

“DOUGLAS” MODEL RBW-50 ROTARY BATCH WASHER WASH AND RINSE SYSTEM

DESIGN AND OPERATION

Designed for batch type operation where products are loaded face down onto the turntable or loaded into specially designed racks for face on washing from the sides. The complete cycle includes a 150° F. recirculating detergent wash and a 180° F. final sanitizing rinse. The final sanitizing rinse water is directed back into the the wash tank to freshen it. The excess water then overflows to drain. Booster heaters maintain proper operating temperatures.

GENERAL CONSTRUCTION

Complete cabinet will be constructed of #14 gauge, 300 Series STAINLESS STEEL with a #3 finish. Door is lift-up type. Counter balance with self-lubricating guides, STAINLESS STEEL cables on nylon rollers with cable guards to endure tracking. Door is interlocked with limit switch to prevent machine operation while door is open. Door also constructed of #14 gauge 300 Series STAINLESS STEEL with a #3 finish. All seams tig or mig welded. Seams, where needed for watertight construction, are continuously welded. All other seams are stitch welded for strength. All welds are cleaned inside, cleaned and buffed outside. Optional continuous welds in lieu of stitch welds available.

RECIRCULATING WASH TANK

Constructed of #14 gauge, 300 Series STAINLESS STEEL, 70 gallon capacity, sloped to drain, heated by 208, 240, 480, or optional 575 volt electric immersion heaters, 24 KW total. Complete with low water protection, automatic fill and thermostatically controlled 150° F temperature. Infrared gas and steam heating options available.

WASH PUMP

Closed coupled centrifugal wash pump, bronze fitted with cast iron casing. Complete with 15 H.P. ODP motor (optional TEFC or wash down duty motors available), 208, 240, 480, or optional 575 volt, 3 phase, 60 cycle. Mounted on #12 gauge STAINLESS STEEL formed channel base. Rated for 250 gallons per minute at 35 to 45 PSI. Optional STAINLESS STEEL pump available.

TURNTABLE

Rotating STAINLESS STEEL turntable driven by 3/16 H.P. TEFC 208, 230, 460, or optional 575 volt gear motor.

FINAL SANITIZING RINSE

Fresh sanitizing rinse delivers 12 gallons per 30 second cycle at 20 PSI flow. 180°/190° F. sanitizing rinse water supplied to unit by 20 gallon rinse tank heated by one (1) 18 KW, 208, 240, 480, or optional 575 volt electric booster heater. Infrared gas and steam coil options available.

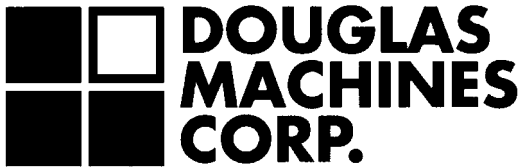
OPTIONAL SANITIZING PUMPED RINSE TANK

Constructed of #14 gauge 300 Series STAINLESS STEEL, 36 gallon capacity, heated by electric (24 KW), infrared gas or steam coil. Complete with low water protection, automatic fill and thermostatically controlled to provide 12 gallons per 30 second cycle at 20 PSI of 180°/190° F. hot sanitizing rinse. Also supplied with closed coupled centrifugal pump with STAINLESS STEEL casing and impeller. 3/4 H.P. ODP motor 208, 240, 480, or optional 575 volt, 3 phase, 60 cycle. Optional TEFC or wash down duty motors are available.

SPRAY PIPING SYSTEM

Fixed wash and final rinse arm assemblies constructed of STAINLESS STEEL piping, brass fittings and high velocity “V” jet nozzles. Optional all STAINLESS STEEL available.

FILTRATION	Perforated STAINLESS STEEL basket type filter system for increased effectiveness and easy cleaning without emptying wash tank.
STEAM EXHAUST VENT	Steam exhaust vent 12-7/8" inside diameter, consisting of #14 gauge rolled STAINLESS STEEL collar, bolted to the top of machine. Machine pre-wired with control timer for the addition of the fan.
OPTIONAL EXHAUST FAN	One (1) 12" diameter fan with 12-7/8" I.D. collar mounted on washer to extract excess steam after final rinse cycle. Constructed of STAINLESS STEEL housing and aluminum blade with 1/4 H.P. TEFC or optional wash down duty motor, 120 volt, 1 phase, 1725 RPM, rated 500 CFM at .5" static pressure. Optional fan with STAINLESS STEEL housing and blade is available.
ELECTRICAL PANEL WITH CONTROL AND INFORMATION CENTER	Electrical control panel is NEMA 12 STAINLESS STEEL or optional NEMA 4X STAINLESS STEEL with Square "D" components. 120 volt control circuit with push pad operation of "POWER ON" , " STOP" and "SHORT, MEDIUM or LONG WASH CYCLES". A digital display indicates "TIME REMAINING" for each cycle. LED's indicate wash, rinse and unload functions. A buzzer is also included to provide an audible indication of time to unload. A pre-programmed circuit board allows the push pad to be used as a "DIAGNOSTIC CENTER" by displaying "ERROR CODES" for ease of troubleshooting. Also included is a turntable "FORWARD/REVERSE" switch. Moisture resistant gauges measure wash temperature, wash pressure and rinse temperature. NOTE: Optional NEMA 4X STAINLESS STEEL panel with push button control and internal adjustable timers is available in lieu of digital push pad operation.
EXTERNAL RINSE HOSE	Externally mounted rinse hose with spray gun for easy cleaning and maintenance of machine.
RACKS	Customized to hold your specific items. Constructed of STAINLESS STEEL rod, mig welded
DIMENSIONS	Washer Cabinet Dimensions: 64" wide x 58" deep x 78-3/8" high Overall Dimensions: 75-1/2" wide x 62" deep x 108-1/2" high (115-1/2" with infrared heated rinse tank)
CONNECTIONS	Water Inlet: (1) 1" NPT, 120° F. Drain: (1) 2" NPT Overflow: (1) 1-1/2" NPT Steam Option: (1) 3/4" NPT Gas Option: (1) 1/2" NPT Electrical: Two point connection, except for 575 volt, which is single point
UTILITIES	See attached Utilities Chart for service requirements specific to various combinations of wash and rinse tank heating.



UTILITY CHART
“DOUGLAS” MODEL RBW-50
ROTARY BATCH WASHER

120 Volt - 1 phase, 5 running amps, 15 amp service breaker plus one of the following (except for 575 volt, which is a single-point connection):

**ELECTRIC HEATED
WASH TANK,
ELECTRIC HEATED
RINSE TANK**

208 Volt - 3 Phase, 156 Running Amps, 200 Amp Minimum Service Breaker
240 Volt - 3 Phase, 143 Running Amps, 200 Amp Minimum Service Breaker
480 Volt - 3 Phase, 72 Running Amps, 90 Amp Minimum Service Breaker
575 Volt - 3 Phase, 59 Running Amps, 80 Amp Minimum Service Breaker

**INFRARED GAS
HEATED WASH TANK,
ELECTRIC HEATED
RINSE TANK**

208 Volt - 3 Phase, 89 Running Amps, 125 Amp Minimum Service Breaker
240 Volt - 3 Phase, 83 Running Amps, 110 Amp Minimum Service Breaker
480 Volt - 3 Phase, 42 Running Amps, 60 Amp Minimum Service Breaker
575 Volt - 3 Phase, 35 Running Amps, 45 Amp Minimum Service Breaker

Gas Consumption: 90,000 BTUs per hour . Supply pressure: minimum 7” w.c. for natural, 11” w.c. for propane and 14” w.c. maximum.

**INFRARED GAS
HEATED WASH TANK,
INFRARED GAS
HEATED RINSE TANK**

208 Volt - 3 Phase, 39 Running Amps, 50 Amp Minimum Service Breaker
240 Volt - 3 Phase, 37 Running Amps, 50 Amp Minimum Service Breaker
480 Volt - 3 Phase, 19 Running Amps, 25 Amp Minimum Service Breaker
575 Volt - 3 Phase, 16 Running Amps, 20 Amp Minimum Service Breaker

Gas Consumption: 150,000 BTUs per hour. Supply pressure: minimum 7” w.c. for natural, 11” w.c. for propane and 14” w.c. maximum.

**STEAM HEATED
WASH TANK,
ELECTRIC HEATED
RINSE TANK**

208 Volt - 3 Phase, 89 Running Amps, 125 Amp Minimum Service Breaker
240 Volt - 3 Phase, 83 Running Amps, 110 Amp Minimum Service Breaker
480 Volt - 3 Phase, 42 Running Amps, 60 Amp Minimum Service Breaker
575 Volt - 3 Phase, 35 Running Amps, 45 Amp Minimum Service Breaker

Steam Consumption: 90 lbs. per hour at 15 PSI minimum

**STEAM HEATED
WASH TANK,
STEAM HEATED
RINSE TANK**

208 Volt - 3 Phase, 39 Running Amps, 50 Amp Minimum Service Breaker
240 Volt - 3 Phase, 37 Running Amps, 50 Amp Minimum Service Breaker
480 Volt - 3 Phase, 19 Running Amps, 25 Amp Minimum Service Breaker
575 Volt - 3 Phase, 16 Running Amps, 20 Amp Minimum Service Breaker

Steam Consumption: 180 lbs. per hour at 15 PSI minimum

For a single-point connection option for 208, 240, or 480 volt, add 2 running amps to total and recalculate service breaker size, which should be at least 125% of total running amps.

Please add the following running amps to those notes above for an optional pumped rinse system (3 at 208 volt, 2.4 at 240 volt, 1.2 at 480 volt, and .75 at 575 volt for gas or steam heating) (19.65 at 208 volt, 16.83 at 240 volt, 8.7 at 480 volt, and 6.78 at 575 volt for electric heating) and recalculate service breaker size, which should be at least 125% of total running amps.