# VESDA Filter Replacement

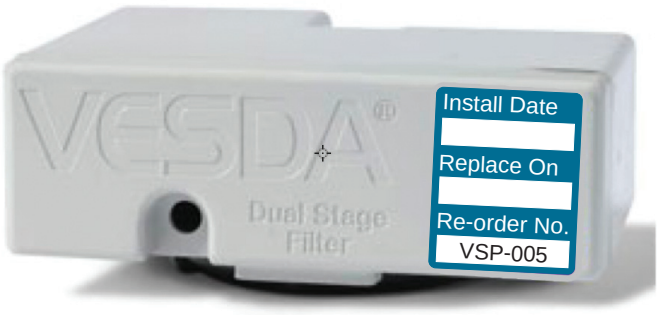
## BE AIR AWARE...IS IT TIME TO REPLACE YOUR **VESDA** FILTER?

### The Importance of Filter Replacement in VESDA Detectors

Regular VESDA detector filter replacement is key when it comes to performance.

Much like the filters in your home air purifiers, furnaces, and refrigerator water dispensers, regular filter replacement in **VESDA detectors** is key when it comes to performance. The filter **removes dust contamination** from sampled air and provides a clean air bleed **to preserve the detector chamber optics**.

To maintain the operational integrity of the **VESDA detector** (VLP, VLS, VLC and VLF), it is recommended that the filter **be replaced in line with the environmental conditions of the protected area**.





### Label Color History

Refer to the following chart to determine the age of your filter.

| | |
|---|---|
| Oct 2019 | → Dark Blue |
| Dec 2018 | → Pink |
| March 2014 | → Purple |
| August 2011 | → Red |
| April 2008 | → Brown |
| April 2006 | → Yellow |
| April 2004 | → Green |
| April 2000 | → Orange |
| 1997 | → Blue |

If your filter is NOT the latest color, consider replacing immediately.

Refer to the following table to determine your filter replacement schedule.

| Environment Class | Typical Application | Background Smoke Level | Recommended Filter Replacement Frequency (months) | Recommended Maintenance Period (months) | Factors that may affect filter replacement frequency (Recommendations of use) |
|---|---|---|---|---|---|
| 1 | Fully enclosed, and strictly no leakage, fully air-conditioned, usually with HEPA filters fitted, strictly maintained to high standards of cleanliness such as Clean Room classification 1, 10, 100 in accordance with US Federal Standard 209D, computer rooms with restricted access, medical facilities with positive pressure, installations within medical and semiconductor equipment etc. | Usually less than 0.006%obs/m (average) (<0.002%obs/ft) (average) | At least every 60 months | At least every 24 months (code requirements typically call for 12 month Service Intervals | Higher clean room classification, protection of other areas such as wet bench, subject to contamination due to frequent access or minor building leakage. |
| 2 | Fully enclosed and usually air-conditioned with some filters fitted, high airflow extraction systems or standalone AHU, routinely maintained to acceptable health recommendations for occupants. Frequent access. May be multi-function facility. General office building, telecommunication base station, equipment switch rooms, shopping mall, heritage building, churches, document storage and general warehouse type building (including cold storages) with high ceiling. | Usually between 0.006 - 0.009%obs/m (0.002%obs/ft - 0.003%obs/ft) | At least every 36 months | At least every 24 months (code requirements typically call for 12 month Service Intervals | Frequent access and/or excessive building leakage/ doors connected to a highly polluted ambient environment, infrequent HVAC maintenance, high relative humidity, activities such as cooking, production, dusty spaces like ceiling void, suspension floor, regular washdowns. |
| 3 | Similar to Environment Class 2 in countries with high levels of pollution and no filtration of outside air. Facilities with light industrial sites, manufacturing and processing without noticeable airborne particles, prison cells, etc. | Usually less than 0.015%obs/m (<0.005%obs/ft) | At least every 24 months | At least every 12 months | Low ceiling, higher airborne particles level, high relative humidity. May require water-trap in high humidity climate. |
| 4 | Partially enclosed, no air-conditioning but may use extraction system from time to time. Usually industrial sites with noticeable air pollution, loading bays, dusty production, underground platform, equipment rooms, facilities using natural air ventilation. | Usually less than 0.03%obs/m (<0.01%obs/ft) | At least every 18 months | At least every 12 months | High relative humidity, frequent wash-down. May require water-trap in high humidity climate. |
| 5 | Open environments, airborne particle clearly visible, sometime require wash-down to maintain acceptable health standard for occupants. May use extensive stage smoke or fog. Applications like amusement park rides, coal fired power station, fertiliser factory, waste-treatment, tunnels, bus terminals, etc. | Usually above 0.03%obs/m (>0.01%obs/ft) | At least every 12 months | At least every 6 months | Refer to "Special case". May require water-trap in high humidity climate. |
| 6 (Special Cases) | Usually fits within "High" and "Extreme" definitions. Regular fumigation (such as tobacco storage), corrosive, radiative, irregular process, high level of fine dusty environment such as cement, textile, welding, oily, steamy, etc. | Varied | Closely monitor for the first 3 to 6 months to develop a filter replacement guideline | Closely monitor for the first 3 to 6 months to develop a maintenance schedule | Consult with Risk Manager, refer to local codes, standards and regulations to ensure compliance. Regular smoke tests are required. May require water-trap in high humidity climate. |

During the replacement process, the detector needs to be informed that a new filter has been installed. **Ensure the area surrounding the filter is clear of dirt and debris prior to replacement.** The filter is for single use only, it cannot be cleaned and re-used. During the filter replacement process, take the necessary steps to advise the monitoring authority that power may be removed and the system disabled. For details on how to locate and change the filter → **VISIT US ONLINE**.

While checking your filters if you find that your **detector is more than 10 years old**, you will want to consider upgrading your system. While many older ASD detectors continue to operate reliably, service and/or failure frequency may occur more frequently as result of system degradation. Avoid untimely disruptions to normal operations by participating in the **Upgrade Program** → **VIEW DETAILS HERE**.


YOU CAN FIND THE MANUFACTURING DATE OF YOUR DETECTOR ON THE APPROVALS & RATINGS LABEL.

Contact your VESDA dealer to arrange for filter replacements.