

**OS Series Fiberglass Oil/Water Separator Engineering Specification
OS2 through OS16**

SECTION 1.0 EQUIPMENT DESIGN & CONSTRUCTION

Performance

The Pan America Environmental OS Series Oil/Water Separators are designed to produce an effluent concentration of 10 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 V-shaped solids accumulation chamber located directly under the coalescing media bundle.

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 impact sites and changes of flow direction. The media shall have a 60-degree cross-flute angle.

1.04 Cylindrical Oil Skimmer

The separator shall be provided with an adjustable cylindrical oil skimmer that allows the skim head to be readily removed or adjusted without tools. The skim head rotation collar will be provided with a Buna-N seal. The oil skimmer is to be located at the effluent end of the separation chamber. The skimmer shall not require lubrication for operation.

1.05 Solids Accumulation Chamber

The separator shall have a V-shaped solids accumulation chamber located under the coalescing media. This chamber will provide temporary solids storage. The chamber walls are to be pitched at 45 degrees to assure simple and thorough solids removal. Dual outlet ports will be provided for sludge removal.

1.06 Clean Water Effluent Chamber

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

1.07 Oil Reservoir

An 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.

1.08 Separator Cover

The separator is to have a single piece cover that provides complete closure of the tank. The separator cover will be mounted to the tank via quick release hardware and vapor sealed with an industrial grade closed cell; "D" shaped compressible EPDM gasket.

1.09 Fittings

All wetted fittings must be fiberglass constructed, integrally bonded via fiberglass bond to the tank for permanent, leak proof fitting seal. Tank penetrating, gasketed, plastic bulkhead fittings or couplings are not to be used.

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Industrial Wastewater Treatment Systems

Section 2.0 Materials of Construction

2.01 Fiberglass Construction

Tank shell, baffles and cover shall be molded of premium grade DION 6694/95 high cross-link density FRP/resin composite utilizing mat and chopped roving construction with a minimum of 25% chopped fiberglass fiber to resin mix. An ultraviolet stabilized gel coat shall be used to coat external surfaces 16-20 mils dft. Finish color to be white.

2.02 Piping

Internal piping shall be type 1, grade 1, ASTM 1785 PVC.

2.03 Coalescing Media

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

2.04 Cover Gasketing

Closed cell, industrial grade, "D" shaped EPDM constructed vapor sealing cover gasketing shall be provided. No neoprene shall be permitted.

2.05 Manufacturer

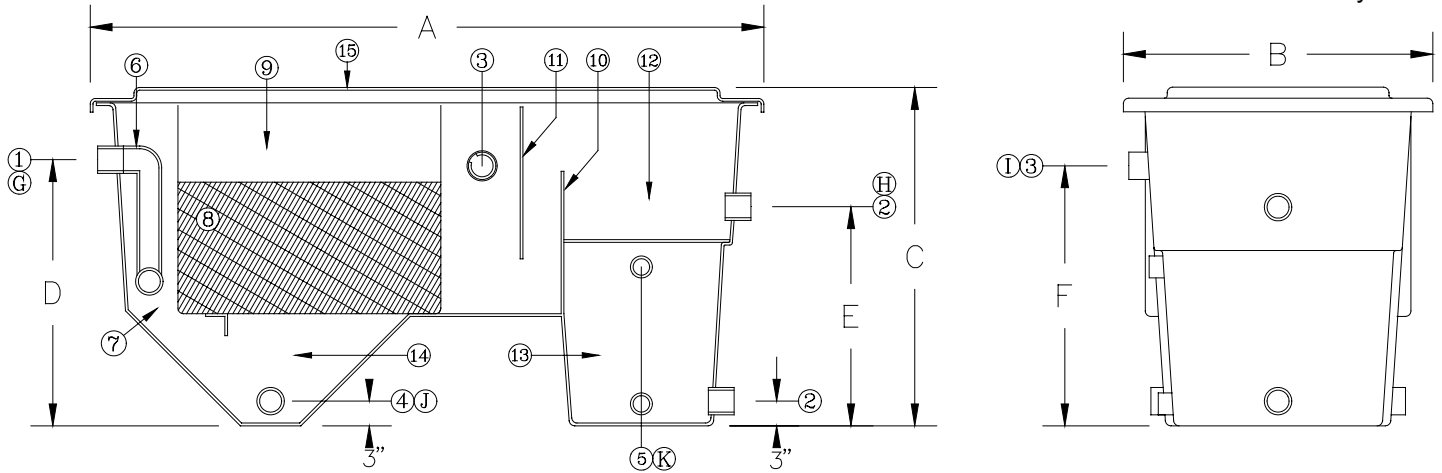
The manufacturer of preference shall be: Pan America Environmental
950 Rand Rd. Unit 120 Wauconda, IL 60084

2.06 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.

Pan America Environmental

Industrial Wastewater Treatment Systems

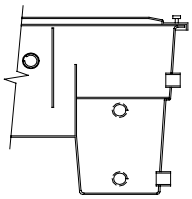


Model	Dimensions			Elevations			Fitting Sizes					Weight (Lbs)		Media Ft	Tank Vol. Gal.	Effluent Vol. Gal.	Oil Vol. Gal.	Sludge Gal.	GPM
	A	B	C	D	E	F	G	H	I	J	K	Dry	Full						
OS2	5'-2"	1'-5"	2'-7"	2'-0"	1'-8"	1'-11"	2"	2"	2"	2"	2"	95	460	136	25	4	8	7	5
OS4	5'-2"	2'-5"	2'-7"	2'-0"	1'-8"	1'-11"	2"	2"	2"	2"	2"	135	980	272	51	10	25	13	10
OS8	6'-0"	2'-5"	3'-7"	3'-0"	2'-4"	3'-0"	2"	2"	2"	2"	2"	180	1900	544	125	15	40	13	25
OS12	6'-0"	3'-4"	3'-7"	3'-0"	2'-4"	3'-0"	3"	3"	3"	2"	2"	350	2775	816	180	25	60	25	36
OS16	6'-0"	4'-4"	3'-7"	3'-0"	2'-4"	3'-0"	3"	3"	3"	2"	2"	460	3800	1088	240	35	80	37	50

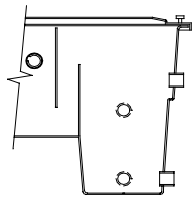
Item	QTY	Description	Item	QTY	Description	Item	QTY	Description	Item	QTY	Description	Item	QTY	Description
1	1	Inlet	4	2	Sludge Out	7	1	Inlet Chamber	10	1	Water Weir	13	1	Oil Storage
2	1	Outlet	5	2	Oil Outlet	8	1	Flopak Media	11	1	Oil Baffle	14	1	Sludge Hopper
3	1	Oil Outlet	6	1	Inlet Diffuser	9	1	Sep. Chamber	12	1	Outlet Chamber	15	1	Cover

Information not for construction Design & dimensions may change without notice Flow rates are nominal

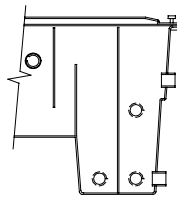
Available Tank Configurations



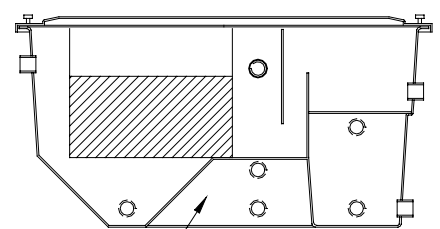
Oil reservoir is a standard design feature



Effluent chamber is combined with oil reservoir for direct effluent pumpout



Effluent & oil chambers are vertically split.



Secondary oil / water reservoir

Pan America can provide your separator in many custom configurations with many options to fit your project. Please contact us to discuss your needs and quote your configuration.