

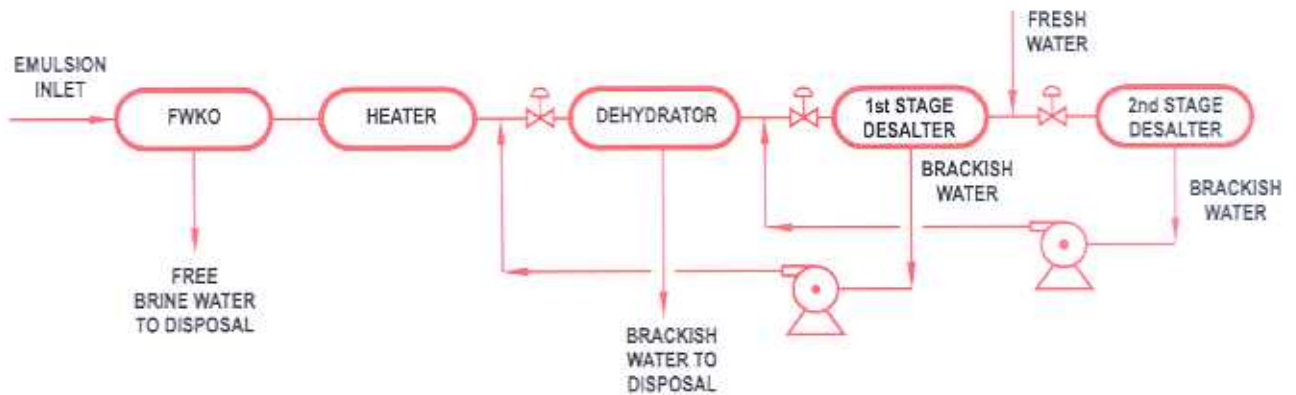
Crude Oil Desalters



BS&B's Crude Oil Desalters combine the proven efficiency of our Mechanical Treaters with the advanced technology of electrostatic fields



TYPICAL 2 STAGE DESALTING SYSTEM

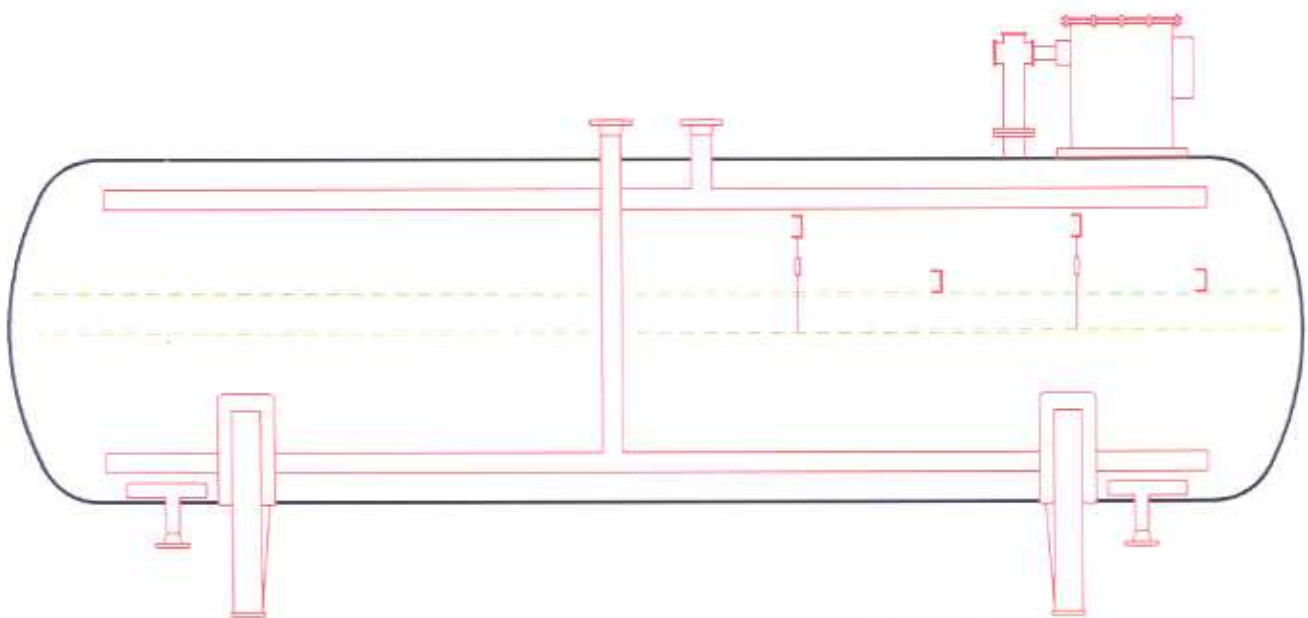


BS&B's Crude Oil Desalters are engineered to remove salt and other impurities from crude oil stocks which are ultimately charged to distillation equipment. These salts (chlorides of sodium, magnesium and calcium) normally are dissolved in the residual water contained in the crude oil. Typically salt concentrations range from 15,000 ppm to 300,000 ppm on a water basis.

In addition to the water and chlorides, all crude oils contain suspensions of varying amounts of solid materials, such as silt, iron oxides, sand, crystalline salt, carbon and sulfur. Since most of these suspended impurities will be carried in the water phase or on the surface of the dispersed water droplets, a great proportion of them will be removed during the desalting process.

The contaminants -salts, water and solids -if not removed from the crude can cause serious damage to pipelines and distillate equipment, limit "on-stream" time, and cause inefficient operation throughout the distillation unit. Some of the specific effects resulting from salts in crude:

- the salts are converted to hydrochloric acid which can cause severe corrosion in distillation towers and lines
- the salt acts as a catalyst for coke formation in furnace tubes and transfer inlet
- salts and solids are deposited in heat exchanger and furnace tubes causing plugging, reduced heat transfer rates in heat exchangers and "hot spots" in furnace tubes
- salts and solids, concentrated in the residuum of distillation towers, result in high ash content and degrade this product. Crude purchasers place limits on the amount of salt that can be in the crude they buy, normally expressed in pounds per thousand barrels of crude oil (PTB)



BS&B PRODUCES DESALTERS IN A WIDE RANGE OF SIZES TO MEET YOUR REQUIREMENTS