Cab Pressurizer Service

Vortex HyperFLOW™: How RESPA®-CF works

Creating the Vortex

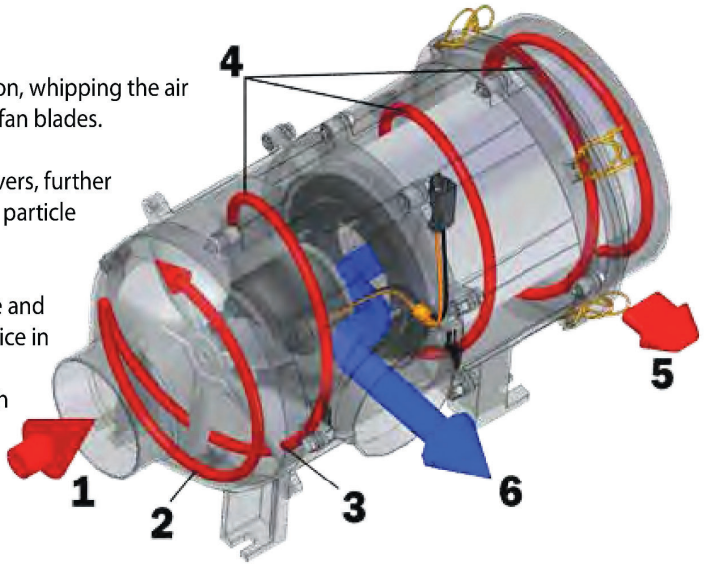
1. Particulate-laden air enters the precleaner inlet.
2. The fan creates a VORTEX, a tornado-like spinning motion, whipping the air and particulate to the outside wall as it approaches the fan blades.

Creating the Hyper spin

3. Spinning air HYPER-accelerates as it passes through louvers, further enhancing centrifugal forces powerful enough to affect particle separation down to 5 µ.

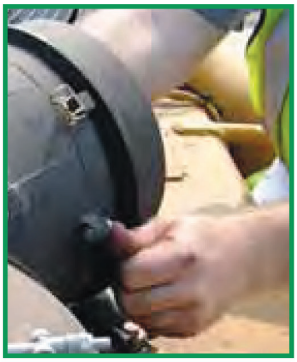
Creating the continuous Flow

4. Particulate is spun against the outside wall of the device and propelled rapidly around the filter to the rear of the device in one continuous FLOW of air.
5. Particulate is ejected back into the environment through two ejection slots located at the rear of the device.
6. Precleaned air passes through the filter. Filtered air continues to the outlet.

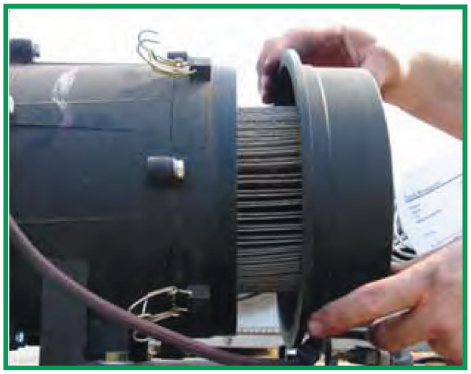


FILTER REPLACEMENT:

1. Work in a clean covered area to reduce operator and HVAC exposure to harmful particles.
2. Wear appropriate personal protection equipment such as gloves, mask, and coverall to protect against contaminants.
3. The machine should be off.
4. Inspect the RESPA system for any damage.
5. Release the 4 filter latches that retain the filter element noting the orientation of the ejection ports when applicable.
6. Once the filter latches are released remove the filter element. **Note:** Place thumbs on RESPA's exterior hardware for additional leverage when removing filter element.
7. Bag and seal used filter element and dispose of according to local regulation.
8. Inspect and remove any loose debris using a clean rag – never use compressed air.
9. Before installing the new filter, the powered systems, RESPA-CF Vortex HyperFLOW or CFX, should be inspected for proper operation.
   a. Turn on the RESPA system staying clear of the open end of filter housing.
   b. Ensure that air is blowing out of the empty filter housing cavity.
   c. Turn off the RESPA system.



10. Install new filter element ensuring the ejection port orientation, when applicable, is correct and that the filter element end cap seats properly on the filter housing.
11. Restrain the filter element by reattaching the 4 filter latches.



WARNING:

When cleaning equipment, care should be taken to **prevent high pressure water or High Pressure air from entering the RESPA-CF Vortex HyperFLOW ejection slots.**

When replacing the slotted filter (RESPA-CF Vortex HyperFLOW) do not point ejection slots at a solid surface in close proximity to the slots.