



The Purifier Series automated parts cleaning systems with turntables

PURIFIER systems are the best line of industrial jet washers in the world!

Using water based solutions, these heavy duty spray washing systems clean the dirtiest parts in just minutes. Rinse and dry stages are optional. Choose from front and top loading styles. Most units have the namesake “Purifier” filtration feature to extend the life of the wash solution.





Choose from 4 cabinet styles

1 "T" Models

Top Loading

- The body of the cabinet slopes downward so the loading edge is within 41" of the ground and within 14" of the turntable surface
- The lid is powered up and down by an electric, linear actuator – push buttons require 2 handed operation
- Lid is supported with a continuous hinge (full length of the lid)
- Deflector plate inside the lid prevents dripping on the floor when the lid is opened
- Labyrinth seal prevents water from escaping
- Snap-on gasket seals in steam

2 "F" Models

Front Loading Hinged Door

- 55% of the turntable is exposed, allowing a hoist chain to be positioned over the center of the turntable
- Turntable surface is within 30" of the ground
- Door is supported with a continuous hinge (full length of door)
- Door bottom is pitched to direct all residual water back to the tank
- Labyrinth seal prevents water from escaping
- Snap-on gasket seals in steam

3 "RD-W" and "RD" Models

Front Loading Roll-in Door

- Allows center hoist loading... the center of the turntable is in front of the door axis (RD-W models only), allowing a chain hoist to be positioned over the center of the turntable
- Full turntable access...when the door is open, the entire turntable diameter is exposed from the front (RD-W models only)
- Top bearing support...the weight of the door is supported by a top, center bearing that is outside the cleaning chamber...requires minimal effort to open and close
- Turntable surface is normally within 30" of the ground
- Labyrinth seal prevents water from escaping
- Snap-on gasket seals in steam (RD-W models only)

4 "PD" Models

Powered Vertical Doors

- Machines have either one or two powered vertical doors. If the unit has two doors, they are on opposite sides.
- Various loading scenarios: 1) baskets or racks can be rolled in or out, 2) a dolly can be rolled in or out, 3) supplied with or without external rails or roller conveyor sections, and 4) manual or robotic loading
- Doors are powered with pneumatic cylinders. Safety features include: 1) automatic brakes on the cylinders, 2) requires two-handed switch operation, and 3) in cycle, the doors are electrically interlocked and will not open
- Labyrinth seal prevents water from escaping; doors are inset for secondary containment

Lifetime guarantees



Welds

Against any welds cracking or leaking. *



Turntable

On the turntable and its sealed bearing assembly.



Door

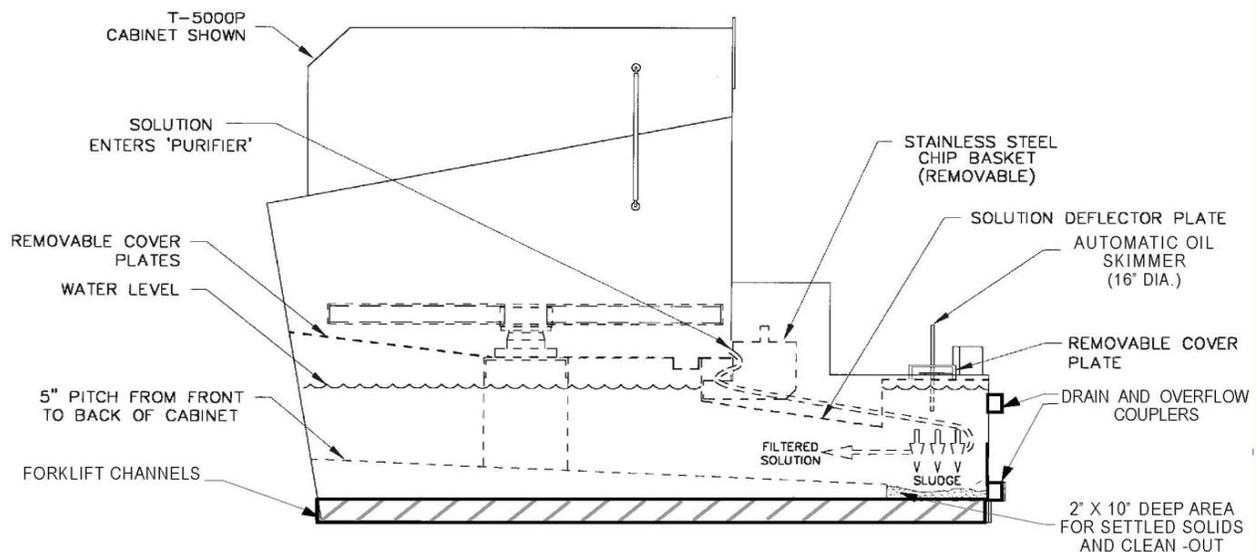
Against the door ever jamming.

* Warranty void if leaks caused by corrosion.

“Purifier” Filtration*

The namesake feature of these models is the “Purifier” filtration system which greatly extends the life of the washing solution. After the solution hits the parts it flows through a removable stainless “chip” basket. A deflector plate then shunts the solution to the rear of the tank where most of the fine sediment is trapped in a 2” deep by 10” wide canal that spans the width of the machine. A radical floor pitch from front to back further influences the sediment toward the rear. To extract the sediment, simply remove the rear cover plates and dredge out the canal. Floating oils are continuously removed with the OSW-11 skimming system and channeled into a removable container.

* Some of these features are not on the following models: T-2500, RD-3000, and RD-4000.





Standard features



▶ Load Bearing/Safety

- Parts are loaded directly on the turntable (basket does not have to be rolled in and out of cabinet) except for "PD" models.
- Turntable is mounted on structural beam tied directly to the ground (the door bears none of the load and the load is never suspended or cantilevered)

▶ Vertical Seal-less Pumps

- All pumps are vertical (seal-less) style units (designed to withstand abrasive particles up to 1/4" in diameter)
- There are no bearings or seals beneath the solution level
- Driven with TEFC motors
- Motors have extended shafts that connect directly to the impeller (no couplings)

▶ Turntable/Drive System

- Center bearing spindle is completely sealed
- External grease cup for the bearing assembly
- Turntable rim and spokes have a minimum thickness of 3/16"
- Friction drive system... metal chain wraps around the circumference of the turntable; if the turntable ever jams, the chain simply slips
- TEFC drive motor
- Removable parts basket (smooth, welded wire, 1-inch open mesh)

▶ Spray Manifolds

- Stainless steel "V" jet spray nozzles
- Manifolds positioned above, below, and on outside of turntable
- Front loading models have a mid-level, overhead spray manifold that pivots out of the way for tall parts
- On top loading models, overhead manifolds retract with the lid

▶ Control System

- Nema 12 control panel; meets NFPA 79 standards
- 110 V controls; all sub-circuits have circuit breakers (no fuses)
- HMI with display screen for setting stage times (wash, rinse, and dry); see cycle status, faults, etc.
- Automatic 2-channel, 7-day/24-hour timer for tank heaters and oil skimmer
- Cycle start/ stop buttons, e-stop switch, and jog button
- Digital thermostats for tank and air heaters

Model specifications



Model	Turntable Diameter	Work Height	Turntable Area	Tank Size	Weight Capacity	Pump Motor	Dimensions
T-2500	25"	18"	490 sq. in.	50 gallons	500 lbs.	3.0 HP, 50GPM / 50PSI	42" x 53" x 50"
RD-3000	30"	36"	710 sq. in.	95 gallons	750 lbs.	5.0 HP, 75GPM / 60 PSI	45" x 62" x 69"
RD-3000-ZXX	30" x 2	15" x 2	1420 sq. in.	95 gallons	750 lbs.	5.0 HP, 75GPM / 60 PSI	45" x 62" x 69"
F-3000-P	30"	36"	710 sq. in.	95 gallons	750 lbs.	5.0 HP, 75GPM / 60 PSI	45" x 62" x 69"
F-3000-P-ZXX	30" x 2	15" x 2	1420 sq. in.	95 gallons	750 lbs.	5.0 HP, 75GPM / 60 PSI	45" x 62" x 69"
RD-4000	40"	40"	1260 sq. in.	140 gallons	1,500 lbs.	5.0 HP, 100GPM / 60 PSI	63" x 72" x 72"
RD-4000-ZXX	40" x 2	17" x 2	2520 sq. in.	140 gallons	1,500 lbs.	5.0 HP, 100GPM / 60 PSI	63" x 72" x 72"
F-4000-P	40"	40"	1260 sq. in.	140 gallons	1,500 lbs.	5.0 HP, 100GPM / 60 PSI	63" x 72" x 72"
F-4000-P-ZXX	40" x 2	17" x 2	2520 sq. in.	140 gallons	1,500 lbs.	5.0 HP, 100GPM / 60 PSI	63" x 72" x 72"
F-4000LX-P	40"	60"	1260 sq. in.	140 gallons	1,500 lbs.	7.5 HP, 150GPM / 60 PSI	63" x 72" x 92"
F-4000LX-P-ZXX	40" x 2	17" x 2	2520 sq. in.	140 gallons	1,500 lbs.	7.5 HP, 150GPM / 60 PSI	63" x 72" x 92"
F-5000-P	50"	60"	1970 sq. in.	200 gallons	2,500 lbs.	10 HP, 200GPM / 60 PSI	75" x 84" x 92"
F-5000-P-ZXX	50" x 2	25" x 2	3940 sq. in.	200 gallons	2,500 lbs.	10 HP, 200GPM / 60 PSI	75" x 84" x 92"
RD-W-5000-P	50"	60"	1970 sq. in.	300 gallons	2,500 lbs.	10 HP, 200GPM / 60 PSI	97" x 100" x 115"
RD-W-5000-P-ZXX	50" x 2	25" x 2	3940 sq. in.	300 gallons	2,500 lbs.	10 HP, 200GPM / 60 PSI	97" x 100" x 115"
T-5000-P	50"	31"	1970 sq. in.	200 gallons	1,500 lbs.	7.5 HP, 150GPM / 60PSI	70" x 91" x 62"
F-6000-P	60"	60"	2830 sq. in.	260 gallons	2,500 lbs.	15 HP, 250GPM / 60PSI	85" x 94" x 92"
F-6000-P-ZXX	60" x 2	27" x 2	5660 sq. in.	260 gallons	2,500 lbs.	15 HP, 250GPM / 60PSI	85" x 94" x 92"
RD-W-6000-P	60"	60"	2830 sq. in.	380 gallons	2,500 lbs.	15 HP, 250GPM / 60PSI	107" x 110" x 115"
RD-W-6000-P-ZXX	60" x 2	27" x 2	5660 sq. in.	350 gallons	2,500 lbs.	15 HP, 250GPM / 60PSI	107" x 110" x 115"
T-6000-P	60"	31"	2830 sq. in.	260 gallons	2,500 lbs.	10 HP, 200GPM / 60 PSI	80" x 100" x 62"
F-7000-P	70"	60"	3860 sq. in.	300 gallons	2,500 lbs.	15 HP, 250GPM / 60PSI	116" x 124" x 107"
RD-W-7000-P	70"	60"	3860 sq. in.	450 gallons	2,500 lbs.	15 HP, 250GPM / 60PSI	117" x 120" x 118"
T-7000-P	70"	31"	3860 sq. in.	320 gallons	2,500 lbs.	10 HP, 200GPM / 60 PSI	91" x 109" x 62"
RD-W-8000-P	80"	60"	5035 sq. in.	540 gallons	2,500 lbs.	20 HP, 300GPM / 60 PSI	129" x 133" x 115"
RD-W-9000-P	90"	60"	6300 sq. in.	620 gallons	2,500 lbs.	20 HP, 300GPM / 60 PSI	139" x 143" x 115"
RD-W-10000-P	100"	60"	7800 sq. in.	710 gallons	2,500 lbs.	25 HP, 350GPM / 60 PSI	149" x 153" x 115"
Larger Models	Consult Factory						



Optional features



▶ The “ZXX” Configuration

ZXX-11 UPPER LEVEL TURNTABLE: Simply add the “ZXX” suffix to any front loading model # (e.g. F-3000-P-ZXX). These ZXX models have a removable upper parts basket which doubles the cleaning capacity for small parts. The spray manifolds are modified so that both baskets are sprayed from the bottom, top, and sides.

▶ Rinse Systems

ARC-11 RINSE SYSTEM: When the wash cycle ends, there is a programmed pause to allow the wash solution to return to the “wash tank” and then the parts are sprayed with fresh water (3-5 GPM). The rinse water is automatically diverted to an outside drain connection.

ARC-22 RINSE SYSTEM: This option works the same as the ARC-11 except the rinse water is recirculated from a separate 50 gallon tank (stainless steel.)

▶ Drying Systems

RGB-11 AIR DRYING SYSTEM: After the wash or wash/rinse sequence, the parts are dried by blasting them with ambient or hot air. Consult the factory to determine specifications. Optional sound shield available.

▶ Macro & Micro Filters

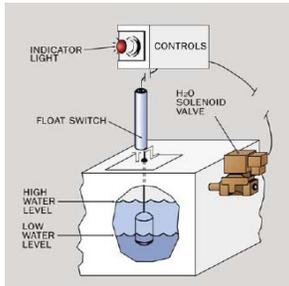
ILF-11 MACRO FILTER: Filter with strainer is installed on the pressure side of the pump to trap particles that could otherwise clog the spray nozzles.

ILF-22 MICRO FILTER: Large capacity bag filter traps suspended particles in the “micron” range. Recommended for applications where minuscule redeposition cannot be tolerated.

▶ Steam Exhaust Systems

The **ASX-11 STEAM EXHAUST SYSTEM** evacuates the steam before you open the door or lid. A two (2) position selector switch allows the blower to start running at the beginning of a cycle or at the end. ASX-11 blowers have a TEFC motor and a cast aluminum fan body. (Picture also shows optional DRP-11 Drip Leg on the outlet of the blower, “T” ducting with brace, and drip leg.)

Optional features



<p>▶ Water Level Controls</p>	<p>▶ Side Tray / Baskets</p>	<p>▶ Increased Height, Diameter & Load</p>	<p>▶ Oil Coalescer</p>	<p>▶ Sump Pump / Sump Tank</p>
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These electro-mechanical systems prevent damage to the heating elements and pumps that can otherwise occur when the water level is low. The **LWS-11 LOW WATER SHUT-OFF** shuts down the pump and heaters when the water level reaches a critical level. An indicator light notifies the operator to correct the water level. The **LWS-F1 SHUT-OFF AND AUTO FILL** only shuts down the machine as a last resort. With this option, water is added incrementally whenever the water level falls as little as 1/4" from its maximum level.

SST-11 SIDE TRAY: With the side tray, you can hand detail parts with the same jet washer solution. A stainless steel wash basin (24" long x 18" wide x 4" deep) is attached to the side of your jet washer. A stainless steel pump brings the hot solution to the hand brush and the solution then drains back to the jet washer.

RCB -11 COATED BASKETS: To avoid scratching critical parts, the parts basket is coated with a highly elastic, polyvinyl material.

SPB-11 SMALL PARTS BASKET: Hinged lid baskets to contain small parts. The small basket is 12"L x 6" W x 6"H. The larger one is 15"L x 9"W x 6"H.

TALLER, BIGGER... Better Engineering is expert at custom building super large systems that have more working height (e.g. 150"), larger turntables (e.g. 180" diameter or larger), and higher weight capacities (up to 50,000 lbs).

CSM-11 CHIP/ SLUDGE DRAG-OUT CONVEYOR: For F-5000 and larger models. Scrapers drag solids out from the deepest part of the tank, convey the solids out of the tank, and drop them into a customer supplied waste bin (55 g drum or equal).

OWC-1.5 & OWC-3.0 OIL WATER COALESCERS: For applications with a high level of oil contamination. Effective at removing floating (non-emulsified) oils. Rated for 1.5 GPM and 3.0 GPM pump flow respectively. Oil/water are continuously skimmed from the washer tank; most of the oil gets trapped in the coalescer for later removal. The filtered water gravity flows back to the washer tank.

SPP-11 SUMP PUMP: To pump out one tank to an overhead line.
STT-11 SUMP TANK: Used to pump out multiple tanks and diverted rinse water

- ADDITIONAL OPTIONS:**
- PLC - Allen Bradley's Compactlogix with Ethernet
 - HMI - Allen Bradley's Panelview; 10" color screen
 - ELE-300 Main breaker disconnect; cuts power before control panel is opened
 - EBL-11 and EBL-22 Beacon lights; 1 and 3 colors available
 - PSS-11 Pressure sensors
 - FSS-11 Flow sensors
 - DSL-11 Locking door switch

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 parts. We feel that seeing is believing and that is why we invite you to visit our plant and test center in Baltimore, MD. See your parts get cleaned first-hand. Can’t make it to Baltimore? Send your parts and we’ll test clean them for you and return the cleaned parts 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.