D.R. SHANNON COMPANY

Oil Water Separator Pack

Your Filtration Specialists Since 1959

D.R. SHANNON COMPANY

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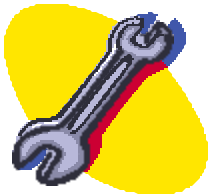
General Description & Limitations

The oil water separator is designed to remove free oil from water at the design flow rate unique to each pack. The inlet flow to the unit is strictly by gravity. ***Initially the vault must be filled with clean water to prevent overloading the media with contaminants.*** A screen should be installed in the inlet pipe to prevent contaminants from clogging the media pack. Any restriction of the outlet pipe or tubing will cause the unit to malfunction.

The oil water separator contains coalescing media made from polypropylene, which attracts and coalesces oil droplets thus enhancing gravity separation from water. The oil and water mixture to be processed is directed into the vault or tank and it travels through a tortuous path of the polypropylene media, where small oil droplets either "impinge" on the vertical surfaces or "rise" until they attach to horizontal surfaces. As the oil particles coalesce in larger sizes, they rise to the surface. A considerable layer of oil can accumulate on the surface of water over a period of time. This oil can be removed through an adjustable skimmer or some alternate arrangement.

The equipment is designed for regular usage with influent temperatures between 32º F and 110º F. However continuous temperature in excess of 100º F should be avoided. An influent PH range of 2 to 10 presents no inherent problems for the equipment. When PH values are outside these ranges, consult the factory.

Detergents and some degreasers will "emulsify" the oil droplets and not allow them to attach to the polypropylene media. Use of these products will temporarily render the coalescing media ineffective at separating the oil from water. Consult the factory if this situation exists.

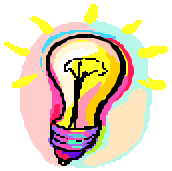


Maintenance Procedures

The vault should be inspected and cleaned periodically. Annual inspection is recommended.

- The inlet strainer should be removed and cleaned regularly.
- Open doors and inspect inside of the vault.
- Inspect the inlet chamber and remove any sludge with a vacuum pump.
- Oil absorbent pads are to be replaced as needed but shall always be replaced in the fall prior to the wet season and spring. All residual oil should be removed with a wet vacuum or through oil drain before removing the media.
- The effluent shutoff valve is to be closed during cleaning operations.
- Inspect the coalescing media at the inlet. Depending on the condition of media, the cleaning operation can be performed in place with a water hose. **A coating of oil can and should remain on the media to provide maximum coalescing efficiency. Do not use soaps or detergents as they will cause temporary loss of coalescing capability.** Vacuum pump should be used to clean the dirty water.
- The coalescing media can be easily removed for cleaning. Disassemble the top cover of the frame. Remove one media block at a time through the doors. Use a water hose as described earlier.
- Clean the tank and reinstall the media replacing the hold down bars or cover.

Fill the vault with clean water to prevent oil carry over.



Important Notes

- Waste oil and residuals shall be disposed in accordance with current local jurisdiction health requirements.
- Any standing water removed during the maintenance operation must be disposed to a sanitary sewer at a discharge location approved by the jurisdiction.
- Walking on the coalescing packs may break the media reducing the efficiency. When working on the units it is important to take care not to crush the media packs. Placing a sheet of plywood or other weight distributing material has proven to be an effective technique in preventing such damage.