



## Oil Water Separation

**“Enprotec’s Oil Water Separators are well recognized throughout the world. Enprotec provides four products for oil water separation”**

- *Treatability studies*
- *Analysis*
- *Capital and operating cost preparation*
- *Design*
- *Build*
- *Complete skid mounted/modular treatment systems*
- *Installation*
- *Parts management*
- *Client satisfaction*

**Coalescers:** *Enprotec* oil coalescers contain special oleophilic media packs that attract oil and repel water. Coalescers reduce the space required for a standard API separation tank design providing significant capital cost reduction and less floor space requirements. Acidulated animal fats, immiscible solvents, hydrocarbon oil, surfactants, diesel fuel, gasoline, lube oils, etc. with relatively low total suspended solids can be separated in the coalescer. High temperature alkaline cleaners can be processed through the coalescer for free oil removal and reuse.

*Enprotec* coalescers offer the following features:

- Flows from 3 to 3,000 GPM
- Effluent quality to less than 10 mg/l free, non-emulsified oil remaining
- Removes oil droplets to 20 microns or less (droplet size limit of emulsion)
- Recovered oil typically less than 1% water
- Can handle up to 100% influent oil on a continuous basis
- Easily cleaned with bottom hoppers to allow solids to settle out of the media
- Special media available - corrugated PVC, vertical perforated polypropylene tubes
- Compact size, minimum floor space

**Air Flotation:** As an alternative to coalescers and a very effective alternative if the wastewater also includes suspended solids is the use of air flotation systems. *Enprotec* sells three different air flotation systems. After bench scale testing *Enprotec* can then recommend the most cost effective method of air flotation.

The three methods used for air flotation are:

- Dissolved Air flotation (DAF)
- Induced Air Flotation (IAF)
- Charged Air Flotation (CAF) **NEW!** This technology is a new *Enprotec* design that now allows for significant cost advantages and smaller footprint over the traditional air flotation technologies (see [www.enprotec-clow.com](http://www.enprotec-clow.com) dissolved air flotation). *Enprotec* now has over 10 CAF systems in operation.

**Ultra filters:** When emulsified oils are a problem *Enprotec* has designed its own Ultrafilter membrane technology to separate emulsified oils. (See [www.enprotec-clow.com](http://www.enprotec-clow.com) -membrane filtration.)

**R3f Water Polishing NEW!** For situations where there is a need to lower the non emulsified oil content to less than 10 mg/l, *Enprotec* suggests the use of the R3f technology which uses a fine glass bead or organo clay media to provide the polishing of the slightly oil contaminated wastewater.

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