



Industrial Liquid Filtration and Separation Equipment

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PARTICULATE MATTERS

FILTER AND SEPARATOR SIZING UPDATE

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Are you still asking engineers what the system volume will be? With more cooling tower applications implementing basin sweeper piping, the “once per hour turnover” method is being used less frequently. We are finding most HVAC cooling tower filtration/separation applications can be sized by one of the two following methods: 1) Percentage of Flow or 2) Basin Sweeper. It is imperative that you understand these two methods will **not** result in the same flow requirement. More often than not sweeper piping will require a larger filter or separator. The percentage of flow method should only be used when the filter or separator will be installed side stream off of the condenser loop. For sand media filters use 5%-10% and for separators use 10%-20% of the total system flow. **The more flow the better, but you might be required to use lesser flow in competitive situations.** When the customer requests basin sweeper piping, they may ask for factory by the cooling tower manufacturer or field installed. When factory installed sweeper piping is requested, it is up to the cooling tower manufacturer to specify the flow requirements for the filter or separator. For field installed sweeper piping, Puroflux can design and quote a system to meet your customer’s expectations. For closed loop systems, full flow systems, or applications other than HVAC contact Puroflux for assistance.

PF-10 and PF-20 “Wet End” Parts Announcements

The Basin Sweeper Myth

Basin or remote sump sweeper systems have become a popular cooling tower accessory among facilities managers and maintenance personnel. The **myth** of a basin sweeper system is that your customer will have a completely maintenance free cooling tower that does not allow any particulate to settle. In reality, this would require enough “jets” to cover every square inch of the basin area. The more jets; the more flow required. The more flow required; the bigger the filter/separator package. This ultimately increases the price of the system and reduces the customer’s return on investment.

- The **primary** function of a basin sweeper system is to **provide an effective method for the removal of suspended solids** from cooling tower basin water. By keeping more solids in suspension and directing them toward the filter/separator suction, there is a better chance for those solids to be removed.
 - The **secondary** function is a **reduction** in maintenance. By directing more particulate to the filter/separator for removal, there will be **less** solids deposited in the basin. Thus, reducing the frequency of shut downs for cleaning
- Setting the right expectations from the start of the selection process will create a happier customer in the long run.

Success story **REWARDS**...Have you written an article that you would like to share? Do you have any recent success stories, photos of installations, or before and after effects of filtration? If so, please forward them to me via email at djamison@puroflux.com. **Puroflux is offering a \$25.00 gift card reward for submissions published in “Particulate Matters”.**

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