



ADVANCED CLEANING  
& SANITIZATION SYSTEMS

# ULTIMA-SAN JET WASHERS

Three (3) Styles  
Wash, Rinse, Sanitize & Dry Stages



# Choose from 3 machine styles

Designed for sanitary applications: stainless steel, full internal welds, complete access, and comply with virtually all 3-A standards.



## Turntable Systems

40" - 80" Diameter Turntables

- Multiple cabinet styles: roll-in doors or powered vertical doors
- Ergonomic design: allows for safe and convenient loading
- Customized fixtures and spray/dry manifolds

## Bin Washing

Powered Lift Door

- Multiple sizes: for one bin or multiple bins per cycle
- Spray manifold for inside cleaning is powered (sprocket driven)
- For the outsides of bins, a rectangular spray/dry manifold is powered back and forth



## Roll-in Cart Units

Elevator (Optional) Powers Carts Up and Down for Easy Loading

- Machine can be mounted in a pit or ordered with optional elevator
- No more dangerous ramps or compromising the tank depth
- Doors on one or both sides of the cleaning chamber
- Rectangular spray/dry manifold assembly is powered back and forth

# Cleaning & sanitizing batch-operation systems built specifically for FOOD and PHARMA industries!

Better Engineering's "SAN" batch cleaning systems are specifically designed for the food, pharma, and cosmetic industries. These fully automatic machines are generally built to "clean design principles" and meet virtually all 3-A standards.

All "SAN" cleaning systems have the following features:

- 1) a self-cleaning work tank that can fill and empty with each stage;
- 2) an "open architecture" for maximum access. There are no hidden areas;
- 3) optional holding tank to re-use the wash solution;
- 4) an optional hot water supply tank if hot water is in short supply;
- 5) options for sanitizing with chemistry or heat;
- 6) PLC control with Ethernet communications and optional data acquisition software.



## Hygienic By Design



### Wash

Working tank fills, detergent is injected, and items are sprayed at high volume. Solution goes to drain or to an optional holding tank.



### Rinse/Sanitize

Automatic cycle then sequences to one or more rinses. Options for injecting sanitizing agent and for boosting temperature to 180° F.



### Dry

For optional drying, steam is exhausted and powerful air knives shear off water. Air temperatures can also be elevated to 200°F.

# Standard Features



## 3-A Sanitary Standards

- Machines conform with most 3-A construction standards
- Sanitary spray and dry manifolds, sloped floors to avoid standing water, continuous inside welding (TIG)
- Complete access to the spray and dry chambers and to the tanks



## Stainless Steel Construction

- All "wetted" parts of the system are stainless steel... sheet metal, pumps, blowers, etc.
- The exterior of the system has a natural stainless steel finish. Only components such as motors and wire-way are painted
- The main control panel is also stainless steel, NEMA 4X



## Automatic Cleaning Sequence

- Wash Stage: work tank fills, detergent is added, items are spray washed, tank is emptied and self-cleaned
- Rinse Stage(s): identical to the wash stage except no detergent. Run multiple rinses if desired
- Fresh Rinse Stage: items are directly sprayed with fresh water ( 3-10 GPM)
- Optional Stages: sanitize and dry



## Clean and Dry - The Motion

- For excellent cleaning and drying, there is controlled motion
- For turntable systems, the motion comes from a powered turntable moving the items past fixed spray and dry manifolds
- For the bin and cart washers, the manifolds are moving, powered back and forth on the outside
- The bin washer also has a spinning ID spray manifold for the insides

# Standard Features



## Working Tank

- For high volume spray stages (wash and rinse); auto-fills with or without detergent
- In-stage, water recirculates passing through filter screens before re-entering the tank
- The tank automatically empties and self-cleans after each stage
- V-shaped tank floor, 2-way pitch, auto drain valve, auto level control



## Insulation and Stainless Steel Covers

- All vertical surfaces are insulated/guarded to the maximum extent possible
- A second sheet of stainless material is spaced 1" from hot surfaces to create a protective air gap
- There is no insulation material that can get wet and lead to microbial growth



## Sanitary Spray Pump

- Working tank equipped with 3-A certified sanitary spray pump with tri-clamp connections
- Pump interior can be easily accessed by removing a band clamp



## Controls and Data Acquisition

- Central control panel is NEMA 4X with main power disconnect (breaker style, no fuses)
- All facets controlled via a PLC/HMI: Allen Bradley Micro850 and Panelview 800
- See options for PLC upgrades, Ethernet, and data acquisition

# Optional Features



## Wash Solution Holding Tank

Water is transferred from the working tank to this holding tank for re-use; specifications are:

- Same volume as working tank; stainless steel; insulated
- Auto water level controls
- Auto valve to allow water to gravity flow back to the working tank
- A pump to transfer the water from the working tank to the holding tank
- Over-the-side heater to keep the wash water hot

## Hot Water Tank

For customers that can't supply enough hot water to the machine, specifications are:

- Twice the volume of the working tank; stainless steel; insulated
- Auto water level controls
- Auto valve to allow water to gravity flow to the working tank
- Over-the-side heater to keep the water hot

## Sanitizing and Auto Chemistry Options

Sanitize with chemistry or with heat using following options:

- "Dosatron" valve siphons chemistry into the working tank or the fresh rinse line
- Dosing pump injects chemistry into the working tank or fresh rinse line
- Pump and booster heater draw water from the hot water tank, boosts the temperature to 180° F, and fresh rinses the items

## Drying Options

- Regenerative blower supplies high velocity air to shear-off the water (Note: the air knives are powered back and forth in the bin and cart washers)
- Air heating system boosts the air temperature for evaporative drawing. Temperatures are thermostatically controlled up to 250° F (Note: the air heating system is stainless steel and positioned on the pressure side of the blower)

## Steam Exhaust System

- Stainless steel blower is mounted to the machine
- Creates a negative draft in cycle and evacuates the steam at the end of a cycle
- Required if the drying options are ordered



# Optional Features



## PLC Upgrade and Data Acquisition

- The PLC is upgraded to Allen Bradley's Compactlogix with Ethernet
- The HMI becomes Allen Bradley's 600 series with a 10" screen
- OPC-UA compliant for data export
- Back-end data acquisition software can be provided



## Sump Tank

- Used to pump out multiple tanks as well as diverted rinse water or overflow water
- Includes a stainless steel sump tank, an air operated diaphragm pump, water level controls, valves for each tank drain, and plumbing connections from the sump pump to all designated drains on the washer



## Pressure Sensor

- An electronic switch to detect low pressure
- Typically installed after a filter to indicate when a filter bag needs to be replaced
- A "low pressure" signal appears when the pressure falls below "X" value



## Flow Sensor

- An electronic switch to detect flow (does not quantify exact flow)
- Typically installed after an air blower or chemical pump to confirm proper operation
- A "no flow" signal will appear if flow is not detected



## Additional Options

Better Engineering offers several other options including:

- Conductivity meter
- Chemical dosing pump
- Chemical siphon valve

# Aqueous Detergents



## Better Engineering Aqueous Detergents

These detergents are specially formulated to maximize cleaning performance and to protect your machine. These detergents, backed by “BE’s” chemistry department and factory test center, allow Better Engineering to offer customers a full service cleaning solution.

## Benefits of “BE” Chemistry



Biodegradable – No VOC'S, non-flammable, and generally non-hazardous



Lower pH's – Generally safe on all metals



Forces oils to the surface for easy skimming



Low foaming – Designed for powerful spray washers and agitation



Excellent rust inhibition



Free-rinsing

## Lab Test Services

### Engineering Test Lab & Machine Demonstration Center

Better Engineering has a complete engineering lab and machine demonstration center to test clean your items. We feel that seeing is believing and that is why we invite you to visit our plant and test center in Joppa, MD to see your pieces get cleaned first-hand. Or send us your parts and we'll test clean them for you. Every test comes with a detailed report of our process, the results, and the recommended machinery. Contact us for additional information or to schedule your FREE parts cleaning test.





# From Visibly Clean to Microscopically Clean Cleaning and Sanitization Systems



**C-48-S5**  
Macrobin Washer



**C-48-S5**  
Organic Recycling Bin Washer



**C-42-S5/S5/S5**  
Medical Waste Bin Washer



**C-24-S4/S4**  
Cosmetic Container Washer



**C-36-S5/S3/SB**  
Medical Waste Bin Washer



**F-PTL-5000**  
Bin/Vat Washer



**D-24**  
Pharma Drum Washer



**CE-3000-SAN** Pharma  
Turntable Style System



**F-7000-P-ZX-SS** Cosmetic  
Turntable Style System



**CE-3000-ZX-SAN** Cosmetic  
Tube Cleaning Washer



**CE-3000-SAN**  
Cosmetic Mixers Washer



**Rack Washer**  
Food Tray Washer



1802 Fashion Court  
Joppa, MD 21085 USA

Phone: 410-931-0000  
Toll Free: 800-229-3380  
Email: [info@betterengineering.com](mailto:info@betterengineering.com)



[www.betterengineering.com](http://www.betterengineering.com)