The Accessory

Issue 2, ***2020*** NEWSLETTER

PURGEnVENT Awarded US Patent

AGF Manufacturing announced that a patent for their innovative PURGEnVENT valve was granted on August 27, 2019. The patent covers their PURGEnVENT sprinkler air vent product line, which was designed to reduce corrosion in wet pipe fire sprinkler systems by releasing trapped air.

The AGF engineering team designed the PURGEnVENT product line to be a simple and flexible solution to fulfill new NFPA 13 (2016 Edition) requirements. The new code requires that all wet fire sprinkler systems with metallic pipe include an air vent near the high point of the system to release trapped air, thus reducing pipe corrosion.

The main features of the PURGEnVENT Model 7900 automatic air venting valve are its integral isolation valve, barrel strainer, purge valve, and conical air release valve, purposely designed to prevent water discharge eliminating the need for redundancy or drip pans. The, unique to the category, purge valve can speed up the system filling process, act as a vacuum break to expedite draining for service, and allows easy access for strainer flushing to fulfill NFPA 25 requirements. PURGEnVENT has been reviewed and maintains the standard UL and FM Approvals, plus it has been approved by the California State Fire Marshal.

Model 7950ILV is designed for in line installation downstream of the typical floor control assembly or when the high point of the system is at the beginning; it includes an expansion chamber to aid in the separation of air and water as the sprinkler pipe fills. The expansion chamber has an increased diameter that allows the water to sink to the bottom and air to rise into the high point and exit through the air scoop to be vented through the air release valve. As the water leaves the chamber, the smaller diameter forces the air back, where it rises through the patented quick vent channel in the air scoop.

From Left to Right: Jim McHugh, Ben Gleeson, and George McHugh

With increasing concerns regarding the damage done by failing system infrastructure and as many jurisdictions adopting the 2016 edition of NFPA 13, AGF's PURGEnVENT products are a simple solution to meet code while providing reliable automatic venting to eliminate trapped air in a fire sprinkler system to reduce pipe corrosion and extend the life of a system. To find a distributor in your area or to download specifications, please visit www.agfmanufacturing.com.

In this issue:

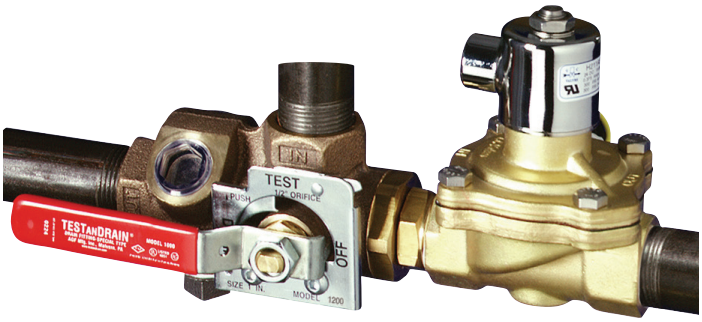
Improve Your Fire Sprinkler System Maintenance with These 5 Tips

As seen in the September issue of Building Services Management

Fire sprinkler systems are installed in buildings with the hope that they'll never need to be used. But one can never know when a fire might start, so it's vital to the safety of building tenants and property to ensure a sprinkler system is in good operating order. Here are five factors building managers can keep in mind to maintain a safe and functional fire sprinkler system with maximum efficiency.

1. Test Your System Remotely

NFPA 13 and NFPA 25 both require sprinkler water flow alarm device testing. An inspector operates a handle on a test valve to simulate the activation of the sprinkler system. For multi-story buildings and facilities with multiple buildings, this testing is time-consuming, as the inspector must visit each floor in person to test the valve. Frequently, as well, these valves are located behind locked doors or in hard-to-access places, adding complication to the job.



REMOTETEST Model 1200

To improve efficiency, AGF Manufacturing, Inc. introduced REMOTETEST, which adds a solenoid to one of their famous TESTANDRAIN valves that can be activated by a local key switch, auxiliary panel, addressable FAC panel, or even a LAN system, while retaining the ability to be tested manually if needed. A remote testing option means there could be a panel in each building from which an inspector could test the system on every floor, or in complex facilities one hub on campus from which every system on the campus can be tested remotely. This increases efficiency and lowers the cost of testing, encouraging optimal system maintenance and readiness.

2. Prevent Corrosion

Corrosion, a major threat to sprinkler systems, occurs when a ferrous metal or alloy reacts with water and oxygen. It's irreversible and can cause the accelerated deterioration of the system. Over time, corrosion can obstruct the flow of water through the sprinkler heads, making the system ineffective, increasing risk of injuries in a fire, and increasing property damage in a fire.

PURGENVENT Model 7950

Most of the oxygen that contributes to corrosion in a wet system is from trapped air. Studies conducted by the National Fire Protection Association (NFPA) lead them to realize venting trapped air could help prevent corrosion and require air vents on wet sprinkler systems in the 2016 version of NFPA 13. The addition of an automatic air vent like AGF's PURGENVENT 7900AAV easily releases trapped air from the system, reducing the risk of corrosion.

3. Monitor Corrosion

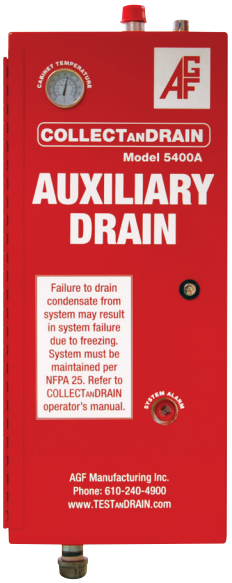
If the maintenance team catches corrosion early, they still have time to handle it, or at least get a better idea of the rate of corrosion in the system. NFPA recognizes the importance of monitoring corrosion, as well. In NFPA 13 – Chapter 23, they say that a water supply with conditions contributing to microbiologically influenced corrosion (MIC – another source of corrosion), the system shall use one of several methods to handle it, and one of those methods is

CORRINSITE Model 7700

installing a corrosion monitoring station and monitoring it at established intervals.

AGF Manufacturing created a simple corrosion monitor, CORRINSITE, that requires no power to monitor corrosion on either wet or dry fire sprinkler systems. A plug made from the same material as the piping in the system is attached through a section of in-line pipe or a mechanical tee. The plug has a chamber with a wear dimension of 0.040 inches (1/3 of the thickness of Schedule 10 pipe and 1/5 the thickness of Schedule 40 piping). When this corrodes through, moisture enters the chamber and turns a dot on its face from white to fluorescent orange. So, if CORRINSITE is installed in a new dry system with Schedule 10 pipe and the indicator turns orange in five years, the facility team can know that 1/3 of the pipe has corroded and can expect to replace the system in ten more years.

4. Protect Against Freezing



COLLECTANDRAIN Model 5400

COLLECTANDRAIN Model 5300ALBV & 5100A

Dry sprinkler systems, although they are not full of water, still collect condensation. NFPA 13 requires auxiliary drains, which collect moisture and allow the draining of the moisture from the system without tripping the system and flooding it with water.

When temperatures drop below freezing, however, if the water remains in the drain, it can freeze inside of the barrel. If temperatures allow some of that ice to thaw and refreeze, an ice plug forms that prevents the freezing water from moving up the barrel and forces it downward, breaking the drain valve. When the ice thaws again, pressure is lost and the system is tripped. This requires an increase of labor cost to fix the broken valve, drain the system, and come back to continually drain any residual moisture from the tripped system to prevent the issue from repeating.

To protect against freezing auxiliary drains, AGF Manufacturing offers water detectors for their COLLECTANDRAIN auxiliary drain series. The detector creates visual and auditory alerts when the drain needs to be emptied. There's even signage adhered to the drain that meets code and explains operation for less experienced personnel. For more problematic auxiliary drains, AGF offers a heated cabinet that prevents the water from freezing and has an alert when it's in need of draining.

5. Protect Against Vandalism

COLLECTANDRAIN Model 5200A

Due to the nature of where dry fire sprinkler systems are necessary—often in parking structures or garden centers—the public often has access to auxiliary drains. With public access and convenient drain handles comes vulnerability to vandalism, whether accidental or malicious.

Anti-trip plates prevent the misuse of an auxiliary drain. AGF Manufacturing, for example, manufactures an anti-trip plate on their auxiliary drain (Model 5100 and 5200) that makes it physically impossible to improperly operate the valve. For added security, building managers can also order a locking kit that completely prevents the opening of the valves without a key.

It's vital to keep a building's fire sprinkler system in top shape should a fire start, but some issues like inefficient testing, corrosion, freezing, and vandalism, might not be top of mind for a building maintenance team. With these issues better in mind, and with innovative, efficient, code compatible products from AGF Manufacturing, maintaining a building's fire sprinkler system becomes much easier, leading to safer residents and property.

AGF Manufacturing Now an ICC Preferred Provider and NICET Recognized Training Provider

AGF Manufacturing is proud to announce that they're now an International Code Council (ICC) Preferred Provider and a Recognized Training Provider of the National Institute for Certification in Engineering Technologies (NICET). AGF's courses will offer Continuing Education (CE) credits through the ICC. Find them using their preferred provider ID, 2336, on the ICC's Preferred Provider website (https://ppp.iccsafe.org). Their first course will cover changes to the 2016 version of NFPA, titled "Air Vents and Corrosion: New Requirements of 2016 NFPA 13" (Course No 20665). Future courses will cover topics such as dry system freeze protection, preventative maintenance, and pipe corrosion monitoring.

AGF offers their training sessions free of charge through their recently-launched program AGFUniversity. Interested parties can request training via webinar, at their location, or in the new Exton, PA training center AGF shares with General Air Products. Sessions are flexible based on need, ranging from a 20-minute lunch & learn or webinar to an all-day training center experience. The training center includes active displays of AGF and General Air products, as well as products from other major head and device manufacturers. To request a training session, visit www.agfmanufacturing.com/documents/agfu.html.

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Reliability, Versatility, Code Compatibility