

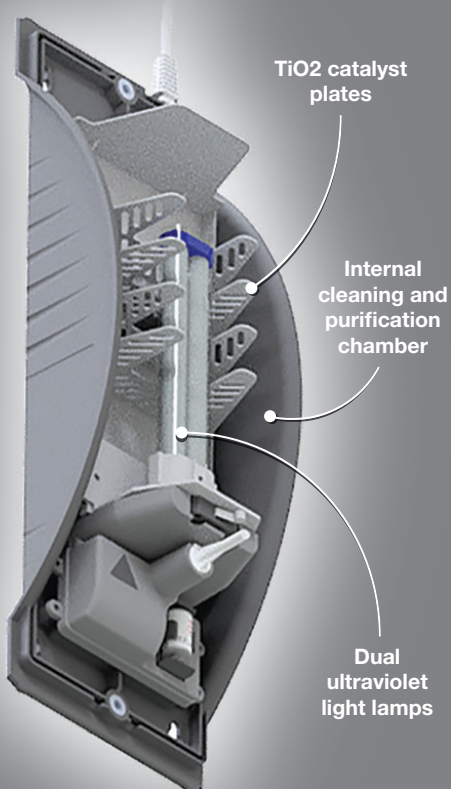
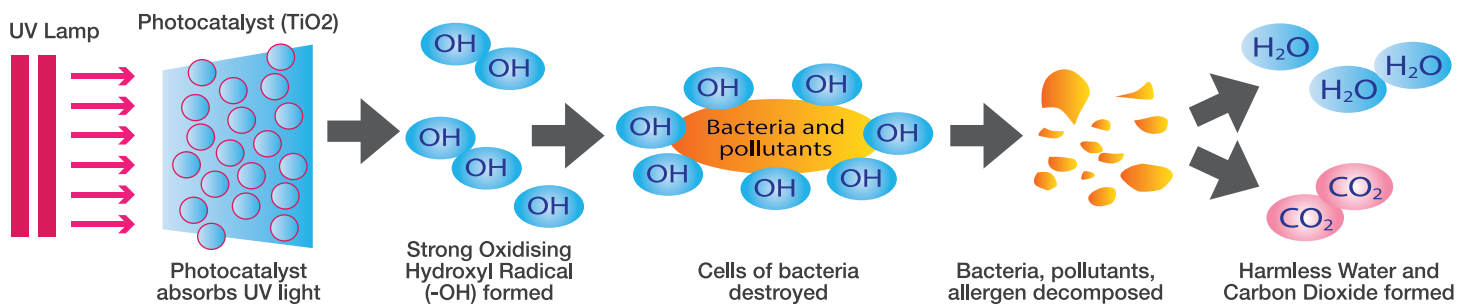
THE ULTIMATE AIR & SURFACE STERILISER SYSTEM

HOW IT WORKS...

The HyGenikx air & surface steriliser system utilises a combination of the most effective and refined air and surface sterilisation technologies to produce the best possible results.

Every element of the product and operating process has been designed to ensure the best results, including the chamber size, catalyst area and position, lamp output, dwell time and flow rate.

PRINCIPLE OF PHOTOCATALYTIC OXIDATION



The dual ultraviolet lamps within the various units, operate at the peak UVC wavelengths in the presence of TiO₂ catalyst plates, enclosed within our reflective internal cleaning and purification chamber. This creates Germicidal Irradiation, PCO – Photocatalytic Oxidation, Hydroxyl Radicals and Superoxide Ions and optional Ozone, which leave the unit as Plasma Quatro.

This process freshens the air by killing airborne pathogens, viruses, bacteria, fungi, mould spores, allergens and by decomposing odours and harmful gases.

INTERNAL OPERATION AND CATALYTIC REACTION

- 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 Titanium Dioxide) to form highly reactive but short-lived Oxidising Hydroxyl Radicals (OH) which break down Volatile Organic Compounds (VOCs).
- Interaction of the Dual waveband UV with the TiO₂ heterogeneous catalyst both creates and breaks down Oxygen molecules transforming Oxygen into a highly reactive states of Ozone and Superoxide Ions, which leave the unit as “Plasma Quatro”.