

PBL – Applications:

Horizontal, Directional and Extended Reach Drilling

- Ability to clean cutting bed buildup at critical angles in the well
- Reduces excessive torque and drag.
- Tool can be activated while tripping in the hole to circulate and condition fluids while bypassing the motor and bit
- Reduced ECD's while increasing the flow rates for higher AV

Fixed Cutters, Bi-Centered Bits, Reamers

- By having the PBL tool activated while running in the hole it is possible to break circulation without having flow pass through the lower section of the BHA which also:
- Minimizes potential for casing damage
- Minimizes BHA & bit damage
- Prevents the premature activation of reamers and fixed cutter tools.

Milling Applications

- Removal of large metal shavings from wellbore during window and sectional milling
- Tool can be activated while running in the hole to minimize mill clogging

Coring Applications

- When core samples are collected, circulation can be maintained through the PBL tool allowing the samples to be retrieved with minimal disturbance

Tripping Dry Pipe

- The exclusive autolock feature of the PBL allows the tool to be locked open leaving one port open when tripping out of the hole, allowing for the drillstring to be drained, thereby minimizing fluid loss at the surface which lowers overall mud costs
- Reduces trip time
- Reduces impact to the environment
- Minimizes safety hazards when working on rig floor

Fluid Displacement

- Able to change mud properties more efficiently
- Breaking over mud systems
- Able to displace spotting fluids to aid in stuck pipe scenarios
- to pressure drop when ports are open
- Running in the hole with the PBL Autolock activated will eliminate costly time filling the pipe

Lost Circulation

- Pump large concentrations of LCM
- Pump rates are not limited to those recommended by MWD and motor manufacturers
- Prevents plugging of bits, motors and MWD tools
- Eliminates multiple trips in and out of hole to spot high-viscous LCM pills
- Able to spot several pills in one run due to multi-activation capability
- Able to maintain designed nozzle size on bits to maximize ROP