

CORROSION INHIBITING SOLUTIONS



# PRODUCT GUIDE

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**N<sub>2</sub>BLAST**®

**DEOX**®

FOR WET, DRY AND  
PRE-ACTION  
FIRE PROTECTION SYSTEMS

# DUAL-BED PSA NITROGEN GENERATORS



### N<sub>2</sub>Blast® - FPS-500/900

- | For up to 500 or 900 gal. of total sprinkler pipe capacity
- | UL 508A listed Industrial Control Panel
- | FM1035 approved
- | Dual-Bed PSA technology
- | BlastOff™ I - *Leak Detection System*
- | BlastOff™ II - *Air Bypass Alarm*
- | Features an integrated air compressor (not intended for quick-fill operation)
- | Optional STS-NF-QF-2 air compressor available for quick-fill operation (635 gal. @ 40 PSI)
- | 28 gal. nitrogen receiver tank

Specifications:

- | Minimum nitrogen purity 98%
- | Electrical 110 VAC, 4.3 AMPS
- | Dimensions 29.5" H x 12.68" W x 10.06" D



### N<sub>2</sub>Blast® - FPS-1650

- | For up to 1,650 gal. of total sprinkler pipe capacity
- | UL 508A listed Industrial Control Panel
- | FM1035 approved
- | Dual-Bed PSA technology
- | BlastOff™ I - *Leak Detection System*
- | BlastOff™ II - *Auto Air Bypass Alarm*
- | Optional BlastOff™ III - *Early Warning System*
- | Optional BlastOff™ IV - *Onboard Purity Alarm*
- | Features an integrated air compressor (not intended for quick-fill operation)
- | Optional STS-NF-QF-2 air compressor available for quick-fill operation (635 gal. @ 40 PSI)
- | Integrated nitrogen receiver tank
- | 3.5" color touchscreen HMI with SMART-Trak technology

Specifications:

- | Minimum nitrogen purity 98%
- | Electrical 110 VAC, 7.1 AMPS
- | Dimensions 67.5" H x 26" W x 18" D

# DUAL-BED PSA NITROGEN GENERATORS

## N<sub>2</sub>Blast® - FPS-3250/5000

- | For up to 3,250 or 5,000 gal. of total sprinkler pipe capacity
- | UL 508A listed Industrial Control Panel
- | FM1035 approved
- | Dual-Bed PSA technology
- | BlastOff™ I - *Leak Detection System*
- | BlastOff™ II - *Auto Air Bypass Alarm*
- | Optional BlastOff™ III - *Early Warning System*
- | Optional BlastOff™ IV - *Onboard Purity Alarm*
- | Requires separate feed air compressor
- | Integrated Air Dryer and N<sub>2</sub> receiver tank
- | 3.5" color touchscreen HMI with SMART-Trak technology

### Specifications:

- | Minimum nitrogen purity 98%
- | Electrical 110 VAC, 7.1 AMPS
- | Dimensions 67.5" H x 26" W x 18" D



## N<sub>2</sub>Blast® - FPS-10000/16500/22500

- | Units up to 10,000; 16,500; or 22,500 gal. of total sprinkler pipe capacity
- | UL 508A listed Industrial Control Panel
- | FM1035 approved
- | Dual-Bed PSA technology
- | BlastOff™ I - *Leak Detection System*
- | BlastOff™ II - *Auto Air Bypass Alarm*
- | Optional BlastOff™ III - *Early Warning System*
- | Optional BlastOff™ IV - *Onboard Purity Alarm*
- | Requires separate feed air compressor
- | Integrated Air Dryer and N<sub>2</sub> receiver tank
- | 3.5" color touchscreen HMI with SMART-Trak technology

### Specifications:

- | Minimum nitrogen purity 98%
- | Electrical 110 VAC, 5 AMPS
- | Dimensions 77" H x 29" W x 26" D





# NITROGEN GENERATOR SPECIFICATIONS:

	FPS-500	FPS-900	FPS-1650	FPS-3250	FPS-5000	FPS-10000	FPS-16500	FPS-22500
<b>Maximum FPS Capacity (Gallons)</b>	500	900	1,650	3,250	5,000	10,000	16,500	22,500
<b>Dimensions (H x W x D)</b>	30"x13"x10"	30"x13"x10"	68"x26"x18"	68"x26"x18"	68"x26"x18"	77"x29"x26"	77"x29"x26"	77"x29"x26"
<b>Weight (lbs.)</b>	84	84	223	243	303	870	1,020	1,070
<b>Mount</b>	Wall	Wall	Floor	Floor	Floor	Floor	Floor	Floor
<b>Electrical Specs</b>	110-220V AC 50-60Hz 1 phase	110-220V AC 50-60Hz 1 phase	110-220V AC 50-60Hz 1 phase	110-220V AC 50-60Hz 1 phase	110-220V AC 50-60Hz 1 phase	110-220V AC 50-60Hz 1 phase	110-220V AC 50-60Hz 1 phase	110-220V AC 50-60Hz 1 phase
<b>Amperage</b>	4.3	4.3	7.1	5	5	5	5	5
<b>Compressed Air SCFM Required</b>	Integrated <sup>1</sup>	Integrated <sup>1</sup>	Integrated <sup>1</sup>	4.0	5.0	13.0	17.0	21.5
<b>Air Compressor Min. Working Pressure</b>	Integrated <sup>1</sup>	Integrated <sup>1</sup>	Integrated <sup>1</sup>	125 PSI	125 PSI	125 PSI	125 PSI	125 PSI
<b>Compatible Air Compressor Packages (STS-NF-C-)</b>	Integrated <sup>1</sup>	Integrated <sup>1</sup>	Integrated <sup>1</sup>	2-J, 5-CS, 7-CS, 7HD- CS, 10-CS	2-J, 5-CS, 7-CS, 7HD- CS, 10-CS	5-CS, 7-CS, 7HD-CS, 10-CS	5-CS, 7-CS, 7HD-CS, 10-CS	7-CS, 7HD-CS, 10-CS
<b>N<sub>2</sub> Receiver Tank Size (H x DIA.)</b>	15"x50"	15"x50"	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated
<b>Maintenance</b>	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual
<b>Lead Time</b>	1-2 Weeks	1-2 Weeks	1-2 Weeks	1-2 Weeks	1-2 Weeks	1-2 Weeks	1-2 Weeks	1-2 Weeks
<b>Warranty</b>	1 Year <sup>2</sup>	1 Year <sup>2</sup>	1 Year <sup>2</sup>	1 Year <sup>2</sup>	1 Year <sup>2</sup>	1 Year <sup>2</sup>	1 Year <sup>2</sup>	1 Year <sup>2</sup>

South-Tek Systems nitrogen generator specifications as of September 2019.

<sup>1</sup>The FPS-500 & FPS-900 systems are complete with integrated air compressors. A separate air compressor can be provided by South-Tek or a pre-existing air compressor can be utilized to fill largest zone to pressure within 30 minutes (per NFPA 13 req.).

<sup>2</sup>Per South-Tek Systems' Terms & Conditions. Extended warranties available.



# FEED AIR COMPRESSORS

## Model STS NF-C-2-J

- | 2hp piston, oil lubricated with aftercooler
- | 17 gal. accumulator tank with pneumatic auto drain
- | Added filtration package to ensure clean, dry, oil free air
- | Compressed air flow output of 7.6 SCFM at 125 PSI
- | Fills up to 900 gallons within 30 minutes (0-40 PSI)



## Model STS NF-C-5-CS

- | 5hp piston, oil lubricated, 60 gal. accumulator tank
- | Aftercooler, magnetic starter, low oil monitor
- | Vibration isolator pads
- | Pneumatic auto-drain off of the air receiver tank
- | Compressed air flow output of 20 SCFM at 125 PSI
- | Fills up to 1,650 gallons within 30 minutes (0-40 PSI)

## Model STS NF-C-7-CS

- | 7.5hp piston, oil lubricated, 80 gal. accumulator tank
- | Aftercooler, magnetic starter, low oil monitor
- | Vibration isolator pads
- | Pneumatic auto-drain off of the air receiver tank
- | Compressed air flow output of 25 SCFM at 125 PSI
- | Fills up to 2,100 gallons within 30 minutes (0-40 PSI)

## Model STS NF-C-7HD-CS

- | 7.5hp piston, oil lubricated, 80 gal. accumulator tank
- | Aftercooler, magnetic starter, low oil monitor
- | Vibration isolator pads
- | Pneumatic auto-drain off of the air receiver tank
- | Compressed air flow output of 32.1 SCFM at 125 PSI
- | Fills up to 2,650 gallons within 30 minutes (0-40 PSI)

## Model STS NF-C-10-CS

- | 10hp piston, oil lubricated, 80 gal. accumulator tank
- | Aftercooler, magnetic starter, low oil monitor
- | Vibration isolator pads
- | Pneumatic auto-drain off of the air receiver tank
- | Compressed air flow output of 36.9 SCFM at 125 PSI
- | Fills up to 3,000 gallons within 30 minutes (0-40 PSI)



## Quick-Fill Compressor.

### Model STS NF-QF-2

- | To be utilized only for the sprinkler pipe quick-fill operation. Not intended to be used as a constant means of maintaining supervisory pressure.
- | 2hp piston, oil-less
- | Compressed air flow output of 8 SCFM at 40 PSI
- | Fills up to 635 gallons within 30 minutes (0-40 PSI)

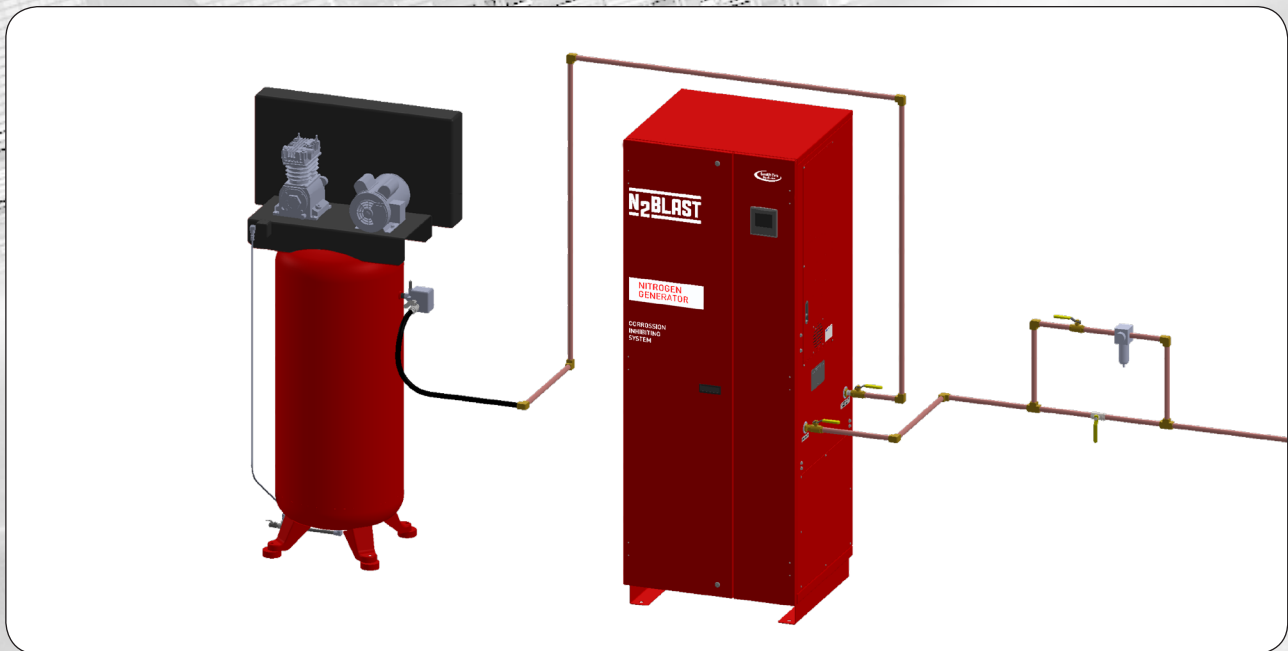


# FEED AIR COMPRESSOR SPECIFICATIONS



	STS NF-QF-2	STS NF-C-2-J	STS NF-C-5-CS	STS NF-C-7-CS	STS NF-C-7HD-CS	STS NF-C-10-CS
<b>Horsepower</b>	2 hp	2 hp	5 hp	7.5 hp	7.5 hp	10 hp
<b>SCFM</b>	8.0	7.6	20	25	32.1	36.9
<b>Min. Working Pressure</b>	60 PSI	125 PSI	125 PSI	125 PSI	125 PSI	125 PSI
<b>Zone Capacity Filled within 30 Min. (40 PSI)</b>	635 Gallons	900 Gallons	1,650 Gallons	2,100 Gallons	2,650 Gallons	3,000 Gallons
<b>Air Compressor Dimensions (W" x L" x H")</b>	12 x 18 x 15	16 x 27 x 57	26 x 32 x 78	26 x 32 x 78	34 x 42 x 84	24 x 36 x 74
<b>Air Compressor Weight</b>	50 lbs.	250 lbs.	650 lbs.	685 lbs.	800 lbs.	865 lbs.
<b>Air Compressor Electric (Single Phase)</b>	120-230V 60Hz	120-230V 60Hz	208-230V 60Hz	N/A	N/A	N/A
<b>Air Compressor Electric (Three Phase)</b>	N/A	230-460V 60Hz	208/230/460V 60Hz	208/230/460V 60Hz	208/230/460V 60Hz	208/230/460V 60Hz
<b>Warranty</b>	1 Year <sup>1</sup>	1 Year <sup>1</sup>	1 Year <sup>1</sup>	1 Year <sup>1</sup>	1 Year <sup>1</sup>	1 Year <sup>1</sup>

<sup>1</sup>Per Manufacturer's Terms & Conditions.



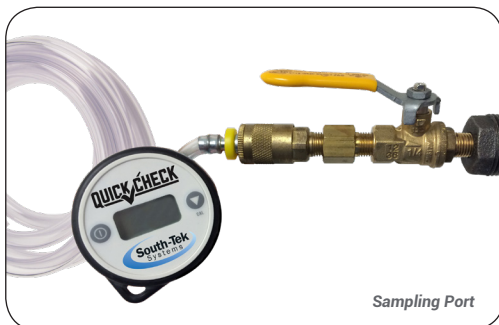


# OPTIONS AND ACCESSORIES



## N<sub>2</sub>Blast® - AutoPurge System®

- | Patented, calibrated orifice custom tunes to each individual riser based on its total capacity (gallons)
- | Purges FPS piping to ensure entire system is blanketed with 98%+ nitrogen purity
- | Mounts horizontally on a section of the FPS piping
- | Locate APS at a remote, accessible location on FPS, in an area where water will not collect
- | No electrical required



## Quick-Check® - Sampling Port

- | Provides additional location to check nitrogen purity concentration within sprinkler piping
- | Offers peace of mind that nitrogen is fully blanketed throughout FPS
- | One or multiple *Sampling Ports* can be installed on any zone which already has an *AutoPurge System*®
- | Mount horizontally on a vertical section of FPS piping
- | No electric required

# OPTIONS & ACCESSORIES CONT.



Portable N<sub>2</sub> Purity Sensor

## Quick-Check® - Portable Nitrogen Purity Sensor

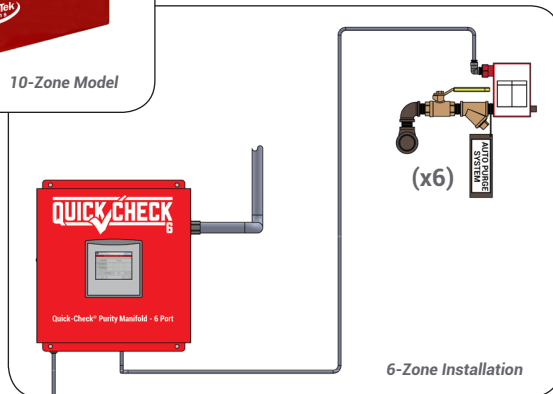
- | Battery operated, hand-held nitrogen analyzer verifies that desired nitrogen purity is achieved within all zones
- | Attaches to quick connection on *AutoPurge System*® or *Sampling Port*



10-Zone Model

## Quick-Check® - Purity Manifolds

- | Samples nitrogen purity content in all zones
- | Standard models: 1, 6, 10 and 20-zone
- | Connects to *AutoPurge System*® via 1/4" plenum rated tubing
- | Deactivates each *AutoPurge System*® as the nitrogen purity set point is achieved
- | Ethernet communication module included for remote access
- | Wall mount and complete with PLC and modules
- | Analog 0-10V, 4-20mA signal to BMS as purity is achieved
- | Electrical: 115V/60Hz/1Ph/8 AMPS



6-Zone Installation



6-Zone Model



PowerSaver Timer

## Quick-Check® - PowerSaver Timer

- | Eliminates the continuous venting of the *AutoPurge Systems*® by closing the purge after 98%+ nitrogen has had sufficient time to cycle throughout the FPS
- | Connects to *AutoPurge System*® via 1/4" plenum rated tubing
- | Automatically closes the purge in *AutoPurge Systems*® after five weeks (field adjustable)
- | Wall mountable at a central location within the building
- | Electrical: 110V/60Hz/1Ph, 1.5 AMP





# CORROSION SOLUTIONS

for Wet Fire Protection Systems

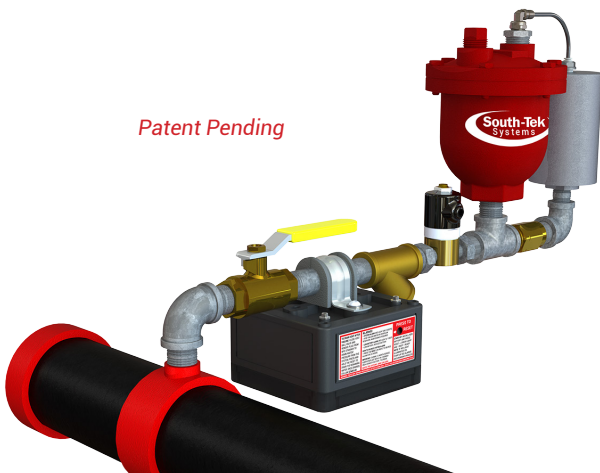


**Single Vent O<sub>2</sub>Release®**

### Single Vent O<sub>2</sub>Release® Features:

- | Displaces corrosive trapped air from within sprinkler piping
- | Does not create a water trap—valve fully drains back to FPS
- | Recommend (1) per high point of FPS
- | Low clearance height - easy high point install
- | Meets 2016 NFPA 13-7.1.5 requirements

Patent Pending

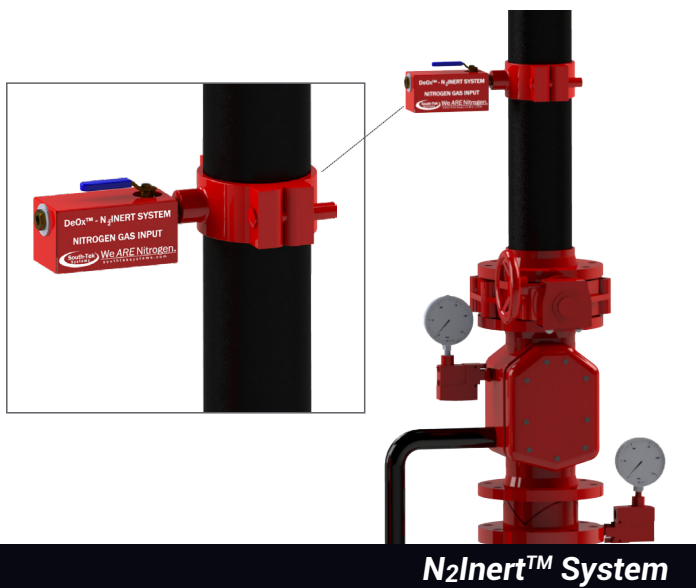


**Dual Vent O<sub>2</sub>Release®**

### Dual Vent O<sub>2</sub>Release® Features:

- | FailSafe™ design works as a true water stop—water will not overflow as it would with other redundant vent designs
- | Water accumulation fully drains back to FPS by simply depressurizing FPS and pressing reset button on Air Release Valve
- | Lightweight design with low height clearance and only one connection to the piping makes for easy installation
- | Primary Air Release Valve Failure Alarm with audible buzzer and visual LED indicator
- | Meets 2016 NFPA 13-7.1.5 requirements

# DEOX SYSTEMS



**N<sub>2</sub>Inert™ System**

## N<sub>2</sub>Inert™ System

- | Combines with pre-purge wet fire protection system to eliminate the corrosive air-water interface throughout the entire FPS
- | Lessens the likelihood of electrochemical corrosion by reducing the air-water interface
- | Reduces the oxygen levels within any wet FPS
- | Includes injection port and exhaust/sample port
- | Allows for up to 40 PSIG nitrogen fill
- | Fully pneumatic – no electrical required



**DeOx DX-1M**

## DeOx® - DX-1M

- | Integrates into new or pre-existing FPS
- | Filters particulates and removes impurities from fill water
- | Reduces oxygen in both trapped air pockets and fill water below 1.0 ppm
- | Fully pneumatic – no electrical required
- | 1,000 gallons per hour fill time
- | Dimensions: 52" H x 38" W x 18" D

## DeOx® - DX-3M

- | 3,000 gallons per hour fill time
- | Dimensions: 52" H x 35" W x 20" D

# South-Tek Systems

## Warranties

WE DESIGN BEST IN CLASS, DEPENDABLE CORROSION INHIBITING SYSTEMS. IT ONLY SEEMS RIGHT TO OFFER A WARRANTY TO MATCH.



### N<sub>2</sub>Blast® and DeOx® Systems<sup>1</sup>

South-Tek Systems warrants to the purchaser that all nitrogen generators and other products manufactured by South-Tek Systems shall be free of defects in material and workmanship for a period of one (1) year from the date of shipment to the purchaser or within 1,000 hours of runtime, whichever comes first (per South-Tek Systems' Terms & Conditions). The South-Tek Systems warranty only applies to products manufactured by South-Tek Systems.

### STS-NF-C-2-J Series Air Compressor Packages<sup>2</sup>

The STS-NF-C-2-J Series Air Compressor Packages are warranted for one (1) year from date of purchase. The manufacturer will repair, without charge, any defects due to faulty materials or workmanship. This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others.

### STS-NF-C-5/7/7HD/10-CS Series Air Compressor Packages<sup>2</sup>

All component parts on these compressors installed by the manufacturer are warranted to be free of defects, workmanship and material for a period of one year. Transportation charges are the responsibility of the purchaser. The purchaser must use the manufacturer's synthetic reciprocating compressor oil in the compressor for the duration of the compressor warranty. There are no express warranties except other than those contained in this limited warranty statement. Covered in the one-year period of the warranty are defective parts due to defects in the original part only. The compressor warranty is void in the case of abuse, lack of proper service, incorrect application, incorrect installation, and neglect. Standard compressor warranty covers defective parts and labor for the one-year period. Contact South-Tek for details on an optional 6-year Industrial reciprocating pump only warranty.

### RD Series Air Dryer Packages<sup>2</sup>

The RD Series Air Dryer Packages have a one (1) year warranty against defects in materials or workmanship under normal use and service, from the date of installation or eighteen (18) months from the date of shipment by the manufacturer or a manufacturer's distributor, whichever may occur first. Heat Exchangers are warranted for five (5) years.

<sup>1</sup>Per South-Tek Systems' Terms and Conditions

<sup>2</sup>Per the Manufacturer's Terms and Conditions

