

# NEW NOXMASTER



Air pollution causes over 40,000 deaths each year, with long-term exposure linked to cancer, heart and lung disease. The air inside urban homes regularly exceeds safe levels of nitrogen dioxide and particulates.

Nuaire's Noxmaster range is unique as it combines the principles of positive input ventilation (PIV) and carbon filter technology to prevent highly reactive gasses such as nitrogen oxides (NOX) and particular matter entering the home (PM10 and PM2.5). These gases and particles can enter the home through any natural leakage points, i.e. soffits, letter boxes.

## What is NO<sub>2</sub> (Nox)?

- ▶ NO<sub>2</sub> is a generic term from nitrogen oxides that are most relevant for air pollution. NO<sub>2</sub> is released into the atmosphere when fuels are burned (for example, petrol or diesel in a car engine). The Royal College of Physicians have evidence that high levels of NO<sub>2</sub> can cause 11,500 deaths each year from lung and heart disease.

## What is Particulate Matter?

### PM10 & PM2.5 filtration

- ▶ **Particulate Matter** size classes are used as evaluation parameters by the WHO (World Health Organisation) and other authorities. These evaluation parameters are incorporated in Air Quality Management reports to ensure the correct filtration is selected based on the requirement within the reports.

### PM10

- ▶ PM10 is known as coarse dust particles and are 2.5 to 10 micrometers in diameter. Sources include dust stirred up by vehicles on roads. Pollen and mould are also a contributing factor. These tiny particles are small enough to get inhaled into our lungs causing major health problems.

### PM2.5

- ▶ PM2.5 is known as finer particles and is a mixture of solid and liquid particles that are suspended in the air. They are 2.5 micrometers in diameter or smaller, and can only be seen with an electron microscope. Sources include power plants, motor vehicles and wood burning. Exposure to these particles can enter the lungs, causing cancer, stroke and lung and heart disease.



# How it Works

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**The Noxmaster** is fitted with a carbon cartridge and a PM10 filter as standard with the option of PM2.5 filtration in areas where finer particulate matter is recorded and proven to cause greater damage to our health.

The unit is thermostatically controlled to create comfort in the home based on outside air temperature. It intelligently utilises the solar gain from the loft space during colder months and has the added benefit of drawing fresh, cooler air directly from outside during the warmer months.

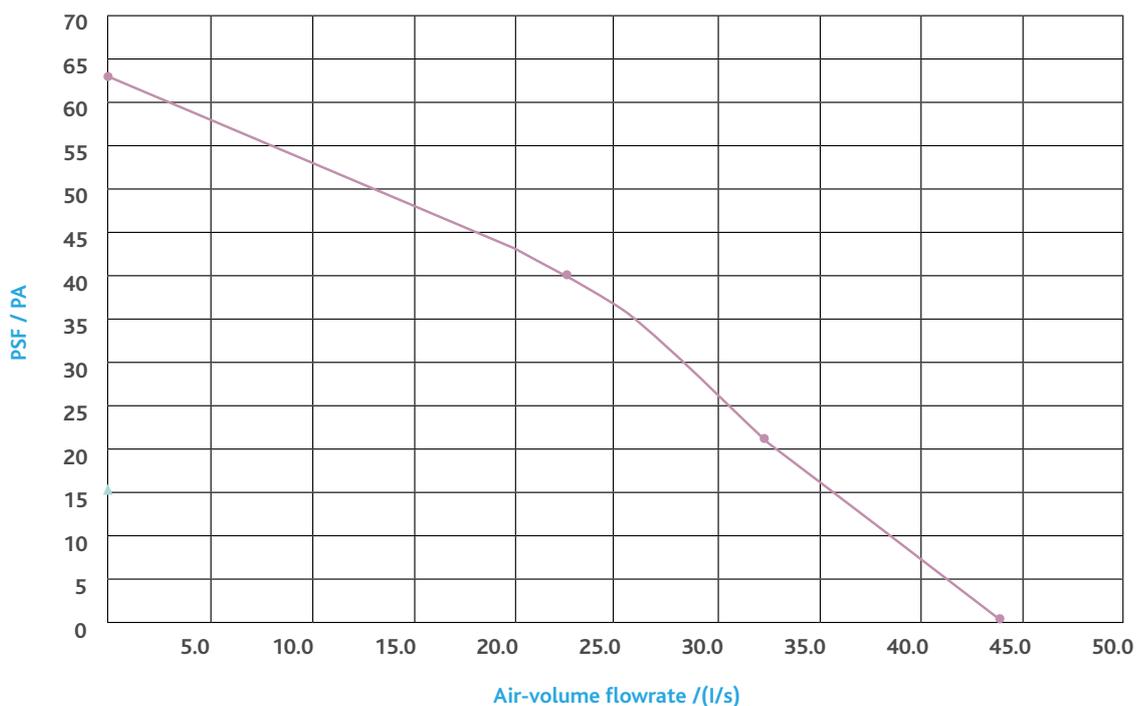
**The Noxmaster** also incorporates a time clock to optimise filtration when high levels of pollution are evident. During peak times the air is filtered through the carbon filter and during off-peak the air will bypass the carbon filter to help prolong the life of the filter within the unit. This concept creates an energy-efficient and cost-effective solution, significantly improving the indoor air quality and creating a healthy living environment for the occupants.

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## Features and Benefits:

- ▶ Unique technology combining PIV and carbon filtration
- ▶ High filtration - removes up to 99.5% of harmful nitrogen dioxide (NO<sub>2</sub>) and 75% of particulate matter (PM<sub>2.5</sub>)
- ▶ Intelligently decides to source the air supply from the loft or directly outside based on air temperature
- ▶ Significantly improves indoor air quality in homes for the occupants
- ▶ Allows occupants to keep windows closed for security and to discourage pollutants entering the home
- ▶ Thermostat is fully adjustable providing comfort for the occupants
- ▶ Aesthetically pleasing modern ceiling diffuser
- ▶ PIV principle prevents condensation and its associated issues
- ▶ Evidence by the BRE demonstrates the principle of PIV is a remedial measure in controlling Radon gas
- ▶ Low maintenance
- ▶ Commissioning can be carried out via the controls cited within the ceiling diffuser

## Noxmaster Performance Graph



### Product Codes

#### NOXMASTER

- ▶ With carbon and PM10 filtration

#### NOXMASTER-PM2.5

- ▶ With carbon and PM2.5 filtration

#### NOXMASTER-HEAT

- ▶ With heating element, carbon and PM10 filtration

#### NOXMASTER-HEAT-PM2.5

- ▶ With heating element, carbon and PM2.5 filtration

**PATENT  
PENDING**

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# Reducing exposure to air pollution

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