



B I O - P H A R M

COP Immersion Parts Washer

Clean Out of Place

Sani-Matic COP Immersion Parts Washers provide more consistent and faster cleaning than manual methods. This controlled cleaning process can then be validated. "Clean-Out-of-Place" washers re-circulate detergent and rinse solution to efficiently clean piping, hoses or a wide variety of loose machine parts held in baskets. This reduces handling and potential damage of expensive parts. Sani-Matic's exclusive sanitary design side-jets and

end-jets create strong turbulence for greater cleaning impact which effectively removes residue from all surfaces of the parts. A wide variety of models, options and custom fixtures allow the COP tanks to be designed specifically for each plant's operation.

TYPICAL COMPONENTS TO BE WASHED

- Pump Rotors, Impellers
- Hoses, Tubing, Piping, Filter Housings
- Fittings, Clamps, Gaskets
- Mixer, Blenders, Filler Components
- Tools, Bowls, Hoppers, Belting



Problem



Solution

Solve the Problems of Manual Washing:

Validate a consistent cleaning process with a Sani-Matic COP. Organize and protect disassembled machine parts. Eliminate manual scrubbing and use higher temperatures and stronger concentrations safely.



Portable COP / CIP can also be used for passivating vessels and lines



Semi-Automatic COP with Heat exchanger



Validate parts washing with automated COP



Built into wall, interlocking doors segregate operation "dirty side - clean side"

Standard Models

- 4, 6, 8, 10, 12ft. lengths
- UW = 20"W x 18"D
- RW = 24"W x 22"D
- PW = 24"W x 30"D
- BW = 30"W x 30"D
- Custom dimensions available
- Side or endjets or both
- Optional: cover, insulated side walls, casters

Portable COP/CIP Washer

- Add valving to recirculate as a CIP unit
- Portable – connect to available utilities
- Periodic cleaning of vessels, tanks and line circuits

Fully-Automated CIP

- PLC controls entire cleaning sequence as batch washer
- Automated water fill and level control
- Auto-chemical addition and conductivity control for proof of rinse
- Heat exchanger
- Variety of recording and documentation options

Custom and Standard Basket Designs

- Reduce handling, damage and lost parts
- Keep machine parts in matched sets
- Customize to hold each line's set of machine parts



URWB-2



URWB-1



URWB-5



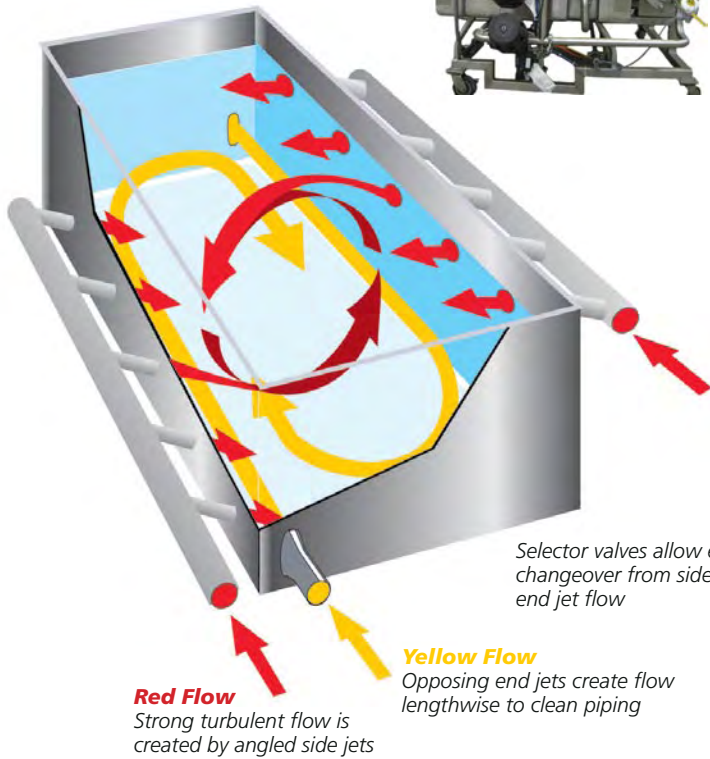
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Sanitary Jet Technology

Sani-Matic jet manifolds are fully drainable and inspectable



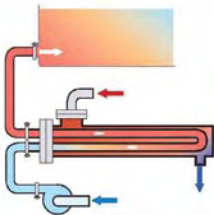
Machine parts, valves and tubing are labor intensive to clean manually, prone to inconsistency, and cannot be validated. Sani-Matic COP washers are designed to clean with safety, reliability, and efficiency. Sani-Matic offers a complete line of COP washers. Stationary, portable, two-compartment or large-capacity COP washers are available with a variety of options, controls and valve configurations, including CIP capability.

Exclusive Sanitary Jet Design



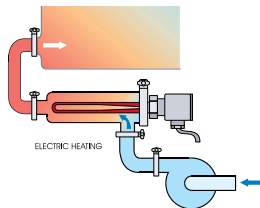
Heat Source Options

Shell & Tube Heat Exchanger



- Sized for fast heat-up, shorter cycle times
- Separate steam and cleaning solution
- Recover condensate
- Lower operating costs

In-Line Electric Heater



- Internal thermostat
- Hot water supply required for initial fill
- Maintains solution temperature only
- Installed in pump discharge
- Lower installation costs



COP Parts Washer Features:

IMPROVE CLEANING / VALIDATEABLE PROCESS

- Consistent, dependable results from controlled process
- Sanitary jets ensure high impact cleaning
- Safely use higher temperature and chemical concentration
- Fully drainable sanitary design

SAVE TIME & REDUCE COSTS

- Submersion breaks down soil
- Jets provide scrubbing action
- Free up labor to clean other areas
- High flow rates without waste down the drain
- Eliminate maintenance costs from damage or lost parts
- Reduce water and chemical costs

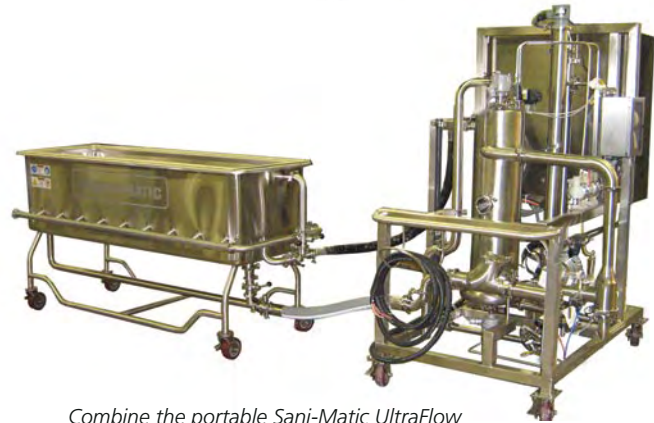
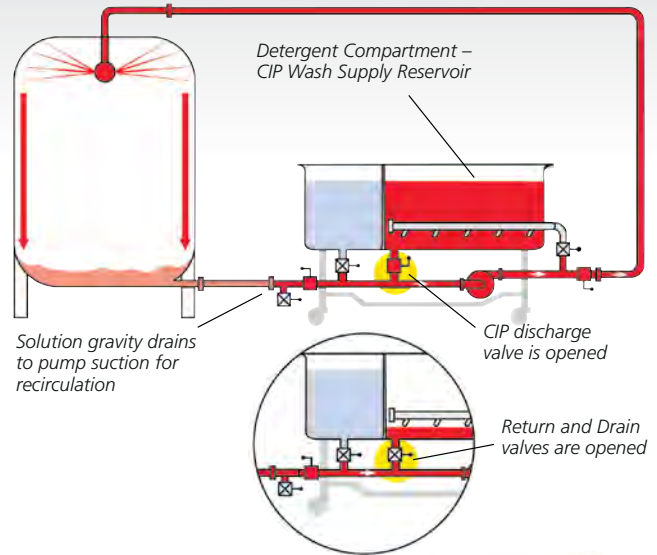
WORKER SAFETY

- Eliminate exposure from manual cleaning
- Convenient baskets reduce handling
- Cover contains chemical and steam vapors

COMPLETE DOCUMENTATION FOR VALIDATION

- Functional Design Specifications (FRS)
- Control System Design Specification (HRS and SRS)
- Factory Acceptance Test (FAT) report
- Site Acceptance Test (SAT) document
- Cleaning and passivation report
- Weld video record

PORTABLE COP/CIP SYSTEM COP/CIP WASH CYCLE



Combine the portable Sani-Matic UltraFlow CIP to control and circulate the COP. Then disconnect and use UltraFlow separately to CIP clean vessels and lines.

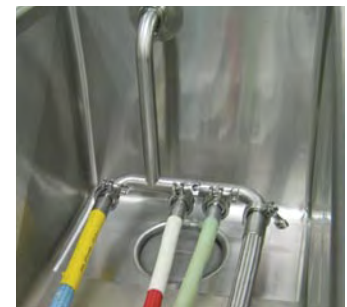


Custom Fixtures

Needle Cleaning Fixture



Clean diaphragm valves automatically



Clean interior and exterior of hoses