



Offshore

Optimum fire safety for
oil & gas installations

This is Firesafe Energy

We offer a wide range of fire protection solutions for the offshore sector. We have documented solutions for both newbuilding and MMO (maintenance, modifications and operations) on offshore and onshore installations.

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 assignment's 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 offshore 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/m²).
- 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.

Fire and blast bellows

For maintaining fire/blast barriers during drilling and intervention operations.

Tested and approved for:

- 350 kW Jet-fire
- Hydro Carbon fire (H0)
- Up to 1.4 barg pressure

Other properties:

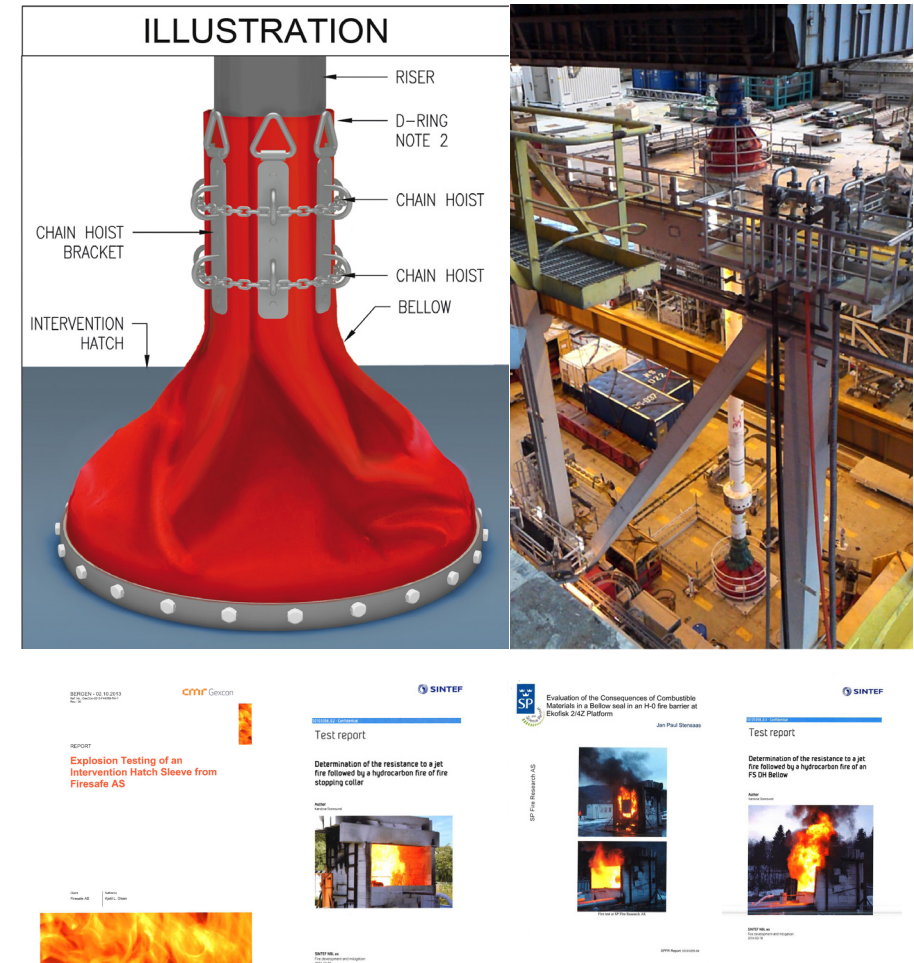
- Movement
- Oil resistance
- Quick and efficient mounting/demounting
- Robust design for use in a harsh environment
- Protection against falling objects
- Separate contaminations/spill between decks
- Easy maintenance and storage

Three different versions:

- Drilling hatch (DH)
- Intervention hatch (IH)
- Weather bellow (WB)

Designed to accommodate movements:

- Horizontal movement up to 900 mm
- Vertical movement up to 150 mm
- Riser dimensions from Ø180 to Ø815
- The bellow is tailor made to the individual riser/hatch



REPORT
Explosion Testing of an Intervention Hatch Sleeve from Firesafe AS



Test report
Determination of the resistance to a jet fire followed by a hydrocarbon fire of fire stopping collar



SINTEF AS
Fire Research AS

Test report
Evaluation of the Consequences of Combustible Materials in a Bellow used in an H-O fire barrier at Ekofisk 2-4Z Platform



SINTEF AS
Fire Research AS

Test report
Determination of the resistance to a jet fire followed by a hydrocarbon fire of an FS DH Bellow



SINTEF AS
Fire Research AS

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

Services for offshore environments

Surveys

Complete review of fire protection on oil platforms and offshore installations. 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 rig or platform 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 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.



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