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MEMBER OF:



ENGINEERED PLUMBING PRODUCTS

ULTRACEPT®

OIL/WATER Separation Systems



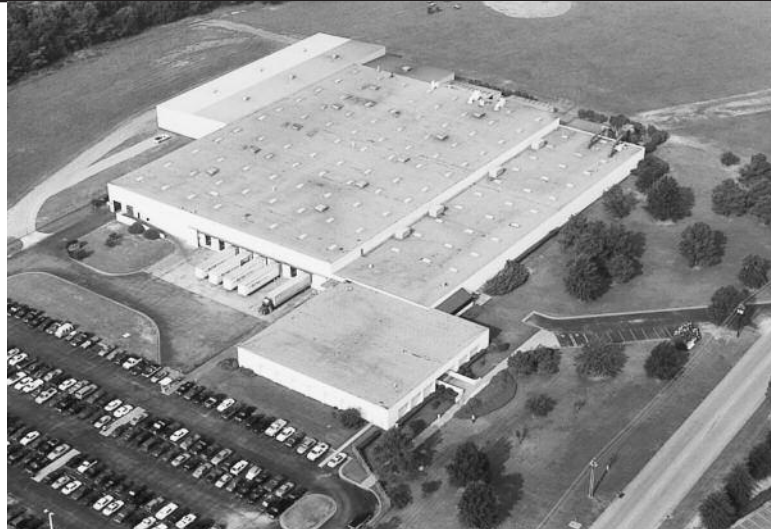
U.S. Pat. nos. 6,139,730

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ULTRACEPT®

High-Efficiency Oil/Water Separators



Jay R. Smith
... the leader

Since its foundation in 1926, Jay R. Smith Mfg. Co.® has grown to become the leader in its plumbing products business and in the manufacture of oil/water separators.

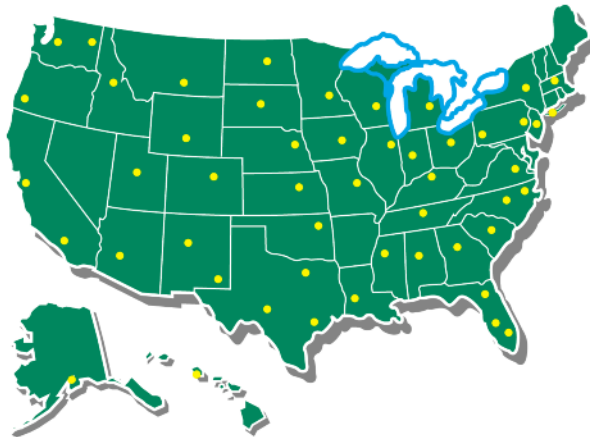
Why Specify an ULTRACEPT®?

Because our environment, and compliance with today's stringent wastewater discharge regulations require a high efficiency, state-of-the-art system which:

- meets discharge regulations
- is easy to install
- is reliable and easy to maintain
- is adaptable to future regulations

Represented by:

ULTRACEPT® is marketed by Jay R. Smith through its Environmental and/or Plumbing Products Representatives.



For the name of your local ULTRACEPT® Representative, call (800) 467-6484.



ULTRACEPT®

High-Efficiency Oil/Water Separators

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Truck and equipment washdown application



ULTRACEPT®

High-Efficiency Oil/Water Separators

ULTRACEPT® OVERVIEW



The innovative ULTRACEPT® design assures high-efficiency, reliability and ease of maintenance.

Design Features

- *Multi-stage, continuous skimming design*
- *Using water as a carrier, can skim even "sheens" of oil*
- *Automatic decanting and recycling of carrier water*
- *Available in both Stainless Steel and Mild Steel*
- *Available in a range of sizes: 2, 5, 10, 25, and 45 gpm*
- *Options are available to meet virtually any application!*

Benefits

- *High separation efficiency*
- *Meets discharge regulations*
- *High reliability*
- *Low maintenance*
- *No high-maintenance coalescing packs*
- *Higher purity recovered oil*
- *Simple above-ground installation*
- *Modular design assures the flexibility to meet future regulations*
- *Units now meeting <10 ppm!*



ULTRACEPT®

High-Efficiency Oil/Water Separators

TYPICAL APPLICATIONS

(. . . anywhere oily water is a problem!)



- *Airport Hangers*
- *Auto Dealerships*
- *Body Shops*
- *Bus Maintenance Shops*
- *Car Wash Operations*
- *Chemical Processing*
- *Construction Maintenance Facilities*
- *DOT Maintenance Facilities*
- *Environmental Service Companies*
- *Equipment Rental Shops*
- *Fork Lift Maintenance Operations*
- *Groundwater Remediation*
- *Heavy Equipment Maintenance*
- *Heavy Equipment Manufacturing*
- *Industrial Plants*
- *Landfill Leachate Treatment*
- *Lumber Yards*
- *Machine Shops*
- *Manufacturing Plants*
- *Marine Maintenance Facilities*
- *Military Base Maintenance Facilities*
- *National Guard Armories*
- *Oil Fields, Pipelines, and Terminals*
- *Plating and Heat Treating Shops*
- *Postal Facilities*
- *Power Plants*
- *Pressure Washing*
- *Quick Lube Shops*
- *Refineries*
- *Salvage Yards*
- *Service Stations*
- *Steam Cleaning*
- *Textile Manufacturing*
- *School and Municipal Bus Garages*
- *Theme Park Maintenance Shops*
- *Train Washes*
- *Truck Maintenance Facilities*
- *Truck and Heavy Equipment Wash Racks*
- *Waste Treatment Plants*

Whether your oily wastewater results from washing down airplanes or trucks, whether it comes from production lines or lube shops... ULTRACEPT® is the solution!



ULTRACEPT®

High-Efficiency Oil/Water Separators



High Efficiency • Simplicity • Reliability

Why Specify ULTRACEPT®?

No Coalescing Packs

In dirty industrial applications where suspended solids are mixed with oil and grease, coalescing or filter packs can clog quickly. This requires frequent maintenance . . . which is troublesome and often neglected!

High-Efficiency Separation

The ULTRACEPT® design provides high separation efficiency without high-maintenance coalescing packs. The proprietary ULTRACEPT® design incorporates non-clogging inclined plates along with a multi-stage process which enhances separation. The genius of the ULTRACEPT® design is in its simplicity and reliability.

Above Ground

Separating and storing oil below ground is a disadvantage, with owner liability for leaky underground tanks, contaminated soil, etc. Above ground installations are much easier to service and are not "out of site and out of mind".

Continuous Skimming

ULTRACEPT®'s Continuous Skimming design uses water as a carrier to effectively skim even sheens of oil along with mechanically emulsified oil and water often found under the oil layer. The oils and the carrier skimming water are conveyed to a quiescent, off-line compartment where the skimming water is automatically decanted back to the sump and the oil and mechanical emulsions are given extended detention time for effective separation.

Higher Purity Recovered Oil

ULTRACEPT®'s proprietary design yields recovered oils with a water content much lower than the "slop oil" mixture collected by competing units.

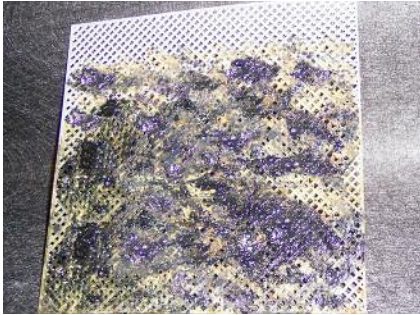
Reliability

Reliability is built into the ULTRACEPT® design which yields both high performance and low maintenance.



ULTRACEPT®

High-Efficiency Oil/Water Separators



Coalescing packs, like this one in a competing unit, can easily become clogged with oil, grease, and dirt!

Still More Reasons to Specify ULTRACEPT®...

Lower Maintenance!

No coalescing packs mean lower maintenance. When occasional maintenance is required (i.e. accumulated sediment in the "V" bottom collector), the cleanout valves on the rear of the unit are simply opened to drain the unit back to the Surge Pit. The unit is then flushed and refilled with fresh water . . . that's it for maintenance!

Flexibility

The modular ULTRACEPT® System offers unparalleled flexibility. Polishing modules can easily be incorporated into the initial system design . . . or, added later, if discharge requirements change!

Performance

ULTRACEPT® units are capable of delivering effluent with free oil concentrations less than 10 ppm! Of course, as with any type of wastewater treatment system, results can vary depending on the characteristics of your specific waste stream. Consult your ULTRACEPT® Representative for an analysis of your application and a specific recommendation.

Warranty

1 year warranty.

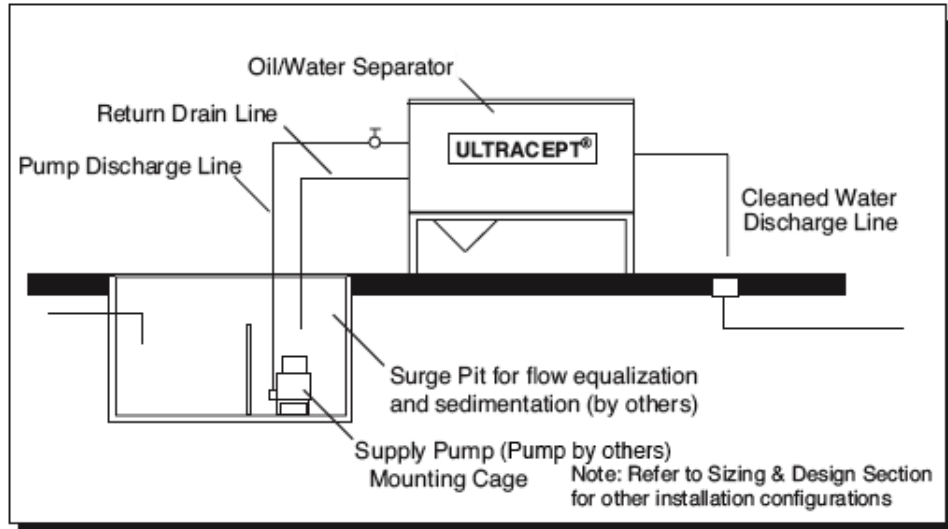
Backing

ULTRACEPT® is backed by the Jay R. Smith Mfg. Co.®, over 80 years old and the nation's leading manufacturer of oil/water separators!

Trained Representatives

Our Environmental Products Representatives are trained and qualified to assure that the right equipment is specified for your application.

Typical Installation



ULTRACEPT[®] installations typically involve three basic elements: a collection system for the wastewater, the ULTRACEPT[®] unit with applicable accessories, and a discharge system. A wide array of configurations are possible.

Collection System

- Works with above or below ground collection tanks and provides both flow equalization and sedimentation capacity
- The supply pump should be specified for the collection tank based on application and code requirements
- Available Options:
 ◇ High Level Alarm

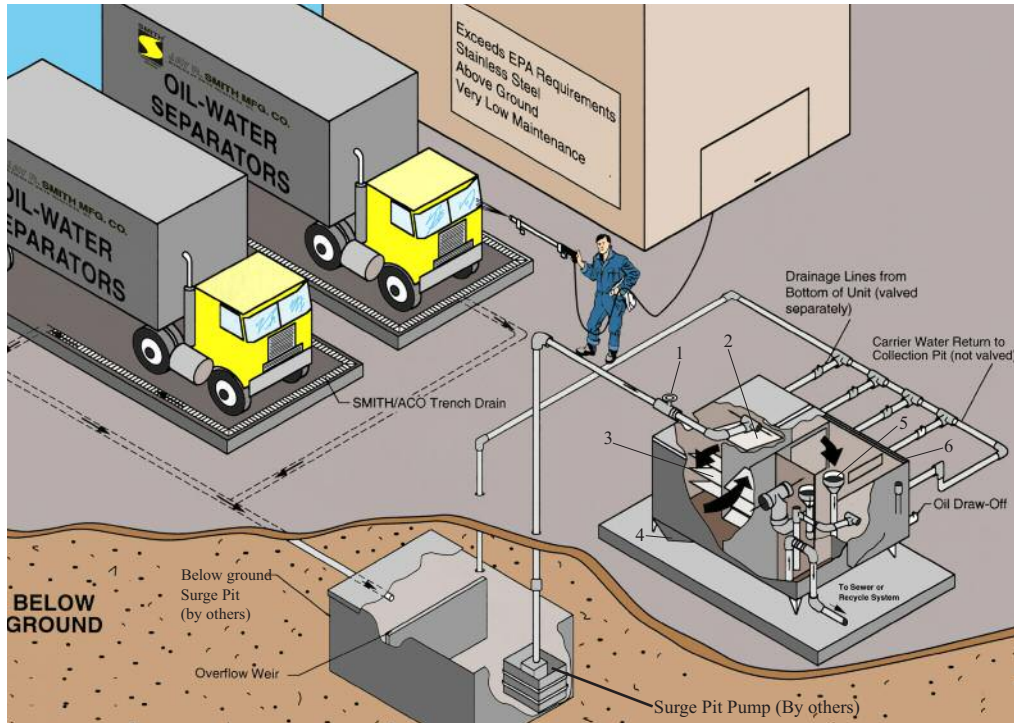
ULTRACEPT[®] Unit

- Simple above-ground installation
- 2, 5, 10, 25, and 45 gpm flow capacities
- Only three simple plumbing connections:
 1 - inlet from surge pit
 2 - return drain to pit
 3 - discharge line
- Available Options:
 ◇ Heater for freeze protection
 ◇ Oil Storage Tanks
 ◇ Oil Tank Alarm

Discharge System

- Gravity discharge is standard configuration
- Pumped discharge systems are available

How It Works



- | | |
|---------------------------------|--|
| Surge Pit | Provides sedimentation & flow equalization; is usually below ground with a float activated pump (by others) to transfer oily water to the separator. |
| Flow Control | A flow regulating valve (1) is used in conjunction with a properly sized pump to control the flow to the design flow rate for the separator. |
| Flow Distribution and Smoothing | An inlet distributor and baffle plate (2) quickly reduce the flow velocity. Two sets of inclined baffles (3) in the inlet chamber smooth the flow and accelerate both grit collection and oil droplet flotation. |
| "V" Bottom Solids Collector | The "V" bottom (4) configuration in the inlet chamber facilitates the collection and draw-off of settleable grit and solids. |
| Continuous Oil Skimming | Primary and secondary skimmers (5) use water as a carrier to continuously draw separated oils into an off-line storage compartment (6), where extended detention time improves final oil separation. The carrier water is automatically decanted through a return drain back to the sump where it is recycled. |
| Multi-Stage Separation | The efficient multi-stage design yields remarkable separation performance . . . without the need for high-maintenance coalescing packs! |
| Higher Purity Recovered Oils | The off-line oil accumulation chamber (6) provides extended detention time and incorporates an oil bath filter design which yields purer recovered oils! |



ULTRACEPT®

High-Efficiency Oil/Water Separators



Case History

ULTRACEPT® unit installed at base maintenance facility, Ft. Stewart, GA

Problem:

At a National Guard facility in Georgia, civil engineers had done an environmental assessment of old in-ground separators and found them to be in poor condition and difficult to maintain. They needed to be replaced with an Oil/Water Separator that is more efficient and easier to maintain.

Solution:

ULTRACEPT® Oil/Water Separator technology is the technology of choice at many National Guard installations around the country, typically servicing washdown applications in base or armory maintenance facilities.

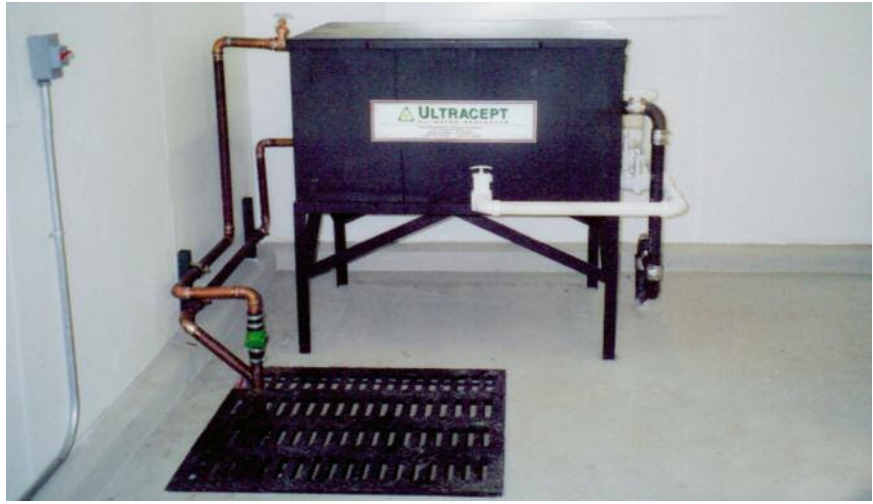
The solution was to install above ground ULTRACEPT® units. These units have proven to be efficient and easy to maintain. The units are constructed of durable 11 gauge stainless steel, assuring a long service life.

Since the ULTRACEPT® Oil/Water Separator is installed above ground, occasional cleaning

to remove accumulated sediment is as easy as opening the drain valves on the rear of the unit which drain back to the catch basin, vacuuming out or rinsing out the sediment, and refilling the unit with clean water.

The units are accessible and are not "out of sight and out of mind." Cleaning the separators is a simple operation which is performed on a preventive maintenance basis. The frequency of service is significantly less than that which would have been required for an old style unit containing hard to clean coalescing plate packs.

When these units were installed and ready for start-up, ULTRACEPT® representatives were on site to conduct a thorough training session for facility maintenance personnel. Subsequent audits of these installations have demonstrated that the units are performing as designed.



Case History

ULTRACEPT[®] unit installed at a power equipment rental house in Texas

Problem:

The branch manager at a power equipment rental firm in College Station, Texas needed a solution to oily wastewater that is generated when rental equipment receives an extensive wash down in order to be ready for new customers. The wash down process creates an oily water discharge that is subject to fines if it exceeds 100 ppm for free oil.

Solution:

After discussions with city inspectors and engineers, the ULTRACEPT[®] Oil/Water Separator System, manufactured by Jay R. Smith Mfg. Co.[®] was chosen to correct the problem. The ULTRACEPT[®] is a simple, efficient way to remove free oils and most solids from wastewater without the use of filters or coalescing plate packs, and can obtain discharge levels as low as 10 ppm, with only simple maintenance required.

The above-ground installation for the ULTRACEPT[®] unit makes occasional maintenance an easier process. When

maintenance is required, you simply open the drain valves located on the rear of the unit to drain back to the collection pit, then rinse the unit out with a hose and refill with fresh water. This process takes only about 10 minutes and may only be required every 3-6 months depending on the level of solids in the wastewater.

Weighing the advantages and disadvantages of a variety of oil/water separators, the branch manager of the power equipment rental house decided on the ULTRACEPT[®] System based on low maintenance, discharge levels that easily pass city inspection, and minimum work interruption.

Due to the success of this installation, the branch manager and the ULTRACEPT[®] Representative have worked together to come up with standardized units for other equipment rental facilities.



Environmental Regulations



The regulations which affect the discharge of industrial and commercial wastewater generally fall into two categories . . . discharge to municipal or private sewers and discharge to surface or subsurface waters. Since discharge regulations can vary widely, it is necessary to check with your local or state governing authority to determine the discharge limits which apply to your application.

Discharge to Public of Private Sewer Systems

If the effluent from your ULTRACEPT® Oil/Water Separator installation will go to a public or to a private sewer system, your discharge regulations will be set by your local sewer authority.

Municipal sewer authorities typically establish industrial pre-treatment regulations in a manner which helps to assure that the sewer treatment plant can, in turn, meet its own discharge limits which are imposed under the federal NPDES Permit Program.

Although discharge restrictions can vary widely, even between neighboring sewer districts, typical discharge limits for oil and grease ranges from 15 to 100 ppm.

Contact your ULTRACEPT® Representative if you have questions regarding your discharge limits.

Discharge to Surface or Subsurface Waters

If the effluent from your ULTRACEPT® Oil/Water Separator will go to either subsurface or surface waters, your discharge requirements are based on state and/or federal requirements. A permit to discharge is usually required for these applications.

For discharges to subsurface waters, as in the case of discharge to a septic system, contact your local Health Department or other agency responsible for issuing septic permits. This agency will be able to advise you on the regulations which will apply, or will refer you to the state agency which has jurisdiction over industrial discharges to subsurface systems.

For surface discharge, whether to land, or to any body of water, federal discharge requirements will govern unless state or local requirements are more stringent. For information, contact your state agency which has responsibility for environmental regulations and for issuing NPDES (National Pollution Discharge Elimination System) Permits.



Questions & Answers

Who is ULTRACEPT®?

ULTRACEPT® is part of the Jay R. Smith Manufacturing Company, which was founded in 1926 and is the Nation's leading manufacturer of oil/water separators.

How can the ULTRACEPT® help to meet my local discharge standards?

The ULTRACEPT® unit is a high efficiency oil/water separator which is designed to meet typical sewer discharge limits. In addition, custom engineered polishing modules are available which enable the ULTRACEPT® System to meet virtually any discharge limit for oil and grease.

Are permits required?

Discharge regulations vary from state to state, and by county or city. Contact your local authority for your permit requirements.

How do I find out what discharge limits apply?

Contact your local or state authority. If your discharge is to a municipal sewer, contact your sewer department. If your discharge is any other type of discharge (i.e. surface, or sub-surface), then contact your state agency in charge of waste water permitting (your local Health Department or Environmental Department can often assist in referring you to the right state agency).

How clean can ULTRACEPT® get waste water?

Units are installed which show oil levels in the discharge less than 10 ppm. Of course, effluent results are affected by a number of parameters. Your ULTRACEPT® Representative is trained to analyze your individual application and offer a system which will meet your discharge requirements.

What material is used to fabricate the ULTRACEPT®?

The units are constructed of rugged, 11 gauge, polished stainless steel. Several models are also available in durable fiberglass or epoxy coated steel construction.

What preparations must be made to install the unit?

A 500 gallon minimum size concrete surge tank with a solid baffle (1000 gallon or larger tanks are often used) must be installed to receive the wastewater. A precast concrete septic-type tank is often used for this purpose. A concrete support slab is needed for the ULTRACEPT® unit. 115 VAC and piping connections are also required to the Surge Pit. See details in the Installation Section.

How should sediment from the Surge Pit be removed?

The pump mounting cage, supplied with the ULTRACEPT®, elevates the pump 12-18" off the floor of the surge pit to allow for sediment accumulation. This sediment is periodically removed by pumping or shoveling it out. Dewatered sludge which passes the EPA's TCLP test can typically be disposed through simple land application or landfilling.



Questions and Answers

What if the oily water to be treated is already collected in an above ground tank?

In this case an underground surge pit is not required. The oily water is simply pumped to the ULTRACEPT® unit with a properly sized pump and the flow rate is also controlled by the flow control valve.

What about freeze protection?

In frigid climates, the separator should be installed indoors, or in an insulated shed.

In mild climates, the separator can be installed outdoors on a suitable concrete mounting pad. Depending on the climate, the piping may require insulation and the optional low temperature, thermostatically controlled Heater Kit should be specified for the separator.

What if there is no acceptable location for an above ground installation near the surge pit?

No problem . . . with a properly sized transfer pump, the ULTRACEPT® can be remotely located from the surge pit. The ULTRACEPT® can also be

installed in a nearby vault, or on a lower terrace level where it can receive the oily water by pump transfer.

What maintenance is required on the unit?

With the typical above-ground installation, the ULTRACEPT® is the easiest oil/water separator to maintain. When sediment accumulates sufficiently in the "V" bottom inlet chamber, the drain valves on the rear of the unit are simply opened and the separator is drained back to the surge pit by gravity. The sediment is then easily removed and the unit is then flushed and refilled with clean water. That's it for maintenance!

How are recovered oils removed from the unit?

Recovered oils are accumulated in a separate compartment inside the ULTRACEPT® unit. These recovered oils can simply be drained using the draw-off valve on the rear of the unit. The ULTRACEPT® can also be set up to automatically draw-off the separated oils into either the optional storage tank or to the clients own storage tank.

How should recovered oils be disposed?

Recovered oils must be disposed according to applicable regulations. Waste oil pick-up services are available in most locations. In addition most municipal landfill operations offer waste oil receptacles. Waste oil can also be burned in approved waste oil heaters.

Who do I contact for application assistance?

The Sizing & Design section of this Engineering Handbook contains all the information needed to develop the specifications for most applications. If you need additional assistance, please call Jay R. Smith's Environmental Products Group at (800) 467-6484 for the name of your area Representative. Assistance from your Representative is advisable when discharge limits are stringent or when a recycle system is desired.

What type of warranty is offered for the ULTRACEPT®?

Jay R. Smith's 1 year limited warranty applies to tanks and components (refer to the warranty statement in the Product Specifications section for full details).



GLOSSARY

Glossary of Terms

Aeration To introduce air into water, usually by a pump, resulting in a bubbling action which raises the dissolved oxygen concentration in the water.

BAT (Best Available Technology) The best system or treatment technology which is economically achievable.

BCT (Best Control Technology) The best system or treatment technology available, regardless of cost.

BOD (Biochemical Oxygen Demand) The rate at which microorganisms use the oxygen in water or wastewater while acting upon organic matter under aerobic conditions.

COD (Chemical Oxygen Demand) A measure of the oxygen-consuming capacity of inorganic and organic matter present in water and wastewater, expressed in mg/l.

Closed Loop System A system designed to recycle wastewater for reuse while eliminating discharge from the system. This type of system is usually required where no sewer discharge facility is available.

Coalescing Packs A series of plates or closely spaced tubes or baffles used in other oil/water separators. These packs must be cleaned frequently in many applications in order to avoid clogging and system failure.

Contaminate Any substance that pollutes or is regulated by law, such as oil, grease, fuels, etc.

DOT Department of Transportation

Detention Time The residence time in a tank or compartment, determined by dividing the compartment volume by the flow rate.

Discharge Includes any spills, pumping, pouring, leaking, emitting or dumping of wastewater.

EPA (Environmental Protection Agency) The government agency formed in 1970 to administer and enforce Federal environmental laws such as the Clean Air Act, Clean Water Act, Safe Drinking Water Act, and Resource Conservation and Recovery Act.

Effluent The water discharged from an operation or process, such as the discharge from an oil/water separator.

Emulsion A liquid mixture of two or more substances not normally dissolved in one another, but one liquid held in suspension in the other. Oils in water can become emulsified or made soluble by the presence of soaps or other emulsifying agents.

FOG Abbreviation for the concentration of Fats, Oils, and Greases in wastewater.

GPH Fluid flow rate expressed in gallons per hour.

GPM Fluid flow rate expressed in gallons per minute.

Head The vertical distance a pump must move water.

Hydrocarbon An organic compound, containing carbon and hydrogen, such as grease, oil, or fuels, etc.

Inclined Plates A closely spaced array of plates in a separator or clarifier designed to aid settling or oil separation.

mg/l (milligrams per liter) A measure of the concentration of a substance dissolved or suspended in a liquid (usually interchangeable with ppm, or parts per million).

GLOSSARY

Glossary of Terms

Modular Unit The upper tank or separator in the ULTRACEPT[®] system.

NPDES Permit National Pollution Discharge Elimination System permit is the regulatory agency document designed to control all discharges of pollutants from point sources to any U.S. navigable waterway. Any discharge of oily water or untreated wastewater other than to a city sewer is likely to require an NPDES Permit and associated pre-treatment and regular monitoring.

POTW Publicly Owned Treatment Works. Normally refers to a municipal sewer treatment plant or authority. The POTW establishes the discharge requirements for industrial and commercial discharges into the sewer system and, in turn, has its own discharges of treated sewage regulated under its NPDES Permit.

PCB Abbreviation for polychlorinated biphenyls. PCB's were once commonly used in transformer oils, but have now been banned due to severe toxicity (a known carcinogen).

pH A measure of the acidity or alkalinity of aqueous solutions on a logarithmic scale from 1-14 (pH 1 is highly acidic, pH 7 is neutral and pH 14 is highly alkaline).

PPB A measure of concentration which stands for parts per billion.

PPM A measure of concentration which stands for parts per million. For example, 100 ppm is equivalent to 1 ounce of material dissolved in about 80 gallons of water.

Potable Water Water that is intended for and is suitable for use as drinking water.

Reclamation The process of treating contaminated water to enable its reuse.

Sanitary Sewer A system (including piping) intended to receive and or process discharges of sewage with or without industrial wastes and without the addition of surface water or storm water.

Sewer Ordinance The set of regulations, issued by a municipal sewer authority, or POTW, which governs the discharge requirements for any wastewater which is discharged to the system.

Sludge Any sediment, including dirt, sand, grit, chemical floc, biomass, or other debris, which accumulates in catch basins, separators, surge pits, drains, and clarifiers, or which is removed from a treatment process via filtration or other method.

Storm Sewer Collection system for rainwater and surface run-off.

Surface Water Lakes, ponds, streams, canals, creeks, waterways, marshes, and even drainage ditches; any naturally occurring surface body of water.

TCLP A test used by regulatory agencies to determine if sludges are classified as hazardous or non-hazardous. The test involves leaching of the sample followed by analysis of the leachate for a wide array of toxic substances.

TDS Total Dissolved Solids

TPH Total Petroleum Hydrocarbons

TSS Total Suspended Solids



ULTRACEPT®

High-Efficiency Oil/Water Separators

Product Specifications

Nomenclature System1

Product Specifications for ULTRACEPT® 8600 Series:

 2 gpm Model 8602 2

 5 gpm Model 8605 2

 10 gpm Model 8610 2

 25 gpm Model 8625 2

 45 gpm Model 8645 2

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The ULTRACEPT® line of high-efficiency Oil/Water Separators is manufactured by the Jay R. Smith Manufacturing Company of Montgomery, AL. Founded in 1926, Jay R. Smith has grown to become the leader in its plumbing products businesses and in the manufacture of oil/water separators!



ULTRACEPT®

High-Efficiency Oil/Water Separators

ULTRACEPT® Nomenclature System

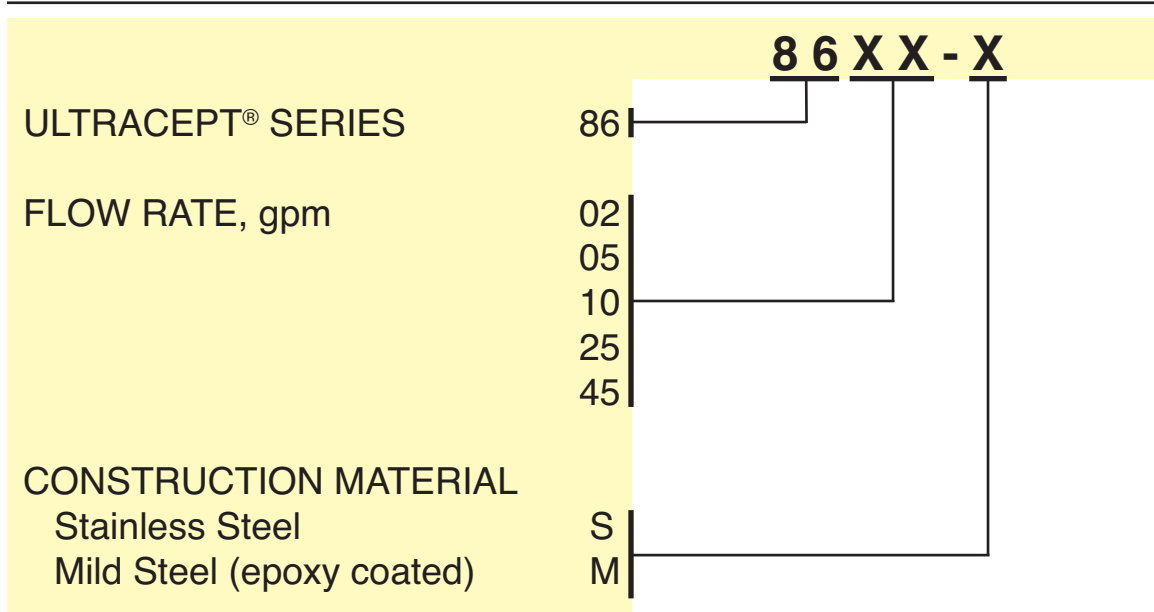


TABLE OF VALID MODEL NUMBERS:

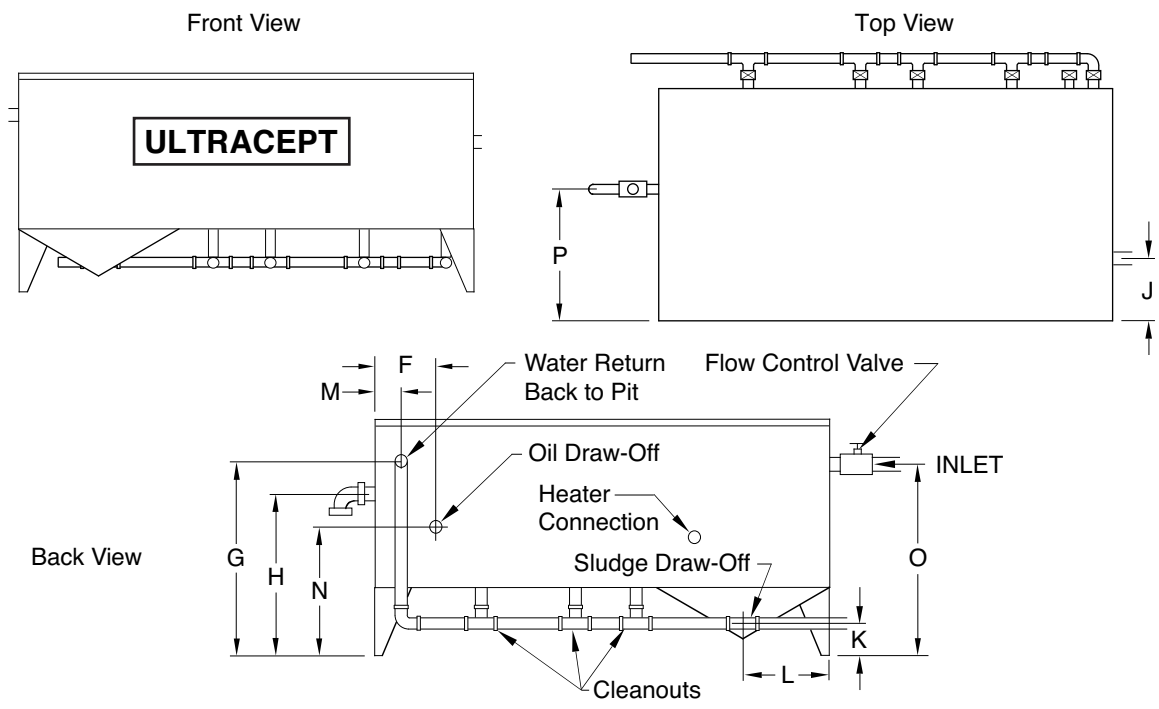
8602-S	8605-S	8610-S	8625-S	8645-S
8602-M	8605-M	8610-M	8625-M	8645-M



Whether for stringent industrial, military, or commercial applications, the high-efficiency, low-maintenance ULTRACEPT® is the ideal solution for oily water discharge problems.

U.S. Pat. nos. 6,139,730

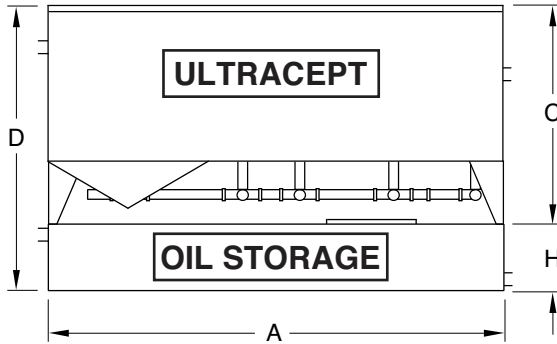
ULTRACEPT® SPECIFICATIONS



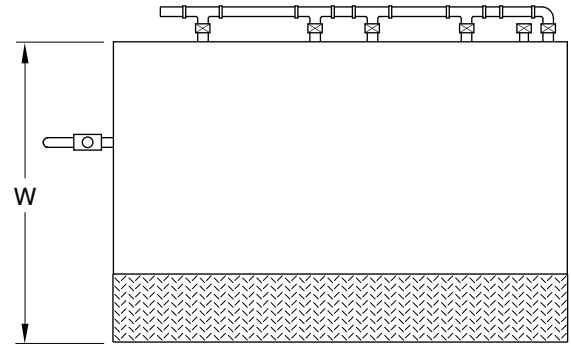
Model Number	8602	8605	8610	8625	8645
Construction*	S, M	S, M	S, M	S, M	S, M
Flow Rate, GPM	2	5	10	25	45
Inlet	1-1/2"	1-1/2"	2"	2"	2"
Outlet	1-1/2"	1-1/2"	3"	3"	3"
Water Return	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
Sludge Draw-Off	N/A	3"	3"	3"	3"
Oil Outlet	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
Waste Oil Cap.	4 gal	12 gal	23 gal	29 gal	35 gal
Length	36"	60"	72"	84"	96"
Width	24"	36"	36"	48"	48"
Height	36"	36"	48"	48"	48"
Weight-S,M units	150 lbs	600 lbs	925 lbs	1175 lbs	1395 lbs
Water Volume	67 gal	225 gal	400 gal	628 gal	718 gal
Volume, cu.ft.	12	45	72	112	128
Dimensions:					
F	8"	12"	21.56"	26"	34"
G	17.25"	25.82"	35.82"	31.82"	31.82"
H	14.75"	25.82"	33.70"	30"	30"
J	2"	2.5"	29.88"	42"	42"
K	N/A	4.5"	6"	5.41"	5.41"
L	N/A	12"	12"	18.06"	18.06"
M	4"	5"	18.19"	21"	27"
N	10.67"	16.7"	28.82"	26.19"	26.07"
O	20.88"	33.31"	43.7"	43.82"	43.82"
P	12"	18"	18"	24"	24"

*S = stainless steel M = mild steel

ULTRACEPT® MODULAR OIL STORAGE TANKS



Front View



Top View

Separator Model	Tank Model	Capacity (Gallons)	Tank Dim. A x W x H	Material (*)	Overall Dim. (Separator + Tank)			
					A	W	D	C
8602	T65	65	3' x 3' x 12"	S	36"	36"	48"	36"
	T130	130	3' x 3' x 24"	S	36"	36"	60"	36"
8605	T150	150	4' x 5' x 12"	S	60"	48"	48"	36"
	T300	300	4' x 5' x 24"	S	60"	48"	60"	36"
8610	T175	175	4' x 6' x 14"	S	72"	48"	60"	48"
	T350	350	4' x 6' x 24"	S	72"	48"	72"	48"
8625	T375	375	5' x 7' x 18"	S	84"	60"	66"	48"
	T500	500	5' x 7' x 24"	S	84"	60"	72"	48"
8645	T425	425	5' x 8' x 18"	S	96"	60"	66"	48"
	T575	575	5' x 8' x 24"	S	96"	60"	72"	48"

*S = 11 gauge stainless steel

Features

- *Modular design reduces system footprint*
- *Tank features built-in overflow protection*
- *Pump-out Ports provided*
- *Access Port provided with Hatch Cover*
- *Optional High Level Alarm*
- *Optional Hand Pump for pump-out*

Benefits

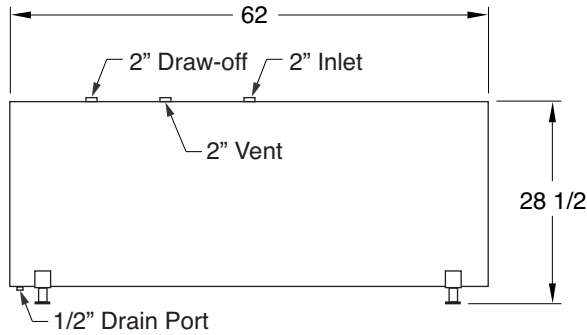
- *Provides holding capacity for spills*
- *Automatic waste oil transfer from separator*
- *Conserves space*
- *Front of tank equipped with diamond plate surface for use as step platform*



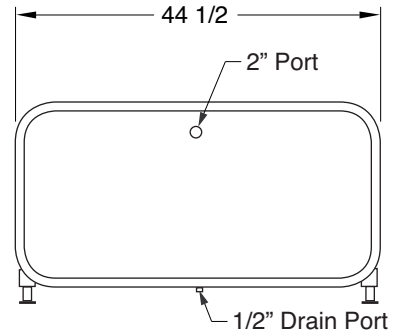
ULTRACEPT®

High-Efficiency Oil/Water Separators

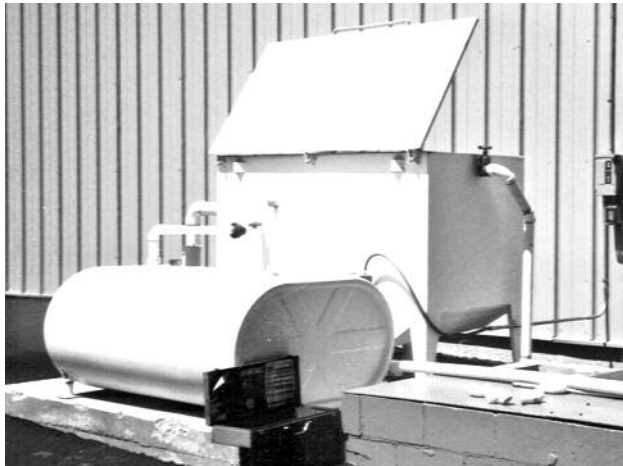
Model OST-250 Oil Storage Tank



Side View



End View



Capacity	250 gallons
Material	12 ga. Mild Steel
Coatings	Epoxy Plymastic
Fittings	2" Inlet
(fnpt)	2" Vent
	2" Draw-off
	1/2" Drain
Weight	285 lbs.
Label	UL80 / UL142

Note: As illustrated in the above photo, the Oil Storage Tank is designed to be installed in the rear of the ULTRACEPT® Oil/Water Separator with the Oil Draw-Off Port of the separator connected to the inlet port of the Storage Tank through a gravity flow 1-1/2 or 2" pipe connection.

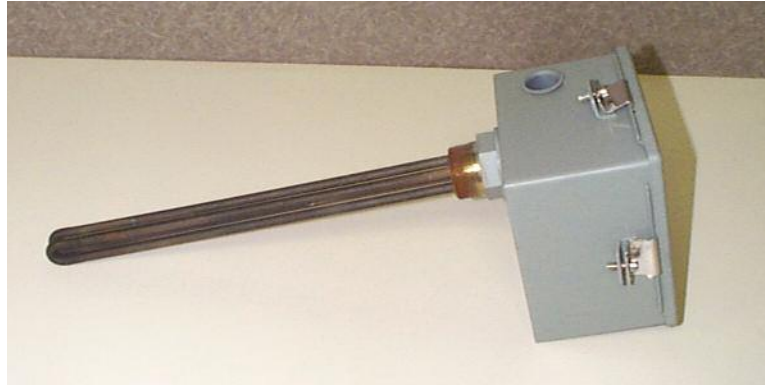
Written Specification

Furnish and install one Model OST-250 Oil Storage Tank to store the recovered oils from the ULTRACEPT® Oil/Water Separator. The Oil Storage Tank shall have a capacity of 250 gallons and shall be manufactured from 12 gauge steel and coated with corrosion resistant epoxy plymastic. The Tank shall be installed in the rear of the separator on a concrete mounting pad and connected to the oil draw-off port on the separator per the manufacturer's installation instructions.



Optional Heater Kits for Freeze Protection

These optional Heater Kits are intended for low temperature freeze protection on outdoor ULTRACEPT® installations in moderate climates. The Heater Kit includes a low temperature thermostat with an adjustable set point. In cold climates, the ULTRACEPT® should be installed indoors in a freeze protected area (i.e. shop area, insulated equipment shed, etc.)



<u>Model</u>	<u>Wattage</u>	<u>Voltage (VAC/1ph)</u>	<u>Fits ULTRACEPT Models</u>
1000HK	1000	120/240	8602, 8605
3000HK	3000	120/240	8610, 8625
4000HK	4000	120/240	8645

Installation Note

The Heater should be installed in the heater port on the rear of the separator using teflon tape or other suitable thread sealant. Power should be supplied using code approved Flex-tite or conduit. All conduit connections to the Heater Panel should be made on the bottom side of the panel only. Wiring connections can be made for either 120VAC or 240VAC according to the schematic on the inside of the box cover.

Written Specification

The ULTRACEPT® unit shall be supplied with a Model _____ Heater Kit for freeze protection. The Heater shall have a capacity of _____ watts and shall operate on either 120 or 240 VAC, 1 ph. The Heater Controls shall include an adjustable thermostat. The adjustable thermostatic control on the Heater Kit shall be adjusted for 35 degrees F.



Model 8600AR-1 High Level Alarm for Surge Pit Installation

Float Switch	Included, 15' cord
Supply Voltage	120 VAC
Panel	Indicator Light Horn, 85 decibels Silence/Test Switch
Enclosure	Type 3R Watertight



The Model 8600AR-1 High Level Alarm is designed to provide both audible and visual alarms in the event of a high level in the Surge Pit. The Alarm Panel can be mounted adjacent to the Oil/Water Separator or remote from the separator.

Written Specification

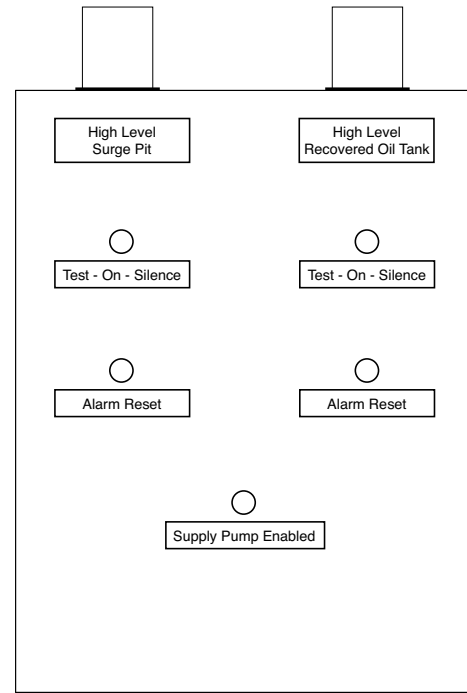
Furnish and install one Model 8600AR-1 High Level Alarm. The Float Switch provided with the Alarm shall be installed in the surge pit at the ____% (i.e. 80%) full elevation inside the pit. All electrical connections in the surge pit shall be made in waterproof junction boxes. Connect the float switch leads and a 115 VAC power supply to the labeled terminals in the Alarm Panel.

Model 8600AR-2 Dual Alarm for Oil Tank and Surge Pit

Specify for:

- High Level Surge Pit Alarm, and
- High Level Alarm for Oil Tank
- Auto Shutdown of Surge Pit Pump in the event of high level in either tank

Float Switches	(2) Included (15' cord on Surge Pit Float Switch)
Control Voltage	120 VAC
Pump Voltage	120 VAC
Pump Rating	<3/4 hp or 25 amps
Panel	Indicator Light Horn, 85 decibels Silence/Test Switches UL 508 Listed NEMA 4X



The Model 8600AR-2 High Level Alarm is designed to provide both audible and visual alarms in the event of a high level in either the Surge Pit or in the Optional Waste Oil Storage Tank for the ULTRACEPT[®] Unit. In the event of a high level in either tank, the power to the surge pit pump is shut-off automatically until the high level condition is corrected. The Alarm Panel is shipped mounted on the separator, but, if so specified, can be shipped separately for remote installation.

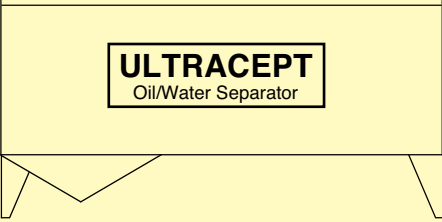
Written Specification

Furnish and install one Model 8600AR-1 High Level Alarm. The Surge Pit Float Switch provided with the Alarm shall be installed in the surge pit at the _____% (i.e. 80%) full elevation inside the pit. All electrical connections in the surge pit shall be made in waterproof junction boxes. Make all electrical connections to Panel per Manufacturers instructions. Alarm Panel shall be _____ (specify "shipped mounted on separator" or "shipped separately for remote installation").



ULTRACEPT®

High-Efficiency Oil/Water Separators

		
SPECIFICATION		
Stainless Steel Models without Optional Oil Tank		
8602-S	8605-S	8610-S
8625-S	8645-S	

Provide and install a high-efficiency ULTRACEPT® Model _____ Oil/Water Separator having a flow capacity of _____ gpm, as manufactured by the Jay. R. Smith Manufacturing Company, Montgomery, AL (800-467-6484). The factory assembled unit shall be designed for above-ground installation on a suitable concrete mounting pad. Oily water, which is collected in an in-ground Surge Pit, shall be transferred to the separator by an automatic transfer pump, as specified below.

The Surge Pit internal dimensions shall be _____ L x _____ W x _____ D (the minimum size recommended is 4' x 4' x 4').

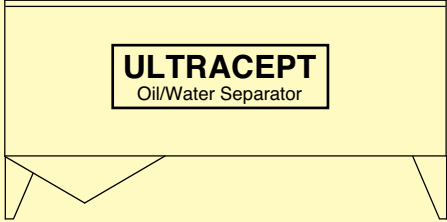
The oil/water separator shall be fabricated from 11 gauge 304 stainless steel and shall have a 15 year warranty on the stainless steel construction. The separator shall have a "V" bottom solids collector in the inlet chamber, inclined baffle plates in the inlet chamber, a flow control valve on the inlet port, a hinged lid, a pre-piped drainage manifold with valves to control the drainage from each compartment, an adjustable oil draw-off port, inlet and outlet ports, and an internal waste oil storage compartment. The separator shall incorporate a high-efficiency, multi-stage design with automatic gravity decanting and shall include multiple continuous skimming with adjustable primary, secondary, and final skimmers utilizing water as a carrier in the skimming operation and designed to prevent accumulation of oil in the separating chambers. No alternate system shall be considered for approval unless it contains each of the following features: 11 gauge 304 stainless steel construction, 15 year tank warranty, "V" bottom in inlet compartment, multiple continuous skimming design with primary, secondary, and final skimmers incorporating water as a carrier, automatic gravity decanting of carrier water, and a high-efficiency multi-stage design. No alternate unit shall be accepted which incorporates coalescing media packs or filter packs, which requires underground installation, or which is not of the manufacturer's standard design.

(Note to Specifier: Insert specifications for selected options here. Available options include a High Level Alarm for field installation in the surge pit, and a supplemental Oil Storage Tank. Information on each of these options is included in this section.)



ULTRACEPT®

High-Efficiency Oil/Water Separators

		
SPECIFICATION		
Mild Steel Models without Optional Oil Tank		
8602-M	8605-M	8610-M
8625-M	8645-M	

Provide and install a high-efficiency ULTRACEPT® Model _____ Oil/Water Separator having a flow capacity of _____ gpm, as manufactured by the Jay. R. Smith Manufacturing Company, Montgomery, AL (800-467-6484). The factory assembled unit shall be designed for above-ground installation on a suitable concrete mounting pad. Oily water, which is collected in an in-ground Surge Pit, shall be transferred to the separator by an automatic transfer pump, as specified below.

The Surge Pit internal dimensions shall be _____ L x _____ W x _____ D (Min. size recommended is 4' x 4' x 4').

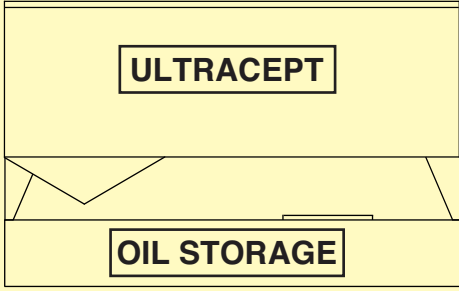
The oil/water separator shall be fabricated from mild steel and shall be coated on the inside and outside with a durable, corrosion resistant, two-part coal tar epoxy coating. The warranty on the separator shall be 1 year. The separator shall have a "V" bottom solids collector in the inlet chamber, inclined baffle plates in the inlet chamber, a flow control valve on the inlet port, a hinged lid, a prepiped drainage manifold with valves to control the drainage from each compartment, an adjustable oil draw-off port, inlet and outlet ports, and an internal waste oil storage compartment. The separator shall incorporate a high-efficiency, multi-stage design with automatic gravity decanting and shall include multiple continuous skimming with adjustable primary, secondary, and final skimmers utilizing water as a carrier in the skimming operation and designed to prevent accumulation of oil in the separating chambers. No alternate system shall be considered for approval unless it contains each of the following features: mild construction with bitumastic coating, 1 year warranty, "V" bottom in inlet compartment, multiple continuous skimming design with primary, secondary, and final skimmers incorporating water as a carrier, automatic gravity decanting of carrier water, and a high-efficiency multi-stage design. No alternate unit shall be accepted which incorporates coalescing media packs or filter packs, which requires underground installation, or which is not of the manufacturer's standard design.

(Note to Specifier: insert specifications for selected options here. Available options include Submersible or Air Diaphragm Pumps for transferring oily water from the surge pit to the separator, a Heater Kit for low temperature freeze protection, a High Level Alarm for field installation in the surge pit, and a supplemental Oil Storage Tank. Information on each of these options is included in this section.)



ULTRACEPT®

High-Efficiency Oil/Water Separators

	SPECIFICATION		
	Stainless Steel Models with the Optional Modular Waste Oil Holding Tank:		
8602-S	8605-S	8610-S	
8625-S	8645-S		

Provide and install a high-efficiency ULTRACEPT® Model _____ Oil/Water Separator having a flow capacity of _____ gpm, as manufactured by the Jay. R. Smith Manufacturing Company, Montgomery, AL (800-467-6484). The factory assembled unit shall include a modular waste oil storage tank having a capacity of _____ gallons, and shall be designed for above-ground installation on a suitable concrete mounting pad. Oily water, which is collected in an in-ground Surge Pit, shall be transferred to the separator by an automatic transfer pump, as specified below.

The Surge Pit internal dimensions shall be _____ L x _____ W x _____ D (Min. size recommended is 4' x 4').

The oil/water separator shall be fabricated from 11 gauge 304 stainless steel and shall have a 15 year warranty on the stainless steel construction. The separator shall have a "V" bottom solids collector in the inlet chamber, inclined baffle plates in the inlet chamber, a flow control valve on the inlet port, a hinged lid, a pre-piped drainage manifold with valves to control the drainage from each compartment, an adjustable oil draw-off port, inlet and outlet ports, and an internal waste oil storage compartment. The separator shall incorporate a high-efficiency, multi-stage design with automatic gravity decanting and shall include multiple continuous skimming with adjustable primary, secondary, and final skimmers utilizing water as a carrier in the skimming operation and designed to prevent accumulation of oil in the separating chambers. No alternate system shall be considered for approval unless it contains each of the following features: 11 ga 304 stainless steel construction, 15 year tank warranty, "V" bottom in inlet compartment, multiple continuous skimming design with primary, secondary, and final skimmers incorporating water as a carrier, automatic gravity decanting of carrier water, and a high-efficiency multi-stage design. No alternate unit shall be accepted which incorporates coalescing media packs or filter packs, which requires underground installation, or which is not of the manufacturer's standard design.

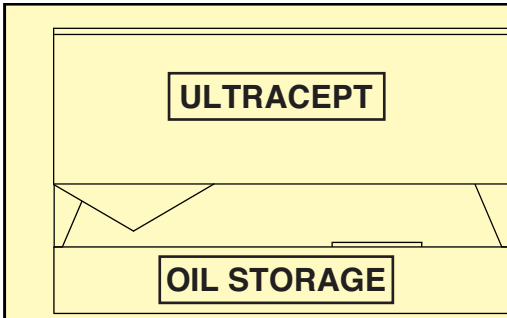
The oil storage tank shall be fabricated of 11 gauge 304 stainless steel and designed to structurally support the oil/water separator, and shall have a weatherproof access hatch and shall include overflow protection. The top front of the Oil Tank shall serve as a step or platform to facilitate access to the separator and shall have a diamond plate surface. The Tank shall be equipped with drainage/pump ports, and couplings for Optional Hand Pump and/or Alarm Float Switch.

(Note to Specifier: insert specifications for selected options here. Available options include Submersible or Air Diaphragm Pumps for transferring oily water from the surge pit to the separator, a Heater Kit for low temperature freeze protection, and a High Level Alarm for field installation in surge pit. Information on each of these options is included in this section.)



ULTRACEPT®

High-Efficiency Oil/Water Separators



SPECIFICATION

Mild Steel Models with the Optional Modular Waste Oil Holding Tank:

8602-M	8605-M	8610-M
8625-M	8645-M	

Provide and install a high-efficiency ULTRACEPT® Model _____ Oil/Water Separator having a flow capacity of _____ gpm, as manufactured by the Jay. R. Smith Manufacturing Company, Montgomery, AL (800-467-6484). The factory assembled unit shall include a modular waste oil storage tank having a capacity of _____ gallons, and shall be designed for above-ground installation on a suitable concrete mounting pad. Oily water, which is collected in an in-ground Surge Pit, shall be transferred to the separator by an automatic transfer pump, as specified below.

The Surge Pit internal dimensions shall be _____ L x _____ W x _____ D (Min size recommended is 4' x 4' x 4').

The oil/water separator shall be fabricated from fiberglass with corrosion resistant PVC, stainless steel or aluminum hardware and components and shall have a 1 year warranty. The separator shall have a "V" bottom solids collector in the inlet chamber, inclined baffle plates in the inlet chamber, a flow control valve on the inlet port, a hinged lid, a pre-piped drainage manifold with valves to control the drainage from each compartment, an adjustable oil draw-off port, inlet and outlet ports, and an internal waste oil storage compartment. The separator shall incorporate a high-efficiency, multistage design with automatic gravity decanting and shall include multiple continuous skimming with adjustable primary, secondary, and final skimmers utilizing water as a carrier in the skimming operation and designed to prevent accumulation of oil in the separating chambers. No alternate system shall be considered for approval unless it contains each of the following features: fiberglass construction, 1 year warranty, multiple continuous skimming design with primary, secondary, and final skimmers incorporating water as a carrier, automatic gravity decanting of carrier water, and a high-efficiency multi-stage design. No alternate unit shall be accepted which incorporates coalescing media packs or filter packs, which requires underground installation, or which is not of the manufacturer's standard design.

The oil storage tank shall have a capacity _____ gallons, shall of be fabricated of 11 gauge 304 stainless steel and designed to structurally support the oil/water separator, and shall have a weatherproof access hatch and shall include overflow protection. The top front of the Oil Tank shall serve as a step or platform to facilitate access to the separator and shall have a diamond plate surface. The Tank shall be equipped with drainage/pump ports, and couplings for Optional Hand Pump and/or Alarm Float Switch.

(Note to Specifier: insert specifications for selected options here. Available options include Submersible or Air Diaphragm Pumps for transferring oily water from the surge pit to the separator, a Heater Kit for low temperature freeze protection, a High Level Alarm for field installation in the surge pit, and a supplemental Oil Storage Tank. Information on each of these options is included in this section.)



Limited Warranty

This Warranty covers ULTRACEPT[®] Oil/Water Separators (the "Products").

EXPRESS WARRANTY: Subject to the limitations set forth below, Jay R. Smith Mfg. Co.[®] ("JRS") warrants to its customer and the first retail purchaser ("Buyer") that the products are free from defects in material and workmanship.

EXCEPTIONS TO WARRANTY:

1. This warranty does not cover defects caused by:
 - (a) Installation not in strict accordance with instructions issued with the products.
 - (b) Shipping or improper handling.
 - (c) Abuse, abnormal use, or accident.
 - (d) Use for a purpose or in a manner for which the Product was not intended.
 - (e) Improper storage, installation, maintenance, or repair.
2. JRS will not pay for the cost of repair performed other than in accordance with this Warranty. Written notice of a Product or component part believed to be defective as covered by this Warranty should be sent to the following address and should include Buyer's name, address, proof of purchase, and a brief description of the defects: Jay R. Smith Mfg. Co.[®], Environmental Products Group, 2781 Gunter Park Drive, East, Montgomery, AL 36109
3. In no event will warranty compensation or other damages available from JRS, exceed the sale price received by JRS for the Product.

Exclusive Remedy: The exclusive remedy under this warranty is replacement of any defective parts, at JRS's option, provided:

- (a) The defect is reported to JRS in writing within the applicable warranty period.
- (b) JRS authorizes return of the defective part for replacement or repair; and
- (c) The defective part is returned to JRS freight and transportation costs prepaid, with a suitable letter and a copy of the purchase invoice. The letter should include a description of the defect and how and when the Product containing the defective part was used. All shipping and transportation costs associated with the return of the defective part are the responsibility of the Buyer.

JRS will ship (freight collect) to the buyer, Products repaired or replaced under this warranty.



ULTRACEPT®

High-Efficiency Oil/Water Separators

Sizing & Design Information

9 Easy Steps to Sizing and Design	1
ULTRACEPT® Sizing	4
Typical Surge Pit and Pump Design	5
Wash Pad Design	6
Application Data Sheet.....	7



The Jay R. Smith Mfg. Co.® is a leader in the design and manufacture of Oil/Water Separators and Environmental Equipment.



9 Easy Steps to Sizing & Design

1. Collect information on the application

The following information is recommended to assure a properly specified application: oily water flow rate (gallons per day and peak flow in gallons per minute), and the preferred location of separator and surge pit.

2. Determine the best configuration for the installation

The most common configuration utilizes a below ground collection tank or "surge pit" to receive the oily water by gravity from the process. The oily water is then pumped to the ULTRACEPT® unit. The discharge from the ULTRACEPT® then typically flows by gravity to the sewer or other discharge line. However, other configurations are possible. For example, the ULTRACEPT® can receive wastewater from an above ground tank. Although the ULTRACEPT® is ideally located adjacent to the surge pit, if space is limited, the ULTRACEPT® can be remotely located when a properly sized transfer pump is specified for the surge pit.

3. Determine the ULTRACEPT® size required

See Sizing Section. Note that since the collection tank (i.e. surge pit) provides capacity for flow equalization as well as settling, it is possible, in many instances, to size the separator smaller than would be indicated by the peak flow rate of the process.

4. Design and size the surge pit or collection system

See Sizing Section for general recommendations on surge pit sizing. The most common type of surge pit is a pre-cast concrete tank set to receive the oily wastewater by gravity. Risers to grade and two access ports are normally specified to allow easy servicing of the surge pit when periodic removal of accumulated sediment is required. A 500 gallon tank is the minimum recommended size. The most common sizes, which are readily available from pre-cast tank manufacturers are the 1000 and 1500 gallon sizes.

5. High Level Alarm needed?

Specify the optional High Level Alarm to provide an indication of high level conditions in the surge pit.



Specification and Design Steps

6. Select the pumping system

In all applications, a float-switch activated transfer pump (by others) will be required to transfer the collected oily water to the separator. Obviously, the sizing of this pump will depend on the pipe size, pumping distance, total head, friction losses, etc.

A pump mounting cage is provided with each ULTRACEPT® unit and is designed to elevate the pump off the floor of the Surge Pit to help to prevent sediment and debris from clogging the pump intake and also to minimize solids accumulation in the ULTRACEPT® unit.

7. Determine oil storage capacity desired

The ULTRACEPT® unit comes equipped with an internal recovered oil storage chamber which is adequate for most applications. See the Product Specification Section for information on oil storage volumes. However, for applications where there is a potential for higher volumes of recovered oil due to wastewater composition or potential spills, an optional oil storage tank should be specified. This tank may be a modular tank which fits beneath the ULTRACEPT® unit to minimize the footprint, or it can be a separate tank which is installed adjacent to the ULTRACEPT®.

8. Determine if freeze protection is required

In tropical climates with little risk of freezing, the ULTRACEPT® can be installed outdoors on a suitable concrete mounting pad with no special freeze protection measures. When installed outdoors in climates where some freeze protection is required, the optional low temperature heater and control package should be specified and the job specifications should require the inlet, drain, and discharge lines to and from the separator to be insulated. In climates with severe winter weather, the ULTRACEPT® should be installed indoors or in a freeze protected shelter or equipment building.



Specification and Design Steps

9. Polishing Modules

In most applications in which the discharge is to a municipal sewer system and the prime requirement is the removal of oil, grease, and settleable solids, the high-efficiency ULTRACEPT® is all that is required. Analytical data has shown that the high-efficiency ULTRACEPT® can achieve discharge levels down to 10 parts per million of free oil!

In applications where the discharge limits are very stringent, where there are interferences (such as the presence of high level of chemical emulsifiers), or where there are other parameters requiring treatment (such as heavy metals, soluble organics, etc.), the ULTRACEPT® unit is utilized either as a pretreatment device in conjunction with other treatment operations, or polishing modules are specified with the ULTRACEPT® to address various parameters. Unlike most competing separators, ULTRACEPT®'s modular design offers exceptional flexibility in systems design.

Consult your ULTRACEPT® Representative for information and recommendations regarding any Polishing Modules that may be needed.



ULTRACEPT®

High-Efficiency Oil/Water Separators

ULTRACEPT® Sizing

The ULTRACEPT® unit comes in a variety of sizes to fit virtually any application. Units are available for nominal flow rates of 2, 5, 10, 25, and 45 gallons per minute. Multiple units can also be installed in parallel to handle even higher flow rates.

However, since this process only generates 1440 gallons per day, the ULTRACEPT® unit rated at 5 gallons per minute can handle this application when coupled with only a small amount of flow equalization volume in the surge pit design!

Table 1 shows the instantaneous and daily flow capacities of each ULTRACEPT® Model.

Follow the steps below for your application:

Model	gpm	gpd
8602	2	2,880
8605	5	7,200
8610	10	14,400
8625	25	36,000
8645	45	64,800

1. Calculate the total daily discharge flow rate, gpm x minutes for each source.

2. Select the smallest ULTRACEPT® unit to meet this total daily flow capacity.

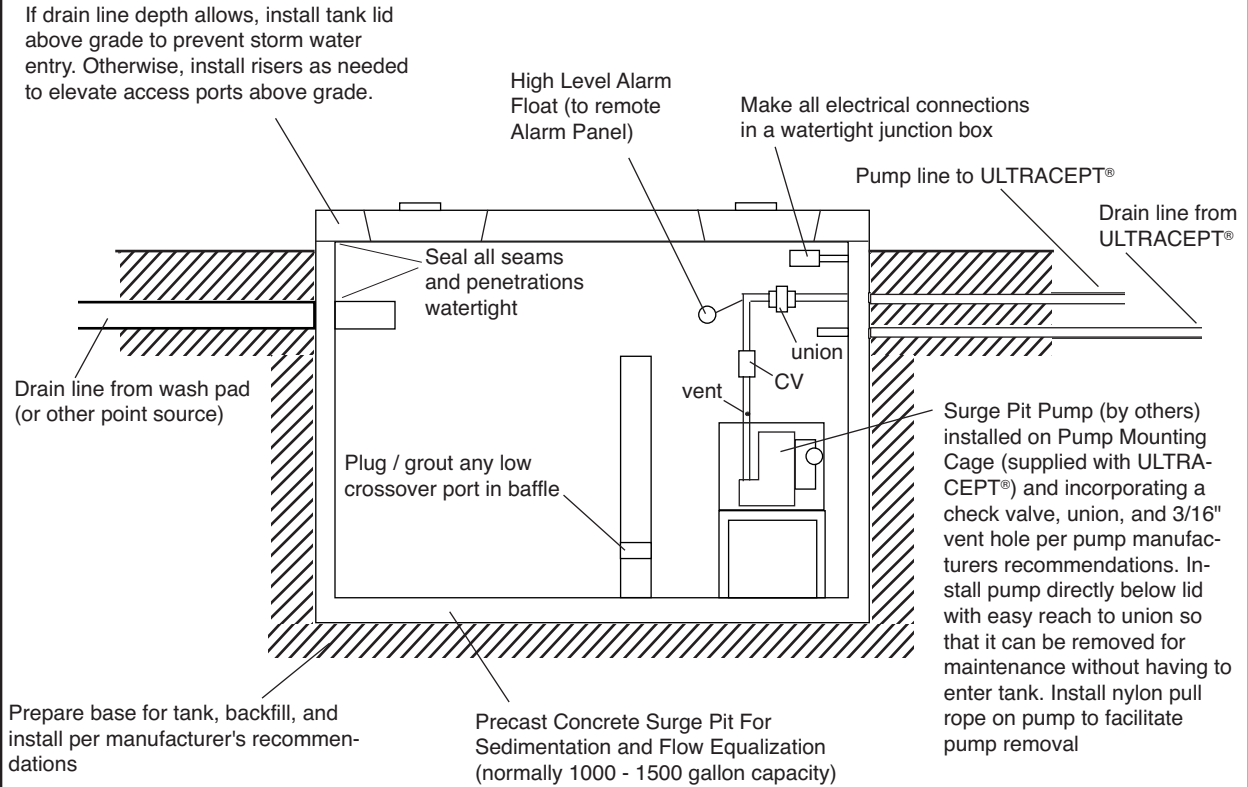
3. Calculate the amount of water processed by the ULTRACEPT® while the process is operational (ULTRACEPT® gpm x process operation time in minutes) and subtract this total from the total daily discharge in (1). This is the amount of excess water of surge capacity that the surge pit should have.

When specifying an ULTRACEPT® unit, consideration should be given to the pattern of flow and to flow equalization in order to avoid oversizing.

4. Multiply the surge capacity from (3) above by 1.2 to provide a 20% safety margin and add a sedimentation volume of 60 x the ULTRACEPT® flow rate in gpm. This result yields the approximate surge pit capacity to provide both flow equalization and sedimentation capacity. If you prefer or require an installation with a smaller volume surge pit, select the next larger size ULTRACEPT® unit and repeat the above calculations.

In the sizing process, it is important to identify the peak instantaneous flow rate in gallons per minute. However, it is equally important to identify or estimate the typical daily flow rate from the process and the pattern of flow. For example, a process which discharges oily water at the rate of 18 gallons per minute may only operate for 10 minutes each hour and 8 hours each day. If the daily flow, pattern of flow, and potential for flow equalization were not considered, a 25 gpm ULTRACEPT® would be specified.

Typical Surge Pit and Pump Design (for submersible pump option)



- Notes:
1. Size piping to and from separator (Inlet, Outlet and Water Return) per separator specifications. Assure that separator is level.
 2. Insulate all piping as necessary to prevent freezing. Specify optional Heater Kit for ULTRACEPT® Separator, if necessary, for freeze protection.



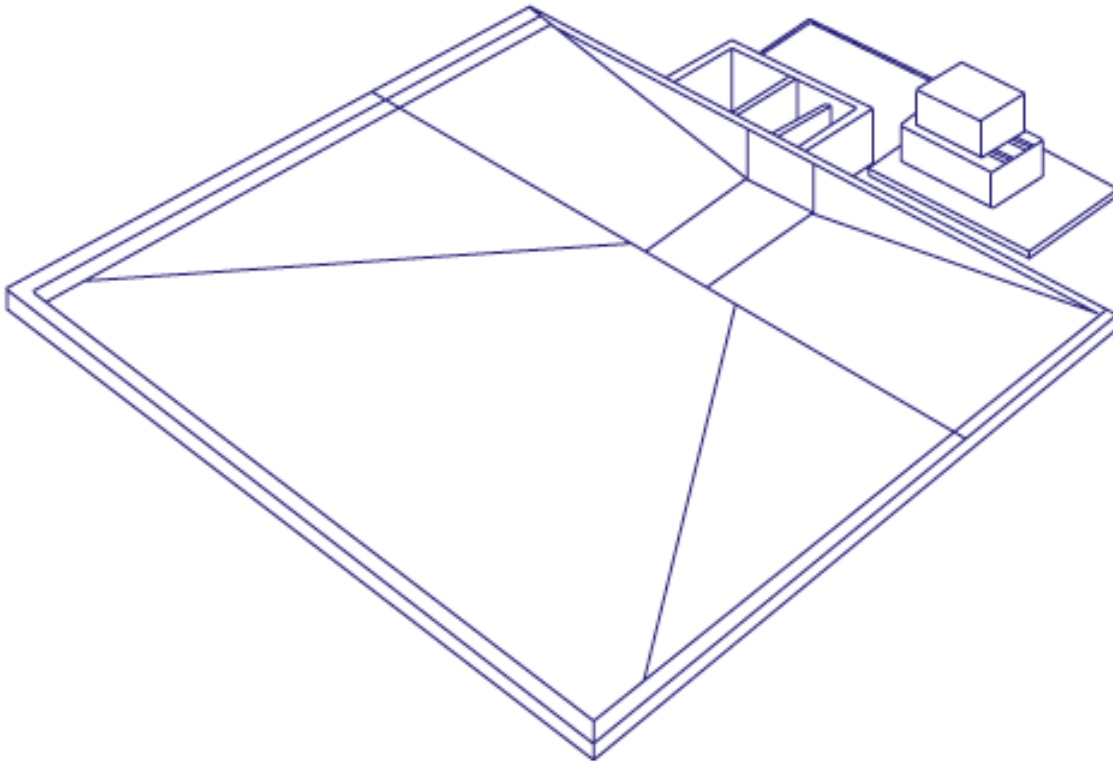
ULTRACEPT®

High-Efficiency Oil/Water Separators

Wash Pad Design



In designing a wash pad and oil/water separator installation, a number of factors should be considered. Important considerations include structural requirements, silt and solids containment and handling, stormwater collection, pad size and overspray containment, prevention of surface water entry, and ease of maintenance. Contact your ULTRACEPT® Representative for design suggestions.



This drawing illustrates a wash pad which was designed for heavy equipment washdown where heavy silt and sludge collections can easily be removed with a front end loader.



ULTRACEPT®

High-Efficiency Oil/Water Separators

Application Data Sheet

Client Information:

Contact Name: _____
Company: _____
Address: _____
City/State/Zip: _____
Telephone: _____
Fax: _____
E-mail: _____

Application Information:

Type of Operation: _____

Source of wastewater: _____

Flow rate: _____ gallons per minute; _____ gallons per day

Hours of operation: _____ min/hr _____ hours per day _____ days/week

Where will discharge go? _____

What are your discharge limits? _____

Known contaminants in wastewater: _____

If chemicals are used in the process, list here and provide MSDS sheets:

Describe the facility and the preferred location of proposed treatment system.
If possible, provide a sketch of the facility and treatment system location.



Installation and Maintenance

Installation Overview 1

Maintenance Procedures 2

How would you like to clean a clogged
coalescing pack like this one in a competing unit?



ULTRACEPT[®]'s genius is that it couples high separation efficiency
with a low maintenance design . . . which does not require clog-prone
coalescing plate packs!



ULTRACEPT®

High-Efficiency Oil/Water Separators

Installation Overview

- 1 Assure in-ground surge pit is properly sized for the application (see the Sizing and Design Section of this Manual). For most applications a 750 or 1000 gallon tank is sufficient. The most common approach is to utilize a readily available pre-cast concrete pump tank or septic-type tank from your local concrete products company with a concrete lid and access ports (with risers as needed to bring the lids to grade level or above). This approach assures easy access for periodic sediment removal.
- 2 Connect drain line (typically 3-4" PVC) from wash pad or other source to surge pit, being careful to minimize the number of elbows and maintaining the required slope on the line (typically 1/4" per ft). Install electrical service to surge pit, according to applicable electrical codes, for operation of the submersible pump (by others) and any optional accessories (float switch for Alarm, etc.). If required by applicable codes, utilize an explosion-proof surge pit pump and electrical components.
- 3 Install ULTRACEPT® surge pit pump, cage, and check valve in surge pit. Assure that pump and components are installed per manufacturer's recommendations. For example, a vent hole may be required in the discharge line from the pump to prevent air lock.
- 4 Locate the ULTRACEPT® unit on a concrete pad inside or outside building as close to the surge pit as possible. If the unit is located outdoors in a freeze prone area, install the optional Heater Kit in the separator on a properly sized circuit (Do not use heater in applications requiring explosion-proof components)
- 5 Install pump line from surge pit to ULTRACEPT® and connect to unit through the supplied gate valve.
- 6 Connect cleaned water discharge port on ULTRACEPT® to sewer or designated drain line through a properly sized and vented drainage line per plumbing code requirements.
- 7 Install a return drain line, stubbed out in the rear of the ULTRACEPT® unit and draining back to the surge pit (≥ 2 " PVC, or as specified for individual model). Connect the return drain to the return drain port on the rear of the ULTRACEPT®.
- 8 Install any specified options, such as High Level Alarm, Modular Oil Storage Tank, Heater Kit, Transfer Pumps, etc. according to the instructions supplied with those units.
- 9 Fill unit with clean water and confirm correct adjustment of flow control valve and skimming funnels.
- 10 Consult Owner's Manual for full details on Installation and Operation of the High Efficiency ULTRACEPT® Oil/Water Separator.



Maintenance Procedure

- 1 Occasionally observe unit during running for proper skimmer adjustment; draw off accumulated oil, if needed; check for accumulated sediment. If sediment is excessive, open drain valves to quickly drain the unit and remove the sediment (scoop out or use wet vac, then rinse with hose). Refill with clean water. Clean flow control valve seat. Check Surge pit for sediment accumulation. If the sediment level is approaching the pump intake, schedule a cleanout of the surge pit.
- 2 THAT'S IT!