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Environmental Services Ltd  
HVAC Hygiene & Deep-Clean Specialists



Indoor Air Quality is our Quality

# About Us

## Excellent Reputation

Years of experience has been gained providing the reconditioning, maintenance and inspection of HVAC systems to clients all over the world.

Particular expertise has been gained in the following fields:

- Marine Vessels:  
Commercial Shipping – Dredging Vessels –  
Motor Yachts – Sailing Yachts – MOD Vessels.
- Offshore:  
Oil and Gas Rigs – FPSO Vessels –  
Heavy-Lift Vessels – Pipe-Laying Vessels.
- Petro-Chemical.
- Public Enterprises – Hospitals, Prisons.
- Government Buildings – Offices etc.



MEM Environmental Services Ltd are now providing an extensive range of these services here in the United Kingdom, as well as worldwide.

MEM provide a total package of maintenance and services on behalf of air handling services.

MEM invite any questions concerning our variety of services so please feel free to contact us at your convenience – we look forward to hearing from you.

## General Services

- HVAC System Inspection and Cleansing Services.
- Reconditioning of Air Handling Units.
- Kitchen/Galley Extract System Cleansing Service –  
ICE-Clean Technology.
- Electronic Disinfecting Process
- Inspection: Robotic Camera, Microbiological, Deposit  
Thickness and Airborne Micro-Dust Testing options.
- Explosion Safe Video and Endoscopic examination.
- TR19 and HTM03-01 Standards.
- Deep-Cleaning
- Marine Internal Sterilisation Treatment



# Information

## Clean Air Ducts - Why?

To prevent/restrict the concentration/growth of microbiological bacteria, mould and yeast within HVAC systems. Any form of concentration of microbiological contamination in the air can raise the risk of negative influences of people's health.

To prevent/restrict the concentration/growth of dust particles/pollution levels. E.G. forms of crystalline and carbon materials etc. Again, these forms of pollution can raise the risk of negative influences of people's health.



## Recommendations

A frequent cleansing/inspection program of air ducting internals and air handling systems.

We would highly recommend the cleaning of both the inlet and outlet ducts regularly, at least once per year. Also, we recommend that a disinfection process of the air ducts be implemented two times per year.



Maintaining a healthy-low-risk environment is paramount in the influences of people's health.

Additionally, the cleansing programs should prolong the lifespan of air handling systems as well as assisting in the maintaining of the internal appearance of the building/vessel.

## Professional Services

We have the knowledge and experience to allow you to relax, knowing that your environment is in safe hands.



Our high-tec cleansing equipment has been designed to implement our services with minimum disruption, as well as allowing us to perform to a high standard of professionalism/service.

All services are implemented to within law/legislation requirements.

# Complete Deep-Clean Solution

High demand for true Deep-Clean Service has resulted in MEM Environmental Services Ltd. creating an entire department dedicated to 3 step deep clean solution for superyachts, cruise ships and offshore marine facilities.

Over the years we've developed an unparalleled service which ensures a spotless, sterilised environment free of harmful diseases and airborne pathogens.

We call it our Deep-Clean Solution and we recommend taking all three services at once, however you can mix and match any steps if any of the services are not applicable.

## Introduction

Micro-organisms live in every part of the biosphere, and some of them are even capable of growing at low temperatures, including those below freezing point. These micro-organisms, unfortunately, are also apparent in everyday life, i.e. refrigerators, stores etc, where they collect as pathogens and contaminate foods. Therefore, although storing foods in the refrigerator is the best way to keep them safe from bacterial contamination, there are also types of bacteria that can grow in cold temperature as well as inside the refrigerators.

Most of these micro-organisms are well able to grow below temperatures of 00-20C. They can enter the refrigerator through raw and improperly packaged foods or even through an open refrigerator door by poorly cleaned refrigerator seals, or are already growing from lack of proper sanitation or warm temperature. If ingested, they can cause dangerous foodborne illnesses.

Normal daily cleaning of cooker hoods, kitchens, cold stores and freezers is not enough to remove deeper dirt. Stubborn dust nests, fats, insects, fungi and invisible bacteriological contamination accumulate in places you normally cannot reach.

## Deep-Clean

A Deep-Clean of all surfaces using the most effective equipment and chemicals is the solution to any of the pre-mentioned issues of contamination within the following areas etc.

- Galleys/Kitchens, Hot & Cold Pantries, Cold, Dry & Freeze Stores, Walk-In Fridges, Cooker Hoods, Ovens and all relevant Appliances
- Tiled or Waterproof Floorings, Shower Cabin Units, Corridors, Walls, Ceilings
- Mess Rooms, Lounges and Sleeping Accommodation
- Gymnasiums, Spas, Leisure Facilities
- Kitchen/galley extract duct-cleaning services
- Professional Service Engineers with a knowledge of how to apply themselves within the yachting, marine & offshore industry's.

Normal daily cleaning of cooker hoods, kitchens, cold stores and freezers is not enough to remove deeply embedded germicides and bacteria.

## APPLICATION - PROCEDURE

Preventing mould growth in cold rooms and galley's etc. is achieved by controlling condensation, moisture and removing materials contributing to mould growth. Regular cleaning schedules for these areas prevent mould or contamination issues. Good housekeeping should help to discourage pest and vermin, however, routine inspections must be implemented.

A regular procedure, recommended two applications per year, is generally required as listed below:

1. Prior to works, the isolation of all electrical items, as well as to protect exposed switches from steam/water.
2. Dismantle the appliances ready for immersing their components into a dip tank filled with hot water and a suitable degreaser. Components that can be dipped include: - Grease filters - Oven trays - Range tops and rings - Fryer pans - Grill trays - and other grease polluted items.
3. Pull equipment out so that cleansing can be implemented to both behind and underneath, steam-clean and wet vacuum the floor space where equipment was situated.
4. Remove excess grease from internal areas using specified cleaning tools prior to the application of an appropriate cleaning solution to all surfaces.
5. Steam clean walls and ceilings before returning equipment to their locations.
6. Sanitise cooking and preparation areas.
7. Steam-clean and wet vacuum all floor surface areas.

## Flushing of grey water lines

Our unique system flushes sinks, showers, urinals and galley floor drains with minimal disruption.

Puracator is a unique machine that has been specially designed to prevent blockages and keep onboard drains clean and infection-free, often without the need to dismantle much of the pipework making it less disruptive for engineers and crew alike.

- **Cleaning** - Puracator delivers a none damaging pressurised 'ring' of hot water which, combined with a de-greasing agent, removes fatty deposits and fungi from the entire inner surface of the pipe work, including any bio-film which may have formed on the inner surface of the pipework.
- **Preventing** - We then apply with the Puracator a biocide treatment to inhibit future bacteria growth

Adopting an "out of sight out of mind" attitude towards the cleanliness of a vessel's sinks, showers and galley drains is not recommended!

Dirty drains containing bio film and bacteria can be costly in terms of health issues and downtime due to blockages, both of which can be inconvenient and expensive in the long term.

A genuinely clean and odour-free bathroom will greatly enhance the onboard experience and go a long way to preventing infections, health issues and associated expense.

Your guests and crew not only want to feel clean, they need the reassurance that their environment is germ free. For this to happen, you need to look below the surface.

## M.I.S.T

### Marine Internal Sterilisation Treatment

Beware hidden dangers. Untreated environments lead to unwanted illness

Once all the surface drains have been cleaned it's time to rid the entire vessel of any airborne pathogens to ensure a 100% clean environment.

- M.I.S.T - is expertly applied with specialist sprayers that form a fine mist.
- M.I.S.T is a non-toxic contact cloud, which means when it touches any surface it eradicates 99.9999% of all airborne and surface pathogens and viruses including MRSA, Salmonella, Legionella and Norovirus.
- No need to cover any surfaces, M.I.S.T can be applied to even the most opulent of lounges without any effect. We encourage the application of all hard and soft furnishings for maximum effect.
- Our formulated biocide, which is listed on the Biocide Register, does not contain Ozone or any bleaching product such as Hydrogen Peroxide. It is completely safe to use in food preparation environments.

The proliferation of bacteria, viruses, mycobacteria, moulds and fungi can lead to a host of problems ranging from general poor health to acute sickness. Bugs spread quickly and crew being laid low can make a big difference to the smooth running of your vessel. Guests being incapacitated can result in far-reaching damage to your reputation. A situation which won't get better quickly.

## Chemicals

- Terminex II – Disinfectant/Sanitisation Solution - See Attached COSHH Data Sheets
- Bio-Klenz - Sanitisation Solution - See Attached COSHH Data Sheets
- Degreasing Solutions - See Attached COSHH Data Sheets
- Foam-Klenz Solution - See Attached COSHH Data Sheets
- Stainless Steel Polish - See Attached COSHH Data Sheets

## MEM Services

In response to increasing demands for Deep-Clean Services within the yachting, marine & offshore industry's, MEM has a dedicated service department with 100% dedicated and field-experienced project teams.

If you are looking for a partner for any of our services, MEM Service Department will assist you with a dedicated project team. We can be a trustworthy partner throughout the complete project and provide you with applicable inspection, reporting, advice, guidance and an excellent end product.

Long-Term Contracts are very much part of our desire to become your partner ongoing.

# MEM Worldwide Locations



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# Testimonials

We have a long standing relationship with MEM and have worked with them on several projects in the offshore Oil & Gas construction industry.

We have always found them to be a trustworthy and reliable supplier who are willing to go that extra yard to assist in achieving the project targets.

The labour supplied was fully qualified and trained and the ductwork sanitation service was second to none along with an excellent documentation package.

I would not hesitate to recommend MEM to any future client.

## Jeff Blakey

We have been dealing with MEM for over 10 years, using their services to clean and test varying types of Air Handling Units and Extract systems.

They have a full working knowledge of the NHS HTM documents along with industry TRD requirements.

MEM engineers present themselves in a polite & professional manor and are only too willing to go that extra mile should there be any problem's to sort out, we would highly recommend their services.

## Steve Ramsey



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