FINALPROCESS
EQUIPMENT & SUPPLY, LLC

Wash Water Eliminator

Closed Looped Recycler System:

System Operation:

The Wash Water Eliminator filtration system is a closed loop recycling system that recycles the effluent generated from a pressure washer and treats it for reuse. An air operated double diaphragm pump transfers the solution from a pit to the filtration unit. The solution passes through a self cleaning paper indexing filter and then gravity flows into the process tank. The process tank has a series of weirs that settle out the oil and an oil skimmer mop sweeps up the oil and sends it to a collection pail or drum. Ozone is continuously injected into the solution to kill any bacteria. The clean solution is then transferred via gravity back to the pressure washer. A small 110 volt electrically operated pump continuously recirculates the solution back through paper bed filter. The system also monitors the solution level and has an automatic fill which includes a chemical injector to add a preset percentage of chemical. A manually operated diverter valve is included to divert any rinse water (if required) to drain. The filtration system has a footprint of 6'-7" long x 3' wide x 5' high plus skimmer and holds 250 gallons of process water.

Specifications:

Tank Construction:	12 gauge 304 stainless steel, "V" bottom design
Tank capacity:	250 gallons
Flow rate:	Up to 10 GPM
Micron Retention:	5- 10 Microns
Footprint:	79" long x 37" wide x 60" high plus accessories
Feed Pump:	½" air operated double diaphragm pump. Polypropylene body with Teflon diaphragm construction
Self Cleaning Filter:	110 volt stainless steel indexing paper bed filter
Ozone Generator:	110 volt compressor driven with built-in air pump
Oil skimmer:	110 volt stainless steel variable speed with polypropylene mop
Recirculation Pump:	110 volt, ½" sealess magnetic drive, 1/200 H.P. 3200 RPM
Auto fill:	Mechanical weighted float with interchangeable orifices for adjustable concentration

Control Panel:

Control Power Switch:
Sends power to all control switches .When turned off, all switches are dead.
Energizes feed pump solenoid valve, allowing diaphragm pump to run when float level is at high level in pit.

Recirculation Pump:
Turns on the magnetic drive recircualtion pump. This should be on at all times.

Ozone Generator:
Turns on the ozone generator. This should be on at all times. Make sure ¼" tube is connected at the left side of unit and air stone is connected. The air stone should be placed near bottom of inside of tank through the ¼" port on top of tank directly above the generator.

Skimmer:
Sends power to the oil skimmer speed switch.

Oil Skimmer Speed:
Should be set just so belt can be seen moving. If little or no oil is present, switch should be turned off.
If speed is set to high, excessive water will be removed with belt.

Feed Pump and Diverter Valve:

Feed Pump:

The feed pump is an air operated double diaphragm pump. The pump is highly chemical resistant constructed of a polypropylene body and PTFE diaphragms, balls and seats. The pump pressure is controlled by an air regulator and gauge and should be set at approximately 50 psi. 100 psi is the maximum. A solenoid valve that opens and closes allowing air to energize the pump is controlled by float switch placed in the collection pit.

Diverter valve:

A diverter valve is plumbed in line between the discharge of the pump and the paper filter. This is a 3-way valve with direction arrows. The discharge from the pump is normally directed up to the paper indexing filter. If a situation arises where the effluent needs to be directed to another source, the valve can be turned 90 degrees and the pump will send to another source. A second fitting is included on the valve and allows to be plumbed to another area.

Recirculation Pump

A recirculation pump is included which pumps the cleaned solution from the third chamber back through the paper indexing filter. This keeps the bath moving and allows the solution to be refiltered multiple times when the recycler is idle. The pump is an electric 1/200 HP sealess magnetic drive style pump. Flow rate is approximately 3 gpm.

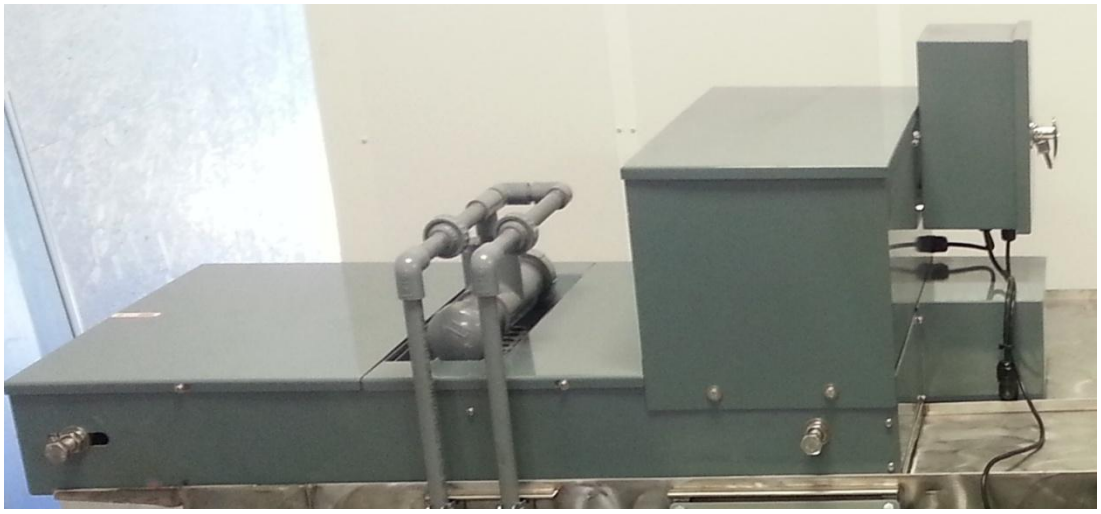
Water Make-up with Chemical Injector:

A water make-up with chemical injector is included. A float valve regulates the level in the third chamber. A standard garden hose hook-up provides the water supply. As water flows through the injector, a venture is created and sucks up chemical from a 5 gallon pail or drum. A kit is included with 13 different size orifices to select the proper injection or concentration rate. A titration procedure is still recommended and can be purchased through your chemical supplier.

Ozone Generator:

An ozone generator is included and mounted to the front of the recycler. A ¼" feed line and air stone is installed in the the second chamber and should be positioned so the air stone is sitting 2/3 of the way down in the tank. Ozone kills bacteria, molds, mildew and other odors. The generator should be run at all times. This generator is compressor driven and operates on 120 volt .15 amps.

Paper Bed Indexing Filter:



A Paper Bed Filter is included to remove solids down to 5 microns from free flowing and industrial process liquids. The effluent from the collection pit passes through this filtration system before entering into the recycler's first chamber. The unit will automatically index presenting clean filter media to the process when necessary. Solids and used filter fabric are deposited in a sludge bin that can be cleared without stopping the filter bed.

Wiring Diagram