



EZ-Access Manway Option

HT-1031

All Highland Tank's high-performance oil/water separators are available with our innovative EZ-Access Manways. These custom-designed allow for easy access to the removable parallel plate and Petro-Screen coalescers contained within the separator. Observation, maintenance and cleaning can take place without having to empty the separator or send personnel inside.

Separators are configured with one or two rectangular access chambers to allow total, unconfined, unrestricted top access to the separator's internal parts. Highland Tank's EZ-Access manways help operators comply with OSHA's confined space entry requirements into vessels containing harmful fumes.

Maintenance personnel's health and safety are made paramount with the addition of EZ-Access manways.

Unified Facilities Guide Specification

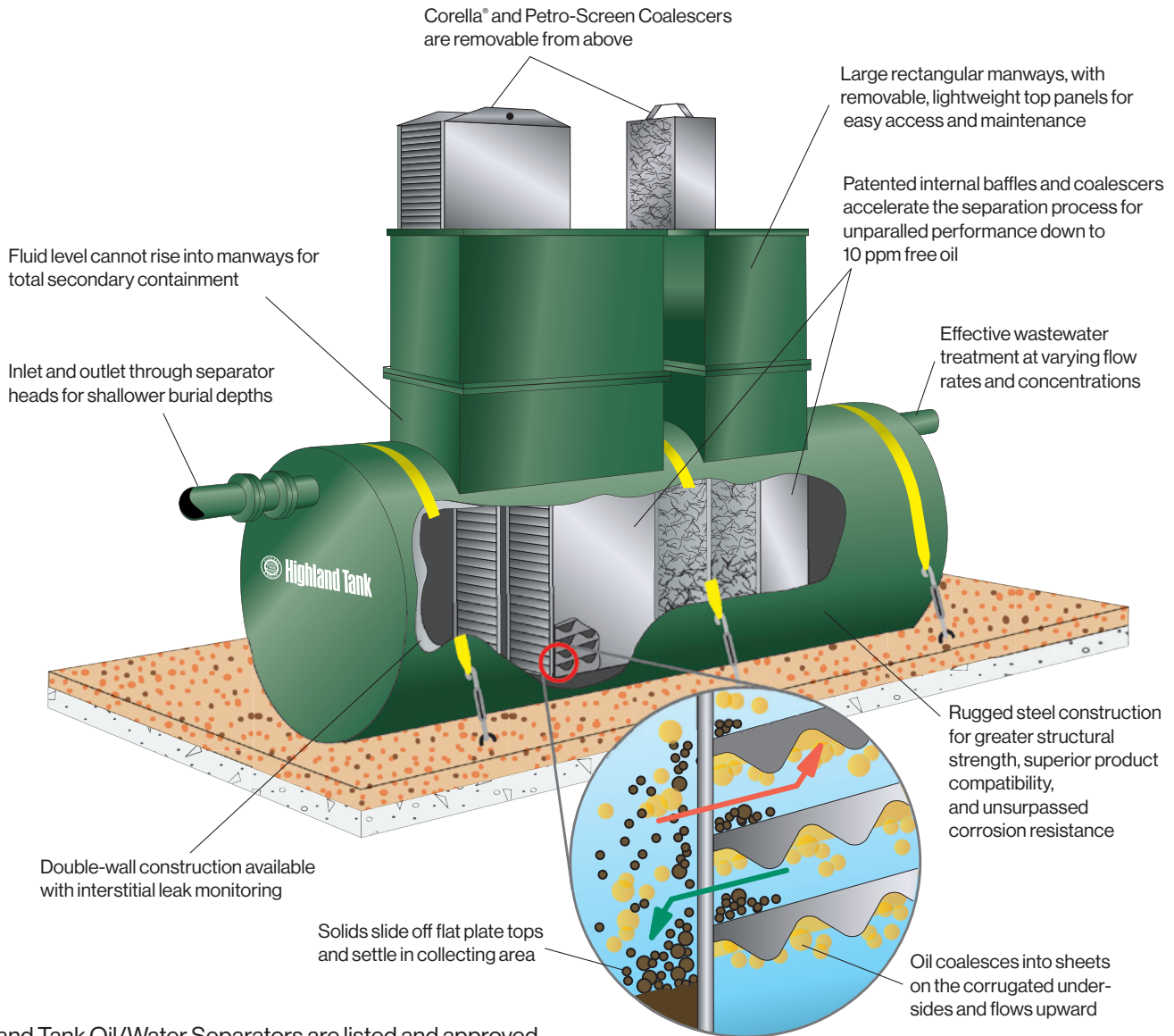
Highland Tank oil/water separators can also be designed to comply with the current Unified Facilities Guide Specification (UFGS) - Division 46 - Water and Wastewater Equipment. The guide addresses specific requirements for day-to-day wastewater treatment operations in at USACE, NAVFAC, AFCESA, and NASA facilities.

UFGS design requirements specify a 45-minute retention time at design flow, and easy access to the inside of the oil/water separator to allow for regular inspection and cleaning.

Easiest access for inspection & maintenance

The Corella® Coalescer is a removable, inclined parallel, flat/corrugated plate coalescer that enhances separation of both oil and solids from all strata of the wastewater stream. Each Corella® Coalescer is individually engineered to specific application and job-site requirements to maximize utility.

Utilizing Highland's EZ-Access manways, inspection of the Corella® is made easy, without a dangerous confined space entry. Both oil and solids can be removed without shutting down the separator. Access from above permits separator pumpout and cleaning using a high-pressure washer with the coalescer in place, so that hazardous materials are not discharged at grade during the cleaning process. This "self-cleaning" design performs better than traditional plate coalescers.



Highland Tank Oil/Water Separators are listed and approved under one or more of the following patents and approvals:

- Underwriters' Laboratories, Inc. UL-SU2215
- U.S. Patents - 4,722,800; 5,520,825 & 6,605,224
- Canadian Patents - 1,325,179; 1,296,263 & 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

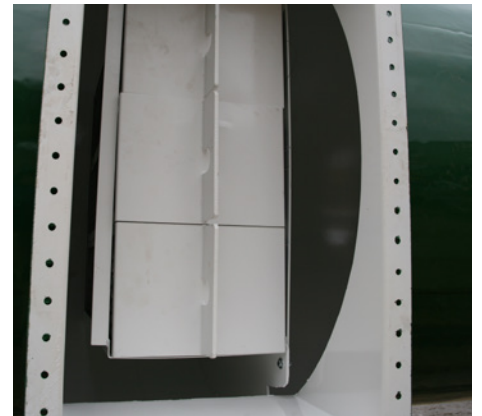


Highland Tank®

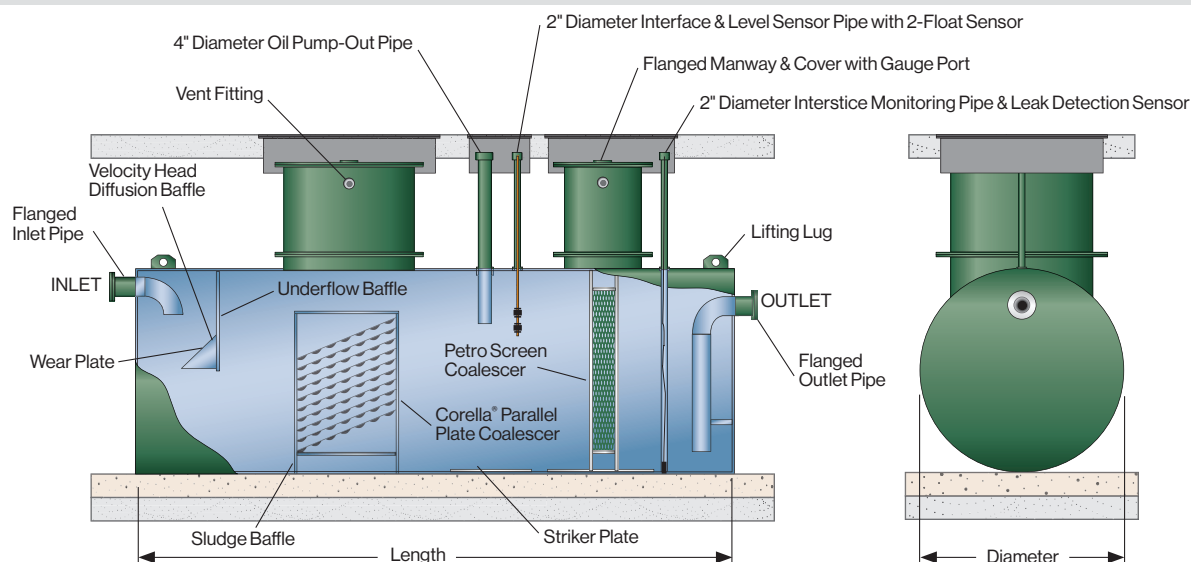


Highland Tank's high-performance oil/water separators equipped with EZ-Access System provide unrestricted easy access to all internal components for inspection and maintenance. These manways also provide the most efficient method for removing internal components, eliminating the need for personnel to enter the separator.

As seen here in these images, access to all components for inspection, maintenance or service is available from outside the separator. All components can be removed from the separator with minimal human intervention.



Drawing & Details



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

Plate spacing and orientation may vary depending on site conditions. Custom sizing is available. Consult Highland Tank for Series G & J sizing information.



Stoystown, PA
One Highland Rd.
Stoystown, PA 15563
(814) 893-5701

Manheim, PA
4535 Elizabethtown Rd.
Manheim, PA 17545
(717) 664-0600

Watervliet, NY
958 19th St.
Watervliet, NY 12189
(518) 273-0801

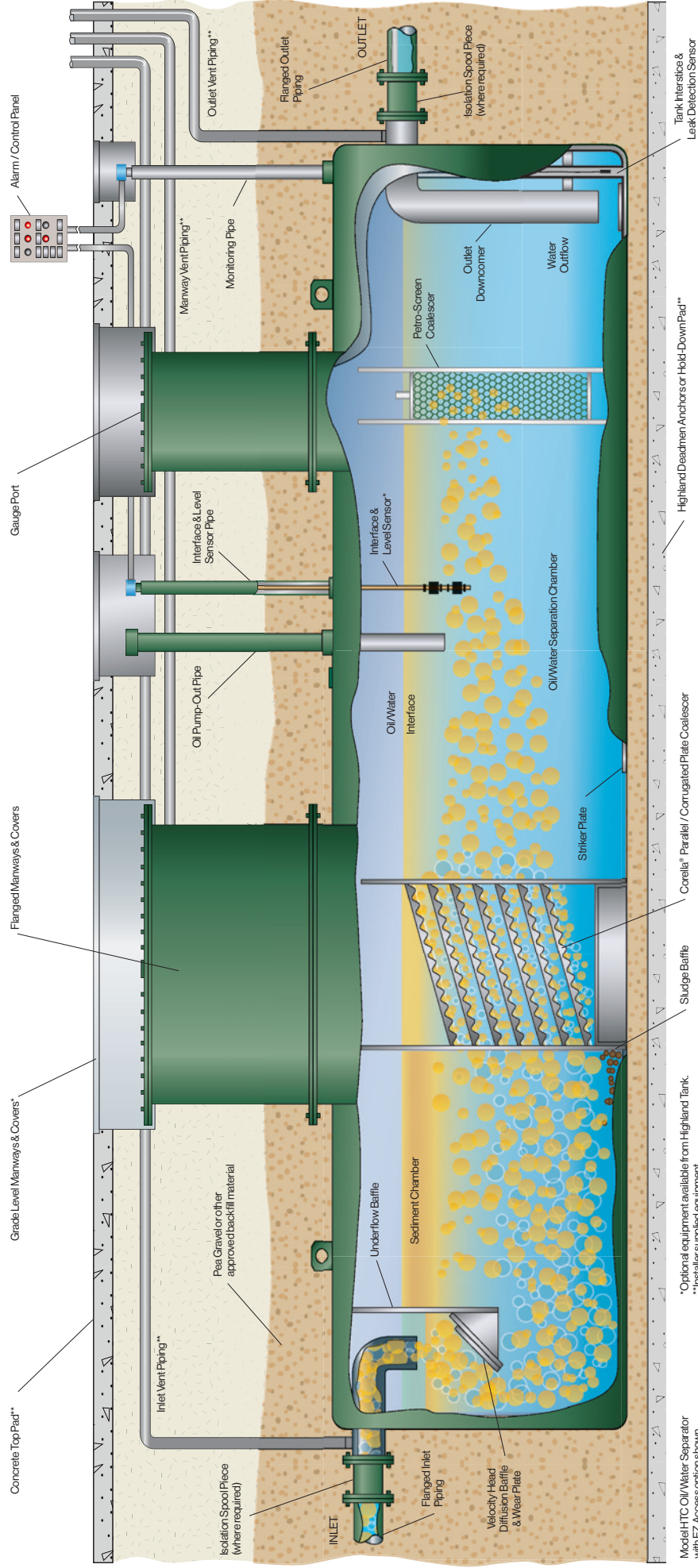
Greensboro, NC
2700 Patterson St.
Greensboro, NC 27407
(336) 218-0801

Friedens, PA
1510 Stoystown Rd.
Friedens, PA 15541
(814) 443-6800

Clarkston, MI
4701 White Lake Rd.
Clarkston, MI 48346
(248) 625-8700

Mancelona, MI
9517 Lake St.
Mancelona, MI 49659
(231) 587-8412

How the Cylindrical Oil/Water separator Works



How It Works

Highland Tank's patented oil/water separators are stationary wastewater treatment tanks filled with water.

They contain specially designed internal baffles and coalescers to accelerate the separation process. The tank is designed to allow convenient access for inspection and maintenance from above. 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 the plates to the solids collection area. The effluent flows down and toward the outlet and is discharged by gravity displacement.

A Petro-Screen polypropylene impingement coalescer (an enclosed bundle of layered oil-attracting fibers) is used to intercept droplets of oil that are too minute to be removed by the Corella® Coalescer. Electronic oil level controls sound an alarm at high oil levels so that waste oil can be removed from the separator. Double-wall separators are monitored with electronic leak detection systems for the interstitial space.