

**OS Series Fiberglass Oil/Water Separator Engineering Specification
FB2 through FB2112**

SECTION 1.0 OIL/WATER SEPARATOR

Performance

The Pan America Environmental FB Series Oil/Water Separators are designed to produce an effluent concentration of 15 mg/l or less of oil droplets 30 micron and larger of non-emulsified, free and dispersed oils. By virtue of our Flopak coalescing media and tank designs readily settleable solids are also removed.

1.01 Design

The oil/water separator will be designed and fabricated per the following specifications. Rectangular tankage with features as described designed per API #421 Design & Operation of Oil/Water Separators Manual, February 1990 and Stokes law. The design will incorporate flexible flow rating capability based on application parameters.

1.02 Influent Chamber

Influent flow enters the clog proof influent diffuser pipe and is immediately spread out across the depth and width of the chamber. Any readily settleable solids drop to the bottom of the separation chamber.

1.03 Oil/Water Separation Chamber

The separation chamber is to be packed with Flopak cross-fluted coalescing media. The media pack will be designed to create a quiescent zone, a laminar flow pattern to facilitate the impingement of oil on the media, and will provide numerous droplet impact sites and changes of flow direction. The media shall have a 60 degree cross-flute angle.

1.04 Clean Water Effluent Chamber

The cleansed water will flow under the oil retention baffle, over the water weir and into the effluent chamber. This chamber is to have the capability to be expanded at the factory by modifying the standard integral chamber so a greater volume of water is available for pump suction directly from the FB tank.

1.05 Oil Skimmer / Reservoir

A fixed weir oil skimmer with integral oil reservoir is to be provided for the temporary storage of separated oils. This chamber is located at the effluent end of the separator. The reservoir will have fittings for pump suction, high/low level switch accommodation, vent and optional sight glass installation.

1.06 Separator Cover

The separator is to have a multi-section cover that provides complete closure of the tank. The separator cover will be mounted to the tank via zinc plate hardware and vapor sealed with an industrial grade closed cell, compressible PVC gasket.

1.07 Fittings

All fittings are to be FNPT coupling up to 4". Fittings larger to be 150# FF ANSI B16.5 flange.

Section 2.0 Materials of Construction

2.01 Steel Construction

Tank shell, baffles and external structural members shall be constructed of A-36 carbon steel. Welded joints are double welded and dye penetrant tested.

2.02 Surface Preparation

Interior surfaces shall be prepared to an SSPC-SP10 near white metal blast. Exterior surfaces shall be prepared to an SSPC-SP6 commercial blast.

2.03 Coatings

Interior coating shall be a self-priming, coal tar epoxy (12 DFT). Exterior coating shall be primer coat followed by industrial polyurethane enamel coat (6 DFT). Color is Rain Forest Green.

2.04 Piping

Internal piping shall be ASTM, A-53 steel.

2.05 Coalescing Media

Cross-fluted, oleophilic, PVC Flopak coalescing media shall be provided as manufactured by Pan America Environmental.

2.06 Cover Gasketing

Closed cell, industrial grade PVC constructed vapor sealed cover gasketing shall be provided. No neoprene shall be permitted.

2.07 Manufacturer

The manufacturer of preference shall be: Pan America Environmental
950 Rand Rd. Unit 120 Wauconda, IL 60084 USA

2.08 Warranty

Pan America Environmental warrants its products to be free of defect in materials and workmanship for a period of one year from the date of shipment.