



PROTECTING BILLIONS OF DOLLARS IN ASSETS FROM FATAL FIRES



World's First Automatic Foam Based

Rim Seal Fire Protection System

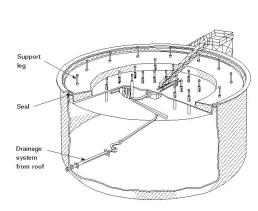
of Floating Roof Storage Tank

Installed and operating over 900+ petroleum storage tanks



FEATURES AND BENEFITS

- Class A1 certified as per EN54/22 heat detection system for response behavior
- UL/FM/VdS/CE approved detection system
- Only system for quick detection for Hydrocarbon Fire on the Rim Seal area of Floating Roof Storage tanks
- Environment-friendly detection and suppression system
- •Immune to Mechanical, Chemical & Electromagnetic interferences and Environmental changes.
- 6 Lakh Event Logs-for specific parameters & events.
- Self-Diagnostic and fail-safe features for continuous monitoring of parameters in a remote location and remote area in real time mode.
- •Installed on operational tanks without downtime/ shutdown/outage of tanks
- Auto sensing mechanism resulting in minimum human intervention
- More than 10 years of experience in installation of the system on hydrocarbon product filled storage tanks (900+tanks) without involvement of hot work on tank top



RIM SEAL AREA OF A FLOATING ROOF TANK



Rim Seal Fire Protection System

- Highest percentage of safety till date for Floating Roof Tank Related Fire Hazards.
- Provision to send a signal to Rim Seal Fire panel situated in Control Room, with Annunciator and Graphic Console so that operator can get alarmed and follow continuous monitoring. The detection system is programmable from control room.
- Detection sensor is of reusable type after exposure to several Hydrocarbon Fires & unlike other systems has very less down time. Only refilling of module is required
- •Sensor element can work from -40 °C to +300 °C temperature
- Detection system works on 2 parameters (Maximum Temperature & Rate of Rise). This cross-zoning feature eliminates possibility of false alarm. Online monitoring of both parameters is provided
- Pre-Alarm settings can be done for early intervention
- Robust detection system, requires zero maintenance

ADVANTAGES

MICROPROCESSOR BASED SITE CONFIGURABLE

Detection System is Microprocessor based, site configurable and has its dedicated software for parameter setting, diagnostic checking, which is accessible from control Room or any other safe area. Hence for healthiness checking of the system, parameter settings and to view live readings, operator doesn't require to visit site and the same can be safely done from remote location. Microprocessor based detection system is adaptive to environmental temperature changes, which minimizes the possibility of false activation of the system. More than 1000 events can be stored in detection unit which can be accessed remotely at the operator station for fault/event diagnostic.

REUSABLE

Hollow metal-based sensing tube made of high-grade stainless steel is corrosion free, rodent free and have high mechanical strength. Also, the melting point of the sensor tube is more than 1400 \Box c so it is reusable after several hydrocarbon fires.

QUICKLY RESETABLE

After detection of fire the Detection System can quickly be reset to normal working condition from the Control Room itself. After resetting the system back to normal operating condition, the system can detect any reignition of fire. Extinguishing system is foam based and foam solutions are readily available on site, hence extinguishing system can also be refilled and restored for operation within few hours of activation.

CROSS ZONING FEATURES

Only detection system for Rim Seal fire detection which works on 2 parameters, one is Alarm maximum and the other is Rate of Rise in temperature. System is activated only when both parameters reach their maximum threshold values. This avoids false activation of system. Also, pre-



alarm for both parameters is possible for early indication and intervention of the operator. Online graphic resolution of both parameters provided for real time status

LOW MAINTENANCE COST

Various components of Rim Seal Fire Protection systems are made of high-grade stainless-steel material having extremely low rate of corrosion, hence suitable for installation in highly corrosive environments such as coastal areas. The detection tube being metallic have high mechanical strength. The self-diagnostic feature of detection system continuously checks integrity of the sensor tube as well as the detector hence no human intervention is required for checking/ maintaining the system. Extinguishing system is foam based which is readily available at all installation sites, is commonly used in firefighting operations and is less expensive compared to gas-based system. Unlike other systems, functional checking of VFCPL's Rim Seal Fire Protection system is possible without discharging foam solution

ENVIRONMENTALLY FRIENDLY

Foam solutions are being used over decades for firefighting operations and unlike gas-based system (Halon) it is safe for the environment. Also, it is not harmful for humans when they come in contact with the foam solution

VIMAL FIRE CONTROLS PRIVATE LIMITED

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