

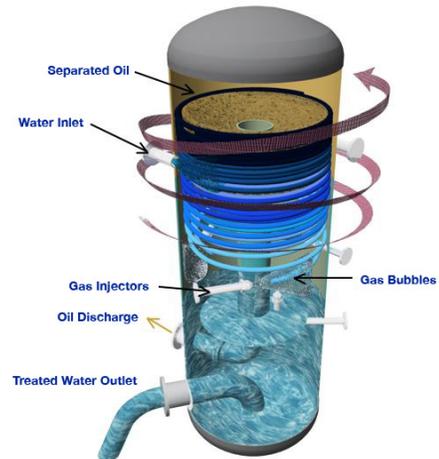
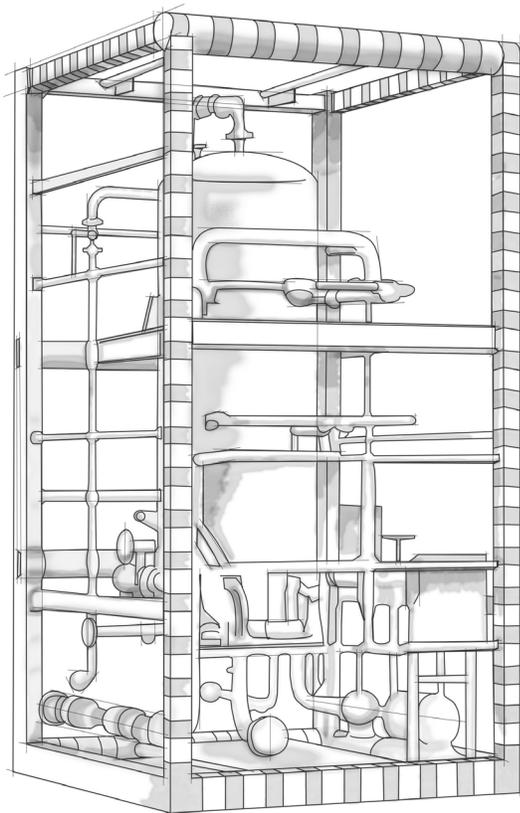


Water Treatment

CrudeSep®

Compact Floatation Technology

There are two Compact Floatation Unit (CFU) designs that complement CETCO's existing product range of water treatment technologies and have already achieved an outstanding global track record in both sales and performance – CrudeSep Induced Gas Floatation (IGF) unit and CrudeSep Dispersed Gas Floatation (DGF) unit. While both CrudeSep design modes of operation are different, the units are synergistic in series and may be installed as either standalone vessels or in series. The CrudeSep IGF is cyclic and excellent for solids removal; and the CrudeSep DGF is more effective removing small oil droplets. Both CrudeSep designs contain no moving parts within the vessels, which minimizes maintenance.



CrudeSep IGF is a compact floatation unit that enhances the oil separation process through induced gas floatation and cyclic motion. The unit's circulating movement ensures mixing and floatation to the surface and efficient solids removal. The CrudeSep IGF has two distinct working zones: the upper cyclic gas-oil contacting and coalescence zone; and the lower zone, which is used for gas disengagement prior to water discharge. The oil discharge is on a batch basis, which is achieved by a bucket and weir arrangement taken down the center of the vessel, via an oil accumulation riser with level control to a diaphragm pump.

IGF Applications

- Platforms and FPSOs
- Produced water polishing
- Early production
- Increase production
- 1,500 – 125,000 BPD per unit
- Removal of solids

IGF Benefits

- Ideal for solids removal
- No moving parts
- Small deck footprint
- Debottlenecking of processes
- Not affected by turndown

CrudeSep DGF is a multi-staged vessel that enhances oil water separation by injecting dispersed gas bubbles into the unit. Achieving optimum bubble size allows more oil droplet contacts and increases efficiency of smaller oil droplet floatation. The CrudeSep DGF achieves gas-oil coalescence by creating a multi-stage effect within the vessel to leverage the overall performance. Smaller gas bubbles and oil droplets may be pulled towards the base of the vessel by the downward flow of the water. Fluid dynamics are applied as most of these bubbles and gas droplets are recovered by the various internal stages, with the cycle continuing until oil droplets are large enough to rise to the top of the vessel where they are syphoned off.

DGF Applications

- Platforms and FPSOs
- Produced water polishing
- Increase production
- 1,500 – 125,000 BPD per unit

DGF Benefits

- Unrivaled DGF technology - smaller bubble and more uniform size promotes more efficient oil water separation
- Applied fluid dynamics
- Small deck footprint

