Boart Longyear’s rotary division maintains a large operating fleet of rotary rigs throughout the world. As a leader in innovation, we continually develop and perfect unique drilling methods to meet all your drilling needs.

Count on Boart Longyear to provide:
- Professionally trained crews with in-depth experience and safety training.
- A diverse fleet of rotary rigs with significant safety features and superior flexibility and productivity.
- Adaptability for changing projects, environments, and ground conditions.
- Exceptional, consistent, and reliable service.
- Global service and supply facilities.

As a full-service rotary drilling provider, we offer rotary drilling for:
- Freeze Holes
- Paste Holes
- Mineral Exploration (5 inches to 6 ¾ inches with depths up to 5,000 feet)
- Water Test Holes/Monitor Wells (rate of penetration, samples for the evaluation of fractures, and injection tests if required)

**ROTARY DRILLING METHODS**

**DIRECTIONAL DRILLING**

Boart Longyear is a full-service directional drilling provider. Our extensive technical experience and directional capabilities can be used to drill paste holes and methane vent wells, pre-collar for raise bores and water wells, and on occasion for mineral exploration.

**SELF-CONTAINED DRILLING FLUIDS**

Boart Longyear is the only provider that uses a self-contained drilling fluids system where, as the drilling fluids return to the surface, they are collected in a tank where the cuttings settle and the drilling fluid is then reused in the drilling process. Self-contained drilling fluids tanks ensure proper mixture and maintenance of drilling fluids and save money by eliminating the need for a pit. Not needing a pit for drilling fluids reduces the drill pad size, may require fewer disturbance permits, and eliminates the need to back fill a pit.

**AIR HAMMER DRILLING**

Air hammer drilling forces compressed air through the drill pipe to drive an air hammer bit at the bottom of the borehole. The pneumatic bit rapidly strikes the rock, pulverizing it. Air drilling doesn’t seal off the borehole, which allows for higher producing aquifers than mud rotary.

**DUAL ROTARY**

Dual Rotary maintains borehole stability by advancing an outer casing, which allows advancement in the most challenging ground conditions where other overburden drilling systems are unsuccessful. Once the casing is in place, well installation can be accomplished in a controlled environment.

**DUAL TUBE FLOODED REVERSE**

This unique drilling process uses dual wall drill pipe and drilling fluid along with the injection of air in order to drill large diameter holes. Using Dual Tube Flooded Reverse (DTFR), fluids always circulate inside the dual tube pipe and can’t escape into the formations. Instead of maintaining fluids at the surface and circulating throughout the wellbore, DTFR generally drills with the borehole fluids at their naturally occurring level.

**REVERSE CIRCULATION**

This method of drilling utilizes a dual tube drill string. Drill fluid or air flows down the inner annulus of the drill string, collects cuttings at the bit face, and travels back up the center of the string. If using fluid instead of air, the fluid is collected on the surface where it is filtered and recirculated in the drilling process.

To learn more, contact one of our rotary drilling experts at info@boartlongyear.com or visit www.BoartLongyear.com/ Rotary-Drilling.