

## School Air Filtration System (Fan-Filter)

PM10, and PM2.5, Nitrogen Dioxide (NO<sub>x</sub>), VOCs and Ozone

- For the filtration of Particulates (PM10 and PM2.5) and Pollutant Gases (Nitrogen Dioxide (NO<sub>x</sub>), VOCs and Ozone) within school classrooms and buildings.
- Can be used as part of the requirements of BB 101: Ventilation, thermal comfort and indoor air quality 2018.
- The unit incorporates air filters that the user can change and maintain as required.
- Offers a solution for bringing pollution levels below acceptable standards without the need for costly renovation.
- Quiet Operation (Insulated Housing and Inline Attenuation)
- User Speed Controllable or CO<sub>2</sub> concentration controlled



The School Air Filtration System offers a complete solution for the filtration of Particulates and Pollutant Gases including Nitrogen Dioxide, VOC's and Ozone within the school classroom and public areas. The Fan-Filter Air Cleaner can filter particulates and Nitrogen Dioxide within the room to improve air quality to within the limits set in AQMA areas.

### Particulate Matter Filtration (PM10 and PM2.5)

PM10 and PM2.5 Particulate air filters are included within the School Air Filtration System to remove Particulates at efficiencies above 80%. These filters will require changing every 6-12 months depending on the installation option selected.

### Pollutant Gas Filtration (Nitrogen Dioxide (NO<sub>x</sub>), VOCs and Ozone)

Airclean Type 1 Gas Filters are used within the School Air Filtration System. Airclean Type 1 Gas remove up to 90% of Nitrogen Dioxide, ensuring NO<sub>2</sub> concentrations leaving the unit are brought below the Directive limits of 40 µg/m<sup>3</sup>. These filters have the added benefit of filtering VOCs (Volatile Organic Compounds), Ozone, and odours. Airclean Type 1 Gas Filters will require changing every 1-2 years depending on the installation option selected.

### Installation Options

**Air Re-Circulation** – The School Air Filtration System can simply be installed as a plug and play recirculation air purifier in any room. When switched on the unit will draw in air, filter out pollutants including particulates (PM10 and PM2.5) and gases (Nitrogen Dioxide, Ozone and VOCs) and push the clean filtered air back into the room. Air Re-Circulation systems will be supplied with Single Deflector Grilles on both ends.

**Positive Input Ventilation / Supply Air** – The School Air Filtration System can be used as a component in a fresh air supply system to the classroom by ducting it from outside. The School Filtration System will draw fresh air into the room and filter particulates (PM10 and PM2.5) and pollutant gases (Nitrogen Dioxide, Ozone, VOCs) to ensure the air is within the required limits. In this scenario a carbon dioxide monitor is available to further enhance control of the supply air as required by BB101 Guidelines. Supply Air Systems will be supplied with a single deflector grille on one end, and a 150mm Diameter Spigot on the other.

Part Number	Rated Airflow		Total Weight (approx.)	Dims. (mm)			Included Filters	Installation
	m <sup>3</sup> /hr	l/s		H	W	L		
1908831	198	55	65kg	290	350	1350	PM10 + GAS + PM2.5	Recirculation
1908832	396	110	80kg	290	650	1350	PM10 + GAS + PM2.5	Recirculation
1908833	198	55	65kg	290	350	1350	PM10 + GAS + PM2.5	Supply Air
1908834	396	110	80kg	290	650	1350	PM10 + GAS + PM2.5	Supply Air