



OIL & GAS TERMINAL FIRE WATER DELUGE TESTING

Testing a deluge system in the traditional (wet) way in oil & gas terminal is a challenge since the water can adversely affect processing and electrical equipment. Water flow testing will also cause significant downtime in operations and the waste water will have to be disposed of for environmental reasons. Therefore, Dry Deluge Testing is a more viable and efficient method of testing.

ABOUT US

Total Industrial Solutions at Total Fire Protection is an Oil & Gas industry-focused company specializing in industrial fire protection and construction. Our expert technicians understand your day-to-day operations and the importance of a safe and efficient work environment.

We work directly with you to understand your needs and then to devise a thorough, “total solution” for your fire protection and construction needs.

REGULAR TESTING METHOD

Normally, deluge systems are annually tested with water. These routine wet deluge tests cause many unforeseen complications, as well as risks to personnel during the complete operation. Water spray over a protected area is a hazard for the processing/electrical equipment and normal operations will be disrupted while testing.

WET TESTING CAUSES

- 🔥 Operational down time during water flow test and clean up
- 🔥 Growth of MIC (Microbiologically Influenced Corrosion)
- 🔥 Blockages of piping and spray heads
- 🔥 Excessive firewater discharge will overflow the sump/drain tanks/oil water separators
- 🔥 Disposal of contaminated wastewater for environmental reasons
- 🔥 Freezing of firewater can be dangerous to operations in Arctic conditions
- 🔥 Risk of unplanned business loss and plant shutdown due to water ingress
- 🔥 Exacerbation of any existing corrosion within carbon steel systems.



DRY DELUGE TESTING

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To extend the life of a deluge system, and the production/electrical equipment contained within the protected areas, we test deluge systems with vapor instead of water. Periodical testing utilizing our vapor tests have proven equal to, or better in comparison to full wet tests (while meeting the requirement standards of NFPA and wet tests). But also, dramatically reducing impact and costs because no - water is used on/in the equipment area.

The Dry Deluge Test uses pressurized vapor instead of water in order to inspect the functioning of the system. Specific conditions need to be met in order to test the entire system. The vapor needs to be sufficiently dense and stable while low in environmental impact. The flow of the vapor and the pressure need to be precise so that the entire system can be tested and inspected. Each individual nozzle needs enough vapor to verify the performance and condition of each nozzle.

DRY DELUGE TESTING ADVANTAGES

- Testing is safer and considerably less expensive.
- The testing can be performed in a segmented way. Thus, operating processes/production can remain uninterrupted.
- The preparation work for Dry Deluge Testing is considerably shorter than for regular wet tests.
- Any leakages in the flow pipes are easier to spot.
- Residual water from former tests will be blown out of the deluge system.
- The process equipment is protected from any water contact during testing and remains in better condition.
- Absence of wastewater to be processed/disposed of after the test, no overflowing sump tanks.
- Reduced internal corrosion in flow pipes and nozzles, leading to less solids in the system and thus, resulting in fewer blockages.
- Reduced scaling inside flow pipes and nozzles, leading to less solids in the system and thus, resulting in fewer blockages.

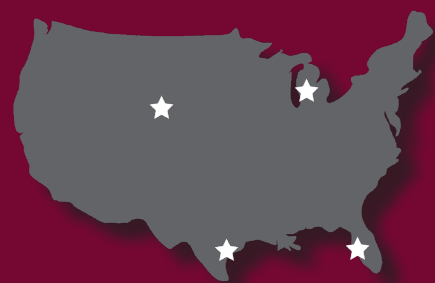
OUR SERVICES

- SYSTEM DESIGN
- SYSTEM INSTALLATION AND UPGRADES
- INSPECTION TESTING AND MAINTENANCE
- EQUIPMENT PROCUREMENT
- SITE SURVEYS & AUDITS

OUR SOLUTIONS

- FIRE FIGHTING FOAM SYSTEMS
- LARGE DRY CHEMICAL SYSTEMS
- FIRE PUMPS
- DETECTION & CONTROL
- SPECIAL HAZARDS SYSTEMS
- PORTABLE EXTINGUISHERS AND PORTABLE EQUIPMENT

NATIONAL PRESENCE





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TOTAL INDUSTRIAL SOLUTIONS

FIRE PROTECTION SOLUTIONS FOR THE OIL & GAS INDUSTRY



DESIGN



INSTALLATION



INSPECTIONS TESTING &
MAINTENANCE