DOUGLAS MACHINES CORP.

**Effective: April 15, 2009**

# SPECIFICATIONS
# "DOUGLAS" MODEL IBC-1000
# TOTE WASHER

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| **DESIGN AND OPERATION** | Designed for batch type operation with a protruding spray arm to wash and sanitize the inside and oscillating wash hubs and stationary sanitizing rinse piping for the outside of the tote. The operator rolls the tote into the cabinet,after closing the door, then pushes the cycle start button which activates the adjustable timed 150° F. recirculating wash cycle. After completing the wash cycle, the bins are rinsed and sanitized for 20 seconds at 180° F. The machine then goes through a 1 minute steam exhaust/dwell cycle. The operator then opens the door and removes the tote. Booster heaters maintain proper operating temperatures. |
| **CABINET** | 84" wide x 80" deep (90" for pass through option) x 103 1/2" high (130 1/2" overall clearance height when floor mounted, 116 1/2" when used in a pit. Door Opening: 52" wide x 84" high. Wash Chamber: 48" wide x 48" deep x 78" 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** | Constructed of #16 and #18 gauge, 300 Series STAINLESS STEEL with a #3 finish. Door is double skinned with integral framework for additional strength. Standard right hand or optional left hand, swing equipped with external latch, inside release handle and is interlocked to prevent machine operation while open. |
| **WASHER FLOOR** | Constructed of #12 gauge STAINLESS STEEL formed sheets designed to provide maximum strength. Supports constructed of 2" x 2" x 1/4" STAINLESS STEEL angle. |
| **RECIRCULATED WASH TANK** | Constructed of #14 gauge, 300 Series STAINLESS STEEL, 220 gallon capacity (200 if infrared gas heated), sloped to drain, heated by electric, gas, live steam or steam coil. Complete with low water protection, automatic fill and thermostatically controlled 150° F temperature. |
| **DRAIN VALVE** | Size 2", STAINLESS STEEL, gate type for manual or optional electrically operated ball valve for open/close switch operation. |
| **WASH PUMP** | Close coupled centrifugal wash pump bronze fitted with cast iron casing. Complete with 25 H.P. TEFC or optional wash down duty motor, 208/240/460 or optional 575 volt, 3 phase, 60 cycle. Rated for 310 gallons per minute at 55 PSI. |
| **WASH TANK FILTERS** | Perforated STAINLESS STEEL baskets. Designed for increased effectiveness and easy cleaning without emptying wash tank. |
| **PUMPED SANITIZING RINSE TANK** | Constructed of #14 gauge, 300 Series STAINLESS STEEL, 100 gallon capacity, heated by electric, gas, live steam or steam coil. Complete with low water protection, automatic fill, and thermostatically controlled to provide 25 gallons per 20 second cycle at 30 PSI of 180°/190° F. hot sanitizing rinse. Also supplied with closed coupled centrifugal pump with STAINLESS STEEL casing and impeller. 3 H.P. TEFC or optional wash down duty motor 208/240/460 or optional 575 volt, 3 phase, 60 cycle. |
| **NOZZLES AND PIPING** | Interior recirculated wash and sanitizing rinse assemblies constructed of STAINLESS STEEL piping, brass fittings, end caps and "V" jet wash nozzles and full cone rinse nozzles. Optional STAINLESS STEEL fittings and nozzles available. |

**OSCILLATING WASH HUBS AND ROTATING SPRAY ARM ASSEMBLY**

Air cylinder driven, oscillating STAINLESS STEEL spray arms with STAINLESS STEEL high velocity "V" wash jets and threaded end caps to wash the exterior of the bin. Mounted on a STAINLESS STEEL ball bearing base. A water driven rotating tank wash nozzle is raised and lowered by a compressed air piston, to wash and sanitize the inside of the bin.

**STEAM EXHAUST VENT**

Steam exhaust vent 12 7/8" I.D. consisting of #14 gauge STAINLESS STEEL rolled collar for PVC pipe connection, bolted to the top of the machine. Machine pre-wired with control timer for the addition of the fan.

**OPTIONAL STEAM EXHAUST FAN**

12" diameter exhaust fan, with 12 7/8" I.D collar mounted on washer to extract excess steam after 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, 60 cycle, 1725 RPM rated at 500 CFM at .5" static pressure. Optional fan with STAINLESS STEEL housing and blade is available with 1/2 H.P. motor.

**ELECTRICAL PANEL AND CONTROLS**

Electrical control panel is UL listed, NEMA 4X STAINLESS STEEL with Square "D" components. Optional panel disconnect switch with safety lockout is also available. Complete with a Zelio smart logic relay, motor starters, 120 volt control circuit with Power On switch, Start and Stop buttons, Run indicator light and Short/Medium/Long wash cycle selector switch. Washer will be factory wired and tested prior to shipment.

**OPTIONAL HOOD AND FAN ASSEMBLY**

STAINLESS STEEL hood with 15" diameter fan mounted over door to evacuate steam that escapes when door is opened. Constructed of STAINLESS STEEL housing and blade with 1 H.P. TEFC or optional wash down duty motor, 208/230/460 or optional 575 volt, 3 phase, 60 cycle, 3450 RPM, rated at 2450 CFM at .56" static pressure.

**CONNECTIONS**

Electrical: Single point connection.
Water Inlet: (1) 1" NPT 120° F.
Drain: (1) 2" NPT
Overflow: (1) 1 1/4" NPT
Gas Option: (2) 3/4" NPT
Steam Option: (2) 3/4" NPT
Steam Condensate: (2) 3/4" NPT
Compressed Air: 1/4" NPT, 20 CFM @ 100 PSI

**SERVICES**

Electric Heated:
208 volt, 3 phase, 60 cycle, 360 running amps, 450 amp service breaker
240 volt, 3 phase, 60 cycle, 328 running amps, 450 amp service breaker
480 volt, 3 phase, 60 cycle, 165 running amps, 225 amp service breaker
575 volt, 3 phase, 60 cycle, 131 running amps, 175 amp service breaker

Gas or Steam Heated:
208 volt, 3 phase, 60 cycle, 77 running amps, 100 amp service breaker
240 volt, 3 phase, 60 cycle, 72 running amps, 90 amp service breaker
480 volt, 3 phase, 60 cycle, 37 running amps, 50 amp service breaker
575 volt, 3 phase, 60 cycle, 29 running amps, 40 amp service breaker

Gas Firing Rate:
180,000 BTU per hour for recirculated wash tank
240,000 BTU per hour for pumped final rinse tank

Steam Consumption:
170 lbs. per hour for recirculated wash tank
230 lbs. per hour for pumped final rinse tank

NOTE: Please add the following running amps to those notes above for an optional hood and fan assembly (3.8 at 208 volt, 3.2 at 240 volt, 1.6 at 480 volt and 1 at 575 volt) and recalculate service breaker size, which should be at least 125% of total running amps.