

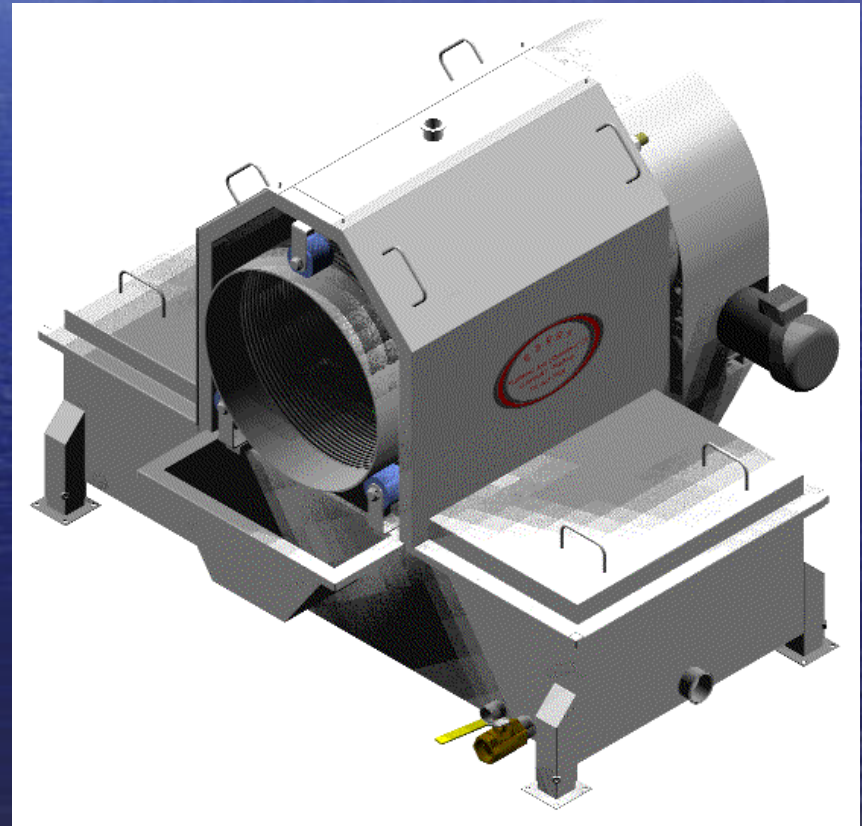
WATER REUSE



Berry Water Reuse Screen
Model #BWS3

The Berry Equipment Reuse Screen

The Berry Reuse Screen is a gear driven rotary screen built of stainless steel construction that is capable of recycling 200 gpm of water from the bird washers and/or other processing equipment.

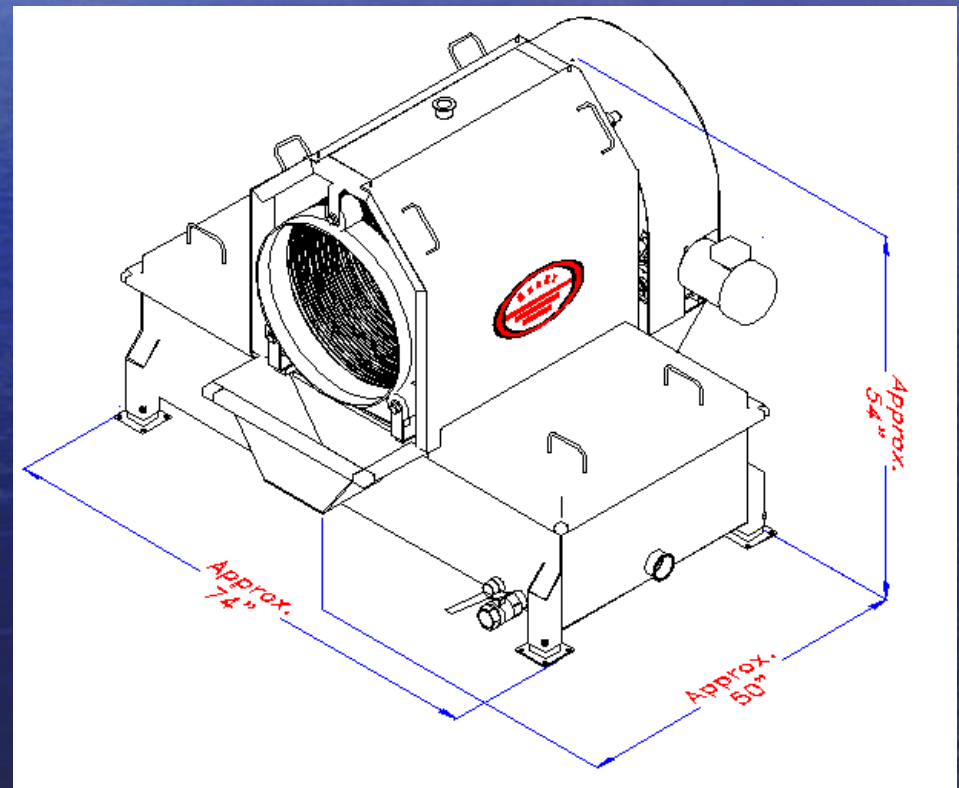


* Water Screens are available in 125 Gal. Capacity and 160 Gal. Capacity.

Specifications

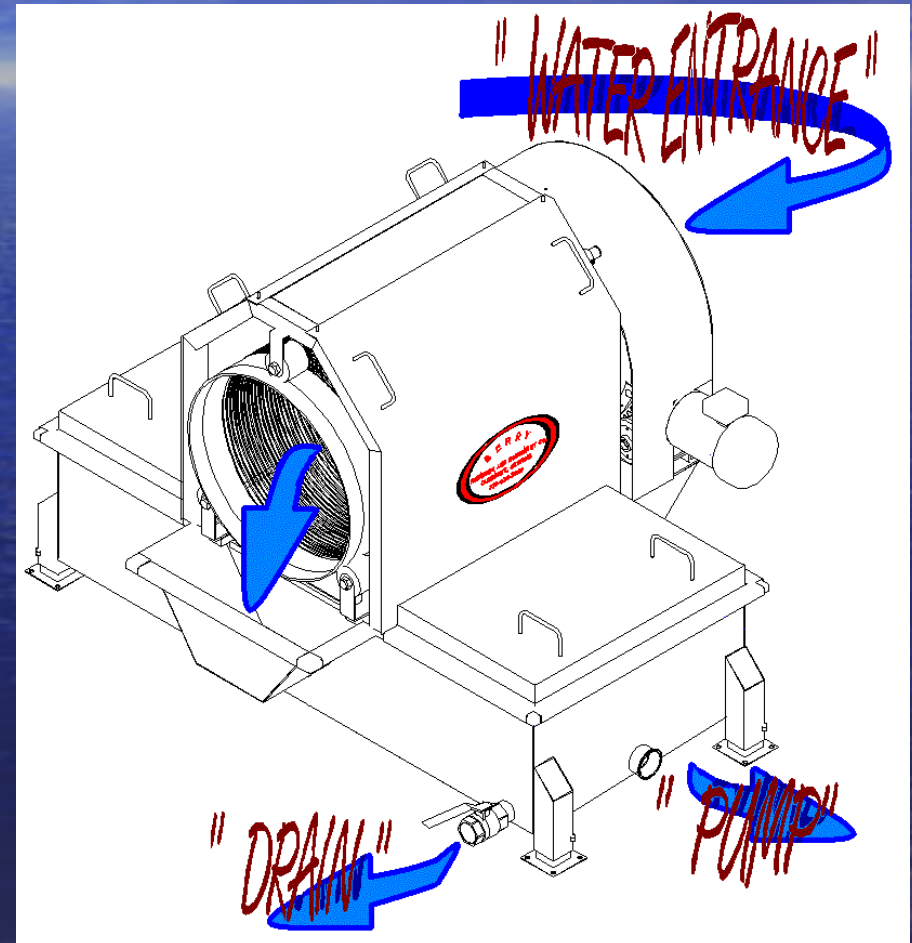


- 200gpm Ampco Pump
- 120 gallon water storage hopper
- 160 gallon hopper option available
- 2hp drive motor 240/480V
- Screen rated for 200gpm
- Secondary screen prior to pump intake
- Removable side panels for sanitation
- Spray bar with jets fed by pump discharge line to clean screen
- 2" fresh water makeup line controlled with a float valve
- 2" fresh water



How it works

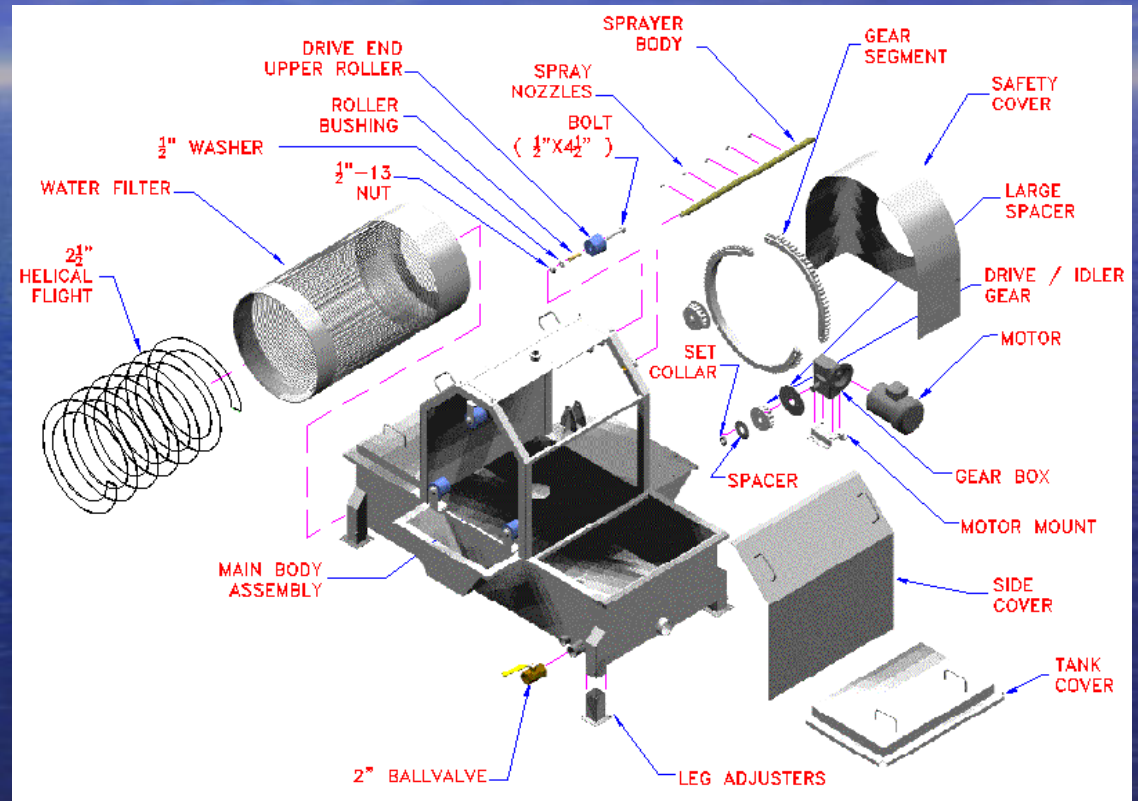
- Water gravity flows into the screen through sanitary pipes from the Inside/ Outside Washers and the Final Bird Wash Cabinet.
- Chlorine is injected.
- Solids are separated from the water.
- Water is screened and pumped back up line to desired destinations.



Plumbing Connections

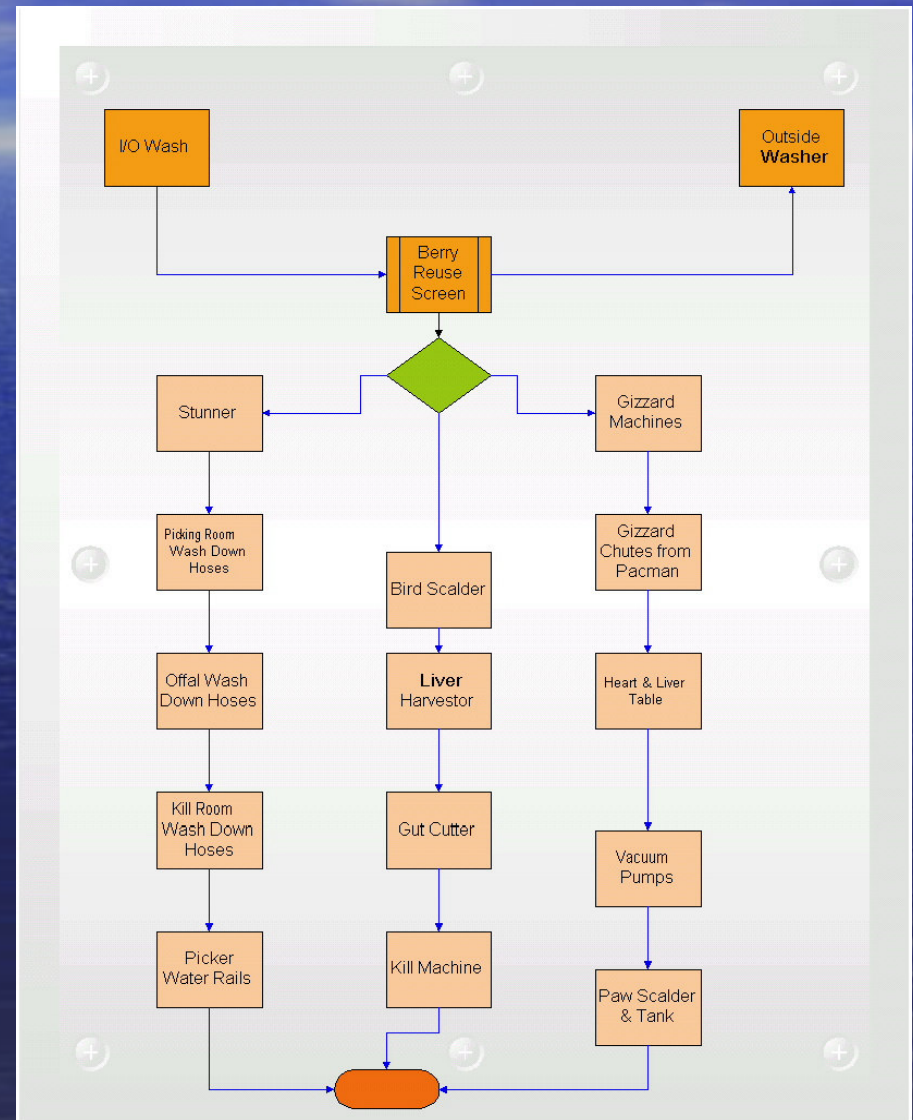
Features:

- 2" header
- 2" sanitary clamp connect bypass line to prevent downtime due to pump failure
- Air gap in bypass line to prevent contamination of fresh water supply



Where can the water be used?

- Water used to chill or wash raw product may be reused for the same purpose provided that measures are taken to reduce physical, chemical, and microbiological contamination so as to prevent contamination or adulteration of raw product.
- (CFR 9 Section 416.2)



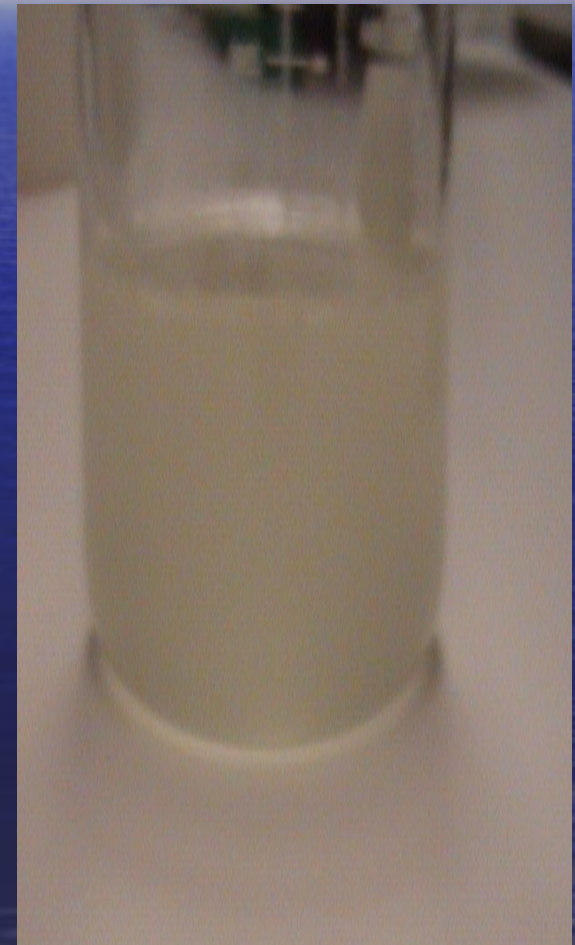
Requirements:

- Free Chlorine 1-5ppm
- Identify water reuse lines.
- A system should be in place to prevent substandard reuse water from entering the end use portion of the system thus contaminating edible product.
- Establish an ongoing microbiological plan.
- Include in SOP and or HACCP plan

Water Quality



TPC		Coli form		E-Coli.	
Before	After	Before	After	Before	After
800	2	160	0	143	0
500	0	165	0	151	0
700	2	162	0	140	0
475	0	124	0	91	0
650	0	110	0	79	0
565	0	128	0	108	0
640	2	103	0	79	0
620	1	138	0	121	0
560	0	115	0	87	0



Sample SOP



1.0 Purpose

To establish procedures for the reuse of water.

2.0 Application

This procedure applies to water that is collected, screened, and chlorinated through the **Berry Water Reuse System** then distributed and used back in the evisceration operation of poultry processing plants.

3.0 References

- 3.1 FSIS Directive 5000.1 Part VII E.
- 3.2 CFR 381.94

4.0 Responsibilities

- 4.1 Plant Management will be responsible for assuring the program is followed.
- 4.2 Quality Assurance will be responsible for monitoring chlorine levels.
- 4.3 Quality Assurance will be responsible for collecting and analyzing microbiological samples.

5.0 Methods

- 5.1 Water will be collected from the Inside/Outside Bird Wash and the Bird Scrubber.
- 5.2 Sample water will be screened and chlorinated.
- 5.3 Water can be reused on the following:
 - a) Gizzard Machines – Defatter Pumps
 - b) Gizzard Chutes from the Pac-Man
 - c) Heart and Liver Table
 - d) Vacuum Pumps
 - e) Paw Scalding and Tank
 - f) Bird Scalding
 - g) Water rail and blades on the Liver Harvester
 - h) Gut Cutter
 - i) Kill Machine
 - j) Stunner
 - k) Wash down hoses in the Picking room
 - l) Wash down hoses in Offal
 - m) Wash down hoses in the Kill room
 - n) Picker Water Rails

Sample SOP



6.0 Monitoring and Record Keeping

- 6.1 Initially Quality Assurance will take 20 water samples before treatment and 20 samples after treatment for two (2) days. These samples will be analyzed for Total Plate Count, Total Coliforms, and E. Coli. This will show a reduction in microbial counts after screening and chlorination.
- 6.2 A Free Chlorine concentration of 1-5 ppm will be maintained.
- a) QA will test chlorine concentration two (2) times per shift.
 - b) Results will be recorded.
- 6.3 Once per week, QA will collect 5 samples of water after treatment and test for Total Plate Count (APC), Total Coliforms, and E. Coli.
- a) Total Plate Count (APC) Action Level > 500 cfu/ml
 - b) Total Coliforms Action Level Positive
 - c) E. Coli Action Level Positive
 - d) Results will be recorded on Micro Results for Water Reuse form.

7.0 Corrective Action

- 7.1 If the Free Chlorine concentration falls below 1.0 or above 5.0 actions taken will be:
- a) Notify Maintenance of results
 - b) Retest performed with-in 10 minutes
 - c) If results are acceptable, proceed as normal
 - d) If retest results are still outside parameters (1-5 ppm Free chlorine)
 - d-1) Repeat test in 5 minute intervals until parameters are met
 - d-2) Check chlorine level of last "Bird Rinse Sample" to assure a trace of Free chlorine is present in the final chill system
- 7.2 If Total Plate Count, Total Coliforms, or E. Coli exceeds "Action Levels" stated above:
- a) Sample water after treatment (5 samples per day) for 5 consecutive days to assure control is restored
 - b) If all samples are acceptable resume as normal
 - c) If any sample exceeds parameters, check Bird Rinse samples for E. Coli counts for same period. If samples do not meet CFR 381.94 with regard to E. Coli, reuse water will be halted until a complete investigation can be completed and control can be regained.

The Payback

Water Recycled

180 gpm

162,000 gallons per day

Cost = \$3.85/1000 gal

\$623.70 per day

\$155,925.00 per year



Please call for pricing.

770-983-3929

*Savings may vary according to your specific gpm and cost per 1000 gallons.
Customer responsible for all plumbing and electrical connections.