



RIM SEAL FIRE PROTECTION SYSTEM

TS-RS150

The Rim Seal Fire Protection system is designed for early detection and fast suppression in floating roof tanks fires.



Guaranteeing reduced shutdown times and inhibiting the phenomenon of re-ignition.



Completely ecologic and non-toxic



Effective up to -28°C



Protects the tank thanks to a mixture of water and the wetting-agent Firefive®



Firefive®: 5 products in 1.









The FireFive® wetting agent is able to maximize the water power by lowering about three fold the water surface tension, penetrating the fire more deeply and quickly. It encapsulates the hydrocarbon molecules inside "chemical cocoon" called micelles and thanks to its exceptional cooling power it rapidly reduces fire's heat, extinguishing it in a few seconds.

ITS ADVANTAGES

With a very low percentage of additive, FireFive® is able to enhance about three fold the extinguishing power of water with immediate suppression of fire.

FireFive® minimizes operation costs thanks to:

-  Less damaged caused by the fire and the agent
-  Lowest quantity of additive needed
-  Business down time reduction
-  Shortest time of fire brigades stay for the intervention
-  No expiry date of the product
-  Eco-friendly solution

The Tank

40lt FireFive® (15 bar working pressure)

Pressure Switch

Shut-off Valve

Level Switch

Pressure Gauge

Junction Box

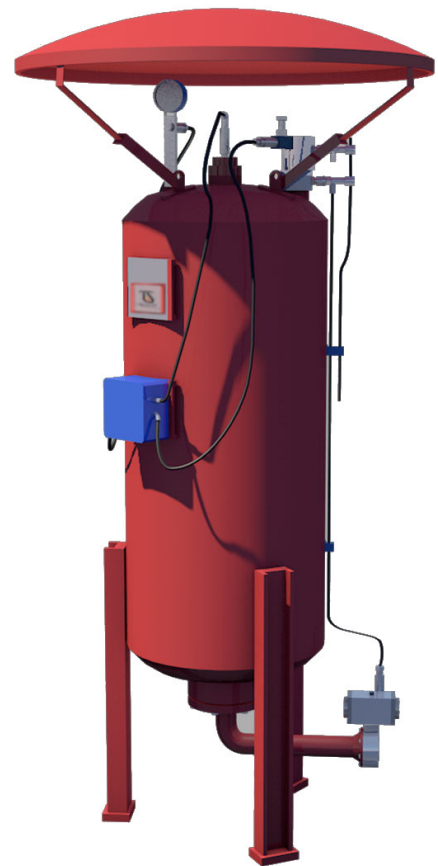
Sunroof and Support Skid

No welding and bolts needed for installation

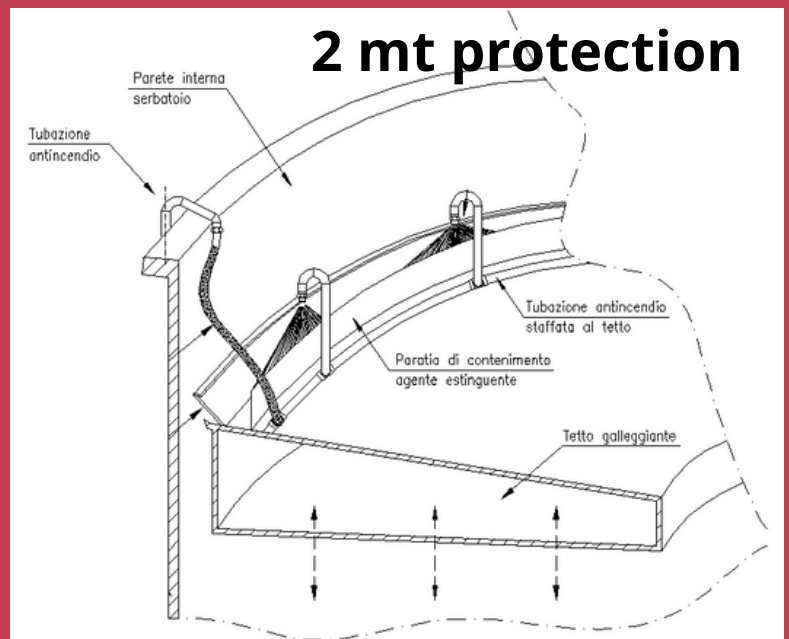
Weight Data

Tank weight - 65 kg

Total weight of the system (40mt of rim seal fire protection) - 99 kg



The nozzle



Tot.: 40 Nozzles

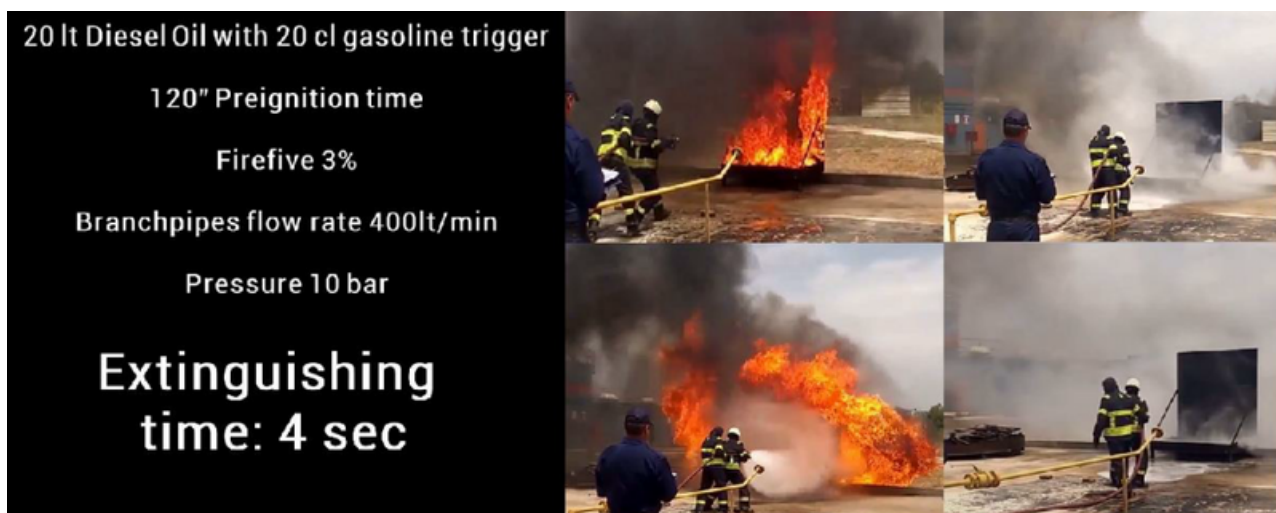
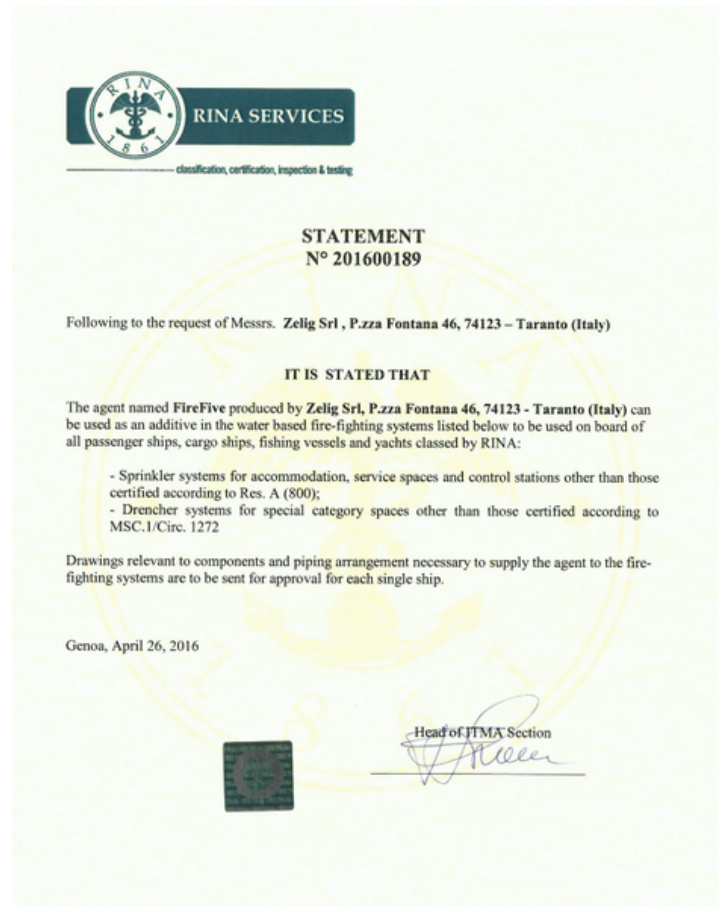
Pipes: 12 mm ϕ

Response Time: 24 ms \wedge 1/2

Temperature: 93°C / 200°F (Other temperatures available)

Nozzle activation: max n. 2

Certification and tests



Wach video! -> RIM SEAL
-> FIREFIVE TEST

Tema Sistemi SPA produces Rim Seal fire protection system both with FireFive agent and CF3I gas. Here below differences of the two systems:

	Firefive®	CF3I System
A. Extinguishing Performance	★★★★★	★★★★★
B. Easy Maintenance	★★★	★★★
C. Eco - Sustainability	★★★★★	★★
D. Shelf Life	★★★★★	★★★★★
E. Money Saver Agent	★★★★★	★
F. Maintenance cost in 20 years	★★★★★	★★
G. Detection System reliability	★★★★★	★★★★★



FireFive®
the micelle encapsulator era

is the true environmental low impact

extinguishing agent, as per UL certification.

As any chemical gas, CF3I, due to its composition, can in the future be banned for causing Hozone Reductions. This can generate a problem for future refillings.

Chemical Gases, furthermore, are very sensitive to hot temperatures.

Hot temperatures above 100°C can react with water, forming hazardous residues such as hydrogen fluoride (HF), hydrogen iodide (HI) and carbonyl fluoride.

Costing ratio of CF3I is very high. About 25:1 Liter/kg

Maintenance cost in 20 years time is very different. Hypothesizing 1 refilling in the 20 years, the cost is much higher in CF3I systems.

References

ENI, Taranto - Design and supply of Rim Seal fire protection system.

N° of tanks: 2

Extinguishing agent: Water plus Firefive

Capacity: 80.000 T.

ENI VERSALIS, Ravenna - Water spray system to cool storage tank. Design and supply of Rim Seal fire protection system.

N° of tanks: 2

Extinguishing agent: Water plus Firefive

Capacity: 30.000 T.

TOTAL, Corleto Perticara - Design and supply of Rim Seal fire protection system.

N° of tanks: 2

Extinguishing agent: Water plus Firefive

Capacity: 40.000 T.

LUKOIL, Kaliningrad - Design and supply of Rim Seal fire protection system.

N° of tanks: 11

Extinguishing agent: Water plus Firefive

Capacity: 20.000 T. 30.000 T.

NAOC, Nigeria - Design and supply of Rim Seal fire protection system.

N° of tanks: 15

Extinguishing agent: Water plus Firefive

Capacity 20.000 T. 30.000 T.

ROMANO PORT, Durazzo Albania - Design and supply of Rim Seal fire protection system.

N° of tanks: 2

Extinguishing agent: Water plus Firefive

Capacity: 30.000 T. 40.000 T.

INA, Croazia - Design and supply of Rim Seal fire protection system.

N° of tanks: 1

Extinguishing agent: Water plus Firefive

Capacity 30.000 T.





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