M.W. WATERMARK™

Oil Coalescing Separator (OCS)

Features

- No moving parts
- Construction in A-36 carbon, 304 or 316 stainless steel. Welds are dye penetrant tested
- Compact design saves floor space
- Easy cleaning
- Minimal maintenance
- Adjustable water weir
- Integral oil reservoir

Options

- Feed pump package
- Effluent pump package
- Oil Pump Package
- Sludge pump package
- Freeze protection
- Sludge auger
- Level switches and alarms
- Expanded oil and effluent chambers
- pH neutralization
- Special coating systems
- Walkways/platforms/ladders/stairs

M.W. Watermark™

Watermark™ is a leading supplier of water and wastewater equipment, parts and service. We serve both industrial and municipal markets globally.

Our team strives to provide unmatched service and value to customers, helping reduce their costs while keeping the environment clean.

Ideally suited for these applications and more

- Aircraft Washracks
- Airports
- Automotive
- Bilge Water Treatment
- Bus Terminals
- Chemical Processing
- DAF/Clarifier Pretreatment
- Groundwater Remediation
- Machine Tools
- Marine Terminals
- Metal Processing
- Military Bases
- Oil Production
- Parking Lots
- Power Plants
- Processing Plants
- Railroads
- Steel Mills
- Utility Companies
- Wash Racks

OIL COALESCING SEPARATOR FROM M.W. WATERMARK™

The M.W. Watermark™ Oil Coalescing Separator (OCS) is designed to remove free non-emulsified oils, diesel, gasoline and fuels from a waste stream, resulting in an effluent quality of 10 mg/l or less of contaminants 20 microns and larger. The OCS operation is based on closely spaced oleophilic (oil attracting) media that promotes the impact and formation of larger oil particles. As the oil droplets increase in size their rise rate to the water surface also increases.

The influent water enters the separator and flows through a tightly stacked bundle of M.W. Watermark media. The media expands the surface area of the separator giving the oil more room on which to combine (coalesce). As the oil droplets accumulate on the media and coalesce they develop into larger droplets that flow up the surface of the media, detach and rise to the water surface. Surface oil decants by gravity into a segregated oil reservoir where it can be removed from the tank. Heavier solids (solids having a specific gravity higher than that of water) will slide down the surface of the media into the sludge chamber at the bottom of the tank for periodic removal. Virtually oil free water travels under an oil reservoir baffle, over an adjustable weir and into a clean water effluent chamber. The water is gravity discharged from this chamber.

M.W. WATERMARK™

OCS Specs and System Design

SPECIFICATION TABLE

OCS MODEL	Tank Width	Tank Length	Tank Height	Tank Inlet Ø	Tank Outlet Ø	Oil Outlet Ø	Sludge Outlet Ø	Approx. Empty Weight (LBS.)	Approx. Flooded Weight (LBS.)
OCS-15	2'-5"	7'-0"	3'-0"	3"	3"	3"	3"	1,100	2,900
OCS-50	2'-5"	8'-0"	5'-0"	4"	4"	3"	3"	1,450	5,500
OCS-75	3'-5"	8'-0"	5'-0"	4"	4"	3"	3"	1,800	7,900
OCS-100	3'-5"	8'-0"	6'-2"	6"	6"	3"	3"	2,300	10,300
OCS-150	5'-5"	8'-0"	6'-2"	6"	6"	4"	3"	3,400	14,800
OCS-200	6'-6"	8'-0"	6'-2"	6"	6"	4"	3"	4,900	18,000
OCS-300	9'-6"	8'-0"	6'-2"	8"	8"	4"	3"	5,700	28,500
OCS-400	6'-6"	13'-6"	6'-2"	10"	10"	4"	4"	7,000	33,500
OCS-500	8'-6"	13'-6"	6'-2"	10"	10"	6"	4"	8,500	44,200
OCS-600	9'-6"	13'-6"	6'-2"	10"	10"	6"	4"	10,600	49,800
OCS-800	6'-6"	16'-6"	10'-10"	14"	14"	6"	4"	12,600	72,500
OCS-1,000	8'-6"	16'-6"	10'-10"	14"	14"	6"	4"	15,500	91,600
OCS-1,200	9'-6"	16'-6"	10'-10"	14"	14"	6"	4"	17,600	106,900
OCS-1,500	9'-6"	24'-6"	11'-0"	16"	16"	6"	4"	25,000	188,000
OCS-2,000	10'-6"	27'-9"	11'-0"	18"	18"	10"	4"	30,000	235,000
OCS-2,500	10'-6"	32'-0"	11'-0"	20"	20"	10"	4"	32,000	260,000
OCS-3,000	10'-6"	37'-0"	11'-0"	24"	24"	12"	4"	34,500	287,000
OCS-4,000	11'-6"	38'-0"	13'-0"	(2) 20"	(2) 20"	14"	4"	46,000	310,000
OCS-5,000	11'-6"	42'-0"	15'-0"	(2) 24"	(2) 24"	14"	4"	50,000	345,000

*Information subject to change without notice, dimensions are approximate, values may vary based on process conditions. Model number designates flow rate in GPM.

SYSTEM DESIGN

Inlet Diffusion Chamber
The raw influent enters the OCS through a non-clogging baffle that distributes the flow across the width and depth of the chamber for even distribution. Settleable solids drop out into the sludge chamber before the water enters the M-pack.

Separation Chamber
The separation chamber is filled with an M-Pack oleophilic coalescing media that allows oil drops to collect on the underside of the plates, coalesce, and then rise toward the surface of the water. The M-pack provides a difficult path for the water to pass, continuously changing the direction of flow, which insures coalescence of the oil droplets.

Sludge Chamber
A sludge chamber is located under the separation chamber for capture of heavier particles in the water. The chamber has sloped walls to insure near complete removal of the sludge from the chamber.

Oil Reservoir
The separated oil drops rise and collect atop the separation chamber. As the oil layer increases, oil automatically decants over a fixed weir into an isolated oil reservoir. The reservoir can be expanded to accommodate additional storage needs.

Effluent Chamber
Clean water leaving the M-Pack travels under an oil reservoir baffle, over an adjustable 304 stainless steel weir and into the effluent chamber. The water is gravity discharged from this chamber. The chamber can be expanded to accommodate additional storage needs.

Tank Lids
The separator includes sectionalized lids that completely cover the unit. Inspection hatches can also be provided.

Proudly Manufactured and Assembled in the U.S.A.

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