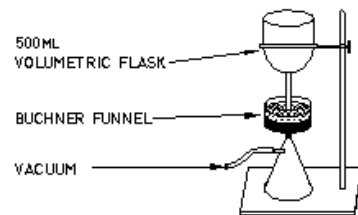




DETERMINING THE DRAINING RATE OF YOUR MATERIAL

FILTERING TEST FOR A PERFORATE BASKET APPLICATION

A Buchner funnel is the best way to test the drain rate of the slurry under consideration. Set up a test stand as shown at right and perform the following test.



1. Use a four inch Buchner funnel fitted with a medium to fast drain rate filter disc.
2. Insert the funnel into a vacuum flask.
3. Place 1.5" to 2" cake of solids in the Buchner funnel .
4. Connect the vacuum flask to a standard laboratory vacuum system.
5. Take a known quantity of mother liquor and invert it over the surface of the cake in the Buchner funnel.
6. Record the time required for all of the mother liquor to drain into the vacuum flask.
7. Evaluate the drain rate of the mother liquor. Evaluation is based on the following observations.
 - a. Minimum drain rate of 0.5 gpm/ft² of filter area
 - b. Ideal drain rate is 1 to 3 gpm/ft² of filter area
 - c. No liquid should remain on the surface of the filter cake
8. If a drain rate of 0.5 gpm/ft² of filter area or higher is obtained additional testing with a Centrifuge fitted with a perforate basket is recommended.
9. If a drain rate of less than 0.5 gpm/ft² of filter area is obtained the likelihood of a perforate bowl centrifuge being successful is low.