

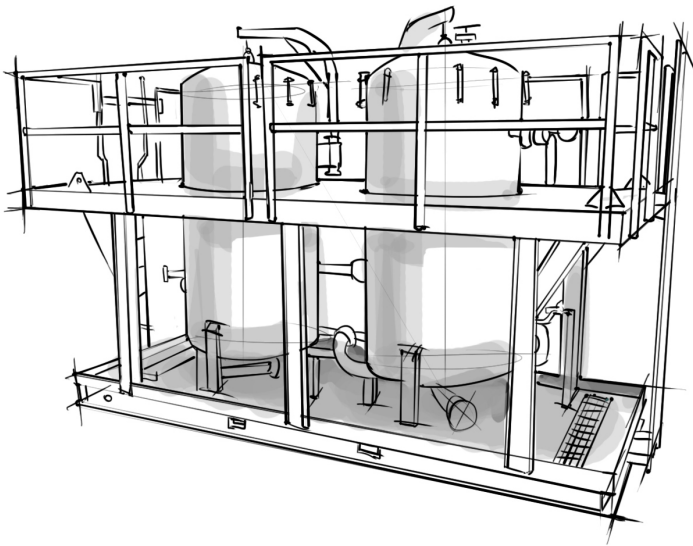


## Water Treatment

# CrudeSep<sup>®</sup> DGF

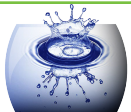
## Dispersed Gas Floatation

The CrudeSep DGF is a Compact Floatation Unit (CFU) for treating produced water to remove free oil. This unit is typically installed downstream from primary treatment through hydrocyclones or a CPI. The CrudeSep DGF 20 model is an ideal solution when the primary produced water treatment system is down for maintenance or when high water cuts require debottlenecking the produced water treatment system.



The CrudeSep DGF utilizes 5 - 10% of the treated water as a recycle stream to introduce the gas. The recycle stream is directed through a DGF pump, which pulls in gas and forces the gas into the liquid phase under pressure. This recycle stream is introduced into the feed stream at the bottom of the vessel, which delivers the fluid into the vessel in an upward direction allowing oil to move toward the top of the vessel.

As the combined streams come through the laminar diffuser, very fine gas bubbles are coming out of the super saturated recycle stream. When these micro bubbles come out of the solution, they create a surface for oil droplets to collect. When the small bubbles rise, they increase the rise rate of the small oil droplets. Some of these gas bubbles also attach to fine oil-wet solids and help them rise with the oil phase. As oil accumulates at the surface, it is recovered with excess gas. The clean water leaving the CFU may go overboard.



## Technical Specifications

<b>Equipment</b>	DGF Compact Floatation Unit
<b>Dimensions (L x W x H)</b>	16' x 6'6" x 11'6"
<b>Dry Weight (lbs.)</b>	18,000
<b>Operating Weight (lbs.)</b>	29,000
<b>Design Flow Rate (BPD)</b>	20,000
<b>Load per sq./ft. (lbs.)</b>	173
<b>DGF Pump (GPM)</b>	100
<b>DGF Pump Motor (HP)</b>	20
<b>Electric Motor</b>	60 Hertz/3 Phase/20 HP/460 Voltage

