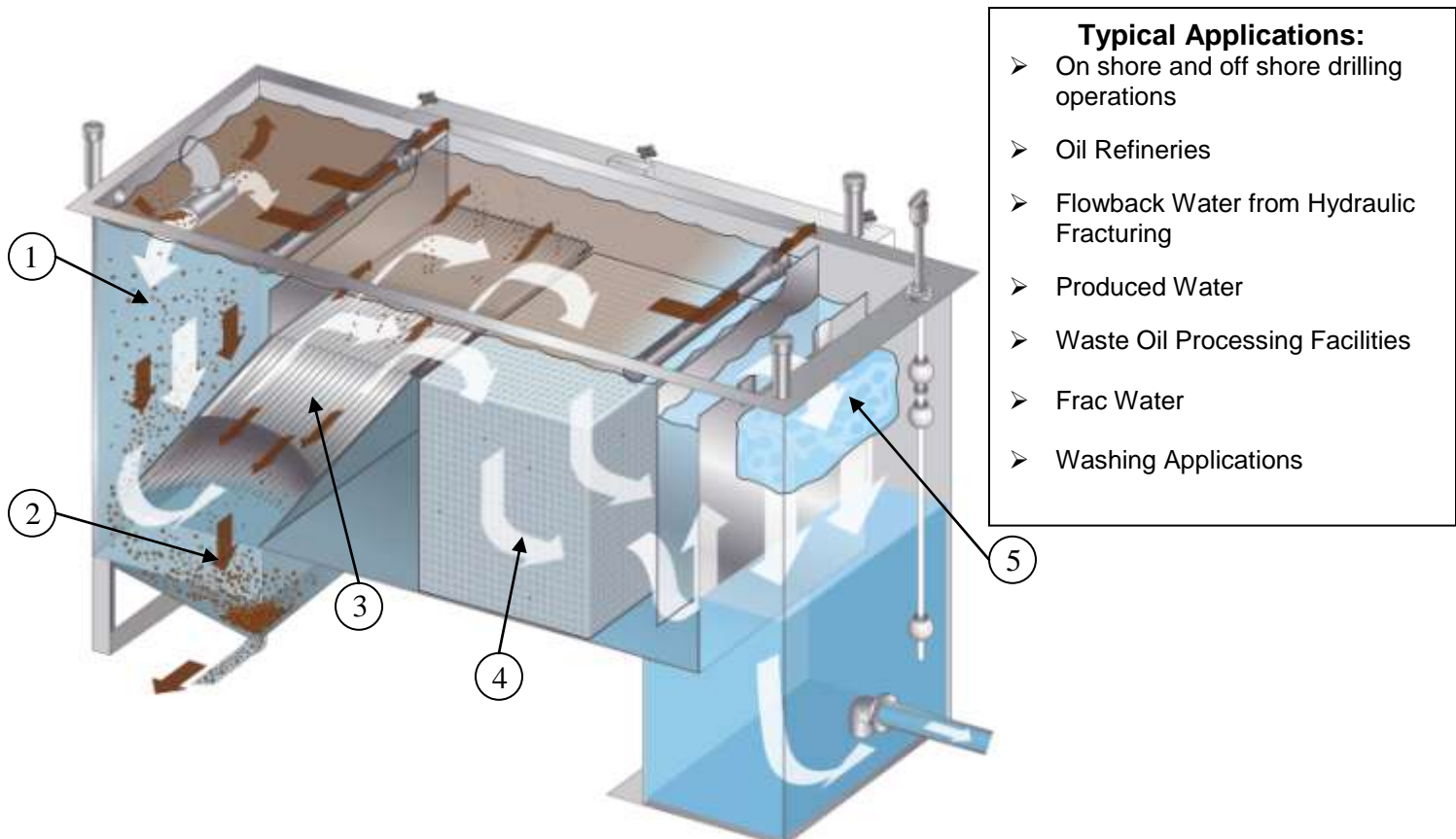


HQI Clarification Separator is a horizontal gravity flow treatment system designed to separate settleable solids (specific gravity greater than water), suspended solids (specific gravity the same as water), and free and dispersed (non-emulsified) oil. It is used as pre-treatment for reverse osmosis (RO), dissolved air flotation (DAF), electrocoagulation (EC) and many other filtration processes. It is recommended for any application that has a high concentration of suspended solids. A traditional oil water separator does not have the capability of handling high concentrations of solids. Unlike other separators, the HQI Clarification Separator has 5 stages of separation.



1. First, the free oil (150 micron in size or greater) is separated in the inlet quiescent zone. (Pipe skimmer provided to decant oil).
2. Second, the settleable solids will flow downward into the hopper section for removal.
3. Third, the suspended solids and dispersed oil will flow upward through the inclined plates section, where most of the suspended solids will slide down the plates into the hopper (based on a design of .25 gpm per square foot of projected plate surface area).
4. Fourth, the remaining suspended solids and dispersed oil will flow into the separation compartment where the coalescing plates will separate the oil 30 micron or greater to the surface for removal and the remaining suspended solids will be captured in the coalescing plates. The amount of solids in the plates will determine the frequency of plate cleaning. (Pipe skimmer for removal of separated oil).
5. Fifth, the flow of water will go over the overflow weir plate into the clean water compartment where absorption bags will prevent any carry over from being discharged.