Hygieia

Ion generator 2800

KEY FEATURES

- Produces a natural bio-climate rich in positive and negative oxygen ions
- Efficiently neutralises particulate matter, bacteria, virus cells, odorous gases and VOCs (Volatile Organic Compounds)
- Removes airborne contaminants
- Oxygen ions cause a chemical reaction with VOCs breaking down their molecular structure
- Bipolar ionisation technology proactively treats the air with a negligible pressure drop
- Filterless and does not require replacement parts
- Easy to install in existing or new ventilation systems
- Free of harmful byproducts
- Silent and invisible to the end user
- 3-year warranty

HYGiEiA

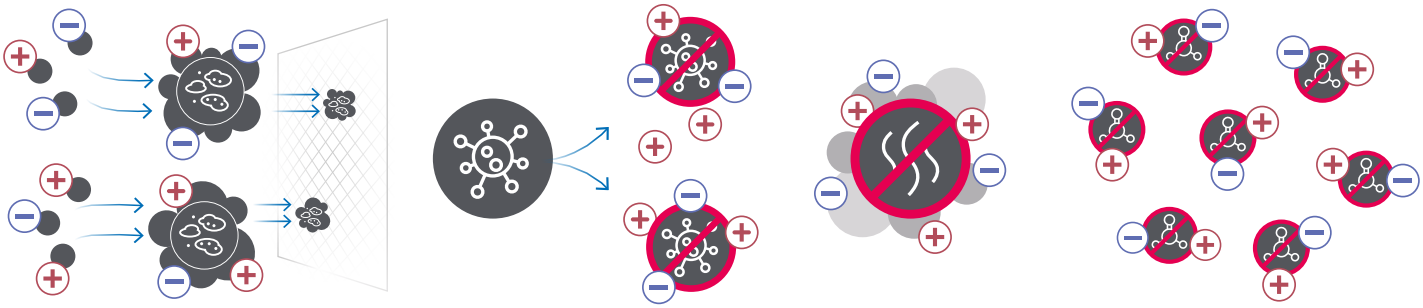
People spend up to 90% of their time inside buildings, inhaling thousands of litres of indoor air every day. The indoor air from within a typical dwelling is filled with invisible yet harmful pollutants such as bacteria, viruses, mould spores, VOCs (Volatile Organic Compounds), dust, pet dander and pollen. These pollutants can trigger asthma, allergies, headaches, infections and respiratory conditions. HYGiEiA range improves the Indoor Air Quality with a 98% reduction of VOCs (Volatile Organic Compounds) and odours, 95% bacteria reduction, 91% removal of mould spores and 86% reduction of dust particles.

HYGiEiA range offers air purification solutions for both residential and commercial applications by using bipolar ionisation technology. HyGiEiA works inside the ventilation system to silently, invisibly and safely neutralise airborne pollutants. Ion generators neutralise odours and VOCs (Volatile Organic Compounds), smoke, bacteria and viruses, pet dander, dust, mould spores and pollen. The bipolar ionisation technology replicates nature's process for cleaning the air by producing an equal amount of positive and negative oxygen ions.

WORKING PRINCIPLE

These devices produce millions of positively and negatively charged oxygen ions which travel through the duct system and into the occupied space.

The negative oxygen ions contain an extra electron while the positive ones are missing an electron resulting in an unstable condition. To restabilise, these bipolar ions seek out atoms and molecules in the air to trade electrons with, effectively neutralising particulate matter, bacteria and virus cells, odorous gases and aerosols, and VOCs.



PARTICULATE
Airborne particles, such as smoke, dust, pollen and spores are charged by the ions through ionic bonding. These charged particles stick together increasing their size allowing them to be easily removed by low grade filters.

BACTERIA & VIRUSES
As they divide to reproduce, bacteria and virus cells bond with oxygen ions and are destroyed.

ODOROUS GASES
Odorous gases and aerosols oxidize on contact with oxygen ions and are neutralised.

VOLATILE ORGANIC COMPOUNDS
Oxygen ions cause a chemical reaction with VOCs breaking down their molecular structure.

NEEDLEPOINT BIPOLAR IONISER

90001390 - Ion generator (up to 2800 l/s)

The HYGiEiA range can be used in a variety of IAQ applications with different pollutant levels.

The two ion generators we have available provide the right concentration of ionisation to remove the various pollutants from applications such as:

Pollutant load factor A
- Office
- Classroom
- Library
- Church
- Day care center

Pollutant load factor B
- Gymnasium
- Auditorium
- Arena
- Athletic facility
- Cafeteria
- Hospital

- Easily installs in the supply air duct
- Needles are recessed - no dust accumulation
- No maintenance required
- Models that treat up to 2831 l/s (10,191 m^3/h)
- 24V standard power input with optional 120V or 230V power supplies
- This type of technology outperforms PCO (Photo-Catalytic Oxidation), UV (Ultra-Violet) and HEPA filters having a lower pressure drop, less energy consumption.

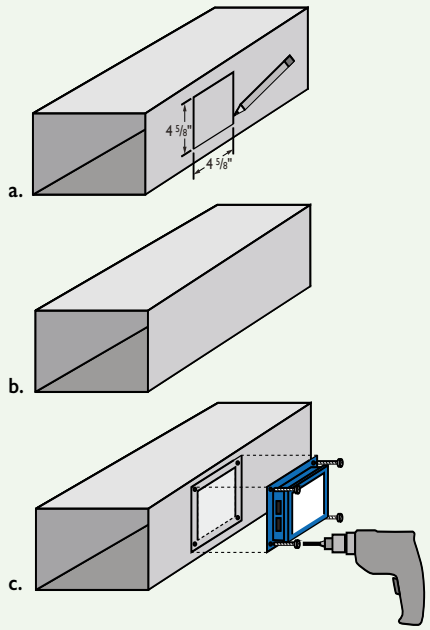
	Bipolar ionisation
Effectiveness	99%
Particle size	Small < 2.5µm
Treats indoor air	Yes
Replacement parts required	No
Maintenance required	No
Produces harmful by-products	No

INSTALLATION

The ion generators are highly versatile as they can be installed in air handling units, fan coil units, MVHR unit, heat pumps etc

HYGiEiA Ion generator (up to 2800 l/s)

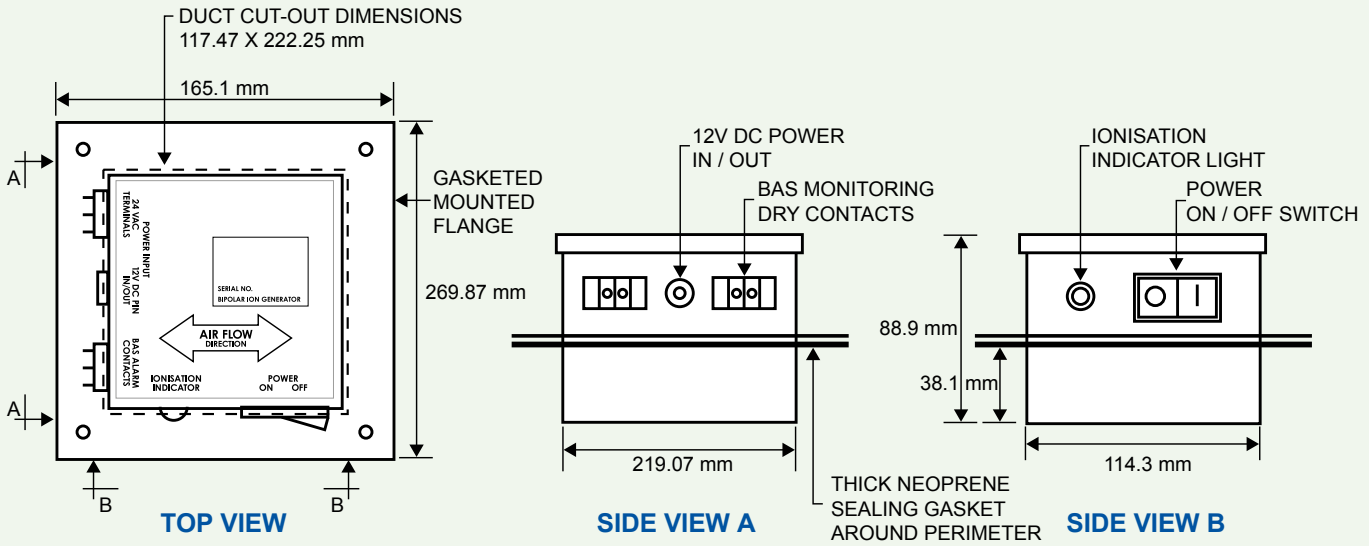
The needlepoint bipolar ioniser should be installed in the supply air duct as close to the treated space as possible.



Operation

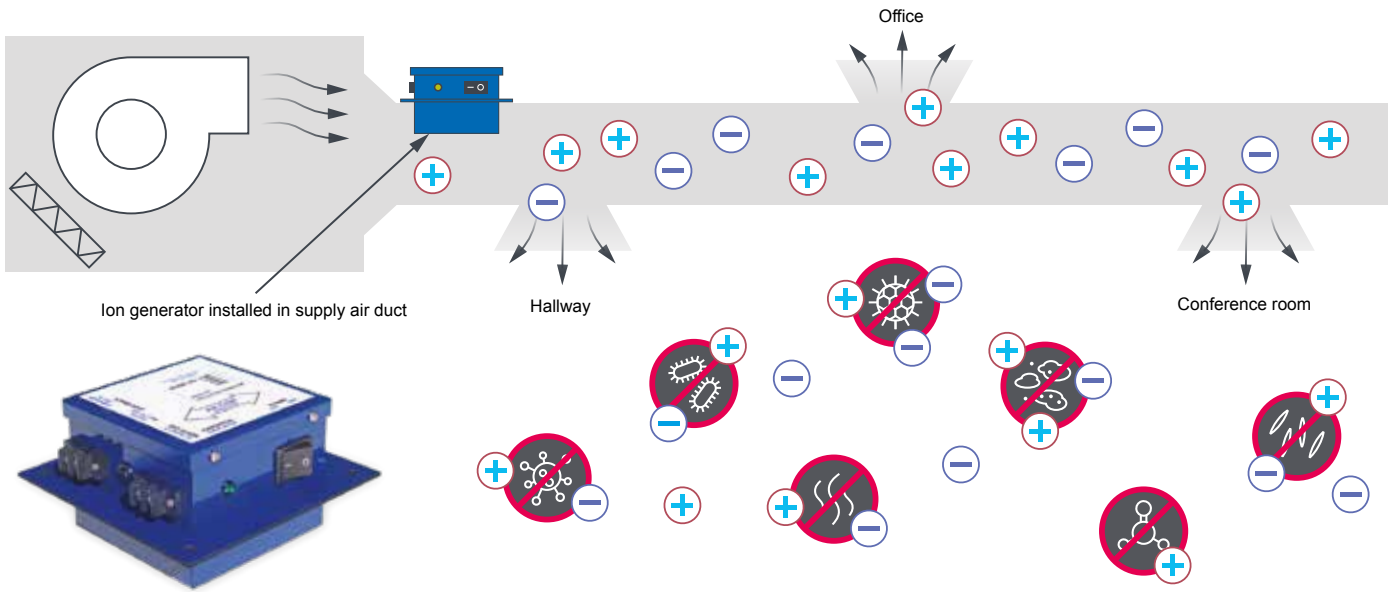
1. When power is supplied to the ioniser and the switch is in the “on” position, the ioniser will be activated and will illuminate the green ion indicator light.
2. The ionisation unit is self balancing and does not require any type of adjustment.
3. The benefit of the ionisation unit is achieved only when the supply fan is running. Therefore, to achieve improved air quality, interlock the ioniser to run when the supply fan is powered.

DIMENSIONS



APPLICATION EXAMPLE

Office building example



TECHNICAL DATA

Specification	Ion generator (up to 2800l/s)
Airflow capacity (m^3/h) / (l/s)	10191 / 2831
Pressure drop (Pa)	Less than 2.49
Housing material	18 Gauge steel powder coated
Weight (kg)	0.9
Maximum operating temperature (ºC)	93
Voltage input (V)	241/277 AC to 12 DC power supply
Power consumption	Less than 2 VA per set of outputs (30mA at 12V DC current draw)
Frequency (Hz)	50/60
Over current protection (mA)	1000 (auto-reset internal fuse)
Lead wire length (cm)	-
Mode of operation / ionisation output	Needlepoint type
Needle configuration	Recessed
Part number	**90001390**

Call: 01494 525252 **Visit: airflow.com**

80001105 - Issue 1 07/21

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Certificate No. EMS 569454 BS EN ISO 14001 : 2015
Certificate No. FM 00152 BS EN ISO 9001 : 2015