

INTRODUCING

# NEW NITROGEN GENERATOR SYSTEM



## UNIQUE FEATURES & IMPROVEMENTS

- ◆ Corrosion inhibiting system that limits the liability of early pipe replacement
- ◆ All system's electrical and mechanical components contained in one single unit
- ◆ Protector Dry SMART Vent directly installed inside the cabinet.
- ◆ Optional real-time nitrogen concentration monitored inside the cabinet
- ◆ Engineered for low energy consumption
- ◆ Simple and inexpensive to maintain
- ◆ Significant cost saving by using black pipe in combination with nitrogen
- ◆ No storage tank required, allowing smaller footprint
- ◆ No additional compressor required on most systems up to 250 gallons

## WITHIN THE SAME STANDARDS

- ◆ Factory assembled, programmed and tested under ISO-9001 standards
- ◆ Uses the Viking Model F-1 Straight Through Deluge valve
- ◆ Comes standard prewired to the Viking VFR-400 releasing control panel
- ◆ Compact, aesthetic and easy to move
- ◆ Neoprene gasket on all doors to eliminate vibrations
- ◆ No open drain cup inside unit
- ◆ Separate unlocked access hatch to emergency manual release
- ◆ Serial number on every unit for easy reference
- ◆ User-friendly standardized owner's manual with every unit

# FireFlex® - TOTALPAC N<sub>2</sub>

INTEGRATED FIRE PROTECTION SYSTEM

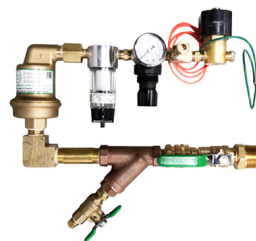
# NEW NITROGEN GENERATION FIRE PROTECTION TECHNOLOGY



## PGEN-5 FF NITROGEN GENERATOR FEATURES

- ◆ Handles up to 950 gallons (3596 litres) of nitrogen for sprinkler piping capacity
- ◆ Initial sprinkler piping capacity lower than 250 gallons only requires the ECS® PGEN-5 FF compressor
- ◆ Fully automatic with pressure monitoring
- ◆ Pre-filters and pressure regulator
- ◆ Control panel with gauges, hour meter and power, bypass and vent switches

The ECS® PGEN-5 FF system provide an economical, precise means of generating high purity nitrogen. Since air is comprised of ~79% N<sub>2</sub>, we simply and cost-effectively separate the N<sub>2</sub> from the air. Nitrogen is an inert gas (noncombustible) and widely used in thousands of industries along with fire protection systems. The N<sub>2</sub> is “generated” by means of the air compressor pushing air into the simple, safe membrane element, which in turn mechanically separates N<sub>2</sub> molecules from other molecules found within air.



## PROTECTOR DRY SMART VENT (PSV-D)

- ◆ Installed inside the cabinet, no remote installation required
- ◆ Facilitates patented «fill and purge» breathing process
- ◆ Pressure regulator prevents system depressurization
- ◆ Float valve prevents water discharge
- ◆ Requires no plumbing to drain



## RELEASING CONTROL PANEL

## RISER SHUT-OFF VALVE

For easier maintenance the riser shut-off valve comes as an option on units. It consists of a supervised butterfly valve which allows for a full flow trip test without flooding the system's piping and a sight glass located on the main drain for visual indication of the water flow.

The Viking VFR-400 is cULus Listed, FM Approved and meets UL 864-9 requirements. It features onboard menu-driven programming with twelve pre-installed programs to facilitate set up. The panel is compatible with multiple initiating devices such as: linear heat detection, smoke and heat detectors, waterflow indicators, low & high air pressure switches as well as manual pull stations.



Proudly manufactured by the company that introduced and developed the concept of integrated fire protection systems in the market, this **TOTALPAC® N<sub>2</sub>** integrated fire protection system consists of a dry or preaction system trim totally pre-assembled, pre-wired, factory tested and ready to be connected to the water supply and piping network.

This system includes all control valves, release control panel and the nitrogen generator which combined with our dry and preaction integrated system, can effectively inhibit electrochemical, galvanic and microbiologically influenced corrosion (MIC), as well as protect against freeze-ups and ice plugs.

The **TOTALPAC® N<sub>2</sub>** unit is available in multiple configurations: non interlocked, single or double interlocked, dry, preaction, Surefire and FireCycle types, all in sizes from 2" to 6" diameter.



### PROTECTOR SMART GAS ANALYZER (SGA-1)

- ◆ Provides continuous real-time gas concentration of the system
- ◆ Multiple signal outputs: contact closure, 0-5V DC and 4-20mA
- ◆ Can be monitored by fire alarm or building management systems
- ◆ Includes digital display
- ◆ Paired with ECS® venting device for continuous supply
- ◆ Comes as an option inside the **TOTALPAC® N<sub>2</sub>** cabinet



### ECS® IN-LINE CORROSION DETECTOR (ILD)

- ◆ Only device that provides continuous real-time corrosion monitoring of the sprinkler system piping network
- ◆ UL Listed
- ◆ Matches sizes, schedule and material of system piping
- ◆ Provides 360° surface area to detect internal corrosion
- ◆ Thin wall section monitored by UL Listed/FM Approved pressure switch
- ◆ Available as an option



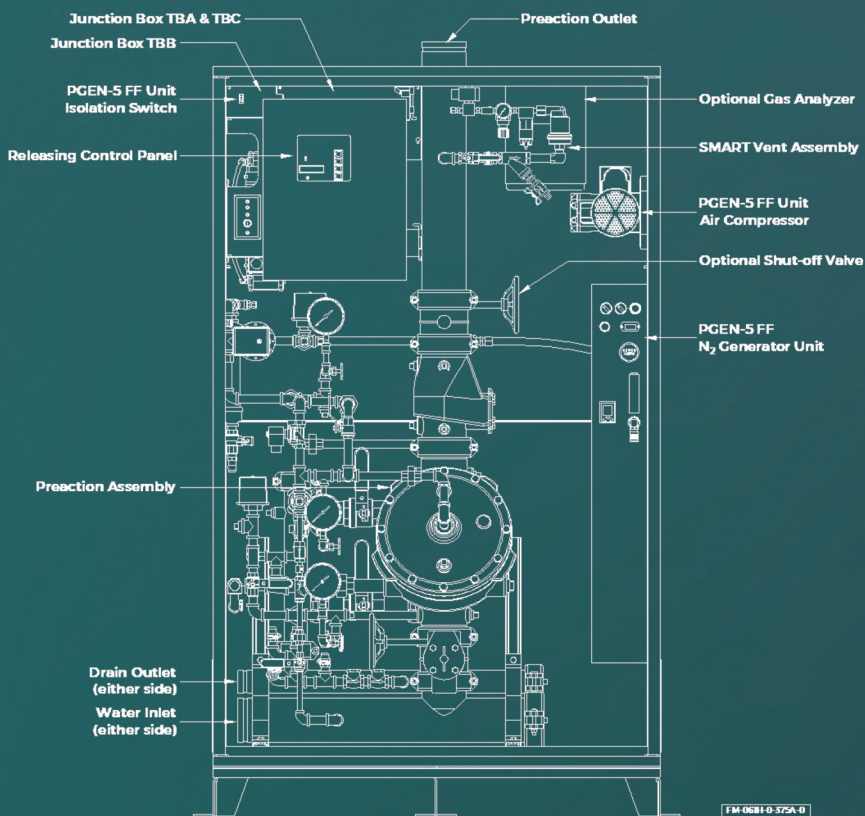
### RELEASING CIRCUIT DISCONNECT SWITCH

Required by NFPA 72 - 2010 Edition, this feature is standard on all our **FireFlex® TOTALPAC® N<sub>2</sub>** units and prevents accidental discharge during maintenance or inspection. Operation of the key switch physically disconnects the release circuit wiring and causes a trouble signal at the releasing control panel.



### PROTECTOR HANDHELD GAS ANALYZER (PHGA-1)

- ◆ Handheld battery powered device verifies nitrogen purity
- ◆ Measures gas concentration at vent sampling port or nitrogen generator discharge
- ◆ Features one button self-calibration
- ◆ Included in **TOTALPAC® N<sub>2</sub>** cabinet



## APPLICATIONS

Integrated Nitrogen Generator System can be used to protect all applications requiring the following types of systems:

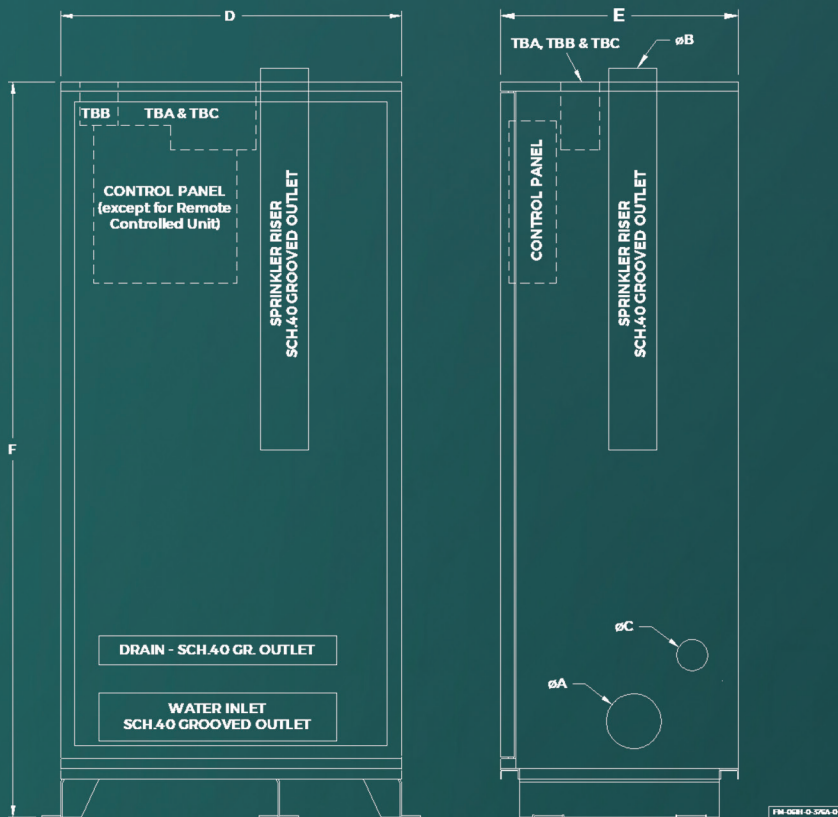
- ◆ NON-INTERLOCK PREACTION
- ◆ DOUBLE-INTERLOCK PREACTION
- ◆ SINGLE-INTERLOCK PREACTION
- ◆ DRY-PIPE

The corrosion mitigation properties of the nitrogen technology makes this system suitable for all applications where piping corrosion is a concern.

## CABINET DIMENSIONS

SYSTEM SIZE	A	B	C	D	E	F
2"	2"	2"	2"	36"	25"	77"
3"	4"	3"	2"	46"	25"	77"
4"	4"	4"	2"	46"	25"	77"
6"	6"	6"	2"	46"	25"	77"

Notes: Dimensions are nominal and may vary  $\pm 1/4"$



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