

ACFU

Advanced Compact Flotation Unit

Robust dispersed oil and gas removal in a low footprint package

Delivering reliable and robust deoiling performance through flotation while maintaining a compact footprint demands a delicate balance of design features. The NOV ACFU enables high performance flotation to be deployed in compact environments, usually offshore. The system was originally designed to emulate our multistage horizontal flotation unit, but made compact due to the application of cyclonic flows within a vertical orientation. The unit is capable of functioning as both a deoiling and degassing unit, making it a perfect final step of treatment prior to water discharge or injection.

Benefits:

- True high-performance design
- Multistage processing performance available
- Robust design without small gas injection orifices or complex internals; proven to work heavily fouling conditions without problem
- Options can be provided to deliver 100% turndown coincident with elevated performance
- Bubble generation either via NOV's unique Inline Bubble Generator or using dedicated or shared motive water transfer/booster pumps
- Performance can be augmented with NOV's Mare's Tail® pre-coalescer technology
- Fully performance tested at our Flotta test centre and well described by our in-house modeling tools
- Operation can be augmented by our digital platforms incorporating our modelling and data analytics knowhow

Design specifications

Parameter	Value (per unit)
Operating ranges	30-900 m ³ /h
Maximum typical inlet OiW concentration (deoiling/polishing)	2000 ppmv / 50 ppmv
Typical outlet concentration (deoiling/polishing)	100-200 ppmv / 10-20 ppmv
Lowest achievable outlet concentration	<10 ppmv
Operating pressure range	0-90 barg (tested)
Reject rate	3-7% depending on application
Gas rate	5-10% typical
Associated products	NOV Inline Bubble Generator, NOV Mare's Tail® Coalescer