

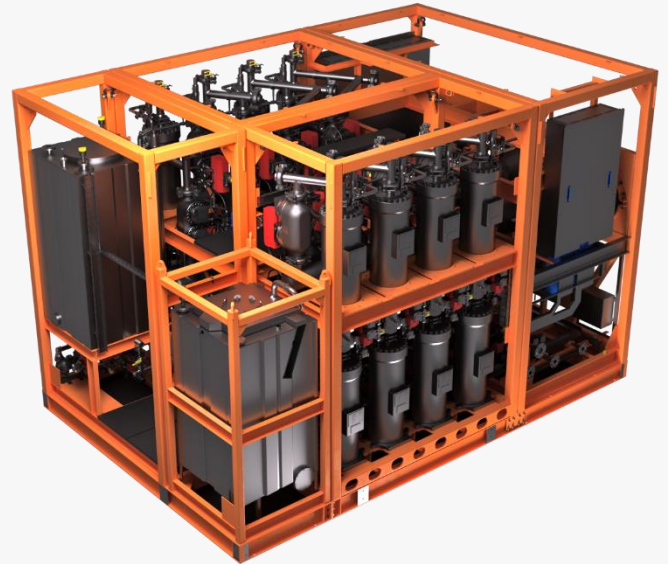


## Product Summary

The Bulk Desander offers a wide flow range to accommodate a variety of customer specifications. Specifically designed for high flow capacity, the Bulk Desander is primarily used in offshore surface applications during production from high-producing oil and gas wells.

With its modular design, the Bulk desander can be modified to accommodate a wide range of customer specifications. The desander is used to remove solids between 20µm to 10 mm from a liquid or gas medium. The Bulk Desander unit has multiple cyclones, which can be used simultaneously or separately depending on the production. The Bulk desander is primarily used in surface applications where solids might be present during production from high-producing wells or if multiple solids-producing wells are present on a field. 10K units are available upon request.

FourPhase delivered the first autonomous Bulk Desander in 2019 and it has been operational on an unmanned platform since the date of delivery. In principle, the separation of particles (such as sand, scale, chalk, proppant etc.) utilizes the centrifugal force that arises when a fluid stream is sent through a cyclone. The kinetic energy of the fluid stream is boosted inside the cyclonic vessels. Particle-free liquid moves to the top of the cyclones and is returned to the process or other applications.



### Market differentiating technology

- Fully automated enabling unmanned operation
- Highest proven solids separation efficiency of 99.8% in the market of solids down to 20 micron
- Online solids measurement and performance monitoring
- Compact 6.0 x 4.0 meter foot print
- Online sand weighing technology and precision – 0.1 kg accuracy
- Metal/metal sealing on flowback package – maintains system integrity
- Multi-well hook-up capability
- An automated interlock system is used to control all valves during vessel isolation

### Remote monitoring and real-time information

- Weight of solids removed
- Flow rate
- Pressure
- Temperature
- Asset integrity of desander system



## Technical Specification

SI

U.S.

### Pressure

**Operating Pressure:** 1-19 bar (1 – 2 900 psi)

**Design Pressure:** 200 bar (1 – 2 900 psi)

### Capacity

**Maximum flow rate (fluid):** 1 659 Sm<sup>3</sup>/d (10 435 bbl/d)

**Maximum flow rate (gas):** 1 753 073 Sm<sup>3</sup>/d (62 MMscf)

**Maximum sand rate:** 400 kg/hrs (882 lb/hrs)

**Pressure drop:** 1 – 10 bar (14.5 - 145 psi)

**Particle size for 99.8% efficiency:** 20 – 10 000 micron

### Dimensions

**Height:** 3970mm (13.0 ft)

**Width:** 6 000 mm (19.7 ft)

**Depth:** 4 000 mm (13.1 ft)

**Weight:** 38 300kg (84 500 lb)

### Interfaces

**Inlet/Outlet flanges:**

8GR72 SCH120 - 12IN 1500# RF

### Temperature

**Min operating temp:** -20 °C (-4 °F)

**Max operating temp:** +120 °C (+248 °F)

### Certification/Directive

**PED 97/23/EC NACE**

**MR0175-97 CE**

**Norsok Z-015**

**DNV GL 2.7-3**

**API 6A**

### Materials

**Pressure Vessel:** A928 UNS S31803

**Valves (flushing):** AISI 316

**Pipes:** Duplex, UNS S31803

**Frame:** EN 10210:2006

**Nuts, bolts:** L7 + Standard galvanic 8.8

### Notes