

SCREEN VORTEX DESANDER

The Screen Vortex Desander is designed specifically for wells where high lifting costs are a result of sand problems.

The OSI Vortex Sand Shield technology, which employs centrifugal force to achieve maximum separation efficiency, can be combined with the OSI Tubing Screen or the OSI Super Perf to achieve two-stage sand separation. This system has been successfully proven in multiple installations worldwide.

The Screen Vortex Desander is a versatile system that can be combined with other OSI tools solids control and gas separation to greatly improve the performance of artificial lift systems.

BENEFITS

- Lower lifting costs, reduces downtime and greater operating efficiency.
- Reduced pump failures resulting from sand damage.
- Two-stage sand separation.
- Centrifugal force greatly increases sand separation efficiency.

Use your device by scanning the QR code



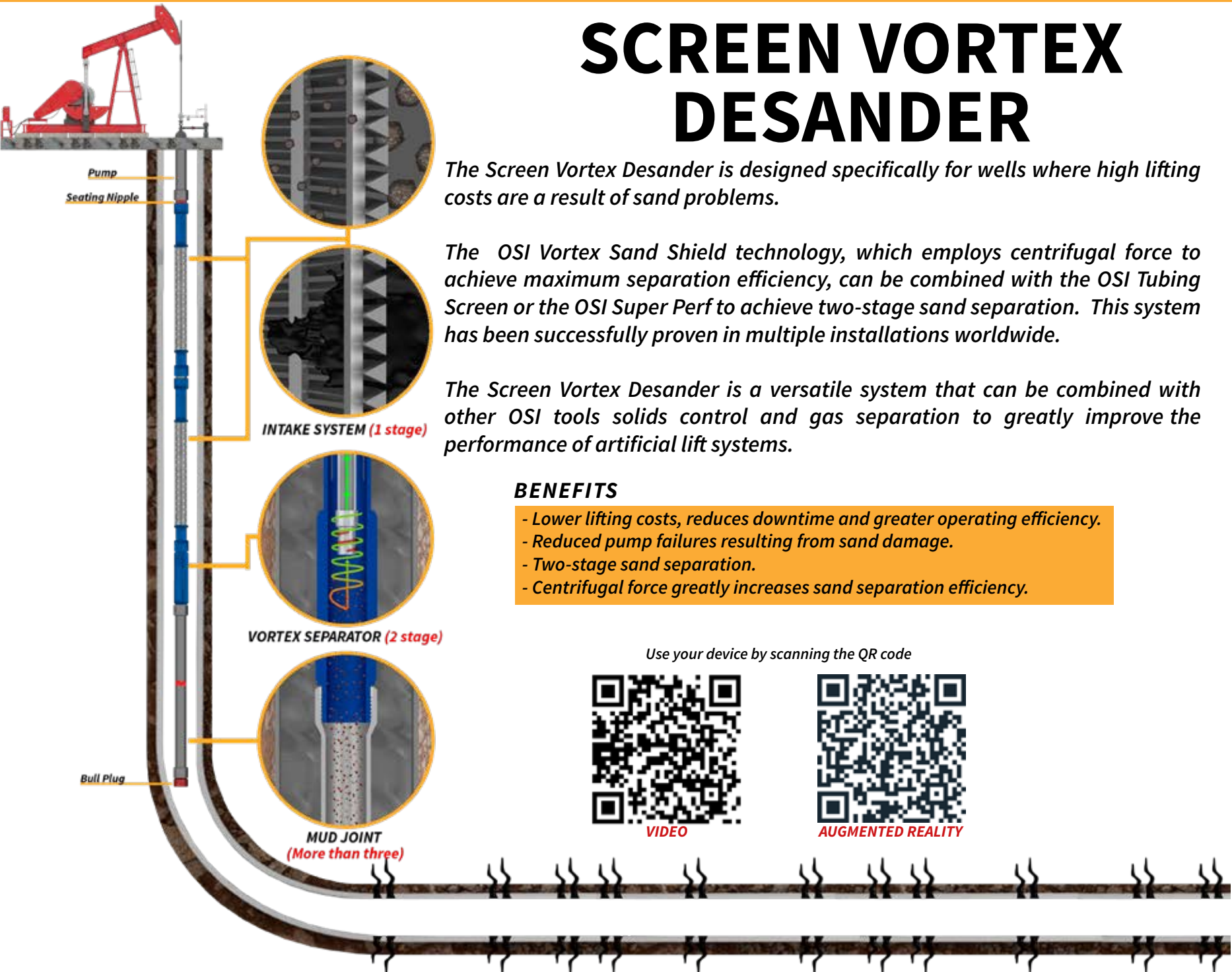
VIDEO



AUGMENTED REALITY

HOW IT WORKS

FLUID
SAND PARTICLES



The Screen Vortex Desander is made up of 4 components, they are: The sleeve, body, dip tube and vortex helix.

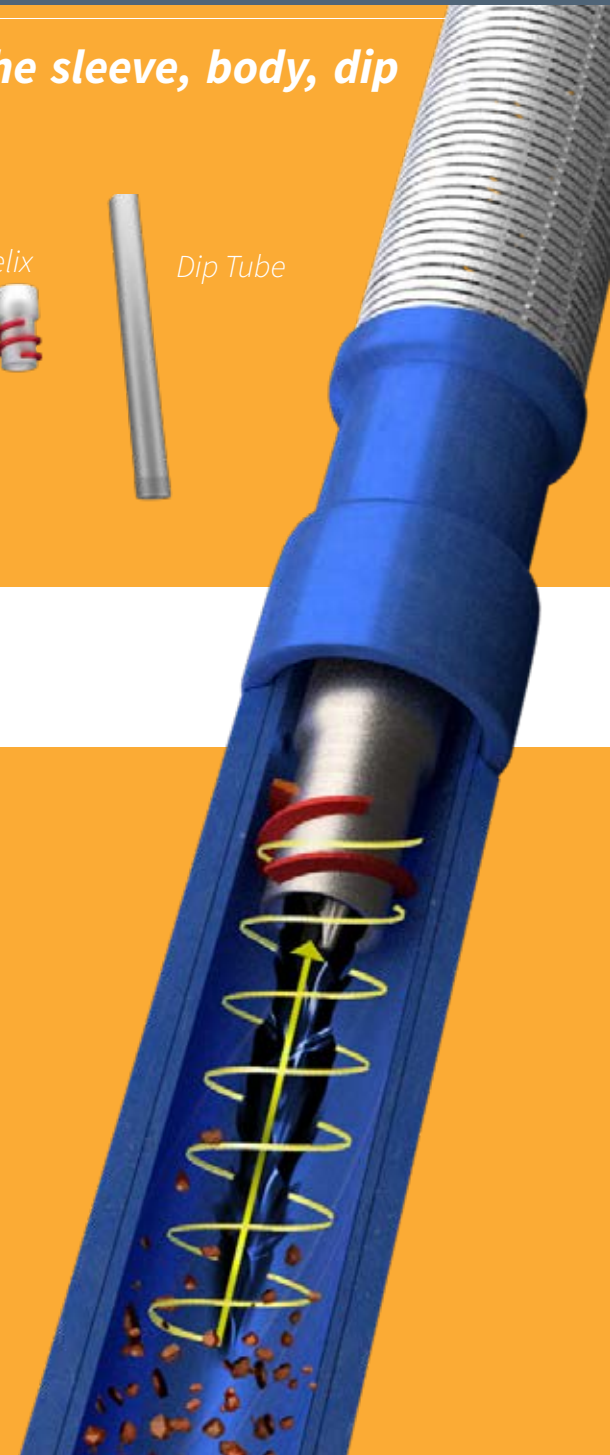
- 1. The Sleeve:** Is the outside portion of the tool, it is slotted to eliminate the possibility of dropping tubing in the event of severe sand cutting.
- 2. Body:** The inner portion of the tool, just inside the sleeve, that houses the components and directs solids downward into the tail pipe (mud joint); it is designed to allow long tool life by resisting sand cutting. The length of this section is 22 in.
- 3. Dip Tube:** The steel pipe connected to the helix that allows cleaned fluid to enter the production line and be produced up the tubing, while also assisting in the separation of gas.
- 4. Vortex Helix:** The inside portion of the tool, with spiral shaped fins, that directs fluid in a circular motion. This is called a vortex, and it separates solids by using centrifugal force to sling solids to the outside of the body.



VORTEX FLOW CHART

FLOW CHART (APPROX. US BFPD)		HELIX SIZES		
ROD PUMP		EUE TUBING SIZE		
MIN	MAX	2-3/8"	2-7/8"	3-1/2"
48	96	HE1.1	HE2.1	HE3.1
66	126	HE1.2	HE2.2	HE3.2
108	220	HE1.3	HE2.3	HE3.3
165	305	HE1.4	HE2.4	HE3.4
205	425	HE1.5	HE2.5	HE3.5
390	740	HE1.6	HE2.6	HE3.6
575	955	HE1.7	HE2.7	HE3.7
740	1400	HE1.8	HE2.8	HE3.8
1050	1950	HE1.9	HE2.9	HE3.9

Available
-2-3/8"
-2-7/8"
-3-1/2"

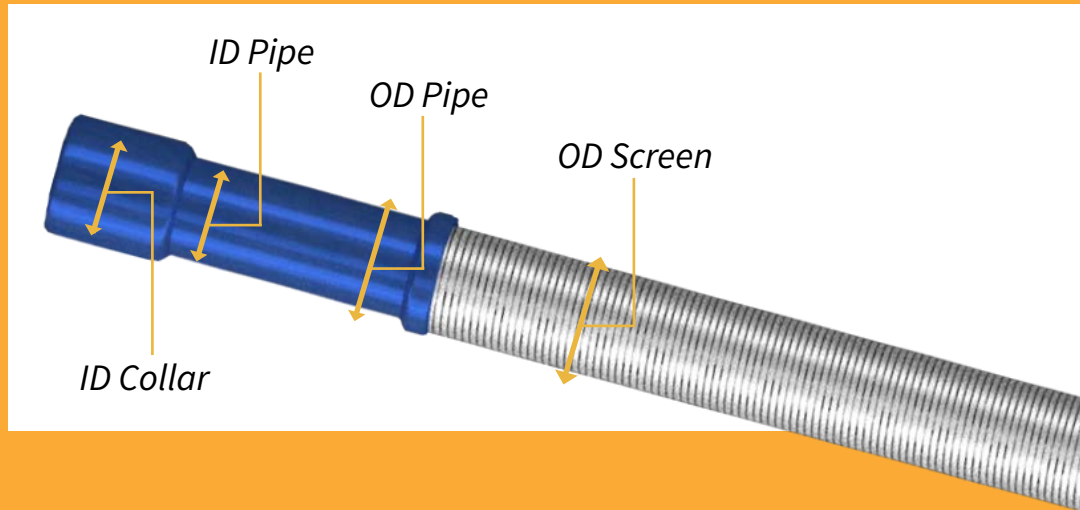


The Tubing Screen is manufactured in three nominal diameters:

2-3/8", 2-7/8", 3-1/2" and 2 lengths: 8' and 23.5'. Each one of these diameters and lengths could be designed with different slot sizes. The size and length of the system for sand management downhole is designed based on the production and mechanical conditions of each well.

23.5ft

Size	Slot	Open Area
2 3/8	8	176.0
2 7/8		207.3
3 1/2		242.4
2 3/8	10	216.2
2 7/8		253.2
3 1/2		253.9
2 3/8	12	254.4
2 7/8		298.7
3 1/2		349.3
2 3/8	15	308.9
2 7/8		362.8
3 1/2		424.2
2 3/8	20	393.2
2 7/8		461.8
3 1/2		539.9
2 3/8	50	772.4
2 7/8		907.0
3 1/2		1060.4
2 3/8	75	983.1
2 7/8		1154.4
3 1/2		1349.6



Technical Specifications

Size	Pipe (in)		Screen (in)	Collar (in)	
	OD	ID	OD	OD	ID
2-3/8"	2.375	1.941	2.87	3.063	2.375
2-7/8"	2.875	2.441	3.27	3.668	2.875
3-1/2"	3.5	3.066	3.94	4.5	3.5

Thread Connection

Size	Top Connection	Bottom Connection
2-3/8"	2-3/8" EUE box	2-3/8" EUE box
2-7/8"	2-7/8" EUE box	2-7/8" EUE box
3-1/2"	3-1/2" EUE box	3-1/2" EUE box