RW-800 Rotary Vial Washer

Uniquely Engineered to Outperform™

PennTech Machinery Corporation

PennTech's Unique Rotary Vial Washer is engineered for Increased Efficiency and Operational Simplicity

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 to a minimum Ra value of 24. 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 1-500ml, glass or plastic
- Output (vial size dependent): up to 200 vials/min

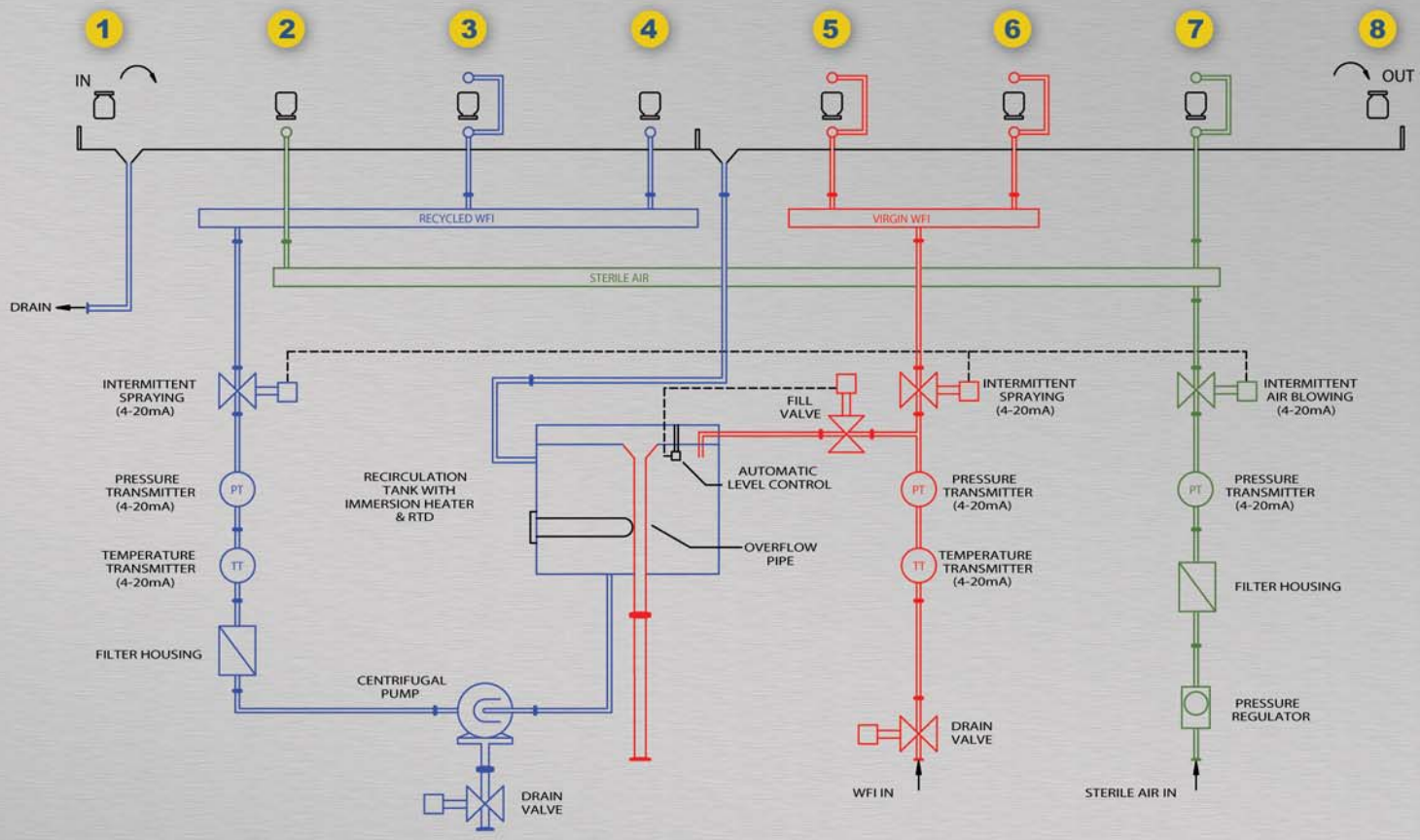
Simplicity

- Menu driven operation with fault indication
- PLC assisted, 10-15 minute changeover
- Automatic 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
- Stationary spray pipes, no chance of nozzle bending or vial breakage
- Pneumatically controlled raising of polycarbonate cover (optional)

Efficiency

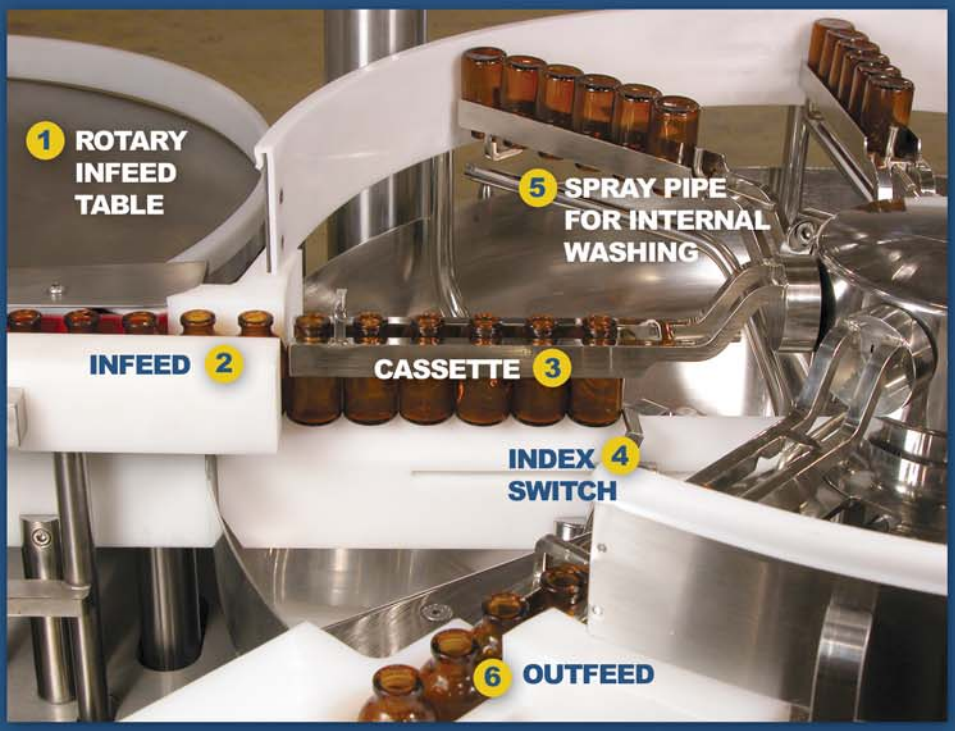
- Low WFI consumption; average: 4-6 liter WFI/min
- Each vial format uses an optimum amount of WFI, no more, no less
- Smallest footprint of any vial washer in the industry (145 x 155cm)
- WFI Recirculation Package – savings of up to 50% (optional)
- Intermittent Spraying and Air Blowing, further savings of up to 25% (optional)
- Output dependant on vial size, up to 200 vials/min

Custom-built Wash Program



(with Optional Recirculation Package and Intermittent Spraying Package)

PennTech's Unique Washing Environment



Vials are positioned onto the rotary infeed table 1 and fed single-file to the infeed belt 2. From the infeed belt, the vials are fed into the cassette 3. Only when a cassette is loaded with the correct number of vials can the index switch 4 be triggered. The servomotor controlled central column indexes, inverting the vials to station number two. The vials are now centered exactly with the internal spray pipe 5. External spray manifolds are located at stations 3, 5 and 7 – not pictured. The vials index around the machine pausing at each station for sterile air blow, recirculated WFI spray or virgin WFI spray. The vials are inverted to their upright position between stations seven and eight. At station eight, 6 the vials are fed out of the machine via stepper motor controlled outfeed pusher. Precisely programmed outfeed movements are assured for every vial size. Vials are immediately available for manual or automatic trayloading, tunnel loading or filling.

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RW-800 Technical Specifications

SPECIFICATIONS

VIAL RANGE: 1-500 ml vials and bottles, glass or plastic (using change parts)

OUTPUT: Dependent on number of vials per vial holder: up to 200 vials/min

DIMENSIONS: 1550 x 1450 mm (61 x 57 inches)

HEIGHT WORKING SURFACE: 840 - 965 mm (33 - 38 inches)

WEIGHT: 550 kg (1200 lbs)

POWER REQUIREMENT:
In North America: 110 Volt single phase 60 Hz
Outside North America: 230 Volt single phase 50 Hz

FRAME: Tubular 304 stainless steel 50 mm (2 inches)

SIDE AND TOP COVERS: 304 stainless steel

CONTACT PARTS: 316L stainless steel

PIPING SYSTEM: Internally electropolished, sanitary connections, orbital welds, self-draining

MAIN DRIVE: Servomotor

INFEED DRIVE: DC motor 0-180 Volt

OUTFEED DRIVE: Stepper motor with encoder

PLC: Allen Bradley® SLC 5/04®

OPERATOR-MACHINE INTERFACE: Allen Bradley® Panelview® 550®

WASHING SYSTEM

(with optional Recirculation Package and optional Intermittent Spraying Package)

STATION 1: INFEED

Vials are inverted between 1 and 2

STATION 2 & 3: RECYCLED WFI

Components used:
- Centrifugal pump with 3HP motor
- Diaphragm valve for automatic draining with 4-20mA output for fault indication
- Filter housing
- Temperature transmitter with 4-20mA output for fault indication
- Pressure transmitter with 4-20mA output for fault indication
- Diaphragm valve for intermittent spraying with 4-20mA output for fault indication

STATION 4, 5, 6: VIRGIN WFI

Components used:
- Temperature transmitter with 4-20mA output for fault indication
- Pressure transmitter with 4-20mA output for fault indication
- Diaphragm valve for intermittent spraying with 4-20mA output for fault indication
- Automatic drain valve

STATION 7: STERILE AIR BLOW

Components used:
- Pressure regulator
- Filter housing
- Pressure transmitter with 4-20mA output for fault indication
- Diaphragm valve for intermittent air blowing with 4-20mA output for fault indication

Vials are inverted to their upright position between stations 7 and 8

STATION 8: OUTFEED

NOTES

- 220 Volt 3-phase 60 Hz. if recirculating tank with heating element is required (North America)
- 400 Volt 3-phase 50 Hz. if recirculating tank with heating element is required (Outside North America)
- Upgrade to Allen Bradley® SLC 5/05® for Ethernet capability or other manufacturer's PLC is optional
- Upgrade to Allen Bradley® PanelView® 1000 or other manufacturer's OIT is optional

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