



JAY R. SMITH MFG. CO.®

case study

Jay R. Smith Mfg. Co.® Ultracept® Oil-Water Separator for Wash Down Area



The Ultracept® Oil-Water Separator

Problem: A branch manager for a power equipment rental house in College Station, Texas needs a solution to oily wastewater when returned rental equipment receives extensive wash downs in order to be available for use by new customers. The wash down process creates an oily discharge that is subject to fines by city inspectors if the discharge is above 100 parts per million (PPM).

Solution: After discussions with the city inspectors and engineers, the Ultracept® Oil-Water Separation System by Jay R. Smith Mfg. Co. was chosen to correct the problem. The Ultracept® Oil-Water Separation System, Figure number 8602-8645 is a simple, efficient way to remove free oil and solids from waste water without the use of filters and coalescing plates and can obtain discharge levels as low as 10 PPM, with simple maintenance.

The advantages of the Ultracept® Oil-Water Separator:

- The above ground installation makes occasional maintenance an easier process.
- Above ground application can be more convenient for normal work activities, which provides more job site flexibility.
- Provides high separation efficiency using the cohesive properties of water and a multi-stage separation process.

The patented design provides high separation efficiency using the cohesive properties of water and a multi-stage separation process. The waste water is collected in a surge pit which is then pumped to the unit. Clean water, which is pre-filled in the unit is the ingredient used as a carrier in a unique skimming process that has no moving parts. The skimmed oil and carrier water is then deposited in an off-line compartment. The carrier water is returned to the surge pit leaving only oil to be skimmed into a separate container.

The above ground installation makes occasional maintenance an easier process. When maintenance is required simply open the drain valve located on the rear of the unit that drains back to the surge pit, rinse with a hose then refill with clean water. This process only takes about ten minutes.



The Ultracept® Oil-Water Separator – Equipment Rental House, College Station, Texas

Job site flexibility is another situation where an above ground application can be more convenient for normal work activities. The plumbing of the surge pit to the unit can be

constructed in a way that places the separator in a location of your choice. This can be important in a situation where working space is minimal.

Other oil water separator designs such as below ground applications and coalescing plates can be difficult to maintain. Separating and storing oil below ground is a disadvantage with owner liability for leaky underground tanks and contaminated soil. Coalescing plates can clog quickly when used in situations that have high suspended solids mixed with oil and grease such as wash down stations.

Weighing the advantages and disadvantages of a variety of oil-water separators the branch manager of the power equipment rental house chose the Ultracept® Oil-Water Separation System based on low maintenance, discharge levels that pass city inspection, and minimum work interruption. Due to the success of this installation the branch manager and the Jay R. Smith Mfg. Co.® representative have worked together to come up with standardized units for other equipment rental facilities.

The patented Ultracept® Oil Water Separation System is accepted for use in the City of New York Department of Buildings MEA-350-96-E and also in the City of Los Angeles Department of Building Safety RR-55-49. The units are offered in stainless steel, fiberglass and mild, carbon steel both on and off trailers. They are available in flow rates of 2, 3, 5, 10, 25 and 45 gpm.

For more information on this or other Jay R. Smith Mfg. Co. products, or to contact your local representative, visit the www.jrsmith.com.