

**SeppA**  
Simple Innovations

P- L- C & STERIPURE<sup>™</sup>

**AUTOMATIC**  
**LARGE BOTTLE FILLING**  
**EQUIPMENT**



**25 Years Of**  
**Large Bottle Complete Line Solutions**

## System Profile

### 2 - 40 Bottles Per Minute (BPM) Automatic Large Bottle Line

The SEPPA PLC Series is designed to Wash, Sanitize, Fill and Cap large Bottles from 2 to 24 Bottle Per minute. SEPPA Designs are driven towards maximum uptime and reduced cost of production. Due to multiple bottle size handling system SEPPA's WFC's (Washer, Filler and Capper) ability to handle different shapes and sizes of large bottle is the most important feature for creating Line Flexibility. This helps in launching new product designs and packaging in the same line.

The SEPPA – Evats – PLC Series is the most advanced Washer Filler and Capper for large bottle packaging lines. It ensures high level of hygiene along with “High Accuracy Filling”. The most hygienic and accurate filling technology in the world currently with a large range of sanitizing agent from hot water detergent to ozonized water rinsing prior to filling.

#### Auto Loader

Fully Automatic bottle loading system load bottles from in-feed conveyor to bottle holder. An advanced Robot pneumatic system combined with optical sensor makes the loading process reliable and efficient.



#### Scrubber / Jet Spray Nozzle

Specially designed Nylo - Brussel Scrubber / Jet Spray Nozzles provided in combination with angular sprays to wash the Inner and Outer surface of the bottle. The Scrubber or Spray Nozzle are so designed even to clean the external neck areas.



#### Washing System

Stages of washing are available from 3 to 14 depending upon customers requirements. Wash water recycle tank as well as S/S bar screens are provided in the washing segment.

Specially designed Nozzles with angular 0° to 15° ensure efficient internal wash of the bottles.

The machine incorporates three / four types of washing;

- Filter Water wash
- Detergent hot water wash
- Hot water wash
- Ozonized water wash



#### Filling Heads

Stainless steel descending filling heads is provided to ensure highest sanitary filling without air bubble formation and water spillage.





### Automatic Filling Valves

Stainless steel high accuracy filling valves are used to achieve even filling in all bottles. specially designed high pressure high flow and high pressure low flow filling cycles are provided with PLC control for maximum accuracy and consistency.



### Capping System

Precise torque controlled pneumatic cap application system stamp the cap on to the bottle. The caps are fed to the bottles by the cap sorter and efficient cap chute system. This System can be a pneumatic sorter or a vibrator sorter. Auto sorter shut down by sensor system is provided on request along with “No cap” alarm in chute and auto machine shut down.



### Control Panel

State of art PLC is incorporated with HMI Screen to control the machine. This system control important functions like Wash Time, Fill Time and Conveyor ON / OFF Time and also provide detailed fault detection features. No Bottle - No Wash and No Bottle No Fill are standard features of the machine and are incorporated for maximum hygiene and minimum down time.



## Auto Decapper and Pre wash

SEPPA with its immense experience of large bottle line over the last 25 years has incorporated simple complete line solutions from returnable bottles coming back from the market.

The returnable 3-6 Gallon bottles have the risk of various contaminants in them when they return to factory. To ensure the highest hygiene prior to filling the bottles are sent through a Auto decapper and prewash.

Decapper and prewash are provided on request. They are not part of the standard Evats-1000-PLC machine. Semiauto and Auto models are available.

### De - Capper System

The De - Capper system removes the caps out of the bottle neck with the use of pneumatic cap clamp system. The bottles are fed to the De-Capper by a conveyor and De capping is done on line.



### Pre wash

The De-capped bottles are then sent to an Auto loader of the prewash where they are automatically or manually loaded to bottle holders. The prewash system washes the bottle inside out with high pressure jets. This is done in 3 - 5 stages. External nylon scrubbers are given on request. The prewashed bottles are automatically deloaded to a discharge conveyor from which they travel to the main machine washer.



### Rack Stacker

The SEPPA end of line solution offers large bottle automatic rack stacker. The filled bottles go to the rack stacker indexing mechanism where the bottles are indexed by 90°. The bottles are then pushed on to the rack elevator system. Once the bottles are in position, flaps from the bottom activate to ensure the right spacing between the bottles. The bottles are then pushed by a pneumatic device into the rack. Once the rack at a certain height or level have been loaded with bottles then the rack elevator system moves up or down to fill in the bottles into the empty rack. Once a rack is completed the same starts for another empty rack. The SEPPA rack stacker is simple, efficient and user friendly. It is also very economical compare to robot rack stackers.



### Clean Room System (Steri Pure™)

SEPPA has in its large bottle line an option of a self contained clean room in the filling and capping area with uniflow technology (Steri Pure™). The advance oxidation system with Hepa Filtration and positive air pressure ensures maximum aseptic packaging. The uniflow air pattern is one of its kind ensure the highest hygiene during filling



**\*\*Provided on customer request**

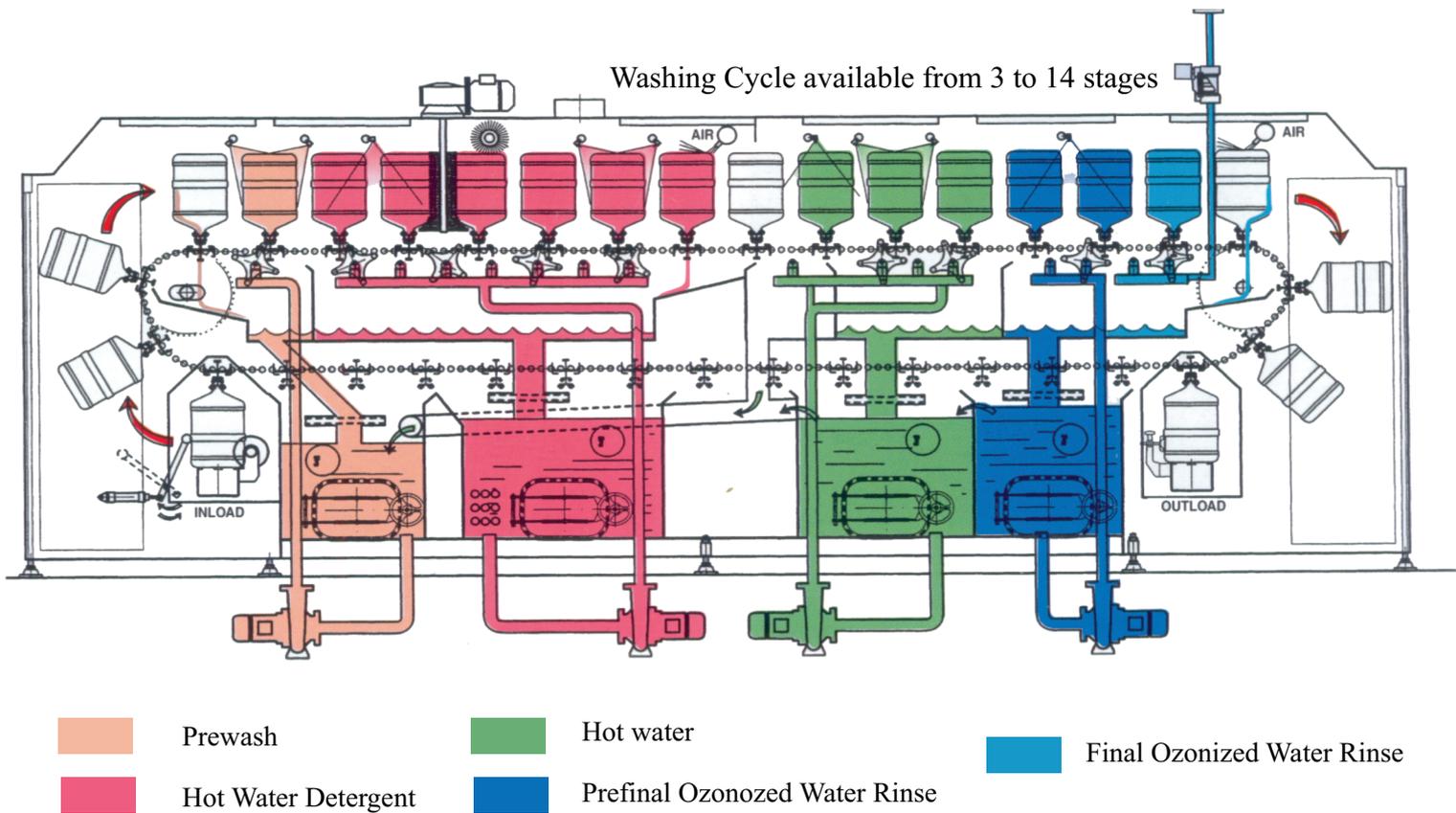
## Benefits

- ◆ Production Flexibility: PET/PC Bottle volume range from 10 to 25 liters
- ◆ Enhanced hygiene: through multiple washing stages upto 14
- ◆ Highest food safety: all contact components in SS304 / SS 316 and on request SS316L
- ◆ Bottle Disinfection / Sterilization by hot water / detergent and ozonized water
- ◆ Pressurized filling cycle to ensure microbiological safety
- ◆ Reduced Production Cost
- ◆ Maximized productivity: drastically reduced change over and maintenance downtime
- ◆ Simplified cleaning: CIP cleaning System for rapid and easy cleaning
- ◆ \*CIP System: A inbuilt CIP System for rapid closed loop cleaning ensuring reduced energy and chemical consumption in the aseptic models
- ◆ \*Pressurized filling: SEPPA volumetric pressure filling with high flow and low flow control valves ensures the most hygiene and accurate fill.
- ◆ \*Cap disinfection by UV as well as ozonized water spray incorporated for maximum hygiene.
- ◆ \*Dry Cap disinfection/sterilization with H<sub>2</sub>O<sub>2</sub> provided in aseptic models.

**\*Provided on customer request**



## Washing Cycle



### Multi Bottle System

SEPPA has developed the most futuristic multi bottle system keeping in perspective of the variations in large bottle heights due to multiple sizes of large bottle varying from 3-6 gallon. SEPPA has developed the EVATS-1000-MBAA™ series (Multi Bottle Auto Adjustment™ System). In this series of SEPPA large bottling machine, multiple sizes bottles can be fed into the auto loader, washer, filler and capper. The auto loader is designed to load different sizes of bottles into the washing zone.

The bottle deloader to the filling zone is also designed to handle multiple sizes and volume of bottles. The filling system has a extended pneumatic filling head to adjust to various heights of bottles. The filling system also fills various volumes of bottles accurately. The specialized high fill low fill valves control the required fill volume in each individual filling head.

The capping device is the most complex and state of art. It checks each bottle for its height before applying the cap on to it. The auto sensor system deducts variation in bottle height. Thus a 3-6 gallon bottle can be simultaneously be bottled in the SEPPA MBAA™ series washer filler capper. There is no need to sort bottles by size before feeding them into the SEPPA W-F-C machine.

This series reduces time and effort as well as enhances production efficiency.

SEPPA has developed the most advanced rotary multi-head pressurized filling and capping system for Evats 1000-24 PLC to Evats 1000-40 PLC. The washed bottles from the washer are transferred by a Star Wheel to the Rotary Filling block. The Rotary filler has multiple filling valves which guarantee high accuracy in filling.

The valves descend down to seal the large gallon bottles. Once the mouth of the bottle is sealed then high pressure filling starts. A high pressure, low pressure filling valve is provided to control filling accuracy. Overflow recycle system is provided to carry excess water back to the filling tank.

This ensures no wastage of water. The filled bottles are transferred to the discharge conveyor by means of a star wheel. The discharge conveyor has the cap chute as well as capping system as in other models of the Evats.



## Equipment Overview

Model	Capacity
EVATS 1000 - 2 PLC	2 Bottles per Minute (PC / PET 3 - 5 - 6 Gallon Bottles)
EVATS 1000 - 4 PLC	4 Bottles per Minute (PC / PET 3 - 5 - 6 Gallon Bottles)
EVATS 1000 - 6 PLC	6 Bottles per Minute (PC / PET 3 - 5 - 6 Gallon Bottles)
EVATS 1000 - 10 PLC	10 Bottles per Minute (PC / PET 3 - 5 - 6 Gallon Bottles)
EVATS 1000 - 12 PLC	12 Bottles per Minute (PC / PET 3 - 5 - 6 Gallon Bottles)
EVATS 1000 - 16 PLC	16 Bottles per Minute (PC / PET 3 - 5 - 6 Gallon Bottles)
EVATS 1000 - 24 PLC	24 Bottles per Minute (PC / PET 3 - 5 - 6 Gallon Bottles)
EVATS 1000 - 30 PLC	30 Bottles per Minute (PC / PET 3 - 5 - 6 Gallon Bottles)
EVATS 1000 - 40 PLC	40 Bottles per Minute (PC / PET 3 - 5 - 6 Gallon Bottles)

Note : - Due to continuous improvements, specifications are subject to change without notice.

Enhance  
Productivity  
Hygiene  
And Line Speed

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