

Rotating head if necessary;  
2" Fill up Line

ROTATING  
BOP  
2000 psi

Flowline

ANNULAR BOP

(Hydrill)

900

PIPE RAMS

900

Shaffer 10" Series 900

Hydraulically Operated B.O.P.'s

BLIND  
RAMS

900

Check Valve

Steel  
Valve

4" Inch Line

Choke  
Manifold

Choke  
Manifold

2" Inch Kill  
Line

900

Casinghead or Bradenhead

#### THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

1. All preventers to be hydraulically operated with secondary manual controls installed prior to drilling out from under casing.
2. Choke outlet to be a minimum of 4" diameter.
3. Kill line to be of all steel construction of 2" minimum diameter.
4. All connections from operating manifolds to preventers to be all steel. hole or tube a minimum of one inch in diameter.
5. The available closing pressure shall be at least 15% in excess of that required with sufficient volume to operate the B.O.P.'s.
6. All connections to and from preventer to have a pressure rating equivalent to that of the B.O.P.'s.
7. Inside blowout preventer to be available on rig floor.
8. Operating controls located a safe distance from the rig floor.
9. Hole must be kept filled on trips below intermediate casing. Operator not responsible for blowouts resulting from not keeping hole full.
10. D. P. float must be installed and used below zone of first gas intrusion.