SAND SEPARATOR

Production Testing Solutions

TETRA's Sand Separator removes produced solids from the well effluent. Depending on the well pressures and the working pressure of the vessel, the sand separator may be situated after, or before, the choke manifold in a production testing system layout. Typically, the well effluent exits the choke manifold, after a pressure drop at the choke, and enters the sand separator. At the inlet to the sand separator, the flow diverter causes the well effluent to flow tangential to the wall of the separator. The fluid spins about the wall of the separator creating a centrifugal force. Centrifugal force causes solids to separate because of the difference in the solids and well effluent density. Gravitational force causes the solids to drop to the bottom of the separator. On its flow path to the top outlet, the well effluent encounters strainers to eliminate residual solids, while exiting the top outlet. Accumulated solids are removed at desired intervals from the bottom drain outlet by controlled use of an adjustable choke. The vessel incorporates a relief valve and a rupture disk for overpressure protection.

Features/Benefits

- Prevents erosive sand and frac proppant material from damaging process and well control equipment
- Reduces wash-outs in piping, providing a safer operational and test environment
- Flushing of the lower pot can be done while equipment is in service

Applications

- Proppant removal from gas/condensate developments
- Well cleanup operations
- Well startup operations
- Increase production beyond
- Sand-free production rates

Technical Specifications

Working Pressure (Psi)	Inlet Size	Outlet Size	Vessel Size	Temp (°F)	Gas (MMSCF/D)	Dimensions (H x W x D)	Weight (lbs)
4,000	2"	2"	14"x 8'	0/130	15 / 6,000	*16' x 6'x 6'	9,000
5,000	4"	4"	18"x 8'	0/130	20 / 8,000	*16' x 6'x 6'	11,000
6,000	3"	3"	18" x 10'	0/130	30 / 8,000	*16' x 6'x 6'	13,000
6,000	3"	3"	24"x 8'	0/130	30 / 9,000	*16' x 8'x 8'	15,000

Note: All pressure vessels and tanks, including vertical sand separators below 6000 psi, are built to ASME Section VIII, Division 1, pressure vessel code.
All supporting piping systems are built to ASME B31.3 Power Piping, and if unit is NACE, MR0175.
Note: Alternative sizes and pressure ratings are available for sand separators.
* Height of Skid may vary (Dims).

To learn more about TETRA's production testing services, visit tetratec.com