



IN-DUCT

BEAUTY IS ONLY SKIN DEEP,
IT'S WHAT'S INSIDE THAT COUNTS
PRODUCTS: AST2000



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AIRSTERIL IN-DUCT UNITS TARGET BACTERIA, MOULD AND FUNGI

INFECTION AND ODOUR CONTROL - FRESH AND CLEAN DUCTING

Air conditioning systems have been highlighted as an obvious way viruses can spread, so it is an essential and increasingly relevant area. Many in-duct units have been supplied to clear mould and fungi build up within ducting systems which caused health or odour complaints. They also allow customers to extend the periods between deep cleans of air handling units by maintaining a cleaner and healthier system.

In food production areas, keeping ducting systems clear of Listeria as well as other common contaminants is an essential requirement.



› PRIMARY FUNCTION

The primary function of the In-duct units is to keep the AHU (air handling system) and ducts themselves clear of contamination. Keeping the ducting system clear of harmful microorganisms is not significantly impacted by air flow, and generally we would expect air being sourced for a system to be relatively clean without contaminants. If units are required to treat the air flowing through the system then calculations become much more complicated, air flow is the most obvious point, however other points to consider are as below:

- What kind of air is the duct carrying (fresh air should be clear of contamination, recirculated air understandably may require treatment, but units within rooms may be a better solution)
- Duct dimensions (size and shape of duct) can impact the air speed past the units
- Duct material (aluminium, stainless steel and galvanised steel have different reflective capabilities with UV-C light)
- Air quality (air should not contain any dust, but quality of initial filtering can increase challenge)
- Age of system (older systems will be prone to greater internal contamination and air loss)
- Air temperature (our lamps are insulated against temperature changes and the protective sleeve around each lamp ensures peak efficiency)

› PERFECT FOR USE IN

- › Air Handling Units
- › Ducting systems
- › Air Conditioning systems

› HIDDEN EFFECTS OF POORLY MAINTAINED AIR SYSTEMS

- › Odour issues meaning visitors perceive poor hygiene, lack of care and poor management
- › Higher cleaning costs and premature refurbishment
- › Increased health risks including; spreading of illness and allergy
- › Increased absenteeism and staff turnover
- › Efficiency of air handling units decrease



REDUCE CONTAMINATION 24/7

› **SERVICING MADE EASY**



Switch off power.

Loosen and remove the two retaining finger screws to allow removal of central/lamp section from within the duct.

Remove the two lamp retaining screws allowing the lamp to be changed, then replace the screws.

Re-fit the central unit into the support frame, tighten the two retaining finger screws and attach the unit back in its placement.

Turn on the power. The lamp's blue light will be visible through the rear of the unit.

DO NOT LOOK DIRECTLY INTO THE LAMP

› **HOW OUR IN-DUCT SYSTEM WORKS**

These units are designed to permanently fixed into ducting systems and the powerful germicidal lamp will target airborne microorganisms as well as surface contamination within the ducting system, the Catalysts interact with the UV to quickly break down odourous volatile organic compounds through PCO. Using temperature insulated, shatterproof wrapped lamps they significantly contribute to compliance with safety standards in a variety of industries. Dependent on site conditions and installation location a single unit or multiple units may be required to eliminate growth of mould and control bacteria throughout an air handling unit or ducting system.

The In-duct should be operated 24/7 to spread purifying air through the ducting system and building utilising the airflow generated by the ventilation system.

**ODOUR ELIMINATION
 GUARANTEED**

*Conditions Apply

TECHNICAL DETAILS

In-Duct Unit Dimensions

280mm (l) x 156mm (w) x 65mm (d) –AST2000

Power Supply

110 - 120V, 50/60Hz
 AST2000 - 36 watts

Set Up

Fixed through the wall/roof of ducting or air handling unit system using support frame and template

Construction

Rugged construction, anodised aluminium

Weight

1.5kg –AST2000

Operation

Continuous operation



PHOTO CATALYTIC OXIDIZATION POWERPACK UNIQUE TO AIRSTERIL



› OPERATION AND SAFETY

The unique balance of technology used by AirSteril has been tried, tested and refined over many years to ensure the best achievable results with every unit is supplied.

- Due to the unit design UV light cannot escape the unit from any angle meaning it is completely safe.
- Ozone levels used are substantially below the most stringent emissions regulations worldwide.
- Power via a plug with an inline switch allows flexible installation and easy connection to existing sockets.

› HOW AIRSTERIL TECHNOLOGY WORKS

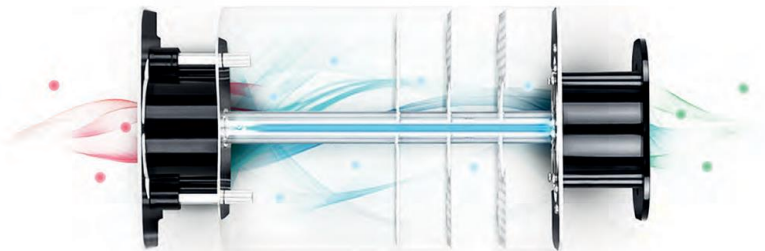
A combination of technologies working together:

Internal

- **Germicidal Irradiation** by dual UV light (Ultraviolet) kills microorganisms (bacteria, viruses and mould) by disrupting their DNA and removing their reproductive capabilities.
- **PCO - Photocatalytic Oxidation**, UV reacts with our Catalyst (TiO₂) to form highly reactive but short lived oxidising Hydroxyl Radicals (OH) which break down Volatile Organic Compounds (VOCs).
- Interaction UV with the TiO₂ heterogeneous catalyst transforms Oxygen into a highly reactive state of Superoxide Ions.

Transmitted Technology

- The negatively charged **Superoxide Ions** charge airborne contaminants causing them to cluster together and fall from the air as they become too heavy, aiding all other processes. This can remove airborne particulates down to 0.0001 micron, that's better than any HEPA filter.
- **Optional Targeted Ozone** can be produced via the specialist lamp if odour problems are present, although not always usually a requirement in ducting systems. This can be an essential element on certain sites, such as those processing waste.



For more information or to book an air quality check call:

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ADDRESS

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