ABOVE GROUND OIL WATER SEPARATORS
150 GPM - 300 GPM

Problems Solved:

If you have solids present in your wastewater, you'll want to consider a Water Services oil/water separator. Some of the most unique wastewater problems we have solved at these flow rates can be traced back to our core design principles. Most industrial wastewater has sufficient solids to foul traditional coalescers quickly. Even a light loading of solids (50 mg/l) adds up quickly over time. A well-designed coalescer is one that will process solids down and out of the coalescer, keeping the plates clean and clear. When solids are present, there is a need to process the solids from the coalescer to reduce costly maintenance. Cheap plastic corrugated coalescers and Vertical Tube Coalescers are not designed well enough to meet the challenge of wastewater with any significant solids loading.

WSI has been asked by large Oil and Gas companies to solve their trickiest heavy solids wastewater applications. A good example of this is in the "De-Salting" step, a preliminary stage for the preparation of cude oil before it is sent to the distillation column for processing the crude into usable byproducts. The de-salting stage "cracks" the crude oil and removes the salts, water and other contaminants bound in the crude. The resultant underflow becomes the wastewater containing water with high concentrations of salt, oil and solids. The ***Multi-Pack™*** coalescer, with its cross-flow herring-bone design and unique integral ***Chimney Zone™*** settling areas, has proved its superiority by effectively treating this wastewater.

In the Electric Utility industry there are cases where the simple basement sump runs into a much higher level of sophistication. In instances where #6 oils must be kept heated, there are complex heat exchanger applications where steam heat is used to maintain high temperatures so the oil can remain fluid. The leaks experienced in these complex operations, when combined with the solids-rich surroundings, cause significant fowling issues in separators with cheaper, traditional coalescers. Water Services is the preferred choice of the Electric Utility industry when it comes to oil water separation, because it allows them to conistently meet effluent requirements with 1/3 to 1/4 the time required for maintenance (when compared to conventional coalescing-type separators).

Other Unique Applications Tackled:

- Balast water treatments for naval shipyards
- Aluminum smelting (component manufacturing)
- Large bus washing stations
- Military vehicle washing (multiple-bay flows)

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Multi-Pack Facts:

Cleaning Features -- One major advantage of the removable-plate ***Multi-Pack*™** design is the ease of cleaning. Although the separator can handle very high solids loading, with time oil-laden solids and sludge deposits will accumulate in the coalescer. The entire coalescer can be easily removed by the operator, visually inspected, and cleaned in minutes. Once cleaned, the coalescer is slipped back into position and is immediately ready to operate again. The easily removable design virtually eliminates the costs associated with the "confined space entry" regulations.

Chimney Zone*™** Feature -- The ***Multi-Pack design offers a separator collection chamber for both oil and solids. As solids fall off the top of the impingement plates (or as oil droplets coalesce and rise up and out of the coalescer plates) they enter a "zero velocity" baffled ***Chimney Zone***. Here large quiescent chambers allow quick and efficient settling of solids or rising of oil. Solids fall unhindered by turbulence, and oil droplets rise without the risk of re-emulsifying due to collisions with interfering solids. This unique feature enables the ***Multi-Pack*** to handle flow with extremely high solids loading, while maintaining excellent oil removal efficiency (typically 5-10 PPM free hydrocarbons *without* the use of maintenance-intensive secondary coalescers).

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