

Importance of HEPA Filter Maintenance for the AirPlus®

ArcOne® Guidance Material

In order to ensure proper airflow, it is important that the HEPA filter for the AirPlus® Powered Air Personal Respirator (PAPR) is changed on a regular basis. In accordance with NIOSH (National Institute of Safety and Health), the minimum airflow of a PAPR unit needs to be 170 liters per minute (LPM). Before each use, the user should verify that this standard is being met by the AirPlus® system.

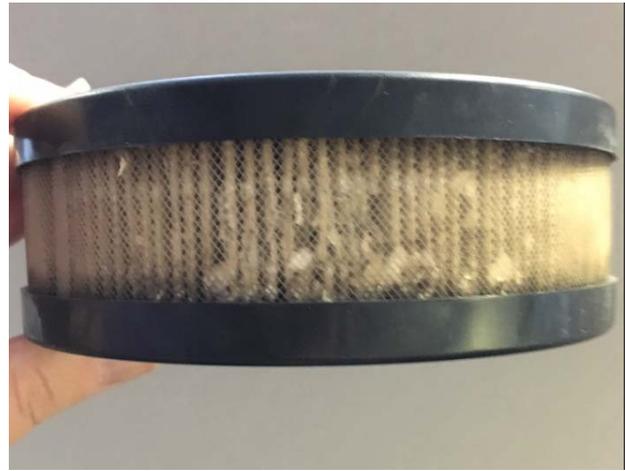
AirPlus® HEPA filters, part number AP-FIL-03, must be replaced whenever they are damaged, soiled, or causing noticeably increased breathing resistance (i.e. causing discomfort to the wearer). It is also recommended to change the filter if the blower is no longer able to maintain the desired airflow setting. The unit will automatically lower the fan speed settings to an airflow rate that can be met. Eventually the unit will alarm when the minimum airflow requirement cannot be achieved. (Warning, If the blower unit is alarming, leave the work area immediately for a location with clean air and inspect the unit for a clogged filter and/or check the battery power.

Prior to each use, inspect the filter material. Frequency of replacement depends on the amount of use and environmental factors. However, where oily aerosols are present, the industry recommends the filter is changed every 40 hours of use or 30 days, whichever comes first.

Please note, the HEPA filter cannot be cleaned in any manner. Any attempt to wash or use compressed air to “clean” the filter will damage the fibers and voids the warranty.



Example of a dirty filter that must be changed for a new filter. Continued use of a filter in this condition will stress the blower motor and may lead to a violation of the warranty.



Example of a damaged filter. This filter shows signs of physical damage. Misuse of the filter voids the warranty.

Before use, ArcOne® recommends the user to check the airflow of the blower unit using the Airflow Indicator, part number AP-AFI-01, included with each PAPR kit.

- Begin with a fully charged Battery, part number AP-BAT-02.
- Turn on the blower unit and set the fan speed to the lowest setting.
- Detach the Breathing Tube, part number AP-BTC-01, from the AirDuct.
- Insert the Airflow Indicator into the free end of the Breathing Tube.
- Hold in an upright position.
- If the indicator ball is above the line, 170LPM is being met or exceeded.
- If the indicator ball is below the line, the minimum airflow of 170LPM is not being met. Note, the ball may rise with higher fan settings, but the ability to maintain proper airflow is limited. Change the HEPA filter to ensure adequate airflow.



Example of airflow meeting or exceeding 170LPM. Unit is ready for use.



Example of airflow below 170LPM. Inspect and change HEPA if necessary.

Call ArcOne® Technical Support if all required maintenance has been and blower unit fails to meet 170LPM. (800)-223-4685