

GIRTON CABINET WASHER MODEL 794A

DESCRIPTION

The washer shall be a Girton Model 794A Cabinet Type Pressure Washer constructed of type-304 stainless steel, utilizing a reciprocating header spray system. The spray header is suspended from a carriage riding on an overhead track. The operating cycle is entirely automatic with each stage of operation under microprocessor control at all times.

PURPOSE OF SYSTEM

To ensure the adequate cleaning and rinsing of bottles, utensils, cages, etc.

DIMENSIONS

Overall height - 70"

Overall width - 70"

Overall depth - 57-1/2"

Wash chamber size - 45" wide x 35" high x 48" deep.

This standard compartment will process six (6) standard baskets of animal watering bottles per load, on the standard all-purpose wash grid provided with the cabinet washer, 48 to 64 small rodent polycarbonate cages per load, in the 794RC Cage Washing Racks.

TREATMENTS

Following is a typical treatment schedule. Additional phases, such as acid wash, DI rinses, etc. are easily accomplished by programming the microprocessor controller. (Please consult the factory with your special needs.)

1. Pre-wash - Pre-wash time can be adjusted, and it can be set to heat up to the wash cycle temperature or automatically pre-wash at the temperature of the solution left in the tank from the preceding cycle. If the pre-wash cycle option is not selected, then the unit will automatically start in the wash cycle when the start button is activated.
2. Circulated Detergent Wash - (Time selected on panel). Detergent wash (temperature adjustable from 120°F) shall be circulated by pump pressure at the rate of 200 gallons per minute (GPM) at 100 ft. head pressure by a centrifugal pump driven by a 7-1/2 Hp electric motor. The length of the wash cycle shall be controlled by presetting the adjustable wash timer. The wash solution shall be automatically drained at the end of the timed wash cycle. Maximum water temperature not to exceed 190°F.
3. Circulated First Rinse - (Time selected on panel). The tank automatically refills with fresh water from the plant supply, and supplementary heat is added to maintain the rinse water temperature. The rinse water shall be circulated at the rate of 200 gallons per minute at 100 ft. head pressure for the length of time pre-set on the rinse timer. At the end of the timed rinse cycle, the rinse solution shall be automatically drained. Maximum water temperature not to exceed 190°F.
4. Circulated Second Rinse - (Same time as first rinse.). The tank automatically refills with purified or fresh water from the plant supply and supplementary heat is added to raise and maintain the water at the set parameters. The final rinse water is circulated at the same rate as the first rinse. At the end of the final rinse cycle the water in the tank is retained for use as the next detergent or pre-wash solution. Maximum water temperature not to exceed 190°F.
5. Exhaust - Unit stands idle for a sufficient length of time to remove the residual vapor from the air within the compartment.

CONSTRUCTION AND OPERATION

1. The washer cabinet and tank shall be constructed of 14 gauge, 2B finish, type-304 stainless steel. All interior piping and headers shall be of type-304 stainless steel or other suitable corrosion resistant material.
2. The pump shall be all stainless steel with stainless steel shaft and impeller, and is equipped with a pressure gauge.
3. Door - The cabinet washer shall be provided with a self-supporting drop down door that, when open, works as a load table with roll out racks. The door is balanced for easy operation by a gas-assisted cylinder.

The door shall be double walled, #4 finish outside, 2B finish inside, type 304 stainless steel, and insulated with non-toxic, non-hygroscopic, rigid foam insulation. The door shall be baffled and gasketed against water leakage from the wash chamber.

The door is provided with a 16" x 18" vapor-proof safety glass as a viewing window.

4. A safety switch shall be provided on the door, which shall stop the cycle and shut off the circulating pump in the event that the door is opened.
5. All visible welds on the cabinet washer exterior and washing compartment shall be cleaned in a thorough manner.
6. The cabinet interior shall be constructed to permit free draining and designed not to retain any of the process solutions.
7. A manual vent damper shall be provided for trimming the exhaust emissions.
8. The wash compartment shall be sloped to drain into the pump reservoir through a large area basket type stainless steel debris screen, which shall be easily removable without the use of tools. The surface area of the debris screen shall be a minimum of 4.58 square feet.
9. The cabinet washer tank compartment shall hold and utilize a maximum of 22 gallons of water, assuring effective cleaning and economy of operation.
10. Heating. The wash tank shall be provided with stainless steel steam coil, thermostatically controlled (adjustable) to maintain the wash/rinse solutions at a pre-set temperature.
11. The temperature of the wash and rinse solutions shall be indicated by a readout located on the control panel at a convenient height at the load end of the cabinet washer and clearly visible to the operator.
12. The cabinet washer header system shall be provided with an effective filter located in the piping from the pump to the headers to catch any foreign materials that may have bypassed the basket debris screen. This filter shall be back-washed each time that the tank is drained during the wash and rinse cycles.
13. Headers. Two (2) stainless steel reciprocating loop headers, employing properly spaced, wide angle stainless steel machined fan jets, shall direct the process solutions from the top, bottom and both sides assuring 360 degree continuous coverage of the items being processed. The header shall be pneumatically or electrically driven (please specify), suspended on an overhead carriage. The header suspension system shall not require lubrication within the wash compartment.
14. The cabinet washer shall be piped and wired for single service connection for each utility requirement.
15. The cabinet washer shall be drained by gravity. A two-way ball valve shall direct the discharge from the pump to the drain rather than to the header system, resulting in a very quick drain time and a backwash of the filter in the line from the pump to the headers. The drain time shall be adjustable and controlled by the controller.
16. The electrical control system consists of the following:
 1. Control shall be by non-proprietary Allen Bradley Microprocessor, which shall control all sequences and operations. The microprocessor is capable of infinite variation in treatment schedules, times, etc., and will be programmed to meet the customer's specific needs. The cycles are adjustable in both time and function. The controller is housed in a stainless steel enclosure.
 2. Within the control box is the microprocessor controller, magnetic starters with overload protection for all motors, and all other electrical components required for the machine operation.
 3. A built-in service diagnostic program, accessible by service access code, will be provided and displayed to permit system calibration and verification of satisfactory component operation.
 4. A printer is available, for hard copy record keeping.
17. Control Transformer - A step-down transformer shall be provided for the 115-volt control voltage to prevent having to run a separate control line.

OPTIONS

1. Pass-thru: The cabinet washer shall be provided with two (2) drop down doors, one on either end. This allows the cabinet washer to be bulk-headed into a wall dividing two (2) different rooms.
2. Right or Left Hand Unit: Cabinet washer is designed to meet customer specifications by placing all serviceable components on either the right or left hand side of the cabinet washer.

3. Automatic Damper: Cabinet washer is provided with a stainless steel automatic motorized damper mounted in the exhaust line and interwired with the automatic cycle. Damper is open during exhaust cycle and closed during the machine operation.
4. Vapor Proof Light: An explosion/vapor proof light is installed outside the cabinet to illuminate the interior of the wash compartment.
5. Non-Recirculated Final Rinse System: The final rinse treatment consists of hot water from house supply sprayed through a separate set of jets. Water is not recirculated and drains to lower sump.
6. Steam Controls: Low pressure steam controls for steam pressure of 15 lbs. or lower. (Specify steam pressure available at cabinet washer location.)
7. A set of 794RC cage washing racks shall be provided, along with vertical header pipes for complete coverage of all the cages. Capacity is about forty-eight (48) to sixty-four (64) standard mouse cages per load.
8. Stainless steel 794RP pan washing rack set.
9. Bolted and gasketed construction shall be provided to take the cabinet washer down in order to pass through a standard 36" x 80" doorway.
10. All stainless steel 7-1/2 hp pump.
11. Stainless steel trim flange to seal off wall between soiled and clean areas, used with 2-door pass-through installations.
12. Exhaust fan, constructed of corrosion resistant material.
13. Electric immersion heating elements, in lieu of stainless steel steam coil.
14. Condenser vent exhaust system - use only when conventional exhaust cannot be accommodated.
15. Acid-neutralize-detergent dispensers, for liquid agents.
16. Dispenser-ready connections will be provided for customer-supplied dispensing equipment.
17. A pass through, steam powered heat exchanger will be provided, to raise house water temperature to 180° F. (Specify house water temperature available.) This option provides instantaneous 180°F hot water for the fill sequences, and is needed if fast cycle times are required.
18. Insulation: All four (4) sides and top shall be insulated with non-toxic, non-hygroscopic, rigid foam and covered with a full jacket fabricated of 20 gauge, #4 polish stainless steel. The insulation package greatly reduces radiated heat loss from the cabinet washer, making it more economical to operate, and affords more comfort for the operators.
19. A steam separator shall be interpipied into the machine to remove suspended water droplets from the incoming steam line and automatically flush to condensate return. This prevents water "slugging" of the steam supply line.
20. Drain Discharge Cooler: The cabinet washer is provided with a cool down cycle integral with the cabinet washer to accept all re-circulating sump drain discharges. By mixing with cold water, discharges are cooled to a minimum of 140°F before gravity draining to building drain system.
Please Note: This option describes a cooler for the re-circulating sump drain discharges. It is designed to operate when the drain valve is open. It is not a cooler for the sporadic emissions from the sump's steam heating coil or optional pass-through heat exchanger. These fluids ideally are returned to the steam boiler. If discharging to the drain or sewer is required, and cooling of these fluids is required, we recommend that the cooling device be installed as part of the utility installation.
21. Water Hammer Arrester: The cabinet washer is equipped with a water hammer arrester to protect customer's incoming water line from possible damage due to water hammer.
22. A transfer table shall be provided to allow the various wash racks to be removed from the cabinet washer for transportation, loading/unloading, or storage. The table shall be fabricated of stainless steel with a centering device to line up with the cabinet washer door and a device to lock the rack to the table. The table will run on four (4) swivel casters.
23. Girton Service Personnel shall supervise the installation of equipment to the owner / contractor.
24. Girton Service Personnel shall return to the jobsite after all utility connections have been made and demonstrate the cabinet washer to all operating and maintenance personnel.

25. Complete Installations are available, which may include:
- Disconnect and removal of old washer.
 - Set-in-place and assembly of new cabinet washer, by Girton Non-Union Personnel.
 - Hook-up to existing utilities by Girton Non-Union Personnel (All utilities are to be provided within 5' of the cabinet washer's utility connections, and with proper disconnects.)
 - Start-up, test and demonstration of the new cabinet washer.
 - Operator and maintenance personnel training.
26. One full year defective parts and replacement labor warranty.

RECOMMENDED SERVICES

Electrical - 3 phase, 60 cycle, 208/230/460 volt. (Equipment must connect to a disconnect within easy reach of the machine and shall not be supplied with the cabinet washer.)

Hot Water - 180°F. Recommended minimum rate of flow of 20 gallons per minute. 3/4" IPS connection to the machine.

Steam - 40 to 80 PSI. 1" IPS connection to the machine (for most efficient operations, 60 PSI is recommended).

Drain - 2" IPS, gravity drain.

Ventilation - A 6" diameter vent collar is provided for connection to ventilating system. 300 CFM minimum removal required. Connection should be installed inside of vent collar to prevent leakage.

Condensate Return - 3/4" IPS.

Compressed Air - 60 PSI, 1/4" NPT (Optional) Use with air-operated valves.

Cold Water - For drain cooling - 3/4" NPT, 20 GPM, 70°F Maximum (Optional - use only with on-board drain discharge cooler.)

OTHER OPTIONS AND FEATURES ARE AVAILABLE.

PLEASE CONSULT OUR FACTORY TO REVIEW YOUR SPECIAL NEEDS.

* Please note that all sub components of Girton Washers are non-proprietary and commercially available from various sources, for flexibility and economy of maintenance throughout the life of the washer.

**Girton Model 794A
Cage and Bottle Washer**



*Girton 794A Cage and Bottle Washer, Shown With Optional
Cage Wash Racks and Transfer Table*