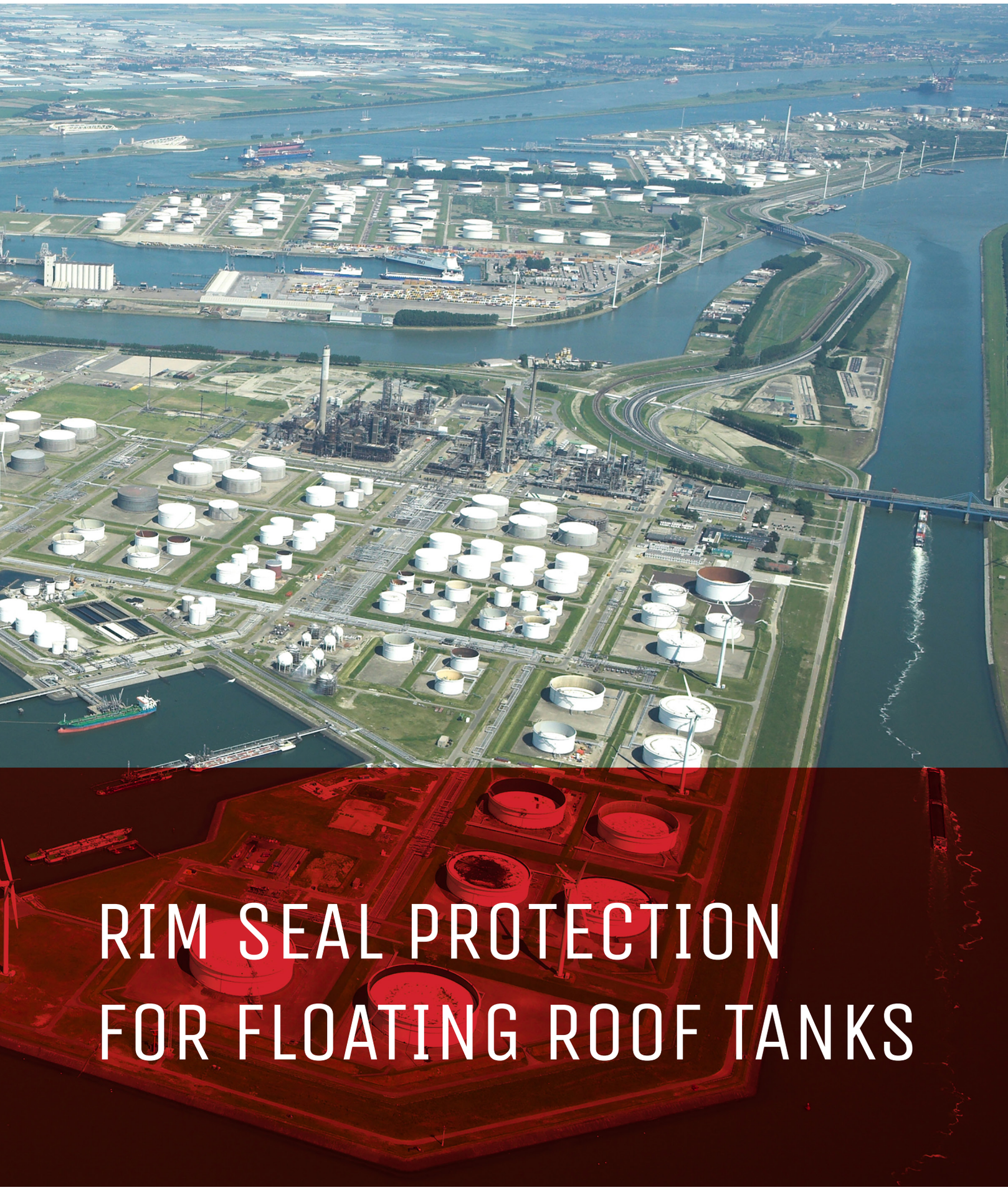
saval



RIM SEAL PROTECTION FOR FLOATING ROOF TANKS

SK FireSafety Group

WE KNOW FIRE
WE KNOW SAFETY
WE KNOW YOU

KNOWLEDGE OF RISKS IS EVERYTHING

TANK FARM RISKS

Automatically activated fire fighting systems and portable equipment are crucial for maintaining strict safety standards in all hazardous areas.

Saval offers complete fire protection. Our comprehensive package, including first line automatic gaseous extinguishing systems for floating roof tanks, a wide range of foam equipment, water cooling systems for tanks, linear heat detection systems and fire alarm panels, is specifically designed for tank protection.

We supply advanced fire protection systems for all types of tanks. Whether they be floating roof, covered floating roof, fixed roof tanks (with or without inner floater) or spherical and horizontal vessels, Saval offers a tailor made system solution.

THIS BROCHURE PROVIDES MORE INFORMATION ABOUT THE CFI RIM SEAL PROTECTION SYSTEM FOR FLOATING ROOF TANKS.


IN YOUR DAILY AGENDA
THERE IS NO SPACE FOR
FIRE SAFETY
2080
S-124

FLOATING ROOF TANK PROTECTION

Floating roof tanks are widely used all over the world thanks to their many advantages as compared to fixed roof tanks. By eliminating the vapour space above the stored product, they provide three key advantages: reducing costly evaporation losses, providing increased fire protection and less environmental pollution.

RIM SEAL FIRE HAZARD

Stored product vapour collects in the rim between the floating roof and the tank shell. This vapour mixes with the air, producing a combustible mixture. Lightning strikes, electrical storms, frictional sparking or sparks produced by static electricity can easiliy ignite a fire under these conditions.

Hidden by the tank shell, this hazardous situation may develop undetected until it reaches a dangerous intensity, possibly flaring out of control. Because it is relatively simple to extinguish an incipient fire, it is clear that early detection is of vital importance.

Saval has understood this from the beginning and has incorporated this principle into all of its former and present designs.

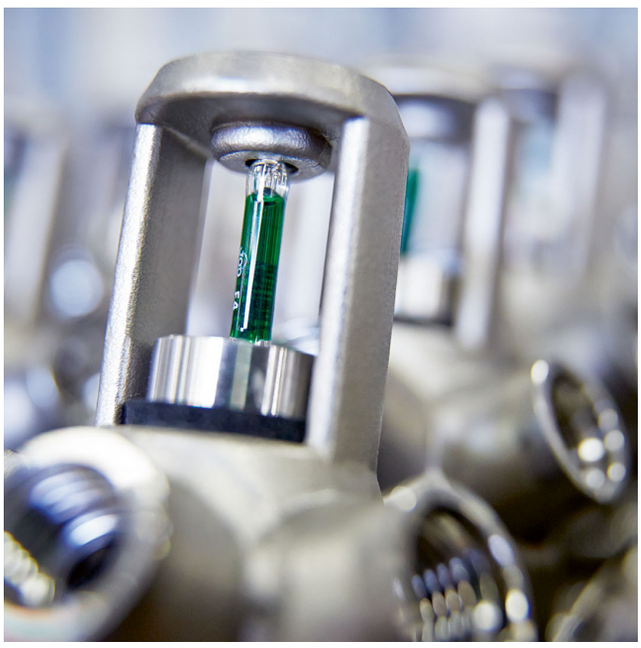
EXTINGUISHING A FIRE
BEFORE IT IS EVEN SPOTTED

RIM SEAL FIRES OUT BEFORE EVEN SPOTTED

The Saval CFI rim seal protection system boasts a unique design, the result of testing and experience gained form Saval's 50 years of production of these systems. The system nozzles are located above the rim seal and positioned for optimum fire detection and extinguishment.

Each type of rim seal construction requires its own specific nozzle placement. These glass bulb activated nozzles are located at intervals on a supply line, each supply line serving a maximum tank circumference of 40 meters. Every oil storage tank has one or more independent sections. If a fire occurs, its heat causes one or more of the nozzles to open, delivering the extinguishing agent directly into the fire area.

It is the ultimate form of protection for both new and existing floating roof tanks. What's more, the applied fire extinguishing agent, CF_3I, is extremely environment-friendly with a zero Ozone Depletion Potential, a 20 year Global Warming Potential less than 5 relative to CO_2 and an Atmospheric Lifetime of 1.5 days. The US Environmental Protection Agency has listed this agent as an accepted substitute for Halons.



ADVANTAGES OF THE SYSTEM

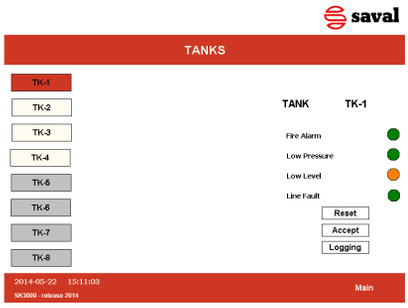
+ 24 hour monitoring and fire protection
+ Fast fire extinguishment
+ Swift warning in the event of a fire
+ Low cost and simple construction without any moving control parts
+ No external power required
+ No polluted product after extinguishment
+ Fully reliable
+ Easy maintenance
+ VdS approved
+ No re-ignition

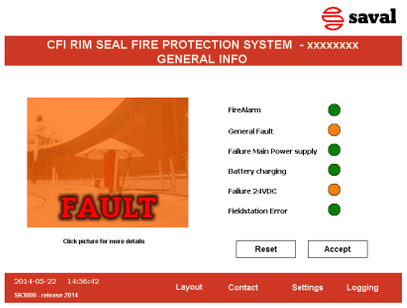
VdS

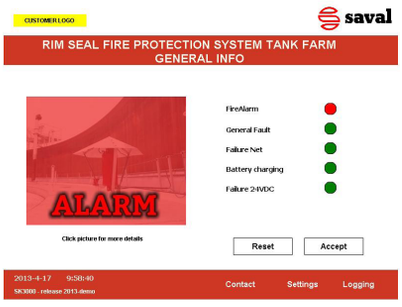
WHEN THERE'S ONLY A SECOND TO KILL A FIRE BEFORE IT KILLS THE SYSTEM

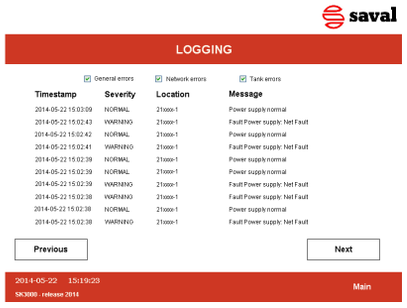
FIRE ALARM AND SYSTEM FAULT TRANSMISSION AND SIGNALLING

Providing for fire detection on floating roof storage tanks, Saval has designed the SK3000 fire alarm panel, created especially for the typical configuration of such systems. The SK3000 fire alarm and signalling panels are state-of-the-art units. Constructed according to the very latest technology, they comply with most international standards and regulations for fire detection and security.









ADVANTAGES OF THE SK3000 FIRE ALARM PANEL

+ Modular design
+ Easy operation features
+ Fire and Fault relay output
+ Standard configuration
+ Microprocessor logic controller
+ Touchscreen
+ Intrinsically safe field circuits class EEx-ia, IIC, T4 (Zone 0)

FIRE SAFETY NEEDS
WORLDCLASS SOLUTIONS
AND LOCAL DELIVERY

WIRELESS COMMUNICATION BETWEEN TANK FARM AND FIRE ALARM PANEL

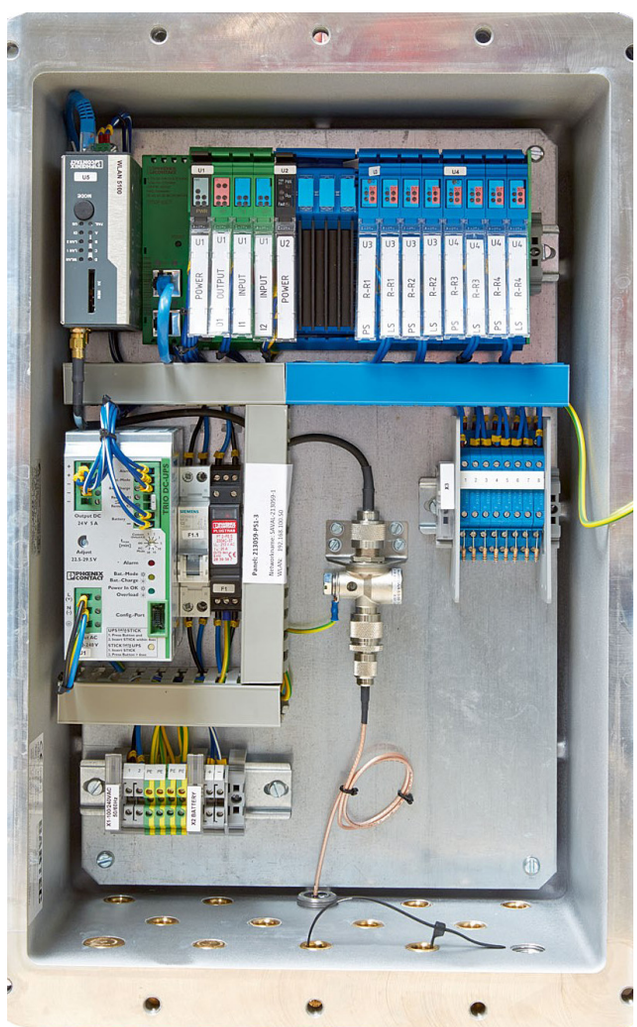
Saval offers an advanced communication option for new and existing systems. Wireless systems boast several advantages for the transmission of signals to a control room area. Namely the installation of such a system can save costs for excavations, cables, supports and labour while avoiding any interruption of the existing infrastructure, such as opening roads, cable trays etc.

The SK3100 range is designed for various types of ethernet communication between the tanks and the alarm panel. All these systems need a customised design, which Saval will provide for each location.

SPECIFICATIONS SK 3100 PANEL

+ Using standard SK3000 panel
+ Field unit standard for 4 tanks
+ WLAN wireless communication (IEEE 802.11a, b, g, n)
+ Ethernet via various standards according IEEE 802.3 (e.g. glass fiber)
+ Field stations available in: IP52 - IP65 - EXD
+ Intrinsically safe field circuits class EEx-ia, IIC, T4 (Zone 0)

Field station



SK3100

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