SIPA FIRE PROTECTION

MATTFLEX





PAN

SIPATHERM

HYDROCARBON PASSIVE FIRE

PROTECTION





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FIRE PROTECTION SYSTEM AND THERMAL INSULATION



ABOUT US HYSTORY.



SIPA is a global company committed to protecting your onshore and offshore oil & gas assets. All products are designed, tested and documented to be used in high-risk environments. The products have been developed because of the most rigorous requirements from the oil & gas industry in the world. We are focused on innovation in the field of engineered fire protection



PASSIVE FIRE PROTECTION

Different for quality

SIPA is a leading manufacturer of passive fire protection systems. Our flexible covers are designed to insulate equipment and delay temperature rise in the event of a UL1709 rapid rise fire, while maintaining structural integrity at temperatures higher than 2000°F and follow requirement of API 2218. In our study design and dedicated production lab, we choose materials that provide high capacity for thermal insulation.



EXPERIENCE

FROM YEARS IN THE INDUSTRY

Hundreds of different needs and as many satisfied customers constitute our history before SIPA.

In the insulation industry as part of energy management, always we are seeking new solutions and update our skills, forever offer the best possible service.



THERMO-ACOUSTIC INSULATION BLANKETS

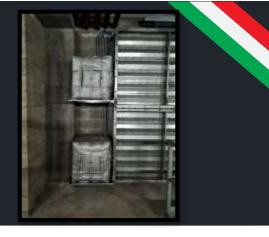
Best insulation system A production system must be well insulated and maintained in order to remain efficient for a long time.

That's why we recommend the flexible insulation as an alternative to ordinary guaranteeing ones Application speed, reassembly and quality of the work environment, simplifying maintenance, Optimizing costs and the relative intervention time





MATTFLEX SIPA® FLEXIBLE FIRE JACKET Better solution with more safety



It is a flexible system designed to protect vessels, pipelines, valves, flanges, actuators, control lines and boxes. It is fully tested to meet the most rigorous on- and offshore specifications for oil and gas installations in particular UL 1709 hydrocarbon curve and ISO 22899 jet fire erosion test. Certification is at Type Approval ("Certificate of fire Approval").

Its flexible character makes it conform and easily adapt to the exact shape of the equipment assembly. This form fitting cover will generally not obscure or distort the appearance of equipment to the point that it is unidentifiable. Jackets are designed for quick and easy removal and re-installation with a minimum use of personnel and tooling

The system has been tested successfully for pool fire with a heat load of 220 kW/m² and jet fire with heat load up to 350 kW/m² (1350 $^{\circ}$ C).

FEATURES AND BENEFIT

- Blocks the flame & retards heat flow
- Meets or exceeds UL1709 Rapid Rise Fire Test Duration and ISO 22899-1 jet fire
- Lower your insurance premium costs
- Can be designed to fit multiple components, ex. actuator & valve
- Removable & reusable in a short time
- Does not require any skilled labor
- A self contained blanket system
- Does not require added materials and tools for installation
- Eliminates the need for all fire proof hard insulation
- Allows full manual operation of the handwheel
- Low maintenance
- Custom designed to field conditions
- Weatherproof, chemical resistant, UV resistant
- Features an inspection port for access to gauges.
- Accommodates cable entries, bracketing, conduit, etc.
- Each blanket includes a stainless steel nameplate for easy identification
- Expedited delivery service available
- Durable design and high mechanical strength
- Accommodates difficult to access locations
- Accommodates irregular shapes where traditional systems are not suitable
- Tailor made
- Specific design to the fire type, duration, limiting unexposed temperature















STEELPAN[®] SS FIRE ENCLOSURE Tradition in the safety



It is a rigid insulation system that provides fire protection for valves, flanges, actuators and other equipment.

STEELPAN is fully tested to meet the strictest on- and offshore specifications for oil and gas installations. This system is built up by insulation material and enclosed by stainless steel AISI 316 or 314. The pieces are fastened with bolts in the same material and locked. protected equipment.

The design principles used have been validated by extensive test programs. They give up to two hours protection against flame temperatures in excess of 1100°C.

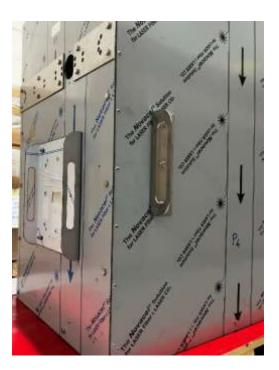
They are ideal for the protection of equipment requiring ease of access. The enclosures are constructed using high thermal performance materials encapsulated within stainless steel skins.

STEELPAN system enables a variety of materials to be selected in order to best meet the customer specification. This ensures that the design can accommodate difficulties in location and space restrictions.

FEATURES AND BENEFIT

- Blocks the flame & retards heat flow
- Meets or exceeds UL1709 Rapid Rise Fire Test Duration
- Can be designed to fit multiple components, ex. actuator & valve
- Removable & reusable in a short time
- Does not require any skilled labor
- A self contained blanket system
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- Custom designed to field conditions







TEST AND CERTIFICATION

A Safety guaranteed



ISO 9001-2015 ISO 14001-2015







MATTLEX[®] and STEELPAN[®] are tested and certificated under Lloyd's Register Type Approval scheme.

This particular and rigid procedure respect the most severe rules in the oil & gas field especially when fire protection has to be installed on off shore application

SIPA has followed the main international standards existing in the hydrocarbon fire protection, in particular:

UL 1709 – hydrocarbon time-temperature curve ISO 22899-1 – Determination of the resistance to jet fires of passive fire protection Tests were conducted in recognized laboratories for 120 minutes.

Lloyd's Register had validated and certified for on-shore and off-shore application (Certificate of Fire Approval scheme)

SIPA TYPE APPROVAL CERTIFICATE





TYPE APPROVAL





THERMAL ACOUSTIC INSULATION BLANKETS



These are high quality products, designed and tailored by our lab and usable almost anywhere because modular for stratification depending on the temperature to be isolated and based on the conditions they are subjected to: exterior, interior, liquid, water, fire, thermal oil

The interior insulation to cushion is made with fiber type of glass "E" needled mechanically without resinous binders or glass fiber high temperature on request also with treatment Water repellent

FAST

Designed to be assembled, removed and reassembled quickly and easily with belts, hooks and Velcro.

DURABLE

Not being required to cut a maintenance, thanks to the quality of workmanship and materials, these pillows are made to last years.

THIN

30% smaller footprint can mean insulate and protect with more care equipment or entire engines.

CLEAN

No amount of dust, construction sites at the time installation or during a maintenance of the part to be insulated.







STRONG EVERYWHERE

- INTERNAL
- EXTERNAL

-70%

HEAT LOSS

- ENGINE
- INSTRUMENT
- VALVE
- EXCHANGER
- DUCT

INVESTMENT RETURN

- BOILERS
- POWER
 ELETTROGENI
- EXHAUST C
- FLANGES
- COVER







MATTCOLD® FLEXIBLE SOFT ENCLOSURE FROST PROTECTION



MORE SIMPLE MORE SAFETY.

MATTCOLD flexible and soft enclosures provide measures to prevent ice from forming on surfaces, structures or equipment. Depending on design and materials, They are intended for covering different equipment (instrumentation, esdv and control valves, penmuatci electric actuator, and cabinet) in particular to



protect devices from environmental impacts like precipitation, icing, wind load capacity, direct solar radiation, high temperatures, corrosive liquid and to reduce heat loss. The light-weight construction of these removable enclosures means they are selfsupporting which eliminates the need for costly support frames or brackets. MATTCOLD are custom made to the dimensions of the instrument. accounting for any supports and

connections.To maintain required air temperature (or the temperature of the heated facility surface) inside the enclosure, to provide equipment's operability when used at low negative temperatures The soft enclosures are especially widely used in oil and gas facilities innorthern areas being the most cost effective and high-quality solution for equipment heating.MATTCOLD soft enclosures are able to be used in explosion hazardous area and in outdoor facilities. All soft enclosures are manufactured.





COLD PROTECTION

MATTCOLD insulation jackets provide excellent protection on instrumentation transmitters, gauges, valves, flanges and other components where frost protection is required. For extreme sub zero temperature electric trace heating is incorporated to compensate for heat loss and prevent the onset of freezing













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