

SAND SHARK[®] EASILY TRANSPORTED



Process connection options include a full range of Hammer Unions, ASME B16.5 and API flanges and ASME B16.11 couplings (where pressure allows). In addition, integrated inlet and outlet piping, adapters, changeovers and studded blocks are also available to accommodate your particular piping needs. Configurations include Vertical for permanent installations, Bands allowing installation by OEM's of production packages, industry standard "L" Skid (Single or Double) or on a hydraulically actuated Trailer for easy transportation and reduced set-up cost at the job site.



Although NTPV's single unit is field tested and proven with minimal carryover and no known abnormal downstream equipment failures, customer request requiring maximum efficiency led NTPV to develop a dual unit in series (DU-S). Although the Sand Shark[®] can be arranged in parallel (DU-P) configuration, the Sand Shark[®] configured "in series" has far out performed field studies involving units arranged a parallel configuration. Operators and flow-back companies have both been documented as reporting that sand separators in the parallel configuration have 1) no way of identifying if there is a problem and which unit is causing the problem and 2) guaranteeing that the flow has been split evenly to each unit, both of which are eliminated with the Sand Shark[®] in a "series" configuration.



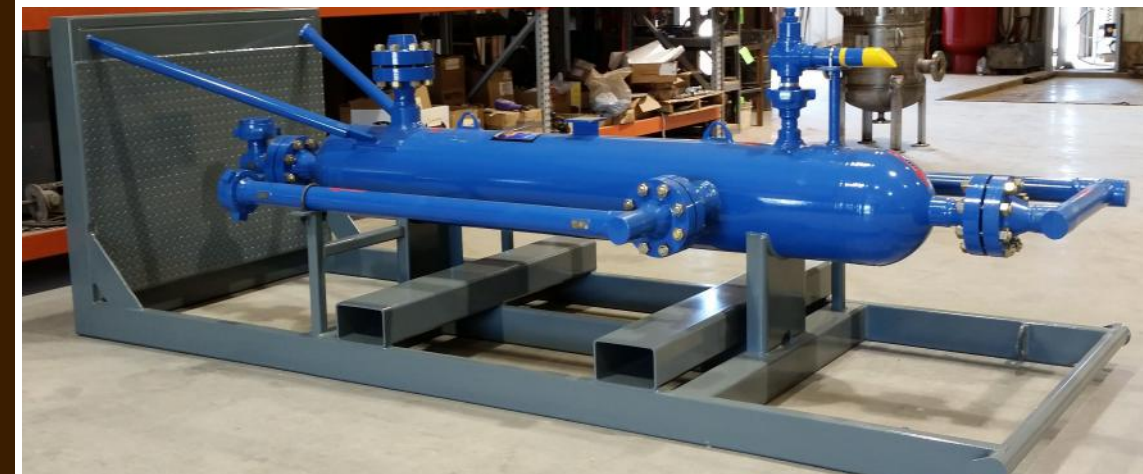
Call for more information on why you should STOP using a typical side in / top out sand separator with consumable mechanical stingers, impingement plates or cyclonic devices and start using NTPV's innovative and patented Sand Shark[®].

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NORTH TEXAS PRESSURE VESSELS INC.

PRESSURE VESSELS FOR THE OIL, NATURAL GAS AND INDUSTRIAL MARKETS

The Sand Shark[®] was developed and patented by three individuals with over 100 years of hands-on experience with down hole and production equipment. Their goal with the Sand Shark[®] was to develop a better way to eliminate sand contamination of downstream process equipment after a well has been hydraulically fractured than what was currently and historically available. The unique and patented Sand Shark[®] top in / side out design utilizes industry known principles of gas / liquid separation and retention time for solids removal without the use of consumable stingers, sacrificial plates or cyclonic devices historically prone to wear rendering the vessel un-usable over time if not removed from service and repaired. The Sand Shark[®] is offered in a multitude of sizes and configurations with options to fit the needs of flow-back operators and producers alike. Since the introduction of the Sand Shark[®] in 2009, there have been over 800 units produced and of the customers surveyed, the craftsmanship and performance is un-matched in the industry.



The unique design of the Sand Shark[®] allows for immediate separation of gases from the fluid(s) and particulate(s) through a reduction in velocity of the fluid(s) and particulate(s). The patented Sand Shark[®] does NOT use any type mechanical stingers, impingement plates, cyclonic or similar devices to initiate separation between the particulate(s), fluid(s) and gas produced by the well. These mechanical devices are (1) prone to unnecessary fractionation of the sand resulting in failure of downstream equipment and (2) eventual wear, resulting in costly repairs or abandonment of the unit.

NTPV's obligation to customer satisfaction is supported by our commitment to communicate with our customers and encourage any and all feedback. 100% of our customers tell us that the Sand Shark[®] works as promised and 98% have reported that the Sand Shark[®] is the best sand separator they have ever used, far outperforming typical side-in/top out sand separators utilizing mechanical stingers, impingement plates, cyclonic or similar devices operating simultaneously on the same pad.



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All Sand Shark[®] vessels are designed with NACE compliant materials and manufactured with ASME and NACE certified WPS as well as certified WPS for ASME to Non-ASME high yield hammer unions and API Flanges. CRN's available on some models.

ASME Sec. VIII Div. 1 and Non-Code repair capabilities available to fit your specific needs.

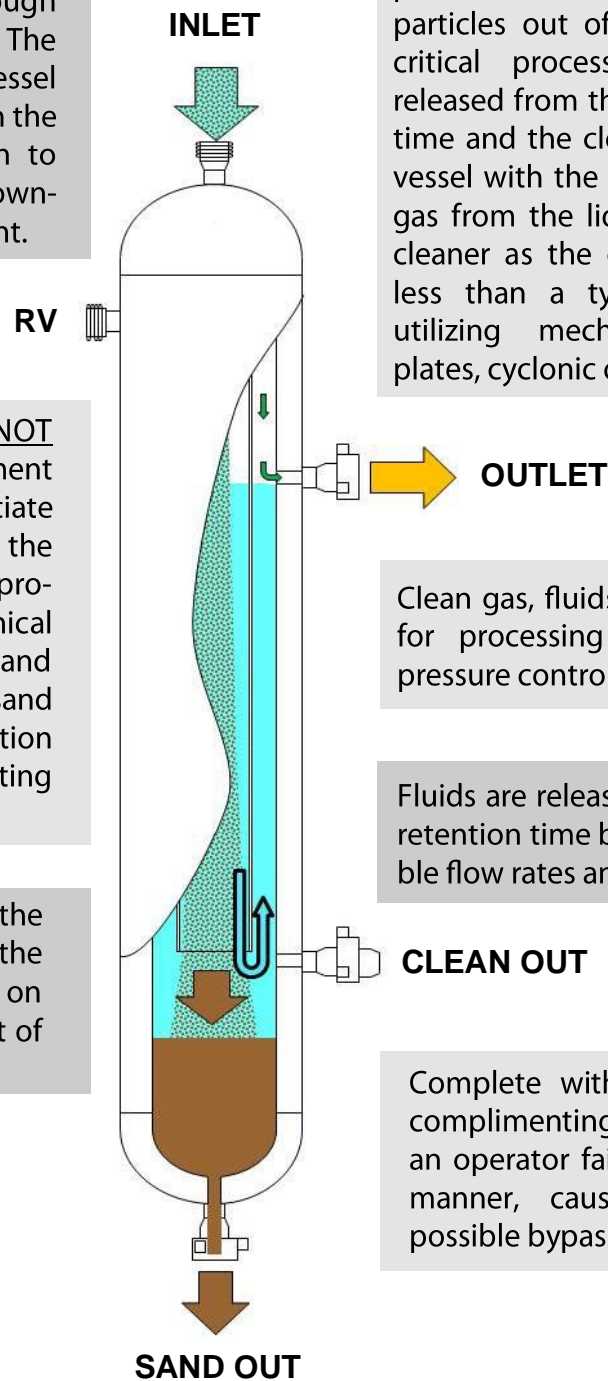
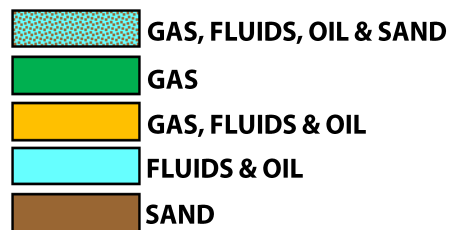


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The unique design of the [Sand Shark®](#) allows for immediate separation of gases from the fluids and sand through a calculated change in velocity. The gases escape to the top of the vessel which eliminates aeration between the gases and fluids which is known to carry sand out of the vessel and downstream to critical process equipment.

The patented [Sand Shark®](#) does **NOT** use mechanical stingers, impingement plates or cyclonic devices to initiate separation between the sand and the remaining fluids and / or gases produced by the well. These mechanical devices are (1) prone to increased and unnecessary fractionation of the sand resulting in down stream production problems and (2) often wear, resulting in costly repairs.

Sand trapped in the bottom of the vessel should be dumped by the operator at intervals dependent on the particular rate of sand flow out of the well.



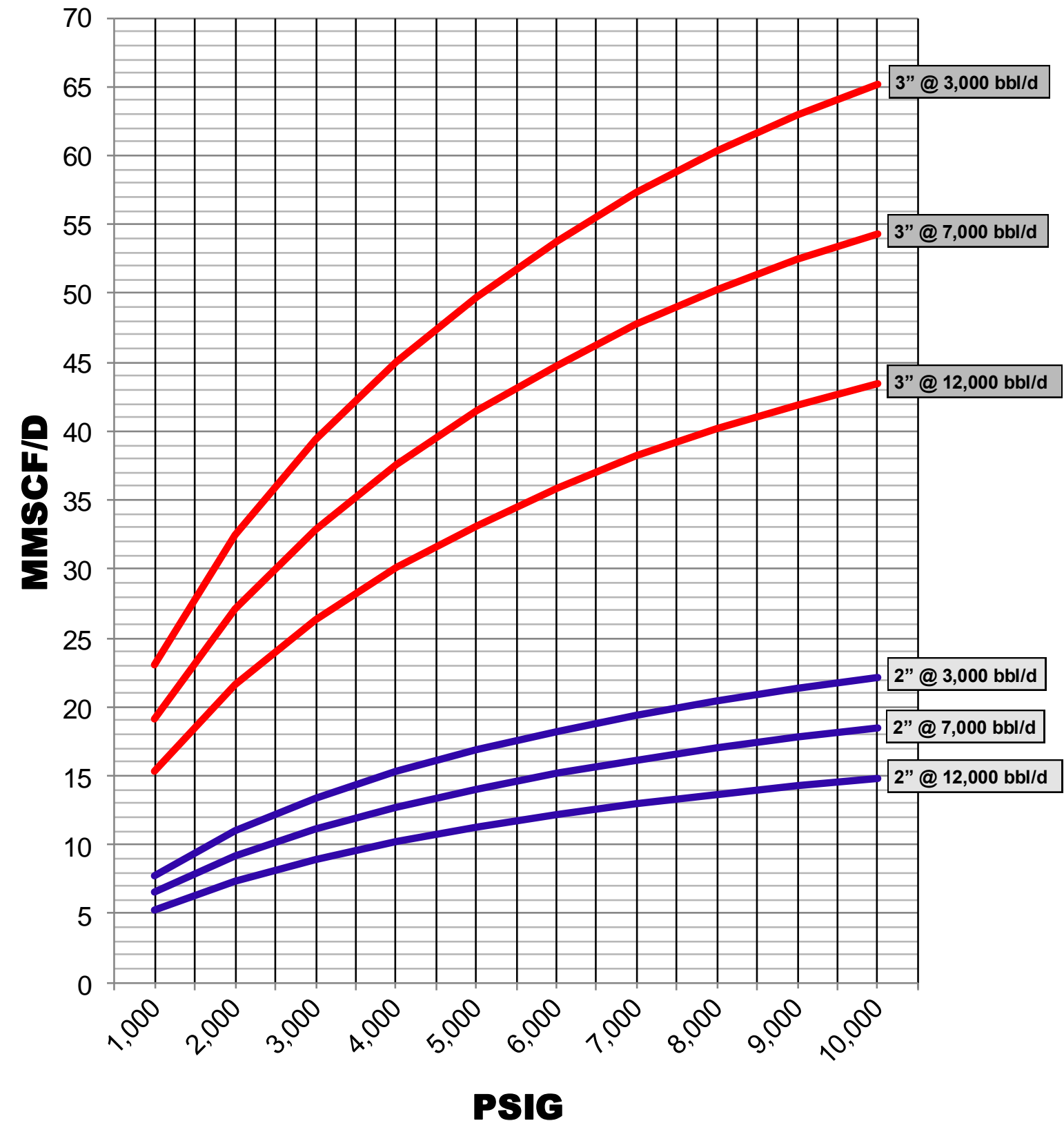
Gas escapes to the top of the vessel which eliminates aeration between the gas, fluids and particulates which is known to carry entrained particles out of the vessel and downstream to critical process equipment. Particulates are released from the fluids by a calculated retention time and the clean fluids are allowed to exit the vessel with the gas. The [Sand Shark®](#) separates the gas from the liquids and particulates faster and cleaner as the distance of travel is significantly less than a typical side-in / top-out design utilizing mechanical stingers, impingement plates, cyclonic or similar devices.

Clean gas, fluids and oil exit the vessel together for processing downstream by conventional pressure control and production equipment.

Fluids are released from the sand by a calculated retention time based on the upper limits of possible flow rates and exit the vessel with the gases.

Complete with a clean out connection with complimenting blind / blanking cap in the event an operator fails to dump the sand in a timely manner, causing unwanted blockage and possible bypass of sand downstream.

SAND SHARK® FLOW CAPACITY



Sizes ranging from 16" to 30"
 ASME pressure ranging from 1,480 to 10,000 psi / Non-Code pressure ranging up to 15,000 psi
 CRN's available for some models
 In and Out up to 3" with Threaded couplings (up to 1480 psi), 1502 Hammer Unions or ASME OR API Flanges.
 Line piping, studded blocks, changeovers and relief valves in stock and available upon request.
 Configurations to meet your specific site and / or job requirements.