

“DOUGLAS” MODEL DVBW-1000-C DUAL VAT AND BIN WASHER PRE-WASH, WASH, AND SANITIZING SYSTEM

**DESIGN AND
OPERATION**

Designed for batch type operation where one (1) bin or two (2) vats are loaded into adjustable support brackets mounted on the door. The door, activated by holding the open/close switch, is lifted and closed by two (2) hydraulic cylinders. The cycle start button is then pushed which initiates a recirculating non-detergent pre-wash (which removes any loose debris left in the bin), a 150° F. recirculating detergent wash and then an ambient chemical or 180° F. hot water sanitizing rinse. The sanitizing rinse water is directed back into the the recirculated pre-wash tank to freshen it. The excess water then overflows to drain. The door is then reopened for unloading by holding the open/close door switch. Booster heaters maintain proper operating temperatures.

**GENERAL
CONSTRUCTION**

Upper housing will be constructed of #12 gauge, type #304 STAINLESS STEEL with a #3 finish. Pre-wash and wash tanks to be constructed of #12 gauge, type #304 STAINLESS STEEL also with a #3 finish. Door is doubled skinned constructed of #14 and #12 gauge, type #304 STAINLESS STEEL with internal and external bracing for maximum strength. Manually opened and closed with a switch and protected from any cycle operating when not in the closed position. Base frame constructed of 3” x 3” x 1/4” structural STAINLESS STEEL angle. All seams are mig or tig welded and continuous. All welds are cleaned inside, cleaned and buffed outside.

**RECIRCULATING
PRE-WASH AND
WASH TANKS**

Recirculating pre-wash and wash tanks heated by electric or steam coil, thermostatically controlled, low water protected, complete with automatic tank diverter controlled by air operated cylinder and pump intake butterfly valves to separate pre-wash and wash tanks, 1” NPT automatic fill systems, 1 1/2” NPT overflow connections, 2” STAINLESS STEEL gate drain valves, thermometers and liquid filled pressure gauges. 200 gallon pre-wash and 220 gallon wash tank capacities, sloped to drain.

**PRE-WASH AND
WASH PUMP**

Close coupled centrifugal STAINLESS STEEL pump, housing and impeller with 40 H.P. wash down duty motor, 208/230/460 or 575 volt, 3 phase, 60 cycle. Rated for 450 gallons per minute at 80 PSI.

**FINAL
SANITIZING RINSE**

Fresh sanitizing rinse delivers 12 gallons per 22 second cycle at 20 PSI flow. 180° F. sanitizing rinse water supplied to unit by customer or optional 36 gallon pumped rinse tank heated by electric or steam coil with 3/4 H.P. wash down duty motor. 208/230/460 or optional 575 volt, 3 phase, 60 cycle. If booster heater is required, the water supply temperature is 120° F. minimum.

**SPRAY
PIPING SYSTEM**

Two (2) rotating hubs with extended arms to pre-wash and wash the inside of the bin driven by a 1/2 H.P. TENV gear motor and two (2) compressed air piston driven oscillating spray arms for coverage on the outside. Pre-wash, wash and final rinse constructed of STAINLESS STEEL piping, fittings, high velocity “V” wash jets and full cone rinse jets.

FILTRATION

Soil filter diverter is located above the water line and is sloped to direct solids to outside filter tanks, accessed through a removable lid on the side of the machine.

**STEAM
EXHAUST VENT**

Steam exhaust vent collar, 12 7/8” inside diameter, constructed of #14 gauge STAINLESS STEEL. Bolted to the top of the machine pre wired with a control timer for the addition of a fan.

**OPTIONAL
EXHAUST FAN**

12" diameter STAINLESS STEEL exhaust fan mounted on washer to extract steam after rinse cycle. Constructed for moisture laden air or other stream contaminants. Maximum temperature 160° F., 1750 RPM rated for 700 CFM at .36" static pressure. 1/2 H.P. wash down duty motor, 208/230/460 or optional 575 volt, 3 phase, 60 cycle.

**ELECTRICAL
PANEL AND
CONTROLS**

Electrical control panel is UL listed, NEMA 4X STAINLESS STEEL with Square "D" components. Optional panel disconnect switch with lockout feature also available. 120 volt control circuit with lighted "POWER ON" switch, "START" and "STOP" buttons, "RUN" indicator light, "OPEN/CLOSE" door switch, and short, medium and long "WASH CYCLE SELECTOR" switch. Complete recirculating pre-wash, recirculating wash, final sanitizing rinse and dwell/fan cycles initiated by pushing the "START" button. Pre-wash, wash and final rinse cycle times are adjustable.

OTHER FEATURES

Adjustable STAINLESS STEEL legs for leveling machine.
Complete hydraulic system with 20 gallon tank reservoir and 20 H.P. wash down duty motor. 208/230/460 or optional 575 volt, 3 phase, 60 cycle,

**CONTAINER
SPECIFICATIONS**

400 lb. Vats (26" x 27 1/2" x 28 1/2" high) loaded two at a time or
600 lb. Vats (26" x 27 1/2" x 37 1/2" high) loaded two at a time or
Combo Bin (48" x 48" x 45" high) loaded one at a time

DIMENSIONS

Washer Cabinet Dimensions: 89" wide x 60" deep x 123" high
Overall Dimensions: 133" wide x 89" deep x 130 1/2" high

CONNECTIONS

Electrical: Single-point connection
Pre-wash and wash tank water inlets: (2) 1" NPT, 120° F.
Final rinse water inlet: (1) 1" NPT, 180° F. or 120° F. with optional booster heater
Drains: (2) 2" NPT
Overflows: (2) 1-1/2" NPT
Steam Option: (2) 3/4" NPT or (3) 3/4" NPT with optional final rinse booster heater
Steam Condensate: (2) 3/4" NPT or (3) 3/4" NPT with optional final rinse booster heater
Compressed Air: (1) 1/4" NPT, 20 CFM @ 100 PSI

SERVICES

Electric Heated:
480 Volt, 3 Phase, 178 Running Amps, 225 Amp Service Breaker
575 Volt, 3 Phase, 147 Running Amps, 200 Amp Service Breaker

Steam Heated:
208 Volt, 3 Phase, 60 Cycle, 156 Running Amps, 200 Amp Service Breaker
240 Volt, 3 Phase, 60 Cycle, 142 Running Amps, 200 Amp Service Breaker
480 Volt, 3 Phase, 60 Cycle, 73 Running Amps, 100 Amp Service Breaker
575 Volt, 3 Phase, 60 Cycle, 62 Running Amps, 80 Amp Service Breaker

Steam Consumption:
350 lbs. per hour for recirculating pre-wash and wash tanks
90 lbs. per hour for optional final rinse booster

Please add the following amps to those above for an optional exhaust fan (2.1 at 208 volt, 1.8 at 240 volt, .8 at 480 volt, or .5 at 575 volt) and or pumped rinse tank, steam heated (2.4 at 208 volt, 2.3 at 240 volt, 1 at 480 volt, or .75 at 575 volt) or pumped rinse tank, electric heated (69 at 208 volt, 62.5 at 240 volt, 31 at 480 volt, or 25 at 575 volt) and recalculate service breaker size, which should be at least 125% of total running amps.