



Water Mist Fire Protection Systems for Rolling Stock



fire protection
TECHNOLOGIES



GASEOUS
SUPPRESSION



WATER
SUPPRESSION



FOAM
SUPPRESSION



EXPLOSION
PROTECTION



FIRE
DETECTION



MILITARY
& DEFENCE



SPECIAL
APPLICATIONS



SUPPORT
SERVICES



Water Mist

Fire Protection Systems for Rolling Stock

“EVERY SOLUTION FOR YOUR SPECIAL HAZARD PROBLEMS”

“High pressure water mist systems are an effective and efficient way of extinguishing fires in engine bays and passenger compartments of rail vehicles.”

HIGH PRESSURE WATER MIST

High Pressure water mist is used widely in Europe for the protection of Rolling Stock assets in the Rail Industry.

The FOGTEC Rail watermist system is highly flexible and lends itself to many possible system configurations. The system cylinders can be easily located on existing and new rolling stock assets. The FOGTEC watermist protection system has approvals from Vds and is specifically tested and approved for use in rolling stock.

High quality 316 stainless steel tubing and compression fittings are used for effective, secure and corrosion resistant water mist delivery to the risk enclosure.

The systems are designed for effective extinguishment of spray / pool hydrocarbon A class fires within a 2 minute period using only a minimal amount of water.

Nitrogen is used as the agent propellant so the system has no environmental impact when released.



Fire detection within the risk enclosure is usually achieved using Protectowire linear heat detection cable. This form of detection is very stable and robust and has a high degree of false alarm immunity. Other fire detection devices such as flame or smoke detection are also available.

When fire is detected an alarm signal is transmitted to the train operator via the system control panel.

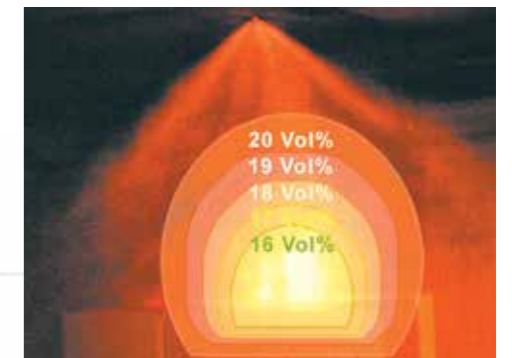
Upon manual activation of the system by the train operator, a variable time delay function is initiated to enable the train to come to a stop prior to discharge of the water mist system.

The system can also be manually activated at the storage cylinders via a manual override device.



A simple and effective Rail Industry approved fire control panel is used to monitor the fire detection system within the risk and the panel performs various output functions for interface to the train system logic.

The control panel also monitors the integrity of the system wiring to the main solenoid actuator on the water mist discharged signal via a pressure switch device installed on the system discharge line.



Key Performance Characteristics:

- Effective hydrocarbon fire extinguishment within a 2 minute period
- High level of heat absorption and cooling
- Localised oxygen inerting at the flame front
- Flexible system architecture adaptable to many size configurations
- No environmental impact when activated
- No chemical residue when discharged
- Inexpensive to recharge
- Inexpensive to maintain

PRODUCTS:

Gaseous Suppression



Prolnert™ (IG-01, IG-55, IG-100, IG-541)
Novec 1230™ Fluid (FK-5-1-12)
FM-200® (HFC-227ea.)
Carbon Dioxide (CO₂)
Hybrid Systems (N₂ / Water)
Pressure Relief Vents
Enclosure Integrity Testing Equipment
Pipe & Fittings

Water Suppression



Water Mist - High Pressure
Water Mist - Intermediate Pressure
Water Mist - Low Pressure
Hybrid Systems (Water / N₂)
Monitors & Delivery Systems
High Speed Deluge

Foam Suppression



Foam Concentrates
Foam Proportioning
Foam Delivery Systems
Foam Concentrate Testing

Explosion Protection



Explosion Suppression
Explosion Isolation
Explosion Vents & Pressure Relief
Spark Suppression
Explosibility Testing

Support Services



Design / Engineering:

- Design Services
- Project Documentation
- Project Management
- Cost Analysis
- System Hydraulics

Technical Support:

- Design Verification
- Commissioning
- Hazard / Risk Analysis
- Product After Sales Service
- Field Support

Fire Detection



Linear Heat Detection - Digital
Linear Heat Detection - Fibre Optic
Linear Heat Detection - Micro Chip
Flame Detection
Video Imaging Detection
Spark Detection
Control & Indicating Equipment
Thermal Imaging Detection

Military & Defence



Military Vehicles
Naval Vessels

Special Applications



Micro Environment
Oxygen Reduction
Kitchen Protection Systems
Dry Chemical
Vehicle Systems
Compressed Air Foam
Marine & Offshore
Vapour Mitigation

Services & Testing:

- Hydrostatic Pressure Testing
- System Recharging / Reinstatement
- Enclosure Integrity Testing
- Integrity Testing Equipment Calibration
- Foam Concentrate Testing
- Explosibility Testing
- Maintenance Services
- Training
- De-Commissioning
- Pipe & Fittings



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