

# NITROBOX NO<sub>2</sub> FILTER

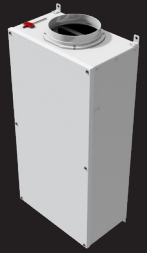
MVHR Accessory To Reduce NO<sub>2</sub> Pollutants



# NITROBOX NO<sub>2</sub> FILTER

MVHR Accessory To Reduce NO<sub>2</sub> Pollutants

FOR USE  
WITH THE  
energiSava®  
range



## About

The growing concern around air pollution in our cities and urban areas has driven a demand to implement necessary mitigation measures to improve our indoor air quality (IAQ). The NitroBox NO<sub>2</sub> filter is an effective means of reducing high Nitrogen Dioxide (NO<sub>2</sub>) to an acceptable mean annual concentration level of 40µg/m<sup>3</sup>, which is predominantly produced by exhaust gases from diesel engines.

In addition to reducing NO<sub>2</sub> levels, the NitroBox's active carbon filters also absorb Sulphur dioxide, hydrogen sulphide, hydrogen chloride, ammonia odours, volatile organic compounds and solvents.

- Effective at reducing pollutants in the home and improving indoor air quality
- Compact design
- Compatible with EnviroVent's energiSava range of MVHR units
- Low pressure drop
- 95% NO<sub>2</sub> reduction at pre filter concentrations of ≈ 200µg/m<sup>3</sup>
- G4 filter reduces 100% of PM10/35% of PM2.5 particles
- Optional ePM1 50% grade filter can be installed to further improve indoor air quality which reduces up to 95% of PM2.5 particles
- Fully lined unit to reduce duct-bound noise and condensation - an effective silencer
- Can be installed horizontally or vertically
- Can be installed in both intake and supply ducting
- Independently tested at SRL
- Available in 3 and 4 filter versions



## Options & Ancillaries

CODE(S)	DESCRIPTION
EV-FILT1-N02	EnviroVent NitroBox NO <sub>2</sub> Filter, 3 Carbon filters, Ø150 Ports
EV-FILT2-N02	EnviroVent NitroBox NO <sub>2</sub> Filter, 4 Carbon filters, Ø150 Ports
EV-FILTBM-N02	Duct Mounting Kit for use with NitroBox NO <sub>2</sub> Filter
EV-FILTB-J-N02	Insulation Jacket Kit for use with NitroBox NO <sub>2</sub> Filter
FILTER-G4-FILTB	ISO Coarse 60% Pre-filter for use with NitroBox NO <sub>2</sub> Filter
FILTER-F7-FILTB	ePM1 50% Pre-filter for use with NitroBox NO <sub>2</sub> Filter
FILTER-C-FILTB1	Carbon filters (set of 3) for use with NitroBox NO <sub>2</sub> Filter
FILTER-C-FILTB2	Carbon filters (set of 4) for use with NitroBox NO <sub>2</sub> Filter
KIT-TEST-N02	NO <sub>2</sub> Testing kit

## Nitrogen Dioxide Filtration & Unit Pressure Drop

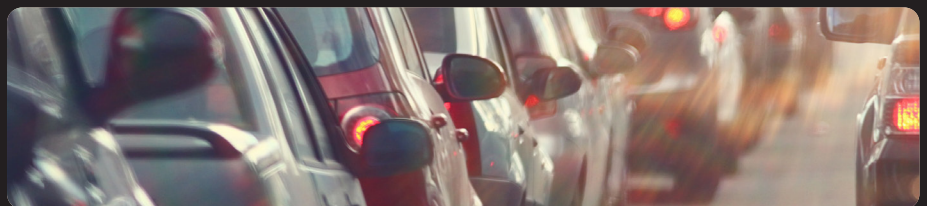
(Based on nitrogen dioxide pre filter concentrations of ≈ 200µg m<sup>3</sup>)

Airflow Rate (L/s)	Filter Pressure Drop (Pa)	Concentration Reduction(%)
Unit One (3 filters)		
29	31	97.6
80.3	134	97.9

## Sound Data

Independently tested at SRL, report reference C/23276/T05 to BS EN ISO 7235:2009

Description	Octave Band (Hz) Static Insertion Loss, dB for EV-FILT1-N02 (3 FILTERS)							
Hertz (Hz)	63	125	250	500	1000	2000	4000	8000
Sound Level (dB)	6.5	7.6	4.9	8.6	16.1	26.8	32.9	36





## Technical Specification

### Standards

Third party tested for both NO<sub>2</sub> and acoustic reductions based around the standards currently in place for health as specified by the World Health Organisation and the European Union.

COSHH - Workplace exposure limits

COMEAP - Government guidance regarding health of air pollution

World Health Organisation

### Weight

17 Kg

### Materials

The housing and internals shall be constructed out of Zintec sheet steel, with the exterior powder coated in white. The internal insulation shall be constructed out of closed cell foamed nitrile rubber, class 'O' fire rating. The duct ports in plastic.

### Filters

The pre-filter shall be grade ISO Coarse 60% synthetic filter as standard, ePM1 50% optional. The Active Carbon Filter shall be a Honeycomb matrix constructed filter filled with granular active carbon.

### Installation

Shall be capable of being installed either vertically or horizontally. Shall be installed in accordance with all current Building Regulations. A full installation guide shall be enclosed with all products; or sent separately in advance if required.

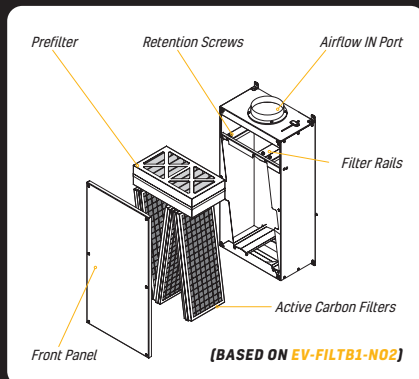
### Maintenance / Servicing

Servicing and filter change shall be subject to the local environment conditions. Please refer to instruction manual.

### Accessories

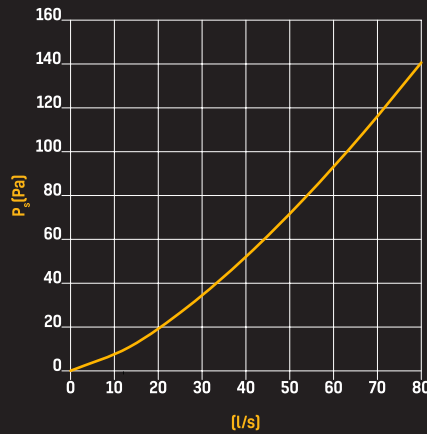
Replacement pre-filters and active carbon filters shall be available.

### Construction

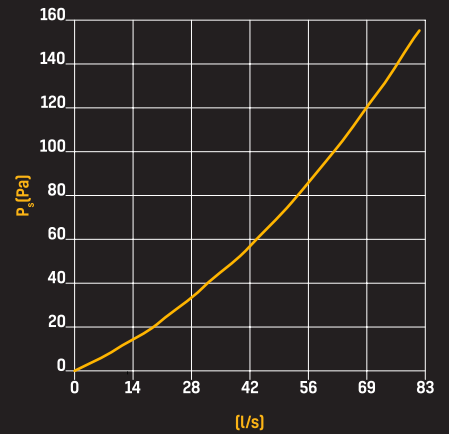


## Performance Curves

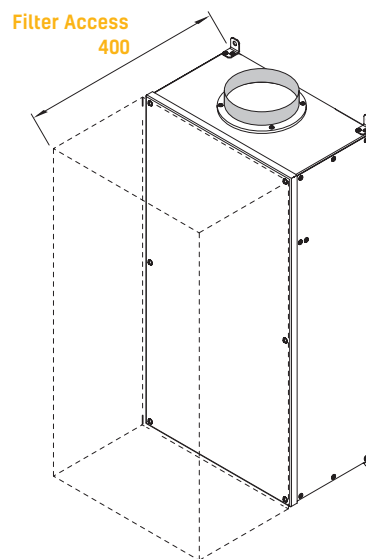
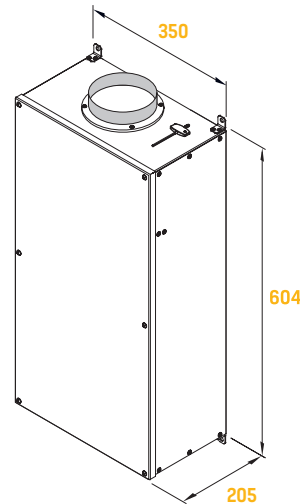
Resistance - NitroBox NO<sub>2</sub> Filter - ISO Coarse 60% Prefilter **[BASED ON EV-FILTb1-NO2]**



Resistance - NitroBox NO<sub>2</sub> Filter - ePM1 50% Prefilter **[BASED ON EV-FILTb1-NO2]**



## Dimensions (mm)



# envirovent®

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and sustainable ventilation

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