Cylindrical Oil/Water Separators

Available with a UL-SU2215 Construction & Performance Label

Highland Tank®

Cylindrical Design

Highland Oil/Water Separators are used specifically for the removal of free floating oil, grease, and settleable oily coated solids from oil/water discharges associated with many types of petroleum, industrial, commercial, military, and municipal facilities.

Highland's separators help these facilities comply with the EPA's regulations for the proper treatment and discharge of contaminated storm water runoff. They also help these facilities satisfy their SPCC requirements for spill control and secondary containment.

Designed to remove oils with a specific gravity less than .95, high performance separators from 15 ppm oil/grease discharge (Model HT) down to 10 ppm discharge (Model HTC) are available.

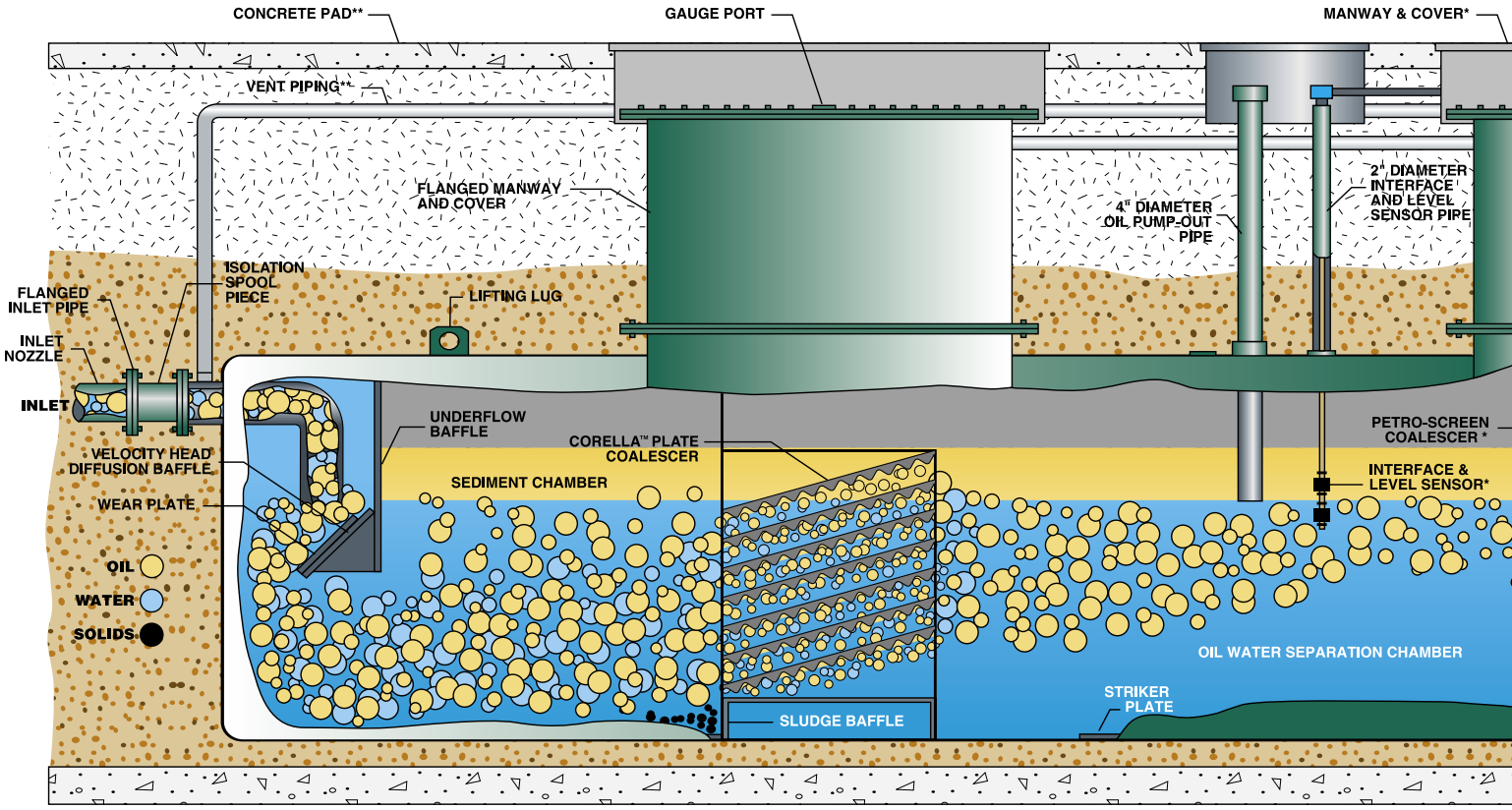
All Highland separators are equipped with Corella® inclined parallel plate coalescers that combines the features of both a flat plate coalescer and a corrugated plate coalescer into a new "self-cleaning" design that performs better than traditional plate separators.

Utilizing Highland's EZ Access manways, inspection of the Corella® is easy, without a dangerous confined space entry.

Highland separators are of the highest quality — constructed to American Petroleum Institute (API) and Underwriters Laboratories Inc. (UL) specifications.

Highland oil/water separators come in a variety of designs and are available in single-walled or double-walled construction for aboveground or underground installation.

How It Works . . .



UL-SU2215 Listed Model HTC Oil/Water Separator with EZ-Access Option shown

Highland's Patented Design

Highland patented oil/water separators are stationary wastewater treatment vessels, filled with water. They contain specially designed internal baffles and coalescers to accelerate the separation process. The vessel is designed for unconfined access from above for inspection and maintenance.

Inlet flow is directed against the velocity head diffusion baffle to reduce flow turbulence and to distribute the flow evenly over the separator's cross sectional area. In the sediment chamber, heavy solids settle out and concentrated oil rises to the surface.

The oily water then passes through the Corella® Coalescer, an inclined arrangement of stacked parallel flat and corrugated plates.

The corrugated underside of the Corella® plates causes the oil to coalesce into sheets. The oil globules then rise to the surface of the separation chamber, where the separated oil accumulates.

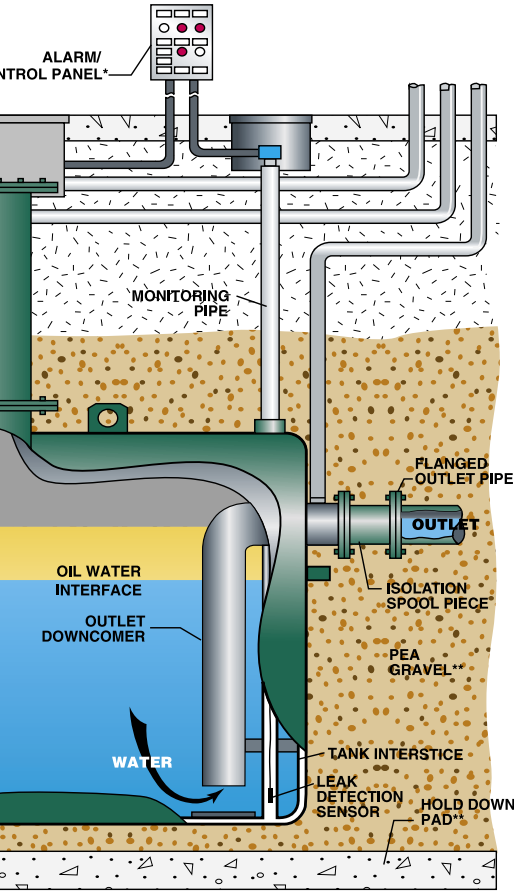
Any remaining solids sink to the top of the plates and slide off of the plates to the solids collection area. The effluent flows downward to the outlet and is discharged by gravity displacement.

To intercept droplets of oil too minute to be removed by the parallel flat/corrugated plates, we use a Petro-Screen polypropylene impingement coalescer (an encased bundle of layered oil-attracting fibers). Large EZ-Access chambers allow for total, unconfined, unrestricted access from above to the removable Corella® and Petro-Screen coalescers for safe visual inspection, cleaning, and maintenance.

Electronic oil level controls sound an alarm at high oil levels so that waste oil can be removed from the separator. Double-walled separators are monitored with electronic leak detection systems for the interstitial space.

Patents and approvals:

Underwriters Laboratories, Inc. UL-SU2215
U.S. Patent Numbers:
4,722,800, 5,520,825 & 6,605,224
Canadian Patent Numbers:
1,296,263, 1,325,179 & 2,389,065
City of New York, Board of Standards and Appeals Under Calendar Number 1215-88-SA
Massachusetts Board of State Examiners of Plumber and Gas Fitters
Approval Code P1-0594-25
Evaluated to DIN Parts 4 & 5; DIN 38-409 Part 18



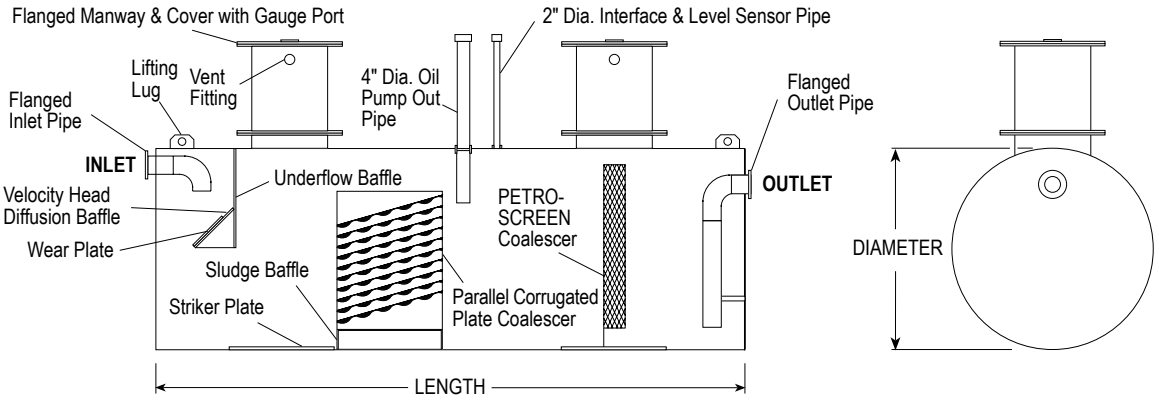
HighGuard Protection System

Highland's HighGuard protection systems combines the structural strength of steel separator construction and the lasting protection of a polyurethane coating to produce a high-quality oil/water separator second to none!

The HighGuard protective coating is a solvent-free, tar-free, two component polyurethane coating system that will provide permanent and effective corrosion protection for the effective life of the separator. The very short reaction time of the HighGuard coating allows it to be spray applied with special plural component equipment that ensures an even application over the entire surface of the separator.

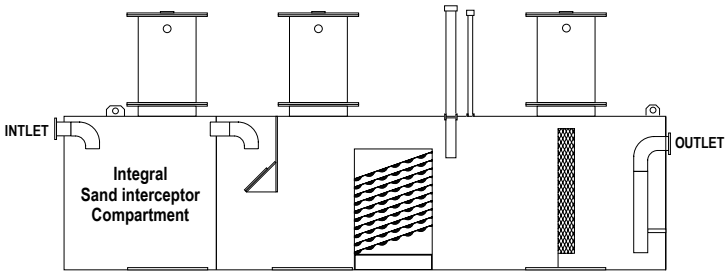
HighGuard's 75 mil coating is extremely resistant to surface damage due to impact or abrasion that may occur during transportation and installation. All HighGuard separators are commercially grit-blasted with steel grit to thoroughly clean and prepare the exterior surfaces for coating. This process leaves the separator with a rough-to-the-touch feel, dry and free from any dust, oil, and grease. This surface preparation provides for superior adhesion that minimizes the effects of hot and cold temperatures.

General Arrangement
Model HTC HighGuard, Single-walled Oil/Water Separator with Gravity Discharge shown

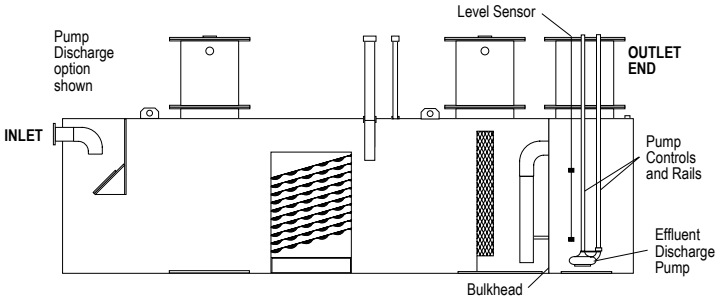


Design Options
Separator installations vary greatly with each location. Highland custom fabricates oil/water separators to satisfy your specific needs. The following information illustrates some of the influent and effluent/product handling options available.

Series G
Series G oil/water separators feature an integral sand interceptor compartment to permit sand and gravel to settle out before the wastewater enters the oil/water separator.



Series J
Series J oil/water separators have an integral effluent pump-out chamber with level controls. The pumped effluent can be routed through Highland's Advanced Filtration System to further reduce the oil content.



Model HT or HTC	Flow Rate Gal/Min	Recommended Oil Pump Out Gallons	Total Volume Gallons	Inlet/ Outlet Diameter	Dimensions Diameter	HT or HTC Length	Series G Length	Series J Length
350	35	70	350	4"	3'-6"	6'-0"	9'-9"	9'-0"
550	55	110	550	4"	3'-6"	7'-9"	10'-9"	10'-9"
1,000	100	200	1,000	6"	4'-0"	10'-9"	14'-0"	14'-0"
2,000	200	400	2,000	6"	5'-4"	12'-0"	15'-0"	15'-3"
3,000	300	600	3,000	8"	5'-4"	18'-0"	21'-4"	21'-4"
4,000	400	800	4,000	8"	5'-4"	24'-0"	28'-8"	28'-8"
5,000	500	1,000	5,000	8"	6'-0"	23'-10"	28'-8"	28'-8"
6,000	600	1,200	6,000	10"	6'-0"	28'-8"	34'-0"	34'-0"
7,000	700	1,400	7,000	10"	7'-0"	24'-4"	28'-8"	28'-8"
8,000	800	1,600	8,000	10"	7'-0"	28'-0"	33'-6"	33'-6"
9,000	900	1,800	9,000	12"	8'-0"	24'-0"	28'-8"	28'-8"
10,000	1,000	2,000	10,000	12"	8'-0"	26'-8"	32'-0"	32'-0"
12,000	1,200	2,400	12,000	12"	8'-0"	32'-0"	38'-9"	38'-9"
15,000	1,500	3,000	15,000	14"	10'-0"	25'-6"	32'-8"	32'-8"
20,000	2,000	4,000	20,000	16"	10'-6"	31'-0"	38'-9"	38'-9"
25,000	2,500	5,000	25,000	18"	10'-6"	38'-9"	46'-6"	46'-6"
30,000	3,000	6,000	30,000	20"	10'-6"	46'-6"	56'-2"	56'-2"
40,000	4,000	8,000	40,000	24"	12'-0"	47'-3"	56'-9"	56'-9"
50,000	5,000	10,000	50,000	24"	12'-0"	59'-6"	**	**
60,000	6,000	12,000	60,000	24"	13'-0"	60'-6"	**	**

Plate spacing and orientation may vary depending on site conditions. ** Contact Highland Tank for sizing information.

Please visit us at www.separatorsonline.com • www.highlandtank.com • Email us at wastewater@highlandtank.com

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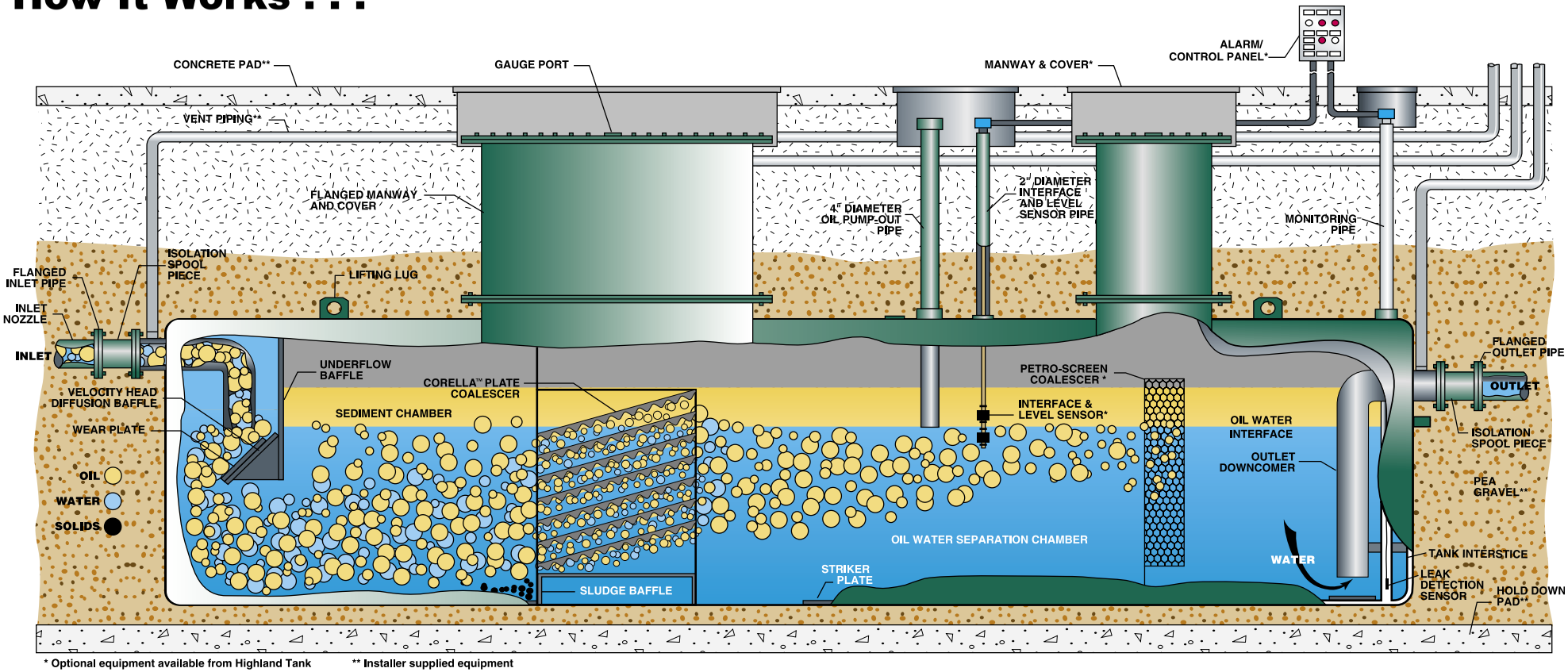
How It Works . . .



* Optional equipment available from Highland Tank ** Installer supplied equipment

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