

Riveer Environmental model Cyclonator III

1. Stage 1

- 1.1. Multi chamber stainless steel settling and oil separation module
 - 1.1.1. Inclined plates to encourage settling and separation
 - 1.1.2. Sloped settling chamber to direct settled solids to purge valve
 - 1.1.3. 1000 gallon capacity to allow over 4 hours of dwell time
 - 1.1.4. Screens to capture floating debris
 - 1.1.5. Over/under water flow path
- 1.2. Oil Coalescing stage with 500 square feet of coalescing material
- 1.3. Automatic oil skimmer with oil storage reservoir
- 1.4. Automatic conveyor to remove settled mud to external hopper
- 1.5. Float controlled batch processing from final chamber of stage 1 filtration
- 1.6. Ozone injection generated from corona discharge ozone generator
- 1.7. Patented bubble dispersion "air stick" to achieve optimal ozone penetration
- 1.8. 24/7 recirculation and ozone injection to keep water fresh
- 1.9. Built-in air compressor to operate automatic valves
- 1.10. Built-in diaphragm pump to recover wash water from wash pad or sump

2. Stage 2

- 2.1. High pressure media filter rated to 225 PSI
- 2.2. 7 cubic feet of media
- 2.3. Three layers of media, coarse stone, fine sand, zeolite
- 2.4. Automatic back washing, with air powered valves
- 2.5. PLC controlled
- 2.6. Removes all suspended solids down to 25 micron
- 2.7. Powered by ITT Goulds pressure pump

3. Stage 3

- 3.1. Absolute filtration
- 3.2. 5 micron zero bypass multilayer depth filter
- 3.3. Non proprietary filters
- 3.4. Stainless steel housing
- 3.5. Digital pressure sensor with readout and connection to PLC for auto shut down when filter full
- 3.6. Red indicator light to indicate full filter

4. Holding Tank

- 4.1. 600 gallon with sight tube
- 4.2. High limit float to prevent overflow
- 4.3. Auto-refill
- 4.4. Clean-out valve

5. Standard Features of the System

- 5.1. All components enclosed in lockable, climate controlled enclosure
- 5.2. System is zero button operation
 - 5.2.1. Squeeze trigger on pressure washer, system starts
 - 5.2.2. Release pressure washer, system shuts down
- 5.3. All suspended solids are contained, collected and the sent to collection point
 - 5.3.1. Back washed materials are collected in back wash tank with collection filter bags or in sump
- 5.4. PLC controls of all functions
- 5.5. Allen Bradley electric components
- 5.6. Branch circuit protection with solid state circuit breakers
- 5.7. NEMA 4 electrics

6. Protective Enclosure - 20' ISO Container

- 6.1. New container, epoxy painted
- 6.2. Insulated to R factor 6
- 6.3. Interior surfaces clad with powder coated embossed aluminum
- 6.4. Fluorescent lights
- 6.5. Forced air heat with thermostat control
- 6.6. Powered vents for moisture control and make-up air for optional hot water pressure washer
- 6.7. Exterior NEC disconnect
- 6.8. Interior NEMA 4 electrical panel

7. Filtration Options

- 7.1. Bacteria injection "bugs" module
 - 7.1.1. Includes pH adjust, air injection, ozone in holding tank
- 7.2. Membrane filtration, RO and Ultra
- 7.3. Carbon filtration
- 7.4. Grass removal