" unit for discharge and feeding into the air conveyor
- Maintenance free operation



Industry 4.0 ready

Our sophisticated controller is Industry 4.0 ready! As an optional feature, customers can now monitor their machine performances with production data, downtime, uptime, alarms, OEE etc. Data is pushed to the cloud and can be accessed on a daily, weekly or monthly basis on simple graphical dashboards either on PC's or smartphones.



Powerful oven to give very good bottle quality and quick start-up

Processing is now easier!

- Consistent bottle quality
- Precise temperature control of preforms
- Powerful oven with pre-heater to blow entire range of preforms
- Pre-heater oven separated to give best results with preforms having moisture
- Very easy to process bottle

Typical Line Layout

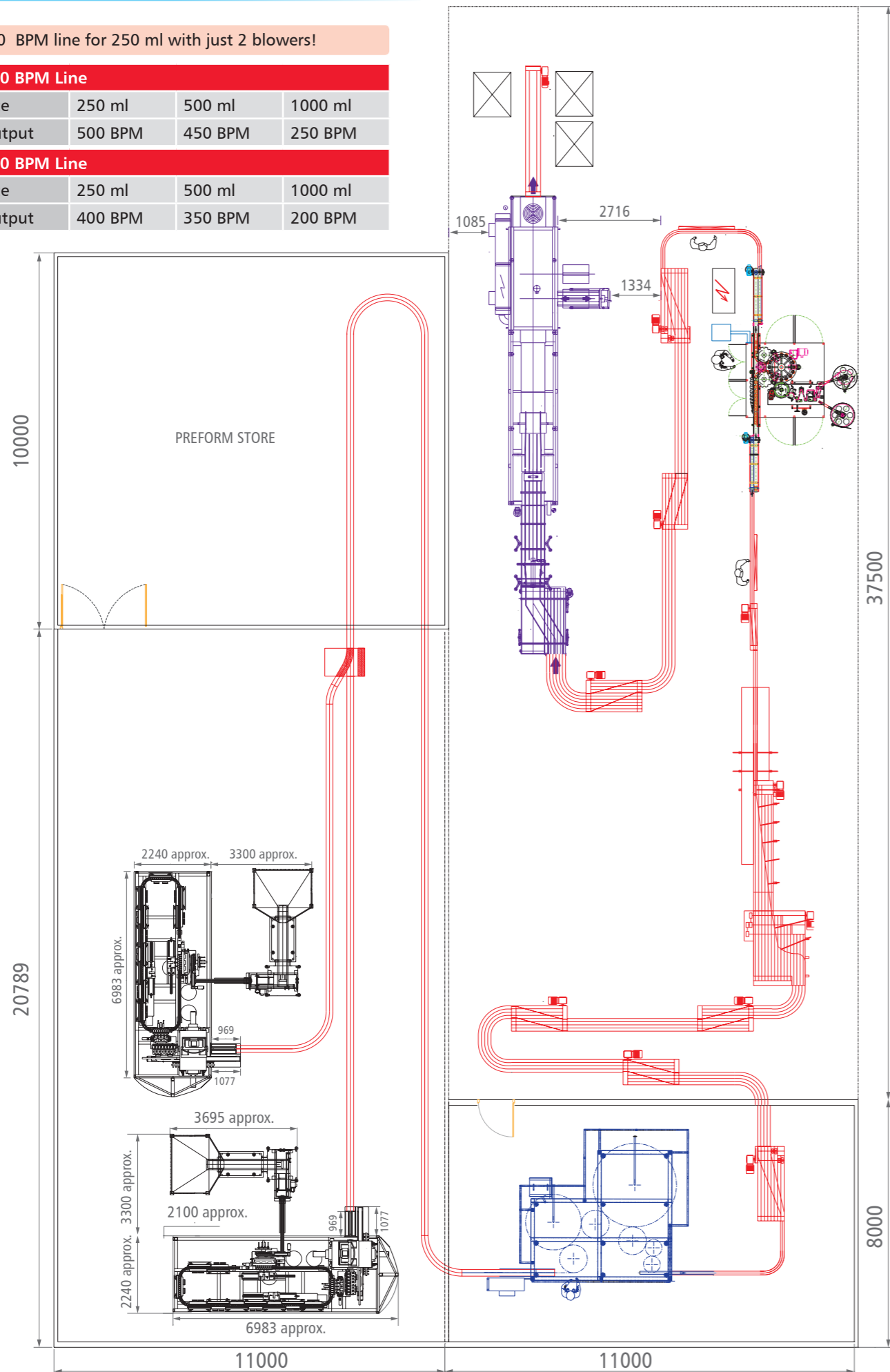
500 BPM line for 250 ml with just 2 blowers!

500 BPM Line

Size	250 ml	500 ml	1000 ml
Output	500 BPM	450 BPM	250 BPM

400 BPM Line

Size	250 ml	500 ml	1000 ml
Output	400 BPM	350 BPM	200 BPM



All units in mm.

Technical Specifications

MACHINE MODEL	EP-PET-0.6/10-2/5	EP-PET-0.6/8-2/4	EP-PET-2/4
MACHINE CAPACITY & RATINGS			
Max. Mechanical Output (BPH)*	16500 upto 600ml 8000 from 0.6 to 2L	11500 upto 600ml 5800 from 0.6 to 2L	6000
Assured output for any preform (BPH)** (Water or CSD Preform)	15000 upto 600ml 7500 for 1L 6800 for 2L	10800 upto 600ml 5700 for 1L 5000 for 2L	5700 for 1L*** 5000 for 2L***
No. of Cavities	10 upto 600ml 5 for > 600ml	8 upto 600ml 4 for > 600ml	4
Max. Volume	2L	2L	2L
Controller: SmartPET with 12" touch screen display with optional IoT 4.0	EP	EP	EP
Heaters per module * No. of modules	[5x1.5KW] x 10 upto 600ml [8x1.5KW] x 10 > 600ml	[5x1.5KW] x 9 upto 600ml [8x1.5KW] x 9 > 600ml	[8x1.5KW] x 5
BOTTLE SPECIFICATIONS			
Max. Bottle Diameter (mm)	106	106	106
Max. Bottle Height (mm)	360	360	360
Max. Neck Diameter (mm)	30	38	38
Max. Preform height including neck (mm)	145	145	145
PERFORMANCE OEE			
Mould Changeover Time (mins)	20	20	20
Efficiency (%)	>95	>95	>95
ENERGY			
Heating Load (KW)	75 upto 600 ml 120 upto 2L	68 upto 600 ml 108 upto 2L	60
Connected load (KW)	165	160	82
Estimated Avg. Power Consumption (KWH)	36 for 500ml 73 for 2L	43 for 500ml 73 for 2L	29 for 1L
DIMENSIONS & WEIGHT			
Machine dimensions L x W x H (mtr)	7 x 2.25 x 3.12	6.8 x 2.2 x 3.3	5.5 x 1.75 x 3.04
Dimensions with preform feeder L x W x H (mtr)	7.45 x 5.75 x 4	7.1 x 5.8 x 3.3	7.58 x 3.5 x 3.1
Machine Weight (Tons)	~12.5	~11	~8
UTILITIES			
High pressure air consumption 32 – 40 bar; Oil free (CFM)	0.2L @ 15000 – 105 CFM 0.5L @ 15000 – 180 CFM 1L @ 7500 – 205 CFM 2L @ 6500 – 255 CFM	0.2L @ 11500 – 110 CFM 0.5L @ 11500 – 185 CFM 1L @ 5700 – 215 CFM 2L @ 5000 – 260 CFM	1L @ 5700 – 180 CFM
Water 8 to 12 °C @ 4 bar pressure	60 LPM	60 LPM	30 LPM

Specification sheet subject to change without notice.

* For standard cylindrical water bottles. It is subject to change based on bottle size & weight.

** For cylindrical bottles upto a limit of 3.5mm wall thickness.

*** For water bottles only. Output will reduce for CSD.



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