



Committente: **ERPAC - VILLA MANIN**
Piazza dei Dogi, Loc. Passariano
33030 Codroipo (Ud)

Oggetto: Impianto water mist.
Progetto definitivo per appalto

MANUALE DI MANUTENZIONE



Data:

IL COMMITTENTE

IL TECNICO
ing. Roberto Barro

REV.	DATA	DESCRIZIONE

1 Informazioni generali

La manutenzione e le ispezioni degli impianti Water Mist devono essere in accordo alla norma di riferimento NFPA 750 e devono essere effettuati da personale specializzato.

Maintenance and testing routines for GPU

Action	Weekly	Monthly	Every 12 months
Check all valve positions	X	X	X
Check stand-by pressure and stand-by pum	X	X	X
Check gas cylinder pressure		X	X
Check lubrication unit oil level		X	X
Visually inspect unit and system fittings		X	X
Check water filter			X
Check water level in water cylinders			X
Test run the unit			X
Add piston rod oil			X
Change water in water cylinders			X
Pressure test gas cylinders			X

Gli interventi di manutenzione ordinaria e i controlli sugli impianti antincendio sono effettuati con visite semestrali come previsto dal DLgs. 81/2008 e dal DM. 10/03/1998 nel rispetto delle disposizioni legislative e regolamenti vigenti, delle norme di buona tecnica emanate dagli organismi di normalizzazione nazionale ed europei e in accordo - per quanto applicabile - alle norme NFPA 25, NFPA 750 ed. 2015 e ai manuali ufficiali del Costruttore del sistema.

Le principali attività di manutenzione ordinaria prevedono i seguenti controlli:

- controlli al sito di installazione (con relativi check correlati);
- condizioni globali del sistema (con relativi check correlati);
- unità di pompaggio (con relativi check correlati);
- bombole di gas (con relativi check correlati);
- serbatoio e bombole dell'acqua (con relativi check correlati);
- valvole, indicatori e sprinkler (con relativi check correlati);
- prova del sistema (con relativi check correlati).

In particolare si richiamano le seguenti operazioni di *testing, inspection and maintenance*.

2 Testing, inspection and maintenance

Testing, inspection and maintenance of installed systems shall be in accordance with the requirements of the most current editions of NFPA 750, NFPA13, FM Global Loss Prevention Data Sheet 2-8N, and this manual.

All testing, inspection and maintenance records are to be included in the owner's system documentation.

2.1 Daily Inspection

Check the control panel status unless it is automatically supervised.

2.2 Weekly Inspection

Check that the water supply valve is open, unless locked open in which case the check shall be semi-annually.

Check that the stand-by pressure in the network is approximately 25 bar.

Check that the stand-by pump is not running too often (indicates a leakage in the pipework).

Check that the shut-off valve is open.

Verify that all gas cylinder valves are open.

Observe and record the gas cylinder pressurization level. Remove and replace if below the system operating pressure level.

Check the panel lamps by pushing the test button.

2.3 Semi-Annual Inspection

Perform all checks listed in the section above.

Test one or more section valves on a rotating basis to ensure that all sections are tested within a 12 month period. The test must be performed separately for each sprinkler section as follows:

- At the GPU, close all gas cylinders except for the primary gas cylinder.
- Place a bucket under the test valve pipe of the section valve to be tested
- Activate the system by opening the section test valve. This is done by inserting a discharge hose into the test valve.
- Check that an alarm is shown on the control panel (for the section in question, if applicable).
- Check that the pump starts.
- Close the test valve.
- Close the gas cylinder.
- Close the shut-off valve.
- Open slowly the flushing valve for about two minutes and close it again to depressurize the system.

- Refill the water cylinders.
- Open the shut-off valve.
- Check that the standby pressure stabilizes to about 25 bar.
- Replace the used gas cylinder, and open all the gas cylinders.

Check the monitoring panel lamps at the control panel by pushing the test button.

Test the monitoring panel batteries as follows:

- On the control panel, disconnect the main power supply by disengaging the fuse
- Measure and keep a record on the battery voltage for about 1/2 hour. Change the battery in case the voltage drops significantly.
- Close the fuse.

Check the physical condition of all equipment assembled within the GPU and the physical integrity of the tubing distribution network and sprinklers. Verify the lack of corrosion or corrosion by-products on or near any components of the system.

Update the owner's system records.

2.4 Annual Inspection

Carry out all procedures as for the semi-annual inspection.

Check the water filter as follows:

- Close the water intake valve
- Open slowly the filter drain plug and allow unit to drain
- Pull out the filter cartridge and check it visually. Change if contaminated
- Check the by-pass valve
- Reinstall the filter cartridge
- Close the drain plug on the filter
- Carefully and slowly open the water intake valve

Inspect all sprinkler locations. Especially note any factors liable to have a detrimental effect on the performance of the system, particularly any obstructions that may have been created in the proximity of sprinkler mounting positions.

2.5 Post Discharge

All activated sprinklers shall be replaced. The closest and the most remote sprinkler (in respect of the pump unit position) shall be removed from the system and examined for particles and/or debris

collected on the sprinkler screen. Should either of the removed sprinkler show signs of dirt collected by the sprinkler filter, all the sprinklers should be removed from the tested section and cleaned by the authorized distributor.

The water cylinders shall be refilled.

The optional water tank shall be refilled.

The empty or partly depleted gas cylinders should be removed from the mounting position and replaced with fully pressurized cylinders. Gas cylinders may also be refilled in their mounting position.

Reconnection of the replacement gas cylinders is in accordance with the instructions provided for the system pump unit.

The system shall be re-commissioned in accordance with the instructions provided for initial commissioning.

All control and monitoring facilities should be reset.

System records should be updated accordingly for the owner and for the Authorized Distributor.