

The global award-winning invention of 2013, proven to clinically clean the environment, eliminating bacteria and harmful gases from the air that we breathe and the surfaces that we touch.



# Clinically Cleaning The Environment

2014 sees the launch in the UK of the first total sanitisation programme to eliminate more than 99% of bacteria and noxious gases from the environment we live and work in.





Eliminates
MRSA
C. difficile
Streptococcus

Find out more »

Cruise Ships

#### Carehomes



Eliminates
All common bacteria
All noxious smells
Creating a clean air environment

Find out more »

Hotels

# Poultry Farms



Eliminates
E. coli
Salmonella
Campylobacter & waste odour

Find out more »

Food Processing Pla...

# Surgeries



Reduces
Germ transmission
between patients

Find out more »

Workplace

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Keeps
Food preparation areas
& public areas sterile

Find out more »



Sanitises air
In kitchens, bedrooms
and toilets

Find out more »



Eliminates
Bacterial & microbial fungal problems.



Eliminates
All common bacteria

All noxious smells

Find out more »

Find out more »

Food Stores



Eliminates
E. coli
Salmonella
Campylobacter & waste odour

Find out more »

#### Gyms & Health Clubs



Keeps
Equipment sterile
& changing rooms
clinically clean

Find out more »

**Public Places** 



Eliminates
All odours
& VOCs

Find out more »

Nurseries & Schools



Keeps
Environment germ-free
& clean

Find out more »

# The Hygia System eliminates the problems from the air we breathe, to give a better quality of life!

How the system works »

Geneva Innovations Awards »

The Sanitisation Programme »

# How the system works



The key component is a unique Compact Fluorescent Lamp (CFL), "Hygia Magic Lamp", which is coated with complex multi-precious metal dioxides (subject to a patent application).

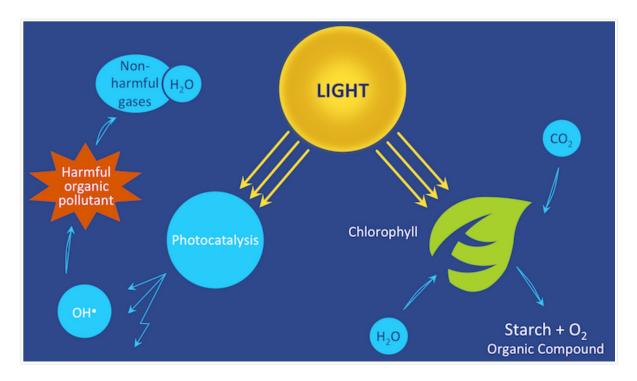
The combination of the light frequency of the lamp and the precious metal oxide coating eliminates, in a photocatalytic process, any bacteria or chemical gas particles that are exposed to the air in the vicinity of the lamp.

Photocatalytic process is very similar to photosynthesis, where the combination of sun and chlorophyll in leaves transforms the carbon dioxide into starch and oxygen.

Photocatalytic process, using the coated lamp, oxidises bacteria and VOC particles, decomposing them into non-harmful gases and water.

One coated lamp unit can sanitise all of the air in a 24 cubic metre room in 24 hours, then maintain the air clinically clean.

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#### Awards - Geneva Inventions



The Hygia Magic lamp was developed in Sri Lanka by a Manju Gunawardene in 2013.

The lamp was considered such an innovative idea that at the World's leading inventor's competition in Geneva in 2013 it won the Gold Medal for Best Innovation in the Environmental Category and the Silver Medal in the Medical Category. The Invention Geneva Exhibition 2013 had 600 inventions from 42 countries

Hygia Magic is the subject of a worldwide patent application.



The Hygia programme will maintain the quality of the air and all surfaces within a building, totally bacteria free and fresh, 24 hours a day, 7 days a week.

#### The Product

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Hygia Air and Surface Sanitisation Programme



In addition to the Hygia Magic Lamp, there is a range of other Hygia Magic products available that utilise the same principles of precious metal oxide coatings, activated by a specific light spectrum source, in order that total sanitisation of the air and surfaces can be achieved. These include:

- · Hygia Magic coated window film
- Coated lamp diffusers
- Coated fluorescent batten and bulkhead luminaires
- And custom made units that can be installed into existing air ventilating or conditioning units

The Hygia Magic Coating can also be applied to existing LED lights, downlighters and to working surfaces of metal, glass or plastic exposed to specified levels and strength of white light.

# Site Survey

A fully trained Hygia technician will carry out a site survey of the key areas of the building identified by the client as needing sanitisation. This will include testing the air quality to identify VOC levels (odours) and the baterial loads on vulnerable surfaces. He will then produce a report, with his recommendations as to the most cost effective solution to achieve a clinically clean environment in each area of the building that needs treating, depending on levels of protection required, along with a quote for the installation costs.

# Scope of Work

Low Level Protection

Public areas with low areas of contamination, such as offices, schools, lounges and bedrooms in hotels, carehomes, and ships, would need low level protection, achieved by the installation of single Hygia Magic coated unit in a ratio of 1 unit per 25 cubic metres of air space.

This would keep the air sanitised against common germs, colds and flu, plus remove organic background odour, such as cooking smells, infrequent toilet use and stale air where ventilation of the area is poor.

Medium Level Protection

Medium levels of protection, 2 Hygia Magic coated units per 25 cubic metres of air space would be needed. Such areas are doctors' surgeries, reception and public areas in hospitals and high density working areas in factories, food stores and food processing plants, restaurants and food preparation areas.

**High Level Protection** 

High levels of protection are needed in hospital wards, intensive care units and operating theatres, poultry farms and abattoirs, high volume restaurants and food preparation rooms. Here he would probably recommend spraying the surfaces of the area with the same complex coating that the Hygia Magic Lamps are coated with, backed up by the use of Hygia Magic coated units and the installation of units into the air conditioning or heating units in the key areas to sanitise the air at source.

# Site Preparation and Installation of the System

The System will need at least one Hygia Magic Lamp, or Hygia coated light unit per 120 sq.ft of floor area, and these must be installed so as to not interfere with the lighting specification of the room.

All surfaces that have been indentified as needing coating will first need to be deep cleaned using super-heated steam equipment to kill off any bacteria, dust mites, eliminate smells and remove allergens and dirt.

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Where proprietary Hygia Magic Lamps are not being installed, existing fluorescent bulbs will need to be replaced with "daylight" lamps that emit the right level of light to activate the coatings.

The number of Hygia Magic Lamps or Hygia Magic coated light units that need to be installed in an area will depend on the severity of the sanitisation problem that exists and the levels of protection necessary to maintain a clinically clean environment in the specified area.

When all the Hygia units are installed and the surfaces coated, the lights need to be left on for the first 24 hours to sanitise the air in the treated areas.

The technician will return to the site within 72 hours of installation to check air quality and bacteria levels on key surfaces and issue a Hygia certficate of air quality achievement for mounting on the wall of the building, plus, if requested, provide a "Hygia Sanitised Air" sticker for the door of the premises.

### Maintenance

It is essential that the efficiency of the system is monitored regularly by quarterly site visits to check air quality and any bacterial levels, and involve on site cleaning of coated surfaces and replacement of any components and lamps that are losing their effectiveness.

#### Cost

This obviously depends on the severity of the problem that need to be addressed and the level of protection needed to create a clinically clean environment. As a guide, the cost of surveying and submitting a report, plus the deep cleaning of surfaces and installation of coatings and lamps, would work out at between 50p and 80p per square foot of area of the building requiring treatment. Ongoing maintenance would be 25% of the installation costs. All prices, which are subject to quotation, would include costs of replacement bulbs and coatings to maintain the quality of air and surface sanitisation on an ongoing basis.

Hygia can normally arrange a survey within 7 days of receipt of an instruction, and installation can take place within 14 days of receipt of official instructions to proceed. Payment is due on completion of work, either by company credit card or cheque.

Certification is issued annually subject to the site being maintained by Hygia.

Don't just take our word for how good Hygia Magic lamp is, take a look at these market leading testing house reports and client approvals

# Test Data & Approvals

Testing House Reports - Click an item to view (use browser's back button to return to this page)

- Elimination of VOCs Report from Equinox Solutions, an ISO9001-2008 Certified Company » (assets/cases/equinox-churchgate.pdf)
- Elimination of Specified Bacteria Kansas State University » (assets/cases/hygia-activTek-24hr-test.pdf)
- Efficiency of Hygia Magic Plate Tests by India Institue of Technology » (assets/cases/indian-institute-of-technology-yeast-plate-tests.pdf)
- Hygia Elimination of Common Bacteria » (assets/cases/hygia-activTek-24hr-test.pdf)
- Elimination of E. coli, Salmonella and Campylobacter from International Testing Centre » (assets/cases/international-testing-centre.pdf)

http://hygiauk.co.uk/ 1/2/2015

Testing House Reports - Click an item to view (use browser's back button to return to this page)

Passive cleaning of indoor air and surfaces for Batra Hospital & Medical Centre » (assets/cases/batra-hospital.pdf)

Case Histories - Click an item to view

- Elimination of VOCs in World's Largest Public Toilets »
- Elimination of VOCs and Bacteria in a Large Chicken Raising Factory »
- C Dramatic Reduction of Hospital Acquired Infections Over Long Term Tests in Hong Kong»
- Elimination of Rubella from a Garment Factory in Sri Lanka »

Customer Approvals - Click an item to view (use browser's back button to return to this page)

- Leela Hotel, India Performance in Kitchen Butchery and Restaurant » (assets/cases/hotel-kitchen.pdf)
- Moolchand Hospitals Performance in ICU and Hospital Sanitation » (assets/cases/hospital-test.pdf)
- Airports Authority of India Performance in Washrooms » (assets/cases/airports-auth-india.pdf)

Hygia Magic lamp eliminates bacteria from all surfaces that are exposed to the light it emits, creating and maintaining a clinically clean environment.

# Hospitals

Hospital aquired infections is the biggest single problem facing the medical profession

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today, with life threatening diseases such as MRSA, C.difficile and Streptococcus effecting up to 6% of in-patients.

Hygia Magic Sanitisation can eliminate up to 99.7% of these diseases creating a safer environment for the patients and staff alike.

See Case History



#### Carehomes

The environment in carehomes is condusive | Get in touch to the proliferation of the germs and odours

Test Data & Approvals

because of the close contact of residents, and the security aspects of the premises which are usually overheated for the comfort of the clients.

Hygia Magic Sanitisation addresses the hygiene of the kitchens, living and dining areas, as well as possible odours created in several areas of the building because of the enclosed environment.

The Hygia Magic programme addresses all of the issues maintaining the wellbeing of and comfort of the residents and staff.

1/2/2015 http://hygiauk.co.uk/



# **Poultry Farms**

These premises are a prime market for Hygia Magic Sanitisation programme.

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At this time animal farms have tremendous problems with the effect of animal waste on the local environment.

Hygia Magic eliminates 100% of all volatile organic compounds (VOC) including Ammonia, Formaldehyde, Carbon Monoxide, as well as Nitrogen and Hydrogen Sulphide.

The bigger problem is that drug resistant bugs such as E. coli, Salmonella and Campylobacter bacteria affect 1/2 million people in the UK as a result of eating contaminated chickens, and more than 200 die per year.

Hygia Magic eliminates more than 95% of these bacteria and could solve these problems for the industry

See Case History



# **Doctors' Surgeries**

The environment in doctors' surgeries is condusive to the proliferation of germs

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because of the close contact of many patients already carrying bacteria and contact with surfaces in consultation rooms.

The Hygia Magic programme addresses these problems, offering an effective solution that would aide the prevention of contracting these airbourne and surface bateria, creating a cleaner and safer environment for both patients and staff.



Cruise Ships and Hotels

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Get in touch	Test Data & Approvals

The biggest concern in the hospitality industry is clients being affected by food poisoning which can close down venues, cost huge sums to clean and create negative publicity for the establishment.

The Hygia Magic programme can reduce by up to 99% of the total bacteria and fungal counts in kitchens, restaurants and public rooms, and can effectively sanitise bedrooms, even when used by heavy smokers.

Hygia Magic also keeps food fresher by fast reduction of bacteria colony forming units (CFU).





# Food Processing Plants

The Hygia Magic programme utilises very effective anti-microbial devices that can

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maintain a bacteria/contamination-free environment in food processing, handling and packaging plants. This results in fresher food, longer shelf life and complete control of mould and microbial spores.

See Case History

#### Workplaces

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Sickness in multi-person buildings, such as

factories, schools and offices, is a major cost to employers and can effect up to 5% of productivity.

The Hygia Magic programme sanitises the air in these environments, which can lead to a reduction in absenteeism of up to 30%.

The Hygia Magic programme can eliminate colds and flus, as well as more debilitating bacteria and illnesses, for as little as 25p per person, per week.

Hygia Magic elminates Formeldehyde in the air, a very common source of sick building syndrone in new buildings.

See Case History

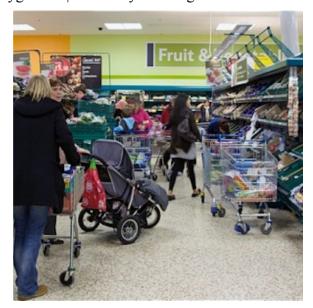


**Food Stores** 

Get in touch

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Food stores, especially those that sell meat and unpackaged fruit and vegetable products, are a prime target for microbial bacteria.

The Hygia Magic programme can offer a complete solution to prevent contamination and bacteria forming.

# Gyms & Health Clubs

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Test Data & Approvals

Whilst promoting health and fitness,

operators are well aware that equipment and fittings in the gyms, changing rooms and wash rooms are exposed to sweat and bodily fluids that can expose other members to substantial amounts of bacteria, as well as unpleasant airborne odours.

The Hygia sanitisation programme can maintain all the surfaces in the building totally sterile and the air clinically clean - a key to well being.



#### **Public Places**

Get in touch

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Even the biggest public toilets can be kept odour-free and clinically clean using just a few Hygia Magic Lamps!

See Case History

Nurseries & Schools

Get in touch

Test Data & Approvals

Educational establishments are a breeding ground for common germs.

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With Hygia Magic Lamp, these environments can be kept sterile and reduce the risk of common colds, flus and diseases spreading amongst the children and staff.



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