



**Grease  
Guardian®**  
Marine Range

*"State-of-the-art technology  
built for sea vessels"*

# Automatic Grease Removal System

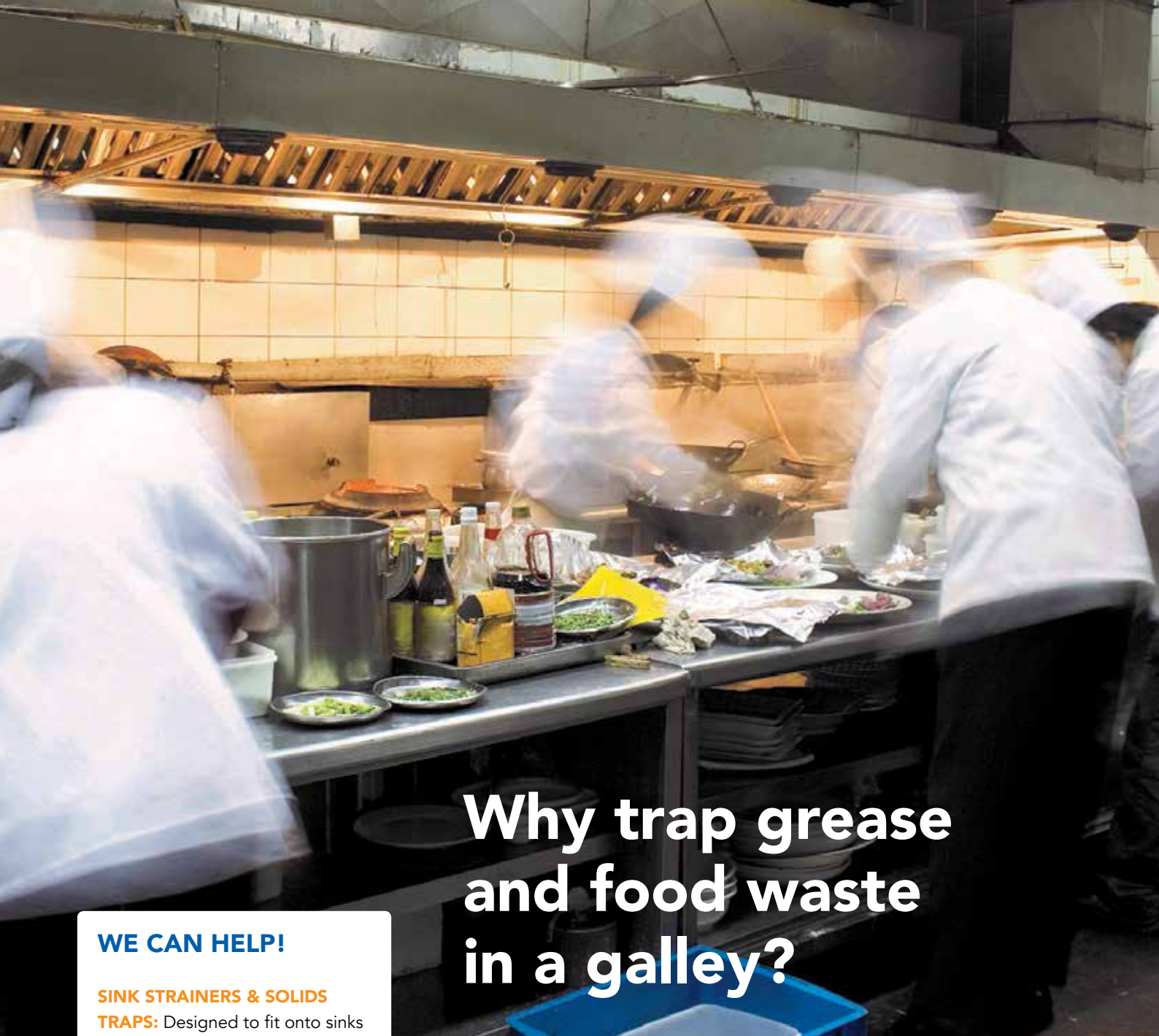
Towards a Cleaner Environment



BS EN ISO 9001 : 2008

[www.fmenvironmental.com](http://www.fmenvironmental.com)





# Why trap grease and food waste in a galley?

## WE CAN HELP!

### SINK STRAINERS & SOLIDS

**TRAPS:** Designed to fit onto sinks to strain food waste.

### MANUAL UNDERSINK GREASE

**TRAPS:** A basic system that fits under sinks. Needs to be pumped out regularly to maintain efficiency.

### GREASE RECOVERY DEVICES:

Typically installed under sinks or centralised. Traps and removes grease automatically.

### AUTOMATIC SOLID TRANSFER:

by pump from galley waste water to designated tanks.

### CUSTOMISED SOLUTIONS:

According to every customer requirements we can modify our standard range to accommodate varied needs.

## WHY IS FOODWASTE AND GREASE SO PROBLEMATIC?

Each year nearly half a million tonnes of grease and fat enter the UK and Ireland's sewerage system. Grease will stick to pipe walls and eventually cause blockages. Fats and oils get just about everywhere and can seriously damage waste water treatment equipment, costing municipalities millions in repairs every year. Fats, oils and grease (FOG), if allowed to enter a natural water course will cause obvious damage to the environment.

Grease is a problem for most city municipalities and consequently legislation to prevent FOG pollution is being enforced. Polluters face large fines or closure if they fail to manage their FOG waste effectively. Luckily there are numerous systems for handling FOG. Grease traps and grease removal units can be installed by kitchen operators to trap FOG at source and remove it before any damage is caused.

Similar situations happen in galleys and Grease Guardian provides a solution.



## Galley waste-water on sea vessels

Grease Guardian has been successful in different applications with more than 10,000 units installed globally. In recent years our experience led us to expand in the marine sector both for centralised and under sink equipment (GG Marine Range).

Our units are proven to be more reliable and effective than other conventional grease traps. Safeguarding onboard sewage treatment plants from excessive FOG.

Clogged membrane with FOG

Final result on an old Membrane where a Grease Guardian Marine D5RM ASRD has been in operation



Our equipment



Our solution



Final result with Grease Guardian

Our Marine Range has different design configurations to suit confined spaces, and together with special features, will operate efficiently in marine environments. Proven results give us confidence to promote our Grease Guardian Marine Range from super yachts to cruise liners and everything in between.

### Why trap grease and food waste in a galley?

#### Marpol 73/78 Annex IV and V

##### 5.4.4 Galley wastes

All galley wastes that may contain grease should flow through grease traps to a retaining box prior to discharge overboard with a distance of 3 N.M. from the closets line of land (territorial sea – 12 N.M.) or to a treatment aboard ship.

The grease collected may be disposed of by incineration, by storage for shore disposal, or in any manner stated by the law.

Food waste needs to be handled as well as per Annex V

Suitable grease removal system will be required to pre-treat the kitchen waste water accordingly, prior to discharge at sea or to go for treatment on board.

In order to keep the best working condition of the on board waste water treatment plant that receives kitchen waste water, it is good practice to reduce the loading of the kitchen waste water. This is done by reducing/removing solids and fat oil and grease before the water will enter the plant.



## D1R M, D2R M

### Under Sink Models

- Automatic grease trap and grease removal units with 0.75 l/s & 1.25 l/s Flow Rate
- Specific designed for under sink installation and at source solution.
- Removable solids basket of 3 lts and 4 lts volume capacity
- Traps food waste and grease and removes grease with programmable skimming cycles.
- Shut off valves for high sea operation, manual washing system as standard.
- Material, Exterior 16 gauge 316 stainless steel bright finish.
- Suitable for Yacht and Superyacht with meal preparation form 20 to 100 x day
- Easy to install and maintain in confined spaces.

- Automatic grease trap and grease removal units with 1.75 l/s , 3 l/s and 4.5 l/s Flow rate, ideal for centralised installations.
- Removable solids basket or Automatic solids transfer.
- Solid Basket capacity 8 lts & 9.5 lts volume on manual model.
- Automatic solid transfer by pump.
- Traps food waste and grease and removes grease with programmable skimming cycles.
- Shut off valves for high sea operation, automatic washing system as standard.
- Material, Exterior 16/14 gauge 316 stainless steel bright finish.
- Suitable for Superyacht and Commercial Vessel with meal preparation form 100 to 350 x day
- Easy to install and maintain in confined spaces, with BMS volt free contacts.
- Customised skid can be provided according to customer needs.

## D3R M, GGX 50 M, GGX 75 M

### Centralised Model



# D5ASRD M, D7 ASRD M, D10 ASRD M, D20 ASRD M

Centralised model with customised layouts and combinations



D5M & D7M ASRD Stackable



D10M ASRD in line

- Automatic grease trap and grease removal units with 5 l/s , 7.5 l/s and 10 l/s & 20 l/s Flow rate,
- Ideal for centralised installations with high number of meals preparation per day and confined space with restricted/ limited access.
- Traps food/solids waste and grease
  - Automatic solid transfer by pump.
  - Automatic grease removable programmable skimming cycles.
- Skid mounted in line or stackable so as to maximise space available
- Shut off valves for high sea operation, automatic washing system as standard.
- Flexible Joint and shock mount available as option.
- Material, Exterior 14 gauge 316 stainless steel bright finish.
- Suitable for Navy convoy , Commercial Vessel and Cruise Liners with meal preparation from 400 to 4800 x day
- Easy to install and maintain in confined spaces, with BMS volt free contacts.
- Customised skid can be provided according to customer needs.

## TRAPS AND REMOVES FATS, OILS & GREASE ON MARINE VESSELS

Stainless steel fabrication in SS316

Traps and removes fats, oil & grease on vessels

Intelligent design with solid retention/automatic solid transfer

Automatically removes 98% of grease and food waste

Self cleaning facility

Product ranges from 0.75L to 20L per second

Easy to install and maintain, BMS remote monitoring connection

Full customer support



[www.greaseguardian.com](http://www.greaseguardian.com)





## About us

The FM Environmental Group, incorporating its Malta based Mediterranean and Middle East sales office, is one of Ireland's and the UK's longest established water and wastewater engineering companies.

Headquartered in Northern Ireland, FM Environmental exports its products and services to over thirty countries worldwide; constantly evolving its technologies to suit the diverse and demanding international marketplace.

With a history going back to the early 1970's, FM Environmental is internationally recognised for providing design, manufacture, installation and servicing of pumping, wastewater treatment and grease management equipment.

## Our philosophy

FM ENVIRONMENTAL'S CORPORATE VISION IS TO BE A COMPANY THAT CONTINUOUSLY INSPIRES, INNOVATES AND EXCELS AT EVERYTHING IT DOES

### INSPIRATION

Developing close relationships with customers through slick service, value-orientated products and services and customer-driven staff.

### INNOVATION

Applying an innovative approach to its products and processes in an effort to gain and maintain a competitive advantage over other companies.

### EXCELLENCE

Striving to refine processes and procedures, to work closely with approved suppliers and to perfect the customer supply chain so that we can deliver what we promise when we promise it.



#### Manufacturers

FM Environmental  
Greenbank Industrial Estate  
Newry BT34 2QX  
Northern Ireland  
T: +44(0)28 302 66616  
F: +44(0)28 302 63233  
E: [sales@greaseguardian.com](mailto:sales@greaseguardian.com)  
[www.greaseguardian.com](http://www.greaseguardian.com)

#### Malta

FM Environmental (Malta) Ltd  
Water Technology House  
A15B Industrial Estate  
Marsa, Malta  
T: +356 2122 6172  
F: +356 2122 6171  
E: [fmmalta@fmenvironmental.com](mailto:fmmalta@fmenvironmental.com)  
[www.fmenvironmental.com](http://www.fmenvironmental.com)

#### United States

Grease Guardian LLC  
96 Onondaga Street  
Yonkers NY 10704  
T: +1 914 375 0902  
M: +1 914 316 5671  
E: [des@greaseguardian.com](mailto:des@greaseguardian.com)  
[www.greaseguardianusa.com](http://www.greaseguardianusa.com)