



Installation & Startup Checklist

If factory startup is not performed, please complete checklist and return to:
service@southteksystems.com

Rev 1
South Tek Systems



N₂Blast® START-UP & COMMISSIONING

Technician Name: _____

Job Name: _____

Type of Facility: _____

SITE AND INSTALLATION INFORMATION

Date of site visit: _____

Company/End-user: _____

Site Contact: _____

Phone #: _____

Email Address: _____

Installation address: _____

Installing Company: _____

Contact: _____

Phone #: _____

Email Address: _____

Signing of the Start-Up & Commissioning document indicates an understanding and formal agreement that the N₂Blast® Corrosion Inhibiting System Installation is complete (unless otherwise noted). By signing this document, each individual agrees all aspects of the Start-Up & Commissioning should be concluded, executed, and documented as described herein.

Site Contact Name: _____ Sign: _____ Date: _____

Installing Contact Name: _____ Sign: _____ Date: _____

SYSTEM SETUP AND PARAMETERS

N₂Blast® Model: _____

Serial Number: _____

☐ BlastOff™ III – Early Warning System ☐ BlastOff™ IV - Onboard Purity Alarm

N₂Blast® tank PSI (cut-out pressure when N₂Blast® turns off): _____

N₂Blast® tank PSI (cut-in pressure when N₂Blast® turns on): _____

Internal Compressor Present: ☐ YES ☐ NO

External Compressor Model: _____

Compressor Serial Number: _____

Clearance Around Air Compressor: Front _____ "Back _____ "Left Side _____" Right Side _____"

Compressor tank PSI (cut-out pressure when compressor turns off): _____

Compressor tank PSI (cut-in pressure when compressor turns on): _____

Compressor electrical (voltage stated on starter): _____ Actual _____

Compressor voltage and amp draw verified (check one): ☐ YES ☐ NO

If **NO**; state reason why: _____

Air Dryer Model (If applicable): _____

Air Dryer Serial Number: _____

Alarm Points / BMS Tie-in (also see Page # 7):

Contacts Utilized:

☐ BlastOff™/Common Alarm ☐ Air Bypass Alarm™ ☐ TCP/IP Modbus ☐ None

Number of N₂Blast® Auto Purge™ Systems: _____

Model Number: _____

Utilize the space below to list the location and setting for each APS:

SYSTEM SETUP AND PARAMETERS (continued)

Quick-Check® - Purity Manifold Model: _____

Serial Number: _____

Has ¼" tubing been connected to N₂Blast® - Auto Purge System(s) ☐ YES ☐ NO

Is there flow showing on the Purity Manifold PLC: ☐ YES ☐ NO

Alarm Points / BMS Tie-in (also see Page # 7):

Contacts Utilized: ☐ Common Alarm ☐ TCP/IP Mod Bus ☐ None

SYSTEM INSTALL NOTES:

N₂Blast® Installation Check List

✓ Check if complete or note otherwise:

- ☐ Is the N₂Blast® mounted securely to a sturdy wall/floor, indoors (within a dry environment always between 40°F – 105°F), away from high moisture areas?

Location: Riser Room ☐ Other: _____

- ☐ Is the N₂Blast® power cord plugged into or hardwired to a 120V outlet (20 amps)?
Note: Extension cords are NOT recommended.
- ☐ Remove painted shipping bolts from internal compressor on N₂Blast® FPS-500/650/900/1250/1650 models (bolts located under base of cabinet - use 7/16" socket).
- ☐ To service the system, has piping been installed to bypass the N₂Blast® with compressed air?
Note: Piping and shutoff valves should be installed as shown on the N₂Blast® installation drawings. Factory installed three-way ball valve located on the side or top of the nitrogen generator should be utilized on N₂Blast® FPS-500/650/900/1250/1750/3000/6000/15000/20000 models, otherwise the internal BlastOff™ II – Automatic Air Bypass will be utilized on models FPS-1650/3250/5000/10000/16500/22500
- ☐ Has a basic Air Maintenance Device (AMD) / Trim Assembly been installed inline after the N₂Blast nitrogen storage tank? Note: This device should have a regulator but NO pressure switches.
 - ☐ One AMD per dry/pre-action system
- ☐ Complete the air compressor startup as outlined in the air compressor I&O manual.
 - ☐ Voltage Verified
 - ☐ Rotation is correct (3 phase only)
- ☐ Check that the air compressor has a **minimum of 18"** or more clearance on all sides.
- ☐ If using an external compressor, verify that the regulator internal to the generator cabinet is set to 120-125psi when the generator is powered off or in standby. Not to exceed 150psi.
- ☐ Factory cut in/cut out setting for the external compressor should not be changed.
- ☐ Check that the air dryer is installed in an area where water will not splash or pool around the unit.
 - ☐ Internal to N₂Blast®
 - ☐ External to N₂Blast®
 - ☐ None Present
- ☐ Bypass the N₂Blast® to test that the air compressor can fill largest system to supervisory pressure within 30 minutes per NFPA 13 requirements.
 - ☐ Verified by Sprinkler Contractor
 - ☐ Supervisory pressure _____ psi
- ☐ Leak test the nitrogen storage tank and associated fittings.
 - ☐ Verified by Sprinkler Contractor

- ☐ Check to ensure that each system has an AutoPurge System installed in an area within the FPS where water will not collect? Note: Refer to the AutoPurge System installation drawing in the I&O manual.
 - ☐ If Installed at Inspector's test/low point drain, is it at least 24" above valve?
- ☐ Look at the chart on the AutoPurge System (APS) for the proper flow setting (based on gallons within each system). Make sure the APS is set properly by looking at the integrated flowmeter, then adjusting the valve to move the bead to the corresponding value shown on the chart (located on the side of the APS). This must be done at supervisory pressure.
 - ☐ Set to "D" when using Quick-Check® - Purity Manifold
- ☐ Check to ensure that each AutoPurge System is not plugged with debris (i.e. ensure APS is purging).
- ☐ Demonstrate to the Facility Manager and/or Servicing Contractor the process involved in monitoring nitrogen purity (via Quick-Check® Portable Purity Sensor or Quick-Check® Purity Manifold).
- ☐ Warranty Card completed and sent to South-Tek Systems.

Leak Rates of Fire Protection System (FPS):

- ☐ Has Installing Contractor performed FPS leak test? Check that pressure isn't dropping quicker than outlined in the NFPA 13 Standards for the Installation of Sprinkler Systems (new installations 1.5 psi over 24 hours) or in the NFPA 25 Standards for the Inspection, Testing, and Maintenance of Water Based FPS (existing FPS systems 3 psi over 2 hours).
 - ☐ Contractor observed leak rate _____ psi over _____ hrs.
- ☐ Prior to bringing the nitrogen generation system online, has installing contractor checked that the FPS has been flushed to remove debris, as well as hydrostatically tested? **Note:** During testing, the AutoPurge Systems are required to be valved "off".

Dry Contact Checklist:

Check if applicable and completed:

- ☐ **The BlastOff™ - Common Alarm** can be wired to the BMS for a Normally Open or Normally Closed dry contact. This will provide a local supervisory alarm if any of the BlastOff™ I – Leak Detection/BlastOff™ III – Early Warning System/BlastOff™ IV – Purity Alarm/Filter Replacement Reminder are active. This is a supervisory alarm only.

FPS-500/900:

Contact #11/#12 normally open
Contact #11/#14 normally closed
Upper Relay only – lower relay not used

All other FPS Units:

Contact #11/#12 normally closed
Contact #11/#14 normally open
Ethernet TCP/IP Mod Bus Connected
Upper Relay common alarm – lower relay bypass alarm

- ☐ **The BlastOff™ II - Air Bypass Alarm** can be wired to the BMS for a Normally Open or Normally Closed dry contact. This will provide a local supervisory alarm if the system is left in air bypass mode for an extended period, ensuring the nitrogen is the primary supervisory gas. This is a supervisory alarm only.

FPS-500/900:

Contact #11/#12 normally open
Contact #11/#14 normally closed
Upper Relay only – lower relay not used

All other FPS Units:

Contact #11/#12 normally closed
Contact #11/#14 normally open
Ethernet TCP/IP Mod Bus Connected
Upper Relay common alarm – lower relay bypass alarm

- ☐ **The Quick-Check® Purity Manifold** can be wired to the BMS for a Normally Open or Normally Closed dry contact. This will provide a local supervisory alarm should any system drop below



98% nitrogen purity concentration. Refer to the wiring diagrams outlined in the I&O manual for proper tie-in.

Contacts:

Contact #11/#12 normally closed

Contact #11/#14 normally open

Ethernet TCP/IP Mod Bus Connected

COMMISSIONING NOTES: