

SAND SEPARATOR



Sand Separator

TETRA Production Services uses the sand separator to remove produced solids from the well effluent. The sand separator is situated after the choke manifold in a production testing equipment configuration.

The well effluent exits the choke manifold after a pressure drop at the choke and enters the sand separator. Immediately following the inlet to the sand separator, the flow diverter causes the well effluent to flow tangent 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 solids to drop to the bottom of the separator. Accumulated solids are removed at any desired intervals from the bottom outlet.

On its path to the top outlet, the well effluent encounters further strainers to eliminate residual solids traveling towards the top outlet.

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TECHNICAL SPECIFICATION

Working Pressures:	34.47 MPa (5,000 psi)
Working Temperature	93°C (200°F)
Safety Equipment:	
Over Pressure Safety Devices:	2.5 x 5 centimeter (1 x 2 inch)—34.47 MPa (5,000 psi) Relief Valve 2.5 x 5 centimeter (1 x 2 inch)—34.47 MPa (5,000 psi) Rupture Disc
Service:	H ₂ S
Standard:	NACE MR0175
Code:	ASME Section VIII Division 1
Connections:	
Inlet (Male):	8-centimeter (3-inch)—1502
Outlet (Male):	8-centimeter (3-inch)—1502
Drain (Male):	8-centimeter (3-inch)—1502
Dimensions (L x W x H):	1.8 x 1.8 x 5.5 meters (6 x 6 x 18 feet)
Weight:	9,072 kilograms (20,000 pounds)