

Revolift CFU®

Secondary Produced Water Deoiling

Enerflex's Revolift CFU® (Compact Flotation Unit) targets outputs as low as 20 ppm in a much smaller footprint compared to typical induced gas flotation (IGF) systems. As produced water moves continuously through multiple chambers, microbubbles are introduced to lift small suspended oil particles to the surface where they are skimmed off. The combination of sequential removal and our patented Microbubble Flotation (MBF®) technology allows for a highly efficient removal of sheared oils. The system is purely hydraulic with no internal moving parts, giving continuous, trouble-free separation in a single vertical tank ranging in flowrates from 10,000 BWPD to 100,000 BWPD.

How It Works

The Revolift CFU uses hydrodynamics coupled with MBF to optimize oil-in-water (OIW) separation. The multi-chambered design has no internal moving parts and requires no mechanical adjustments. Produced water enters the vessel as microbubbles are introduced. The patented design eliminates short circuits and dead zones resulting in maximum utilization of the low retention time. Microbubbles lift the oil to the surface and it is skimmed off by overflowing an oil weir. The water then flows into the next chamber where more microbubbles are introduced, and more oil is separated. The process drives itself hydraulically through all chambers, and water exits the system achieving targets as low as 20 ppm.

Key Benefits

Cost Saving

- Designed for easy tie in and low installation cost
- Simplified design for lower CAPEX

Better Performance

- Multi-chambered design handles variable flows, pitch and roll, and upsets without performance impact or short-circuiting problems

Flexibility

- Ability to treat difficult fluids such as heavy oils, emulsions, and high viscosities
- Wide turndown range allows virtually any flow rate
- Reduce your risk with a turnkey installation, or we can simply provide design and microbubble equipment



Standard Features

- MBF technology via Onyx® Pump or Gas Liquid Reactor (GLR®)
- ASME vessel vertical tank design code
- Hydraulic skimming
- Piping, valves, and cabling between inlet and outlet of unit
- Instrumentation and controls for full automation with PLC based controls
- Complete process review

Materials of Construction

- Vessel: Internally coated Carbon Steel
- Piping: Internally coated Carbon Steel
- Instruments: 316 SS wetted parts
- Onyx Pump: Duplex SS
- GLR vessel: internally coated Carbon Steel or Duplex 2205

Standard Options

- Water characterization services
- Chemical selection and supply
- Ancillary equipment such as transfer pumps and chemical injection
- Computational fluid dynamics modeling
- Upgraded materials for vessel, pumps, valves, and piping (316SS, DSS, etc) to meet site requirements

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