

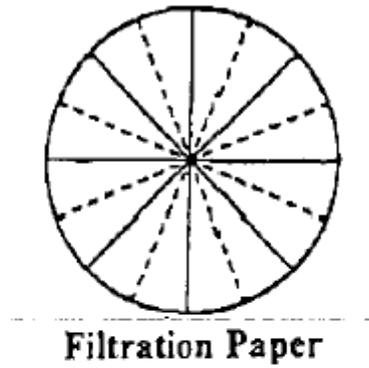
### Filterability Test for Sludge Analysis

#### Required Equipment:

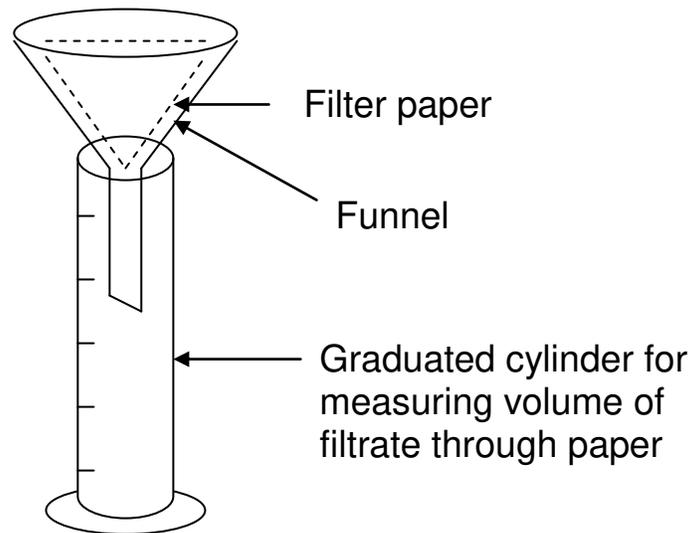
- 1- 150mm diameter funnel
- 2- 50mL graduated cylinders
- Quantitative ashless filtration paper of size 1-2.5 $\mu$ m particle retention size and 150-185mm diameter or low ash filtration paper with 6-8  $\mu$ m particle retention size and 150-185mm diameter.
  - Quantitative ashless Advantec 5C is preferred. If Advantec 5C is not available, low ash Whatman Paper No. 2V has shown the most comparable results, followed by quantitative ashless Whatman Paper No. 42.
- Stopwatch

#### Directions:

1. Fold filter paper in half six times to fit into funnel as shown in Figure 1.
2. Pour 50mL of clean, tap water into funnel situated in one of the graduated cylinders (set-up shown in Figure 2.).
3. Discard water in graduated cylinder and let funnel and filter paper sit for 30 seconds to remove excess water. Remove excess water from graduated cylinder as well.
4. Take a 50mL sample of sludge from the membrane tank. Pour the sample into the funnel and wet filter paper resting on the graduated cylinder.
5. Start stopwatch timer when the first drop of water falls into the graduated cylinder. Take the reading of volume of water in the cylinder after 5 minutes.
6. The quantity of filtered water in the graduated cylinder is a reference to the amount of flow able to be filtered through the HYDRAsub<sup>®</sup>-MBR membranes.



**Figure 1. How to fold the filter paper**



**Figure 2. Apparatus set-up**

HYDRANAUTICS  
401 Jones Rd.  
Oceanside, CA 92058  
Tel# (760)901-2500  
Fax# (760)901-2578  
e-mail: [info@hydranautics.com](mailto:info@hydranautics.com)  
[www.membranes.com](http://www.membranes.com)