RW-500 Rotary Vial Washer

Uniquely Engineered to Outperform

PennTech
Machinery Corporation

The World's Smallest Rotary Vial Washer

c-GMP Design

PennTech vial washers are constructed of AISI-304 series stainless steel (non contact parts) and AISI-316L series stainless steel (contact parts). All sanitary piping is electropolished internally.

Optionally, all contact parts are polished/electropolished to a 24 Ra or better.

All connections are sanitary type; orbital welds are used throughout.

All pipes are sloped to a 2° angle to prevent water stagnation while assuring complete draining of the machine.

Functionality

❖ Removal of particulate matter; six washing and air-blow stations for interior and exterior cleaning

❖ Intrinsically designed to obtain a 3-log reduction in bacterial endotoxin and to remove a NaCl - solution

❖ The vial washer is capable of handling a full range of vials and bottles from 1-100ml, glass or plastic
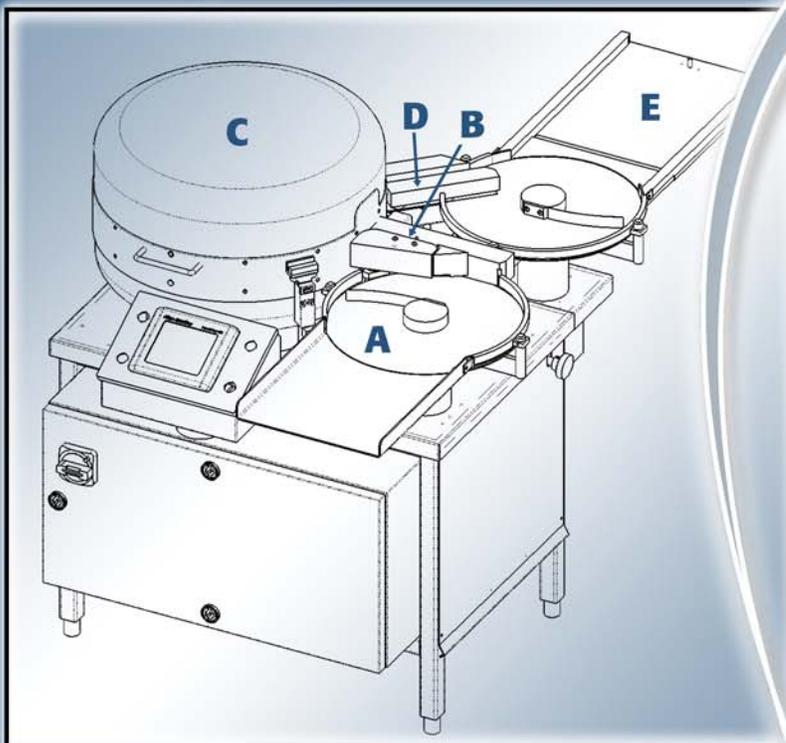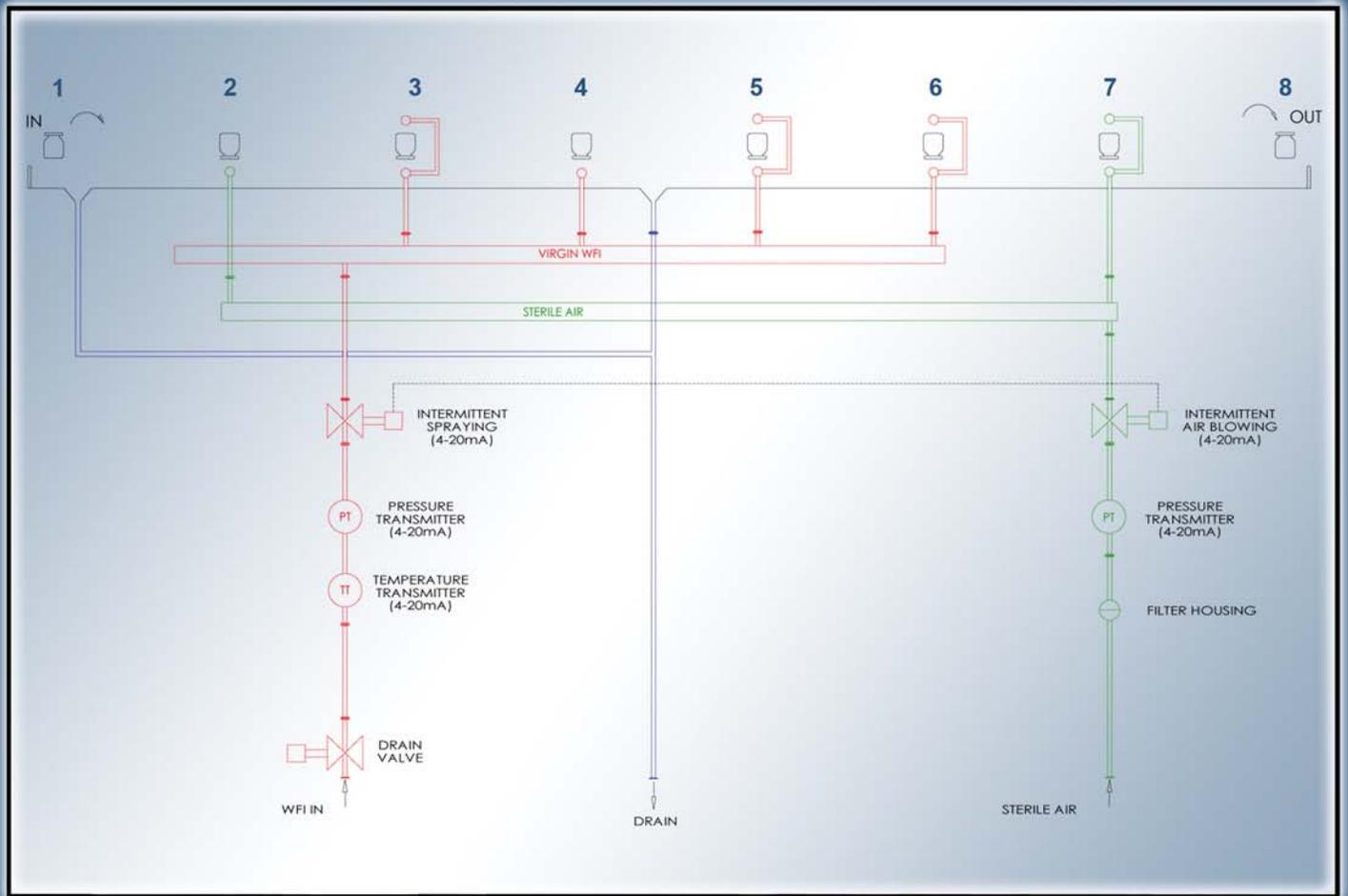
❖ Output (vial size dependent): up to 100 vials/min

Simplicity

❖ Menu driven operation with fault indication

❖ PLC assisted, 10-15 minute changeover

❖ Automatic vial size specific setting of washing time, indexing time, drive speeds, etc.

❖ Direct servo-drive, no belts, no chains, no gears

❖ No moving parts within the frame of the machine

❖ Virtually maintenance-free

❖ Stationery spray pipes, no chance of nozzle bending or vial breakage

Efficiency

❖ Low WFI consumption; average 4-6 liters WFI/min

❖ Each vial format uses an optimum amount of WFI, no more, no less

❖ Smallest footprint of any automatic vial washer in the industry (40 x 40 inches)

❖ Intermittent water and air blowing (optional)

1 IN
2
3
4
5
6
7
8 OUT

VIRGIN WFI

STERILE AIR

INTERMITTENT SPRAYING (4-20mA)

INTERMITTENT AIR BLOWING (4-20mA)

PT PRESSURE TRANSMITTER (4-20mA)

PT PRESSURE TRANSMITTER (4-20mA)

TT TEMPERATURE TRANSMITTER (4-20mA)

FILTER HOUSING

DRAIN VALVE

WFI IN

DRAIN

STERILE AIR

C D B E

A

PennTech's Unique Washing Environment

Vials are positioned onto the rotary infeed table, **A**, and fed single-file to the infeed belt, **B**.

From the infeed belt, the vials are fed into the cassette. Only when a cassette is loaded with the correct number of vials can the index switch be triggered. The servomotor controlled central column indexes, inverting the vials. The vials are now centered exactly with the internal spray pipe.

The vials index around the machine pausing at each station for sterile air blow, virgin WFI spray, **C**.

The vials are fed out of the machine via an outfeed pusher, **D**. Precisely programmed outfeed movements are assured for every vial size. Vials are immediately available for manual or automatic trayloading, tunnel loading or filling.

Optional outfeed table, **E**.

RW-500 Technical Specifications

SPECIFICATIONS

Vial Range:
1-100ml vials and bottles, glass or plastic
(using change parts)

Output:
Up to 6,000 vials/hour

Dimensions:
1016 x 1016 mm (40 x 40 inches)

Height Working Surface:
840 - 965 mm (33 -38 inches)

Weight:
245 kg (540 lbs)

Power Requirement:
115 Volt single phase 60 Hz

Frame:
Tubular 304 stainless steel

Side and Top Covers:
304 stainless steel

Contact Parts:
316 stainless steel

Piping System:
Internally electropolished, sanitary connections,
orbital welds, self-draining

Main Drive:
Direct servo-drive, no belts, no chains, no gears

Outfeed:
Single file outfeed...ideal for tray or tunnel loading

PLC:
Allen-Bradley® MicroLogix™

Operator-Machine Interface:
Allen-Bradley® PanelView Plus™ 600

WASHING SYSTEM

Station 1: Infeed
Vials are inverted between 1 and 2

Station 2 & 7: Sterile Air
Components used:
❖ Filter housing
❖ Pressure transmitter for fault indication
❖ Diaphragm valve for intermittent spraying
  with fault indication

Station 3, 4, 5, 6: Virgin WFI
Components used:
❖ Diaphragm valve for automatic draining with
  output for fault indication
❖ Temperature transmitter with fault indication
❖ Pressure transmitter with fault indication
❖ Diaphragm valve for intermittent spraying with
  fault indication
❖ Vials are inverted to their upright position
  between stations 7 & 8

Station 8: Outfeed

Notes
❖ Upgrade to Allen-Bradley® PanelView Plus™ 1000 or
  other manufacturer's OIT is optional

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