

Well Flow Management

Well Testing | Solids management system

Hybrid Solids Exclusion

Expro's Hybrid Solids Exclusion systems are the latest generation of sand control in well testing. Designed as Triple, Dual or Single lift modular packages the units can be easily configured in either Desander or Sand Filter mode for maximum operational flexibility in the recovery of solids from multi-phase well streams during well clean-up operations.

Depending on the required application, the units can be set up initially with either a Cyclone Insert or Sand Filter elements. Should prevailing well conditions change however, on site re-configuration of the vessel internals is simply and quickly achieved with no extensive modification required.

This flexibility within a modular, compact design concept enables packages of 15k, 10k and 5k working pressure for use offshore on rig and platform-based installations. Multi-skid and Single-skid designs are built in a fixed orientation so no 'up-righting' by crane is needed in the base or field.

Trailer mounting Expro's Hybrid systems also minimises rig-up / rig down times and third-party costs (e.g., cranes and transport) and the units can be configured as Upstream Desanders & Downstream Sand Filter packages in series.

Features and benefits

- Easily configured as Cyclonic or Filter operating units
- On site re-configuration of vessel internals is simply and quickly achieved
- Can be trailer mounted for increased flexibility, reducing transportation and rig up time/cost on land locations
- Available in 15k, 10k and 5k working pressures as Triple, Dual or Single lift systems
- Fixed unit orientation, removes the need for crane 'up-righting' at site/base

Applications

- Onshore and offshore well testing
- Clean-up and flow back operation



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Specifications			
Model	5K	10K	15K
Working pressure psi (bar)	5,000 (345)	10,000 (690)	15,000 (1034)
Gas flow rate (MMscfd/pod)	65 (GVF = 100)	130 (GVF = 100)	200 (GVF = 100)
Liquid flow rate (bpd/pod)	25,000 (GVF = 0)	25,000 (GVF = 0)	25,000 (GVF = 0)
Solids removal efficiency	> 10 microns (verified by OEM modelling)		
Accumulator volume (per pod)	200 litres		
Cyclonic internals	410SS/DSS/RBSC – 100mm to 300mm Insert Sizes		
Screen filter internals	316SS – 50µm to 600µm screen sizes		
Design codes	API 6A, ASME VIII DIV. 2, B31.3, NACE MR-0175		
Service	H2S (NL)		
Design temperature	-29°C to 180°C (-20°F to 356°F)		
Fluids inlet / outlet connection	3-1/8" API 5K ⁽¹⁾	3-1/16" API 10K ⁽¹⁾	3-1/16" API 15K ⁽¹⁾
Solids outlet connection	2-1/16" API 5K	2-1/16" API 10K	2-1/16" API 15K
Skid design	DNV 2.7-1 / DNV 2.7-3		
Skid dimensions	3.8m x 2.4m x 3.4m	3.8m x 2.4m x 3.4m	4.1m x 2.8m x 3.6m
Skid weight	20,000 kg ⁽²⁾	23,000 kg ⁽²⁾	31,500 kg ⁽²⁾

Other sizes, configurations and pressure ratings are available to meet most applications, for more information contact your local Expro representative or email welltesting@expro.com

1. Larger connections available for max flow rates.

2. Skid weights less than 10,000kg if modular design and cushion elbows selected.