



BETTER ENGINEERING

PRODUCT SPECIFICATIONS BROCHURE

CYBERJET

Automated Converyorized Cleaning Systems





QUALITY, DURABILITY, AND FLEXIBILITY

The Cyberjet line of conveyor washers boasts intelligent design and rugged construction, providing top-notch quality. Our standard belt widths come in 14", 24", 36", and 48", and we offer custom sizes to fit your industrial part cleaning needs. Trust in BE to deliver the best conveyor washers on the market.

Custom smaller and larger size conveyors are available upon request.

THE BE ADVANTAGE

- **MODULAR CONSTRUCTION**
 - Modular construction allows customers to integrate additional modules in the future
- **ROBOTIC ARM INTEGRATION**
 - Ability to load and unload robotically
 - Robot integration for precision washing, rinsing, and drying
- **FULL ACCESS CANOPY DOORS**
 - Full access vertical doors allow for complete access and cleaning of the machines' interior
- **DATA ACQUISITION**
- **CUSTOM BELTING AND FIXTURING**
- **AUTOMATED BIN FLIPPING**

STANDARD FEATURES (1 / 2)



Complete Canopy Access

Two different canopy styles are available: 1) hinged, lift-up canopies that lock in the open position (standard on C-14's unless specified otherwise), or 2) vertical doors on one or both sides of the canopy (standard on the C-24's, C-36's, and C-48's unless specified otherwise.) Both designs offer excellent access.



True Modular Construction

The Cyberjets are truly modular and can be configured with an unlimited number of modules in any sequence. The design provisions are as follows: a) modules and load/unload ends are bolted together to allow for easier expansion in the future, b) the main wash, rinse, and dry modules also bolt together, and there are no welded connections.



Wetted Parts are Stainless Steel

With few exceptions, all the "wetted" parts of the system are stainless steel.



Insulation & Natural Stainless Steel Finish

Tanks and spray chambers are fully insulated with 1" insulation material covered with stainless steel metal cladding. All exterior surfaces have a natural stainless steel finish, and painted surfaces for non-wetted components.



Central Control Station

NEMA-4 rating is standard on the control panel, with the option to upgrade to NEMA-12. The standard PLC is Allen Bradley's Micro850 with AB Compactlogix as an optional upgrade. Other PLC brands such as Siemens and Mitsubishi available upon request. Equipped with a 2-channel, 7-day/24-hour timer; controls water heaters and optional oil skimmer(s) (using the HMI). The central control panel comes with a main, rotary type disconnect integrated into the central panel.



Water Level Controls and Auto Fill

- Includes sensor for four water levels: emergency high, emergency low, running level, stationary level
- Water is automatically added when water is not at "Running" or "Stationary" levels based on machine state
- Water level sensor with digital readout

STANDARD FEATURES (2/2)



Heavy Duty Conveyor

The conveyor specifications are as follows:

1. Stainless steel "flat wire" belting 3/8" high with 1" x 1" openings
2. Supported with rollers for minimal friction and belt wear
3. Variable speed 1-10 FPM
4. Rated for 50 lbs per linear ft
5. Take-up bearings on the load end/ torque limiting device on drive end



Solution Tanks | Vertical Seal-less Pumps

All solution tanks of these parts washers have the following features:

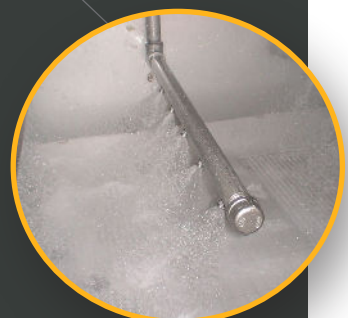
1. Vertical (seal-less) pumps with TEFC motors and single-piece shafts
2. Stainless steel solenoid for auto water fill
3. Large, slide out chip basket
4. Tank floor sloped from front to back for easy tank clean out



The Spray Chambers

The spray chambers/ tunnels for all the spray modules share the following characteristics:

1. Extended drain/ buffer areas on both sides of the spray zone to prevent splash-out and cross contamination
2. Inside flooring to force all water to enter the removable chip/ debris basket before re-entering the tank
3. Carriage tray is severely sloped to ensure removed contaminants flow back to respective tanks
4. All manifolds are designed to be easily removed



OPTIONAL FEATURES (1 / 4)



Oil Skimming

For skimming oils from a given tank, BE offers two options:

1. The OSB motorized belt skimmer. This skimmer has a stainless steel belt and is controlled with a 7 day/ 24 hour timer
2. The OWC oil water coalescer. This stainless steel coalescing tank comes in two sizes, small or large, for "light" and "heavy" oil applications



Filtration

- Bag filter (hinged top and eye bolts) is installed on the pressure side of a given pump to trap suspended particles before they can be redeposited on the parts
- Pressure gauges indicate when the filter bag (specify micron rating) has to be changed



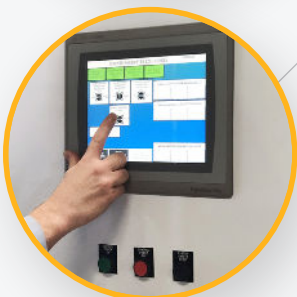
Beacon Lights

- A safety beacon light is mounted on the top of the main electrical enclosure. Pictured is a 3-color beacon light, part EBL-3.



Steam Exhaust System

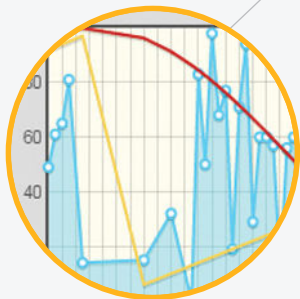
- Fan is mounted on the roof and ducted so as to create negative drafts on both ends of the system
- Customer provides duct work from discharge side of fan
- The vent port(s) on the top of the machine are connected to a central fan with a non-corrosive duct
- Steam exhaust systems come default with a drip leg
- Steam exhaust type differs depending on machine type and machine use



PLC HMI Upgrade

- The PLC is upgraded to Allen Bradley's Compactlogix
- The upgraded HMI is a Panelview Plus 7
- The system includes Ethernet capability

OPTIONAL FEATURES (2/4)



Complete Data Acquisition System

The Rotary Drum washer is equipped with all the necessary hardware and software to effortlessly acquire and analyze data, providing a reliable and efficient data acquisition system. Enhanced features include:

- PLC upgrade for OPC-UA compliance and Ethernet communications with an ethernet switch (Must also purchase the Compactlogix PLC upgrade, not included with this option.)
- "OAS" DAQ Software - includes Historian, Alarms, Trends & Reports
- Industrial PC mounted inside the main control panel. With this option, the user has access to all data via a web-based platform



Pressure Switch

- 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 Switch

- 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



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



Conductivity Meter

- This includes a sensor for a designated tank and a digital meter (mounted on the main panel)
- Can be used to detect dirty rinse water or low chemistry in a tank (check with a chemistry supplier for suitability)

OPTIONAL FEATURES (3 / 4)



Chemical Dosing Pump

- Automatically adds chemistry to a tank (from customer's chemical tote)
- Assumes the customer's chemical tote is within 5 feet of the pump
- Works in conjunction with conductivity meter, which also must be purchased



Chemical Siphon Valve

- This purely mechanical device siphons detergent into the water fill line
- Adds "X" GPM of detergent for a given flow of fresh water
- Assumes the customer's chemical tote is within 5 feet of the pump



Drying Modules

Better Engineering offers drying modules as well as simple blow-off sections. The drying modules have the following specifications:

1. Centrifugal blowers for high air velocity
2. Recirculation system to conserve heat and prevent "blow-out"
3. Optional air heater to boost the air temperatures up to 250 degrees F
4. Top and bottom air knives
5. Pitched floor directs most of the water back to the previous spray module
6. Full insulation to protect user from hot surfaces

"Better Engineering was willing to customize a solution for our bin washing process, whereas other vendors only offered existing products. Through our partnership, we took our learnings and got to iterate, resulting in an even more customized machine for our application." - Marlene K., Product Engineer, SN 23501

OPTIONAL FEATURES (4 / 4)



Chemical Dosing Pump

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Chemical Siphon Valve

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Robotic Integration

- Better Engineering is a certified integrator for robots and uses robots in multiple ways to bring automation to the highest level
- In challenging applications, the customer can add a 3rd or 4th high capacity working tank



Additional Rinse Stages

- There are two additional rinse stages that can be ordered. For especially challenging applications, the customer can add a 3rd or 4th high capacity working tank



Vacuum Dryer

- Vacuum Dryers are a key solution for industries looking to thoroughly dry parts with recesses, save energy, and increase dry time speeds. Vacuum drying is a complementary technology that, when combined with traditional blow-off methods, offers 100% part dryness, regardless of part intricacies

Additional Options

- With over 64 years of experience in the industry, Better Engineering is the go-to solution for industrial cleaning systems. We offer additional optional add-ons and can customize our machines to clean even the most challenging parts and materials. Our team of experts takes pride in delivering top-notch solutions to our client's unique cleaning needs. Feel free to contact one of our sales associates to learn how we can assist you.

AQUEOUS DETERGENTS

Better Engineering Aqueous Detergents

At BE, we take pride in being your trusted partner for cleaning needs. We understand the importance of environmental and sustainability goals and have taken steps to ensure that our products align with these objectives. Since the 1980s, we formulated solvent-free technology chemistry to wash our client's products. BE's custom-formulated detergents are designed to provide superior cleaning performance while safeguarding your equipment's lifespan. Our skilled chemistry department and factory test center ensure that our detergents are of the highest quality. We offer full-service cleaning solutions to our customers, backed by our expertise and experience.



ECO-FRIENDLY DETERGENTS DESIGNED TO HELP MEET SUSTAINABILITY GOALS



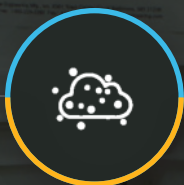
Biodegradable – No VOC'S, non-flammable, and generally non-hazardous



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



Engineering Test Lab & Machine Demonstration Center

Better Engineering provides advanced laboratory testing services that showcase the efficiency of our cleaning systems. BE invites you to send us your most challenging parts for a thorough cleaning test and experience the BE advantages of our cleaning processes. After performing the cleaning test, a comprehensive report on our findings, results, and recommended machinery will give you the confidence to trust Better Engineering with all your part cleaning machine needs. Don't hesitate to contact us to schedule your FREE parts cleaning test and learn more about our services.

AUTOMATED INDUSTRIAL PARTS WASHERS AND CLEANING SYSTEMS

At Better Engineering, we offer an impressive range of industrial parts washers and cleaning lines designed to meet your business needs. Our range includes turntable-style cleaning systems, conveyor washers, immersion and ultrasonic cleaning units, heavy-duty degreasers, and cellular parts cleaning units. Our cleaning systems are powered by environmentally safe aqueous detergents that are water soluble and biodegradable, ensuring safety for both the user and the environment while meeting sustainable practice goals. Our industrial parts washers are built to last and are fully customizable, modular, and designed to meet the highest standards of quality and performance. You can trust Better Engineering to deliver the best possible cleaning solutions for your industrial washing needs.



Conveyor Washer



Rotary Drum Washer



Immersion Washer



Monorail Washer



Carousel Washer



Turntable Washer



Rotary Basket Washer



Return-to-Operator