



PMS ROTAWASH[®]

Rotary Bottle Washing Machine



PMS ROTAWASH, semi-automatic bottle washing system, combines functions of rotating rotor nozzles and stationary nozzles. Washing capacity is enhanced significantly through continuous loading, cleaning, drying and unloading process. Hence, there is no waiting or idle time. Rotating speed is adjustable through stepless variable pulley unit.

Theory of Operation

Water jet spray from the stationary nozzle provides a thorough clean to external surfaces of the bottles. Meanwhile, the jet streams come out of the rotating nozzles at high pressure and bounce off the bottom of the bottle, thus cleaning all internal surfaces completely.

To save amount of water supply, separated reservoirs are provided to store two recycled water sources. Recycling process feeds water through 25-micron filter for rinsing water and through 1-micron filter for washing water. As an option, electrical heater submerges in the reservoir to heat up washing water, automatically controlled to a desired temperature.

The system is capable of washing various sizes of bottles, simply by changing bottle holders. Process sequence and timing are adaptable to meet users' requirement.

Washing Steps

Bottle washing process comprises of 4 sub-steps:

- ◆ Step 1 : Rinse Spray tap water jet stream onto internal and external surface to sweep away soluble dirt or loosely adhered particles
- ◆ Step 2 : Dry Supply clean compressed air to remove water droplets at internal surface of the bottle
- ◆ Step 3 : Wash Final clean internal surface with normal or hot de-ionized/distilled water
- ◆ Step 4 : Dry Feed clean compressed air to remove water droplet at the internal surface

Two additional washing steps recommended for Infusion bottles

- ◆ Step 5 : Final Wash Final clean internal surface with normal or hot de-ionized/distilled water for superior cleanliness
- ◆ Step 6 : Final Dry Supply clean compressed air to remove water droplet at the internal surface

		SBW 48	SBW 64
Capacity	(bottle/hr)	1800 - 2700	2400 - 3600
	(bottle/cycle)	48	64
No. of arms		16	16
No. of nozzles for each arm		3	4
No. of bottle holder (set)		2	2
Table driving unit		0.37 kW	0.37 kW
Centrifugal pump		0.75 kW	0.75 kW
Machine dimension	W (mm)	1170	1240
	L (mm)	1170	1240
	H (mm)	1385	1385
Tank dimension	W (mm)	450	450
	L (mm)	650	650
	H (mm)	520	520



Benefits

- ◆ GMP Compliance
- ◆ Capacity enhancement
- ◆ Economical power and water supply
- ◆ Adaptable process sequence and timing
- ◆ Flexible for various sizes of bottles
- ◆ Durable components

Applications

- ◆ Infusion bottles, Medicine bottles, Feeding bottles, Laboratory glassware

Standard Features

- ◆ Rectangular shape machine with SUS AISI 304 cabinet
- ◆ Driving unit: Worm reduction gearbox, Motor, Variable speed pulley and Reduction gear sprocket.
- ◆ Two sets of SUS 316 rectangular recycled tanks equipped with SUS AISI 304 centrifugal pump, strainer, cartridge filter and SUS 316 filter housing
 1. Recycle Tank A: Rinse water
 2. Recycle Tank B: Wash water, installed with one SUS cartridge electrical heater 4.5 KW
- ◆ Central Electrical Control Unit Pump controller, Rotor Controller, Rotor Speed Adjustor, Safety instruments
- ◆ Pneumatic Service Unit for compressed air: Air filter, SUS AISI 316 filter housing with membrane filter element 0.22 micron, Air regulator and Micromist separator

Options

- ◆ Explosion proof System
- ◆ Additional fresh de-ionized or distilled reservoir for final wash
- ◆ Electrical Heater in one or both recycled water tanks with temperature controller
- ◆ Additional bottle holders
- ◆ Different size of bottle holders
- ◆ Programmable Control Unit

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