

**FIRESAFE** / energy



# Marine

Fire safety for the ship industry



# This is Firesafe Energy

---

We offer a wide range of fire protection solutions for the marine sector. We have documented solutions for both newbuilding, maintenance and repair work on ships and vessels.

## Planning

- Determine the need for solutions
- Develop reliable solutions
- Practical solutions for escape routes, corridors and maintenance

## Design

- Preparation of product description
- Ensure proper performance of fire protection work for electrical installations, pipes and HVAC
- Firesafe Energy ensure fire protection for all other technical disciplines

## Tenders

- Calculation of offers according to Firesafe's competence and the assignments specifications

## Execution and implementation

- Implementation of project in accordance with agreed guidelines and premises

## Inspection and maintenance of fire safety installations

- Regulatory inspection and service of manual extinguishing equipment and marking systems

## Documentation

- All solutions are documented and quality assured
- All products have been tested in accordance with relevant standards and have Norwegian approvals





#### **FIRE SAFETY ENGINEERING**

Project planning  
Situation analysis  
Risk analysis and evaluation  
Fire safety calculations  
Organizational fire protection  
Fire documentation  
Courses and training  
Fire safety drawings

#### **INSTALLATION / CONSTRUCTION**

Fire protection of steel  
Fire doors  
Fire sealing  
Fireproof cable and pipe collars  
Sound insulation  
Upgrading of fire barriers  
Lead light systems  
Documentation of fire alarm systems  
Automatic extinguishing system, Inert gas and aerosol  
Water mist / Smart scan

#### **CONTROL, MAINTENANCE; COURSES**

Fire engineering control  
Fire alarms  
Fire extinguishing equipment  
Automatic extinguishing systems  
Inergen  
Thermography  
Extinguishing equipment  
Sprinkler system maintenance  
Courses and training:  
- Hot work certification  
- Extinguishing exercises  
- Practical first aid and cardiac arrest training

#### **PRODUCT SALES**

Approved and well documented fire safety products  
GPG fire stopping mortar  
Fire and blast bellows  
Fire alarms and detection  
Fire doors in stock  
Fire extinguishers  
Fire hoses, ladders and signs  
Escape masks  
First aid kits  
Burn caskets  
Total Supplier of Fire Protection / Consulting / Installation / Courses / Control, Inspection and Maintenance / Product Development



# Fire protection for Multi Cable Transits in marine environments

---

In a corrosive and moist environment, it is important that critical components and products are of the highest quality if an accident or fire should occur.

## GPG Marine

GPGM is a powder consisting of gypsum, perlite and glass fibre, in addition to other ingredients and additives. When mixed with water the mortar hardens into a strong and fireproof material. GPGM is used as fire proof sealing material in cable/pipe penetrations through bulkheads and decks. The mortar effectively prevents fire, smoke, and toxic gases from spreading between fire cells.



- Gypsum based fast curing fireproof mortar with good mechanical strength and good soundproofing.
- Good thermal isolation even in small thicknesses around all technical installations, which insulates against thermal effects.
- Expands 1% volume when curing and has excellent adhesion to all surfaces.
- Used mainly for fireproofing of large or small holes and openings around technical installations such as cables, pipes and ventilation gates, as well as open transits in bulkheads and decks.
- Fire resistance tested and approved according to A0, A60, H0, H60 and Jetfire (350 kW/m<sup>2</sup>).
- Packing in air tight 20 liter buckets keeps the product dry after opening and gives a long lasting durability.
- Technical fire resistance as standard GPG. GPG Marine is also water repellent.

# A selection of products

---

## Inert gas systems

For extinguishing fire in environments where water is not desirable. Chokes the flame by reducing the oxygen level in the air. The inergen extinguishing system consists of the extinguishing gas Inergen (IG541) and its distribution system. The inergen is developed and is produced by Fire Eater in Denmark, and is a concept that is approved according to the strictest available standards. According to NFPA 2001-2012, Inergen is the only approved extinguishing gas for permanent stay of persons, ie no need to evacuate personnel in connection with the release of the extinguishing gas.

## Frying cooker extinguishing system

For use in kitchens and restaurants. We deliver and install complete systems for professional kitchens with liquid containers dimensioned according to the size of the kitchen. We have chosen the Ansul R-102 model for offshore/ marine due to documentation requirements.

## Fire extinguishers

A broad range of fire extinguishers

CO2 carbonated, Frying extinguishers, Powder based extinguishers, Foam based extinguishers and Extinguishing spray.

## Aerosol fire extinguishing systems

Upon detection of a fire, the aerosol generator can be activated manually or automatically from the trigger unit. When activated, the generator produces an exceptionally effective and ultra-fine potassium based aerosol. Fire extinguishing is achieved quickly by the aerosol's ultrafine particles interacting with the free radicals of the flames. This interaction prevents the spread and maintenance of the flames. We deliver Stat-X Aerosol extinguishers of all sizes. The container is made of stainless steel and has a long life up to 20 years.

## Breathing air

Firesafe supplies breathing air equipment for use in fire and with exposure to gas chemicals. Filtering full- and half masks, compression masks, O2 containers, and gas detection equipment, etc.

## Fire paint

Firesafe both supply and apply ablative fire protection coating according to DIN 4102 for use on horizontal and vertical oriented electrical cables. A wide range of authorizations and certification such as e.g. DNV·GL AE00001K2, 03-HG 367672-PDA American Bureau of Shipping, IEC 60332-3 cat. A and E-10208 DET NORSKE VERITAS, IEC 60332-3 cat. A.



UN 1956

BIR2016/18 0029 26

UN 1956



# Services for marine environments

---

## Surveys

Complete review of fire protection on ships and vessels. Resulting in a status report with recommended actions. Offered as complete analysis or focusing on individual facilities and component types; such as fire extinguishers, sprinkler systems, lead light systems, breathing air systems or existing fire barriers. We are DNV approved for testing and installing breathing air systems.

## Fire drills

Tailored for the individual ship or vessel for crew and/or visitors. A fire exercise or fire drill gives important knowledge and extra security in the everyday life for both management and individual employees. Exercises and courses are customized according to size and type of rig or vessel and the desired focus area according to the Regulations for fire protection on ships, SOLAS 74.

## Tests, approvals and documentation

Firesafe's products and solutions have the relevant documentation and quality assurance.



A photograph of two workers in safety gear (hard hats and high-visibility vests) standing on an orange metal structure, possibly a staircase or platform. The worker on the left is wearing a blue hard hat and a yellow vest, while the worker on the right is wearing a red hard hat and a yellow vest. They are both looking towards the right. The background is a clear blue sky.

FIRESAFE ENERGY AS

Erik Ulevik  
General Manager/Daglig leder

Mobile: +47 98 20 50 00

Switch board: +47 22 72 20 20

E-mail: erik.ulevik@firesafe.no

Visiting address: Robsrudskogen 15,  
1470 Lørenskog

Postal address: P.O. Box 6411 Etterstad  
NO-0605 Oslo NORWAY

[www.firesafeenergy.no](http://www.firesafeenergy.no)