



Product Summary

The FourPhase Filter Unit is intended for use in offshore topside applications where solids could be present at surface from wellbore flow back. The Filter Unit efficiently removes solids upstream of the production system.

The Filter Unit deals with well stream problems arising from well flowback during interventions such as well clean-up, coiled tubing operations or snubbing. Once the collector chamber is full, the unit is isolated from the flow by means of multiple DBB valve, pressure is bled off and particles flushed. Meanwhile, flow continues through the other filter vessel. After flushing, the Filter Unit is re-pressurized and brought back into operation. All solids are flushed to a disposal container then transported to shore for disposal or re-injected with cuttings.

The design criteria for the Filter Unit is for a simple installation with minimum interruption, which is achieved using modest dimensions and easy connections. This means that as an independent unit, the Filter Unit is designed for easy adaptation to the loads and dimensions of existing systems.



- Ultra-compact unit with modest 2m x 2m footprint
- Separation of solids down to 5 microns
- Inline solids flushing ensures no interruption of flow
- Closed loop solids transportation system for no manual handling
- Online data logging system, erosion, flow, pressure & temperature monitoring Beta 5000 rated,
- Stops 99.98% of solids at the micron rating



Technical Specification

SI U.S.

Pressure

Working Pressure: 1-99 bar (1-1440 psi)

Design Pressure: 99 bar (1440 psi)

Capacity

Smallest particle size: 5 micron

Maximum flow rate (fluid): 2 300m³/day (10 bbl/min)

Maximum flow rate (gas): 100 000 Sm³/day (3.5 MMscf/day)

Maximum sand rate: 45 kg (100 lb/hrs)

Maximum pressure drop: 4 bar (58 psi)

Dimensions

Height: 1220 mm (4.0 ft)

Width: 2000 mm (6.6 ft)

Depth: 2000 mm (6.6 ft)

Weight: 3 629 kg (8 000 lb)

Filter pressure vessel: 0.2 m³ (1.3 bbl)

Solids holding capacity: 272 kg (660 lb)

Interfaces

Flowing piping: 3"

Flanges: 3" Techlok

Flanges flushing: 2" Camlok

Temperature

Min operating temp: -28 °C (-18,4 °F)

Max operating temp: +120 °C (+248 °F)

Certification

Pressure Vessel / PED

NACE MR0175-97

CE

Norsok Z-015

DNV GL 2.7-3 lifting equipment

Materials

Tank Pressure Vessel: Duplex, UNS S31803

Filters: Tungsten Carbide

Valves: Carbon, AISI 4130

Pipes: Super Duplex, UNS 32750

Frame: Carbon steel, NVE 36

Nuts, bolts: L7 + Standard galvanic 8.8

Seal rings: Viton / Duplex / 316L / 6MO

Notes