



BETTER ENGINEERING

PRODUCT SPECIFICATIONS BROCHURE

CYCLOJET SYSTEMS

Rotary Basket Washers





The Cyclojet rotary basket parts washer is one of Better Engineering's most robust and versatile cleaning systems, combining spray, immersion, ultrasonic, and drying technologies. These rotary basket parts washers are designed to fit into a compact production environment or work cell. Components that can tumble are placed in covered baskets. On the other hand, components that need to rotate without tumbling are locked into covered racks or specialized fixtures.

**CHOOSE BETWEEN
2, 4, 6, 8 BASKETS OR
CUSTOM BASKETS**

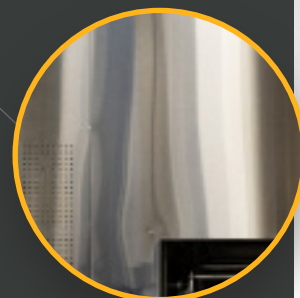


STANDARD FEATURES (1/2)



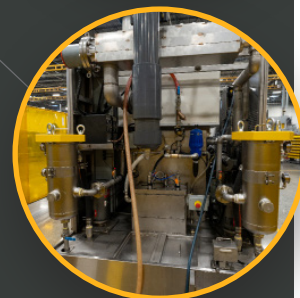
Stainless Steel

All wetted parts are type 304 stain-less steel: cleaning chamber, rotor, baskets, tanks, pumps, etc.



Multiple Tanks

This machine comes default with two tanks (wash and rinse typically). Additional tanks can be added to the system for more challenging applications. The Cycloject can also be equipped with a fresh rinse stage.

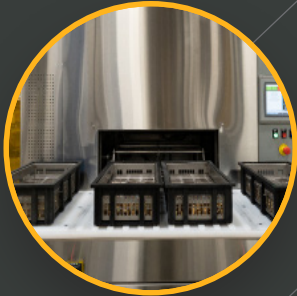


Patented Auto Latch

Cycloject systems have the auto latch feature. This solved the most frequently encountered problem – a system jam due to operators mismatching baskets into the rotor.

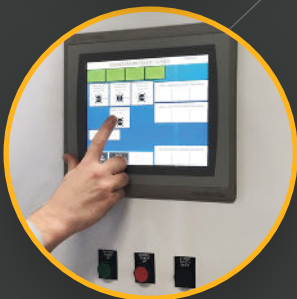


STANDARD FEATURES (2/2)



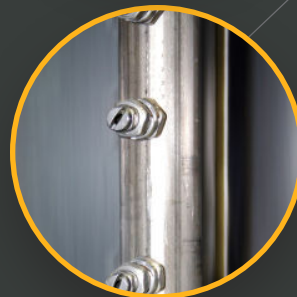
Baskets or Fixtures

Racked or fixtured directly in the rotor so they rotate without moving. The rotor can also be modified to accept larger or custom baskets.



Panelview Plus 7 HMI

The Allen Bradley "Panelview Plus 7 HMI" PLC gives the operator unlimited cycle flexibility. Using the touch screens, cycles can be pro-grammed, stages can be repeat-ed and/or combined in any sequence.



Spray, Immersion, Ultrasonics

These are independent stages that can be run in any order and for any duration. During an ultrasonic stage, the cleaning chamber is filled with the appropriate solution and pumping/rotation stops to avoid air bubbles. Every "X" sec-onds, the rotor turns 180 degrees to expose all the parts to the ultrason-ic energy.



Automatic Water Diverter & Level Controls

In between the cleaning chamber and the holding tanks, there is a solution diversion chamber with pneumatic cylinders and plungers. Each holding tank has sensors to monitor three (3) water levels and has auto water fill.



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

OPTIONAL FEATURES (1/3)



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



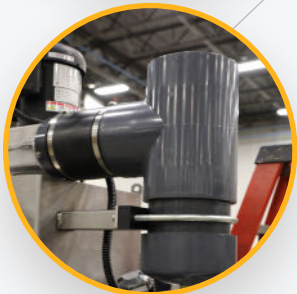
Filtration

- 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



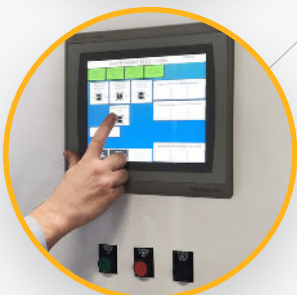
Beacon Lights

- 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

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)

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





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



Robotic Integration

- Better Engineering is a certified integrator for robots and uses robots in multiple ways to bring automation to the highest level



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



Ultrasonics

- *Ultrasonics varies depending on the model
- "TRU-Sweep" frequency can be used with wash and rinse immersion stages
- Transducer bolted in place above the tank floor



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 aheplerexperts 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

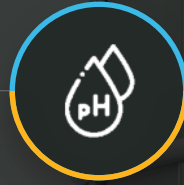
At BE, we take pride in being your trusted partner for cleaning needs. We understand the importance of environmental and sustainability goals and have taken steps to ensure that our products align with these objectives. Since the 1980s, we formulated solvent-free technology chemistry to wash our client's 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.



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



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. 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.

AUTOMATED INDUSTRIAL PARTS WASHERS AND CLEANING SYSTEMS

Better Engineering's line of industrial parts washers and cleaning includes turntable style cleaning systems, conveyor washers, immersion and ultrasonic cleaning units, heavy duty degreasers, and cellular parts cleaning units. BE cleaning systems use aqueous detergents that are water soluble and biodegradable, thereby making them safer for the user and for the environment. Our industrial parts washers are built to last, fully customizable, modular, and designed with your needs in mind.



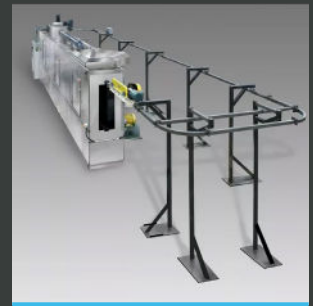
Conveyor Washer



Rotary Drum Washer



Immersion Washer



Monorail Washer



Carousel Washer



Turntable Washer



Rotary Basket Washer



Return-to- Operator



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