

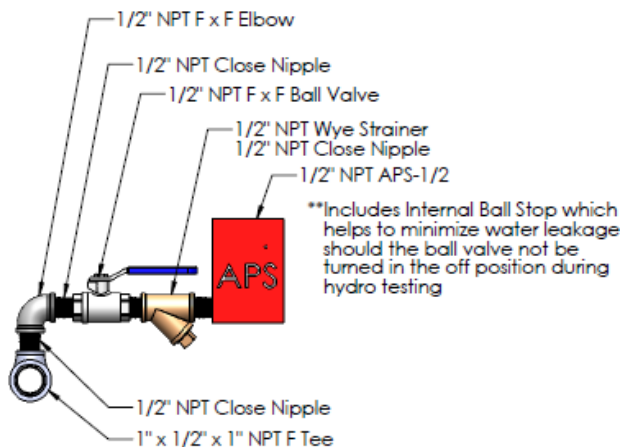
# N<sub>2</sub>-Blast<sup>®</sup> - AutoPurge System<sup>™</sup> (APS)

Nitrogen has become the preferred method for pressurizing Dry and Pre-action Fire Protection Systems (FPS) to inhibit internal piping wall corrosion, Galvanic and Microbiologically Influenced Corrosion (MIC). The N<sub>2</sub>-Blast<sup>®</sup> - Nitrogen Generation System produces high purity Nitrogen on demand from the air we breathe, and introduces the Nitrogen into the FPS piping where the air compressor's air feed is normally connected. (i.e. the Air Maintenance Device). Low pressure Nitrogen in turn replaces the compressed air to provide Supervisory Pressure as needed.



It is important to ensure that high purity Nitrogen is equally distributed within the entire FPS piping system, including all branch piping locations. To do so, South-Tek Systems designed and manufactures the *AutoPurge System*<sup>™</sup>. This Patent Pending technology provides a low volume, constant purge of Nitrogen within each FPS system. The rate of which gas is evacuated from the FPS is within NFPA guidelines yet allows “breathing” to occur. Computational Fluid Dynamics (CFD) Modeling proves that this is the MOST effective way to ensure that high purity Nitrogen reaches all branches within the FPS and yet also assists in “drying” out residual water left behind from a hydro test.

The Patent Pending South-Tek Systems *AutoPurge System*<sup>™</sup> (APS) is designed to provide the optimum Nitrogen purging levels within your FPS piping. The APS can either be inserted into an existing pipe weld-o-let or be tee'd off a high point with the FPS. The APS is provided with a standard NPT connection and consists of the:



- a) *Automatic High Pressure Water Shutoff*, in the case where the FPS system is activated and high pressure water enters the FPS piping,
- b) *An Adjustable APS Orifice*<sup>™</sup>, easily calibrated on site by the Sprinkler Contractor to match the FPS piping design,
- c) Connection for South-Tek's Patented *Quick-Check*<sup>™</sup> *Nitrogen Purity Sensor*; enabling one to document that Nitrogen purity has been achieved within the FPS piping system.

South-Tek's N<sub>2</sub>-Blast<sup>®</sup> *AutoPurge System*<sup>™</sup> is proven, simple to install, and requires little or no maintenance. This system provides Building Management with the assurance that high purity Nitrogen is blanketing the entire FPS piping inner walls and reaching all distant branch locations in a timely, efficient manner. As an added benefit the APS, utilizing the dry characteristics of Nitrogen, removes residual water from within the FPS piping whereas before, compressed air only added to the levels of moisture content within. The *AutoPurge System*<sup>™</sup> is designed to ultimately provide the Nitrogen blanketing protection needed to safeguard against FPS piping corrosion and MIC issues.