

# **GIRTON MODEL GC20EB ELEVATOR BUCKET WASHER**

## **GENERAL**

Girton Model GC20EB Elevator Bucket Washer, designed to wash and rinse elevator buckets at the nominal rate of 6 per minute, or 360 per hour.

## **BUCKET DIMENSIONS**

Up to: 48" long x 12" wide x 12" deep

## **CONSTRUCTION**

The elevator bucket washer will be fabricated of all-welded stainless steel, including tank, hood, structural members, all internal and external piping, spray deflectors, track and conveyor returns.

Pump is cast iron, close-coupled, motor-mounted type. This gives greatest efficiency with the minimum maintenance possible from centrifugal pumps of the horizontal type.

The Model GC20EB is composed of one 10' long pressure wash section with a fresh rinse loop. A 24" long conveyor section is on each end.

## **HEADERS**

The headers are provided to give most effective coverage of all internal and external surfaces of the buckets. They are provided with straight through jets and stainless steel deflectors. The straight through jet greatly reduces the tendency of the jets to plug as there is no protrusion of the jet into the headers. The stainless steel deflector insures a high intensity, properly spread stream for most effective cleaning.

The headers are arranged above, on both sides and below the buckets. The headers are installed so that one end of each header pipe protrudes from the elevator bucket washer, making it easy to brush the inside of the pipes and then by starting the pumps to flush them clean. This is the simplest and most effective header system on any elevator bucket washer.

## **SCREENS**

Screens are tray type units located under the bottom area of the spray compartment. The tray screens are removable from both side of the elevator bucket washer. The screens are supported above the solution level so all water must fall through the screens to get into the solution tank. Openings in the screens are 1/16" to trap all debris. The superior screening in conjunction with the Girton jet design virtually eliminates clogging.

## **VENTS**

The elevator bucket washer is supplied with a 6" x 36" vent opening in the hood or top of the elevator bucket washer, to be connected by the customer to the outside, or to his ventilation system. A ventilating fan may need to be incorporated in the stack to insure proper ventilation 2740 CFM required.

## **MOTORS**

3/60/230 or 3/60/460, meeting NEMA standards. Other specification available.

## **WIRING**

The Girton Model GC20EB will include a manual switch and starter to control the pump. All systems come pre-wired including a stainless steel electrical control box. The elevator bucket washer shall be under the control of an Allen Bradley Micrologic 1200 Series PLC.

## **PLUMBING**

One water connection, one steam connection, and one drain connection are provided.

## **CONVEYOR**

Self-contained conveyor drive system includes stainless steel conveyor chains, 1/2 Hp. drive motor, take-up, shafts, sprockets, etc. The infeed and discharge will each be 24" long.

## **HOLD DOWN**

A heavy duty adjustable hold down shall be supplied to hold containers down and in proper position for washing.

## **HEATING**

The wash tank shall be heated by direct steam injection. (See Optional Steam Coil at end of specification.)

## **AUTOMATIC TEMPERATURE CONTROL**

The tank temperature is controlled by an automatic controller which is adjustable to the most efficient temperature for the job. The controller operates a solenoid valve which permits steam to enter the tank to heat the wash solution. The temperature in the tank is maintained by direct steam injection.

## **GUIDE RAILS**

Adjustable guide rails shall be supplied to hold buckets in proper position for washing.

## **TREATMENTS**

1. **LOAD** - The buckets are delivered to the elevator bucket washer by customer's conveyor, or are manually placed on elevator bucket washer's infeed extension in an upside-down position.
2. **DRAIN POSITION** - To prevent wash solution from discharging at the infeed opening of the elevator bucket washer.
3. **PUMP WASH** - Detergent wash solution is recirculated and sprayed through strategically placed, properly designed jets at high velocity and volume under pressure by 2-10 HP pumps. Circulation is at the proper gallons per minute and heated to properly clean the items to be washed. Soaking action of the recirculated hot detergent solution chemically softens the soil and contamination which is continually scrubbed and flushed away by mechanical force of the spray.
4. **FRESH FINAL RINSE/SANITIZING LOOP** - Utilizes fresh water from the house supply, at house pressure and temperature. (6 GPM consumption at 40 PSI.) A sanitizing drying agent may be introduced into the final rinse water supply.
5. **DRAIN POSITION** - To prevent wash solution from being discharged from the machine.
6. **DISCHARGE** - The buckets continue on customer's conveyor or are manually removed by the operator.

## **SERVICE REQUIREMENTS**

3/60/230-460 volts (state voltage available when ordering.)

1 - 1" steam connection, 1420#/hr., 40 PSI minimum.

1 - 1" hot water connection.

1 - 2" drain connection, gravity

1 - 6" x 36" dia. vent connection, 2740 CFM required.

## **OPTIONS**

1. **Closed-System Steam Coil Heating** of wash tank, in lieu of direct steam injection. Includes steam condensate trap.

2. **Variable Speed Drive** to increase or decrease the conveyor speed.
3. **Pump Pressure Gauge** to monitor performance of pump. The pump shall indicate recirculation water pressure.
4. **Detergent port** - The elevator bucket washer will be provided with a coupling for automatic detergent dispensing.
5. **Wash Down Duty Motors** in lieu of T.E.F.C.
6. **Ambient Blow-Off Treatment** - To remove the bulk of excess water from the surface of the elevator buckets. The blow-off system shall utilize a 15 Hp blowers distributing air through stainless steel plena onto all surfaces of the buckets. This system will add 60" to the overall length of the elevator bucket washer.
7. **Filtered Air Intake** - A combination of a pre-filter and a final polyester filter system shall be incorporated.  
The system shall be 100% efficient @ 10 microns, 90% efficient @ 1 micron, and 70% efficient @ .05 micron.
8. **Automatic drain system** includes an air operated drain valve and all necessary controls to interface with the pumps, water level controls, heat, drive, blower etc. The Allen Bradley controls will include a Micro Logix 1200 PLC with a microview display.
9. **Training of owners personnel** in accordance to Girton Manufacturing Co., Inc. standard testing and demonstration policy. Elevator bucket washer shall be demonstrated to all operators and maintenance personnel.

# ***Elevator Bucket Washer***

