



DANGER

Follow proper lockout procedure before servicing
this equipment!

DANGER

Closed Loop System Daily Check List

- 1) Check and clean (if necessary) settling drums/weirs. Ensure gravity return lines are free from settled solids and water flows freely from drums/weirs to the Ebbco Inc. Closed Loop Filtration System.
- 2) Lift the lid off of the Closed Loop System tank and inspect the water quality within the clean side of system tank. The water within the clean tank must be 100% clean at all times. The water quality may appear cloudy or have a foamy layer after initial startup or after filter service to vessels # 1 or # 2. This is considered normal and should clear itself up within a short period of time.
- 3) Start the system pushing the start button on the filter pump.
- 4) Turn the chiller to the local position. This will Turn on the chiller.
- 5) **Filter # 1 Bag Vessel:** Check the surrounding inlet and outlet pressure gauges. The differential should not exceed a 30 PSI drop from the inlet gauge to the outlet gauge. Once a 30 PSI differential is reached, the red service beacon light on top of the electrical panel will flash continuously. This is indication that the bag filter in vessel # 1 must be changed (observation of gauge readings at start-up will give an indication if the bag filter is close to requiring maintenance).
- 6) **Filter # 2 Hurricane Vessel:** Change the filter cartridge inside of vessel # 2 every 200 hours* of machine operation, or when pressure differential reaches 30 PSIG (see Maintenance Section of the manual for proper cleaning procedure).
- 7) **Filter # 3 D.I. Vessel:** Check the TDS (Total Dissolved Solids) Meter on the electrical panel. The TDS Meter is factory set with a set point of 40 parts per million (ppm). The TDS level will rise as the waterjet resin depletes. The yellow service beacon on top of the electrical panel will flash continuously when the resin is exceeds the high side of the set point (varies) and the ppm level no longer returns within the preset range. The TDS level may spike after changing any other filter element, giving a false yellow signal; this is normal. Observe the TDS Meter as it should start to return to 40 ppm within a few minutes. The waterjet resin bag must be replaced if the yellow beacon light does not stop flashing and the ppm level does not start to return to its proper range. (Some systems use gauges rather than service beacons.)
- 8) Inspect the reservoir again as the system is running. Water from the clean tank must be overflowing into the dirty tank. Water in the clean tank must be clean at all times. Sending dirty water to your High-Pressure Pump will result in serious pump failure. The water may appear cloudy or have a foamy layer upon initial startup or after servicing a filter element. This is considered normal and should sort itself out over time.
- 9) Observe the makeup water float assembly in the dirty tank. Observe that the water level is constantly 10 – 14 inches deep and maintained at the present float height. Makeup water should only enter the reservoir when the float assembly is in the low position, which is less than 8". Check the float and valve for proper operation if makeup water is not keeping the water level constant.
- 10) Check the ozone generator unit for proper operation. Ozone bubbles should be present inside of the clean tank. The operator should notice ozone bubbles rising from the dispersion stone to the surface. Consult the manual for techniques to clean the dispersion stone if the ozone is not functioning properly.
- 11) Start the Ebbco Inc. High-Pressure Feed Pump and observe the monitoring pressure gauge; it should read approximately 90 PSI. The Ebbco Inc. High-Pressure Feed Pump will drop 2-4 PSI after the operator starts the waterjet high-pressure pump.
- 12) Replace the cover on the Closed Loop System tank.
- 13) **Filter # 4 Final Filter Vessel:** Change the filter cartridge when there is a pressure drop of 30 PSI from the surrounding monitoring inlet and outlet pressure gauges, or every 200 hours*.
- 14) * The material being cut and the abrasive being used will affect the filter life.
- 15) Push the stop button on both of the pumps to turn the system off. Turn the chiller selector switch to the off position to shut off the chiller.

Warning:

Do not add any chemicals, chlorine, oils, mop water or any other liquids to any of the Waterjet components. This includes but is not limited to worktables, Closed Loop Filtration Systems, Settling Weirs, etc. Doing so will greatly reduce filter life and may cause catastrophic system failure, on top of voiding all warranties.

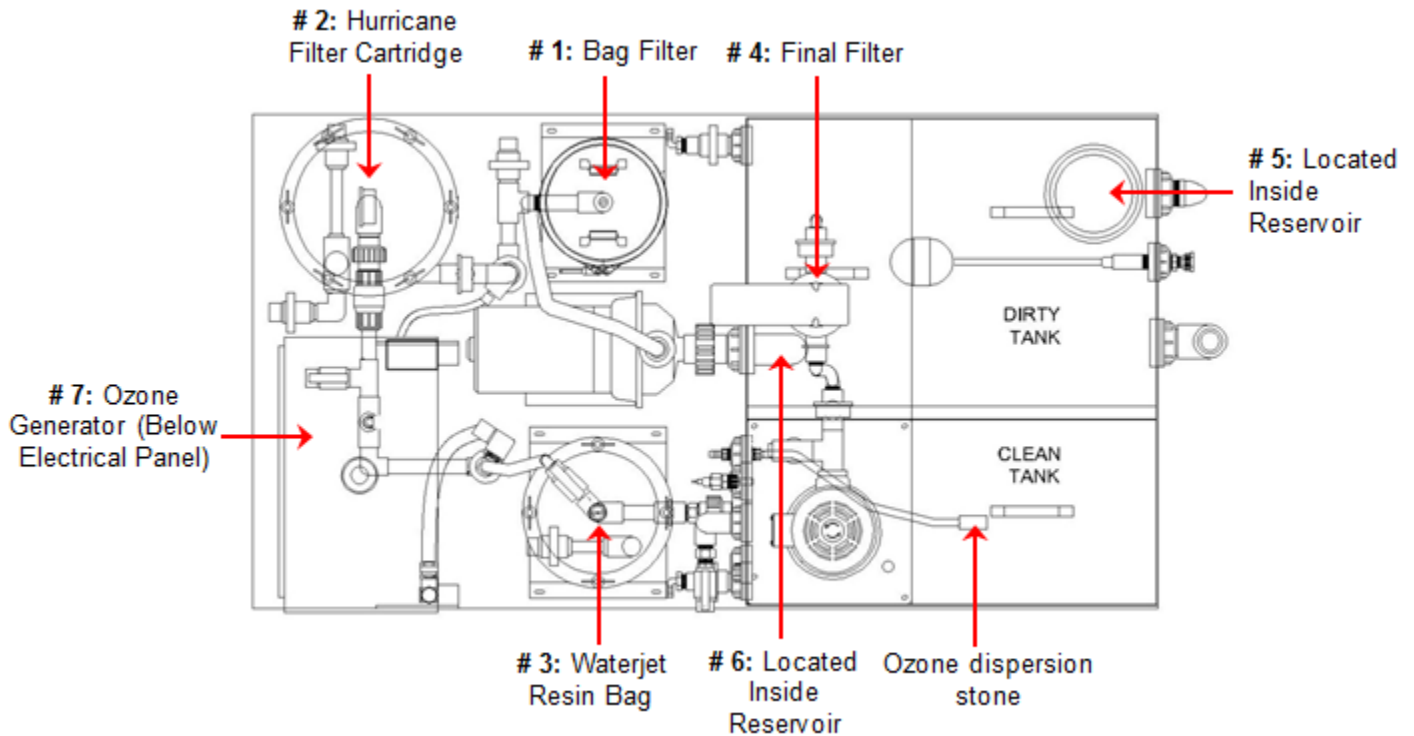
Note:

Ebbco Inc. branded Filter Cartridges, Filter Bags, and Resins must be used in order to obtain maximum performance. Performance cannot be guaranteed unless approved consumables are used.

Over for system layout and replacement parts list



Plan View



| Service Point | Service Hours* | Action | Component To Be Serviced | Ebbco Inc. Replacement Part # |
|---------------|-----------------------------------|---------|----------------------------|--|
| 1 | 20 hrs. or red service beacon | Note 4 | Bag Vessel # 1 | Bag Filter: CLS-1-G2PS-EA Seal Kit: CLS-0833-ORL-BC |
| 2 | 200 | Note 5 | Hurricane Vessel # 2 | Filter Cartridge: HR-930-Q 0.35 Seal Kit: CLS-SK-2 |
| 3 | 200 hrs. or yellow service beacon | Note 6 | D.I. Vessel # 3 | Resin Bag: CLSR-100-PKG Seal Kit: SK-3 Regen Resin: CLSR-100-PKG-RGN |
| 4 | 200 hrs. or 30 PSI pressure dif. | Note 12 | Final Filter Vessel # 4 | Filter Cartridge: CLS-801 Housing Kit: CLS-HSL-10-12 |
| 5 | 20 | Clean | Inlet Pre-Filter Bag # 5 | CLS-PFB-150 |
| 6 | 20 | Clean | Pump Suction Strainer | CLS-FP-SCRN |
| 7 | See note 9 | Note 9 | Ozone Generator | CLS-200V-CD |
| 8 | 40 | Clean | Chiller Intake (Not Shown) | Clean Intake Screen |
| 2 | Each Filter change | Apply | Hurricane Vessel Wax | WJF-STW |

For Service and Replacement Parts Contact:

* Average service hours based upon metal cutting applications. Other processed materials may cause variations for required service intervals.

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Over for system daily maintenance list...