DOUGLAS MACHINES CORP.

Effective: September 13, 2010

"DOUGLAS" MODEL RBW-74
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.
CABINET	88" wide x 82" deep x 76 3/8" high (106 1/2" overall clearance height with door open, 109 3/4" with gas heated rinse tank). Door Opening: 74" wide x 29" high. Wash Chamber: 71" diameter x 29" high. Constructed of #14 gauge, 300 Series STAINLESS STEEL with a #3 finish. All seams are 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.
DOOR	Lift-up door type. Counter balanced with self-lubricating guides, STAINLESS STEEL cables on nylon rollers with cable guards to ensure tracking. Door is interlocked with limit switch to prevent machine operation while door is open. Constructed of #16 gauge, 300 Series STAINLESS STEEL with a #3 finish.
RECIRCULATING WASH TANK	Constructed of #14 gauge, 300 Series STAINLESS STEEL, heated by 36 KW electric immersion heaters, infrered gas, live steam or steam coil. Complete with low water protection, automatic fill, 1 1/4" NPT overflow connection, 2" gate drain valve, thermometer, pressure gauge and is thermostatically controlled. 125 gallon tank capacity, sloped to drain.
WASH PUMP	Closed coupled centrifugal wash pump, bronze fitted with cast iron casing. Complete with 20 H.P. ODP motor (optional TEFC or wash down duty motors available). 208/240/480 or optional 575 volt, 3 phase, 60 cycle. Rated for 300 gallons per minute at 35 to 45 PSI. Optional STAINLESS STEEL wet end available.
TURNTABLE	Rotating STAINLESS STEEL turntable driven by 3/16 H.P. TEFC 208/230/460, or optional 575 volt gear motor.
SANITIZING PUMPED RINSE TANK	Constructed of #14 gauge, 300 Series STAINLESS STEEL, heated by 42 KW electric immersion heaters, infrared gas or steam coil. Complete with low water protection, automatic fill, and thermostatically controlled to provide 18 gallons per 30 second cycle at 20 PSI and has a 60 gallon capacity. Also supplied with a closed coupled centrifugal pump with STAINLESS STEEL casing and impeller. 1 1/2 H.P. ODP motor (optional TEFC or wash down duty motors available) 208/240/480 or optional 575 volt, 3 phase, 60 cycle.
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” I.D. consisting of #16 gauge rolled collar for PVC pipe connection bolted to the top of the machine. Machine pre-wired with control timer for the addition of a 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. LEDs 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. Moisture resistant gauges measure temperature and pressure for recirculated wash and final rinse. 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
CONNECTIONS	Water Inlet: 1” NPT, 120° F. Drain: 2” NPT Overflow: 1 1/2” NPT Steam Option: (2) 3/4” NPT Steam Condensate: (2) 3/4” NPT Gas Option: (2) 3/4” NPT Electrical: Two-point connection, except for 575 volt, which is single point
UTILITIES	See attached Utility Chart for service requirements specific to various combinations of wash and rinse tank heating.

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UTILITY CHART
"DOUGLAS" MODEL RBW-74
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, 275 Running Amps, 350 Amp Minimum Service Breaker 240 Volt - 3 Phase, 248 Running Amps, 350 Amp Minimum Service Breaker 480 Volt - 3 Phase, 125 Running Amps, 175 Amp Minimum Service Breaker 575 Volt - 3 Phase, 102 Running Amps, 150 Amp Minimum Service Breaker
INFRARED GAS HEATED WASH TANK, INFRARED GAS HEATED RINSE TANK	208 Volt - 3 Phase, 59 Running Amps, 80 Amp Minimum Service Breaker 240 Volt - 3 Phase, 53 Running Amps, 70 Amp Minimum Service Breaker 480 Volt - 3 Phase, 27 Running Amps, 35 Amp Minimum Service Breaker 575 Volt - 3 Phase, 24 Running Amps, 30 Amp Minimum Service Breaker
	Gas Consumption: 300,000 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, STEAM HEATED RINSE TANK	208 Volt - 3 Phase, 59 Running Amps, 80 Amp Minimum Service Breaker 240 Volt - 3 Phase, 53 Running Amps, 70 Amp Minimum Service Breaker 480 Volt - 3 Phase, 27 Running Amps, 35 Amp Minimum Service Breaker 575 Volt - 3 Phase, 24 Running Amps, 30 Amp Minimum Service Breaker
	Steam Consumption: 290 lbs. per hour at 15 PSI minimum

For 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.