DRY FLO

WATERLESS FIRE PROTECTION PERFORMANCE TEST & INSPECTION TECHNOLOGY

DIGITAL. SYSTEM COMPLIANCE. VERIFICATION.

PARADIGM

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DRY-FLO® PERFORMANCE TESTING

We pride ourselves as a leading technology-driven Service Company developing innovative, cost-effective solutions to short and long-term disruptions affecting asset integrity, production efficiencies and the environment.

Wet testing has long been an industry-accepted method of ensuring compliance with standards and regulatory requirements. However, conventional wet testing introduces multiple issues, from immediate disruption such as an unplanned shutdown due to water ingress into an electrical system to longer-term impacts caused by excessive corrosion impacting the suppression system and the asset under protection.

We looked to address these problems by removing water from the testing process altogether.

Dry-Flo was developed as a valid substitute to wet testing practices having the ability to digitally test, inspect and record fire suppression system performance without firewater saturation to the active fire zone, plant or process area.

Dry-Flo, patented technology, uses controlled airflow, pressure sensors, and proprietary software to accurately test, verify, map and record the performance of a fire suppression system.

Our equipment and software package processes this information live so the operator can quickly identify the condition of a system. In case of anomalies Dry-Flo software identifies issues within the system providing location, allowing technicians to inspect and remediate as necessary.

Paradigm developed Dry-Flo to solve one of industry's great paradoxes; testing water based fire protection systems, without water.

It matters because water deluge testing contributes to corrosion related fabric maintenance spending.

It matters because water testing increases corrosion scaling , induce electrical disturbance, and promote microbiologically induced corrosion, creating blockage in pipes and nozzles , stopping it from delivering what is needed when it is needed; reducing the asset safety.

Enhance your fire protection system safety and reliability by using Dry Flo.

SAFETY COMPLIANCE BY TECHNOLOGY

DNV·GL

DNV CERTIFIED TECHNOLOGY

- Dry-Flo facilitates verification and compliance to relevant standard such as NFPA
- Dry-Flo provides empirical evidences required by regulatory authorities
- Dry-Flo identifies and qualifies system performance anomalies
- Dry-Flo testing can substitute wet testing for up to 10 years

DIGITAL. SYSTEM COMPLIANCE. VERIFICATION. DRY-FLO®

DRY-FLO	VS	WET TESTING
DIGITAL INSPECTION AND COMPLICANCE TEST	•	VISUAL INSPECTION OF NOZZLE PERFORMANCE
CERTIFIED WATERLESS TECHNOLOGY	•	CREATES ENVIRONMENT THAT STIMULATES CORROSION
PERFORMED WHEN DELUGE SYSTEM IS LIVE	•	IMPACT AND DISRUPTION TO NORMAL OPERATIONS
VIRTUAL FLOW EQUIVALENTS	•	MANUAL SOCK & PAN FLOW TEST
REAL TIME DATA ACQUISITION, RECORDABLE, CONDITION MONITORING AND REPORTING	•	LACK OF VISIBILITY FROM WATER SPRAY PLUS TRIP HAZARDS THROUGH POOLING WATER

SPECIFICATIONS

- Patented dry fire suppression testing system
- DNV certified technology

TECHNICAL OVERVIEW

Dry-Flo waterless deluge compliance test and inspection technology uses controlled low-pressure air plus strategically positioned sensors to capture and monitor any anomalies in a fire protection system, enabling:

- Digitalization of fire suppression system
- Enhanced system interrogation and verification
- Identify nozzles & sections that are failing

APPLICATION

- Tunnels
- Mining
- Ferries
- Oil and Gas facility (onshore / offshore / FPSO / FLNG)
- Petrochemical plants
- Power Plants

VIRTUAL FLOW EQUIVALENT

- Virtual flow in litres per minute determined at multiple control reference points (where required)

BENEFITS

- Improved system data feedback and increase safety
- No new corrosion , growth, salt added to the system by removing the need for water
- No requirement to bag equipment from water spray
- Reduce or eliminate waste water
- No fire suppression system size limitation
- Testing can be done on a live system , removing disruption or interruption of the protected equipment
- Residual water if any from former tests is blown out of the fire protection system
- Overall Dry-Flo testing is shorter than traditional wet testing.
- Results can be compared with original asset flow requirement and simulation where required
- Pinpoint location of issues within the fire suppression system

DRY-FLO CONTROL UNIT

- Electrically rated air supply for zone 2 / Class1 Div. 2 location
- Sensors can be used in Zone 0 / Class1 Div1
- Live system interrogation and feedback

WESTCONNEX NEW M5 ROAD TUNNEL, SYDNEY AUSTRALIA

As part of the commissioning phase of the 9km NEW M5 section, 678 deluge sprinkler systems were required to be tested in accordance with NFPA 25 guidelines. Wet Testing, involving flowing high volumes of water through each fire zone was unattractive due to the impact on ongoing construction activity, the potential for water ingress into electrical equipment and the requirement for water supply & contaminated waste-water treatment and disposal

Solution: Dry-Flo was used to record performances of each nozzle port. Test data was wirelessly transmitted to proprietary Dry-Flo software which calculated virtual flow rates at each deluge nozzle.

Result:

- 678 zones successfully tested to NFPA 25 guidelines over 13 weeks
- 75% reduction in average test time per zone versus wet testing
- 11 million litres of water saved and 528 Water Truck journeys
- No impact on adjacent operations or water damage to mechanical and electrical equipment
- Direct cost saving by negating the requirement for water supply, treatment and disposal
- EPCI contractor nominated for environmental best practice award

Visit the Dry-Flo® Experience Center

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