

Dilution

- Hydrostatic head of the circulating mud is reduced by injecting a light incompressible mud into the drilling annulus down through an external piping or riser boost line attached near the mudline
- The “mixed” mud is circulated up the riser conventionally and the light mud is separated from the original heavy mud at the rig so that both can be reused
- The pressure profile is changed by changing the ratio of light mud to heavy mud in the riser
- A Rotating Seal is run at the top of the Riser with the resultant closed loop system enabling early detection of kicks and losses, thus limiting their size
- Due to the depth of the injection point, there is a delay in achieving the desired pressure effect until the mixed mud in the riser reaches its desired density

