

Bulk Storage and Transfer Equipment System

Custom solutions for barite, bentonite, and cement handling

APPLICATIONS

Land and offshore drilling operations

ADVANTAGES

- Custom engineering enables operators to meet production requirements
- Aeration panels in cone and base to ensure optimal flow and emptying of tanks
- Remote, real-time monitoring and control capabilities for repetitive tasks

FEATURES

- Full instrumentation package
- ASME approved
- ABS/DNV certification

The bulk storage and transfer system is a complete solution for bulk barite, bentonite, and cement handling. Each system is custom engineered to meet your production requirements and offers efficiency-enhancing options, such as full instrumentation packages, remote valves, product automation, and remote system control capabilities. Design considerations include tank and piping design, bulk transfer capacity, and causes of pressure drop within the system.

Bulk storage vessels

These vessels have a cone-shaped base design that reduces powder buildup as well as associated wastage and maintenance costs. Tank volume, pressure, and level data is displayed on a remote operator console in real time. Aeration panels in the cone and base ensure optimal flow during the pressurization and discharge process. The three-legged design provides optimal stability in all weather conditions. Our bulk storage vessels are available in either full remote or partial remote-operated systems. The pressure vessel is ASME approved.



Bulk storage tank

The surge storage tank is used to store and deliver dosage into the mud mix system. Its self-supporting type installation maximizes available space and eliminates the need for support brackets. Interface with the mud control system enables remote monitoring from the operator control room. Tank volume, pressure, and level data is displayed on a remote operator console in real time. A rotary vane-type vertical cell feeder is installed at the discharge point. Controlled with a variable frequency drive (VFD) motor, the tank offers an accurate dosing rate. Manually operated butterfly valves seal off the outlet when feeding is not taking place. Pressure vessel design is ASME approved.



Dust handling system

The dust handling system prevents dust pollution and reduces waste costs. It is used to reduce dust pollution in the operator area. The system includes a highly effective cyclone-type separator, a dust collector tank, a manometer for local monitoring of tank pressure during storage operations, and no moving parts. In addition to quick and easy emptying of the dual collector tank, level switches generate an alarm when the tank needs to be emptied. Remote operation takes place from the operator station.

Bulk system accessories

Bulk system accessories include a sampling station, rock catcher, and delta or V-bend for bulk piping. A cement discharge valve optimizes the fluidization process within the silo tank. This provides a high level of precision, easier control, and better results during bulk cement transfer. It is an electrically actuated control valve with a long life and requiring low maintenance.