

## TRAMP AND "FREE" OIL SEPARATION FROM AQUEOUS SOLUTIONS USING TUBE PACK SEPARATION

In many industrial manufacturing processes, water, coolants, quenchants and other aqueous solutions become contaminated with tramp, lube and hydraulic oils which detrimentally affect the process. In addition, catch basins, storm sewers and retention ponds are often mixed with motor oil, gasoline and other hydrocarbons which prevent the safe discharge to surface waters.

To effectively remove these contaminants, Filtertech manufactures its Model OWS Oil Water Separator. The Model OWS uses uniquely-designed coalescing tube packs that accelerate separation and remove these contaminants from the aqueous solution. The Model OWS is manufactured in a wide range of sizes to accommodate many different capacity requirements. In addition, the OWS is available in various materials of construction and optional features.



Model OWS 2-2-4 Oil Water Separator



Polypropylene  
Coalescing  
Tube Pack

### TYPICAL APPLICATIONS

- **Metal Working Coolants**
- **Process Cooling Water**
- **Catch Basins**
- **Compressor Blowdown**
- **Retention Ponds**
- **Wastewater Treatment**
- **Stormwater Runoff**

### EQUIPMENT FEATURES

#### Standard

- Heavy-duty reinforced hot rolled steel vessel construction.
- Low velocity inlet header to minimize turbulence.
- Solids retention baffle with hot rolled steel construction.
- High-efficiency polypropylene tube packs with lifting lugs for easy removal and cleaning.
- Sloped bottom reservoir design with drains for solids removal.
- Internal over/under baffles in hot rolled steel construction.
- Oil decantation outlets with adjustable weirs.
- Clean outlet with adjustable weir.
- Hinged inspection hatches and full removable covers in hot rolled steel construction.
- Exterior oil drain trough.

#### Optional

- COR-TEN® steel wetted surface construction.
- Stainless steel wetted surface construction.
- Pump away sump with transfer pump.
- Pre-filter chamber with replaceable filter bag elements.
- Model DTOS Dual Tube Oil Skimmer (see Product Bulletin FT235).

## MODE OF OPERATION

The contaminated aqueous solution would drain by gravity or be pumped to the Model OWS Oil Water Separator. The aqueous solution enters the OWS through an inlet header which evenly distributes the solution along the total width of the separator while at the same time slowing down the solution's velocity. This allows the oil to collect and form droplets in the tube packs that will increase in size until they become large enough to break away from the tube surface and rise to the liquid surface.

The accumulated oil layer on the surface of the liquid is then decanted through adjustable overflow weirs and directed to a waste oil tank for disposal.

Similar to the oil droplets, the smaller solids in solution will settle to the bottom of the sloped bottom tank which is pyramid shaped for solids collection. Discharge drains are located along the bottom of the tank for efficient removal of the solids.

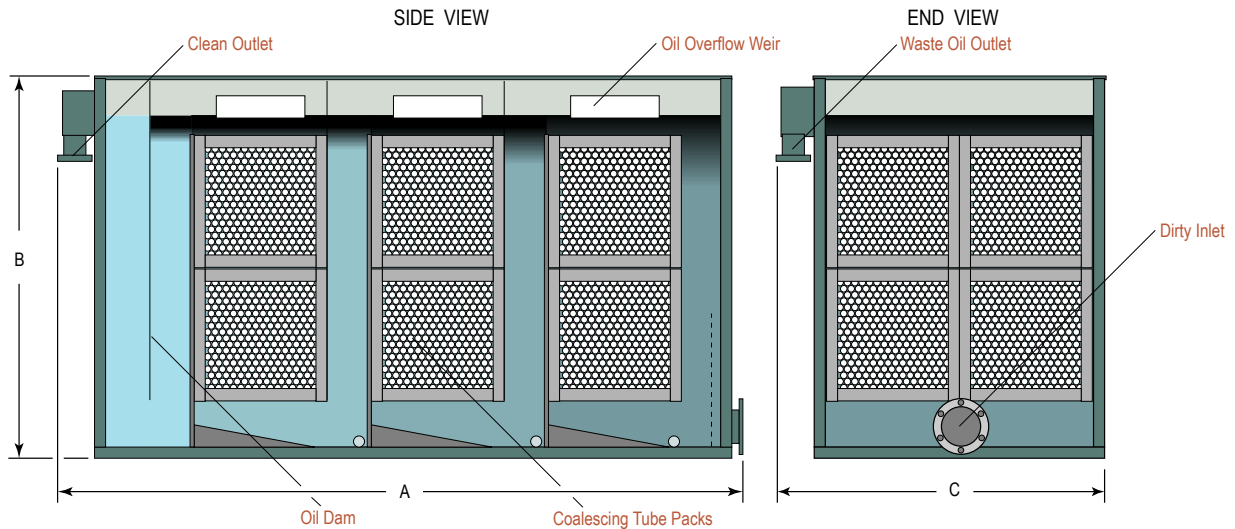
The clean water exits the opposite end of the OWS and is then discharged through a final adjustable overflow weir and drains away from the separator by gravity.

## MINI-SEP

The Mini-Sep works in much the same way but for very low flow requirements found in typical CNC applications.



Mini-Sep Coalescing Tube Pack  
1 GPM capacity for CNC applications



## SPECIFICATIONS

Model	Dimensions ft-in (mm)			Est. Weight lbs. (kg)	
	A	B	C	Dry	Wet
OWS 1-1-2	7'-2" (2184)	3'-2" (965)	4'-3" (1295)	640 (290)	3,250 (1474)
OWS 2-1-2	7'-2" (2184)	5'-0" (1524)	4'-3" (1295)	1,000 (454)	5,200 (2359)
OWS 2-1-3	10'-0" (3048)	5'-0" (1524)	4'-3" (1295)	1,350 (612)	7,100 (3221)
OWS 2-1-4	13'-0" (3962)	5'-0" (1524)	4'-3" (1295)	1,800 (816)	9,300 (4218)
OWS 2-1-5	16'-0" (4877)	5'-0" (1524)	4'-3" (1295)	2,200 (998)	11,500 (5216)
OWS 2-1-6	19'-0" (5791)	5'-0" (1524)	4'-3" (1295)	2,600 (1179)	13,600 (6169)
OWS 2-2-2	7'-2" (2184)	5'-0" (1524)	6'-3" (1905)	1,250 (567)	8,800 (3992)
OWS 2-2-3	10'-0" (3048)	5'-0" (1524)	6'-3" (1905)	1,700 (771)	12,300 (5579)
OWS 2-2-4	13'-0" (3962)	5'-0" (1524)	6'-3" (1905)	2,250 (1021)	16,550 (7507)
OWS 2-2-5	16'-0" (4877)	5'-0" (1524)	6'-3" (1905)	2,800 (1270)	20,800 (9435)
OWS 2-2-6	19'-0" (5791)	5'-0" (1524)	6'-3" (1905)	3,350 (1520)	25,200 (11431)

† Other systems are available on a custom basis.  
X Represents the rows of tube packs.

Specifications subject to change without notice.

# OIL WATER SEPARATOR (OWS)