JAY R. SMITH MFG. CO.

ULTRACEPT®
OIL/WATER SEPARATION SYSTEMS

SMITH®
CUSTOMER DRIVEN

JAY R. SMITH MFG. CO.
ENVIRONMENTAL PRODUCTS
DIVISION OF SMITH INDUSTRIES, INC.

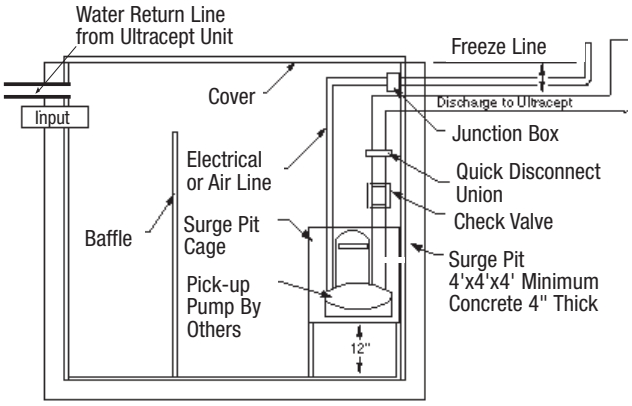
When meeting discharge requirements is the problem...

The ULTRACEPT® Process

The Jay R. Smith Mfg. Co. Ultracept® Oil/Water Separation System, Figure #8602-8645, is an above ground unit. It is one of the simplest, most efficient systems available to remove free oil from waste water without the use of filters or coalescing plates.

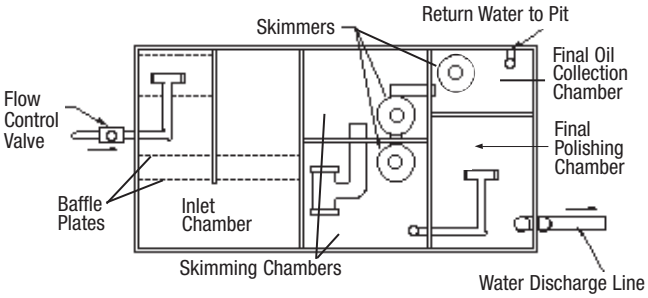
Surge Pit Description and Sketch

The minimum size for a surge pit is 4' x 4' x 4', which equals to approximately 450 gallon capacity, however, the larger the better. In some cases, existing tanks or underground separators can be used. When possible, a baffled surge pit, as illustrated, is recommended.



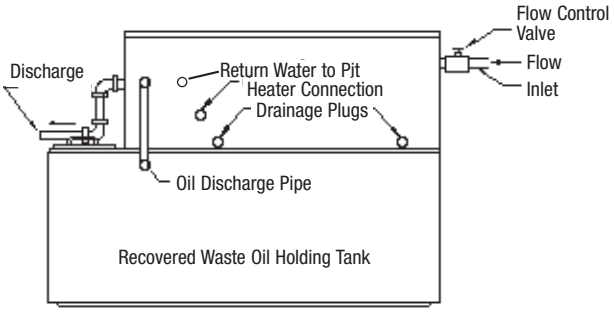
Baffled Surge Pit

From a surge pit, either above or below grade, contaminated water is pumped to the Ultracept® Oil/Water Separator. The separator, having been filled with clean water prior to start-up, then uses the surface tension of the clean water to promote and enhance waste separation. The water then travels through a series of chambers for gravity discharge to a sanitary sewer or to a recycling system. Through a unique, patented skimming technique, the Ultracept® System isolates the waste for easy removal.



Ultracept® System Top View

This is a top view of the basic Ultracept® Oil/Water Separator with waste oil holding chamber.



Ultracept® System Rear View
(shown with optional oil storage tank)

This shows the back of the Ultracept® Oil/Water Separator with the optional recovered waste oil holding tank. This model is recommended for situations that may have the potential of spills such as refueling areas.

Options

- Heater for Freeze Protection
- Supply Pumps
- Polishing System
- Recycling System
- Trailer

Figure #8605-03S

The Ultracept® System designs are flexible. Shown are the stainless steel and fiberglass models, both on and off the optional trailer. Ultracept® Systems in Stainless Steel are available with flow rates of 2, 3, 5, 10, 25, and 45 GPM. Fiberglass units are only available in 5 GPM models. For higher flow rates, units can be installed in parallel. Please contact your Ultracept® representative for proper sizing. All sizes can be set up as portable units.

Figure #8605-03ST

Figure #8605-03F

Ultracept® Systems are shipped with all internal plumbing and necessary drainage fittings installed.

The ULTRACEPT® System from Jay R. Smith Mfg. Co. is the solution.

Service and Maintenance

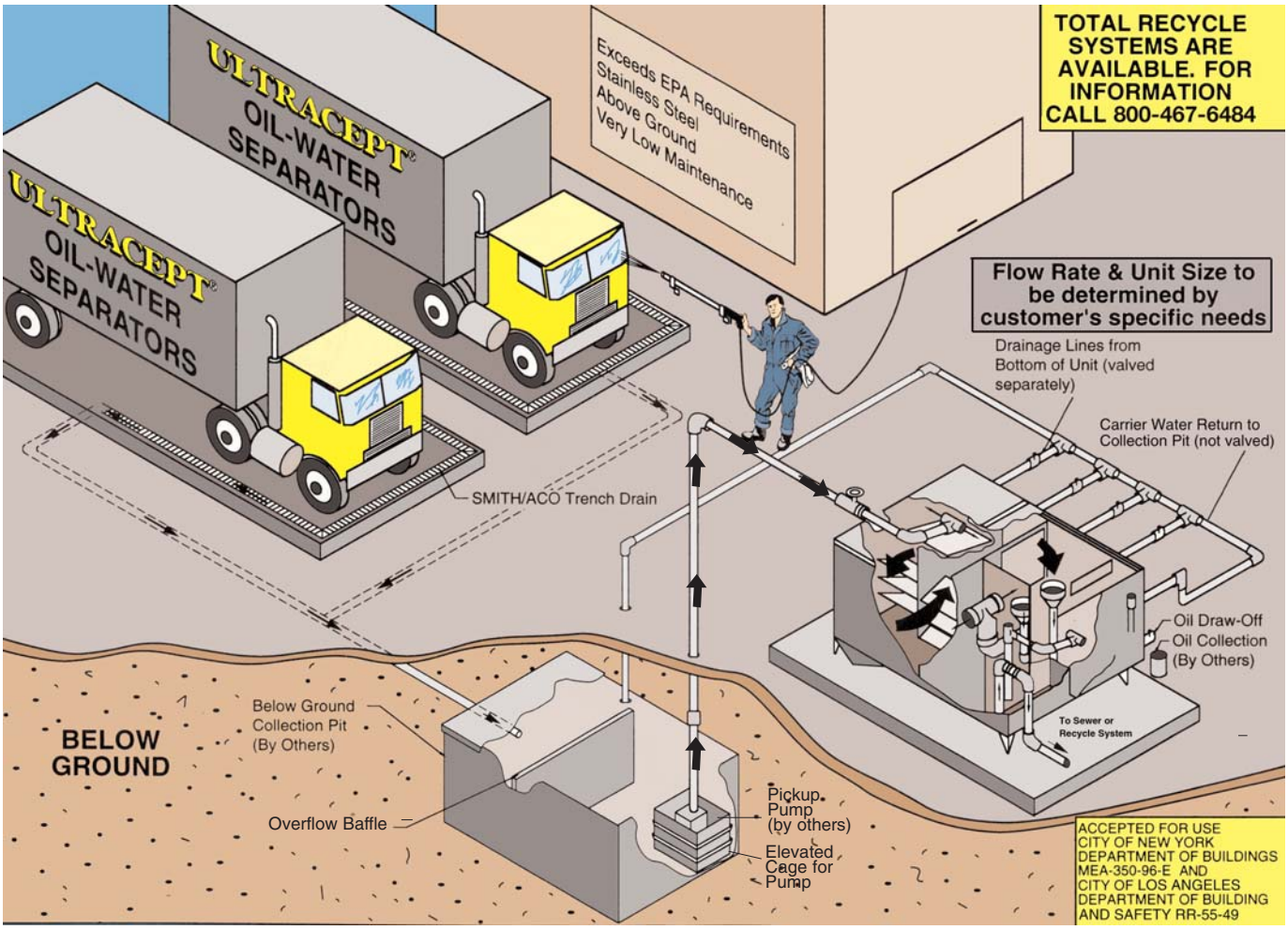
The purpose of your Ultracept® Oil/Water Separator System is to give you clean water that will meet your requirements no matter how stringent they may be.

Since there are **No Moving Parts, No Coalescing Plates** to clean and **No Filters** to change, suggested maintenance is less than 10 minutes a week. Discharges under 10 PPM have been achieved.

We have knowledgeable representatives throughout the country who are available to assist you at anytime or call 1-800-467-6484.

How the ULTRACEPT® System can work for you.

Truck/Maintenance Shop and Wash Area



Features and Benefits:

- Solutions with simplicity
- Flow rates from 2 to 45 GPM
- Collected waste oil has negligible water content
- Waste oil isolated for easy removal
- No coalescing plates, filters, moving parts, or chemicals
- Simple installations, on-grade or portable system
- Stainless Steel, Mild Steel with bitumastic finish or Fiberglass fabrication
- Modular units for simple upgrade
- New York City and Los Angeles City Approvals

So What Makes the ULTRACEPT® System so Special?

Above Ground Versus Below Ground Installations

Many competing companies have only below ground systems. Separating and storing oil below ground is a disadvantage with owner liability for leaky underground tanks and contaminated soil. Above ground installations are much easier to service and maintain. They are not "out of sight, out of mind." Underground units are typically gravity fed which saves a pump, but those same units require a pump to remove the oil and drain the unit. The Ultracept® is piped to allow for gravity draining of the entire unit for cleaning. The separated oils flow from the unit via gravity to a storage vessel.

No Coalescing Packs!

Coalescing packs can help separate oil in appropriate applications. However, in truck washdown and other applications with high suspended solids mixed with oil and grease, the coalescing packs clog quickly. This necessitates high maintenance. If maintenance is ignored, clogged coalescing filter packs can cause discharge violations or environmental spills due to unit overflows! **The Ultracept® System uses no coalescing packs.**

High Separation Efficiency!

The Ultracept® design features high separation efficiency. Ultracept® incorporates a patented design which takes advantage of the cohesive quality of water coupled with a multi-stage separation process which enhances separation. Analytical results validate the effectiveness of the Ultracept® design.

Continuous Skimming!

Competing units use some variation of the "knife edge skimmer" to remove separated oil from water. This type skimmer is manually adjusted and is commonly misadjusted resulting in water being skimmed with the recovered oil (<10% water in the recovered oil is typically required by the waste oil reclaimers). In contrast, the Ultracept® utilizes a "Continuous Skim" design which skims oil and water as it enters the skimming chamber. Water is used as a carrier in the skimming process (an ULTRACEPT® exclusive). The skimmed oil and separated water is deposited in a quiescent off-line compartment with extended detention time allowed for final separation. The water that carries the oil to its off-line compartment is automatically decanted back to the surge pit and the pure oil is collected in the oil compartment for draw-off or for automatic gravity transfer to an adjacent oil storage tank.

Purer Recovered Oil!

With the ULTRACEPT® design, the recovered oil has negligible water content and is therefore purer than the "oil/water slop" mixture collected by competitive units, resulting in less costly disposal. Removed oil can be burned in a waste oil burner.

Lower Maintenance!

No coalescing plates or filter packs means lower maintenance. When occasional maintenance is required on an ULTRACEPT® (i.e., heavy sediment layer on bottom on unit), a drain valve connected to the multiple drain ports on the rear of the unit is simply opened to drain the unit back to the surge pit. The sediment can then be easily removed (with a wet vacuum, or equivalent).

Easy Polishing/Recycling Options!

The ULTRACEPT® allows for easy adaptation, when needed, to add polishing equipment such as activated carbon filters which can be adapted for recycling of the wash water.

Reliability!

Effective separation without moving parts means there is nothing to go wrong with the ULTRACEPT® System.

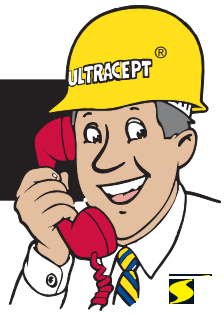
Available in Stainless Steel and Carbon Steel or Fiberglass*

Provides Flexibility for varying customer budget requirements.
*Fiberglass limited to 5 GPM Units.

Warranty!

Stainless Steel tank construction has a 15 year warranty against any manufacturing defects. Mild Steel and Fiberglass tank construction have a one year warranty.

Got a question?, CALL 1-800-467-6484



For more information on our products or to contact your local Jay R. Smith Mfg. Co. representative, visit our Web site at:
www.jrsmith.com

Contact your local representative:

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