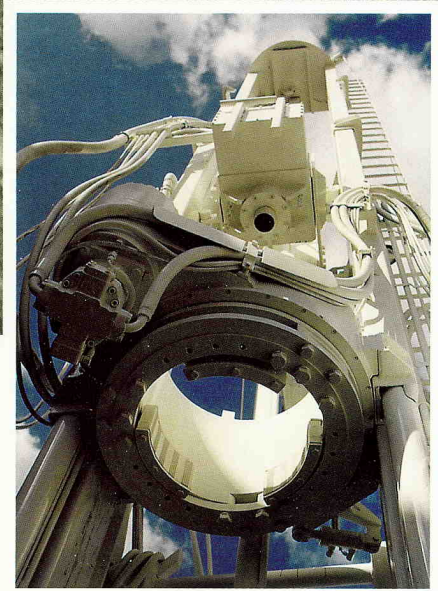


Foremost Dual Rotary drill in mine de-watering application: Note how the casing can be rotated so that the welder is always comfortably situated, never having to climb in behind the casing to complete the weld.



Better productivity through better **technology**

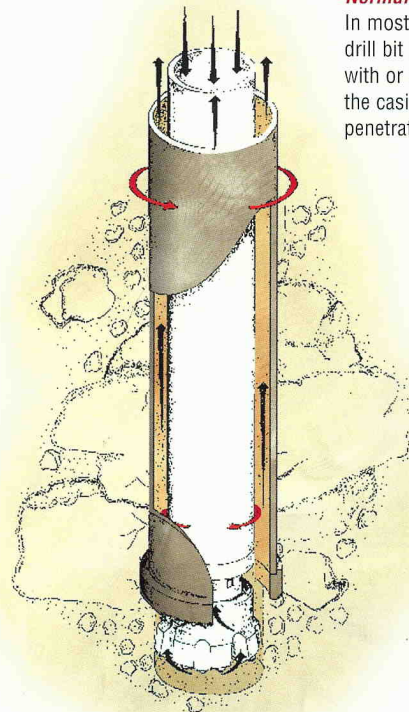
Foremost Dual Rotary (DR) drills feature a unique lower rotary drive that is used to advance steel casing through unconsolidated overburden like sand, gravel, glacial till, and boulders. Pullback, pull-down, and rotational forces are effectively transmitted to the casing via power-operated jaws.

An independent rotary top drive simultaneously handles a drill string equipped with a down-the-hole hammer, drag bit, or rolling cone bit. Cuttings are typically evacuated with air, but Foremost DR drills can also be configured with pumps for mud or flooded reverse circulation drilling.

The top and lower drives feed independently, meaning that the bit position can vary relative to the bottom of the casing. Once the desired casing depth has been achieved, the DR continues drilling open-hole like a conventional top drive drill. With a Foremost DR drill, there is no need to trip out or change tools when transitioning to open-hole drilling.

Normal Bit Position:

In most situations, the drill bit is advanced flush with or slightly ahead of the casing bottom for best penetration rates.



Bit Position in Heaving Formation:

In heaving formations, the casing is advanced ahead of the drill bit to create a plug in the casing. This allows drilling to continue in a controlled fashion. This method is also recommended where sample accuracy is important, as it helps to minimize cross-contamination of cuttings.

