

Air Space Products and Odour Eradication

1. Detailed Mechanism of Gaseous Plasma:

Gaseous plasma eradicates odour through a process known as ionization. Ionization is the addition or removal of an electron from an atom or molecule, resulting in the formation of ions. When air is subjected to an electric field, it can become ionized, creating a mixture of electrons, positive ions, and negative ions. In the context of odour control, these ions actively seek out and react with odour-causing molecules. When they collide with these molecules, they either break them apart or neutralize them, rendering them non-offensive. This means the offensive smell is not just masked, but the actual chemical structure causing the odour is altered, leading to genuine odour elimination.

2. Comparison with Other Technologies:

- **HEPA (High Efficiency Particulate Air) Filters:**
 - Mechanism: Traps particles down to 0.3 microns in size, including some odour molecules.
 - Limitation: Does not neutralize odours but captures them. Requires regular replacement and can become odour sources if not maintained.
- **UV (Ultraviolet) Radiation:**
 - Mechanism: Uses UV light to kill microorganisms that might produce odours.
 - Limitation: Effective against biological odours only, not chemical ones.
- **Chemicals and Sprays:**
 - Mechanism: Use of chemicals to mask or neutralize odours.
 - Limitation: Introduces potentially harmful chemicals into the air and tends to mask odours rather than eliminate them.
- **Odour Masking Products:**
 - Mechanism: Releases a fragrance to cover up or mask the unwanted odour.
 - Limitation: Does not eliminate the root cause of the odour, merely covers it. Over time, the masking scent can mix with the odour, leading to unpleasant combined smells.

3. Advantages of Continuous Air Space Technology: From our customers and current sites

- 1. Active Eradication:** Unlike passive systems which simply filter or mask odours, gaseous plasma technology actively seeks and neutralizes odour-causing molecules, ensuring more effective and long-lasting odour control.
- 2. Improved Air Quality:** Gaseous plasma not only removes odours but also eradicates various pollutants, contributing to a healthier indoor environment. This can lead to fewer respiratory issues and allergies.
- 3. Energy Efficiency:** Continuous operation can be more energy-efficient than systems that require high-power bursts or frequent maintenance. Over time, this can translate to cost savings.
- 4. Lower Maintenance:** With no filters to replace regularly and no chemicals to replenish, gaseous plasma systems can have lower maintenance requirements, reducing long-term costs and ensuring consistent performance.
- 5. Safety:** Gaseous plasma technologies don't introduce potentially harmful chemicals into the air, making them a safer alternative to some chemical-based odour control methods.
- 6. Versatility:** Capable of handling a wide range of odours and pollutants, from organic smells to chemical fumes, providing a comprehensive solution to indoor air quality challenges.

7. Enhanced Wellbeing: A cleaner, odour-free environment can lead to improved mental well-being, increased concentration, and reduced stress levels for occupants.

8. Green Technology: Using plasma for odour control is environmentally friendly, with no harmful by-products or waste, supporting sustainability goals.

9. Cost-Effective: The combination of energy efficiency, low maintenance, and effective odour control can result in reduced operational costs over time.

10. Seamless Integration: Many gaseous plasma systems can be integrated into existing HVAC systems, ensuring unobtrusive and continuous operation.

4. Business Case for Eliminating Odour and Air Quality Improvements: Continuous use of Air Space technology brings about:

1. Commercial Offices:

- **Enhanced Productivity:** A pleasant working environment free of distractions like foul odours can lead to increased focus and productivity.
- **Employee Satisfaction:** Staff who work in clean, odour-free environments report higher job satisfaction, potentially reducing turnover rates.
- **Improved Brand Image:** First impressions count. Clients and partners visiting offices will associate cleanliness with professionalism.

2. Healthcare Settings (Hospitals, Clinics, etc.):

- **Patient Recovery:** Studies have shown that a cleaner environment can lead to faster patient recovery. Eliminating odours can contribute to the overall patient experience.
- **Infection Control:** Beyond just odour, gaseous plasma technology can help reduce airborne pathogens.
- **Enhanced Trust:** Patients and visitors equate cleanliness with quality care, leading to increased trust in the healthcare provider.

3. Shops and Retail Spaces:

- **Increased Sales:** An inviting atmosphere encourages customers to spend more time shopping, potentially leading to increased sales.
- **Customer Retention:** Customers are more likely to return to a clean-smelling shop than one with off-putting odours.
- **Positive Reviews:** In the age of online reviews, a pleasant shopping experience, including the shop's scent, can result in positive feedback and recommendations.

4. Spas and Retreats:

- **Enhanced Relaxation:** Spas thrive on offering a peaceful environment. A foul-smelling spa can detract from the relaxation experience.
- **Holistic Experience:** Spas often focus on engaging all senses for a comprehensive experience. An ambient scent is integral to this.
- **Client Retention and Recommendations:** Satisfied clients, who find the atmosphere fresh and rejuvenating, are more likely to return and recommend the spa to others.

5. Gyms and Fitness Centres:

- **Increased Memberships:** A clean, fresh-smelling gym can attract more members.
- **Member Satisfaction:** Gym-goers are more likely to continue their memberships and attend regularly if they find the environment pleasant.
- **Health and Hygiene:** Reducing odours, especially in areas like changing rooms, emphasizes the gym's commitment to hygiene.

6. Restaurants and Cafés:

- **Dining Experience:** Odours can interfere with a diner's palate. Ensuring a neutral-smelling environment allows the food's aroma to shine.
- **Health Standards:** A fresh-smelling restaurant reinforces the establishment's commitment to cleanliness and health standards.
- **Repeat Business:** A good dining experience, which includes the restaurant's ambience and smell, can ensure diners return.

7. Hotels and Accommodations:

- **Guest Satisfaction:** The first impression, including the scent of the lobby or room, can set the tone for the entire stay.
- **Positive Reviews:** Guests are more likely to leave positive reviews, leading to more bookings.
- **Prestige and Branding:** Premium hotels often have signature scents, contributing to their brand identity.

In all these scenarios, investing in effective odour elimination not only ensures a pleasant environment but also translates into tangible business benefits such as increased revenue, repeat customers, and a robust brand image. By prioritizing cleanliness and odour control, businesses can enhance their offerings and stand out in competitive markets.

Next Steps

To explore the implementation of Air Space technology in your funeral home or mortuary facility, please contact our distributor at info@osy-group.com.

This white paper is intended to provide information and guidance regarding the benefits of Air Space technology for funeral directors and mortuaries, addressing key industry problems and issues. These benefits extend across various markets where air quality and pathogen control are important. For specific inquiries, further information and evidence or to explore implementation options, please contact info@OXONOX.com.

Disclaimer: The information provided in this white paper is based on the knowledge available as of the publication date and may be subject to change. Readers are encouraged to verify the information and consult with experts in the field for the most up-to-date recommendations and solutions.