



www.drilling.com  
sales@drilling.com  
+1 541.935.5054

## ADVANTAGES OF RC DRILLING

### Reverse Circulation Lowers Costs

Simply put, reverse Circulation (RC) drilling lowers operating costs and hassle compared to conventional drilling. In RC drilling the cuttings are exhausted up the center of the bit and drill pipe which allows for several ground-breaking advantages:

- ▶ Removal of cuttings allows faster drilling (~2-8X faster than conventional drilling)
- ▶ Lower drilling friction causes less wear, making tooling and buttons last longer
- ▶ Uses less air and can take out bigger, heavier, rocks
- ▶ Reduces the chances of rocks falling in the hole and getting the bit, hammer, or casing stuck
- ▶ Drills more sensitive formations with less chance of borehole wall cave-in
- ▶ Control of cuttings exhaust means less mess, a smaller affected area, and allows drilling in public places
- ▶ Cuttings discharge often used for exploratory mineral sampling or just to route waste for easy hauling
- ▶ Exhaust side check valves and water flow via the cuttings path lead to less drowning out of the hammer
- ▶ Grout Through technology allows back filling of the hole as the drill retracts
- ▶ No need for expensive and environmentally regulated lubricating foams for deeper jobs
- ▶ Holte's RC Down Hole Hammers allow easy access to key parts making them faster and easier to maintain



▶ [Partial RC] Features

- ▶ Cuttings interchange (shown) can be used with a conventional Hammer
- ▶ Side Discharge can be used with a conventional Top Head Drive
- ▶ Many of the advantages of RC (faster drilling, cuttings routing, etc.) while still using your current tools
- ▶ Custom interchanges designed, modeled, and machined to meet your needs
- ▶ Interchange can serve as an adapter sub

## PARTIAL RC SYSTEM

### Get Started with RC Drilling at less expense

A partial RC system makes use of a Cuttings Interchange, mounted above the down hole hammer, to route cuttings away from the outside of the drill pipe into the center of the drill pipe. This brings many of the benefits of a RC system such as less air needed vs. conventional drilling, faster and easier removal of the cuttings facilitating faster drilling, and less disturbance of the hole/borehole wall. Unlike 'True' RC, the cuttings don't enter through the center of the bit at the very bottom of the hole, but must travel around the bit and hammer. The interchange results in better performance than conventional drilling, but cutting removal is not quite as fast or smooth as 'True' RC.

### Components of a Partial RC System

The *Cuttings Interchange* reroutes cuttings to the center of the drill pipe and is covered with an *Umbrella*, which prevents air loss around the drilling pipe. A *Side Discharge* may be used right under your conventional Top Head Driver to route cuttings out the side of the drilling rig top. Holte recommends using a *RC Top Head Drive* to route cuttings out the top of the rig for less tooling wear and max Drill Pipe length. The Cuttings Interchange can be used either with a casing driver, a down hole drive shoe, or without any casing. The Cuttings Interchange can be threaded to meet your needs, Hex joint, or serve to adapt between different sub types.