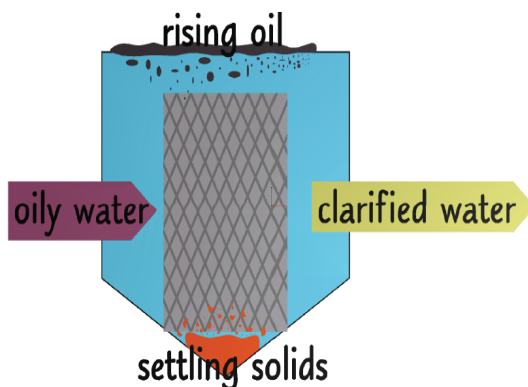


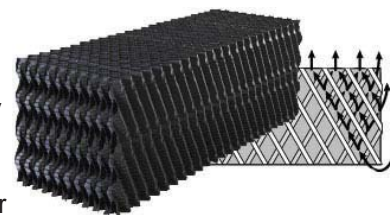
# Oil/Water Separator (OWS) Systems



AVANTech provides Oil/Water Separator (OWS) Systems in an American Petroleum Institute (API), Rectangular, and Cylindrical Tank configuration. All systems are a gravity/coalescing design for removal of free and finely dispersed oil droplets from various process stream. Gravity separation exploits the difference in the specific gravity between the fluid by designing adequate retention time for the less dense oil to rise to the water surface. The theory is based on the rise rate of oil droplets in the water and the surface-loading rate of the separator. When oil rises towards the surface faster than the surface loading rate (calculated from Stoke's Law), the oil will reach the surface and can be skimmed off.

## Coalescing Media

AVANTech provides Coalescing Media constructed of polyvinyl chloride (PVC) corrugated sheets. PVC is an oleophilic material that loves oil and attracts smaller oil droplets to the surface where they adhere to form larger drops which rise up to the surface of the media and break free, allowing a quick rise to the surface of the water. PVC is chemically inert to most oils and can be used at normal temperature. For hot temperatures, polypropylene is recommended. Polypropylene is also very oleophilic and can be used up to temperatures of 180°F. For higher temperatures, stainless steel plate packs are available.



## Design Features

AVANTech provides OWS systems in API, Rectangular, and Cylindrical Tank configurations. The API type systems typically reduce inlet loads of oil and suspended solids in refinery applications.

Design features include:

- ✓ A-36 steel
- ✓ Adjustable water weir
- ✓ Coalescing media
- ✓ Integral oil reservoir
- ✓ Solids hopper
- ✓ Influent diffuser
- ✓ Effluent chamber
- ✓ Interior epoxy coating
- ✓ Exterior paint
- ✓ Skid mounted
- ✓ Lifting lugs
- ✓ Manways on cylinder tank

## Options

AVANTech provides optional features that will enhance the operation of the OWS systems:

- ✓ Influent pump package
- ✓ Effluent pump package
- ✓ Oil pump package
- ✓ Solids pump package
- ✓ Other coalescing media design
- ✓ Larger oil reservoir
- ✓ Hot temperature design
- ✓ Polishing coalescing media
- ✓ Oil site glass
- ✓ Oil indicator/transmitter
- ✓ Walkways on rectangular tanks
- ✓ Ladders on cylindrical tanks
- ✓ Larger manway on cylindrical tanks
- ✓ Rise Manway on cylindrical tanks
- ✓ Hold-down straps on cylindrical tanks
- ✓ Emulsion break system
- ✓ Polishing filters

## Applications

There are many wastewater treatment applications that would benefit from providing an API, Rectangular, or Cylindrical Tank configuration, including:

- ✓ Grinding and milling machine
- ✓ Groundwater remediation
- ✓ Rainwater/storm water runoff
- ✓ Airport and parking runoff
- ✓ Electric/power plant treatment
- ✓ Oil drilling and offshore platforms
- ✓ Aircraft/vehicle wash down
- ✓ Bilge/ballast water treatment
- ✓ Machine coolant oil removal
- ✓ Manufacturing and recycle facility
- ✓ Hazardous waste treatment facility
- ✓ Steel/tube/machine shop facility
- ✓ Pulp/paper/steel/chemical plants
- ✓ Railroad yards/tank farm
- ✓ Laundry/Textile/automotive plant
- ✓ Landfills

# Oil/Water Separator (OWS) Systems

## Oil/Water Separator Systems – WTModules OWS Series

<i>Model</i>	<i>Flow</i>	<i>Length (ft)</i>	<i>Height (ft)</i>	<i>Width (ft)</i>	<i>Influent (ft)</i>	<i>Outlet (ft)</i>
OWS-10	10	6	3	3	2	1.5
OWS-25	25	6	4	3	3	2.5
OWS-50	50	6	4	3	3	2.5
OWS-75	75	8	5	3	4	3.5
OWS-100	100	8	6	3	4	3.5
OWS-150	150	8	7	3	4.5	4
OWS-200	200	8	7	4	4.5	4
OWS-250	250	8	7	4	4.5	4
OWS-300	300	8	7	6	4.5	4
OWS-350	350	8	7	8	4.5	4
OWS-400	400	8	7	9	4.5	4
OWS-450	450	14	7	6	4.5	4
OWS-500	500	14	7	7	4.5	4
OWS-600	600	14	7	8	4.5	4
OWS-700	700	14	7	9	4.5	4
OWS-800	800	14	7	10	4.5	4
OWS-900	900	17	11	6	9	8.5
OWS-1000	1000	17	11	7	9	8
OWS-1200	1200	17	11	8	9	8
OWS-1600	1600	17	11	10	9	8
OWS-1800	1800	25	11	9	9	8
OWS-2000	2000	25	11	10	9	8
OWS-2500	2500	28	11	10	9	8
OWS-3000	3000	28	11	11	9	8
OWS-3500	3500	38	11	11	9	8
OWS-4000	4000	38	11	12	9	8
OWS-4500	4500	42	13	12	9.5	9
OWS-5000	5000	42	14	12	9.5	9

## Oil/Water Separator System – WT Modules API Series

<i>Model</i>	<i>Flow</i>	<i>Length (ft)</i>	<i>Height (ft)</i>	<i>Width (ft)</i>	<i>Influent (ft)</i>	<i>Outlet (ft)</i>
API-10	10	10	4	4	2	2
API-25	25	13	4	5	2	2
API-50	50	16	4	5	2	2
API-100	100	26	6	6	2	2
API-150	150	26	6	7	3	3
API-200	200	33	6	7	3	3
API-250	250	42	6	7	3	3
API-300	300	42	6	7	3	3
API-400	400	50	6	6	3	3
API-500	500	60	6	6	3	3
API-600	600	60	6	6	3	3

## Oil/Water Separator System – WTModules CTS Series

Cylindrical Tank Systems (CTS Series) are custom designed for site-specific applications. Please contact AVANTech for more information.