Corrugated Plate Interceptor (CPI) and Tilted Plate Interceptor (TPI) De-Oiling Systems

Applied Systems corrugated plate interceptor (CPI) and tilted plate interceptor (TPI) systems are utilized for waste water or oil field service where free oil and solids removal is required. Downstream flotation or filtration units will benefit from longer run times by oil and solids removal typically to less than 100 ppm effluent levels.

Systems can be custom engineered dependent on water quality, flow and pressure.

Contact Applied Systems for system selection, sizing or technical questions.

OPERATIONAL PROCESS

Oil solids laden water enters the system and passes through a corrugated or tilted plate pack. The plates in the pack are located in a way that, when combined with laminar flow, allows the oil to rise and the solids to fall in a much smaller separation distance as compared to standard two and three phase separators. De-oiled water exits through the outlet of the vessel and is transferred to downstream equipment. Oil is collected in a weir box for disposal or recovery while the solids accumulate in the bottom of the tank where they can be removed utilizing a positive displacement pump.

MATERIAL CONSTRUCTION

- Carbon steel
- Stainless steel
- Fiberglass reinforced plastic (FRP)

FEATURES

- Skid mounted system
- Sample cocks for water testing
- Viewports to verify operation levels
- 316 stainless steel non-lined wetted materials
- Class 1, Division 2, Group C or D area usage
- 316 stainless steel lateral assemblies
- ASME U stamp on carbon and stainless steel vessels
- Removable plate pack
- Fiberglass reinforced plastic (FRP) non-lined wetted components
- External polyurethane paint
- Internal epoxy coated on carbon and stainless steel units

OPTIONS

- Seismic and wind loads
- High pressure
- Corrosion allowance
- PLC controls
- Epoxy lined piping
- Solids removal pump
- Oil analyzer
- Instruments for level monitoring
- Distribution pumps
- Hetron or stainless plate packs for high corrosion and/or high temperature fluids