

Wellhead desander

The wellhead desander is an innovative product from Expro which enables the recovery of sand product from multi-phase well streams during well clean-up operations.

The well fluids are routed from the wellhead to the cyclone liner located within the upper desander vessel. The fluids enter the conical cyclone liner tangential to the vessel. The resulting centrifugal force exerted on the spinning fluid pushes the denser phase (sand) to the wall of the liner. The clean well fluids at the core are forced up and out of the overflow line; the sand drops into the lower accumulator vessel due to gravity.

Once filled, the accumulator is isolated from the desander vessel and depressurised. The contents are pushed out using services water into a sieve tank arrangement. Whilst the accumulator is offline, sand will collect in the upper vessel. Therefore the well does not need to be shut in at any period of the clean-up programme. Upon completion of the flushing operation the two vessels can be equalised and the process of filling the accumulator continues



Features and benefits

High operating pressures allows the well stream to be produced directly to the unit without the need for choking the flow upstream

Dual isolation allows continuous operation without any downtime during well clean-up

Removable inserts enables ease of changing and gives flexibility for increased performance and also allows inspection of the insert for wear

Applications

Onshore and offshore well testing

Clean-up and flow back operation

Technical specifications

Type	4" 5K	4" 10K	3" 15K
Working pressure	5,000 psi (345 bar)	10,000 psi (690 bar)	15,000 psi (1,034 bar)
Temperature rating	-50°F to 250°F (-45°C to 120°C)	-50°F to 350°F (-45°C to 177°C)	-50°F to 350°F (-45°C to 177°C)
Solids capacities	Desander: 20 gal (75L) Accumulator: 80 gal (300L)	Desander: 20 gal (91L) Accumulator: 25 gal (113L)	Desander: 20 gal (91L) Accumulator: 50 gal (227L)
Inlet and outlet connections	Inlet 4-1/16" 5K API flg Outlet 4-1/16" 5K API flg	Inlet 4-1/16" 10K API flg Outlet 4-1/16" 10K API flg	Inlet 3-1/16" 15K API flg Outlet 3-1/16" 15K API flg
Weight	19,268 lbs (8,740 kg)	31,416 lbs (14,250 kg)	61,729 lbs (28,000 kg)
Dimensions h x l x w	20.3ft x 3.6ft x 8.2ft (6.2m x 1.1m x 2.5m)	20ft x 8ft x 9.5ft (6.06m x 2.43m x 2.87m)	27ft x 8.2ft x 13.3ft (8.25m x 2.50m x 4.05m)
Design code	ASME VIII Div 2 ANSI B31.3 NACE MR-01-75	ASME VIII Div 2 ANSI B31.3 NACE MR-01-75	ASME VIII Div 2 ANSI B31.3 NACE MR-01-75

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