

Corrosion Inhibiting System for Fire Protection Systems

INCREASED SAFETY

The MicBlast™ generates Nitrogen on demand at low pressure (60-110 psi) as opposed to handling high pressure (2500+ psi) Nitrogen cylinders. These high pressure cylinders must be handled with extreme care, are heavy, and must be chained up at all times. Also note that most cylinders that are being used today date back to the early 60's. Keep safe and generate Nitrogen onsite with the MicBlast™!

CONVIENCE

Since the MicBlast™ generates Nitrogen on demand you will not have to worry about running out of gas or constantly changing-out high pressure Nitrogen cylinders!

COST

The cost of high pressure Nitrogen cylinders quickly adds up. Most gas companies charge fees that included fuel surcharge, delivery, yearly rental, all on top of the cost to refill each cylinder with Nitrogen. With the purchase of the MicBlast™ the only other cost is an inexpensive annual filter kit. Therefore, in the long term the most cost effective solution to carrying Nitrogen is generating Nitrogen onsite with the MicBlast™!



How the MicBlast™ System Works

MicBlast™ is a patent pending compact system that generates and introduces high purity, corrosion inhibiting, Nitrogen (N₂) into your dry or pre-action Fire Protection Systems (FPS). The MicBlast™ can be integrated with or replace your existing supervisory air compressor. It uses minimal space, runs quiet, and can be installed within your fire pump or riser room. The MicBlast™ generates high purity N₂ at the same rate as a high pressure N₂ cylinder, therefore making it a safer, more convenient, cost effective solution to inhibit corrosion.

Installation is simple, requiring only a connection to a compressed air line (compressor is an available option) and in turn the MicBlast™ can be connected directly to the FPS riser. When not generating N₂, the system does not consume compressed air, thus it is environmentally friendly by saving energy. The MicBlast™ system can be designed to initially charge the FPS to the specified supervisory pressure within 30 minutes, as required by NFPA 13. Thereafter, the MicBlast™ system will maintain supervisory pressure and continuously cycle Nitrogen throughout the FPS by means of the patented MicBlast - AutoPurge System™ (APS). This ensures that high purity N₂ (typically 95% to 99.8%) makes its way to all of the branches within the FPS. In utilizing the APS, the low dew point of nitrogen allows for the continuous absorption of any residual moisture within the system piping, thereby "drying out" your FPS system during the cycling/purging stage. The MicBlast™ is provided with the Blast-Off™ Patented- Leak Detection System which will alarm when the leakage from the FPS exceeds the maximum rate as specified by NFPA 13, ensuring safety, FPS integrity and maximizing the life of the MicBlast™ - Corrosion Inhibiting System.



The MicBlast™ is designed to supply low pressure, supervisory Nitrogen, a clean, dry, non-flammable, inert gas to pre-action and dry sprinkler systems. Traditionally compressed air is used as a supervisory gas for such systems. However, the constant availability of oxygen in the compressed air supports corrosion of the steel and galvanized piping. Microbiologically influenced corrosion (MIC) has also been identified as a real threat for the integrity of these types of fire protection systems.

Benefits of a Nitrogen Generator

- Cost effective, continuous supply of Nitrogen to the FPS.
- "The Green Solution to Inhibiting Corrosion" Eliminate the need for chemical corrosion inhibitors.
- Eliminates the need to change-out Nitrogen gas cylinders, the liability of handling gas cylinders (high pressure), and the inconvenience of changing out the gas cylinders.
- Eliminates the risk of de-pressurization of the FPS due to untimely Nitrogen gas cylinder run-outs.
- Requires only compressed air supply to produce high-purity Nitrogen.
- No need for desiccant or regenerative dryers when membrane Nitrogen generators are employed.
- Nitrogen is not a chemical additive and poses no possible chemical hazard.
- The inert nature of Nitrogen prevents the oxidation and aging of polymeric gaskets, seals and O-rings, within the FPS, thereby prolonging their service life.

How Nitrogen Inhibits Corrosion in a FPS

- Nitrogen is an inert gas, which does not support the corrosion reaction (the oxygen in compressed air does).
- The Nitrogen effectively displaces all oxygen from the system and stops the corrosion reaction by eliminating the cathodic oxygen reaction.
- The dew point of 95% Nitrogen is approximately -40°F, which enables it to absorb significantly more moisture than compressed air. Cyclic venting of Nitrogen will, over time, completely remove any residual moisture from the system and thereby completely arrest electro-chemical corrosion.
- Inert nature of Nitrogen eliminates oxidation of non-metallic components of FPS.
- Absence of water will completely eliminate the potential threat of Microbiologically Influenced Corrosion (MIC).
- Prevents the formation of ice blockages in freezer FPS systems.