



Drilling Bead Recovery
Solid Lubricant Separation



Basic Description

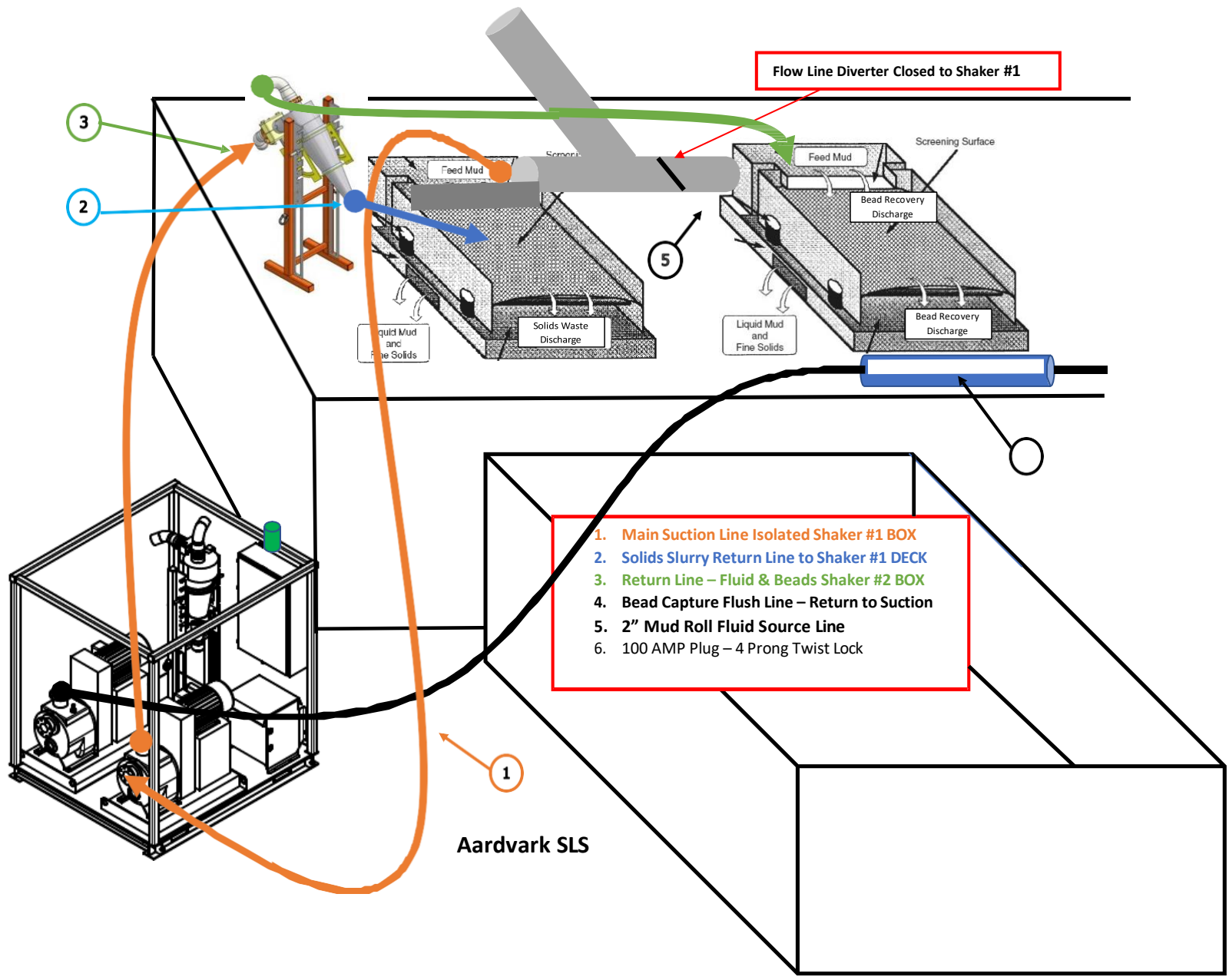
- Real Time Processing “**BEFORE**” solids control takes place
- Utilizes existing rig equipment (shakers)
- OBM, WBM, Brines
- Fasy Setup and teardown
- Automated Fluid Control & Pumping Systems
- Intelligent Variable Speed Performance Control
- Operational/Fault Indicating Lights
- Default Spill Control & Automated Safety Controls
- Small Operational Footprint
- Fast Setup & Teardown – Component Placement System
- Ease of Use ON/OFF Simplicity
- Small Footprint



How it works

- Lubricating beads are added to the system at suction compartment and pumped down hole.
- The flowline volume to header box is isolated, before entering onto shaker beds.
- Full volume of drilling fluid is captured and is sent to the hydrocyclone(s) for processing.
- The different densities of the lubricating beads and drilled solids allow them to be separated by the hydrocyclone(s).
- The "overflow" retains the beads along with the "clean" fluid which is then returned to to a single shaker to remove the lubricating beads.
- The lubricating beads are then collected off the end of the shaker into a small tank where they are slurried and pumped back to the suction compartment where they are then sent back downhole.
- The "underflow" stream retains the drill cuttings down to approximately 40 microns.
- The "underflow" of mixed solids and fluid is returned directly onto the other shakers for solids removal and fluid collection back to the active system.
- With this system all fluids are processed normally by the shakers and subsequent solids control equipment.

SLS Basic Setup



Isolated Suction & Volume Control

- Flowline header box is isolated and not allowed to flow onto shaker.
- Float probes are utilized for communication & level control between rig pumps and bead recovery pumps.
- Suction inlets are inserted below fluid level.
- Gas detection devices are unaffected.



Control Panel



Hydrocyclone Stand

Bead Return Tank



In Action

First part of video is of the shaker separating beads/fluid after processing by the hydrocyclone. The second shaker is with the beads removed and the remaining drilling fluid passing over the shaker for drilled solids removal.



In Action

Recovered beads sent to be slurried, pumped to the suction compartment and reused in active system

