

Triton® White Paper

Triton Liquid Ring Vacuums for Drill Waste Management

Triton Vacuum Systems are widely used on oil & gas rigs. This paper explores one concept that makes use of some of the unique properties of Triton equipment. The proprietary Triton Liquid Ring Waste Management System is designed to be a single vacuum source to handle oil rig requirements for both picking up drilling fluids as well as for collecting drill cuttings. The system consists of three main components: the Triton Liquid Ring Vacuum equipped with “Blowdown” Technology; separate Collection Vessels for liquids and solids; and a unique Triton Manifold. Through the Manifold, the Triton System pulls drill cuttings from the shaker screens into vacuum boxes or cuttings boxes for haul-off and disposal. A vacuum box is an air-tight container that is available with a dump door on one end. When one box is filled, the Triton Manifold allows the operator to switch to the other box “on the fly”...no downtime. The hoses are removed from the filled box, it is winched onto a truck and removed, and an empty box put in its place. When it is necessary to clean drilling mud from the rig floor or cellar, valves on the Manifold are closed and opened, and the fluids are pulled either into the vac box with the cuttings, or optionally into a Triton Collection Tank, where they later can be pressured off using the “Blowdown” option back to the mud pit or other reclaim area.



- No more messy activities with cuttings....”Just Say No To Trackhoes!”
- A single, robust vacuum system to handle both fluids and cuttings
- The possibility for fluids to be recycled right on rig, instead of being sent out with disposed cuttings
- The Liquid Ring System operates at much lower temperatures – 160°F max – vs rotary vane pumps or blowers; is very robust; is non-sparking; and is available for Class 1 Division I hazardous areas. In the electric system, operating noise is <85 dB
- The manifold allows connection to multiple vacuum boxes, so no downtime occurs while changing out a full box

See the attached drawing that illustrates this concept. Whether this works for your situation or not, we are happy to discuss your particular application. Give us a call or email us!

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