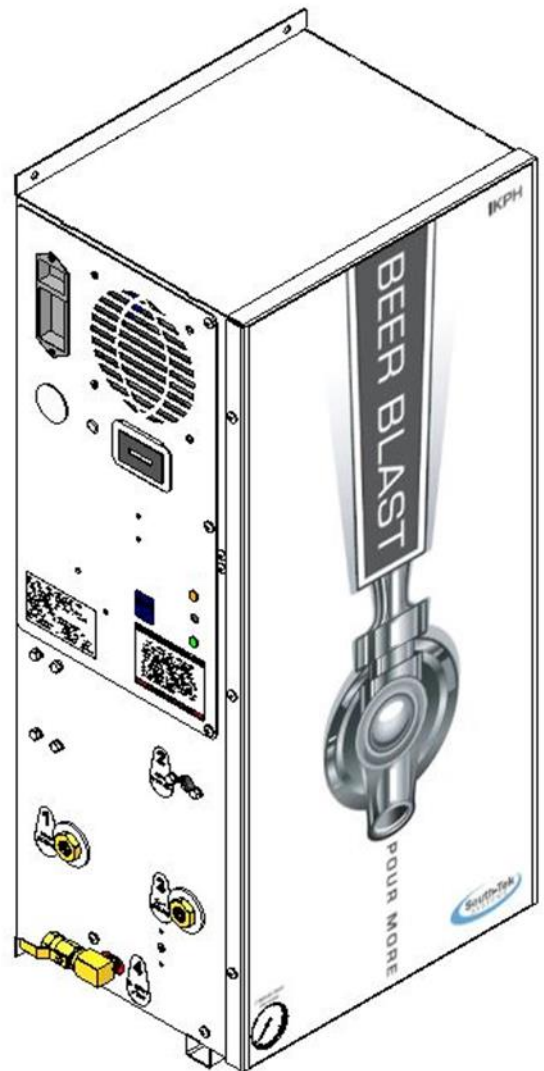




# BREWBLAST™ 40PPH O&M MANUAL

Revision 1  
Date 06/21/18



## VERSION HISTORY

Revision #	Implemented By	Revision Date	Approved By	Approval Date	Reason
0	James Nguyen	4/13/17	A. Norman	4/13/17	Initial Release
1	M. Thomas	6/21/18	A. Norman	6/21/18	Modified Programming

**TABLE OF CONTENTS**

**1 INTRODUCTION ..... 5**

    1.1 Purpose ..... 5

    1.2 Audience ..... 5

    1.3 Important Information ..... 5

**2 SAFETY GUIDELINES ..... 5**

    2.1 General ..... 5

**3 SYSTEM DESCRIPTION ..... 6**

    3.1 Key Features ..... 6

    3.2 Specifications (BrewBlast™ 40PPH) ..... 7

    3.3 System Operations ..... 8

**4 PRODUCT INSTALLATION ..... 8**

    4.1 Unpacking and Preparation (BrewBlast™ 40PPH) ..... 8

    4.2 Electrical Requirements ..... 8

    4.3 Mounting (BrewBlast™ 40PPH) ..... 8

    4.4 Installation (BrewBlast™ 40PPH) ..... 10

    4.5 Nitrogen Cylinder Back-Up (BrewBlast™ 40PPH) ..... 14

    4.6 Start-Up Procedures (BrewBlast™ 40PPH) ..... 14

    4.7 Checking for Leaks ..... 15

    4.8 Access Controls ..... 16

    4.9 Starting the System ..... 16

    4.10 Stopping the System ..... 16

**5 SYSTEM USAGE ..... 16**

    5.1 Instructions ..... 16

    5.2 Alarm Notification ..... 16

**6 SYSTEM MAINTENANCE ..... 17**

**7 KEY CONTACTS ..... 20**

**8 FAQs ..... 20**

    8.1 Power Issues ..... 20

    8.2 Pressure Issues ..... 20

    8.3 Gas Leaks ..... 21

    8.4 BlastOff™ - *Leak Detection System*: ..... 21

**APPENDIX A: WARRANTY ..... 21**

-----Notes-----

# 1 INTRODUCTION

## 1.1 PURPOSE

Introducing the BrewBlast™ - *Nitro Gas Dispense System*, designed specifically for nitro-cold brew coffee applications. Engineered with the most efficient nitrogen separation technology and the smallest available footprint, the BrewBlast™ produces ultra-pure nitrogen for pre-nitrogenating or pouring cold brew coffee. Generate nitrogen on-demand and ensure your cold brew tastes just as the brewer intended.

### Dual-bed PSA Nitrogen Generation Technology

The BrewBlast™ provides the highest quality nitrogen by utilizing the only dual-bed PSA technology available on the market. This design is more efficient, less demanding of internal components and lasts up to 50% longer than competing membrane designs.

\*\*The installer and the user should read this manual in its entirety.

## 1.2 AUDIENCE

This manual is intended for Installer/Restaurant/Bar Operator/Supervisory Staff and should be read in its entirety prior to operation.

Please contact your local gas provider with any operation or maintenance questions prior to contacting the manufacturer.

## 1.3 IMPORTANT INFORMATION

Before personnel attempt to service the unit, ensure the power switch has been turned to the off position, then disconnect the unit's external power cord from the building electrical power supply if possible. When servicing your system, always follow the instructions in the manuals provided by South-Tek Systems (STS).

# 2 SAFETY GUIDELINES

## 2.1 GENERAL

Correct use of the BrewBlast™ 40PPH is important for your personal safety and trouble-free operation of the BrewBlast™ 40PPH. Incorrect use can cause damage to the BrewBlast™ 40PPH or lead to incorrect gas supply.

The BrewBlast™ 40PPH produces Nitrogen (N<sub>2</sub>) at a low flow rate, which quickly dissipates into the air. N<sub>2</sub> gas is not poisonous, but should not be directly inhaled, since in high concentrations, it can cause asphyxiation. **Ensure that the unit is installed within a well-ventilated room that is not sealed off from normal living space air changes.**

All personnel involved with installation, operations, and maintenance of the BrewBlast™ 40PPH must follow safe working practices, OSHA, and local health/safety code regulations during the installation, operation, and maintenance of the unit.

Read carefully and act accordingly before installing, operating, or repairing the unit.

- Operator must use safe working practices and rules when operating the nitrogen generator.
- The owner is responsible for keeping the unit in safe operating condition at all times.

- Always use approved parts when performing maintenance and repairs. Make sure that replacement parts meet or exceed the original parts' specification.
- Only authorized, trained, and competent individuals are allowed to perform installation, operation, maintenance, and repair.
- Completely isolate incoming and outgoing pressures to the generator, and make sure to depressurize the service/repair section prior to performing any mechanical work, including changing the filters. The nitrogen generator's exhaust gas and/or any venting gas must be vented to the outside or to a large, well-ventilated room to avoid suffocation due to lack of oxygen.
- Safety glasses should be worn if the cabinet door is open while the machine is operating.
- Use ear protection when the equipment is operating.

**WARNING:** Pressurized gases are contained within the generator, the receiver, and product tanks. Pressurized gases are dangerous and may cause injury or death if handled or used inappropriately.

- Never allow pressurized gas to exhaust from an unsecured hose. An unsecured hose may exhibit a whipping action, which can cause serious injury. If a hose should burst during use, immediately close all isolation valves if it is safe to do so and power down the unit.
- Never disable or bypass any safety relief valves.
- Always make certain that the nitrogen generator is disconnected from the supply power prior to performing any electrical work.

**NOTE:** Always following local and site safety regulations in conjunction with this manual. Warning:

- This manual must be read in its entirety prior to installing and operating the BrewBlast™ 40PPH to prevent accidents and damage to the BrewBlast™ 40PPH.
- Contact your supplier if you detect a problem that you cannot solve with the help of this manual.
- Only use the BrewBlast™ 40PPH in accordance with its designed purpose.
- Only service-engineers that are qualified to work on electric and pneumatic equipment are allowed to perform the installation, maintenance and repairs. Unqualified people are not allowed to repair the equipment.
- Do not tamper or experiment with the equipment, or exceed the technical specifications.

## 3 SYSTEM DESCRIPTION

### 3.1 KEY FEATURES

The BrewBlast™ 40PPH key features include the following:

- Air Compressor
- Air Filters
- Pressure Swing Adsorption (PSA) Beds
- Safety Relief Valves
- N<sub>2</sub> Storage Tank Standard Option
- Automatic Pressure Cut-in/Cut-out
- McDantim™ Dual Output Gas Blender (optional)
- STS Patented BlastOff™ - *Leak Detection System*

#### Air Compressor:

The air compressor is designed internally to the cabinet and features an engineered dampening system to reduce vibration and noise throughout the cabinet. It is an oil-less compressor with a pre-filter attached to the air input. The recommended replacement on the pre-filter is 1,000 run hours or 1 year (whichever comes first). Dirtier environments may require more frequent filter replacements. Consult your supplier for a more frequent filter maintenance schedule if the generator is installed in a dirty environment.

#### Air Filters:

The generator has two filters after the air compressor; the particulate and coalescing. The Particulate has a 5 micron filter that will catch any of the larger particles. The Coalescing has a 0.1 micron filter that will catch the remaining smaller particles. Both filters feature an auto-drain that will drain the water captured after the air compressor. The drain is plumbed to the outside of the cabinet so that the end-user can connect ¼” tubing and drain to a safe location.

#### Safety Relief Valves:

Safety Relief Valves have been placed throughout the system for maximum safety. They are designed and put in place to minimize failure of other components. They all come with an ASME stamp.

#### N<sub>2</sub> Storage Tank:

A N<sub>2</sub> Storage Tank is housed inside the cabinet with manual ball valves and gauge. It is plumbed to an external manual ball valve to prevent the end-user from having to make any plumbing changes within the cabinet.

#### Automatic Cut-In/Out:

The generator comes with a built in pressure switch that is tied into the PLC. This will provide a low voltage signal back to the PLC to put the system in a “Standby Mode” when the tank is full of Nitrogen.

#### McDantim™ Dual Output Gas Blender (optional):

Precisely blends N<sub>2</sub> with CO<sub>2</sub> from the restaurant/bar’s in-house storage cylinder/tank. The available standard CO<sub>2</sub>/N<sub>2</sub> blends are 60%/40% and 25%/75%. The blends are accurate to within 2%. Custom CO<sub>2</sub> /N<sub>2</sub> blends are available if desired.

#### Patented BlastOff™ – Leak Detection System:

The BlastOff™ - *Leak Detection System* will provide the end-user with an alarm when it detects characteristics of a leak somewhere along the beverage lines/system. It will trigger an audible alarm, display it on the screen, and the end-user can tie into the dry contact so that the alarm can be relayed back to the Building Management System (BMS).

### 3.2 SPECIFICATIONS (BREWBLAST™ 40PPH)

BrewBlast™ 40PPH – Specifications	
Nitrogen Purity	99.8+%
Pints per hour	40
Installation	Wall Mounted with built in 3 Gallon Tank
Display	Hours/Power on/Operating
N <sub>2</sub> Storage Pressure	60-85 PSIG
CO <sub>2</sub> Gas (if using blender)	60-85 (min/max) PSIG
Available Blends	60/40 & 25/75 (CO <sub>2</sub> /N <sub>2</sub> ) *Factory Set, Not Field Adjustable
Blend Out Pressure	40-50 PSIG min
Cabinet Port Connections	1/4" NPT Female
Electrical	120 or 240V / 50-60Hz / 1Phase; 20 Amp Breaker
Compressor	Integral / Oil-Free
Ambient Temperature	40° to 85°F
Noise Level (dbA)	< 80 dbA
Size	12.75" W x 12" D x 27" H (Cabinet Dimensions)
Weight	75 lbs

### 3.3 SYSTEM OPERATIONS

The system has two standard run modes – Run and Standby. When the power switch is turned on, the indicator lights on the left side electrical panel will illuminate depending on what stage the generator is in; if the green light is illuminated the generator is in run mode, if the amber light is illuminated the generator is in standby waiting until the storage tank drops to the cut-in pressure.

“Run” mode is when the BrewBlast™ 40PPH is producing nitrogen and feeding it into the storage tank. The system will automatically enter “Standby” mode when the tank is fully pressurized (60-85 psig). It will remain in “Standby” mode until the tank pressure falls 7-10 psig.

## 4 PRODUCT INSTALLATION

### 4.1 UNPACKING AND PREPARATION (BREWBLAST™ 40PPH)

The BrewBlast™ 40PPH is packaged in a cardboard box, should be carefully opened, and all parts should be inspected for damage upon receipt. Identify and verify that all parts listed on the packing list are present and undamaged. STS is not responsible for damages that have occurred during the shipping and handling of the BrewBlast™ 40PPH. Any visual damages should be immediately documented and reported to the shipping company responsible. After the shipping company has been notified, contact STS at (888) 526-6284 to assess the damages.

#### Until Installation:

- Store the BrewBlast™ 40PPH in a dry and climate controlled (60-80°F) room.
- Always keep the BrewBlast™ 40PPH in an upright position, or in box as shipped.
- Do not connect the AC power cable until this manual has been read completely and all connections are made as stated within.
- Keep all gas lines dry so that moisture does not enter the generator upon hookup.
- Never place or stack objects on top of the BrewBlast™ 40PPH.

### 4.2 ELECTRICAL REQUIREMENTS

The BrewBlast™ 40PPH requires 120 or 240V / 50-60 hz / 1ph connection. It has a built in 20A circuit breaker and a standard 3-prong US power cord is provided for the electrical connection. The system is UL 508A ICP approved. Electrical schematic available upon request. If you are located outside the US and need to select a power cord you will need one with an IEC 60320 C-19 connector and a properly rated plug for your region with a ground.

### 4.3 MOUNTING (BREWBLAST™ 40PPH)

The BrewBlast™ 40PPH can be mounted to a wall or placed on a floor. It is recommended that the BrewBlast™ 40PPH be mounted to a weight-bearing wall that can support its weight as specified in Specifications (BrewBlast™ 40PPH). If mounted on the floor, it should be fastened in place so that it cannot move or fall over due to vibration. The BrewBlast™ 40PPH should always be installed indoors in an environment between 40° and 85° F in the upright position where it will not be damaged by water or moving equipment. Leave at least 6” on the left side of the cabinet for ventilation. 36” of space is recommended for access to the control panel, tube/pipe connections, and the front cover. There is a ¼” OD tube drain port on the bottom right of the cabinet. This can be plumbed to the nearest site drain.

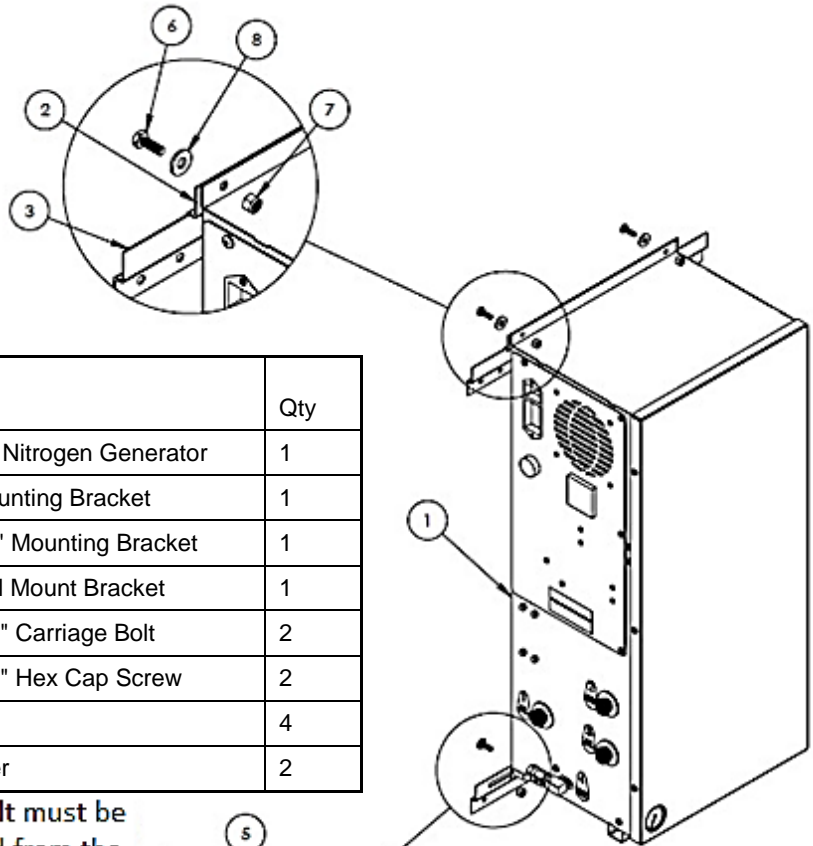
There is an optional mounting bracket kit (STS Part #: A05-TYP1-WH), that allows you to mount the system on a standard 16” wall stud width. Otherwise, use the mounting holes on the cabinet for mounting the BrewBlast™ 40PPH securely and level, directly to the wall.



Optional Mounting Bracket Kit Procedures

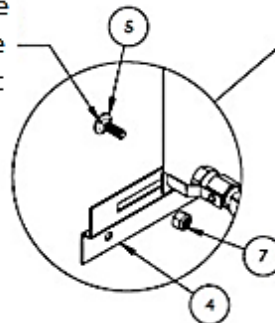
1. All BrewBlast™ 40PPH mounting holes and optional mounting bracket holes are for ¼” screws/anchors.
2. All brackets must be installed in orientation as shown to work correctly.
3. Install the cabinet-mounting brackets on the BrewBlast™ 40PPH first with the provided bolts/lock nuts.
4. Locate the wall-mounting bracket. It is an 18” bracket without the rectangular cutouts and will need to be installed on the wall at the desired height and level. The bracket has 16” center to center holes so the unit can be mounted directly to studs. This bracket will need to be mounted per the diagram below using the appropriate hardware for your type of wall material (wood, sheet metal, masonry, etc.). The 12” bracket that is fastened to the top flange of the cabinet can be hung from the 18” bracket once the 18” bracket has been mounted to the wall. Reference the diagram below to see how the angles are to be oriented on the back of the cabinet in comparison to the wall.
  - a. Use the supplied nuts and bolts to attach the upper 12” bracket onto the top flange per the diagram.
  - b. Use the supplied carriage bolts and nuts to attach the 18” lower bracket to the bottom flange, but do not overtighten the nuts yet. After installing the system, you may want to offset the bracket slightly, hence the rectangular slots.
5. Optional: If wall studs are not 16” center to center or you have the need to reinforce the mounting area, a ½” or thicker plywood is recommended to be installed prior to hanging the system. Use best general practices to ensure that the wood and system will be secure at its full weight and remember that it will be vibrating from the compressor running.
6. Once the mounting brackets are all in place, hang the BrewBlast™ 40PPH cabinet from the top bracket making sure it is centered.
  - a. The cabinet should have at least 4” on either side for breathing/cooling purposes.
  - b. Do not install near heat source or where steam or water is present. Damage to system or bodily harm may result as well as voiding warranty.

Warning: Secure the BrewBlast™ 40PPH to the wall at the top and bottom flanges. Failure to do so could cause damage or bodily injury.



Item #	STS Part #	Description	Qty
1	BB™ 40PPH	BrewBlast 40PPH Nitrogen Generator	1
2	800-133	S-100/200 12" Mounting Bracket	1
3	800-134-B	S-100/200/400 18" Mounting Bracket	1
4	800-129	Type 1 Lower Wall Mount Bracket	1
5	Misc	0.250" -20 x 0.750" Carriage Bolt	2
6	Misc	0.250" -20 x 0.750" Hex Cap Screw	2
7	Misc	0.250" Nylock Nut	4
8	Misc	0.250" Flat Washer	2

**Carriage Bolt must be installed from the back side of bracket**



#### 4.4 INSTALLATION (BREWBLAST™ 40PPH)

The BrewBlast™ 40PPH is a turnkey system that can be mounted to the wall and connected to the source. If the blender is included, the end user will have to connect the CO<sub>2</sub> to the BrewBlast™ 40PPH. Use caution when working with pressurized gas, making sure that all fittings and gas lines are installed correctly. Always leak check every line before using the system.

Note: Line leaks will cause the BrewBlast™ 40PPH to run excessively, shortening its life.

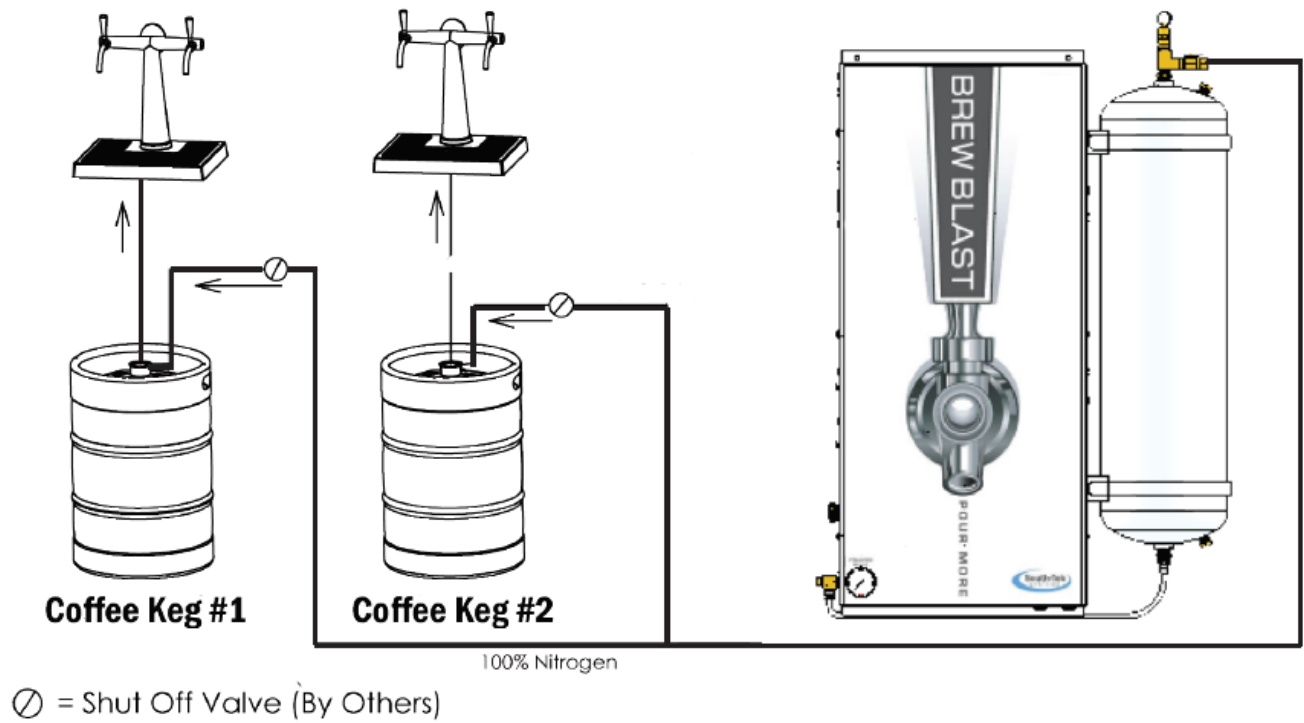
The BrewBlast™ 40PPH is provided standard supplying 100% nitrogen, but a gas blend (of N<sub>2</sub> and CO<sub>2</sub>) can be added as an option. These lines can be split individually to provide the correct gas and/or blended gas to all of the beverage lines. Use only quality beverage tubing and fittings for all connections. Keep in mind the temperature and pressure requirements when selecting them.

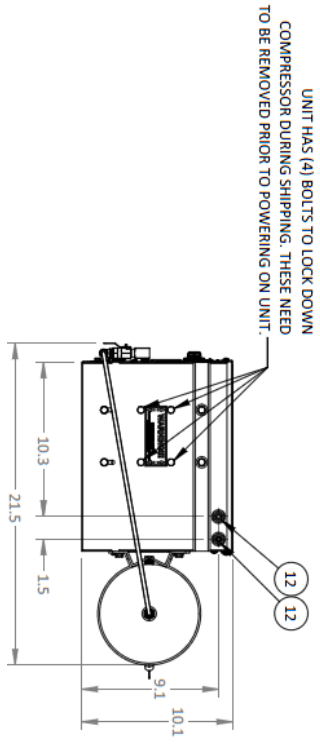
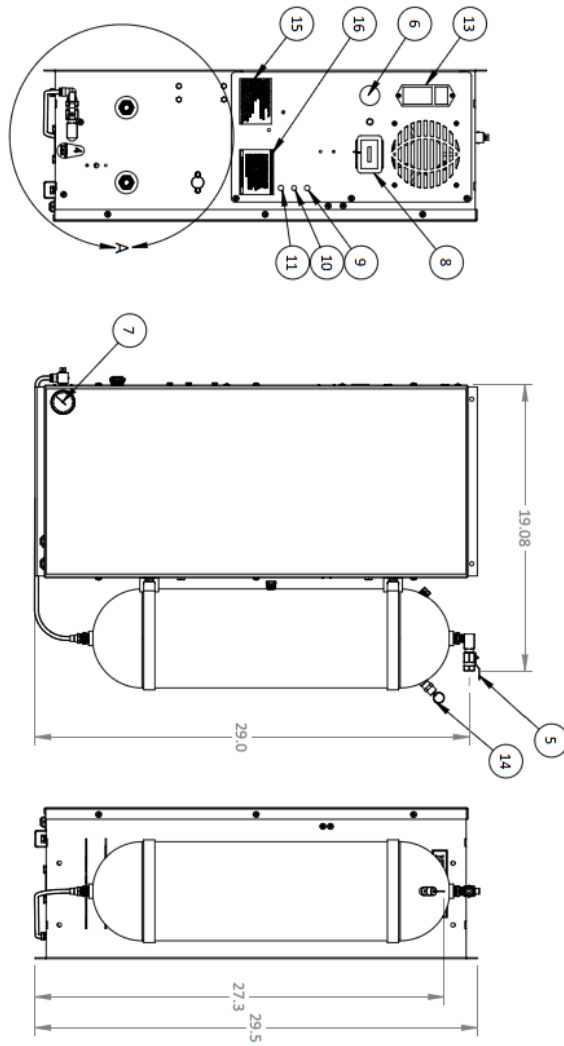
Always install a valve (on/off) on each individual line. This will help with troubleshooting the system. Never detach a line with pressure on it before closing the valve; this could cause damage to the equipment or bodily injury. Also avoid depressurizing the keg at all costs; this will negatively affect the coffee quality. Always shut off the valve and remove the tap from the keg before changing or servicing the gas lines.

Two condensate drains for the generator are located on the bottom right of the cabinet. It is the responsibility of the installer to plumb these drains to an area where standing water is trapped or a drain is located. Failure to do so can cause a slipping hazard on the floor below the generator.

If your system requirements are more involved, please consult your sales representative or equipment installer for help.

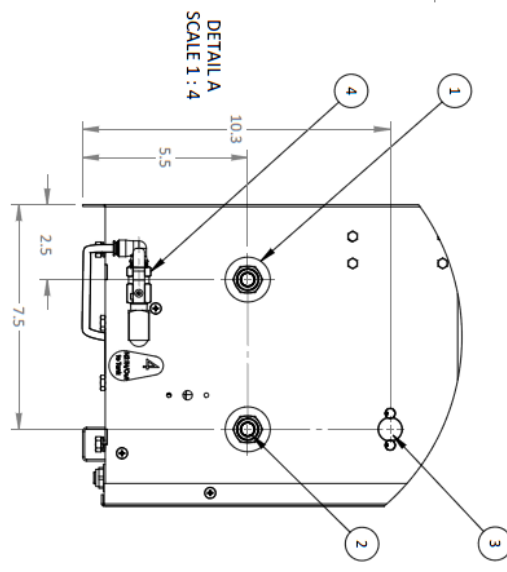
### Typical System Installation\*





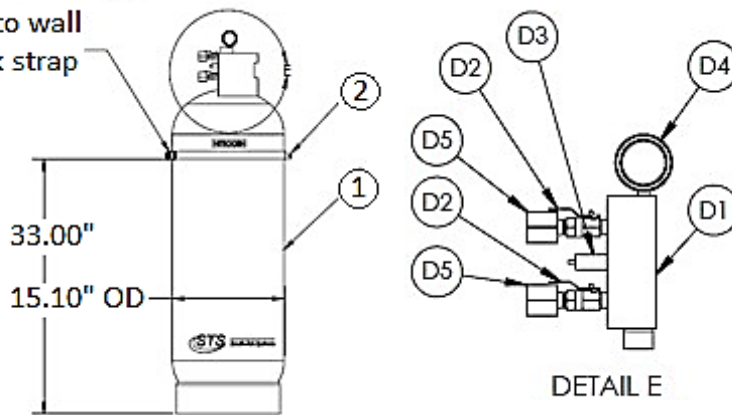
UNIT HAS (4) BOLTS TO LOCK DOWN COMPRESSOR DURING SHIPPING. THESE NEED TO BE REMOVED PRIOR TO POWERING ON UNIT.

EXTERNAL COMPONENTS		SERVICE
ITEM #	DESCRIPTION	
1	1/4" NPT F (OPTIONAL)	60/40 - 70/30 - 50/50 (CO2/N2) BLEND OUT
2	1/4" NPT F (OPTIONAL)	25/75 (CO2/N2) BLEND OUT
3	1/4" NPT F (OPTIONAL)	CO2 IN
4	1/4" NPT BALL VALVE	N2 OUT TO TANK
5	1/4" NPT BALL VALVE	N2 OUT
6	AUDIBLE ELECTRIC BUZZER (OPTIONAL)	BLASTOFF ALARM BUZZER
7	0-100 PSIG PRESSURE GAUGE	N2-STORAGE TANK PRESSURE GAUGE
8	TIMER	TOTAL RUN HOURS
9	AMBER LIGHT	STANDBY INDICATOR
10	RED LIGHT (OPTIONAL)	BLASTOFF INDICATOR
11	GREEN LIGHT	UNIT OPERATING INDICATOR
12	1/4" OD THROUGH-WALL COUPLING	1/4" OD DRAIN
13	POWER ENTRY MODULE	SYSTEM MAIN POWER SUPPLY
14	1/4" NPT SAFETY RELIEF VALVE	TANK PRESSURE PROTECTION
15	ELECTRICAL PANEL AND TERMINAL BLOCK TORQUE SPECIFICATIONS LABEL	
16	BUZZER AND DISPLAY SCREEN WARNING INFORMATION LABEL	



Optional Separate N2 Storage Tank Setup

Secure tank to wall  
with tank strap



Item #	STS Part #	Description	Qty
1	800-111-FPS	100 # Red Tank w/ Label	1
2	A01-0100-A	100# Tank Strap Assembly	2
3	A01-0100-S-A	Tank Manifold w/0/500" Nozzles	1

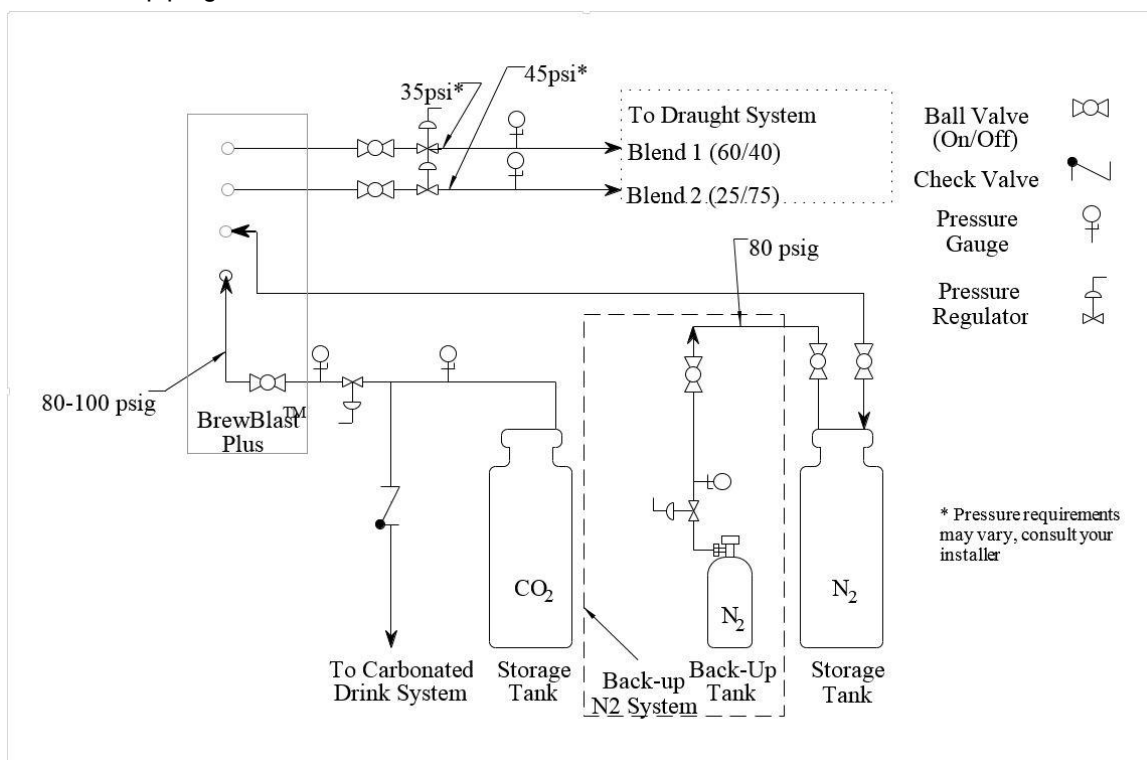
Item #	STS Part #	Description	Qty
D1	800-245-A	Tank Manifold	1
D2	124-308	0.250" NPT M x F Ball Valve, Brass	2
D3	124-335-A	0.250" Safety Relief, 115 PSIG	1
D4	124-125	0.250" NPT x 02.000" 1-160 PSIG Gauge	1
D5	524-218	0.500" NPT F x 0.250" NPT M Reducer, Brs	2

### 4.5 NITROGEN CYLINDER BACK-UP (BREWBLAST™ 40PPH)

It is recommended that a backup system be installed in case of any unforeseen complications. A backup N<sub>2</sub> Cylinder tank can be used instead of the generated nitrogen from the BrewBlast™ 40PPH. If the optional gas blender is present, it will allow the nitrogen to go through the blender to achieve the desired results. To install the back-up tank, you will need a cylinder with valve and regulator (regulated to 85 psig). Install the N<sub>2</sub> back-up on the gas line on Port 4 of the BrewBlast™ 40PPH as follows:

1. The N<sub>2</sub> back-up cylinder should have a high pressure regulator and ball valve on the output. It is recommended to have a lockable ball valve and/or labeled for “Backup use only”.
2. If the Back-up system is turned on, the backup will fill the N<sub>2</sub> Storage tank and flow to the BrewBlast™ 40PPH keeping the internal blender pressurized with Nitrogen.

See below for visual piping connections:



### 4.6 START-UP PROCEDURES (BREWBLAST™ 40PPH)

It is necessary to use caution when working with pressurized gas, making sure that all fittings and gas lines are installed correctly. Always leak check every line before using the system.

**Note: Line leaks will cause the BrewBlast™ 40PPH to run excessively, shortening its life and placing excess wear on the compressor.**

The installation layout drawings are provided with your system in the documentation package. For electronic copies, please contact your local distributor. Review and make sure the equipment is installed and configured per the installation layout drawings. Ensure that you follow the correction installation drawing per your system’s design. In some cases, a N<sub>2</sub> Bypass system for pre-filling is required in the installations to meet code.

If your system requirements are more complex, please consult your sales representative or equipment installer for more detailed installation instructions.

1. The BrewBlast™ 40PPH is supplied with ½” NPT female inlet and outlet fittings. Make sure to use Teflon tape or similar on all fittings so they do not leak.
2. Connect the BrewBlast™ 40PPH to the storage tank and then to the coffee system.
3. Once connections are made, slowly open the system’s On/Off Valve.
  - A. You will hear air rushing through the system and N<sub>2</sub> filling the BrewBlast™ 40PPH storage tank.
  - B. If you hear a leak or have a bad connection, shut the valve off and make the correction.
  - C. If there is a leak within the unit, remove the cover and locate the issue. If you have to replace any parts, use only factory parts supplied from your distributor or South-Tek Systems. Consult the manufacturer if there are any questions.
4. Once the BrewBlast™ 40PPH fills the storage tank to 85 PSIG, the system will enter standby – the system’s green N<sub>2</sub> Production light will change to orange indicating that the system is in standby. This will shut the air flow off through the generator and eventually shut off the air compressor once it reaches the air tank cutout pressure.
  - A. This will prolong the life of your compressor’s motor.
  - B. This also prolongs the life of the nitrogen generator’s media and filter.
    - i. Lesser quality systems have a constant purge flow through their systems which decreases system life and increases the need for maintenance.
5. When you draw N<sub>2</sub> off the system and the tank pressure falls below cut-in pressure (approximately 62 PSIG), the pressure switch will trigger the system back into run mode and start recharging the storage tank automatically. The pressure switch is preset at the factory – no field adjustment is required.

#### 4.7 CHECKING FOR LEAKS

When a leak is suspected, first try to listen for leaks around the connection ports. If a leak is found, isolate the area so that there is no pressure on it. Fix the leaking part and return the system back to operation. If no leak can be heard, turn off the unit and try isolating sections to see if there is a pressure loss. If the BlastOff™ option is included with your unit, the system will alarm indicating that there is a leak in the line. Consult with your installer if you cannot locate the leakage area.

To determine if the leak is within the cabinet:

- A. With the unit powered on, close off all output gas. If no ball valve is installed on the output ports, it is recommended to remove the gas lines and install a plug.
- B. Allow the system to continue running. Within 1 hour, the system should reach the “Standby” mode.
- C. Wait for 5 minutes and if the system remains in the “standby” mode, then the leak is after this point. Check the gas lines exterior to the cabinet all the way back to the keg system.
- D. If the unit goes back into “run” mode, the leak is within the cabinet. Check all the lines going to the blender and back to the tank.

To find the leak within the cabinet:

1. Open the front cabinet door and locate the N<sub>2</sub> storage tank.
2. Close off the output ball valve from the tank (upper ball valve on the red manifold).
3. Watch the exterior gauge above the cabinet for 60 seconds. If you see the pressure dropping, the leak is somewhere between the output ports, to the blender (if one is present), and back to the closed off ball valve on the tank. Fill and/or listen for leaks and fix them once found. If the pressure is not dropping, go to the next step.
4. With the unit still running, close off the input ball valve to the tank (lower ball valve on the red manifold).
5. Within 5 minutes, the system should go into “Standby” Mode. If it doesn’t, contact your local provider/installer for further assistance.
6. Once in “Standby” mode, wait 60 seconds. After 60 seconds, the system should remain in “standby” mode. If it doesn’t, the leak is somewhere between the check valve and the output ball valve on the tank.

7. If the system remains in standby, contact your local distributor/installer for further assistance.

## 4.8 ACCESS CONTROLS

The built-in control timer is programmed to function without requiring the user to input any values. Do not attempt to modify the timing or the warranty will be voided. In case of a failure, first attempt to cycle the power to the system. If that does not work, please contact your provider for further instructions.

## 4.9 STARTING THE SYSTEM

To start the system, turn on the power switch and make sure any valves to the gas lines are in the open position.

## 4.10 STOPPING THE SYSTEM

To stop the system, close off any valves on the gas lines. Powering down the system is not necessary. If emergency shut off is required, turn off the power switch on the side on the control panel.

# 5 SYSTEM USAGE

## 5.1 INSTRUCTIONS

The BrewBlast™ 40PPH is intended to be used to generate nitrogen to push coffee out of the keg. Follow the installation instructions above and only use in an approved environment. The generator generates enough nitrogen to push 40 pints per hour. Make sure that proper regulators, cooler temperature, and line temperatures are maintained, otherwise you will not be able to effectively push coffee from the keg. Please consult with your local distributor for questions not answered in this manual.

The system is designed for 24 hour operation, but routine maintenance on the filters must be performed. Reference the “System Maintenance” section for detailed maintenance instructions.

## 5.2 ALARM NOTIFICATION

### BlastOff™ - Leak Detection System Alarm

All BrewBlast™ 40PPH models come standard with the patented BlastOff™ - *Leak Detection System*. It detects line leaks within the downstream gas lines from the N<sub>2</sub> Generator to the kegs. Line leaks could be due to a keg not being tapped correctly, a coffee gas line leak or fitting therein failing, etc. These leaks are potential safety hazards, can cause the CO<sub>2</sub> to deplete quickly, and could cause your BrewBlast™ 40PPH to run in excess (decreasing the life of the unit).

Once a leak has been detected, the BlastOff™ is set to initiate a buzzer, displays “B.Off” in red on the controller screen, and shuts off the BrewBlast™ 40PPH until the problem has been remedied. To reset the BlastOff™, simply turn off the BrewBlast™ 40PPH and turn it back on. The BrewBlast™ 40PPH can be ordered with the BlastOff™ System Factory installed or the system can be retrofitted in the field. Some rewiring is required to field install.

Never reset repeatedly; if the BlastOff™ goes off daily, there is a real potential issue. Consult your installer for a solution. The label below will be on your BrewBlast™ 40PPH if factory installed.



## Buzzer or Red Light Warning

This unit is equipped with **The BlastOff™ - Leak Detection** feature. If the red light and buzzer are on, you may have a leak in one of the gas lines or one of your kegs may not be properly tapped, causing gas leaks. **Note:** Turn off this unit's on/off rocker switch and check for leaks. If none are found, leave the unit turned off and contact your service company. Once the leak has been fixed, turn the BeerBlast™ on/off rocker switch back on to resume normal operation.

## 6 SYSTEM MAINTENANCE

When performing maintenance on the BrewBlast™ 40PPH, make sure to power down the system. Remove the front cover to gain access to the filters.

Annual Filter replacement kit part # FRP-001

### Air Pre-Filter

The integrated Air Compressor has an air intake pre-filter. It is designed to prevent particles from entering into the compressor housing and damaging internal components. This filter needs to be replaced once per year or every 1,000 hours, whichever comes first. To do so, remove the pre-compressor filter cap by twisting it clockwise. Remove the old element and use a clean dry cloth to clean the filter bowl before installing the new element.

### Particulate and Coalescing Filter

The particulate and coalescing filter after the air compressor is designed to capture particulate and moisture prior to entering the rest of the system. These filters and seals need to be replaced once per year or every 1,000 hours, whichever comes first. To do so,

**WARNING:** Do not try to remove filter bowls until the filter is completely depressurized.

1. Disconnect the clear-blue drain tubes from the bottom of the bowls.
2. To remove the bowl, turn the metal casing around the blue plastic filter bowl counter-clockwise until it unscrews completely from the filter housing. Then twist slightly and pull the blue plastic bowl downwards out of the housing.
3. Inspect the bowls. If the drain system is working properly, the bowls should not be full of water.
4. Remove the particulate filter element by pulling the black plastic filter element holder out of the filter bowl and, carefully, twisting the top and bottom piece counter-clockwise until the holder pulls apart. Take notice of how the element looks. If the element is excessively dirty, more frequent filter changes are recommended.
5. The coalescing element can be removed by turning it counter-clockwise by hand; then replace with the new element in the reverse order.

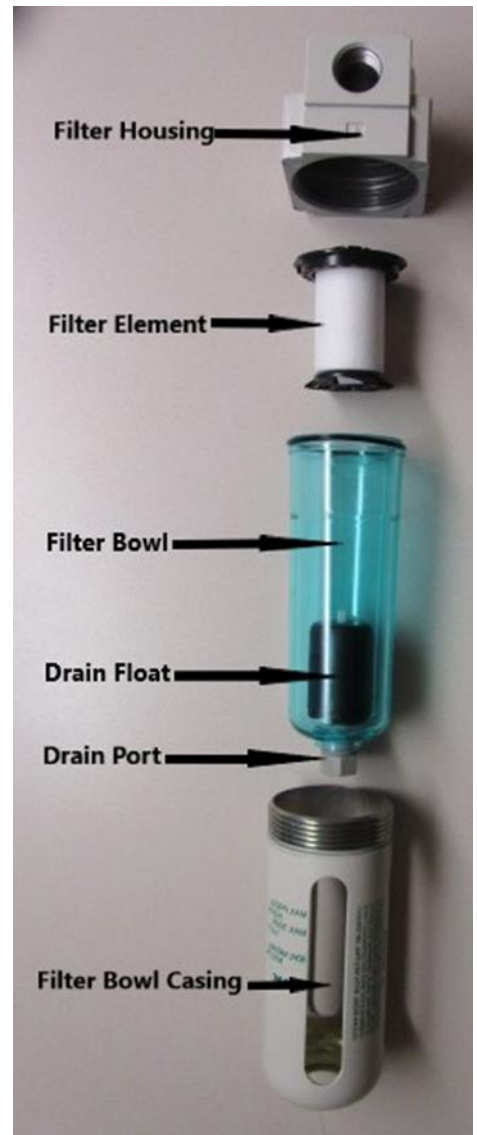
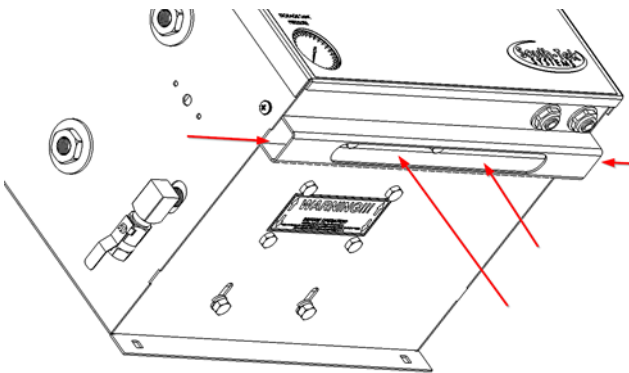
**NOTE:** A plugged drain system will cause water and oil to carry over into the system, which will cause permanent damage to the media inside the unit. Such damage is not covered by the manufacturer's warranty. Use of filters other than those specified by South-Tek Systems could result in damages not covered by the warranty.

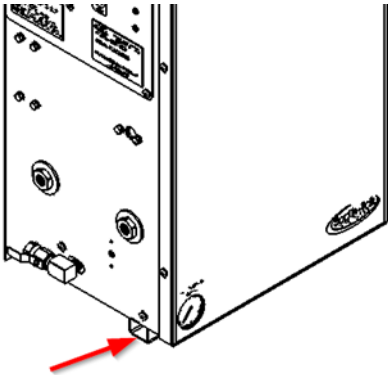
6. Wash the bowls in soapy water and rinse thoroughly as needed. Use of light air gun to remove debris is also acceptable. Make sure to always wipe down with a clean and dry cloth.
7. Install new filter element and replace O-rings as needed.
8. Put the filter bowls back on the system in reverse order of how it was removed making sure the bowl is seated in place correctly. Only tighten metal casing around filter bowl hand tight.
9. Be sure to utilize the filter replacement schedule on the face of the filter bracket to keep track of when the filter was replaced last.
10. Put the front cover back on the cabinet and the unit can be powered up again. Once powered up, you should hear the air compressor turn on and the BrewBlast™ 40PPH will resume producing nitrogen.

#### Proper cleaning

In beverage, restaurant and pub applications this product is certified as an NSF product. To ensure compliance with typical requirements of these environments the product should be cleaned with mild detergent.

Specific to BrewBlast™ 40PPH models ensure that the lower support channel is clean. Clean with approved kitchen cleaner, apply a rag or brush through the openings as shown with arrows. Keep free from foreign objects, dust, debris and vermin.





## 7 KEY CONTACTS

Contact your local provider/installer with any questions regarding the performance and/or maintenance of the system. They will be best suited to answer your questions and should be readily available to help provide a resolution to any issues you may have.

## 8 FAQs

### 8.1 POWER ISSUES

If the BrewBlast™ 40PPH does not have power, the production and storage of nitrogen will become apparent once the storage pressure drops. The taps will begin to pour slowly or not at all.

1. Check the power cord
2. Has the building's circuit breaker or GFCI tripped? Locate the breaker and reset. If the breaker continues to trip, the circuit may be overloaded.

### 8.2 PRESSURE ISSUES

If the gas blender is included, both gases (N<sub>2</sub> and CO<sub>2</sub>) will need available pressures over 40 psig. Blenders will shut down output if either gas is not present over 40 psig.

The BrewBlast™ 40PPH will produce and store nitrogen between 60-85 psig. Once the storage tank reaches 85 psig, the system will go into Stand-By Mode. When the pressure drops to 60 psig, the system should go into Operation Mode and begin to refill the storage tank. If you are out of the specifications, we need to determine where the issue is. Contact the manufacturer or a factory trained technician.

#### CO<sub>2</sub> Pressure Check:

If you have the blender option, check the CO<sub>2</sub> regulator pressure gauge. It should read between 80 and 100 psig. If it is lower, check the CO<sub>2</sub> Storage tank to see if it needs refilling or if the pressure regulator needs adjustment. The pressure going into the BrewBlast™ 40PPH is recommended to be set at 85 psig.

#### Nitrogen Pressure Check:

Look at the pressure gauge on the top of the cabinet. It should be between 50 and 85 psig. If the pressure is low, a couple things need to be checked:

- Check the power.
- Check for leaks throughout the system. Refer to section on **Checking for Leaks.**

#### Pressure Regulation Check:

If the CO<sub>2</sub> and N<sub>2</sub> are both present and the blender is outputting gas, it is possible that a regulator is malfunctioning or needs adjustment. The mixed gas coming from the blender should be between 40-85 psig (dependent on the N<sub>2</sub> and CO<sub>2</sub> pressures going into the blender). A primary regulator is usually installed on the output lines coming from the BrewBlast™ 40PPH. The primary regulator is there to "step down" the available pressure to the kegs. There are typically secondary regulators located further downstream on the mixed gas lines going to the kegs. The secondary regulators are there to individually tune each keg. Some coffees require more/less pressure and regulating each keg individually will allow the coffee pouring to be optimized.

If the BrewBlast™ 40PPH is operating correctly, then the establishment should contact their Draft Coffee System Technician to adjust the regulators for optimal performance.

### 8.3 GAS LEAKS

As with any gas system, only use a spray bottle on non-electrical equipment to find leaks. Fix or replace leaking fittings or old hose. Push-to-connect fittings will show bubbles and typically have up to a 5ccm acceptable leakage rate. Contact your local provider/installer for help.

### 8.4 BLASTOFF™ - LEAK DETECTION SYSTEM (OPTIONAL FEATURE):

“There is an alarm sounding in the BrewBlast™ 40PPH and the control panel has a red BlastOff™ indicator light illuminated on the side of the unit.” This means that it is equipped with the BlastOff™ - Leak Detection System feature. If the buzzer is on, there may be a leak in one of the gas lines, regulators, or one of the keg couplings may not be properly seated - causing gas leaks.

Note: Turn off this unit's on/off power switch and check for leaks. If none are found, leave the unit turned off and contact your Coffee System Technician. Once the leak has been fixed, turn the BrewBlast™ 40PPH on/off rocker switch “On” to resume normal operation. By turning the system power off, then back on, this will reset the BlastOff™ automatically.

## APPENDIX A: WARRANTY

The BrewBlast™ 40PPH System is warranted against any defects in workmanship and materials for 12 months (or 1,000 hours) from the date of shipment from South-Tek Systems, whichever comes first. The purchaser has the liability to ensure that the system is fully inspected upon delivery and shall contact the appropriate shipping company to make any claims on damaged goods due to transit within that shipping company's policies. If the system is received with defects that are not due to shipping, a written claim should be submitted to South-Tek Systems within 1 week of receiving the shipment. South-Tek Systems can deny all other claims at their discretion.

All warranty work shall be done at a South-Tek System facility or at a BrewBlast™ 40PPH Authorized Service Center. Only factory trained and authorized personnel are covered under warranty. Any part that is returned / repaired / replaced under warranty may be remanufactured or changed to a different specification at the factory's option. Any work performed by an unauthorized person/company or usage of non-factory parts, may void all warranties to the product.

Any item not manufactured by South-Tek may carry its own warranty from its manufacturer and will be warranted by that manufacturer. All parts that need to be returned should be announced. Any item(s) that is returned to South-Tek Systems without an RMA number (return authorization number) may be denied and returned to the sender. Contact the factory for RMA #'s, prior to return shipment.

South-Tek Systems is not liable for damages caused by normal wear and tear, water, fire, erosion, corrosion, explosion, misuse, oil/gas vapors or unauthorized modifications. South-Tek Systems is also not liable for any losses (including CO<sub>2</sub>), damages, or cost of delays, including incidental or consequential damages. There are no warranties or guarantees, expressed or implied, including the warranties of merchantability or fitness for a particular purpose or use, other than those warranties expressed herein.

For Claims, contact South-Tek Systems LLC at:

tel (910) 332-4173 or toll free (888) 526-6284, fax (919) 847-0255

Email: [info@southteksystems.com](mailto:info@southteksystems.com)

Or write to:

South-Tek Systems, Warranty Claims,

2940 Orville Wright Way,

Wilmington,

NC

28405

-----Last Page-----