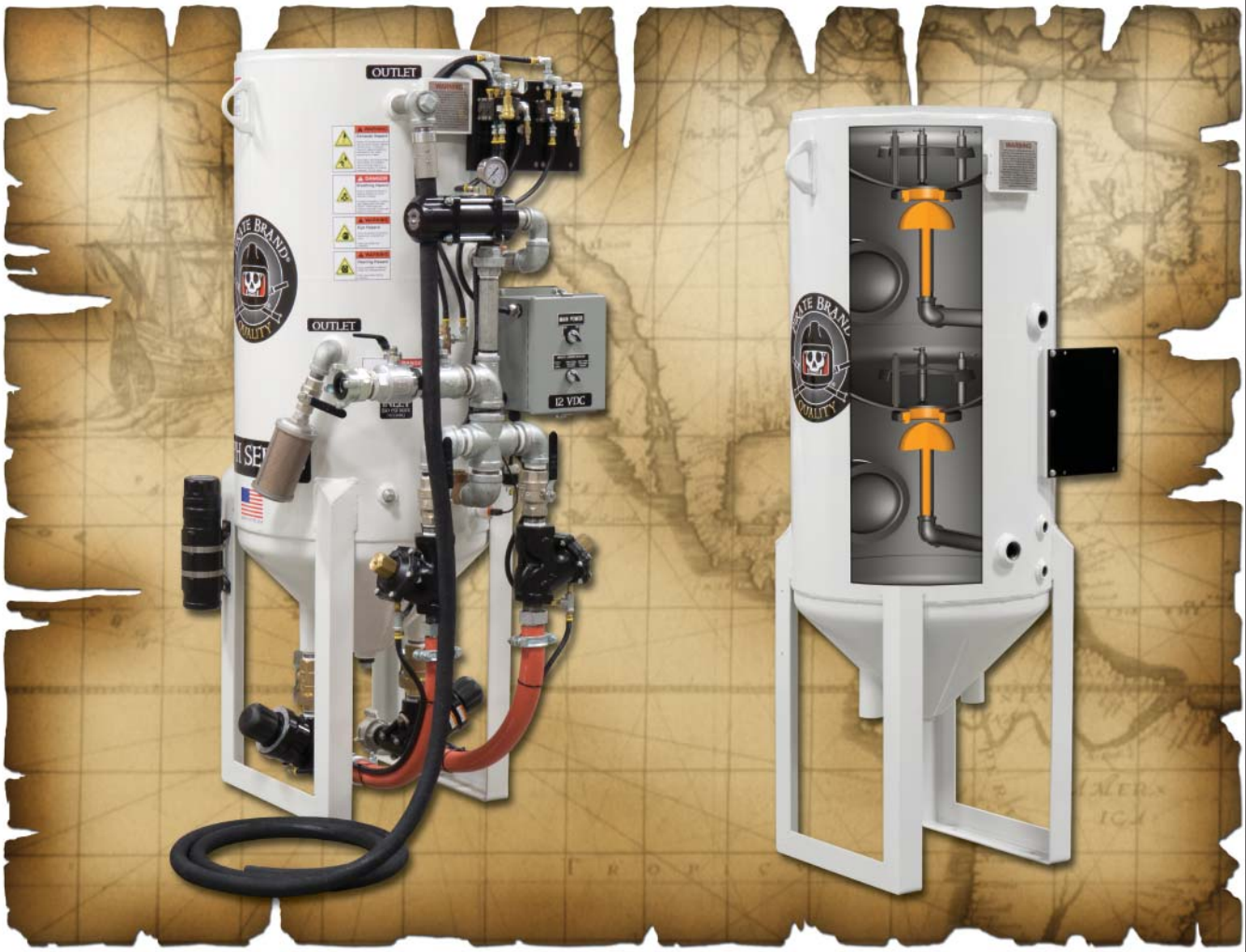
User's Manual

8.0 Cu Ft - SPH Series Dual-Chamber Blasters



⚠ WARNING

These products and equipment are not under any circumstances to be used with sand or silica products of any type and use of such materials will void any warranty. Also, as with the use of any product or equipment you must be sure to use the proper safety equipment and to properly train your employees in the use of any equipment or products. The manufacturer, wholesaler and distributor assume no responsibility arising from the failure to use proper safety equipment or the failure to properly train employees in the use of products and equipment.

⚠ WARNING

Read Manual

Failure to read, understand & follow **all** safety and operation procedures in this manual can cause serious injury or death. Manuals that are lost, incomplete, or damaged must be replaced immediately.

Manual P/N: PB-MAS006

Manual Revision: July 15

Using This Manual

Thank you for your purchase of a Pirate Brand® SPH Series Dual-Chamber Blaster. It is important to note that all Pirate Brand® blasting equipment is designed to be safe when used properly, however, misuse of any abrasive blasting equipment is dangerous and can result in the severe injury or death of the operator and others in the vicinity of the blasting equipment. In order to protect yourself and those around you, read and follow all sections of this manual & warning labels located on the blasting equipment.

Definition Of Terms Used In This Manual

Abrasive: A granular material used for blasting the surface of an object. Also referred to as "Media."

Blow-down: The automatic or manual release of air from a pressurized vessel. Also referred to as "Depressurize."

Control Handle: A required device that allows the blaster to be remotely started and stopped.

Depressurize: The automatic or manual release of air from a pressurized vessel. Also known as "Blow-down".

Pressure Hold System: Any blasting system in which the Pressure Vessel remains pressurized when the control handle is released. Also known as a Manual Blow-down System.

Pressure Release System: Any blasting system in which the Pressure Vessel is automatically depressurized when the control handle is released. Also known as an Automatic Blow-down System.

Pressure Vessel: The enclosed area of the blaster in which abrasive is contained and filled with pressurized air when blasting.

Pressurize: To fill the pressure vessel with compressed air.

Properly Trained: A person who can be considered "properly trained" must have successfully completed a sandblasting training course that focuses on the safe operation of stationary or portable abrasive blasters in the 1.5 - 20 cu. ft. capacity range. They must also have read and understood this manual in its entirety.

Silica: A hazardous substance which is contained in many naturally occurring abrasives. Dust produced by blasting with abrasives containing silica can cause respiratory disease. Do not use abrasive containing silica under any circumstance, even when respiratory protective equipment is being used.

Safety Symbols

The safety symbols shown below exist for the safety and protection of the operator and those in the vicinity of the Abrasive Blaster. The descriptions below explain how they are used in relation to the blasting equipment.

WARNING: This symbol calls attention to a potentially hazardous situation that could result in serious injury or death if the instructions associated with the symbol are not followed. The warning triangle will be displayed throughout the manual to denote instructions to which special attention should be paid.

DANGER: This symbol calls attention to a potentially hazardous situation that **WILL** result in serious injury or death if the instructions associated with the symbol are not followed. The warning triangle will be displayed throughout the manual to denote instructions to which special attention should be paid.

⚠ WARNING ⚠

• All persons who will be operating or will be in the vicinity of the Abrasive Blaster during its operation must receive proper training on how to safely operate the equipment and be informed of the potential hazards involved. In addition to proper training, all persons who will be operating or will be in the vicinity of the Abrasive Blaster during its operation must read, understand and follow all procedures described in the user's manual. For replacement manuals, please contact your distributor or visit www.pirate-brand.com.

• Respiratory protection is mandatory for all persons operating or located in the vicinity of the Abrasive Blaster. Follow all OSHA and NIOSH requirements for breathing equipment and supplied air standards.

• Pressurized Vessels contain large amounts of stored energy and can cause severe injury or death if safety procedures are not followed. **Never** perform maintenance or attempt to open a Pressure Vessel for any reason while it is Pressurized. **Always** Depressurize and properly disconnect equipment from its air source before performing any maintenance. **Do not** modify, grind or weld on the pressure vessel for any reason. Doing so will void the ASME certification. **Do not** use damaged pressure vessels.

• The use of proper remote control systems (commonly referred to as Deadman controls) are required when using abrasive blasters. **Never** operate the Abrasive Blaster without remote controls. **Never** use bleeder type control handles, such as Clemco® or A-BEC® style handles, with SPH or SPR series blasters as they can cause a hazardous situation where the blaster will not shut off when the handle is released.

• All persons who will be operating or will be in the vicinity of the Abrasive Blaster during its operation must protect themselves with the proper safety equipment and use of common sense. Safety equipment including but not limited to Hearing, Eye, Body and Lung protection are required. Abrasive blasters and the objects being blasted can be heavy and can lead to severe injury or death if they fall over. Always follow all safety requirements of OSHA and NIOSH.

• Use only Genuine Pirate Brand® replacement parts when performing maintenance on the Abrasive Blaster. **Do not** modify the equipment for any reason. Use of modified or non-Pirate Brand® parts can cause an unsafe situation and will void your warranty.

• **Never** use malfunctioning or damaged equipment. Before each use, inspect the Abrasive Blaster for proper function.

• Supply only cool, dry, compressed air that is free of debris to the Abrasive Blaster. Moisture or debris that reaches the remote control system can cause an unsafe situation. **Do not** supply compressed air to the blaster that exceeds 150 psi.

• **Do not** use abrasive blasters in areas that could be considered a hazardous location as described in the National Electric Code NFPA 70, Article 500. **Never** use the Abrasive Blaster in wet environments. **Always** connect electrically controlled abrasive blasters to a Ground Fault Circuit Interrupter (GFCI).

Table Of Contents

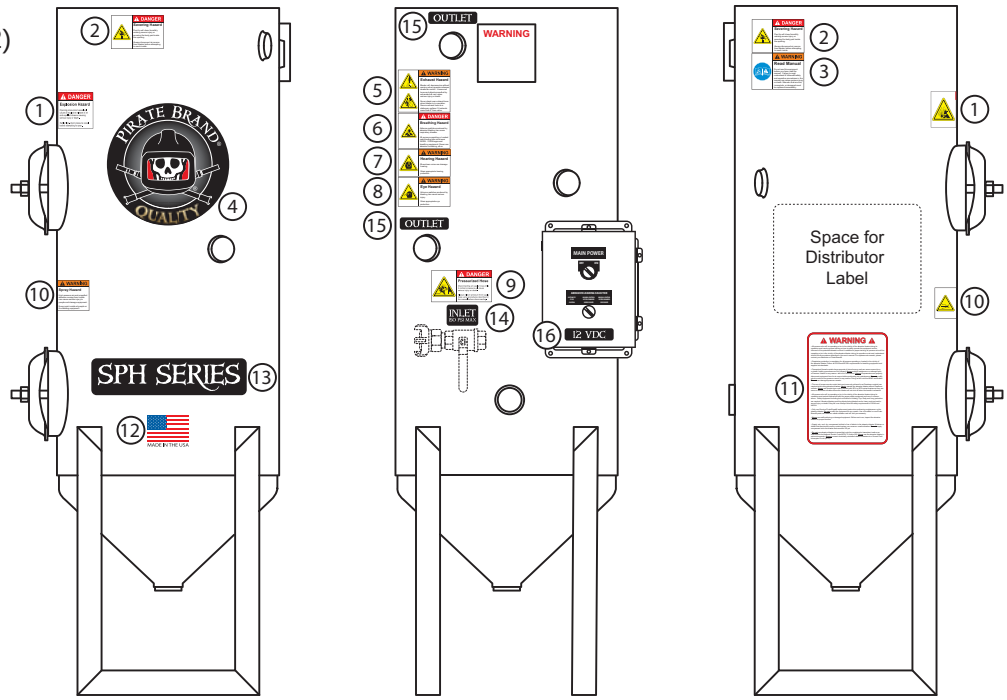
Distributed By:

Contact Info:
For manual updates visit the Pirate Brand® website at:

WWW.PIRATE-BRAND.COM

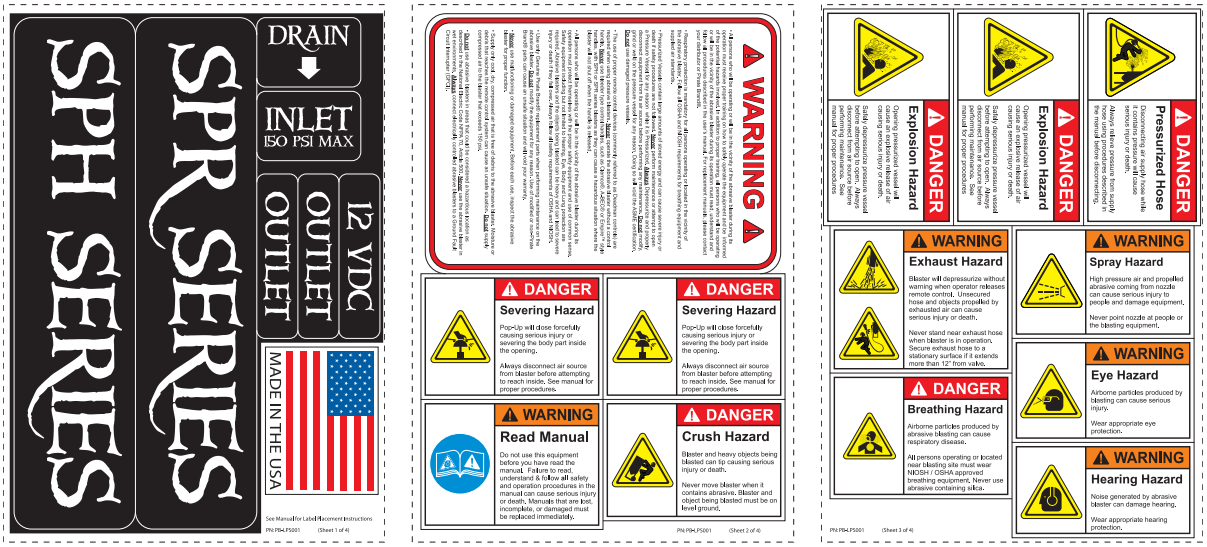
Warning Label Locations

1 - Explosion Hazard
2 - Severing Hazard (X2)
3 - Read Manual
4 - Pirate Brand® Label
5 - Exhaust Hazard
6 - Breathing Hazard
7 - Hearing Hazard
8 - Eye Hazard
9 - Pressurized Hose
10 - Spray Hazard
11 - WARNING Label
12 - Made In USA
13 - Series Label
14 - Inlet Label
15 - Outlet Label
16 - 12VDC Label



Labels must be replaced when they are no longer readable!

Replacement Label Pack P/N: PB-LPS001



Instructions For Installing Replacement Label Pack

1. Completely remove old label and clean area thoroughly before applying new label.

2. Apply replacement labels in locations as described above or as close as possible if area is obstructed

3. Placement of "Inlet Label" and "Pressurized Hose" labels will vary based on which type of system. Place these labels as close to the inlet coupling as possible.

5. Choose correct Series Label (#13), **DO NOT** apply both series labels. "SPH Series" is the correct choice for Dual-Chamber systems, "SPR Series" labels are not used with Dual-Chamber systems.

How Pressure Hold Dual-Chamber Systems Work

WARNING: This section of the manual is designed to give you a general understanding of how the Abrasive Blaster functions. **All** sections of this manual must be read and understood before operating the equipment.

ADDING ABRASIVE

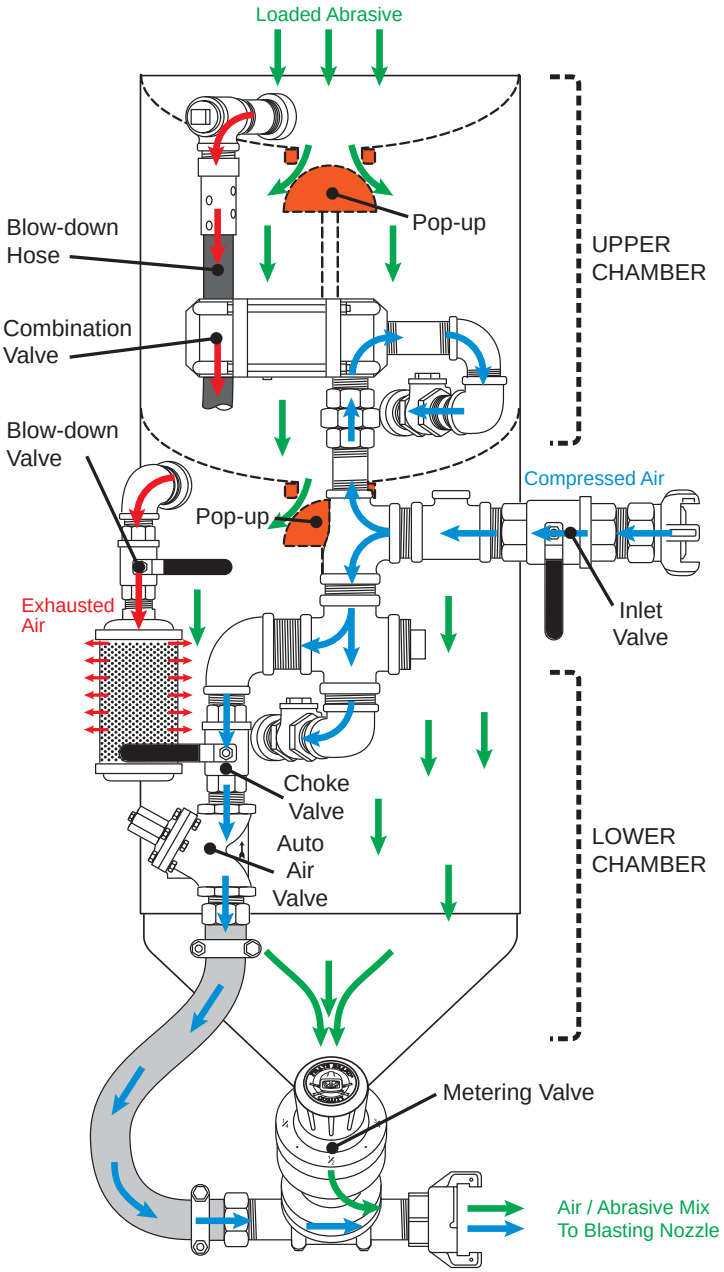
Abrasive is added through the hole in the top of the Abrasive Blaster where the upper chamber Pop-up and its seat are located. When abrasive is added, it flows down through the hole, around the Pop-up and into the upper chamber. Abrasive will flow from the upper chamber into the lower chamber via the lower chamber Pop-up during the automatic cycle process or when the Abrasive Blaster is in its depressurized state.

PRESSURIZATION

Before pressurization can take place in a pressure hold system, the Blow-down Valve must be closed. Then, when a compressed air source (such as an air-compressor) is connected to the inlet of the Abrasive Blaster and the Inlet Valve is opened, compressed air can flow into the pressure vessel causing the lower chamber Pop-up (located internally) to seal against its seat allowing the lower chamber to become pressurized. When the control handle is activated, the Auto Air Valve and Metering Valve open allowing compressed air & abrasive to flow and mix. The mixture of compressed air and abrasive will now exit the Abrasive Blaster through a blast hose and nozzle connected to the coupling on the Metering Valve and blasting begins. While in use, the Combination Valve will cycle the upper chamber between pressurized and depressurized states, exhausting air through the blow-down hose. This cycling is what allows a dual-chamber abrasive blaster to continuously refill itself from the upper chamber.

DEPRESSURIZATION (BLOW-DOWN)

When the control handle is released in a pressure hold (SPH) system, the pressure vessel remains filled with compressed air. The compressed air remaining in the pressure vessel is released when the control box power is turned off, the inlet valve is manually closed and the blow-down valve is manually opened.



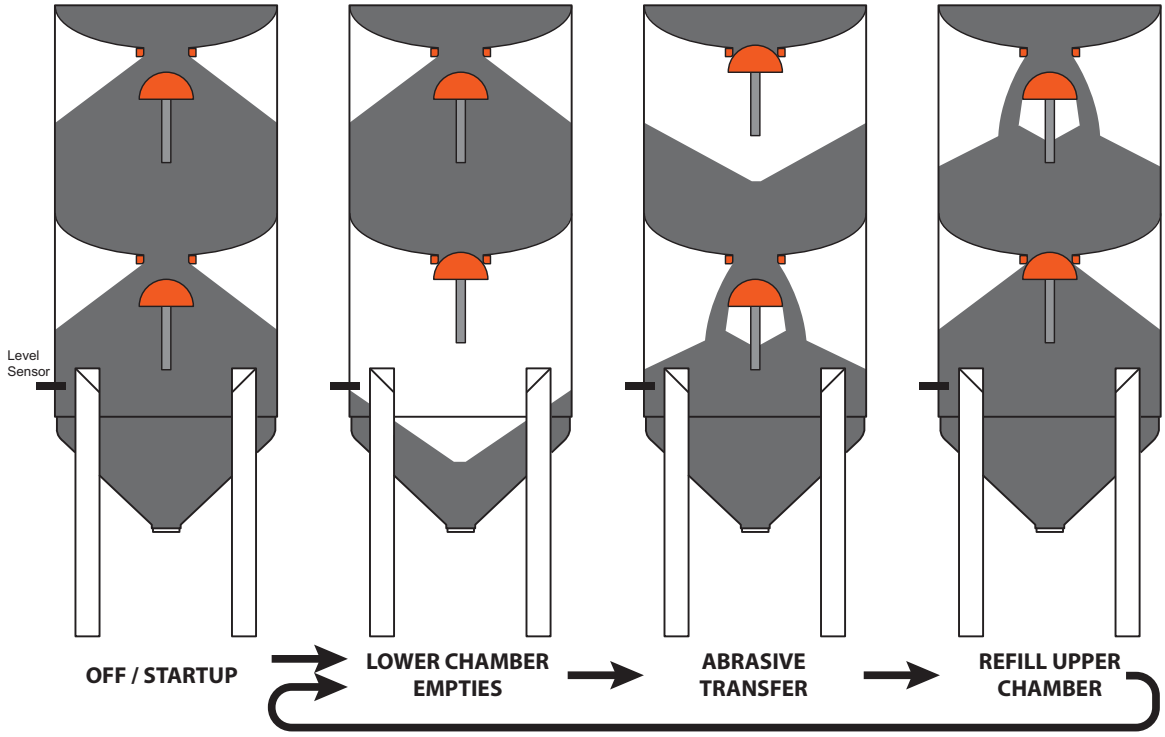
Flow of Compressed Air

Flow of Abrasive

Flow of Exhaust Air During Blow-down

How Pressure Hold Dual-Chamber Systems Work

AUTOMATED REFILL CYCLE



OFF / STARTUP

When the abrasive blaster is off and in a fully depressurized state, both Pop-Ups are lowered and abrasive can flow freely into the upper and lower chambers, filling them completely.

LOWER CHAMBER EMPTIES

When the abrasive blaster is pressurized, the lower chamber Pop-Up seals and the lower and upper chambers are isolated from each other. When blasting begins, abrasive from the lower chamber is consumed and the level continues to drop until the Level Sensor is exposed.

ABRASIVE TRANSFER

When the Level Sensor is exposed, it sends a signal that triggers the automatic controls to pressurize the upper chamber causing the upper chamber Pop-Up to seal. Once the pressure in the upper chamber is the same as the pressure in the lower chamber, the lower chamber Pop-Up falls. Abrasive can now flow from the upper chamber to the lower chamber while pressurized allowing blasting to continue uninterrupted. When the level sensor becomes covered again, it signals a timer in the automatic controls to begin a countdown. The countdown is set to allow enough time for all of the abrasive in the upper chamber to flow into the lower chamber. When the countdown reaches 0, the automatic controls depressurize the upper chamber causing the lower chamber Pop-Up to seal and the upper chamber Pop-Up to fall.

REFILL UPPER CHAMBER

Once the upper chamber Pop-Up falls, abrasive will flow through the opening and into the upper chamber filling it. While the upper chamber is filling, abrasive is being consumed from the lower chamber starting the cycle over again.

Operating Procedures

WARNING: The Procedures provided in the Operating Procedures section of the manual are designed to provide basic information on how to safely operate the features of Pirate Brand® SPH Series Dual-Chamber Abrasive Blasters. Only personnel thoroughly trained in abrasive blasting should operate the Abrasive Blaster.

SETTING-UP THE BLASTER

INSPECT PRESSURE VESSEL

When you receive your Abrasive Blaster, remove the Handway Assemblies and check for foreign items that may have fallen into the Abrasive Blaster through the Pop-up openings. Remove any foreign materials and reinstall the Handway Assemblies.

DANGER: Never perform any maintenance or attempt to open the Abrasive Blaster in any way while it is pressurized. The violent release of compressed air and propelled objects will cause serious injury or death.

SECURE BLOW-DOWN HOSE

The longer Blow-down Hose used on stationary Abrasive Blasters must be secured to a stationary surface before using the Abrasive Blaster. If not secured the Blow-down Hose will whip around violently when exhausting. Choose an appropriate location to direct exhausted air that is not near personnel.

DANGER: Blow-down hoses that extend more than 12" from the Combination Valve must be secured to a stationary surface to prevent injury.

RE-TIGHTEN HANDWAY ASSEMBLIES

After the Abrasive Blaster has been pressurized for the first time, tighten the nut on the Handway Assemblies. Tightening the nut on a Handway Assembly should also be done any time after the handway has been removed for maintenance before and after the next pressurization.

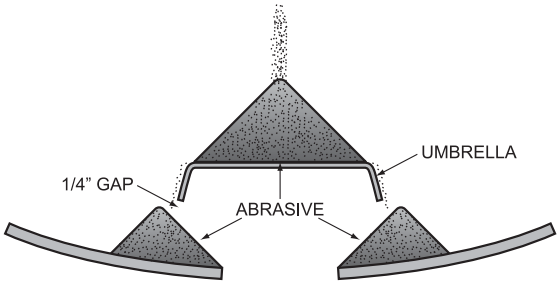
DANGER: Never perform any maintenance or attempt to open the Abrasive Blaster in any way while it is pressurized. The violent release of compressed air and propelled objects will cause serious injury or death.

PURGE AIR SUPPLY HOSE

Before connecting the Air Supply Hose to the Abrasive Blaster, purge the hose of any moisture or foreign debris. Standing water or moisture in the air line will cause degraded performance of the Abrasive Blaster. **Air supplied to the Abrasive Blaster must be clean, dry and cool.**

ADJUST UMBRELLAS

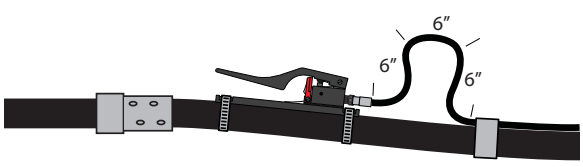
Adjust the Umbrellas so there is a 1/4" gap between the bottom of the Umbrella and the abrasive heaped around the Pop-up entry. Start with the umbrella at a height of about 2" and pour your abrasive of choice onto the center of the umbrella. Keep adding abrasive until a mound forms over the umbrella and around the opening and the abrasive starts falling into the pressure vessel. Measure the distance between the bottom of the umbrella and the mound forming around the Pop-up opening and lower the umbrella so a 1/4" gap is achieved. Different abrasives require different heights, so readjust as needed.



DANGER: Never reach into the Pop-up opening while filling the Abrasive Blaster. It can close without warning causing severe injury or death.

ATTACH REMOTE CONTROL HANDLE

Attach the Remote Control Handle to the Blast Hose near the Nozzle with hose clamps or heavy wire ties. Form a loop of Twinline/Control Cord that comes 6" away from the Blast Hose, runs 6" parallel to the Blast Hose, and comes 6" back to the Blast Hose. Using duct tape, attach the Twinline/Control Cord to the Blast Hose where the loop ends by wrapping the tape around the Twinline/Control Cord twice and then around the Blast Hose. This creates a strain-relief attachment and is only necessary on the first connection near the Control Handle. Starting from the Nozzle end of the Blast Hose, attach the Twinline/Control Cord to the blast hose by wrapping duct tape around both every 3 feet.



Operating Procedures

BEFORE YOU BLAST

PRE-BLAST CHECK

Before each use of the Abrasive Blaster, it must be checked to ensure it is in a safe condition to be used. Closely examine all components of the Abrasive Blaster for signs of excessive wear, worn out seals and hoses, or damaged components. If any component of the Abrasive Blaster is found to be damaged or worn, it must be replaced before blasting.

WARNING: Never use an Abrasive Blaster if any components are damaged or worn. Damaged or worn parts must be replaced before use.

ADDING ABRASIVE

Abrasive can be added to dual-chamber abrasive blasters at any time but be aware that while in use, the upper chamber will cycle between pressurized and depressurized states and the pop-up will open and close without warning. The typical method to ensure a continuous flow of abrasive to a dual-chamber abrasive blaster is an overhead feeding system. Do not allow foreign materials to enter the Abrasive Blaster. It is recommended that a screen be used to prevent foreign objects from entering the Abrasive Blaster.

DANGER: Never reach into the Pop-up opening while filling the Abrasive Blaster. It can close without warning causing severe injury or death.

WARNING: Pirate Brand® Abrasive Blasters may not be used with abrasives containing silica. Never use abrasives containing silica.

WARNING: Electrically conductive abrasives may not be used with the abrasive blasters using Electric Remote Control Systems without changing to sealed strain relief connectors.

WARNING: Never attempt to move or transport the Abrasive Blaster when it contains Abrasive.

REMOTE CONTROL SYSTEM

Abrasive Blasters must use a Remote Control System (commonly known as a deadman) to start and stop abrasive blasting. Remote Control Systems can be electric or pneumatic. **NOTE: A constant compressed air supply of at least 100PSI is recommended for proper operation of the remote control system.**

Electric: Connect the Remote Control Handle to the Abrasive Blaster's female twist-lock connector. Connect a 12 VDC power source (12V Battery or Optional 120 VAC to 12 VDC converter) to the control box male twist-lock connector.

Pneumatic: Connect the Remote Control twinline hose to the Abrasive Blaster using the supplied threaded or quick-disconnect fittings. The twinline hose is supplied with different size fittings on each of the 2 lines to prevent them from being connected to the Abrasive Blaster incorrectly. Do not modify or reverse these fittings. It is not recommended that Pneumatic Remote Control Systems are used when the Blast Hose length will be longer than 100 feet.

DANGER: For 2 outlet blasters, never reverse the control handle connections so that a handle on one outlet activates the blast hose connected to the other outlet. Also take special care when performing maintenance to not to reverse the wiring between outlets.

WARNING: Never operate the Abrasive Blaster without a Remote Control System.

WARNING: Never use bleeder type Remote Control Handles such as Clemco® or A-BEC® style handles with Pirate-Brand® SPH/SPR Series equipment as they may cause the Abrasive Blaster to start without warning or to not stop the Abrasive Blaster when released.

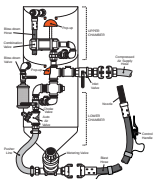
WARNING: Never reverse or modify pneumatic Remote Control twinline hose fittings.

DANGER: Always use caution around electric sources to avoid electric shock. Do not operate electrical remote controlled Abrasive Blasters in wet or other hazardous environments

CONNECTING HOSES

Before connecting hoses to the Abrasive Blaster, make sure the Inlet Valve is closed and the compressed air supply is shut off. Connect the hose coming from the compressed air supply to the inlet on the Abrasive Blaster and secure with safety clips. Connect the blast hose to the coupling on the Metering Valve at the base of the Abrasive Blaster and secure with safety clips or mechanics/safety wire when using BIG GUN couplings.

WARNING: Always use safety devices like clips and whip-checks (safety cables) at hose connections. BIG GUN couplings require the use of safety/mechanics wire for proper securing.



See page 13 for diagram of blaster components

Operating Procedures

DUAL-CHAMBER SPECIAL NOTES

ABOUT THIS SECTION: Dual-chamber abrasive blasters have features that single chamber blasters do not have. This section details the additional considerations, requirements and settings that are necessary when using dual-chamber abrasive blasters.

COMPRESSED AIR REQUIREMENT

Dual-chamber abrasive blasters require a constant supply of compressed air. Failure to provide a consistent supply will cause back-flow and upper/lower chamber pressure equalization problems. For this reason, a dedicated air supply is recommended. We also recommend the use of a regulator on the abrasive blaster air inlet.

WARNING: Failure to provide a constant air supply of at least 100 PSI to the abrasive blaster can cause excessive wear to multiple components.

UNION ORIFICE PLATE

Dual-chamber abrasive blasters feature a restriction plate installed in the union below the combination valve. This restriction plate is crucial to the operation of the cycling of the abrasive blaster as it reduces compressed air demand during cycling of the upper chamber.

WARNING: Never operate a dual-chamber blaster without the union orifice plate. Operation with out the union orifice plate can cause excessive wear to multiple components and interrupted media flow.

CHECK VALVES

Dual-chamber abrasive blasters require the use of a check valve at both the upper and lower chamber inlets to reduce back-flow. The lower chamber check valve features a flapper with an orifice to aide in pressure equalization between the upper and lower chambers.

WARNING: Never operate a dual-chamber blaster without the proper check valves installed and check for proper operation per the maintenance schedule as required. Operation without the proper check valves can cause excessive wear to multiple components and malfunction.

PRESSURE EQUALIZATION

Dual-chamber abrasive blasters require that the upper and lower chamber pressures completely equalize during the automatic cycle. Incorrect check valves, leaking pop-ups, pop-up gaskets, and handway gaskets can cause a pressure differential between the upper and lower chambers causing the abrasive blaster to malfunction.

LEVEL SENSOR POSITION

Dual-chamber abrasive blasters come from the factory with the level sensor installed in the lowest of 3 positions. This is the proper position for most applications and will not require adjustment. If the abrasive blaster runs out of abrasive before the upper chamber can fill the lower chamber, first check for proper operation of the cycle controls, abrasive blaster components, and the proper timer setting. If the cycle controls, abrasive blaster components and timer are in proper working order, uninstall and re-install the level sensor in a higher position to start the transfer of abrasive from the upper chamber to the lower chamber sooner.

LEVEL SENSOR ADJUSTMENT

The level sensor's sensitivity is adjustable. Once set properly, it should not need readjustment unless switching to a significantly different abrasive. When necessary, adjust the level sensor using the following procedure

1. Fill the lower chamber with your abrasive of choice
2. Decrease the sensitivity setting on the level sensor until the light comes on (Light on indicates no abrasive)
3. Slowly increase the sensitivity setting on the level sensor until the light turns off (Light off indicates abrasive is present)

DOOR INTERLOCK

Dual-chamber abrasive blasters with pneumatic controls can continue to blast when power is turned OFF to the control box. For this reason, a door interlock system that only cuts the power to the control box must not be used on dual-chamber abrasive blasters with pneumatic controls. A door interlock system that uses a valve to interrupt compressed air flow to the pneumatic control valves must be used. Both 12VDC and 120VAC versions of such systems are available (ref. part numbers 999-8400-10021PB & 999-8400-00021PB).

WARNING: Interrupting the power to the control box will not disable pneumatic blasting controls on dual-chamber abrasive blasters. A control valve that interrupts air flow to the pneumatic controls must be installed when using a door interlock system.

Operating Procedures

DUAL-CHAMBER SPECIAL NOTES

RESTORING NORMAL CYCLE AFTER RUNNING OUT OF ABRASIVE.

If the supply of abrasive is interrupted, the automatic cycling of the dual-chamber abrasive blaster will get "stuck" in the abrasive transfer stage where both the upper and lower chamber are pressurized. To restore the normal operating cycle, perform the following procedures.

1. Restore abrasive flow (often debris build up on the area of the screen through which abrasive can flow is the culprit)
2. Turn the Abrasive Loading Selector switch on the control box to the "**Manual Upper Chamber Depressurize**" position. The upper chamber will depressurize and abrasive will now flow around the pop-up into the upper chamber.
3. After the upper chamber has finished filling, turn the Abrasive Loading Selector switch on the control box to " **Automatic Cycle Control**". The abrasive blaster will now continue in normal automatic operation.

CONTROL BOX

MAIN POWER

This is the overall power switch that controls all functions of the control box. The setting should be ON during blasting operations and OFF whenever the blaster is not in use or maintenance is being performed.

ABRASIVE LOADING SELECTOR

Sets the mode of operation. Generally speaking, during normal operation the "Automatic Cycle Control" setting should be used.

AUTOMATIC CYCLE CONTROL
In this mode the abrasive blaster automatically continues to replenish abrasive by filling the upper chamber and then transferring the abrasive to the lower chamber while pressurized.

MANUAL CONTROL UPPER CHAMBER DEPRESSURIZE
In this mode the abrasive blaster's upper chamber is forced into an unpressurized condition. This is mainly used to force the upper chamber to refill after the automatic cycle control gets "stuck" due to an interruption in the overhead abrasive supply.

MANUAL CONTROL UPPER CHAMBER PRESSURIZE
In this mode the abrasive blaster's upper chamber is forced into a pressurized condition. This mode can be used to force the abrasive blaster to run out of media or to inspect that the upper chamber pop-up is seating properly.

Proper Timer Settings

TIMER SETTING

The automatic control timer is set properly from the factory to **[D 1 3 5 s]**. This is the proper setting and should not be changed. Mode D is necessary for the proper operation of the automatic controls. 135 seconds is the proper setting to allow all abrasive in the upper chamber to flow into the lower chamber.

Operating Procedures

BLASTING

PRESSURIZING THE ABRASIVE BLASTER

Before pressurizing the Abrasive Blaster make sure the following conditions occur:

- All "BEFORE YOU BLAST" procedures have been followed.
- The Inlet Valve is closed.
- The Control Box Power Switch is OFF
- The Control Box Abrasive Loading Selector is set to Automatic Cycle Control
- The Blow-down Valve is closed
- The Remote Control Handles are released.
- All hose connections are secure and have a safety clip or safety/mechanics wire installed.
- The Abrasive Blaster is set up in a safe and level location where all people in the vicinity are aware of its presence.
- All necessary safety equipment is present and being worn by all people in the vicinity of the Abrasive Blaster.
- Only personnel who have been thoroughly trained and have read and understand the manual are in the vicinity of the Abrasive Blaster

When these conditions are met, turn on the compressed air source, open the Inlet Valve on the Abrasive Blaster and turn the Control Box Main Power Switch to ON. The Abrasive Blaster is now ready to begin blasting.

DANGER: Never perform any maintenance or attempt to open the Abrasive Blaster in any way while it is pressurized. The violent release of compressed air and propelled objects will cause serious injury or death.

DANGER: Never supply compressed air exceeding 150 PSI (10.3 BAR) to the Abrasive Blaster.

WARNING: Blast Hose may kick back when Remote Control Handle is activated. Be prepared and brace yourself for kick back.

WARNING: All those who will be in the area while blasting is to occur must be properly trained, read the manual, and be wearing safety equipment to protect from the hazards described by the WARNING and DANGER labels located on the Abrasive Blaster. If any labels are worn or missing they must be replaced. (Label Pack PN: PB-LPS001)

USING THE ABRASIVE BLASTER

After pressurizing the Abrasive Blaster, it is ready to begin blasting. Press the safety button or push down the safety flap and squeeze the Remote Control Handle to start the flow of abrasive and compressed air. Adjustments to the air/abrasive mixture can be made by turning the handle on the Metering Valve. There will be a delay between a change made at the Metering Valve and what comes out of the Nozzle depending on the length of Blast Hose being used. Adjustments to the Metering Valve can only be made when Abrasive Blaster is not in operation.

To stop the flow of compressed air and abrasive, release the Remote Control Handle and blasting will stop after a short time. How long it takes for blasting to stop will depend on the length of Blast Hose being used.

DANGER: Airborne particles produced by abrasive blasting can cause respiratory disease. All persons operating or located near the blasting site must wear approved NIOSH / OSHA approved breathing equipment. Never use abrasive containing silica.

WARNING: Only personnel thoroughly trained in abrasive blasting should operate the Abrasive Blaster. This manual only provides basic information on how to safely operate the features of Pirate Brand® SPH Series Dual-Chamber Abrasive Blasters.

WARNING: Never point the blast Nozzle at yourself, other people, or the Abrasive Blaster.

WARNING: The Choke Valve must be completely open when blasting or damage to equipment will occur.

SHUTTING DOWN THE ABRASIVE BLASTER

When blasting is complete, the Abrasive Blaster will need to be shut down. Make sure the Remote Control Handle is released then close the Inlet Valve. Turn the Control Box power switch to OFF. To depressurize Pressure Hold (SPH) Abrasive Blasters, slowly open the Blow-down Valve to allow the compressed air stored in the Abrasive Blaster to escape.

WARNING: Never operate the Abrasive Blaster without a muffler on the Blow-down valve. Without the muffler, the sudden release of compressed air can cause severe injury.

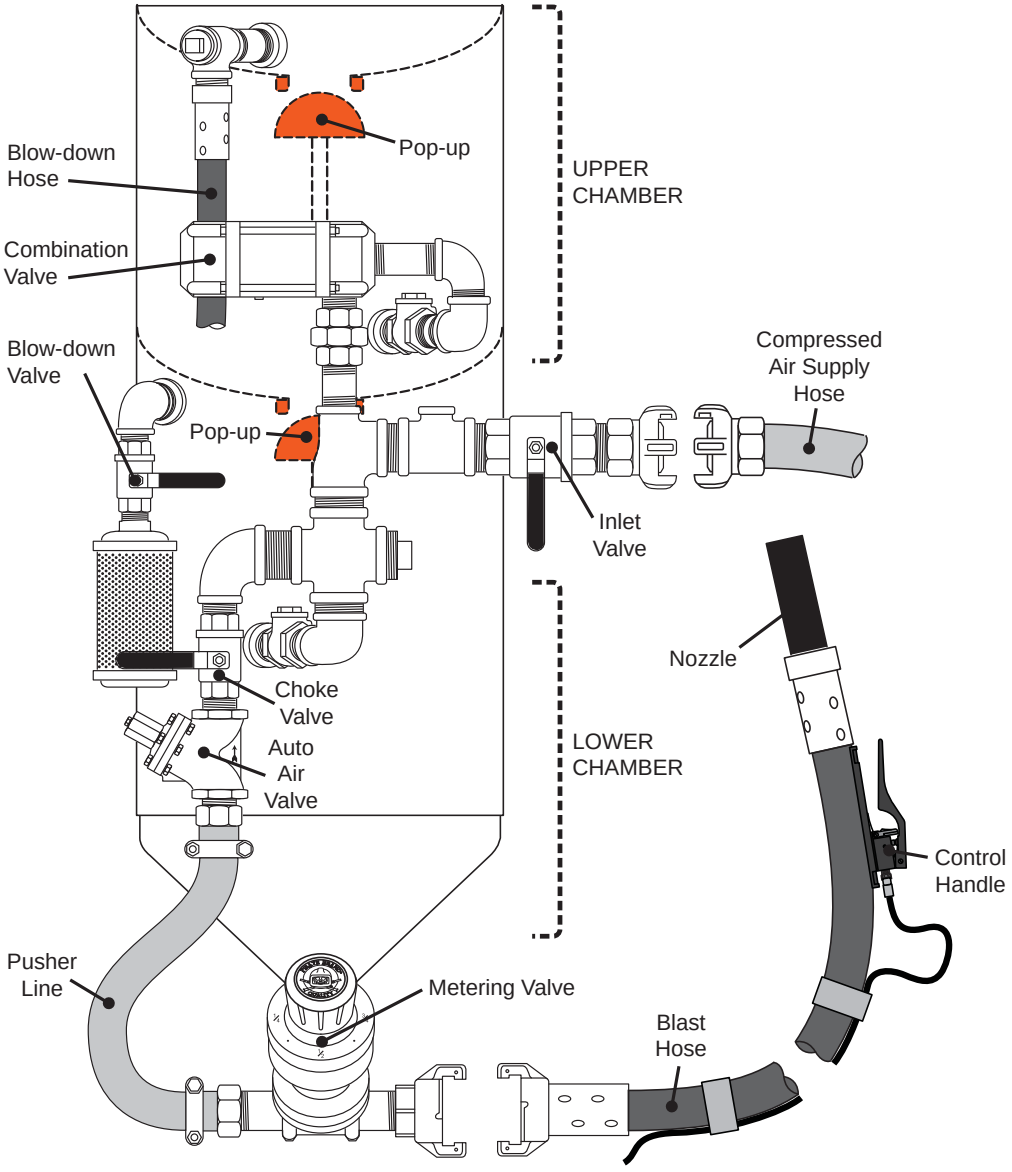
Operating Procedures

BLASTING

DISCONNECTING AIR SUPPLY HOSE

After the Abrasive Blaster has been depressurized, and the Inlet Valve has been closed, the Compressed Air Supply Hose may still contain pressure which must be released before disconnecting the hose. To do this shut off the compressed air at its source, and open the Blow-down valve. Slowly open the inlet valve on the Abrasive Blaster. The compressed air stored in the Compressed Air Supply Hose can now escape through the Blow-down Muffler. When you no longer hear air escaping, squeeze the Compressed Air Supply Hose to confirm the absence of compressed air. After confirming the absence of compressed air in the Compressed Air Supply Hose it is ready to be disconnected.

DANGER: Never disconnect any compressed air supply hose without first performing the "DISCONNECTING AIR SUPPLY HOSE" procedure described above. Failure to do so can cause the hose to blow off violently injuring or killing nearby people.



Maintenance Procedures

Maintenance Schedule

DANGER: Never perform any maintenance or attempt to open the Abrasive Blaster in any way while it is pressurized. The violent release of compressed air and propelled objects will cause serious injury or death.

WARNING: Maintenance procedures are to be performed by experienced qualified personnel only. Failure to perform maintenance procedures correctly at the intervals specified below can lead to performance problems and equipment failure, and will void the equipment warranty.

Procedure to be Performed	Maintenance Interval
1 Inspect Personal Protective Equipment (PPE) Including but not limited to: Respirators, Airline Filters, Carbon-Monoxide Monitors, Hearing Protection, Eye Protection, Foot Protection, Protective Clothing & Gloves. Reference www.osha.gov 29 CFR 1910.132 - General Requirements (PPE) 29 CFR 1910.133 - Eye (PPE) 29 CFR 1910.134 - Respiratory (PPE) 29 CFR 1910.136 - Feet (PPE) 29 CFR 1910.138 - Protective Clothing & Gloves (PPE) 26 CFR 1926.101 - Hearing (PPE)	**Every 8 Hours Of Use**
2 Inspect Remote Control Handles and Control Hose/Cord	**Every 8 Hours Of Use**
3 Inspect Blast Hose, Couplings & Gaskets	**Every 8 Hours Of Use**
4 Inspect Blasting Nozzle	**Every 8 Hours Of Use**
5 Inspect Air Hose, Couplings & Gaskets	**Every 8 Hours Of Use**
6 Inspect & Clean Blow-down Muffler	**Every 40 Hours Of Use**
7 Inspect Blow-down Hose Assembly	**Every 200 Hours Of Use**
8 Inspect Pop-Up & Pop-Up Gasket	**Every 200 Hours Of Use**
9 Inspect Check Valves	**Every 200 Hours Of Use**
10 Service Metering Valve	**Every 600 Hours Of Use**
11 Service Auto Air Valve)	**Every 600 Hours Of Use**
12 Service Combination Valve	**Every 600 Hours Of Use**
13 Service Control Valve(s)	**Every 600 Hours Of Use**

Descriptions of maintenance procedures referenced in this table are located on the next page.

Maintenance Procedures

Procedure Details

1. Inspect Personal Protective Equipment (PPE)

Inspect **ALL** Personal Protective Equipment (PPE) for proper fit, condition & operation as designed. Replace, repair, or be fitted as needed.

2. Inspect Remote Control Handles and Control Hose/Cord

Pneumatic Remote Control Systems:

Inspect Control Handle for damage making sure the Safety Flap/Lever Lock/Button is in good working order and replace or repair as needed. Inspect twinline hoses and replace if leaks, areas that show abrasion, or soft spots are found.

Electric Remote Control Systems:

Inspect Control Handle for damage making sure the Safety Flap/Lever Lock/Button is in good working order and replace or repair as needed. Inspect control cord and replace if damaged plug ends, areas that show abrasion, exposed wires, or cracks are found.

3. Inspect Blast Hose, Couplings & Gaskets

Inspect Blast Hose for leaks, abrasion & soft spots, and replace as needed. Inspect couplings for damage, leaks & wear, and replace as needed. Inspect coupling gaskets for leaks & wear, and replace as needed. Always use safety clips & whip checks (safety cables) at Blast Hose connections. BIG GUN couplings require the use of safety/mechanics wire for proper securing.

4. Inspect Blasting Nozzle

Inspect the Blasting Nozzle for wear and proper bore diameter. Replace the Blasting Nozzle when the bore diameter has worn to 1/16" wider than its original diameter. Example: replace a #5 nozzle (5/16" bore) when the bore reaches 3/8"

5. Inspect Air Hose, Couplings & Gaskets

Inspect Air Hose for leaks, abrasion & soft spots, and replace as needed. Inspect couplings for damage, leaks & wear, and replace as needed. Inspect coupling gaskets for leaks & wear, and replace as needed. Always use safety clips & whip checks (safety cables) at Air Hose connections.

6. Inspect & Clean Blow-down Muffler

Remove the Blow-down muffler, turn it upside-down and tap on a hard surface to free trapped debris. If muffler is clogged and can't be cleaned out sufficiently, it must be replaced.

7. Inspect Blow-down Hose Assembly

Remove & inspect the Blow-down Hose assembly. If leaks or soft spots are found, it must be replaced.

8. Inspect Pop-Up & Pop-Up Gaskets

Inspect the Pop-Up & Pop-Up Gaskets for wear and replace as necessary. To inspect the lower chamber Pop-Up, complete shut-down/depressurization of both chambers is required and the upper chamber handway must be removed. Leaking Pop-Ups cause major problems with the operation of dual-chamber abrasive blasters. **DANGER**: Never reach into the Pop-up opening,it can close without warning causing severe injury or death.

9. Inspect Check Valves

Dual-chamber abrasive blasters require check valves as abrasive blasting air demand and the cycling of the upper chamber is likely to cause back-flow within the system. Open the check valve cap and check flappers for proper function and wear. Replace/repair to maintain proper function of the check valves. Failure to do so will cause damage to other components of the abrasive blaster. **NOTE: The check valve used on the lower chamber requires a flapper with a drilled hole to ensure proper pressure equalization between the upper and lower chamber.**

10. Service Metering Valve(s)

Disassemble, clean & inspect the Metering Valve for proper operation and worn components. Replace any worn components found. Lubricate APV & APVII valves with anti-seize before reassembling.

11. Service Auto Air Valve(s)

Disassemble, clean & inspect for proper operation and worn components. Replace any worn components found. Lubricate with anti-seize before reassembling.

12. Service Combination Valve

Disassemble, clean & inspect for proper operation and worn components. Replace any worn components found. Lubricate with anti-seize before reassembling.

13. Service Control Valve(s)

Disassemble, clean & inspect for proper operation and worn components. Replace any worn components found. Lubricate with anti-seize before reassembling.

Troubleshooting

Performance Related Issues

DANGER: Never attempt to open the Abrasive Blaster in any way while it is pressurized. Use extreme caution when performing troubleshooting procedures that involve pressurizing the Abrasive Blaster. Troubleshooting procedures are to be performed by experienced qualified personnel only.

NO ABRASIVE FLOW WHEN BLASTING (AIR ONLY)

Possible Causes:

1. The Abrasive Blaster is empty or has no Abrasive in it.

2. 15. The control box power is not turned to ON and the Abrasive Loading Selector is not set to Automatic Cycle Control.

3. The Union-end Ball Valve above the Metering Valve is closed (if equipped).

4. Abrasive cut-off function is engaged halting the flow of abrasive (if equipped).

5. The abrasive level sensor is out of adjustment or malfunctioning.

6. The automatic cycle control box is malfunctioning.

7. A pop-up or handway gasket is leaking causing differential pressure between the upper and lower chambers.

8. The Metering Valve is closed or has not been adjusted properly. If the Metering Valve is an APV or APVII and you are concerned the valve is not opening, the following test can be performed:

Close the Metering Valve fully by turning the knob clockwise until it stops, then turn the knob counter-clockwise about 9 full turns. Close the Union-end Ball Valve above the Metering Valve (if equipped). Close the Choke Valve, then depress the control handle and check to see if the knob is hard to turn or if it will not turn at all. If the knob is hard to turn or will not turn at all then the Metering Valve is opening properly. Lastly, release the control handle and open the Choke Valve and Union-end Ball Valve located above the Metering Valve if equipped.

9. There is an obstruction in the Metering Valve. To clear the obstruction for both APV series and MPV series Metering Valves, perform the following procedure:

Turn the knob on the Metering Valve clockwise until it stops and then turn the knob counter-clockwise 9 full turns to open it completely. Depress the control handle and have a second qualified person close the choke valve for 2 seconds, and then open it again immediately. This will push minor obstructions such as a small amount of wet abrasive, a piece of paper from a bag, or bridged paint chips through the Metering Valve and out the Nozzle. Readjust the Metering Valve back to the desired setting for blasting, and check to see if the obstruction has been cleared.

If there is still an obstruction and your Abrasive Blaster is equipped with a Union-end Ball Valve above the Metering Valve, close the Union-end Ball Valve and depressurize the Abrasive Blaster. Remove the Metering Valve by loosening the union on the Union-end Ball Valve. With the Metering Valve removed and the Abrasive Blaster depressurized, open the Union-end Ball Valve slowly to see if a steady stream of abrasive falls out. If you do not see a steady stream of abrasive there is a large obstruction such as a large piece of paper from a bag of abrasive. If your Abrasive Blaster is not equipped with a Union-end Ball Valve, then you must depressurize the Abrasive Blaster, remove the pusher line, and remove the Metering Valve to check for a steady stream of abrasive. If abrasive flows, wait until the Abrasive Blaster is empty before reinstalling the Metering Valve.

If you have determined there is a large obstruction, then the obstruction must be removed from inside the Pressure Vessel. To do this, make sure the Abrasive Blaster is depressurized and remove the Handway Assembly. Scoop or vacuum out all the abrasive from inside the pressure vessel and remove the obstruction. Reinstall the Handway Assembly and Metering Valve and tighten them securely, then Refill the Abrasive Blaster.

It is recommended that a screen be used to prevent foreign objects from entering the Abrasive Blaster and causing an obstruction.

10. The Abrasive Blaster has wet abrasive in it. The wet abrasive must be removed by depressurizing the Abrasive Blaster, removing the Handway Assembly, and scooping or vacuuming it out. **Dry abrasive must always be used.**

Clean, cool, dry air must be supplied to the Abrasive Blaster in order to prevent the abrasive from getting wet. For Abrasive Blasters being used outside, it is recommended that a lid be used to keep water from entering the Abrasive Blaster.

ABRASIVE STREAM IS TOO HEAVY OR THROBBING WHEN BLASTING

Possible Causes:

1. Choke Valve is partially closed. Never run the Abrasive Blaster with the Choke Valve in any other position except fully open or damage to the Abrasive Blaster will occur.

2. The Metering Valve needs to be adjusted.

LOW PRESSURE AT THE NOZZLE

Possible Causes:

1. Air compressor is the wrong size (too small) or the load button has not been pushed or turned on. (100 PSI Minimum)

2. Nozzle is worn out and the compressor cannot keep up with the increased demand.

3. Air supply hose to the blast machine is too small.

4. There is a hole in the blast hose.

5. A Pop-up is not sealing properly.

6. A Handway Assembly is leaking.

7. Dirty or clogged Auto Air Valve Vent.

8. Diaphragm in Auto Air Valve is damaged, defective, or worn out. To test, put your thumb over the vent. If any air is coming out with the control handle depressed, the diaphragm must be replaced.

9. Choke Valve is partially closed. Never run the Abrasive Blaster with the Choke Valve in any other position except fully open or damage to the Abrasive Blaster will occur.

10. Abrasive Metering Valve is open too far.

11. Obstruction in Nozzle.

12. Regulator needs adjustment (if equipped).

ABRASIVE BLASTER WILL NOT TURN ON OR IS SLOW TO TURN ON

Possible Causes:

1. Air compressor is the wrong size (too small) or the load button has not been pushed or turned on. (100 PSI Minimum)

2. Nozzle is worn out and the compressor cannot keep up with the increased demand.

3. Air supply hose to the blast machine is too small.

4. Control hoses and/or fittings are leaking.

5. 90 micron strainer clogged (if equipped)

6. Obstruction in Nozzle.

7. Dirty or clogged Auto Air Valve Vent (if equipped).

8. The Pneumatic Control Handle is damaged, defective or worn out (if equipped).

9. The Electric Control Handle is damaged, defective or worn out (if equipped).

10. The Electric Control Coil(s) are defective (if equipped).

11. Power Source (battery or AC-DC converter) is not providing sufficient power to open electric control valves (if equipped).

12. The Electric Control Cord is damaged, defective or worn out (if equipped).

13. Control Valve stuck or in need of service due to lack of lubrication, or is damaged, defective or worn out (if equipped).

14. Diaphragm in Auto Air Valve is damaged, defective, or worn out. To test, put your thumb over the vent. If any air is coming out with the control handle depressed, the diaphragm must be replaced.

15. The control box power is not turned to ON and the Abrasive Loading Selector is not set to Automatic Cycle Control.

Troubleshooting

Operational Related Issues

DANGER: Never attempt to open the Abrasive Blaster in any way while it is pressurized. Use extreme caution when performing troubleshooting procedures that involve pressurizing the Abrasive Blaster. Troubleshooting procedures are to be performed by experienced qualified personnel only.

BLAST MACHINE TURNS ON ACCIDENTALLY OR WITHOUT WARNING

Possible Causes:

1. The safety flap, lever or lock button on the Control Handle is damaged or missing.
2. The Pneumatic Control Handle is damaged, defective or worn out (if equipped).
3. A bleeder type control handle has been installed.

WARNING: Never use bleeder type Remote Control Handles such as Clemco® or A-BEC® style handles with Pirate-Brand® SPH/SPR as they may cause the Abrasive Blaster to start without warning or to not stop the Abrasive Blaster when released.

4. The Electric Control Handle is damaged, defective or worn out (if equipped).
5. The Electric Control Cord is damaged, defective or worn out (if equipped).
6. "O"-ring on the shaft of the Auto Air Valve is damaged, defective or worn out.

BLAST MACHINE IS SLOW TO TURN OFF OR WILL NOT TURN OFF WHEN CONTROL HANDLE IS RELEASED

Possible Causes:

1. A bleeder type control handle has been installed.

WARNING: Never use bleeder type Remote Control Handles such as Clemco® or A-BEC® style handles with Pirate-Brand® SPH/SPR as they may cause the Abrasive Blaster to start without warning or to not stop the Abrasive Blaster when released.

2. The Pneumatic Control Handle is damaged, defective or worn out (if equipped).
3. The Electric Control Handle is damaged, defective or worn out (if equipped).
4. The Electric Control Cord is damaged, defective or worn out (if equipped).
5. The Control Valve is stuck or in need of service due to lack of lubrication, or is damaged, defective or worn out.
6. The Combination Valve Plug Assembly is not seating properly because it is damaged, defective or worn out.
7. The Combination Valve Spring is damaged or defective.

ABRASIVE BLASTER AIR BLAST STOPS BUT ABRASIVE KEEPS FLOWING WHEN CONTROL HANDLE IS RELEASED

Possible Causes:

1. The Urethane Seat in the Metering Valve is damaged, defective or worn out.
2. The Urethane Sleeve in the Metering Valve is damaged, defective, or worn out.
3. The Plunger (tungsten carbide) in the Metering Valve is damaged, defective, or worn out.
4. Foreign material is stuck between the Plunger and the Seat in the Metering Valve.
5. The Metering Valve Spring is damaged, defective, or worn out.

BLAST MACHINE ABRASIVE STOPS BUT AIR BLAST WILL NOT SHUT OFF WHEN CONTROL HANDLE IS RELEASED

Possible Causes:

1. Auto Air Valve Seat is damaged, defective, or worn out.
2. Auto Air Valve Disc is damaged, defective, or worn out.
3. "O"-ring on the Auto Air Valve Shaft is damaged, defective or worn out.
4. Auto Air Valve Spring is damaged, defective, or worn out.

UPPER CHAMBER PRESSURIZES RANDOMLY OR STAYS PRESSURIZED

Possible Causes:

1. Verify the Control Box / Level Sensor system is functioning properly and has the correct settings.
2. The Control Valve that activates the Combination Valve is stuck or in need of service due to lack of lubrication, or is damaged, defective or worn out.
3. The lower rod seal in the Combination Valve is damaged, defective, or worn out.

UPPER CHAMBER IS SLOW TO BLOW-DOWN OR WILL NOT BLOW-DOWN

Possible Causes:

1. Verify the Control Box / Level Sensor system is functioning properly and has the correct settings.
2. The Control Valve that activates the Combination Valve is stuck or in need of service due to lack of lubrication, or is damaged, defective or worn out.
3. The lower rod seal in the Combination Valve is damaged, defective, worn out, or has been installed backwards.
4. The lower rod guide in the Combination Valve has been installed backwards.
5. The lower rod guide "O"-ring in the Combination Valve is damaged, defective or missing.

Warranty

PIRATE BRAND® ABRASIVE BLAST POT EQUIPMENT 5 YEAR / 10 YEAR LIMITED WARRANTY

5 YEAR LIMITED ABRASIVE BLAST POT WARRANTY. Manufacturer warrants the complete abrasive blast pot it manufactures to be free of defects in material and workmanship for a period of five (5) years from the date of invoice.

10 YEAR LIMITED PRESSURE VESSEL WARRANTY. Manufacturer warrants the abrasive blast pot pressure vessel it manufactures to be free of defects in material and workmanship for a period of ten (10) years from the date of invoice.

LIMITATION OF WARRANTIES AND REMEDIES. THIS WARRANTY IS EXTENDED ONLY TO THE BUYER WHO PURCHASES THE ABRASIVE BLAST POT DIRECTLY FROM THE MANUFACTURER OR ITS AUTHORIZED DISTRIBUTORS AND IS NON-TRANSFERABLE. THE PURCHASER'S EXCLUSIVE REMEDY ARISING FROM ITS PURCHASE OR USE OF THE PRODUCT SHALL BE STRICTLY LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCTS, AT THE DISCRETION OF THE MANUFACTURER, AND ALL WARRANTY CLAIMS OR REQUESTS MUST BE MADE IN WRITING TO THE MANUFACTURER WITHIN TEN (10) DAYS AFTER FAILURE OF THE PRODUCT. ALL OBLIGATIONS OR LIABILITIES OF MANUFACTURER OR SELLER FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE PRODUCT AND USE OR PERFORMANCE OF THE PRODUCTS, EXCEPT AS EXPRESSLY PROVIDED HEREIN, ARE FULLY DISCLAIMED AND EXCLUDED, AND NO SELLER OR DISTRIBUTOR HAS ANY AUTHORITY TO MAKE ANY WARRANTY OR ASSUME ANY LIABILITY ON BEHALF OF THE MANUFACTURER IN CONNECTION WITH THE SALE OF THE PRODUCT EXCEPT AS STATED HEREIN.

AS A CONDITION OF THE PURCHASE, PURCHASER AGREES THAT MANUFACTURER AND SELLER SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR ANY COST OF FREIGHT, SHIPPING OR TRANSPORTATION, LABOR, SPECIAL CHARGES, NORMAL MAINTENANCE SERVICES, LOST OPERATING TIME, LOSS OF USE, LOST PROFITS, LOSS OF GOODWILL, CONSEQUENTIAL DAMAGES, PUNITIVE OR EXEMPLARY DAMAGES, OR OTHER DAMAGES OR LOSS. OTHER THAN AS DESCRIBED HEREIN, MANUFACTURER AND SELLER MAKE NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCTS, AND SPECIFICALLY DISCLAIM ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHER WARRANTY. PURCHASER ASSUMES ALL RISK AND LIABILITY RESULTING FROM THE USE OF THE PRODUCTS. PURCHASER FURTHER AGREES AS A CONDITION OF THE SALE AND THE USE OF THE PRODUCT, THAT ANY DAMAGES OR RISK OF LOSS OTHER THAN AS DESCRIBED HEREIN ABOVE, SHALL BE THE EXCLUSIVE RESPONSIBILITY OF THE PURCHASER AND NOT THE MANUFACTURER OR SELLER. MANUFACTURER AND SELLER SHALL NOT BE LIABLE FOR ANY DAMAGES INCURRED BY ANY PERSON AS A RESULT OF MISUSE, IMPROPER INSTALLATION, IMPROPER APPLICATION, IMPROPER OPERATION OF THE PRODUCTS, NORMAL WEAR AND TEAR, ALTERATIONS OR MODIFICATIONS MADE TO THE PRODUCTS, OR ACCIDENT. THE USE OF REPLACEMENT PARTS NOT PROVIDED OR AUTHORIZED BY THE MANUFACTURER VOIDS ALL WARRANTIES.

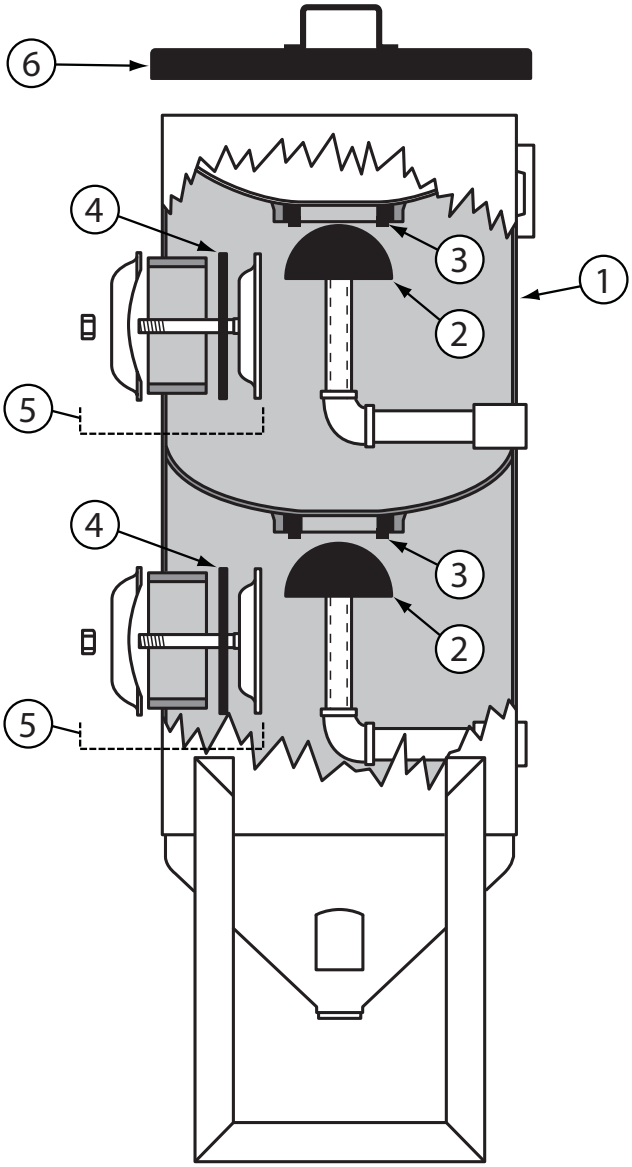
A COMPLETELY FILLED OUT WARRANTY CARD MUST BE RETURNED TO THE MANUFACTURER WITHIN THIRTY (30) DAYS OF PURCHASE OF THE PRODUCT OR ALL WARRANTIES ARE VOID. PRODUCT MUST BE MAINTAINED IN ACCORDANCE TO THE MAINTENANCE SCHEDULE PROVIDED IN THE PRODUCT MANUAL, FAILURE TO MAINTAIN THE PRODUCT IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE VOIDS ALL WARRANTIES. THIS WARRANTY DOES NOT COVER FACTORY INSTALLED OR CUSTOMER INSTALLED ACCESSORIES.

WARRANTY CLAIMS. Warranty claims must be submitted to the manufacturer within ten (10) days after failure of the product. Contact information for warranty claims:

Forecast Sales, Inc.
2719 Tobey Dr.
Indianapolis, IN 46219
317-829-0147

Effective July 8, 2015

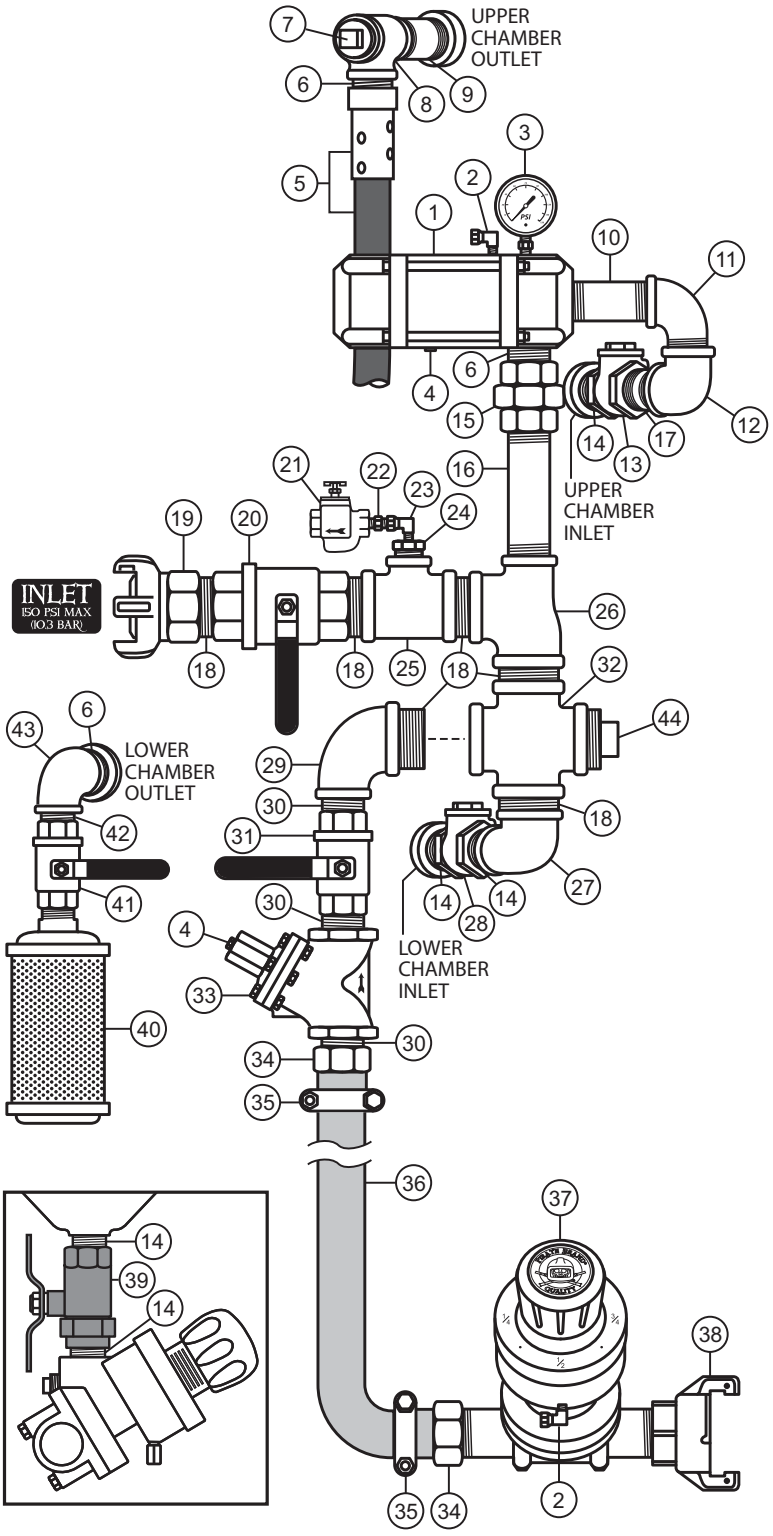
Pressure Vessel Parts Lists



8 Cu. Ft. Dual-Chamber Vessel		
1	888-1022-008PB	VESSEL, STATIONARY, 8 CU FT DUAL CHAMBER, 150 PSI, 2 OUTLET, 90° CONE BOTTOM, 13" CLEARANCE, 69" OAH, INCLUDES (2) 9" UMBRELLAS, (2) HANDWAY ASSEMBLIES, (2) POP-UPS & (2) SKIRTED POP-UP GASKETS
2	888-2100-010PB	POP-UP W/STEM URETHANE, LARGE
3	888-2100-01104PB	POP-UP GASKET, SKIRTED FOR 3.5, 6.5, 8 & 10 CU FT S-SERIES PRESSURE VESSELS
4	888-7000-00106PB	GASKET, HANDWAY, 6" x 8"
5	888-7000-00111PB	HANDWAY CRAB ASSY 6" x 8"
6	888-5010-060PB	LID, 24" DIA, W/HANDLE, POWDER COATED BLACK

Pipe String Parts Lists

Single Outlet - Pipe String



Pipe String Parts Lists

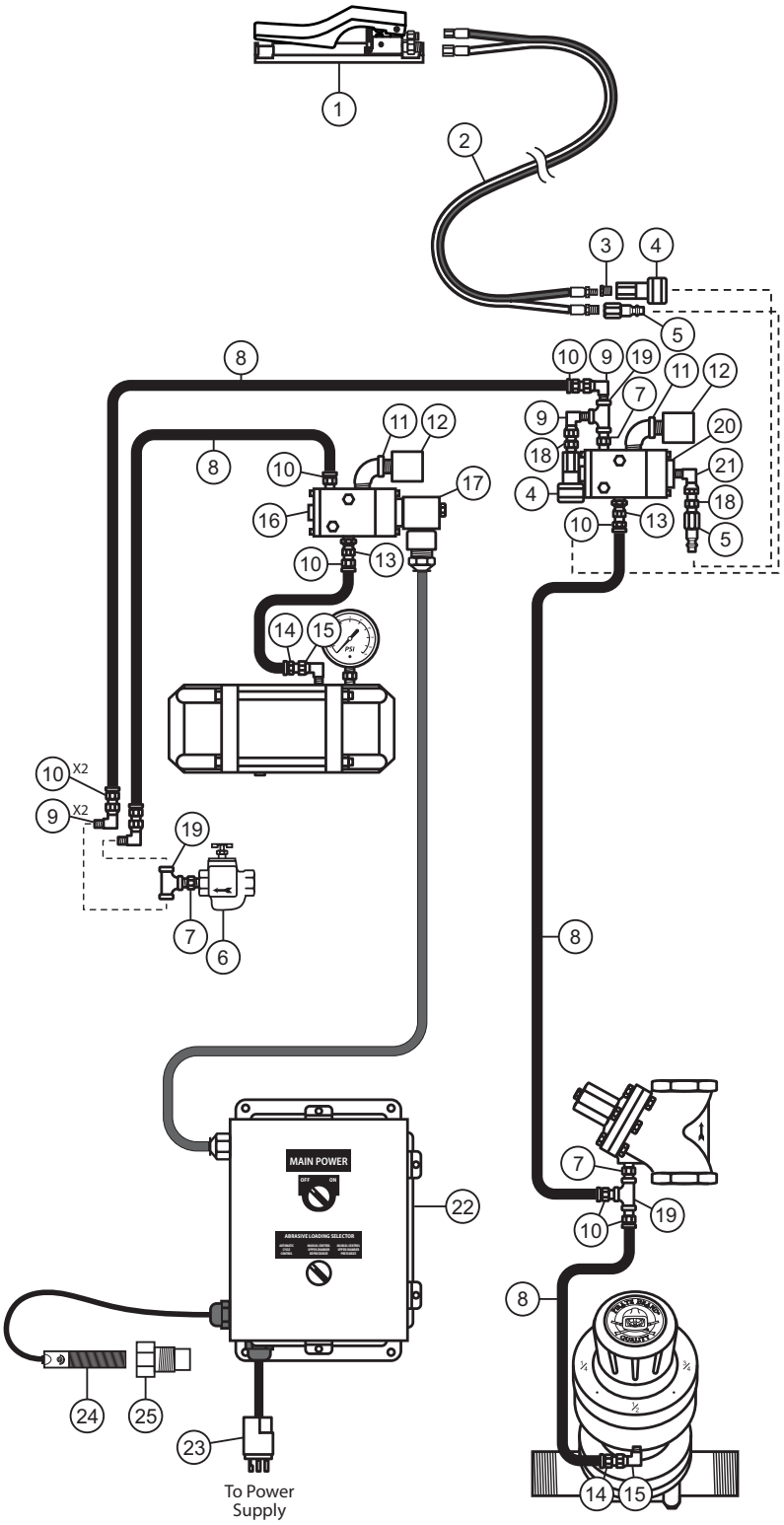
Single Outlet - Pipe String

1*	888-2223-000PB	VALVE, COMBINATION, COMPLETE
2	888-4203-50000PB	SWIVEL 90°, 1/8" MNPT X 1/8"F
3	888-2010-00901PB	GAUGE, PRESSURE, 0 - 160 PSI
4	888-2014-300PB	VENT, 1/8"
5	888-4115-005PB	BLOWDOWN HOSE ASSY, 18"
	888-4115-00503PB	BLOWDOWN HOSE ASSY, 3/4" x 3'
	888-4115-00510PB	BLOWDOWN HOSE ASSY, 3/4" x 10'
	888-4115-00515PB	BLOWDOWN HOSE ASSY, 3/4" x 15'
6	888-3029-10799PB	NIPPLE, TBE, GALV, 1-1/4" x CLOSED
7	888-3014-107PB	PIPE PLUG, GALV, 1-1/4"
8	888-3011-107PB	TEE, GALV, 1-1/4"
9	888-3029-10717PB	NIPPLE, TBE, GALV, 1-1/4" x 7"
10	888-3029-10711PB	NIPPLE, TBE, GALV, 1-1/4" x 3"
11	888-3006-107PB	ELBOW, STREET, 90°, GALV, 1-1/4"
12	888-3000-107PB	ELBOW, GALV, 90°, 1-1/4"
13	VC-125	CHECK VALVE, SWING 1-1/4"
14	888-3028-10799PB	NIPPLE, TBE, SCHEDULE 80, GALV, 1-1/4" x CLOSE
15	888-3024-107PB	UNION, GALV, 1-1/4"
	888-3024-00701PB	ORIFICE DISC, DUAL CHAMBER, STAINLESS STEEL (FOR 1-1/4" UNION)
16	888-3029-10718PB	NIPPLE, TBE, GALV, 1-1/4" x 8"
17	888-3028-10711PB	NIPPLE, TBE, SCHEDULE 80, GALV, 1-1/4" x 3"
18	888-3029-10999PB	NIPPLE, TBE, GALV, 2" x CLOSED
19	UF-200	AIR HOSE COUPLINGS, 4 LUG, 2" FEMALE NPT
20	VB200	BALL VALVE, FULL PORT, 2" NPT
21	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
22	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
23	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
24	888-3026-10602PB	BUSHING, GALV, 1" x 1/4"
25	888-3011-10906PB	TEE, GALV, 2" x 2" x 1"
26	888-3013-10907PB	TEE, GALV, 2" x 1-1/4" x 2"
27	888-3010-10907PB	ELBOW, REDUCING, GALV, 90°, 2" x 1-1/4"
28	888-2490-90701PB	CHECK VALVE, SWING 1-1/4", W/ 5/32" DIFFERENTIAL EQUALIZER HOLE
29	888-3010-10908PB	ELBOW, REDUCING, GALV, 2" x 1-1/2"
30	888-3029-10899PB	NIPPLE, TBE, GALV, 1-1/2" x CLOSED
31	VB150	BALL VALVE, FULL PORT, 1-1/2" NPT
32	888-3016-109PB	CROSS TEE, GALV, 2"
33*	888-2123-108PB-L	VALVE, AUTO AIR, 1-1/2" FULL FLOW, (NORMALLY CLOSED) **(BIG GUN)**
	888-2123-108PB	VALVE, AUTO AIR, 1-1/2" (NORMALLY CLOSED)
34	888-4205-108PB	HOSE, INSERT SWIVEL, 1-1/2", INCLUDES GASKET
	888-4205-10899PB	HOSE, SWIVEL GASKET, 1-1/2"
35	888-4235-008PB	HOSE, CLAMP, DOUBLE BOLT, 1-1/2"
36	112-0112	HOSE, AIR, RED, NOMINAL 1-1/2" ID x 2-3/32" OD, WP 250 PSI, PER FOOT
37*	888-2148-008PB	APV II, 1-1/2" W/SOLID TUNGSTEN CARBIDE SLEEVE
	888-2149-008PB	APV, 1-1/2", W/TC SLEEVE
	888-2149-108PB	APV, 1-1/2", W/URETHANE SLEEVE
38	SB-3X-AL	THD QUICK COUPLING, ALUMINUM, 1-1/2", FULL PORT, 150 PSI MAX **(BIG GUN)**
	SB-2-IR	THD QUICK COUPLING, IRON, 1-1/2"
39	888-2408-907PB	BALL VALVE, UNION END, 1-1/4"
40	888-2011-006PB	MUFFLER, BLOWDOWN, 1" MNPT
41	VB100	BALL VALVE, FULL PORT, 1" NPT
42	888-3029-10699PB	NIPPLE, TBE, GALV, 1" x CLOSED
43	888-3010-10706PB	ELBOW, REDUCING, GALV, 1-1/4" x 1"
44	888-3014-109PB	PIPE PLUG, GALV, 2"

* See "***Valve Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

Single Outlet - Pneumatic Controls



Pipe String Parts Lists

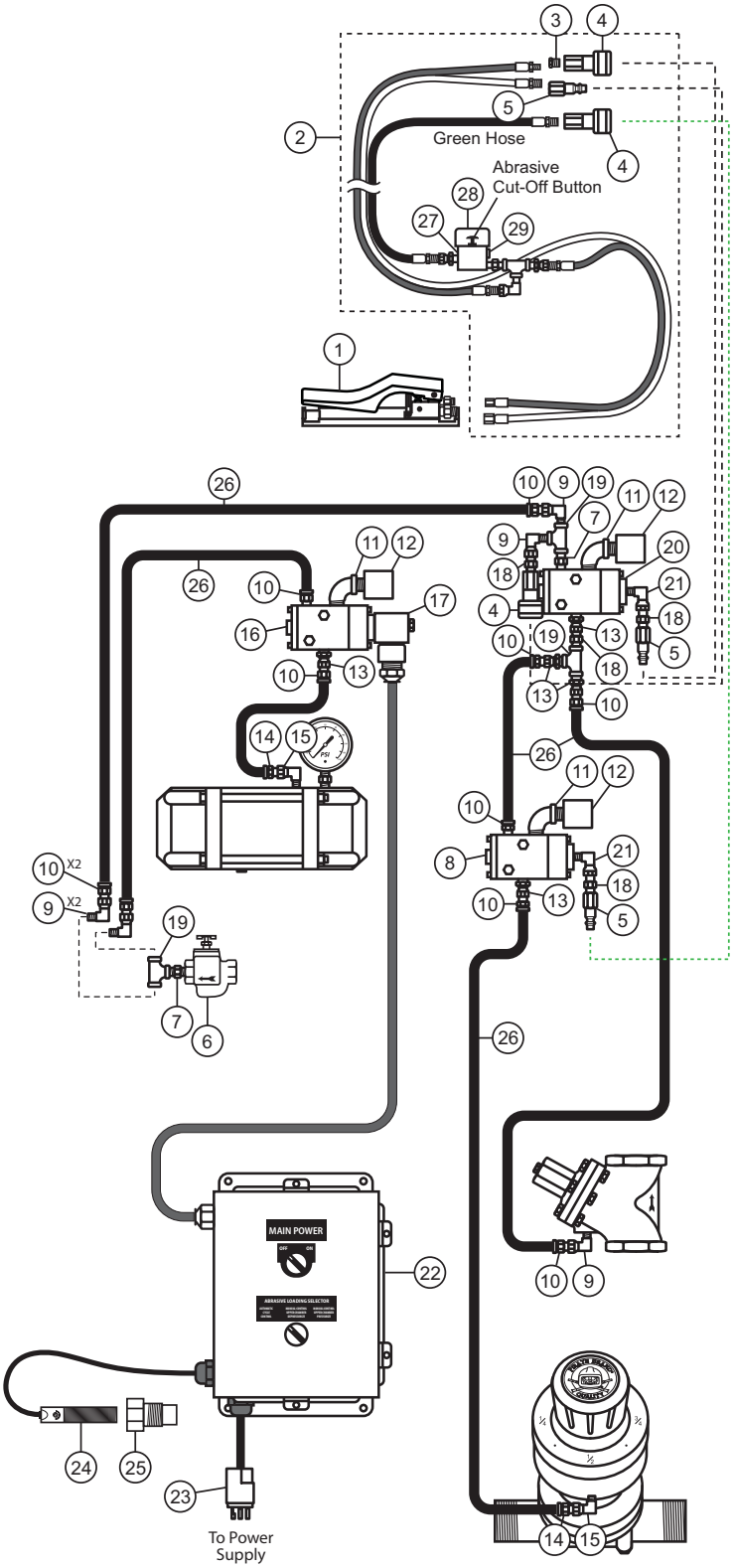
Single Outlet - Pneumatic Controls

1**	888-2263-002PB	HANDLE, CONTROL, PNEUMATIC #3 (DEADMAN CONTROL HANDLE)
	888-2263-001PB	HANDLE, CONTROL, PNEUMATIC #2 (DEADMAN CONTROL HANDLE)
	888-2263-000PB	HANDLE, CONTROL, PNEUMATIC (DEADMAN CONTROL HANDLE)
2	200-055	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIPE, NOMINAL 3/16" ID x 55'
	200-110	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIPE, NOMINAL 3/16" ID x 110'
3	888-3026-50200PB	BUSHING, PLATED 1/4" x 1/8"NPT
4	888-4224-30102PB	BRASS SOCKET, 1/4"
5	888-4224-30002PB	PLUG, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-4101-002PB	HOSE, PUSH-ON, 1/4"
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
19	888-3011-102PB	TEE, GALV, 1/4"
20	888-2229-000PB	VALVE, CONTROL, PNEUMATIC (NORMALLY CLOSED)
	888-2229-00099PB	VALVE, CONTROL, PNEUMATIC, REPAIR KIT, HEAVY DUTY
21	888-4203-50002PB	SWIVEL 90°, 1/8" MNPT x 1/4" F
22	888-7066-001PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, PNEUMATIC BLAST CONTROLS
23	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
24	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
25	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT

** See "***Control Handle Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

Single Outlet - Pneumatic Abrasive Cut-Off Controls - ON HOSE



Pipe String Parts Lists

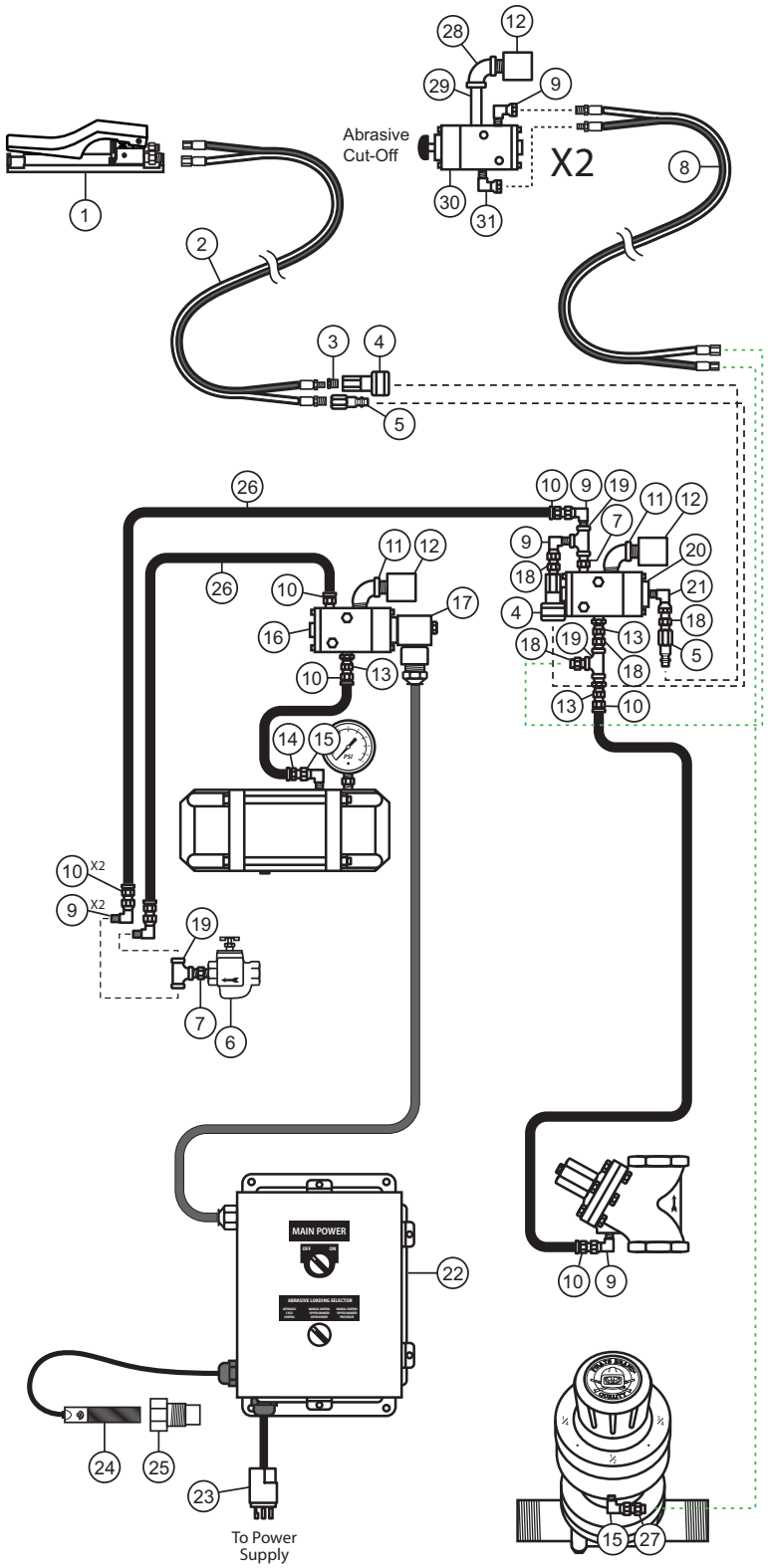
Single Outlet - Pneumatic Abrasive Cut-Off Controls - ON HOSE

1**	888-2263-002PB	HANDLE, CONTROL, PNEUMATIC #3 (DEADMAN CONTROL HANDLE)
	888-2263-001PB	HANDLE, CONTROL, PNEUMATIC #2 (DEADMAN CONTROL HANDLE)
	888-2263-000PB	HANDLE, CONTROL, PNEUMATIC (DEADMAN CONTROL HANDLE)
2	888-4100-50102PB	HOSE, TWINLINE ASSY 55' ACO W/ABRASIVE CUTOFF SWITCH
	888-4100-70102PB	HOSE, TWINLINE ASSY 110' ACO W/ABRASIVE CUTOFF SWITCH
3	888-3026-50200PB	BUSHING, PLATED 1/4" x 1/8"NPT
4	888-4224-30102PB	BRASS SOCKET, 1/4"
5	888-4224-30002PB	PLUG, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-2229-010PB	VALVE, CONTROL, PNEUMATIC (NORMALLY OPEN)
	888-2229-00099PB	VALVE, CONTROL, PNEUMATIC, REPAIR KIT, HEAVY DUTY
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
19	888-3011-102PB	TEE, GALV, 1/4"
20	888-2229-000PB	VALVE, CONTROL, PNEUMATIC (NORMALLY CLOSED)
	888-2229-00099PB	VALVE, CONTROL, PNEUMATIC, REPAIR KIT, HEAVY DUTY
21	888-4203-50002PB	SWIVEL 90°, 1/8" MNPT x 1/4" F
22	888-7066-001PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, PNEUMATIC BLAST CONTROLS
23	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
24	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
25	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT
26	888-4101-002PB	HOSE, PUSH-ON, 1/4"
27	888-2025-010PB	VALVE, ABRASIVE CUTOFF (PNEU)
28	888-2025-10001PB	TOGGLE SWITCH GUARD
29	888-2014-300PB	VENT, 1/8"

** See "***Control Handle Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

Single Outlet - Pneumatic Abrasive Cut-Off Controls - REMOTE MOUNTED



Pipe String Parts Lists

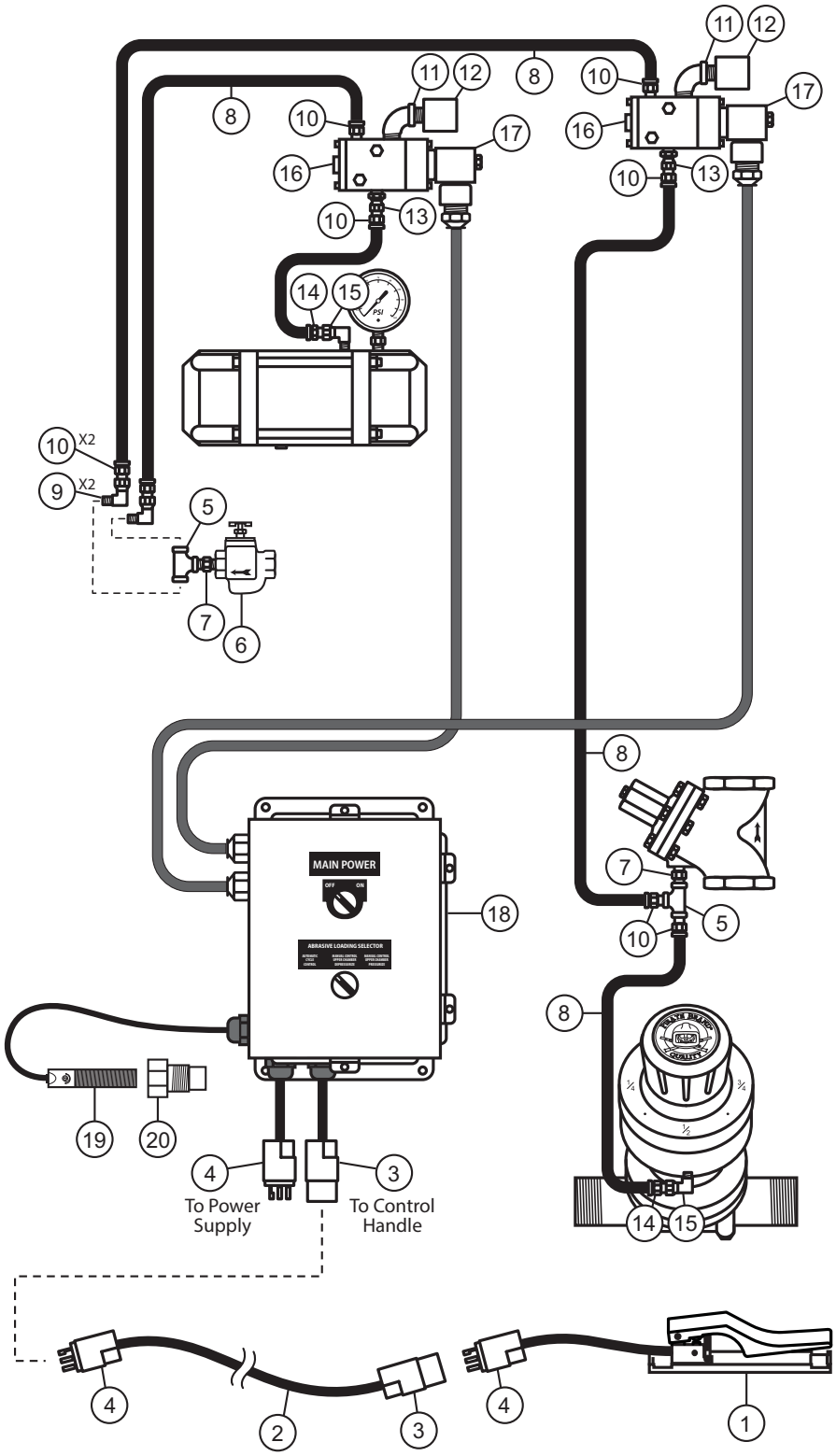
Single Outlet - Pneumatic Abrasive Cut-Off Controls - REMOTE MOUNTED

1**	888-2263-002PB	HANDLE, CONTROL, PNEUMATIC #3 (DEADMAN CONTROL HANDLE)
	888-2263-001PB	HANDLE, CONTROL, PNEUMATIC #2 (DEADMAN CONTROL HANDLE)
	888-2263-000PB	HANDLE, CONTROL, PNEUMATIC (DEADMAN CONTROL HANDLE)
2	200-055	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIPE, NOMINAL 3/16" ID x 55'
	200-110	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIPE, NOMINAL 3/16" ID x 110'
3	888-3026-50200PB	BUSHING, PLATED 1/4" x 1/8"NPT
4	888-4224-30102PB	BRASS SOCKET, 1/4"
5	888-4224-30002PB	PLUG, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-4100-301PB	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIPE, NOMINAL 3/16" ID x 25'
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
19	888-3011-102PB	TEE, GALV, 1/4"
20	888-2229-000PB	VALVE, CONTROL, PNEUMATIC (NORMALLY CLOSED)
	888-2229-00099PB	VALVE, CONTROL, PNEUMATIC, REPAIR KIT, HEAVY DUTY
21	888-4203-50002PB	SWIVEL 90°, 1/8" MNPT x 1/4" F
22	888-7066-001PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, PNEUMATIC BLAST CONTROLS
23	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
24	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
25	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT
26	888-4101-002PB	HOSE, PUSH-ON, 1/4"
27	WH42-2	1/8" HOSE UNION
28	888-3000-102PB	ELBOW, GALV, 90°, 1/4"
29	888-3029-10209PB	NIPPLE, TBE, GALV, 1/4" x 2"
30	888-2229-301PB	VALVE, CONTROL, KNOB OPERATED 3W2P
	888-2229-30199PB	VALVE, CONTROL, KNOB OPERATED 3W2P, REPAIR KIT, HEAVY DUTY
31	888-4203-50200PB	SWIVEL 90°, 1/4" MNPT x 1/8" F

** See "***Control Handle Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

Single Outlet - Electric Controls



Pipe String Parts Lists

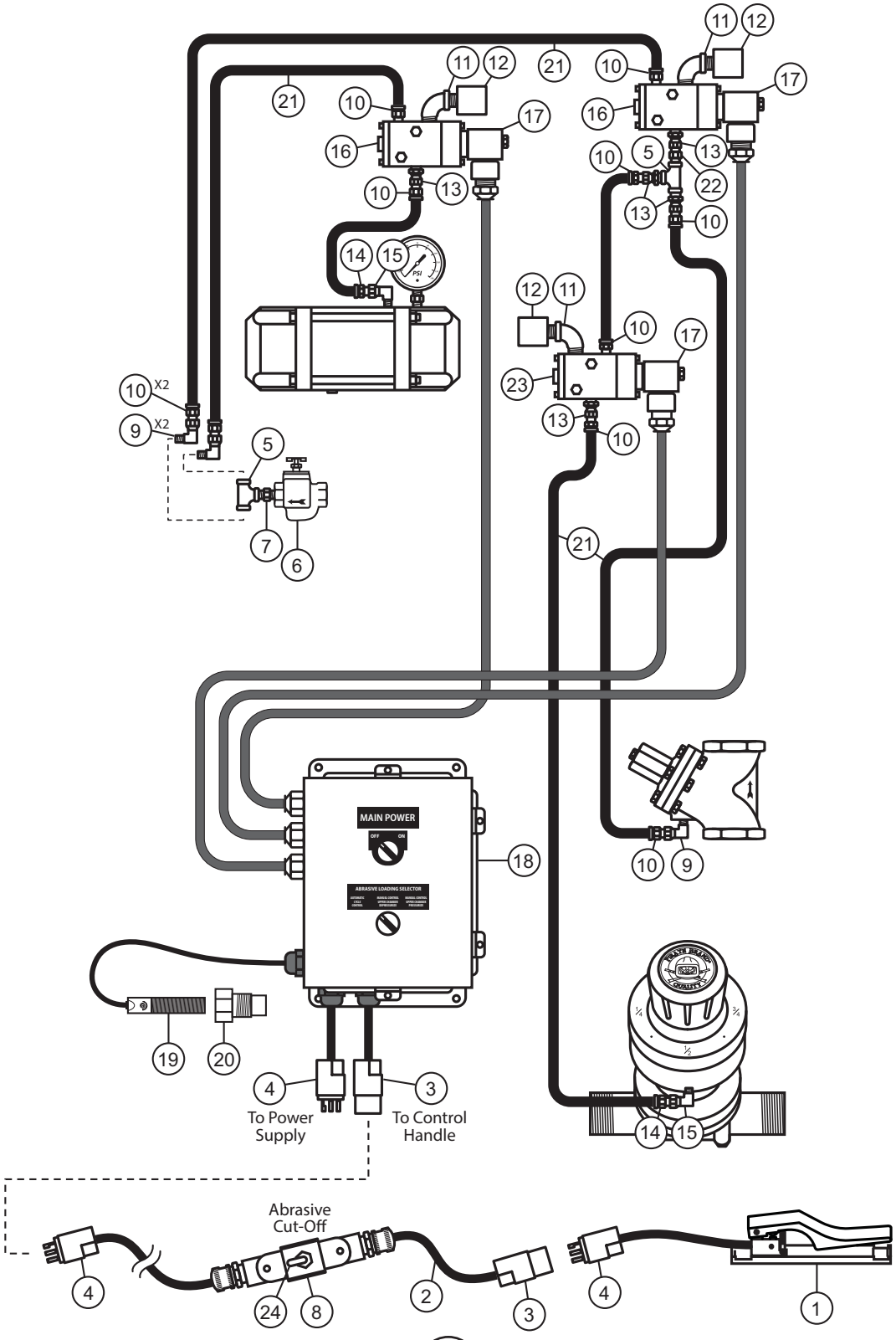
Single Outlet - Electric Controls

1**	888-2263-40101PB	HANDLE, CONTROL, ELECTRIC #2 w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40001PB	HANDLE, CONTROL, ELECTRIC w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40102PB	HANDLE, CONTROL, ELECTRIC #2 w/SEALED CONNECTOR (DEADMAN CONTROL HANDLE) (REQUIRED WHEN USING STEEL ABRASIVES
2	888-7073-055PB	EXTN CORD W/CONNECTOR, 55', 3 PRONG, 2 WIRE
	888-7073-110PB	EXTN CORD W/CONNECTOR, 110', 3 PRONG, 2 WIRE
3	888-7109-300PB	ELECTRIC CONNECTOR, FEMALE, TWIST-LOCK, 3 PRONG
4	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
5	888-3011-102PB	TEE, GALV, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-4101-002PB	HOSE, PUSH-ON, 1/4"
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-7066-002PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, ELECTRIC BLAST CONTROLS, (1) OUTLET W/O ABRASIVE CUTOFF
19	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
20	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT

** See "***Control Handle Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

Single Outlet - Electric Abrasive Cut-Off Controls - ON CORD



Pipe String Parts Lists

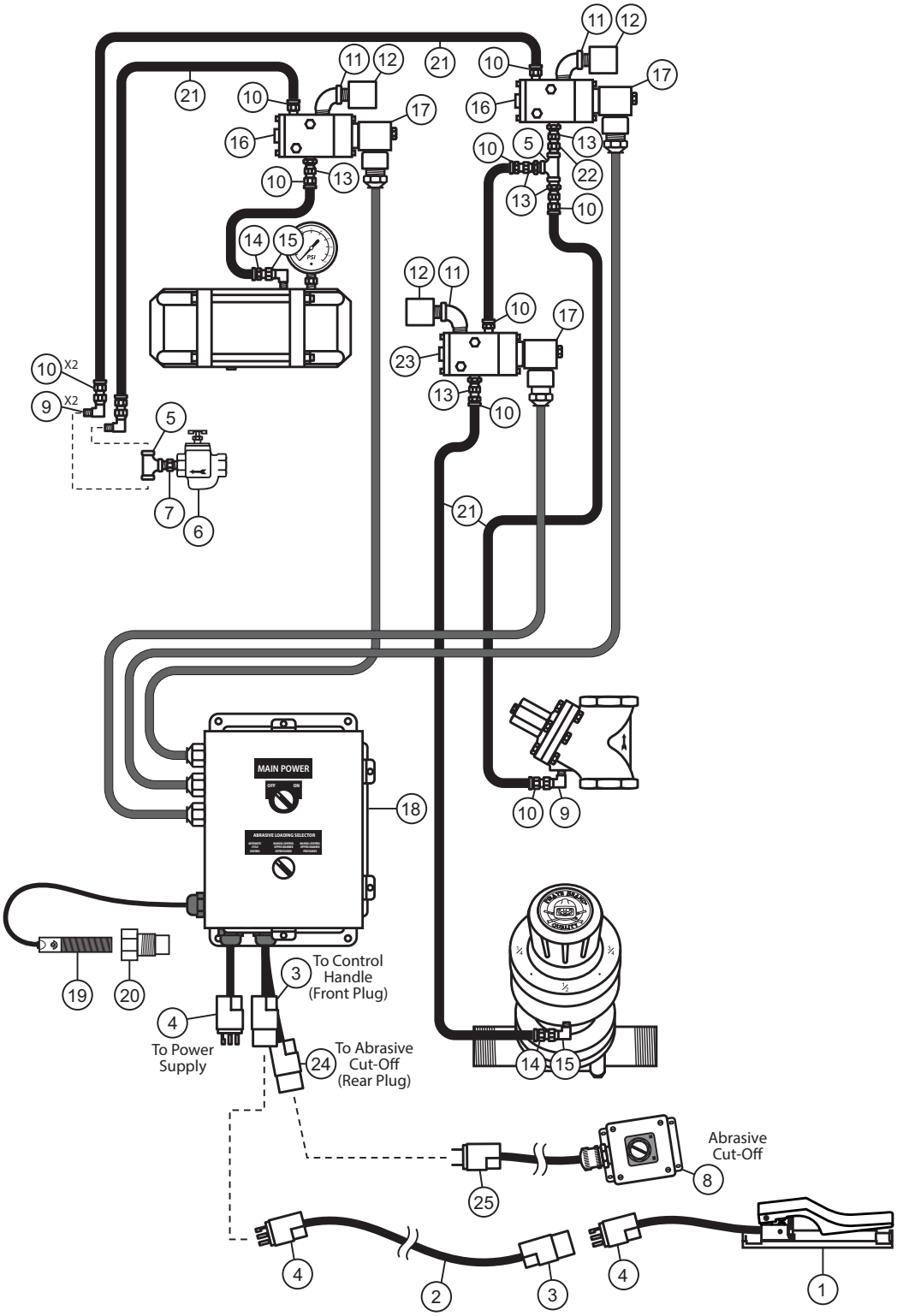
Single Outlet - Electric Abrasive Cut-Off Controls - ON CORD

1**	888-2263-40101PB	HANDLE, CONTROL, ELECTRIC #2 w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40001PB	HANDLE, CONTROL, ELECTRIC w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40102PB	HANDLE, CONTROL, ELECTRIC #2 w/SEALED CONNECTOR (DEADMAN CONTROL HANDLE) (REQUIRED WHEN USING STEEL ABRASIVES
2	888-7075-055PB	CORD W/CONNECTORS & ABRASIVE CUTOFF SWITCH ASSEMBLY, 55', 3-PRONG, 3-WIRE
	888-7075-110PB	CORD W/CONNECTORS & ABRASIVE CUTOFF SWITCH ASSEMBLY, 110', 3-PRONG, 3-WIRE
3	888-7109-300PB	ELECTRIC CONNECTOR, FEMALE, TWIST-LOCK, 3 PRONG
4	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
5	888-3011-102PB	TEE, GALV, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-2025-10001PB	TOGGLE SWITCH GUARD
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-7066-003PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, ELECTRIC BLAST CONTROLS, (1) OUTLET W/ ABRASIVE CUTOFF ON CORD
19	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
20	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT
21	888-4101-002PB	HOSE, PUSH-ON, 1/4"
22	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
23	888-2229-600PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY OPEN)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
24	888-2025-10002PB	ABRA CUTOFF SWITCH (ELEC)

** See "***Control Handle Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

Single Outlet - Pneumatic Abrasive Cut-Off Controls - REMOTE MOUNTED



Pipe String Parts Lists

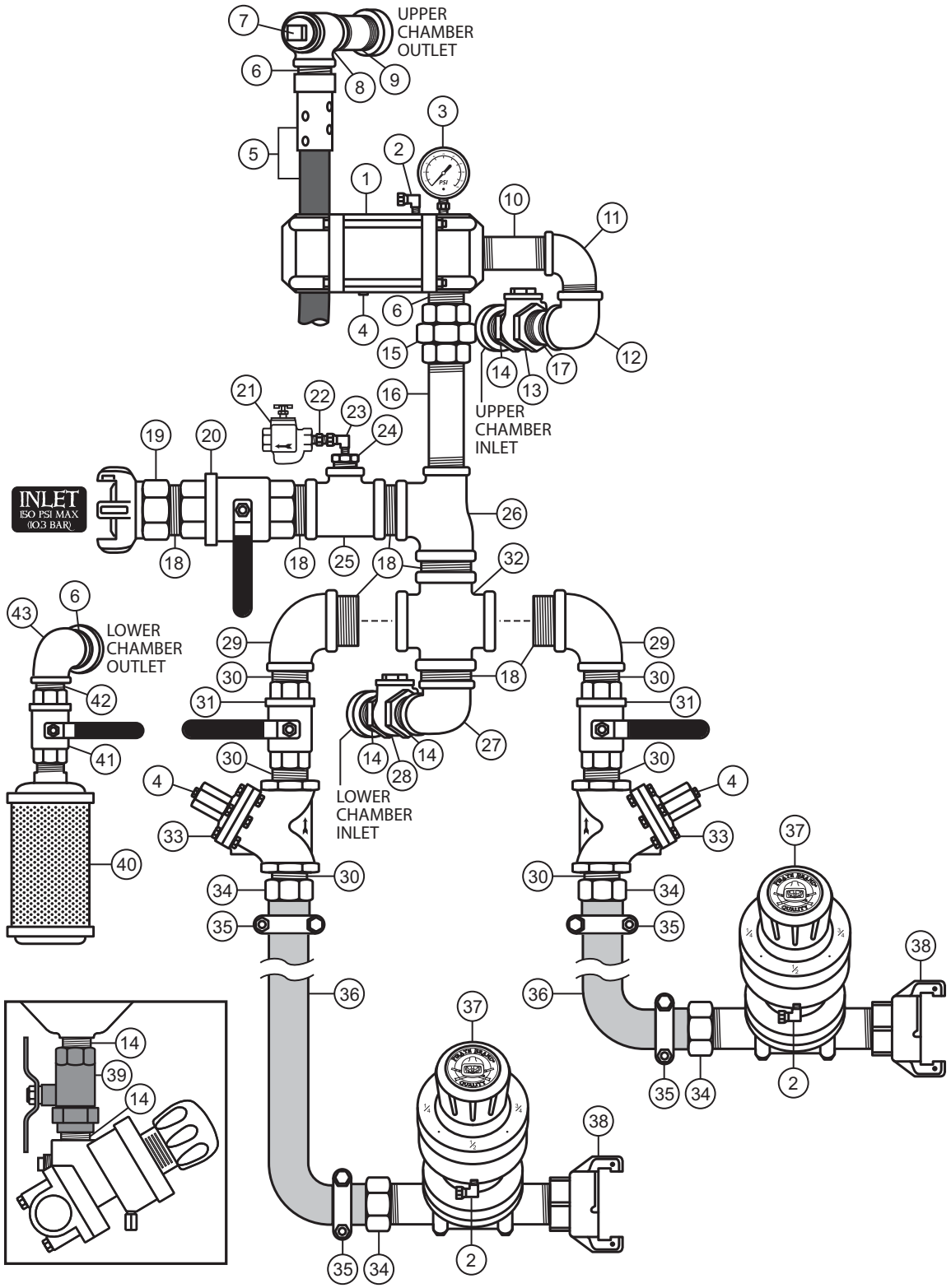
Single Outlet - Pneumatic Abrasive Cut-Off Controls - REMOTE MOUNTED

1**	888-2263-40101PB	HANDLE, CONTROL, ELECTRIC #2 w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40001PB	HANDLE, CONTROL, ELECTRIC w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40102PB	HANDLE, CONTROL, ELECTRIC #2 w/SEALED CONNECTOR (DEADMAN CONTROL HANDLE) (REQUIRED WHEN USING STEEL ABRASIVES
2	888-7073-055PB	EXTN CORD W/CONNECTOR, 55', 3 PRONG, 2 WIRE
	888-7073-110PB	EXTN CORD W/CONNECTOR, 110', 3 PRONG, 2 WIRE
3	888-7109-300PB	ELECTRIC CONNECTOR, FEMALE, TWIST-LOCK, 3 PRONG
4	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
5	888-3011-102PB	TEE, GALV, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	999-8400-35104PB-02	SELECTOR SWITCH OPERATOR, 25' CORD, 2 PRONG
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-7066-004PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, ELECTRIC BLAST CONTROLS, (1) OUTLET W/ ABRASIVE CUTOFF WALL MOUNT
19	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
20	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT
21	888-4101-002PB	HOSE, PUSH-ON, 1/4"
22	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
23	888-2229-600PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY OPEN)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
24	10-352	FEMALE TWIST-LOCK CONNECTOR, 2 PRONG
25	10-354	MALE TWIST-LOCK CONNECTOR, 2 PRONG

** See "***Control Handle Parts Lists***" Section for detailed parts list.

PIPE STRING PARTS LISTS

2 Outlet - Pipe String



Pipe String Parts Lists

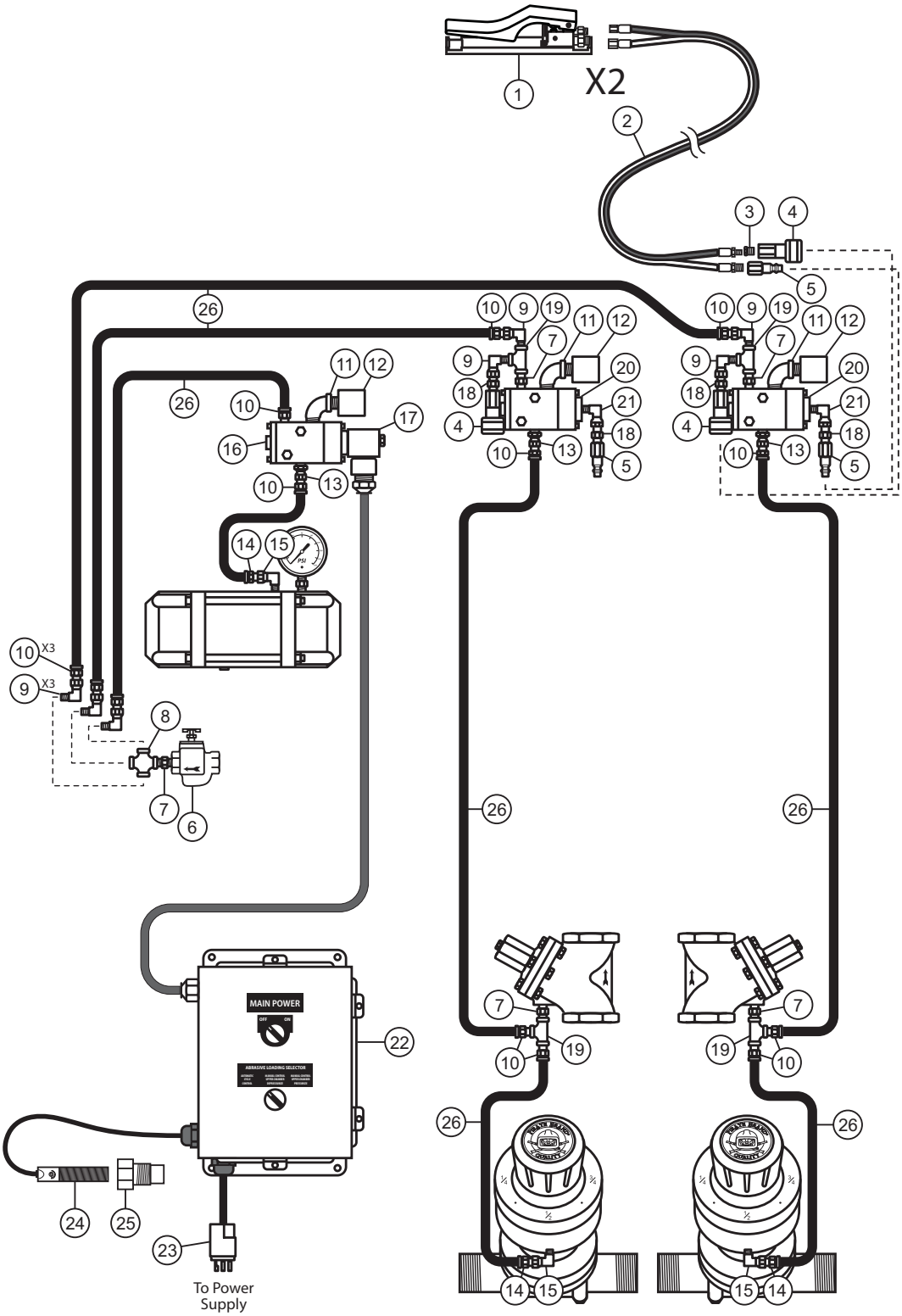
2 Outlet - Pipe String

1*	888-2223-000PB	VALVE, COMBINATION, COMPLETE
2	888-4203-50000PB	SWIVEL 90°, 1/8" MNPT X 1/8"F
3	888-2010-00901PB	GAUGE, PRESSURE, 0 - 160 PSI
4	888-2014-300PB	VENT, 1/8"
5	888-4115-005PB	BLOWDOWN HOSE ASSY, 18"
	888-4115-00503PB	BLOWDOWN HOSE ASSY, 3/4" x 3'
	888-4115-00510PB	BLOWDOWN HOSE ASSY, 3/4" x 10'
	888-4115-00515PB	BLOWDOWN HOSE ASSY, 3/4" x 15'
6	888-3029-10799PB	NIPPLE, TBE, GALV, 1-1/4" x CLOSED
7	888-3014-107PB	PIPE PLUG, GALV, 1-1/4"
8	888-3011-107PB	TEE, GALV, 1-1/4"
9	888-3029-10717PB	NIPPLE, TBE, GALV, 1-1/4" x 7"
10	888-3029-10711PB	NIPPLE, TBE, GALV, 1-1/4" x 3"
11	888-3006-107PB	ELBOW, STREET, 90°, GALV, 1-1/4"
12	888-3000-107PB	ELBOW, GALV, 90°, 1-1/4"
13	VC-125	CHECK VALVE, SWING 1-1/4"
14	888-3028-10799PB	NIPPLE, TBE, SCHEDULE 80, GALV, 1-1/4" x CLOSE
15	888-3024-107PB	UNION, GALV, 1-1/4"
	888-3024-00701PB	ORIFICE DISC, DUAL CHAMBER, STAINLESS STEEL (FOR 1-1/4" UNION)
16	888-3029-10718PB	NIPPLE, TBE, GALV, 1-1/4" x 8"
17	888-3028-10711PB	NIPPLE, TBE, SCHEDULE 80, GALV, 1-1/4" x 3"
18	888-3029-10999PB	NIPPLE, TBE, GALV, 2" x CLOSED
19	UF-200	AIR HOSE COUPLINGS, 4 LUG, 2" FEMALE NPT
20	VB200	BALL VALVE, FULL PORT, 2" NPT
21	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
22	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
23	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
24	888-3026-10602PB	BUSHING, GALV, 1" x 1/4"
25	888-3011-10906PB	TEE, GALV, 2" x 2" x 1"
26	888-3013-10907PB	TEE, GALV, 2" x 1-1/4" x 2"
27	888-3010-10907PB	ELBOW, REDUCING, GALV, 90°, 2" x 1-1/4"
28	888-2490-90701PB	CHECK VALVE, SWING 1-1/4", W/ 5/32" DIFFERENTIAL EQUALIZER HOLE
29	888-3010-10908PB	ELBOW, REDUCING, GALV, 2" x 1-1/2"
30	888-3029-10899PB	NIPPLE, TBE, GALV, 1-1/2" x CLOSED
31	VB150	BALL VALVE, FULL PORT, 1-1/2" NPT
32	888-3016-109PB	CROSS TEE, GALV, 2"
33*	888-2123-108PB-L	VALVE, AUTO AIR, 1-1/2" FULL FLOW, (NORMALLY CLOSED) **(BIG GUN)**
	888-2123-108PB	VALVE, AUTO AIR, 1-1/2" (NORMALLY CLOSED)
34	888-4205-108PB	HOSE, INSERT SWIVEL, 1-1/2", INCLUDES GASKET
	888-4205-10899PB	HOSE, SWIVEL GASKET, 1-1/2"
35	888-4235-008PB	HOSE, CLAMP, DOUBLE BOLT, 1-1/2"
36	112-0112	HOSE, AIR, RED, NOMINAL 1-1/2" ID x 2-3/32" OD, WP 250 PSI, PER FOOT
37*	888-2148-008PB	APV II, 1-1/2" W/SOLID TUNGSTEN CARBIDE SLEEVE
	888-2149-008PB	APV, 1-1/2", W/TC SLEEVE
	888-2149-108PB	APV, 1-1/2", W/URETHANE SLEEVE
38	SB-3X-AL	THD QUICK COUPLING, ALUMINUM, 1-1/2", FULL PORT, 150 PSI MAX **(BIG GUN)**
	SB-2-IR	THD QUICK COUPLING, IRON, 1-1/2"
39	888-2408-907PB	BALL VALVE, UNION END, 1-1/4"
40	888-2011-006PB	MUFFLER, BLOWDOWN, 1" MNPT
41	VB100	BALL VALVE, FULL PORT, 1" NPT
42	888-3029-10699PB	NIPPLE, TBE, GALV, 1" x CLOSED
43	888-3010-10706PB	ELBOW, REDUCING, GALV, 1-1/4" x 1"

* See "***Valve Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

2 Outlet - Pneumatic Controls



Pipe String Parts Lists

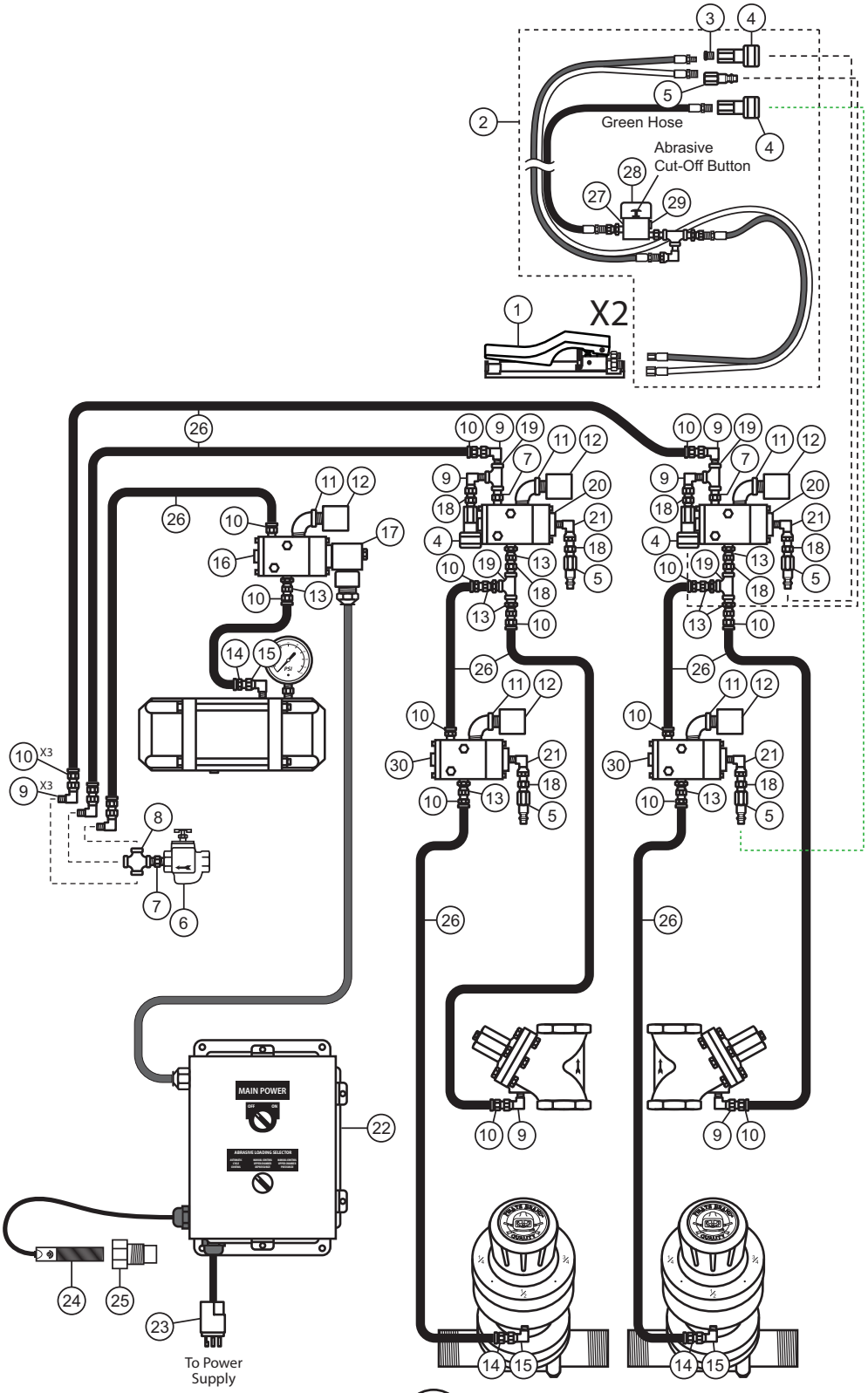
2 Outlet - Pneumatic Controls

1**	888-2263-002PB	HANDLE, CONTROL, PNEUMATIC #3 (DEADMAN CONTROL HANDLE)
	888-2263-001PB	HANDLE, CONTROL, PNEUMATIC #2 (DEADMAN CONTROL HANDLE)
	888-2263-000PB	HANDLE, CONTROL, PNEUMATIC (DEADMAN CONTROL HANDLE)
2	200-055	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIPE, NOMINAL 3/16" ID x 55'
	200-110	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIPE, NOMINAL 3/16" ID x 110'
3	888-3026-50200PB	BUSHING, PLATED 1/4" x 1/8"NPT
4	888-4224-30102PB	BRASS SOCKET, 1/4"
5	888-4224-30002PB	PLUG, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-3016-102PB	CROSS TEE, GALV, 1/4"
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
19	888-3011-102PB	TEE, GALV, 1/4"
20	888-2229-000PB	VALVE, CONTROL, PNEUMATIC (NORMALLY CLOSED)
	888-2229-00099PB	VALVE, CONTROL, PNEUMATIC, REPAIR KIT, HEAVY DUTY
21	888-4203-50002PB	SWIVEL 90°, 1/8" MNPT x 1/4" F
22	888-7066-001PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, PNEUMATIC BLAST CONTROLS
23	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
24	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
25	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT
26	888-4101-002PB	HOSE, PUSH-ON, 1/4"

** See "***Control Handle Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

2 Outlet - Pneumatic Abrasive Cut-Off Controls - ON HOSE



Pipe String Parts Lists

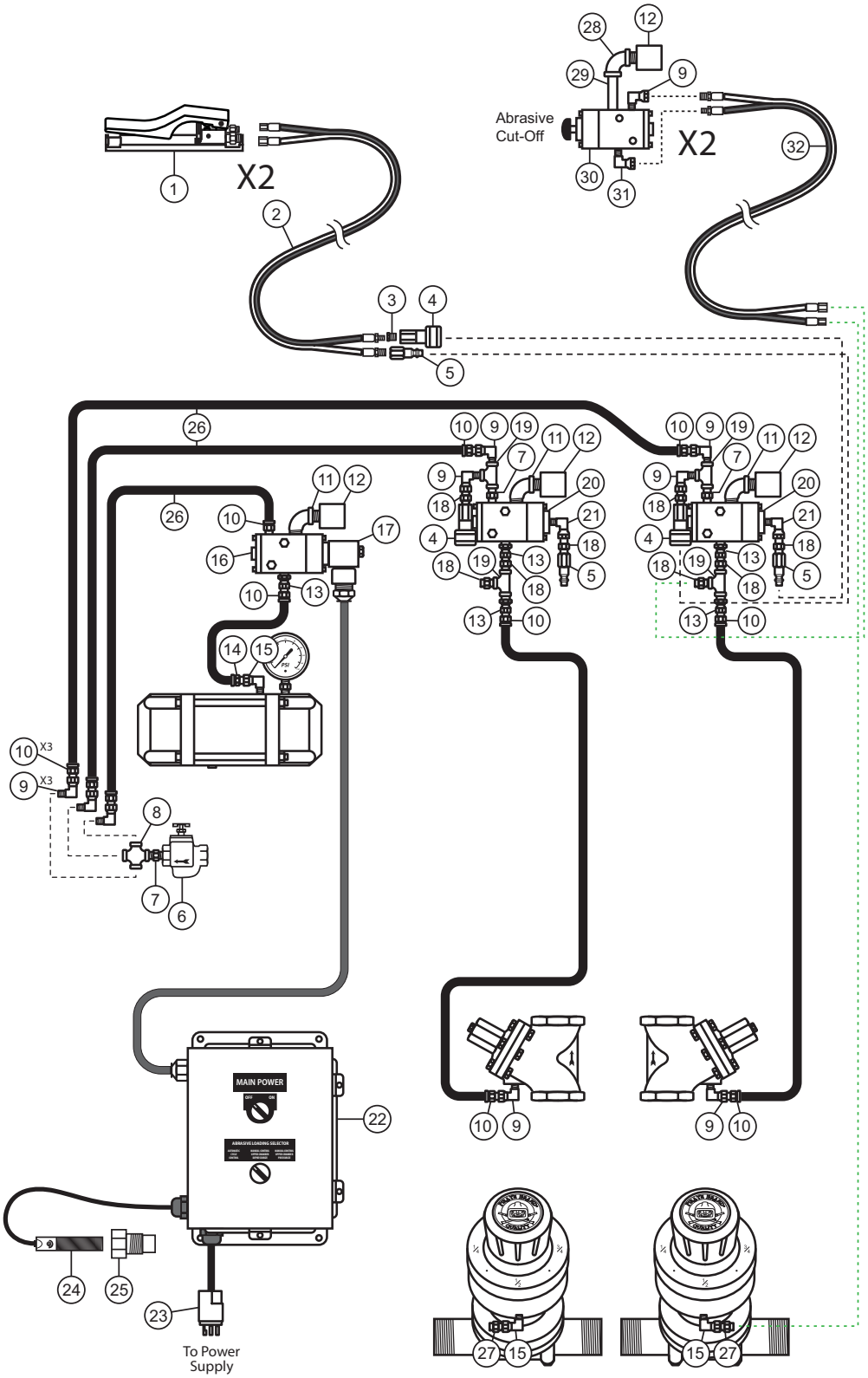
2 Outlet - Pneumatic Abrasive Cut-Off Controls - ON HOSE

1**	888-2263-002PB	HANDLE, CONTROL, PNEUMATIC #3 (DEADMAN CONTROL HANDLE)
	888-2263-001PB	HANDLE, CONTROL, PNEUMATIC #2 (DEADMAN CONTROL HANDLE)
	888-2263-000PB	HANDLE, CONTROL, PNEUMATIC (DEADMAN CONTROL HANDLE)
2	888-4100-50102PB	HOSE, TWINLINE ASSY 55' ACO W/ABRASIVE CUTOFF SWITCH
	888-4100-70102PB	HOSE, TWINLINE ASSY 110' ACO W/ABRASIVE CUTOFF SWITCH
3	888-3026-50200PB	BUSHING, PLATED 1/4" x 1/8"NPT
4	888-4224-30102PB	BRASS SOCKET, 1/4"
5	888-4224-30002PB	PLUG, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-3016-102PB	CROSS TEE, GALV, 1/4"
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
19	888-3011-102PB	TEE, GALV, 1/4"
20	888-2229-000PB	VALVE, CONTROL, PNEUMATIC (NORMALLY CLOSED)
	888-2229-00099PB	VALVE, CONTROL, PNEUMATIC, REPAIR KIT, HEAVY DUTY
21	888-4203-50002PB	SWIVEL 90°, 1/8" MNPT x 1/4" F
22	888-7066-001PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, PNEUMATIC BLAST CONTROLS
23	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
24	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
25	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT
26	888-4101-002PB	HOSE, PUSH-ON, 1/4"
27	888-2025-010PB	VALVE, ABRASIVE CUTOFF (PNEU)
28	888-2025-10001PB	TOGGLE SWITCH GUARD
29	888-2014-300PB	VENT, 1/8"
30	888-2229-010PB	VALVE, CONTROL, PNEUMATIC (NORMALLY OPEN)
	888-2229-00099PB	VALVE, CONTROL, PNEUMATIC, REPAIR KIT, HEAVY DUTY

** See "***Control Handle Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

2 Outlet - Pneumatic Abrasive Cut-Off Controls - REMOTE MOUNTED



Pipe String Parts Lists

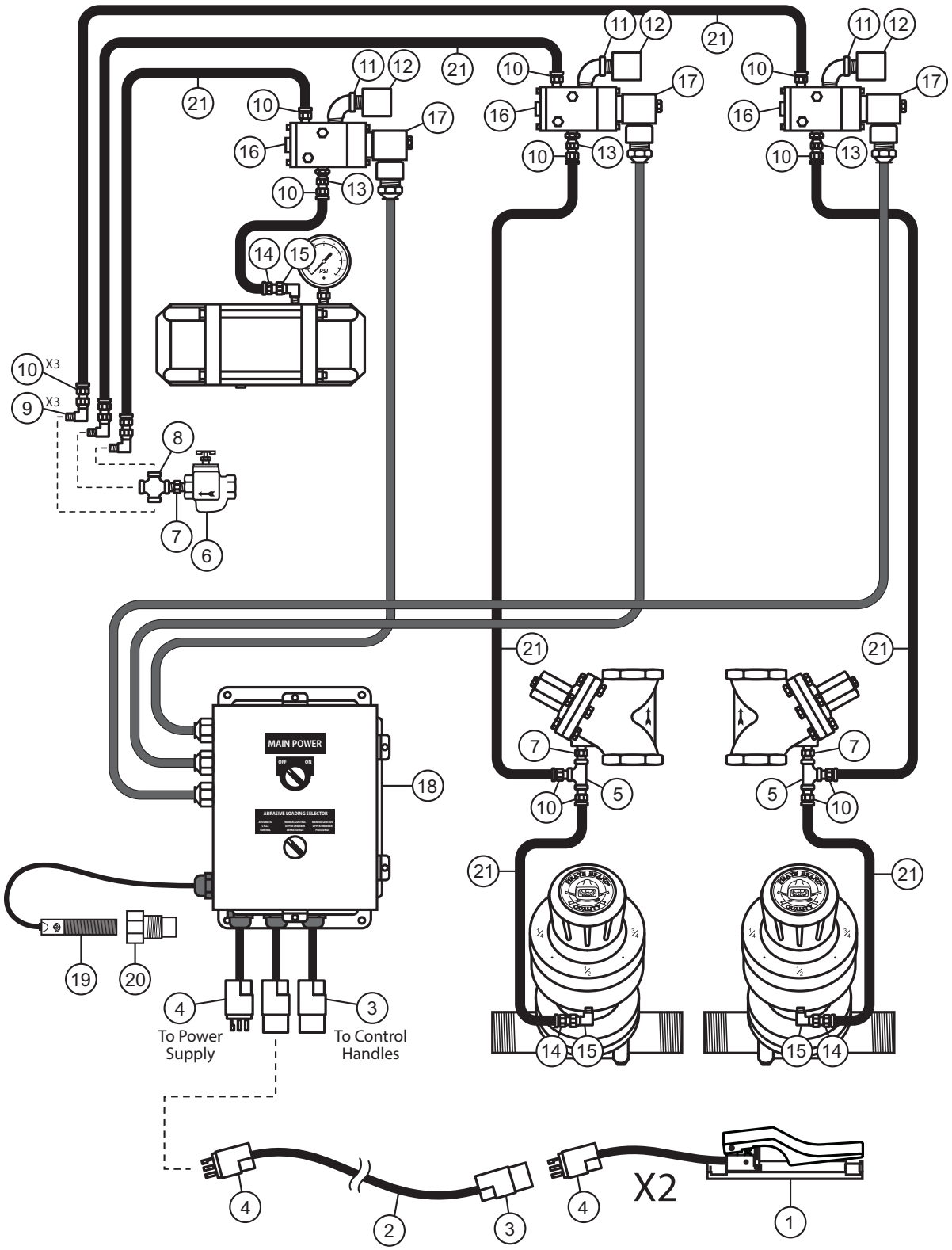
2 Outlet - Pneumatic Abrasive Cut-Off Controls - REMOTE MOUNTED

1**	888-2263-002PB	HANDLE, CONTROL, PNEUMATIC #3 (DEADMAN CONTROL HANDLE)
	888-2263-001PB	HANDLE, CONTROL, PNEUMATIC #2 (DEADMAN CONTROL HANDLE)
	888-2263-000PB	HANDLE, CONTROL, PNEUMATIC (DEADMAN CONTROL HANDLE)
2	200-055	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIPE, NOMINAL 3/16" ID x 55'
	200-110	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIPE, NOMINAL 3/16" ID x 110'
3	888-3026-50200PB	BUSHING, PLATED 1/4" x 1/8"NPT
4	888-4224-30102PB	BRASS SOCKET, 1/4"
5	888-4224-30002PB	PLUG, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-3016-102PB	CROSS TEE, GALV, 1/4"
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
19	888-3011-102PB	TEE, GALV, 1/4"
20	888-2229-000PB	VALVE, CONTROL, PNEUMATIC (NORMALLY CLOSED)
	888-2229-00099PB	VALVE, CONTROL, PNEUMATIC, REPAIR KIT, HEAVY DUTY
21	888-4203-50002PB	SWIVEL 90°, 1/8" MNPT x 1/4" F
22	888-7066-001PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, PNEUMATIC BLAST CONTROLS
23	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
24	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
25	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT
26	888-4101-002PB	HOSE, PUSH-ON, 1/4"
27	WH42-2	1/8" HOSE UNION
28	888-3000-102PB	ELBOW, GALV, 90°, 1/4"
29	888-3029-10209PB	NIPPLE, TBE, GALV, 1/4" x 2"
30	888-2229-301PB	VALVE, CONTROL, KNOB OPERATED 3W2P
	888-2229-30199PB	VALVE, CONTROL, KNOB OPERATED 3W2P, REPAIR KIT, HEAVY DUTY
31	888-4203-50200PB	SWIVEL 90°, 1/4" MNPT x 1/8" F
32	888-4100-301PB	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIPE, NOMINAL 3/16" ID x 25'

** See "***Control Handle Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

2 Outlet - Electric Controls



Pipe String Parts Lists

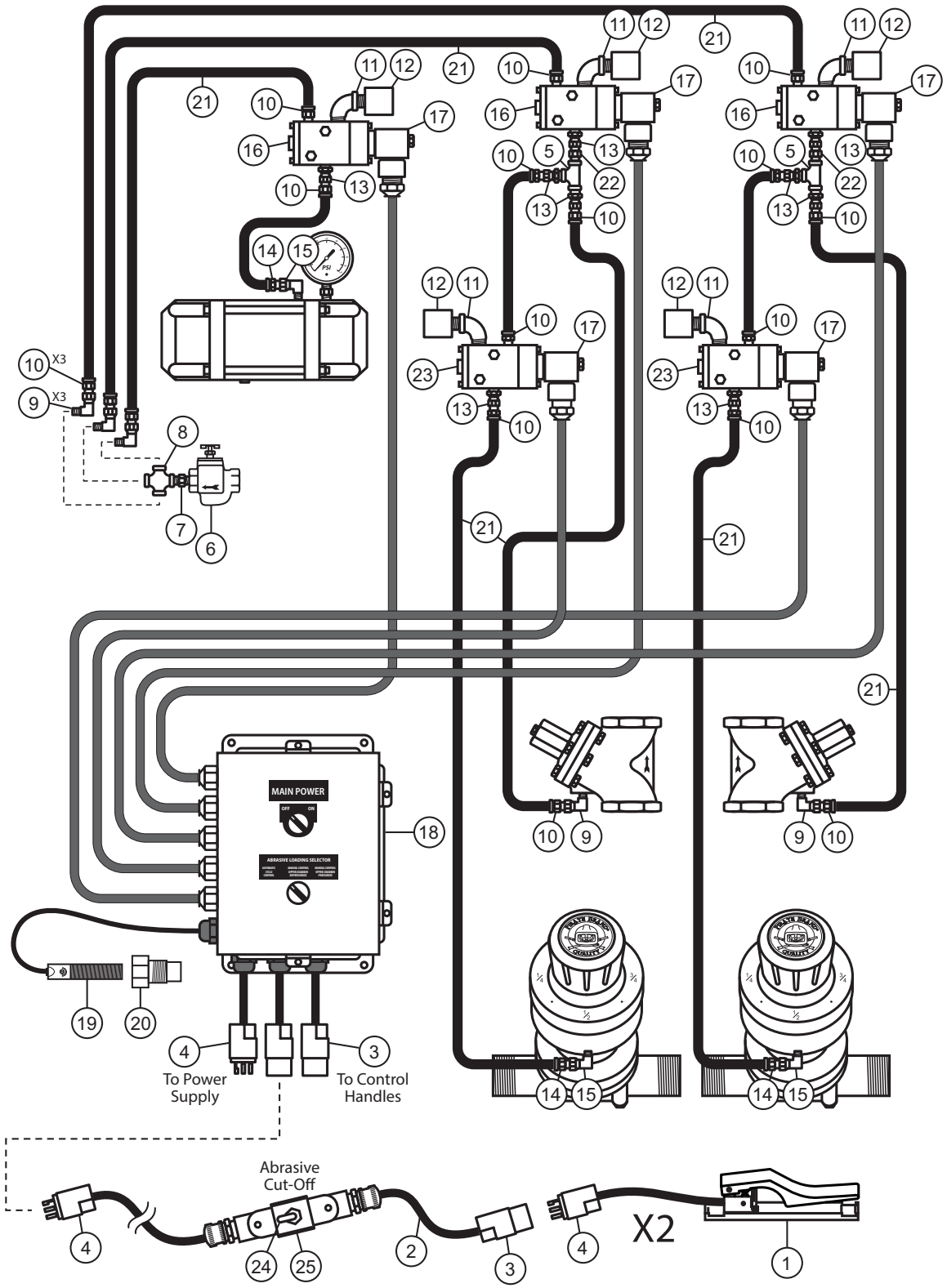
2 Outlet - Electric Controls

1**	888-2263-40101PB	HANDLE, CONTROL, ELECTRIC #2 w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40001PB	HANDLE, CONTROL, ELECTRIC w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40102PB	HANDLE, CONTROL, ELECTRIC #2 w/SEALED CONNECTOR (DEADMAN CONTROL HANDLE) (REQUIRED WHEN USING STEEL ABRASIVES
2	888-7073-055PB	EXTN CORD W/CONNECTOR, 55', 3 PRONG, 2 WIRE
	888-7073-110PB	EXTN CORD W/CONNECTOR, 110', 3 PRONG, 2 WIRE
3	888-7109-300PB	ELECTRIC CONNECTOR, FEMALE, TWIST-LOCK, 3 PRONG
4	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
5	888-3011-102PB	TEE, GALV, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-3016-102PB	CROSS TEE, GALV, 1/4"
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-7066-005PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, ELECTRIC BLAST CONTROLS, (2) OUTLET W/O ABRASIVE CUTOFF
19	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
20	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT
21	888-4101-002PB	HOSE, PUSH-ON, 1/4"

** See "***Control Handle Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

2 Outlet - Electric Abrasive Cut-Off Controls - ON CORD



Pipe String Parts Lists

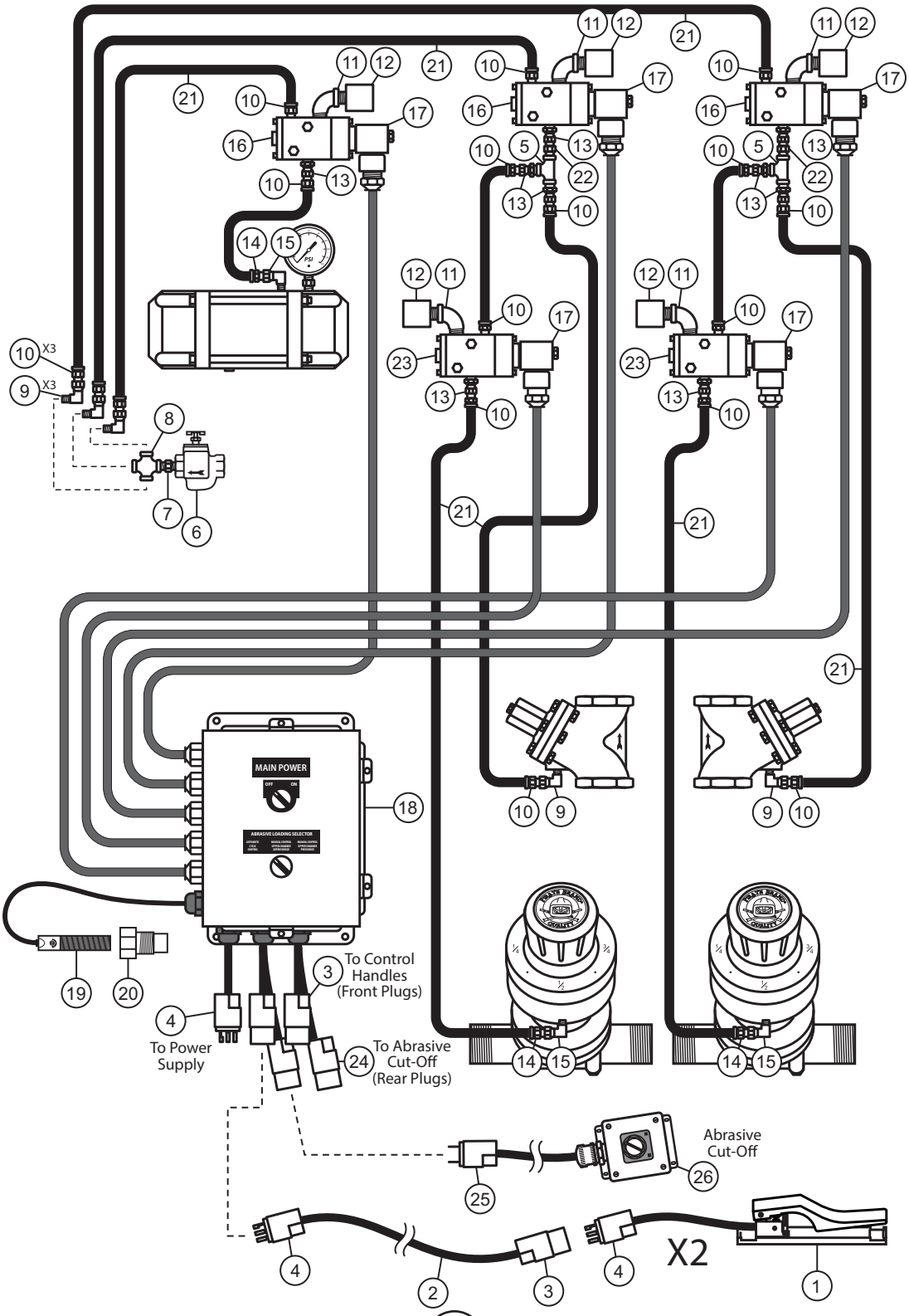
2 Outlet - Electric Abrasive Cut-Off Controls - ON CORD

1**	888-2263-40101PB	HANDLE, CONTROL, ELECTRIC #2 w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40001PB	HANDLE, CONTROL, ELECTRIC w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40102PB	HANDLE, CONTROL, ELECTRIC #2 w/SEALED CONNECTOR (DEADMAN CONTROL HANDLE) (REQUIRED WHEN USING STEEL ABRASIVES
2	888-7075-055PB	CORD W/CONNECTORS & ABRASIVE CUTOFF SWITCH ASSEMBLY, 55', 3-PRONG, 3-WIRE
	888-7075-110PB	CORD W/CONNECTORS & ABRASIVE CUTOFF SWITCH ASSEMBLY, 110', 3-PRONG, 3-WIRE
3	888-7109-300PB	ELECTRIC CONNECTOR, FEMALE, TWIST-LOCK, 3 PRONG
4	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
5	888-3011-102PB	TEE, GALV, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-3016-102PB	CROSS TEE, GALV, 1/4"
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-7066-006PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, ELECTRIC BLAST CONTROLS, (2) OUTLET W/ ABRASIVE CUTOFF ON CORD
19	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
20	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT
21	888-4101-002PB	HOSE, PUSH-ON, 1/4"
22	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
23	888-2229-600PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY OPEN)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
24	888-2025-10002PB	ABRA CUTOFF SWITCH (ELEC)
25	888-2025-10001PB	TOGGLE SWITCH GUARD

** See "***Control Handle Parts Lists***" Section for detailed parts list.

Pipe String Parts Lists

2 Outlet - Pneumatic Abrasive Cut-Off Controls - REMOTE MOUNTED



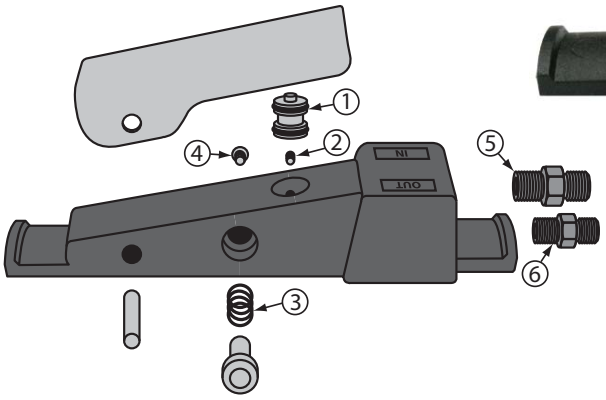
Pipe String Parts Lists

2 Outlet - Pneumatic Abrasive Cut-Off Controls - REMOTE MOUNTED

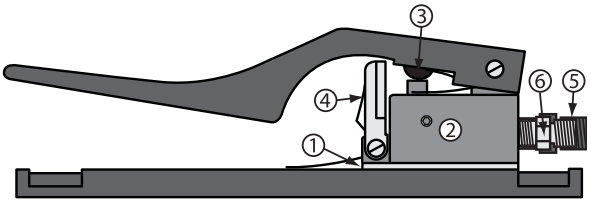
1**	888-2263-40101PB	HANDLE, CONTROL, ELECTRIC #2 w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40001PB	HANDLE, CONTROL, ELECTRIC w/PLUG (DEADMAN CONTROL HANDLE)
	888-2263-40102PB	HANDLE, CONTROL, ELECTRIC #2 w/SEALED CONNECTOR (DEADMAN CONTROL HANDLE) (REQUIRED WHEN USING STEEL ABRASIVES
2	888-7073-055PB	EXTN CORD W/CONNECTOR, 55', 3 PRONG, 2 WIRE
	888-7073-110PB	EXTN CORD W/CONNECTOR, 110', 3 PRONG, 2 WIRE
3	888-7109-300PB	ELECTRIC CONNECTOR, FEMALE, TWIST-LOCK, 3 PRONG
4	888-7109-301PB	ELECTRIC CONNECTOR, MALE, TWIST-LOCK, 3 PRONG
5	888-3011-102PB	TEE, GALV, 1/4"
6	888-2301-90290PB	STRAINER, BRZ 1/4" 90 MICRON
7	888-3031-31202PB	NIPPLE, HEX 1/4"MNPT x 1/4" MNPT
8	888-3016-102PB	CROSS TEE, GALV, 1/4"
9	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F
10	888-4200-30202PB	HOSE, PUSH-ON INSERT 1/4" x 1/4" NPT
11	888-3006-102PB	ELBOW, STREET, 90°, GALV, 1/4"
12	888-2013-402PB	DUST ELIMINATOR, 1/4" MNPT
13	888-4201-50202PB	STRAIGHT SWIVEL, 1/4"MNPT x 1/4"F
14	888-4200-30200PB	HOSE, PUSH-ON INSERT 1/4" x 1/8" NPT
15	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
16	888-2229-100PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY CLOSED)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
17	888-2229-10003PB	VALVE, CONTROL, COIL, 12VDC
18	888-7066-007PB	12VDC DUAL CHAMBER CONTROL BOX ASSEMBLY, ELECTRIC BLAST CONTROLS, (2) OUTLET W/ ABRASIVE CUTOFF WALL MOUNT
19	888-5013-80101PB	LEVEL SENSOR, CAPACITIVE, 10-55 VDC, NORMALLY OPEN OR NORMALLY CLOSED
20	888-5013-30012PB	MOUNTING ADAPTOR, LEVEL SENSOR, 3/4" NPT
21	888-4101-002PB	HOSE, PUSH-ON, 1/4"
22	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
23	888-2229-600PB	VALVE, CONTROL, ELECTRIC, 12VDC (NORMALLY OPEN)
	888-2229-10099PB	VALVE, CONTROL, REPAIR KIT, ELECTRIC, HEAVY DUTY
24	10-352	FEMALE TWIST-LOCK CONNECTOR, 2 PRONG
25	10-354	MALE TWIST-LOCK CONNECTOR, 2 PRONG
26	999-8400-35104PB-02	SELECTOR SWITCH OPERATOR, 25' CORD, 2 PRONG

** See "***Control Handle Parts Lists***" Section for detailed parts list.

PNEUMATIC CONTROL HANDLE PARTS LISTS



PNEUMATIC REMOTE CONTROL HANDLE (NOT FOR USE WITH STEEL ABRASIVES)		
	888-2263-000PB	HANDLE, CONTROL, PNEUMATIC
	888-2263-00099PB	HANDLE, CONTROL, PNEUMATIC, REPAIR KIT, INCLUDES # 1, 2, 3 & 4
5	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
6	888-3031-30000PB	HEX NIPPLE 1/8" NPT x 1/8" W/BALL ST

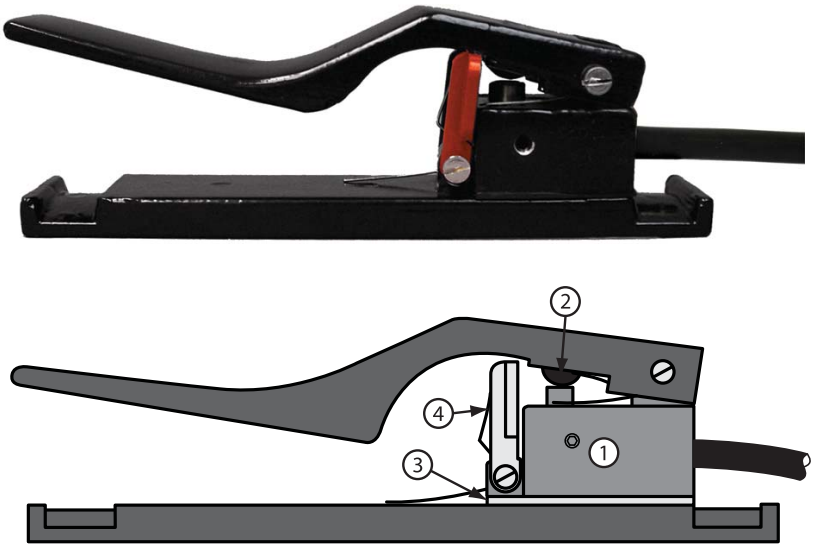


PNEUMATIC REMOTE CONTROL HANDLE #2		
	888-2263-001PB	HANDLE, CONTROL, PNEUMATIC #2
	888-2263-00199PB	HANDLE, CONTROL, PNEUMATIC #2, REPAIR KIT, INCLUDES #1, 2 & 3
4	888-2263-00108PB	HANDLE, CONTROL, PNEUMATIC #2, SAFETY FLAP
5	888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
6	888-3031-30000PB	HEX NIPPLE 1/8" NPT x 1/8" W/BALL ST

PNEUMATIC REMOTE CONTROL HANDLE #3 (NOT FOR USE WITH STEEL ABRASIVES)	
888-2263-002PB	HANDLE, CONTROL, PNEUMATIC #3
888-2263-00299PB	HANDLE, CONTROL, PNEUMATIC #3, REPAIR KIT
888-3031-30202PB	HEX NIPPLE 1/4" NPT x 1/4" W/BALL ST
888-3031-30000PB	HEX NIPPLE 1/8" NPT x 1/8" W/BALL ST

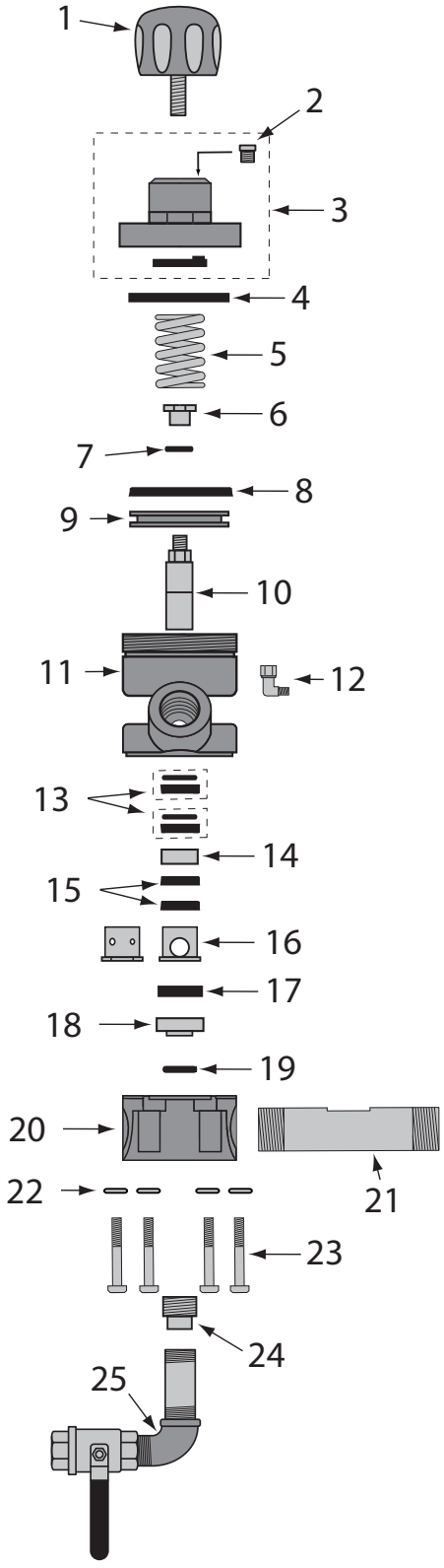
Electric Control Handle Parts Lists

ELECTRIC REMOTE CONTROL HANDLE (NOT FOR USE WITH STEEL ABRASIVES)		
	888-2263-400PB	HANDLE, CONTROL, ELECTRIC
	888-2263-40001PB	HANDLE, CONTROL, ELECTRIC W/PLUG



ELECTRIC REMOTE CONTROL HANDLE #2		
	888-2263-401PB	HANDLE, CONTROL, ELECTRIC #2
	888-2263-40101PB	HANDLE, CONTROL, ELECTRIC #2 W/PLUG
	888-2263-40102PB	HANDLE, CONTROL, ELECTRIC #2 W/SEALED CONNECTOR **(REQUIRED WHEN USING STEEL ABRASIVES)**
	PB-31131	1/2" 3 PART SEALED CONTROL CORD CONNECTOR **(REQUIRED WHEN USING STEEL ABRASIVES)**
	888-2263-40199PB	HANDLE, CONTROL, ELECTRIC #2, REPAIR KIT, INCLUDES #1, 2 & 3
4	888-2263-00108PB	HANDLE, CONTROL, #2, SAFETY FLAP

Valve Parts Lists

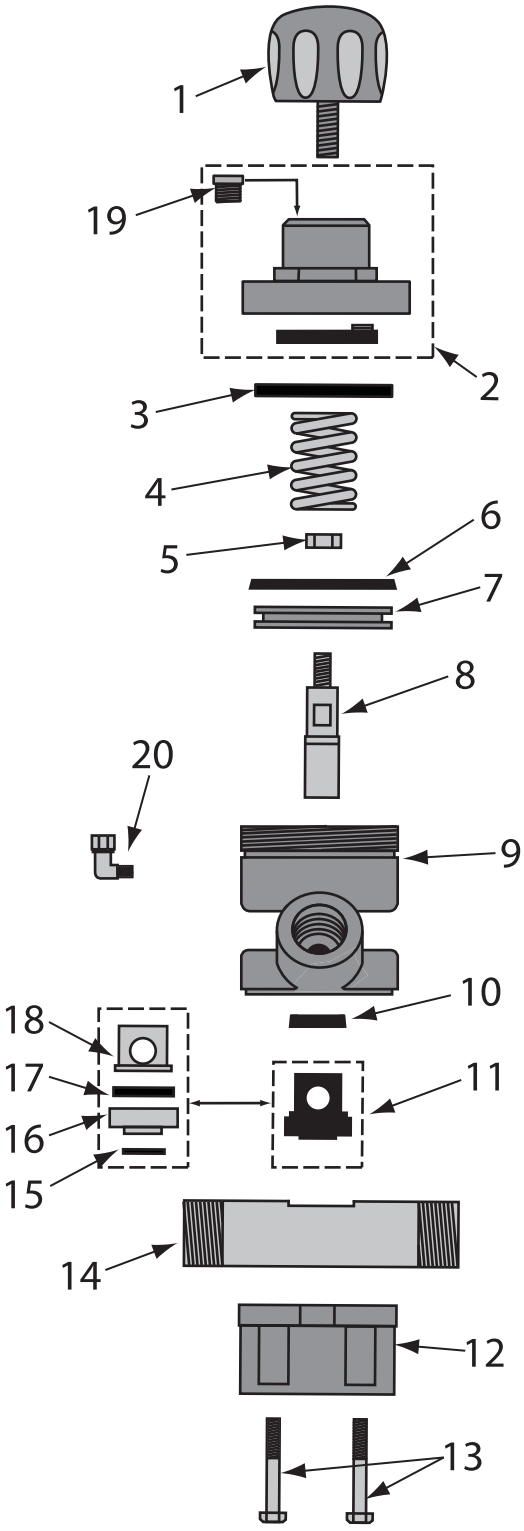


APVII™ (Automatic Plunger Valve II)

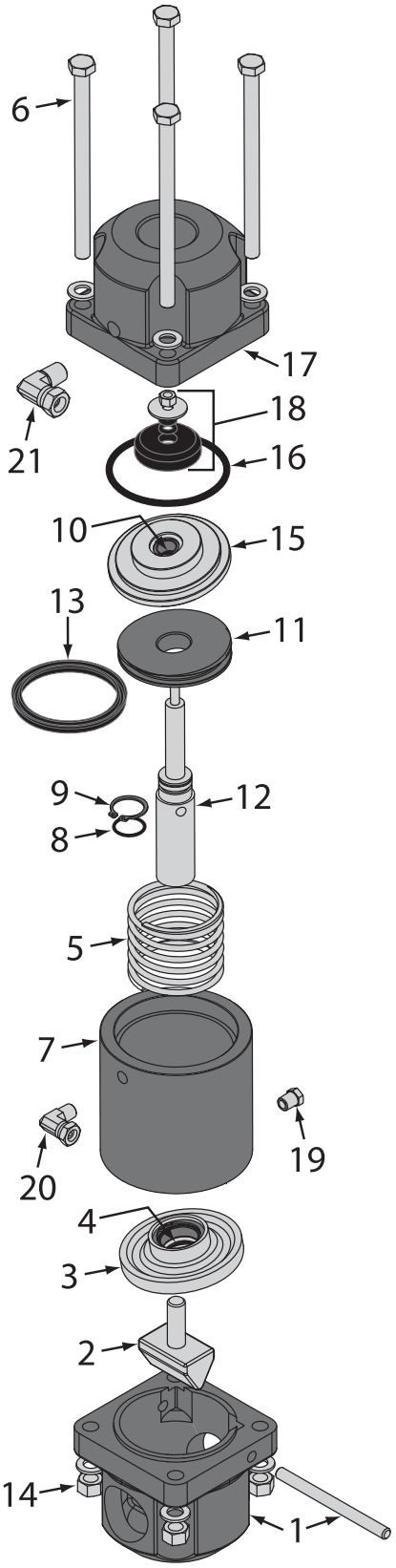
	888-2148-006PB	APV II, 1" W/SOLID TUNGSTEN CARBIDE SLEEVE
	888-2148-007PB	APV II, 1-1/4" W/SOLID TUNGSTEN CARBIDE SLEEVE
	888-2148-008PB	APV II, 1-1/2" W/SOLID TUNGSTEN CARBIDE SLEEVE (STD)
	888-2148-00099PB	APV II, REPAIR KIT W/SOLID TUNGSTEN CARBIDE SLEEVE, INCLUDES (1) # 8 & 10, (2) # 13, (2) # 15, (1) #16, 17, 18 & 19
	888-2148-00098PB	APV II, SEAL KIT, SEALS ONLY, W/URETHANE SEAT, INCLUDES (1) # 8, (2) # 13 & 15, (1) # 17 & 19
1	888-2148-00001PB	APV II, KNOB (BLACK PIRATE BRAND)
2	888-2014-300PB	VENT, 1/8"
3	888-2148-00002PB	APV & APV II, CAP ASSEMBLY
4	888-2149-00019PB	APV & APV II, BUMP RING
5	888-2149-00003PB	APV & APV II, SPRING
6	888-2148-00015PB	APV II, PLUNGER STOP (STAINLESS)
7	888-2148-00016PB	APV II, NYLON WASHER
8	888-2148-00004PB	APV & APV II, PISTON SEAL (GREEN URETHANE)
9	888-2148-00005PB	APV II, PISTON
10	888-2148-00007PB	APV II, PLUNGER (STAINLESS/SOLID TUNGSTEN CARBIDE)
11	888-2148-00009PB	APV II, CYLINDER, W/1" NPT CLEANOUT
12	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
13	888-2148-00006PB	APV & APV II, PLUNGER SEAL W/ "O"-RING (CLEAR URETHANE)
14	888-2148-00017PB	APV II, PLUNGER BUSHING (STAINLESS)
15	888-2148-30006PB	APV II, PLUNGER SEAL W/O "O"-RING (CLEAR URETHANE)
16	888-2148-00013PB	APV & APV II, SOLID TUNGSTEN CARBIDE SLEEVE
	888-2149-32020PB	APV & APV II, MULTI PORTED SLEEVE STAINLESS STEEL
17	888-2149-00010PB	APV & APV II, URETHANE SEAT
18	888-2148-00014PB	APV II, INSERT (STAINLESS)
19	888-2149-00018PB	APV & APV II, O-RING
20	888-2148-30011PB	APV II, BASE W/CLEANOUT
21	888-2149-00615PB	APV & APV II, PIPE NIPPLE 1" FEMALE x 1-1/2" MALE
	888-2149-00715PB	APV & APV II, PIPE NIPPLE 1-1/4" MALE x 1-1/4' MALE
	888-2149-00815PB	APV & APV II, PIPE NIPPLE 1-1/2" MALE x 1-1/2" MALE (STD)
22	888-7027-50302PB	APV & APV II, FLAT WASHER 3/8" SAE (10 PACK)
23	888-7010-50755PB	APV & APV II, BOLT, 4 PACK
24	888-3014-206PB	APV II, PLUG, PIPE STAINLESS 1"
25	999-8403-00054PB	APV II CLEANOUT BALL VALVE ASSY

Valve Parts Lists

APV (Automatic Plunger Valve)		
	888-2149-006PB	APV, 1", W/TC SLEEVE
	888-2149-106PB	APV, 1", W/URETHANE SLEEVE
	888-2149-007PB	APV, 1-1/4, W/TC SLEEVE
	888-2149-107PB	APV, 1-1/4", W/URETHANE SLEEVE
	888-2149-008PB	APV, 1-1/2", W/TC SLEEVE
	888-2149-108PB	APV, 1-1/2", W/URETHANE SLEEVE
	888-2149-00099PB	APV, REPAIR KIT W/TC SLEEVE, INCLUDES # 6, 8, 10, 15, 16, 17 & 18
	888-2149-00098PB	APV, SEAL KIT, SEALS ONLY W/URETHANE SEAT, INCLUDES # 6, 10, 15 & 17
	888-2149-10099PB	APV, REPAIR KIT W/URETHANE SLEEVE, INCLUDES # 6, 8, 10 & 11
	888-2149-10098PB	APV, SEAL KIT, SEALS ONLY W/URETHANE SLEEVE, INCLUDES 6, 10, & 11
1	888-2149-00001PB	APV, KNOB
2	888-2148-00002PB	APV & APV II, CAP ASSEMBLY
3	888-2149-00019PB	APV & APV II, BUMP RING
4	888-2149-00003PB	APV & APV II, SPRING
5	888-2149-00008PB	APV, NUT
6	888-2149-00004PB	APV, PISTON SEAL
7	888-2149-00005PB	APV, PISTON
8	888-2149-00007PB	APV, TUNGSTEN CARBIDE, PLUNGER
9	888-2149-00009PB	APV, CYLINDER
10	888-2148-00006PB	VALVE, PLUNGER SEAL
11	888-2149-10013PB	APV, SLEEVE, URETHANE
12	888-2149-00011PB	APV, BASE
13	888-7010-50755PB	APV & APV II, BOLT, 4 PACK
14	888-2149-00615PB	APV & APV II, PIPE NIPPLE 1" FEMALE x 1-1/2" MALE
	888-2149-00715PB	APV & APV II, PIPE NIPPLE 1-1/4" MALE x 1-1/4' MALE
	888-2149-00815PB	APV & APV II, PIPE NIPPLE 1-1/2" MALE x 1-1/2" MALE (STD)
15	888-2149-00018PB	APV & APV II, O-RING
16	888-2149-00014PB	APV, INSERT
17	888-2149-00010PB	APV & APV II, URETHANE SEAT
18	888-2148-00013PB	APV & APV II, SOLID TUNGSTEN CARBIDE SLEEVE
	888-2149-32020PB	APV & APV II, MULTI PORTED SLEEVE STAINLESS STEEL
19	888-2014-300PB	VENT, 1/8
20	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F



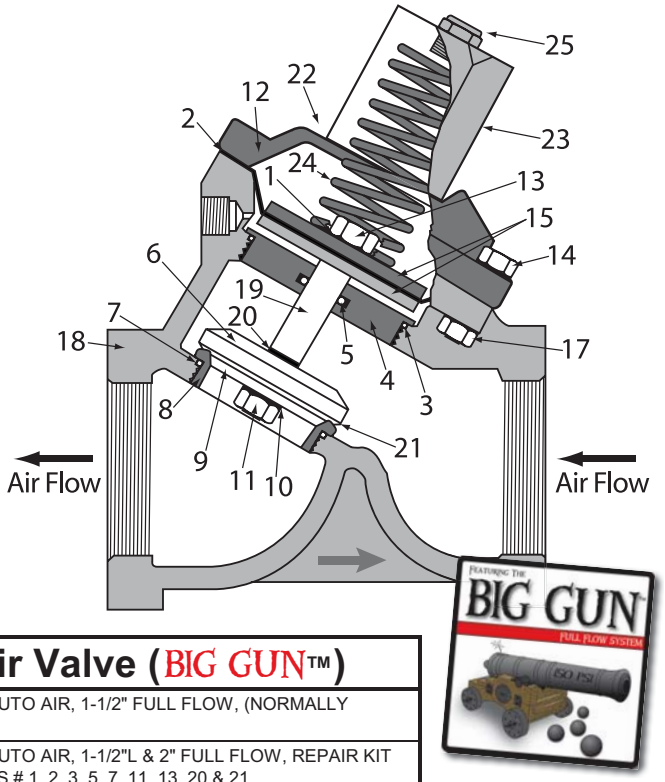
Valve Parts Lists



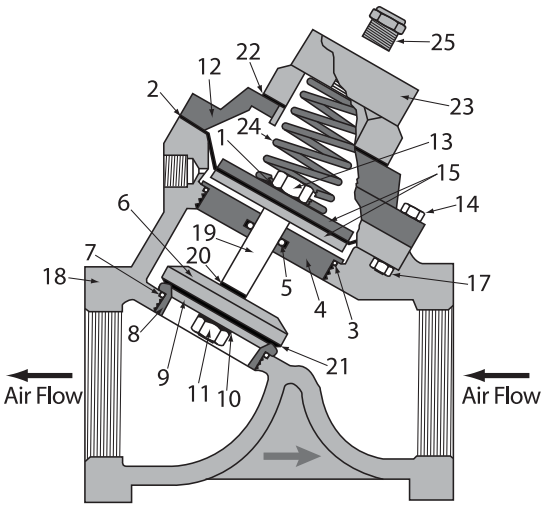
Combination Valve

	888-2223-000PB	VALVE, COMBINATION, COMPLETE
	888-2223-00099PB	VALVE, COMBINATION, REPAIR KIT, INCLUDES # 4, 8, 9, 10, 13, 16 & 18
1	888-2223-00001PB	VALVE, COMBINATION, CAP
2	888-2223-00002PB	VALVE, COMBINATION, PINCH RAM
3	888-2223-00003PB	VALVE, COMBINATION, UPPER ROD GUIDE, INCLUDES SEAL(#4) AND BUSHING
4	888-2223-00004PB	VALVE, COMBINATION, SEAL, UPPER ROD
5	888-2223-00005PB	VALVE, COMBINATION, SPRING
6	888-7010-50715PB	VALVE, COMBINATION, BOLT 3/8" x 6" W/WASHER
7	888-2223-00007PB	VALVE, COMBINATION, CYLINDER
8	888-2223-00008PB	VALVE, COMBINATION, O-RING, SHAFT
9	888-2223-00009PB	VALVE, COMBINATION, SNAP RING
10	888-2223-00010PB	VALVE, COMBINATION, SEAL, LOWER ROD
11	888-2223-00011PB	VALVE, COMBINATION, PISTON
12	888-2223-00012PB	VALVE, COMBINATION, SHAFT
13	888-2223-00013PB	VALVE, COMBINATION, SEAL, PISTON
14	888-7017-50701PB	VALVE, COMBINATION, NUT, 3/8"
15	888-2223-00015PB	VALVE, COMBINATION, LOWER ROD GUIDE, INCLUDES SEAL(#10) AND BUSHING
16	888-2223-00016PB	VALVE, COMBINATION, O-RING, LOWER ROD GUIDE
17	888-2223-00017PB	VALVE, COMBINATION, BASE
18	888-2223-00018PB	VALVE, COMBINATION, PLUG ASSEMBLY
19	888-2014-300PB	VENT, 1/8"
20	888-4203-50000PB	SWIVEL 90°, 1/8"MNPT X 1/8"F
21	888-4203-50202PB	SWIVEL 90°, 1/4"MNPT x 1/4"F

Valve Parts Lists



1-1/2" Auto Air Valve (BIG GUN™)		
	888-2123-108PB-L	VALVE, AUTO AIR, 1-1/2" FULL FLOW, (NORMALLY CLOSED)
	888-2123-00999PB	VALVE, AUTO AIR, 1-1/2"L & 2" FULL FLOW, REPAIR KIT INCLUDES # 1, 2, 3, 5, 7, 11, 13, 20 & 21
24	888-2123-10924PB	VALVE, AUTO AIR, 1-1/2"L & 2" FULL FLOW, SPRING
25	888-2014-300PB	VENT, 1/8"



1-1/2" Auto Air Valve		
	888-2123-108PB	VALVE, AUTO AIR, 1-1/2", (NORMALLY CLOSED)
	888-2123-00799PB	VALVE, AUTO AIR, 1-1/4 & 1-1/2, REPAIR KIT INCLUDES # 1, 2, 3, 5, 7, 11, 13, 20 & 21
24	888-2123-10724PB	VALVE, AUTO AIR, 1-1/4 & 1-1/2, SPRING
25	888-2014-300PB	VENT, 1/8"

Blasting Set-Up

6.5 Cu. Ft
Portable Blaster Shown

Blast Hose, Twinline & Control Cord

Nozzles Not Included

10-114BLK-050-3XAL	1-1/4" **BIG GUN** BLAST HOSE ASSEMBLY, 50', INCLUDES NOZZLE HOLDER
10-114BLK-050-4XAL	1-1/4" **BIG GUN** EXTENSION HOSE ASSEMBLY, 50'
200-055	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIP, NOMINAL 3/16" ID x 55'
200-110	HOSE, TWINLINE CONTROL, ASSEMBLY, YEL/YEL W/BLACK STRIP, NOMINAL 3/16" ID x 110'
888-7073-055PB	ELECTRICAL EXTENSION CORD W/CONNECTORS, 55', 3 PRONG, 2 WIRE
888-7073-110PB	ELECTRICAL EXTENSION CORD W/CONNECTORS, 110', 3 PRONG, 2 WIRE
27WC-15	SAFETY CABLE, 1-1/4" **HOSE TO HOSE.**
27WT-2	SAFETY CABLE, 1-1/4" - 3" **HOSE TO EQUIP.**

Air Hose

10-034RED-050-1	3/4" AIR HOSE ASSEMBLY, 50'
10-112RED-025-1	1-1/2" AIR HOSE ASSEMBLY, 25'
10-112RED-050-1	1-1/2" AIR HOSE ASSEMBLY, 50'
10-200YEL-050-1	2" AIR HOSE ASSEMBLY, 50'
27WT-1	SAFETY CABLE, 1/2" - 1" **HOSE TO EQUIP.**
27WC-1	SAFETY CABLE, 1/2" - 1" **HOSE TO HOSE.**
27WT-2	SAFETY CABLE, 1-1/2" - 3" **HOSE TO EQUIP.**
27WC-2	SAFETY CABLE, 1-1/2" - 3" **HOSE TO HOSE.**

Blasting Set-Up

Nozzles

1-1/4" ENTRY NOZZLES	
1348-555	#5 TUNGSTEN CARBIDE NOZZLE
1348-556	#6 TUNGSTEN CARBIDE NOZZLE
1348-557	#7 TUNGSTEN CARBIDE NOZZLE
1348-558	#8 TUNGSTEN CARBIDE NOZZLE
1-1/4" BIG GUN NOZZLES - HIGH PRODUCTION	
888-5001-305PB	#5 BIG GUN TUNGSTEN CARBIDE NOZZLE
888-5001-306PB	#6 BIG GUN TUNGSTEN CARBIDE NOZZLE
888-5001-307PB	#7 BIG GUN TUNGSTEN CARBIDE NOZZLE
888-5001-308PB	#8 BIG GUN TUNGSTEN CARBIDE NOZZLE
888-5001-310PB	#10 BIG GUN TUNGSTEN CARBIDE NOZZLE

Air Dryers

888-1310-021PB	AIR DRYER ADPB-250 CFM @ 100 PSIG OR 359 CFM @ 150 PSIG
888-1310-041PB	AIR DRYER ADPB-400 CFM @ 100 PSIG OR 574 CFM @ 150 PSIG
888-1310-071PB	AIR DRYER ADBP-750/950, 800 CFM @ 100 PSIG OR 1149 CFM @ 150 PSIG
888-1310-121PB	AIR DRYER ADPB-1200 CFM @ 100 PSIG OR 1723 CFM @ 150 PSIG
888-1310-161PB	AIR DRYER ADPB-1600 CFM @ 100 PSIG OR 2297 CFM @ 150 PSIG

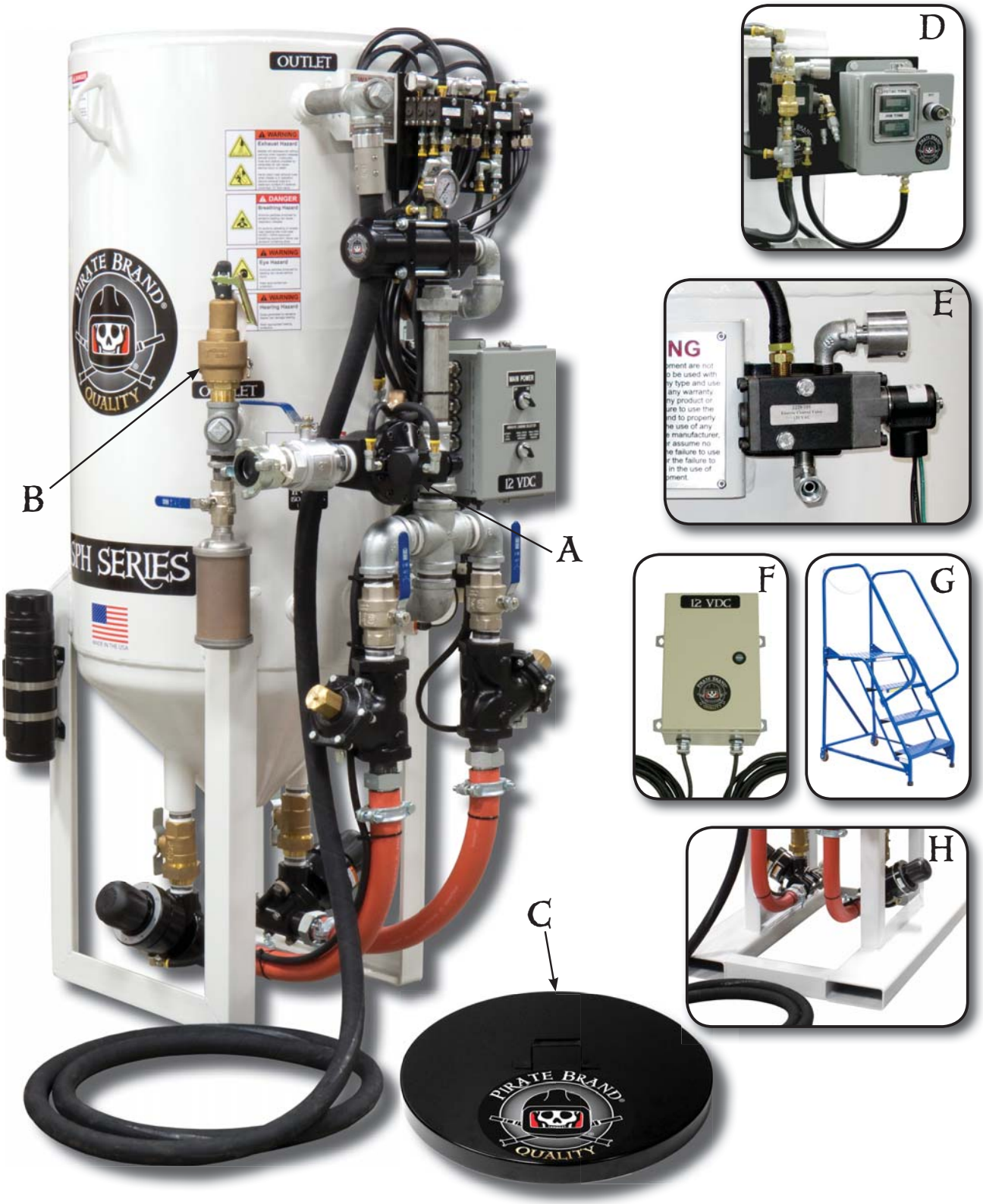
Breathing Equipment

NV3-702-50-PFC	RPB NOVA 3™ RESPIRATOR PACKAGE
407000-PFC	NOVA 2000™ RESPIRATOR PACKAGE
407800-PFC	ASTRO™ RESPIRATOR PACKAGE
407001	COOL TUBE
407024	HOT TUBE
407200	RADEX™ CO MONITOR (120V)
407201	RADEX™ CO MONITOR (12V)
RESPIRATOR PACKAGES INCLUDE RESPIRATOR HELMET, 50' BREATHING AIR SUPPLY HOSE, AND RADEX™ AIRLINE FILTER.	

Blast Suits / Gloves

122-9140	BLAST SUIT, LIGHTWEIGHT, MEDIUM
122-9150	BLAST SUIT, LIGHTWEIGHT, LARGE
122-9160	BLAST SUIT, LIGHTWEIGHT, XL
122-9170	BLAST SUIT, LIGHTWEIGHT, XXL
122-9180	BLAST SUIT, LIGHTWEIGHT, XXXL
407701	LUXURY DOUBLE PALMED LEATHER BLASTING/WELDING GLOVES

Available Accessories



AVAILABLE ACCESSORIES

A REGULATOR KIT

! IMPORTANT INFORMATION ABOUT REGULATING YOUR AIR SUPPLY.

ADDING A REGULATOR KIT TO YOUR ABRASIVE BLASTER SOLVES MANY OF THE PROBLEMS THAT RESULT FROM A FLUCTUATING AIR SUPPLY. ALL DUAL-CHAMBER ABRASIVE BLASTERS ARE SENSITIVE TO THESE FLUCTUATIONS BECAUSE BOTH CHAMBERS MUST COMPLETELY EQUALIZE DURING THE REFILLING PROCESS.

SINCE AIR COMPRESSORS NATURALLY FLUCTUATE AS THEY KICK UP AND UNLOAD, AN INCONSTANT PRESSURE IS TYPICAL. ADDING A PRESSURE REGULATOR AND SETTING IT BELOW THE MINIMUM PSI THAT YOUR COMPRESSED AIR SOURCE CAN MAINTAIN RESULTS IN A CONSISTENT SUPPLIED PSI ALLOWING YOUR BLAST EQUIPMENT TO FUNCTION PROPERLY AND RUN SMOOTHLY.

888-2000-008PB-CI	2" BIG GUN REGULATOR KIT FOR 8 CU FT DUAL-CHAMBER BLASTERS
888-2001-00199PB	REGULATOR, 1/4", REPAIR KIT
888-2000-00399PB	REGULATOR, 1-1/2" & 2" FULL FLOW, REPAIR KIT

B RELIEF VALVE KIT

ADDING THIS ASME RELIEF VALVE KIT TO YOUR BLASTER CAN PREVENT DANGEROUS OVER PRESSURIZATION. LOCAL CODES MAY REQUIRE A DIFFERENT VALVE

888-2470-00702PB	SMALL BLASTER RELIEF VALVE KIT (FITS 1.3, 3.5, 6.5, 8, 10 & 20 CU FT S-SERIES BLASTERS)

C LID

LIDS ARE IMPORTANT FOR KEEPING MOISTURE FROM FALLING INTO THE ABRASIVE BLASTER IN OUTDOOR APPLICATIONS. MOISTURE IN THE ABRASIVE BLASTER CAN CAUSE OBSTRUCTIONS IN THE METERING VALVE LEADING TO COSTLY DOWN-TIME.

888-5010-060PB	LID FOR 8 CU FT ABRASIVE BLASTERS

D JOB TIMER

KEEP TRACK OF TIME SPENT ON A JOB AND TOTAL HOURS ON YOUR ABRASIVE BLASTER. KNOW YOUR COST, CONTROL YOUR COST & SET UP A PREVENTATIVE MAINTENANCE PROGRAM FOR YOUR BLAST EQUIPMENT.

PB-9805023P	DUAL TIMER CONTROL BOX W/ KEY RESET & MOUNTING BRACKET **(FOR 1 OUTLET BLASTERS)**
PB-9805023P-02	DUAL TIMER CONTROL BOX W/ KEY RESET & MOUNTING BRACKET **(FOR 2 OUTLET BLASTERS)**

E DOOR INTERLOCK KIT

CUTTING POWER TO THE CONTROL BOX ON DUAL-CHAMBER ABRASIVE BLASTERS WILL NOT DISABLE PNEUMATIC CONTROLS. TO CONNECT A DUAL-CHAMBER ABRASIVE BLASTER WITH PNEUMATIC CONTROLS TO A DOOR INTERLOCK SYSTEM, AN INTERLOCK KIT IS NECESSARY.

999-8400-00021PB	120VAC INTERLOCK KIT FOR USE WITH PNEUMATIC AND ELECTRIC BLAST POTS (FACTORY INSTALL)
999-8400-10021PB	12VDC INTERLOCK KIT FOR USE WITH PNEUMATIC BLAST POTS (FACTORY OR CUSTOMER INSTALL)

F POWER SUPPLY

POWER SUPPLY TO RUN DUAL-CHAMBER ABRASIVE BLASTERS ON COMMON 120VAC POWER.

PB-SMP3WP	POWER SUPPLY 120AC INPUT/12VDC OUTPUT (2.5 AMP MAX)
PB-SMP7WP	POWER SUPPLY 120AC INPUT/12VDC OUTPUT (6 AMP MAX) - **REQUIRED FOR DUAL-CHAMBER 2 OUTLET ELECTRIC CONTROLS WITH ABRASIVE CUT-OFF**

G LOADING LADDER

USE THIS 4 STEP LOADING LADDER TO PROVIDE EASY ACCESS TO THE TOP OF THE BLASTER FOR MORE CONVENIENT LOADING OF ABRASIVE.

PB-LAD-MM-4-P	4 STEP LOADING LADDER FOR OVERHEAD ACCESS TO 8, 10 & 20 CU FT BLASTERS

H FORK-POCKETS

ADD FACTORY INSTALLED FORK POCKETS TO YOUR DUAL-CHAMBER ABRASIVE BLAST POT TO ALLOW FOR EASY MOBILITY USING A FORK LIFT.

PB-FP10CUFT	FORK POCKETS UPGRADE, FORK POCKET ID - 2-1/2" x 7-1/2" **(FACTORY INSTALLED ONLY)**

BLASTING CHARTS

Nozzle Air, Power & Abrasive Requirements

NOZZLE # ORIFICE SIZE	NOZZLE AIR, POWER & ABRASIVE REQUIREMENTS		NOZZLE PRESSURE							
			50 PSI (3.45 BAR)	60 PSI (4.14 BAR)	70 PSI (4.83 BAR)	80 PSI (5.52 BAR)	90 PSI (6.21 BAR)	100 PSI (6.89 BAR)	125 PSI (8.62 BAR)	140 PSI (9.65 BAR)
#2 1/8 inch (3.2 mm)	AIR	(cu ft/min)	12	13	15	18	19	21	26	
		(cu m/min)	0.34	.037	0.42	0.51	0.54	0.59	0.74	
	HORSEPOWER	(hp)	1.75	2	2.5	3	3.5	4	6	
		(kW)	1.30	1.49	1.86	2.24	2.61	2.98	4.47	
	ABRASIVE	(lb/hr)	70	80	90	100	110	120	135	
		(kg/hr)	32	36	41	45	50	54	61	
#3 3/16 inch (4.8 mm)	AIR	(cu ft/min)	25	30	35	40	43	45	60	
		(cu m/min)	0.71	0.85	0.99	1.13	1.22	1.27	1.70	
	HORSEPOWER	(hp)	5	8	9	9.5	10	10.5	16	
		(kW)	3.75	5.97	6.71	7.08	7.46	7.86	11.93	
	ABRASIVE	(lb/hr)	150	170	200	215	240	260	320	
		(kg/hr)	68	77	91	98	109	118	145	
#4 1/4 inch (6.35 mm)	AIR	(cu ft/min)	50	55	60	70	75	80	95	
		(cu m/min)	1.42	1.56	1.70	1.98	2.12	2.27	2.69	
	HORSEPOWER	(hp)	10	12	13	16	17	18	25	
		(kW)	7.46	8.95	9.69	11.93	12.68	13.42	18.64	
	ABRASIVE	(lb/hr)	270	300	350	400	450	500	675	
		(kg/hr)	122	136	159	181	204	227	306	
#5 5/16 inch (8 mm)	AIR	(cu ft/min)	80	90	100	115	125	140	190	230
		(cu m/min)	2.27	2.55	2.83	3.26	3.54	3.96	5.38	6.51
	HORSEPOWER	(hp)	17	20	25	27	28	30	36	60
		(kW)	12.68	14.91	18.64	20.13	20.88	22.37	26.85	44.85
	ABRASIVE	(lb/hr)	470	530	600	675	750	825	1000	1125
		(kg/hr)	213	240	272	306	340	374	454	510
#6 3/8 inch (9.5 mm)	AIR	(cu ft/min)	110	125	145	160	175	200	275	315
		(cu m/min)	3.12	3.54	4.11	4.53	4.96	5.66	7.79	8.91
	HORSEPOWER	(hp)	25	29	32	35	40	45	57	65
		(kW)	18.64	21.63	23.86	26.10	29.83	33.56	42.50	48.59
	ABRASIVE	(lb/hr)	675	775	875	975	1060	1100	1350	1840
		(kg/hr)	306	352	397	442	481	499	612	835
#7 7/16 inch (9.5 mm)	AIR	(cu ft/min)	150	170	200	215	240	255	315	405
		(cu m/min)	4.25	4.81	5.66	6.09	6.80	7.22	8.92	11.46
	HORSEPOWER	(hp)	35	40	45	50	55	60	70	90
		(kW)	26.10	29.83	33.56	37.28	41.01	44.74	52.20	67.28
	ABRASIVE	(lb/hr)	900	1000	1200	1300	1400	1510	1800	2540
		(kg/hr)	408	454	544	590	635	703	816	1152
#8 1/2 inch (12.7 mm)	AIR	(cu ft/min)	200	225	250	275	300	340	430	540
		(cu m/min)	5.66	6.37	7.08	7.79	8.50	9.63	12.18	15.28
	HORSEPOWER	(hp)	45	50	55	63	70	75	95	120
		(kW)	33.56	37.28	41.01	46.98	52.20	55.93	70.84	89.70
	ABRASIVE	(lb/hr)	1200	1350	1500	1700	1850	2025	2525	3240
		(kg/hr)	544	612	680	771	839	919	1145	1470
#10 5/8 inch (16 mm)	AIR	(cu ft/min)	300	350	400	450	500	550	700	880
		(cu m/min)	8.50	9.91	11.33	12.74	14.16	15.58	19.82	24.90
	HORSEPOWER	(hp)	70	80	90	100	110	120	150	190
		(kW)	52.20	59.66	67.11	74.57	82.03	89.48	111.85	142.02
	ABRASIVE	(lb/hr)	1900	2200	2400	2700	3000	3300	4000	5200
		(kg/hr)	862	998	1089	1225	1361	1497	1814	2359
#12 3/4 inch (19 mm)	AIR	(cu ft/min)	430	500	575	650	700	800	1100	1255
		(cu m/min)	12.18	14.16	16.28	18.41	19.82	22.66	31.15	35.52
	HORSEPOWER	(hp)	100	115	130	145	160	175	215	245
		(kW)	74.57	85.76	96.94	108.13	119.31	130.50	160.33	183.13
	ABRASIVE	(lb/hr)	2700	3100	3500	3900	4300	4700	5700	7375
		(kg/hr)	1225	1406	1588	1769	1950	2132	2586	3345

This table is to be used as reference only. Actual results may vary depending on specific abrasive medium used. This table is based on abrasive with a bulk density of 100 pounds per cubic foot.