Water Mist Fire Protection Systems for Rolling Stock
Water Mist
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“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 nitrogen cylinder and provides a system 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**
- ProInert™ (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

**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

**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

**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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