



Industrial Liquid Filtration and Separation Equipment

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PARTICULATE MATTERS

AHR Expo—Chicago, IL Highlights

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2006 AHR Expo in Chicago appears to have been a great success. Many thanks to all of you that took the time to visit our booth in Chicago. It was a great chance to meet many of you that I had not previously known in person. I look forward to seeing everyone again during the coming year. Thank you all for your continued support!

Did everyone utilize filtration or separation on their last cooling tower? 2006 is in full swing, and there are new budgets to be spent. If a filter or separator unit was originally VE'd out, now might be a good time to check with the facilities manager about reducing the maintenance cost of the system.

Filtration vs. Separation: Is one better than the other for keeping cooling tower water clean?

During the course of training classes and sales calls I have been asked on several occasions: "How do I know when to select a filter or separator?" The answer is, "It depends on the application."

There are several factors that will ultimately assist you and your customer with the proper selection. What is the amount and type of incoming particulate? Where is the cooling tower located? These considerations will be determining factors as to whether separation or filtration is best for your customer.

If your end customer is looking to remove even the smallest particulate; then filtration is the answer. With filtration, your customer will realize particulate removal in the sub-micron size. If large amounts of heavier particulate (45-micron and larger, with 2.6 specific gravity) is the focus; then a separator may be best. If the cooling tower is: nearby a construction site, low elevation, or near an area that may generate a lot of heavy particulate, then we would also suggest a separator. On top of a 30-story high rise or near an area that generates light airborne particulate? A sand media filter may be best. There are three criteria involved to determine what particulate will be removed in a separator: 1) Particulate size 2) Particulate specific gravity (Water = 1.0) 3) Overall removal efficiency required (%).

There is also a simple field test. Fill a clear jar with some of the system water and sediment from the cooling tower basin. Cover the jar and shake it up. Whatever settles in approximately one minute will likely be "separated" out. Any particulate still floating in the fluid is probably too light or small for a separator and will require a filter. If the particulate remaining in suspension is acceptable in his or her system; a separator will do the job. If it appears that most of the particulate is still in suspension; a properly sized Puroflux Sand Media Filter will give your customer the desired result. In the end; the customer should decide their desired particulate removal. For the best possible selection, it is suggested to have a water sample analyzed for particulate size/volume, and/or consult the Puroflux factory for recommendations.



Due to Overwhelming Demand!

Puroflux is now offering the tabletop separator demo for purchase.

I have received numerous calls for a working separator demo that is convenient for salespeople to use for customer demonstrations. We are now offering this clear separator with carrying case (PF-60-DEMO) to representatives for \$1,100.00.

PF-RF Series II - Stainless Steel Recovery Vessels

Puroflux Corporation is pleased to announce our new PF-RV Series II Recovery Vessels, available in short and tall single bag models. This change is not only an upgrade in product design (at no additional cost), but will also meet or exceed competitive specifications. The new PF-RV Series II is

SILICA SAND: The Importance of Utilizing the Proper Filter Media

Your customer has decided that it is time to replace the media in their Puroflux filter. The media choice is the most important aspect of filtration. Quality of filtration depends directly on the media and the particulate in the water to be removed. Voids are

product design (at no additional cost), but will also meet or exceed competitive specifications. The new PF-RV Series II is constructed **completely of stainless steel and rated at 150psi**, while some competitors provide a stainless steel vessel with a coated carbon steel lid or a lower pressure rating. Puroflux Corporation will now be incorporating the PF-RV Series II on all PF-63 Package Recovery Systems utilizing single bag PF-RV's.

Standard features:

- **304 stainless steel vessel with stainless steel swing-type eye-bolt cover**
- 150 psi working pressure
- Stainless steel support basket
- 1/4" manual air bleed valve
- Pressure differential indicator
- 1/4" fpt drain
- (2) 25-micron collection bags



Models available: PF-RV-1S-II PF-RV-1T-II

• aspect of filtration. Quality of filtration depends directly on the media and the particulate in the water to be removed. Voids are formed between the filter media that establish the filtration range. These voids allow water to pass through while trapping the suspended solids. Three flags that the incorrect type of sand media has been installed are:

1. **"I just changed the sand, and my pressure differential is much higher than normal."**
2. **"I just changed the sand, and now the sand flushes out in the backwash cycle."**
3. **"I just changed the sand, and I'm getting sand in my tower!"**

• These symptoms are typical where a "crack", "playground", or "beach" type of sand has been installed for the purpose of filtration. The increase in pressure differential may also cause abnormally frequent backwash cycles.

• Tips for changing out media:

- **Take special care while removing media not to damage the internal underdrain assembly.**
- **Add water to the filter prior to installation of media, so that the underdrain assembly is completely submerged. This procedure will help "soften the blow" as new media is introduced into the filter.**

• For the proper media selection, please consult the Puroflux Media Guide or contact the factory.

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@attglobal.net. **Puroflux is offering a \$25.00 gift card reward for submissions published in "Particulate Matters".**

Upcoming Puroflux news:

- The 58th Annual CGA Convention & Trade Show—Lake Tahoe, NV Nov. 2-4, 2006
- A comprehensive article: "Separation versus Filtration: Making an Intelligent Choice" by Henry Greenberg.

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 Questions or comments? E-mail us at djamison@attglobal.net or call (805) 579-0216