

OWNER'S MANUAL

HIGH FLOW POT PNEUMATIC REMOTE CONTROLLED



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WARNING

1. Any person intending to operate this equipment or any person intending to be in the vicinity during its operation must receive proper training from his/her supervisor, employer and/or supplier.
2. Any person authorized to operate this equipment or any person intending to be in the vicinity during its operation and who is not capable of reading and understanding this manual must be fully trained regarding the *Rules for Safer Operation* and all operating procedures, and must be made aware of all the Dangers, Warnings, and Cautions identified herein. Consult Blastrite (Pty) Ltd.
3. Do not operate the Single Chamber Blast Pot (SCBP) before reading and completely understanding all the warnings, operating procedures and instructions, and the *Rules for Safer Operation* contained in this manual.
4. Do not operate the SCBP without following the *Rules for Safer Operation* and all the operating procedures and instructions. Failure to properly use pneumatic blasting equipment could result in serious injury or death.
5. Do not perform any maintenance on the SCBP while it is pressurized. Always depressurize the High Flow Pot pressure vessel before loading blasting media or performing any maintenance.
6. Do not use blasting media containing free silica. Silica can cause silicosis or other related respiratory damage. All operators must wear personal protective equipment for all blasting media blasting operations. Observe all applicable safety regulations.
7. Do not enter areas during abrasive blasting operations without PPE.
8. Do not repair or replace any portion of Blastrite equipment using components that are not Blastrite original factory replacement parts. Use of replacement components that are not Blastrite original factory replacement parts may result in equipment failure which can result in serious personal injury and in addition will void all warranties.

Instructions for use of Manual Sections

Details in this manual outlines information needed to maintain and operate a single chamber blast pot. Ensure you have read this manual thoroughly before attempting to operate the unit.

The safety icon/symbols are there to make you aware of hazards and gives you guidelines of how to avoid them, this will not completely eliminate all potential danger. Follow all instructions meticulously and ensure caution is taken when using this machinery to lower the risk of injury.



WHITE LETTERS with RED BACKGROUND

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death in extreme cases. This signal word is limited to the most extreme situations.



BLACK LETTERS with ORANGE BACKGROUND

WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in serious injury.



BLACK LETTERS with YELLOW BACKGROUND

CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices that may cause property damage.

The terms below have been outlined to ensure you understand the manual. Familiarize yourself with these terms as they will be referred to throughout the manual.

Term	Definition
Blast Pot	A fabricated pressure vessel (tank or reservoir) that is part of the SCBP which is filled with compressed air and blasting media. (Also referred to as "pot or vessel").
Single Chamber	A blast pot with a uniform internal void similar to the external shape or form.
Pressurize	To manually or automatically fill the SCBP pressure vessel with compressed air.
Depressurize	To manually or automatically release all the compressed air from inside the SCBP pressure vessel. (Also referred to as "blowdown".)
Depressurized System	A SCBP pressure vessel that is pressurized only when the deadman handle activates the abrasive blasting operation. The SCBP automatically depressurizes when the deadman is released.
Blowdown	To manually or automatically release all the compressed air from inside the SCBP pressure vessel. (Also referred to as "depressurize".)
Deadman	A manually operated valve or switch that allows remote starting and stopping of the blasting operation. Also referred to as "deadman valve".
Popup	An air pressure operated valve that seals the SCBP pressure vessel blasting medias inlet at the top of the pressure vessel.
Blasting Media	A granular substance which is suitable for abrasive blasting operation.
Silica	The free silica compound found in many natural occurring abrasives and other substances. Breathing silica dust can cause respiratory diseases such as silicosis. (Also referred to as crystalline silica)

Warning Labels – Identification and Location

Listed below are the warning decals and the corresponding hazards related to this equipment. Refer to Figure 1.1 – 1.4 for images of the warning decals. Refer to Figure 1.5, for the locations of these warning decals on the SCBP.

Figure:	Qty.	Description	Hazard
1.1	1	“Warning” Airborne particle and loud noise hazard.	Airborne particles and loud noise from blowdown can cause injury and loss of hearing. Wear approved eye and ear protection. See Sections 1.8 and 3.4.
1.2	1	“Warning” Pressurized vessel.	Propelled objects will cause serious injury or death. Depressurize vessel prior to performing any maintenance. See Sections 1.15, 3.5 and 6.2.
1.3	1	“Warning” Read manual before using this machine.	Read and understand operator’s manual before using this machine. Failure to follow operating instructions could result in injury or damage to equipment. See Section 1.
1.4	1	“Warning” Pinch point hazard.	Vessel pressurization will close popup. Closing popup can pinch and crush. Keep hands and fingers away from popup.

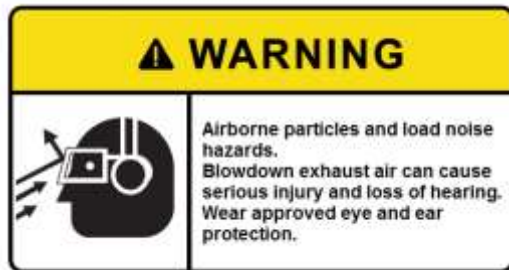


Figure 1.1 – Warning Airborne Particles



Figure 1.2 – Warning Pressure Vessel



Figure 1.3 – Warning Operating Manual



Figure 1.4 – Warning Pinch Hazard



Figure 1.5 – Warning Decal Placement

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1. **Rules for Safer Operation**

1.1. **GENERAL RULE FOR SAFER OPERATION:**

Blastrite Single Chamber Blast Pots (SCBP) have been designed to be safe when used in the proper manner. All blasting media are potentially dangerous if all safety precautions are not rigorously followed. Proper training is required before operation. Proper procedures must be followed. The SCBP and all components must be properly maintained. Failure to operate, service and maintain the SCBP as set forth in this manual may cause injury or even death to any person using, servicing or in the vicinity of blasting media blasting.

This manual identifies potential hazards by danger, warning, and caution symbols. However, all the rules, procedures and recommendations must be followed. Failure to operate properly is very likely to place persons and property at high risk of damage, injury or even death.



Blasting media, blasting machinery and the operation are potentially dangerous if all safety precautions are not followed. Failure to operate the SCBP without following all the rules for safer operation may result in serious injury or death to operating personnel or persons in the operating vicinity.

1.2. **KNOW YOUR EQUIPMENT:**

Do not operate this equipment in a manner other than its intended application, see Section 4. Do not operate this equipment or any other Blastrite equipment without following the *Rules for Safer Operation* and all the operating procedures and instructions. Learn the applications and limitations as well as the specific potential hazards related to this machine. Failure to do so could result in serious injury or death.

1.3. **RECEIVE PROPER TRAINING:**

Do not operate this equipment unless you have received operational and maintenance training. Begin by thoroughly reading and understanding this operation and maintenance manual and all included information. Consult an authorized Blastrite representative.

1.4. **PROTECT YOUR FEET:**

Do not operate this equipment without wearing approved foot protection. Observe all applicable safety regulations.

1.5. **PROTECT YOUR EYES:**

Do not operate this equipment without wearing approved safety glasses or air fed blast helmet. Observe all applicable safety regulations.



When filling the SCBP and during the abrasive blasting operation, blasting media can, in extreme conditions, be blown in the face and eyes of operators. All operators and personnel in the vicinity must wear approved safety glasses during the operation of this equipment.

1.6. **PROTECT YOUR LUNGS:**

Do Not operate this equipment without wearing approved respiratory protection as per SANS 54594:2006 / EN 14594:2005 Class 4B.

Abrasive blasting produces dust contaminated with toxic substances from the the coating being removed, and the object being blasted. This dust may contain silica which can cause severe and permanent lung damage, cancer, and other serious diseases. Do Not breathe the dust. Do Not rely on your sight or smell to determine if dust is in the air. Silica and other toxic substances may be in the air without a visible dust cloud. If air-monitoring equipment for silica is not provided at the worksite, then all personnel **MUST** wear appropriate respiratory protection when using or servicing this equipment. Breathing air supplied to respirators must be of acceptable quality.

1.7. BREATHING AIR QUALITY:

Do Not use breathing air that does not meet OSHA standards. Use extreme caution when selecting a source of breathing air. Breathing air provided by an oil-lubricated air compressor can contain carbon monoxide; therefore, a carbon monoxide detector is required.

1.8. PROTECT YOUR HEARING:

Do Not operate this equipment without wearing OSHA approved hearing protection. Observe all applicable safety regulations.

1.9. STAY ALERT, DO NOT USE DRUGS, ALCOHOL, or MEDICATION:

Do not operate this equipment while under the influence of drugs, alcohol, or any medication.

1.10. PROTECT BYSTANDERS:

Control personnel entering the vicinity of the blasting media blasting. No entry if the appropriate PPE is not worn.

1.11. KEEP CHILDREN AND VISITORS AWAY:

Do not allow non-operating personnel to be in contact with this equipment or the connecting hoses and cords.

1.12. AVOID DANGEROUS ENVIRONMENTS:

Do not operate this equipment without familiarizing yourself with the surrounding environment. A stand-by watch person may be necessary to protect against injury to personnel.

1.13. ELECTRICALLY GROUND EQUIPMENT:

Static electricity is generated by the blasting media flow through the hose. To minimize chance of static electrical shock to operating personnel only use static dissipating hose and install a grounding strap on the unit.

1.14. MAINTAIN VESSEL INTEGRITY:

Do not operate this equipment with the pressure vessel damaged, or with any part of it worn or damaged. Do not operate this equipment in a condition that may cause failure of the pressure vessel. See sections 1.15 through 1.25 below.



An SCBP is mainly a pressurized vessel. Alterations, damage, or misuse of the pressure vessel can result in rupturing. Damaged or incorrect components used on the SCBP can result in rupturing. The compressed air inside a pressurized vessel contains a dangerously high level of energy which can propel objects and cause serious injury or death.

1.15. NEVER OPERATE OVER MAXIMUM OPERATING PRESSURE:

Do not operate this equipment above maximum allowable operating pressure: 9 bar. Do not operate this equipment above maximum allowable operating temperature: 60°C. See nameplate, Section 2.2, attached to the vessel.

1.16. INSTALL PRESSURE RELIEF DEVICE:

Do not operate this equipment without a pressure relief device in place. SANS 347:2012 requires that all vessels be equipped with pressure relief devices prior to installation. The pressure relief device must be set at the maximum allowable working pressure of the SCBP. See the nameplate attached to the vessel.

1.17. NEVER OPERATE BEYOND ALLOWABLE TEMPERATURE RANGE:

Do not operate this equipment above the maximum allowable temperature at the allowable pressure or below the minimum design temperature shown on the pressure vessel nameplate, see Section 2.2. The characteristics of the pressure vessel metal are weakened when the temperature is outside the operating range. Operating the pressure vessel outside of allowable temperature range can result in rupturing and cause serious injury or death.

1.18. NAMEPLATE REQUIRED:

Do not operate this equipment if the pressure vessel nameplate is missing. Contact Blastrite for technical support.

1.19. DO NOT MODIFY VESSEL:

Do not modify or alter any blasting equipment, accessories or controls thereof without written consent from Blastrite. Do not weld, grind, or sand the pressure vessel. It will not be safe to operate. Non-authorized modifications could lead to serious injury or death. Non-authorized modifications will void the warranty and may void the integrity.

1.20. DO NOT HAMMER ON VESSEL:

Do not hammer on or strike any part of the pressure vessel. Hammering on the pressure vessel can create cracks and cause rupturing.

1.21. FIRE DAMAGE NOTICE:

Do not operate if the pressure vessel has been damaged by fire. If damaged, take out of service immediately and have it inspected and/or repaired by a qualified facility.

1.22. INSPECT VESSEL REGULARLY:

Do not operate this equipment with damage to the pressure vessel. It is not safe. Inspect outside and inside of the pressure vessel regularly for corrosion or damage (i.e. dents, gouges or bulges). If damaged, take out of service immediately and have it inspected and/or repaired by a qualified facility.

1.23. CHECK FOR LEAKS IN VESSEL:

Do not operate this equipment if there is a leak in the pressure vessel. If leaking, take out of service immediately and have it inspected and/or repaired by a qualified facility.

1.24. NEVER MODIFY BLOWDOWN:

Do not connect the blowdown on this equipment onto a common header with any other unit of any description, or any other source of compressed air, without first making sure a check valve is used between the header and this unit. Do not install this equipment sharing piping with another unit of higher discharge pressure and capacity. A safety hazard could occur in the form of a back-flow condition.

1.25. DEPRESSURIZE VESSEL BEFORE PERFORMING MAINTENANCE:

Do not remove, repair, or replace any item on this equipment while it is pressurized. Do not attempt to perform maintenance or loading blasting media while this equipment is pressurized or is even capable of being pressurized. This means the inlet ball valve should be closed and the air supply should be shut off or disconnected. Anytime the manual blowdown valve is closed it should be assumed that the SCBP pressure vessel is pressurized.



A SCBP is mainly a Pressurized Vessel. The compressed air inside a pressurized vessel contains a dangerously high level of energy which can propel objects and cause serious injury or death. Depressurize vessel before performing any maintenance.

1.26. ALWAYS USE REMOTE CONTROLS:

Regulations require remote controls on all SCBP systems. All blasting units must be equipped with automatic (deadman) type remote controls. Failure to use remote controls can cause serious injury or death to the operator(s) or other personnel in the blasting area.

1.27. CHECK FOR DAMAGED PARTS:

Do not use this equipment with damaged components. Damaged components can fail during operation and result in serious injury or death to operating personnel. Periodically check all valves, hoses, and fittings to see that they are in good condition. Repair any component that shows any sign of wear or leakage. See Section 8.

1.28. ALWAYS USE SAFETY WHIPCHECKS ON HOSE COUPLING CONNECTIONS:

Do not use this equipment without hose coupling safety whipchecks in place and hose whip checks installed on all air and blasting media blasting hoses. All blasting media blasting hose couplings and air hose couplings have pin holes that must be safety pinned to protect against accidental disconnections. Accidental hose disconnection can cause serious injury or death.

1.29. ALWAYS USE CORRECT REPLACEMENT PARTS AND ACCESSORIES:

Do not use replacement parts or accessories that are not rated for pressures equal to or higher than the SCBP pressure vessel max operating pressure. Improper hoses and/or fittings used on, or connected to the SCBP can rupture and cause serious injury or death.

Do not use replacement parts that are not Blastrite original replacement parts. Non- original parts may not fit properly and can cause equipment damage and/or failure which can result in serious injury to operating personnel. Consult Blastrite.



Use of replacement components that are not Blastrite original replacement parts may result in equipment failure which can result in serious injury to operating personnel.

1.30. ALWAYS USE CORRECT PRESSURE RATED ACCESSORIES:

Do not use air reservoirs or moisture separator tanks that are not rated for use in compressed air applications.



An air reservoir or moisture separator tank is a Pressurized Vessel. The compressed air inside a pressurized vessel contains a dangerously high level of energy which can explode propelling objects and result in serious injury or death to operating personnel.

1.31. NEVER AIM BLAST NOZZLE TOWARDS ANY PERSON:

Do not aim the filling spout towards yourself or any person. System malfunction can cause accidental start up and result in injury to personnel.

1.32. NEVER USE BLASTING MEDIA NOT INTENDED FOR ABRASIVE BLASTING EQUIPMENT:

Do not use blasting media containing free silica. Silica can cause silicosis or other related respiratory damage. Verify that the blasting media is intended for use in blasting media blasting equipment. Personal protective equipment, including dust masks, must be used for all blasting media blasting operations. Observe all applicable safety regulations.

1.33. STOP OPERATION IMMEDIATELY IF ANY ABNORMALITY IS DETECTED:

Do not operate this equipment if anything abnormal is seen during operation. Stop operation immediately for inspection.

1.34. DO NOT OVERLOAD THE LIFT EYES:

Do not load the lifting eyes above the rated capacity. Do not lift the vessel by any point other than the lifting eyes or designated lift points. Do not lift the vessel while it is pressurized.

1.35. DO NOT TRANSPORT BLAST EQUIPMENT LOADED WITH BLASTING MEDIA:

Do not attempt to roll the portable SCBP with blasting media inside. The additional weight of the blasting media can cause loss of control of the unit while moving which can result in injury to operating personnel.

1.36. MAINTAIN WARNING DECALS:

Do not remove, cover, obstruct, or paint over any warnings, cautions, or instructional material attached. Warning decals must be installed, maintained, and located to be visible and with enough light for legibility.

1.37. SAVE THIS OPERATION AND MAINTENANCE MANUAL:

Refer to this operation and maintenance manual as needed as well as any additional information included from other manufacturers. Never permit anyone to operate this equipment without having him/her first read

this manual and receive proper training. Make this manual readily available to all operating and maintenance personnel. If the manual becomes lost or illegible replace it immediately. This operation and maintenance manual should be read periodically to maintain the highest skill level; it may prevent a serious accident.

2. Specifications and General Information

2.1. NOTES TO OWNERS

- 2.1.1. Verify that the deadman, signal lines , and the operation and maintenance manual are included with the SCBP when it is received.
- 2.1.2. This equipment is intended for knowledgeable and experienced users. No person or persons should be allowed to operate this equipment without first receiving proper training in blasting media blasting operation and use of this equipment.
- 2.1.3. Immediately notify Blastrite of any instances of use of this equipment in any manner other than the intended application.
- 2.1.4. Only qualified personnel should load and unload this equipment for shipping. Slings or other lifting devices must only be attached to the designated lifting points. See the lifting diagram shown in Section 2.5.
- 2.1.5. For further information on options and accessories available for Blastrite SCBP contact us:

Blastrite (Pty) Ltd, 14 Park Lane Crescent, Century City, 7441
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2.2. SCBP NAMEPLATE


		Telephone	08600 BLAST
		E-mail	sales@blastrite.com www.blastrite.com
- AIR RECEIVER -			
CODE OF MANUFACTURE	PD 5500: 2012 CAT 3	CAPACITY	<input type="text"/> m ³
SERIAL No	<input type="text"/>	MAX. DESIGN TEMP	<input type="text"/> °C
OPERATING PRESSURE	<input type="text"/> kPa	MIN. DESIGN TEMP	<input type="text"/> °C
DESIGN PRESSURE	<input type="text"/> kPa	DATE OF TEST	<input type="text"/>
TEST PRESSURE	<input type="text"/> kPa	YEAR OF MAN	<input type="text"/>
COUNTRY OF ORIGIN	RSA	CORR. ALLOWANCE	1 mm
SANS 347 HAZARD CATEGORY	III	RADIOGRAPHY	N/A
NAME OF MANUFACTURER		A.I.A. UNIQUE No	<input type="text"/>

Figure 2.1. – SCBP Nameplate

2.3. VESSEL INFORMATION

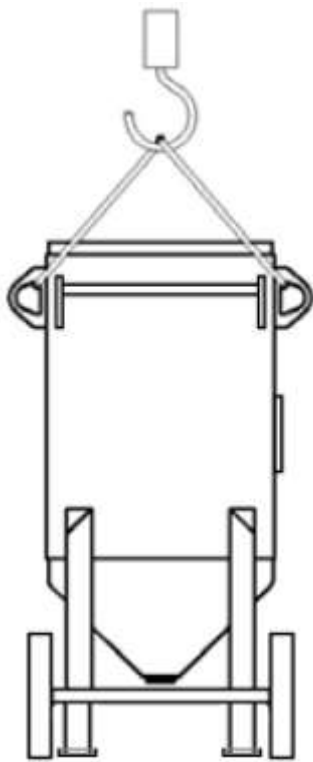
- 2.3.1. All pressure vessels used in Blastrite blasting media blasting are manufactured in strict accordance with the provisions of SANS 347.
- 2.3.2. In order to maintain the high level of quality and quality control used in the manufacture of this vessel, it is required that any and all welded repairs to this vessel be performed by a repair facility registered to repair pressure vessels.

2.4. NOTES

2.5. SCBP LIFTING DIAGRAM



A SCBP is mainly a Pressurized Vessel. The compressed air inside a pressurized vessel contains a dangerously high level of energy which can propel objects and cause serious injury or death. Depressurize vessel and empty of blasting media before lifting, moving, or transporting.



NOTE: EMPTY LIFT ONLY. DO NOT LIFT WITH BLASTING MEDIA

Figure 2.2 – SCBP Lifting Diagram

3. Installation Requirements and Personnel Protective Equipment

Carefully read and follow all the recommendations regarding the SCBP system installation requirements. Improper installation can result in equipment malfunction and significant lost time expenses. Consult an authorized Blastrite representative

3.1. SCBP SYSTEM INSTALLATION

Portable units: Units equipped with handles and wheels are portable and can be rolled to locations where abrasive blasting operations are performed. Locate the unit to allow accessibility to the hand hole and for ease of blasting media filling. Pay close attention to objects that may be in the path of the pressure vessel exhaust air (depressurization).

3.2. COMPRESSED AIR REQUIREMENTS

The blast nozzle size and blast pressure determine the compressed air requirements. Available air flow capacity and/or air compressor size must be considered before selecting the blast nozzle size. An air source dedicated to the abrasive blast system is preferred to reduce system pressure drops and back flow of air. If an existing air compressor will be used or a limited air supply is available, then the blast nozzle must be selected based on these conditions. Be aware that as the blast nozzle wears the air demand will increase. See Table 1 in Section 3.7, for air consumption by nozzle size at 7 bar.

3.3. COMPRESSED AIR QUALITY

Air quality is crucial to the operation of a SCBP pressure vessel. Moisture and contaminants can cause components to malfunction. Moisture condensation in a SCBP system causes blasting media flow problems. Condensation occurs when the hot vapor-filled compressed air cools as it reaches the SCBP pressure vessel. Water droplets formed during condensation can be absorbed by the blasting media in the SCBP pressure vessel which can cause erratic flow to the blasting media valve. Therefore, a moisture removal device installed for the system air supply is recommended (i.e. Coalescing moisture

separator, air-cooled aftercooler or deliquescent dryer).

3.4. PERSONAL PROTECTIVE EQUIPMENT – PPE

Blasting media has many hazards that may cause injuries to operators. To protect operators from injury each must be supplied with, and required to use Personal Protective Equipment (PPE). The employer is required to assess the workplace to determine what PPE is necessary and supplied to each operator. Figure 3.1 below identifies the minimum personal protective equipment required for each abrasive blasting operator. All PPE clothing and equipment should be selected for safe design and quality of construction. Select each for proper fit and for comfort which will encourage operator use.









Coverall	Safety Shoes	Leather Gloves	Carbon Monoxide Monitor
			
Safety Glasses	Ear Protection	Air Fed Blast Helmet	Air filter
			

Figure 3.1 - Personal Protective Equipment

3.5. PRESSURE RELIEF VALVE INSTALLATION

Do not operate this equipment without a pressure relief device installed to protect the SCBP pressure vessel from over-pressurization.

Local regulations set the specifications for pressure relief valves; therefore, it is the responsibility of the owner of the SCBP to install a pressure relief valve that meets all applicable regulations. The main pressure relief device must be set at the maximum allowable working pressure of the SCBP pressure vessel. See the vessel nameplates attached to the pressure vessel. The working pressure relief valve is installed to control the maximum safe working pressure for blasting media blasting.



Rupture Hazard: Operating the SCBP above the maximum allowable working pressure can result in rupturing the SCBP pressure vessel. Install an air pressure relief valve to protect against over-pressurization of the SCBP pressure vessel.



Airborne particles and loud noise hazards from relief valve exhaust air can cause serious injury and loss of hearing. Wear approved eye and ear protection. Stay clear of exhaust air path. DO NOT place hands or other body parts in the exhaust air path. Make sure no personnel are in the exhaust air path. Direct the relief valve exhaust away from work area.



Figure 3.2 – Location of Air Pressure Relief Valves

3.6. INSTALLATION CHECKLIST

- Deadman/Signal lines: Confirm delivery with the SCBP.
- SCBP Accessories: Confirm receipt as purchased with the vessel.
- Inspect Vessel: Check for possible damage during shipment. Section 8 for inspection instructions.
- Popup Alignment: Remove popup dust cover (if equipped) from top head and check popup alignment. Shifting of popup is possible during shipment. See Section 8.3 for inspection & alignment instructions.
- Clean Pressure Vessel: Remove hand hole cover and check for debris inside. Trapped debris can vibrate loose during shipment and later block blasting media flow. If necessary vacuum the bottom of tank. Replace hand hole cover per instructions in Section 6.3.
- Air Quality: Install moisture separator or AirPrep System to remove moisture from compressed air supply to protect against blasting media flow problems.
- PPE: Provide all the necessary personal protective equipment. Section 3.4.
- Pressure Relief Valve: Install relief valve if not provided on air compressor. See Section 3.5 for information on pressure relief valve installation.
- Media blasting hose: Use suitable blasting media and blasting hose with minimum internal diameter of 32 mm.
- Operator Training: All operators must completely read and understand the operation and maintenance manual and be properly trained in equipment and blast operations.
- SCBP Setup: Follow procedures as in Section 6.0.

3.7 COMPRESSED AIR REQUIREMENTS

Compressed air requirements are depended on the size blast nozzle used, Table 1 for minimum air requirements.

Blast nozzle compressed air requirements @ 7 bar				
Size of Orifice	Theoretical air consumption	Reserve air required (mechanical losses)	20 CFM for Air Fed Helmet	Total air required
6.5mm	81 CFM 2.3m ³ /min	50 CFM 1.4m ³ /min	20 CFM 0.6m ³ /min	151 CFM 4.2m ³ /min
8mm	137 CFM 3.9m ³ /min	79 CFM 2.2m ³ /min	20 CFM 0.6m ³ /min	236 CFM 6.6m ³ /min
9.5mm	196 CFM 5.5m ³ /min	108 CFM 3m ³ /min	20 CFM 0.6m ³ /min	324 CFM 9m ³ /min
11mm	254 CFM 7.2m ³ /min	137 CFM 3.9m ³ /min	20 CFM 0.6m ³ /min	411 CFM 11.6m ³ /min
12.5mm	338 CFM 9.6m ³ /min	179 CFM 5m ³ /min	20 CFM 0.6m ³ /min	537 CFM 16.1m ³ /min

Table 1 – Compressed Air Requirement

4. SCBP System General Operation

The function of the SCBP is to provide a mixture of dry abrasive and compressed air to a blast nozzle. The abrasive blast stream through the blast nozzle is used for removing rust, paint, or other unwanted surface defects. After abrasive blasting, the surface is ready for new paint or coating.

A blast pot is one of a group of components used in an abrasive blasting job. The typical components are an air compressor, moisture removal device, blast pot, blast hose, blast nozzle, operator personal protective equipment, and blast abrasive. See Figure 4.1.

The blast abrasive is loaded into the SCBP (blast pot) through the abrasive inlet at the top of the pressure vessel. All the compressed air must be removed from inside the blast pot before it can be filled with abrasive. The abrasive can be bag loaded, or loaded from a storage hopper. To begin blasting, the blast pot is filled with compressed air from the air compressor. Since moisture creates problems in the blast operation, it is common for the compressed air to be fed through a moisture removal device, such as an AirPrep System. The air pressure in the abrasive blast vessel is equal to the air pressure in the blast hose where it connects at the metering valve. This equal pressure is needed to allow the blast abrasive to flow downward by gravity. The abrasive flow is controlled by the metering valve at the bottom of the blaster. From the metering valve the blast abrasive flows into the blast air stream and through the blast hose. The speed of blast air and abrasive mixture is greatly increased by the blast nozzle onto the work surface. The high speed of the air and abrasive is what gives it the energy to blast rust and paint off of surfaces. The abrasive blast stream and the dust it creates are harmful; therefore, all blast operators must use personal protective equipment during the blast operation.

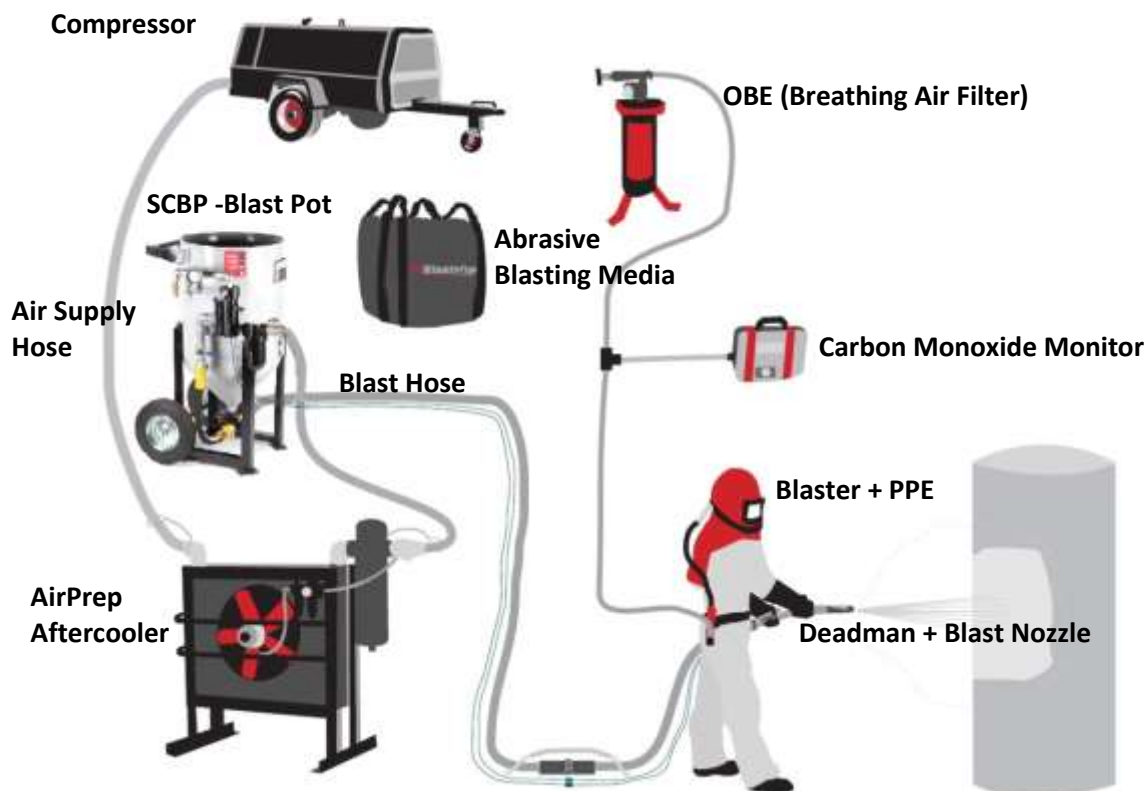


Figure 4.1 – Typical Abrasive Blasting System

5. Remote Control System

Figure 5.1 below to help understand the general operation of a remote controlled SCBP. Do not attempt to operate the blasting unit before reading all sections of this manual and following all setup procedures. Read sections 5.1 through 5.8 for a detailed explanation of all components.

The remote control system is a depressurized system; meaning the pressure vessel will pressurize only when the valve is opened by depressing the deadman lever. The remote control valve automatic depressurization allows the pressure vessel to depressurize each time the deadman lever is released.

The SCBP pressure vessel will pressurize when the deadman lever is activated. When the deadman is activated a pneumatic signal passed though the deadman trigger to the remote control valve actuating (opening) it. The compressed inlet air flows through the remote control valve into the valve outlet piping and into the pressure vessel. The air flow into the pressure vessel internal piping will push the pop-up valve, Figure 5.2, against the popup gasket (o ring) sealing the vessel and allowing pressure to buildup. Pressurizing the pressure vessel will force blasting media out the vessel outlet through the abrasive metering valve. Compressed air will also flow through the choke valve into the external piping passing through the abrasive metering valve. This action effectively balances the air pressure inside the SCBP and in the external piping allowing the abrasive media flow into the blast stream by gravity. Blasting media will flow into the blasting hose and out through the blast nozzle.

Blasting stops when the deadman lever is released which deactivates the remote control valve. This will vent the remote control valve actuating air at the deadman handle. The compressed air inside the pressure vessel will completely vent through the exhaust porting of the remote control valve and through the silencer. When the signal air vents, the remote control valve returns to its “normally closed” position. Refer to the supplemental documentation (Remote Control System Owner’s Manual) for detailed working of this valve.

The SCBP will depressurize when the manual blowdown ball valve is opened and the air inlet ball valve closed. The SCBP will also depressurize by opening the safety valve on the remote control valve.

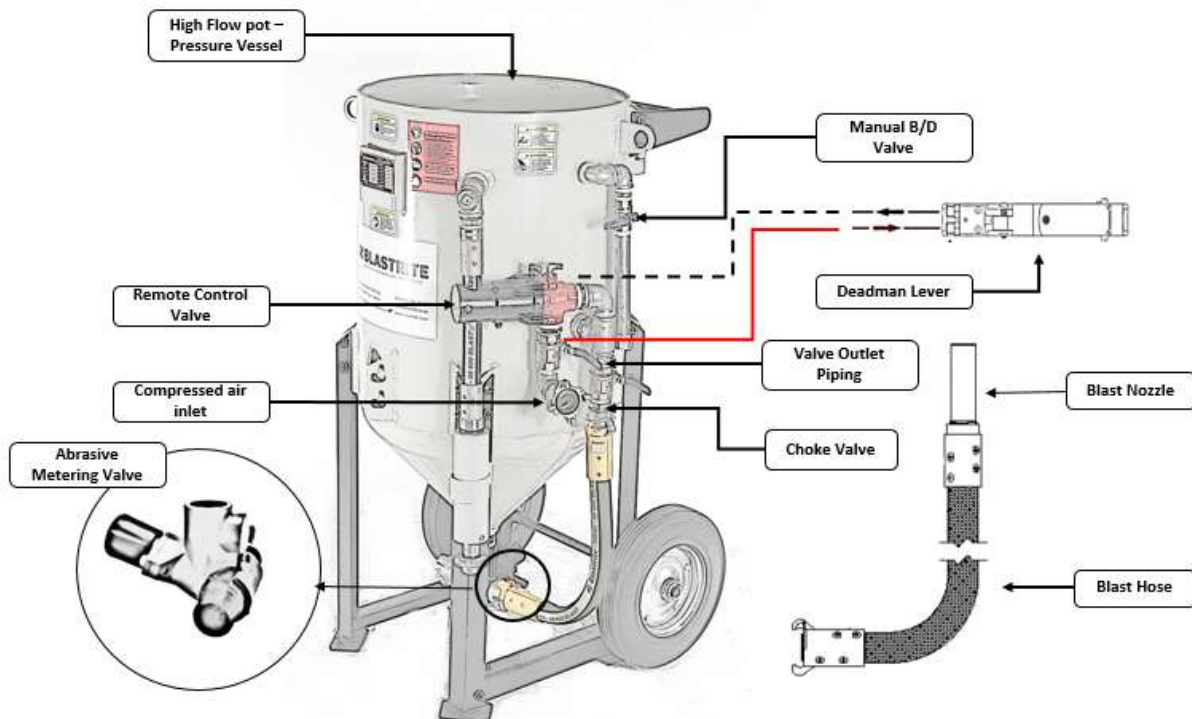


Figure 5.1 –Remote Control Valve SCBP with Pneumatic Controls

5.1. **POPOP VALVE (BLASTING MEDIA INLET)**

The SCBP pressure vessel is filled with blasting media through the blasting media inlet at the top of the pressure vessel. The blasting media inlet is automatically sealed by the popup valve head, item 5, when the pressure vessel is pressurized. The air flow into the internal piping pushes the popup valve against the o-ring, item 6. See Figure 5.2.



Pinch point hazard. Vessel pressurization will close the popup. Keep fingers clear of the popup opening. Disconnect air supply prior to performing popup maintenance.

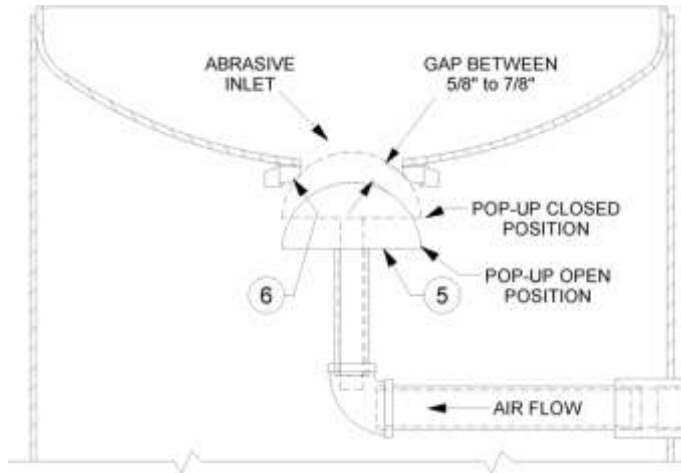


Figure 5.2 – Standard Popup Assembly & Internal Piping

5.2. **MANUAL BLOWDOWN BALL VALVE**

See Figure 5.1 above. The manual blowdown ball valve is used to release all the compressed air (depressurize) from inside the SCBP (pressure vessel). The SCBP pressure vessel must be depressurized before filling with blasting media or before performing any maintenance. Blowdown valve must be open and the air inlet ball valve must be closed when filling pot.



Airborne particles and loud noise hazards from blowdown exhaust air can cause serious injury and loss of hearing. Wear approved eye and ear protection. Stay clear of blowdown air path. DO NOT place hands or other body parts in the blowdown air path. Make sure no personnel are in the blowdown air path.

5.3. **REMOTE CONTROL AUTOMATIC AIR VALVE AND DEADMAN CONTROL**

See Figure 5.3. The remote control valve is a normally closed valve that opens to supply air to the pressure vessel. The automatic air valve opens when it receives air to its inlet signal port (black line). This happens when the deadman lever is depressed which closes the vent port on the deadman handle and allow pilot (red line) air to travel to the inlet of the remote valve via the black signal line. When the deadman lever is released, the air signal from the remote control valve (black line) vents through the deadman handle vent port. The remote valve closes the inlet air and simultaneously vents the compressed air inside the pressure vessel through the silencer. This stops blasting media flow into the blasting hose.



Broken exhaust air silencer can result in airborne particles and loud noise hazards from vent air. This can cause serious injury and loss of hearing. Wear approved eye and ear protection.



Figure 5.3 – Remote Control Valve with Pneumatic Deadman Controls

5.4. DEADMAN VALVE/SWITCH (BLASTING CONTROL)

See Figure 5.4. The deadman valve/switch is part of a system that controls the blasting operation. The deadman valve/switch allows the operator to remotely start and stop the blasting operation. The deadman is mounted at the end of the blasting hose assembly close to the end of the hose to give the operator easy control of the blasting operation.

The Deadman is a pneumatic valve to switch the remote control valve fitted on the SCBP system. When the deadman lever, item 1, is pressed down the rubber button, item 2, seals the vent hole below the lever. Inlet signal air via the red signal line connected to the ported inlet nipple, item 4, passed through deadman handle and out the outlet signal nipple, item 3, towards the Remote control valve. The Remote control valve opens and sends air into the pressure vessel.

When the deadman lever is released the air signal in both lines are vented out the exhaust port on the deadman trigger. The continuous supply of signal air via the red signal line will not oversupply compressed air to the handle due to the orifice machined into the inlet nipple, item 4.



Reversing the connections to the deadman trigger can activate the remote control valve and the SCBP as the inlet signal air over supplies the deadman trigger vent hole. If the SCBP activates automatically from time to time check the connections to the deadman trigger.

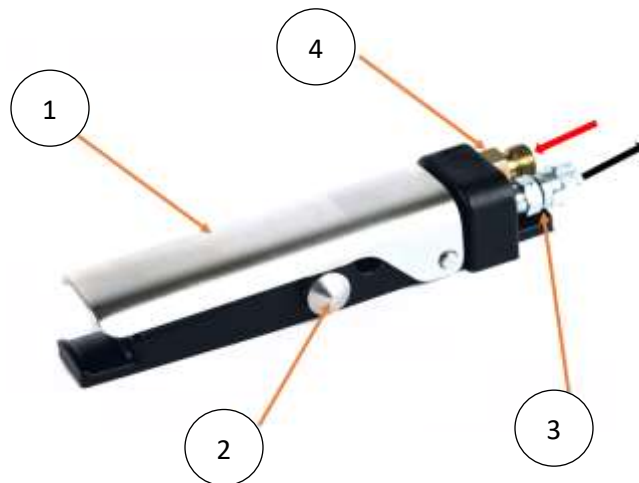


Figure 5.4 – Deadman Handle

5.5. BLASTING HOSE

The blast air and abrasive mixture flows from the abrasive metering valve to the blast nozzle through the blast hose assembly. The typical length of the blast hose is 20m; however blast hose extensions can be

added to increase length. For higher efficiency keep the blast hose as short as possible. Increased blast hose length causes pressure drop at the blast nozzle which reduces the blast efficiency. For higher efficiency use a blast hose with an inside diameter that is approximately three times the nozzle throat diameter. Keep blast hose as straight as possible. Sharp bends create high wear points. Static electricity is generated by the abrasive flow through the blast hose. To minimize the chance of static electrical shock to operating personnel only use static dissipating blast hose and install a grounding strap on the Blast pot.



Static electricity is generated by the blasting media flow through the blasting hose. To minimize the chance of static electrical shock to operating personnel only use static dissipating blasting hose and install a grounding strap on the SCBP.

5.6. BLAST NOZZLE

The blast nozzle is an important part of the blast operation since the size of it determines the air flow and abrasive requirement. The amount of air flow and abrasive determine how quick blasting can be done. The larger the nozzle, the more air and abrasive will be needed. The larger the nozzle size the greater the blast productivity. However, for a fixed amount of air supply, increasing the nozzle size will reduce the blast pressure. For best performance the blast pressure must be maintained as high as possible. Therefore, select the nozzle size based on the amount of air available and then adjust the abrasive flow at the metering valve as needed.

The nozzle size is indicated by a small number on the outside. This number represents the nozzle throat diameter in sixteenths of an inch; for example, a number 5 nozzle has a throat diameter of 5/16" or 8mm. See the tables in Section 3.7 for approximate air consumption for each nozzle. **Note:** For the best possible mixture of air to abrasive, the blast hose and piping must be at least three times the size of the blast nozzle.

5.7. HOSE CONNECTION

Air hose, blasting media blasting hose, and threaded couplings have pin holes that align when connected. To protect against accidental hose disconnections safety pins must be installed through these holes. As a secondary safety measure each hose connection should also include a hose whip check that will hold the hose if there is an accidental disconnection. Connect one loop to each side of the connection and stretch out as shown in Figure 5.6 below.

Air hose, blasting hose, and threaded couplings have a gasket that seals the connection and should be replaced when air is leaking.



Failure to install safety pins on all air and blasting hoses couplings can result in hose disconnects and could result in serious injury or death.

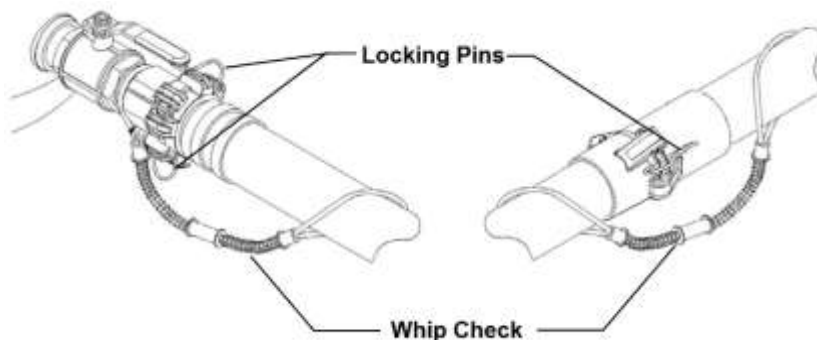


Figure 5.6 – Hose Connection Disconnect Protection

6. Pre-Operation Procedures



Failure to follow the procedures below could result in serious injury or death. In addition to these procedures completely read and understand all sections of this SCBP Operation and Maintenance Manual.



The SCBP is mainly a pressurized vessel. Propelled objects will cause serious injury or death. Depressurize vessel before performing any maintenance. See Section 6.2.

6.1. BLASTING MEDIA BLASTING PROCEDURE

6.1.1. Static electricity is generated by the blasting media flow through the blasting media blasting hose. To minimize the chance of static electric shock to operating personnel only use static dissipating blasting hose and install a grounding strap on the SCBP.



Static electric shock hazard. To minimize the chance of static electric shock install a grounding strap on the SCBP and only use static dissipating blasting media blasting hose.

6.1.2. Do not operate this equipment without a pressure relief device in place.



Rupture Hazard. Operating the pressure vessel above the maximum allowable working pressure can result in rupturing the pressure vessel. Install an air pressure relief valve to protect against over pressurization of the blast vessel. See Section 3.5.

6.1.3. Make certain that the SCBP is not pressurized. Follow the depressurizing procedure given in Section 6.2.



Airborne particles and loud noise hazards from blowdown exhaust air can cause serious injury and loss of hearing. Wear approved eye and ear protection. Stay clear of blowdown air path. DO NOT place hands or other body parts in the blowdown air path. Make sure no personnel are in the blowdown air path.

6.1.4. Verify that all required personal protective equipment is available for each operator and in good operating condition. See section 3.4



Failure to use personal protective equipment could result in serious injury or death.

6.1.5. Hose clamp the deadman to the blasting media blasting hose assembly in a comfortable position behind the blasting nozzle.

6.1.6. Cable tie the signal lines hoses to the blasting media blasting hose assembly.

6.1.7. Connect the blasting media blasting hose coupling on to the outlet claw coupling . Then install safety pins and a hose whip check to protect against accidental disconnections during operation.



Failure to install safety hose whipchecks on all blasting media blasting hose couplings can result in hose disconnects and could result in serious injury or death, see Section 5.7.

6.1.8. Connect the signal lines hoses as indicated in Sections 5.3.



Reversing the connections to the deadman trigger can activate the remote control valve and the SCBP as the inlet signal air over

supplies the deadman trigger vent hole. If the SCBP activates automatically from time to time check the connections to the deadman trigger.

- 6.1.9. Connect a 7 bar rated (minimum) air supply hose to the air inlet claw coupling and install safety pins and a hose whip check to protect against accidental disconnections during operation.



Failure to install safety pins on all air hose couplings can result in hose disconnects and could result in serious injury or death.

6.2. SCBP DEPRESSURIZING PROCEDURE

See Section 5, the pressure vessel can be depressurized by either releasing the deadman lever or by closing the compressed air inlet valve and opening the manual blow down valve. The latter process must be followed during refilling of SCBP with blasting media.



Do not leave the SCBP pressurized during long periods of no usage. An undetected air leak can cause costly damage to the pressure vessel at the hand hole or blasting media inlet.

6.3. HAND HOLE COVER



The hand hole assembly is part of a pressurized vessel. Use of incorrect hand hole components will result in assembly failure. Assembly failure will propel objects causing serious injury or death.

- 6.3.1. Inspect the hand hole gasket for tears, cracks, or other wear. Replace if necessary.
- 6.3.2. Inspect the hand hole weld ring sealing surface inside the vessel. Inspect the hand hole cover sealing surface. Both surfaces must be smooth.
- 6.3.3. Place the gasket on the hand hole cover and bolt then fit both through the opening.
- 6.3.4. Place the cover and gasket in position against the inside edge of the hand hole weld ring. Apply a pulling force on the bolt to hold in position then proceed.
- 6.3.5. Center the gasket on the hand hole weld ring.
- 6.3.6. Center the hand hole cover on the gasket.
- 6.3.7. When all components are centered slide the tension bar over the bolt until it touches the hand hole outer ring. Tighten the tension bar with a nut onto the hand hole outer edge until snug.
- 6.3.8. Only after completing all the pre-operation procedures in Section 6 pressurize the vessel and re-tighten the nut with a wrench until snug again.
- 6.3.9. Do not over-tighten the nut and bolt. Over-tightening could bend the tension bar resulting in malfunction of the assembly.
- 6.3.10. Periodically check for leaks.

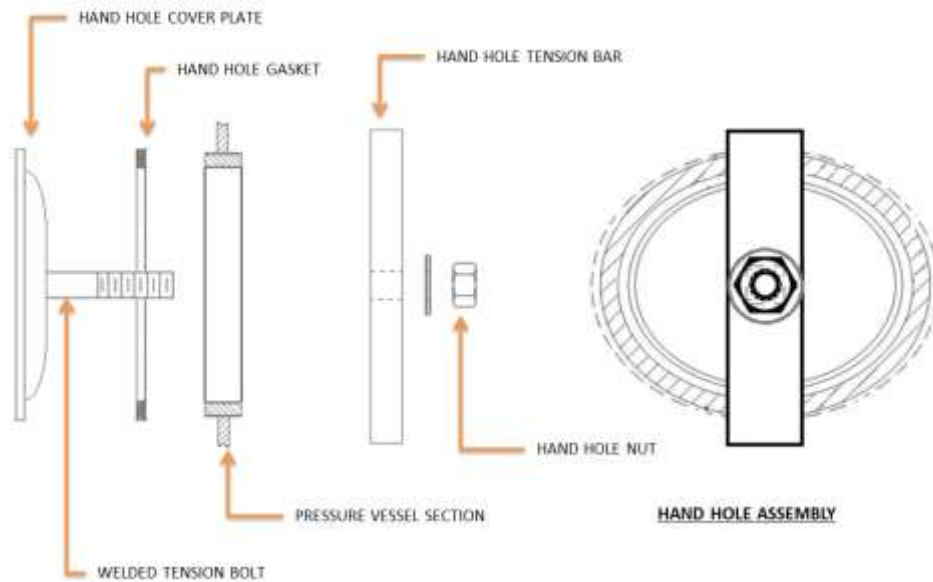


Figure 6 – Hand Hole Assembly

7.0 Operating Instructions (See Figure 7)

7.1. FILLING THE SCBP WITH BLASTING MEDIA

7.1.1. The SCBP must be completely depressurized before filling with blasting media. Disable the blaster by closing the air inlet ball valve, item 1 and opening the manual blowdown valve, item 2.



Airborne particles and loud noise hazards from blowdown exhaust air can cause serious injury and loss of hearing. Wear approved eye and ear protection. Stay clear of blowdown air path. DO NOT place hands or other body parts in the blowdown air path. Make sure no personnel are in the blowdown air path.

7.1.2. Check to see that the popup has dropped open. The open popup indicates that the blast vessel is depressurized, see figure 5.2.

7.1.3. Fill the SCBP with dry blasting media through the blasting media inlet. Do not over-fill the SCBP. Avoid an excessive amount of blasting media piled above the popup as it will prevent the popup from sealing properly.



Pinch point hazard. Vessel pressurization will close the popup. Keep hands and fingers away from popup. Disconnect air supply prior to performing popup maintenance.

7.1.4. After completing all the pre-operation procedures in Section 6.0 and 7.1 pressurize the SCBP as per Section 7.2, and then check the popup for leaks. Periodically check the popup for leaks thereafter.

7.2. BEGINNING OF THE BLASTING OPERATION

7.2.1. The SCBP must be properly setup and all operating personnel must be thoroughly trained before beginning the blasting operation. All operators must completely read and understand all sections of this manual before beginning the blasting operation. See the pre-operation setup procedures given in Section 6.

- 7.2.2. Perform the required inspections and maintenance before beginning the blasting operation. See the instructions given in Section 8.



The SCBP is mainly a Pressurized Vessel. Propelled objects will cause serious injury or death. Depressurize vessel before performing any maintenance.

- 7.2.3. Open the choke valve, item 4. Leave the choke valve completely open at all times while blasting. Close the choke valve only to clear any trash that may get into the blast vessel and block the metering valve, item 5. Whenever trash (paint chip, cigarette butt, etc.) blocks the abrasive valve orifice, the procedure is to fully open the valve by turning the knob counterclockwise, then press down the deadman lever. While blasting, have an assistant close the choke valve completely for about one second. This creates differential pressure at the metering valve (high pressure above; low pressure below). The higher pressure from the blast vessel should be enough to loosen the trash blocking the abrasive valve orifice and blast it through the blast nozzle.
- 7.2.4. Connect the air supply hose from the compressor or aftercooler to the inlet claw coupling fitted onto the inlet ball valve, item 1. Ensure the inlet ball valve are closed.
- 7.2.5. Ensure the deadman lever is released and the control valve, item 3 on the remote control valve is open
- 7.2.6. Open the inlet ball valve, item 1 slowly until open.
- 7.2.7. Slightly open the ball valve on bottom of the moisture trap to permit moisture to continually drain during the blasting operation. Once each day completely open the drain valve to blow out all moisture and dirt particles.
- 7.2.8. Adjust inlet pressure on the compressor to 7 bar.
- 7.2.9. Close the blowdown valve, item 2, slowly and then the remote control valve, item 3.
- 7.2.10. Activate the SCBP by pressing down firmly on the deadman handle lever and see if the pop-up valve closes and the pot pressurizes.
- 7.2.11. Check the popup, hoses, and piping for leaks while the system is pressurized. Periodically check for leaks thereafter.
- 7.2.12. If the unit pressurizes release the deadman trigger, the pressure vessel should depressurize. You are now ready to start with the blasting process.
- 7.2.13. With one hand grip the blast nozzle and hose assembly and with the other hand press in the deadman lever. Firmly press down the deadman lever, air and blasting media will flow into the blast hose and out of the blast nozzle at high speed.



Do not aim the blasting media blasting hose towards yourself or any person. System malfunction can cause accidental start up and result in injury to personnel.

- 7.2.14. Observe the blast stream and the coating removal rate. A bluish color in the blast stream indicates a good abrasive to air mixture. Release the deadman lever to stop blasting.



Figure 7 – High flow pot with Kombi Valve

7.3 ENDING THE BLASTING MEDIA BLASTING OPERATION

7.3.1. Release the deadman control lever and close the air inlet ball valve, Item 1. Open the remote control valve, Item 3 and manual blow down valve, item 2.



Do not turn off the air compressor and allow the SCBP air pressure to back flow through the air supply system. Back flow will carry blasting media into the moisture trap and contaminate the controls.

7.3.2. Completely open the drain ball valve at the bottom of the moisture trap to allow all the accumulated moisture to be drained out. Close the ball valve after draining.



Do not leave the SCBP pressurized during long periods of no usage. An undetected air leak can cause costly damage to the pressure vessel at the hand hole or blasting media inlet.

7.3.3. For long periods of non-usage remove remaining blasting media from SCBP to minimize moisture contamination.



Blasting media left inside the blast vessel can be contaminated by moisture and solidify inside causing costly damage.

8. Maintenance and Inspection Instructions



The SCBP pressure vessel is a Pressurized Vessel. Propelled objects will cause serious injury or death. Depressurize vessel before performing any maintenance. See Section 7.3.



For proper operation, maintenance should be performed with the assistance of a qualified serviceman.

8.1. **BLAST POT EXTERNAL:**

Any damage to a SCBP (pressure vessel) can make it unsafe. Inspect the exterior of the SCBP pressure vessel daily for corrosion, pitting, or other damage (i.e. dents, gouges or bulges). If damaged, take out of service immediately and have it inspected and/or repaired by a qualified facility. Contact Blastrite for technical support.

8.2. **BLAST POT INTERNAL:**

The interior condition of the SCBP pressure vessel should be inspected quarterly. Pitting caused by corrosion will reduce the wall thickness of the vessel. If excessive corrosion is found, have the SCBP pressure vessel inspected by a qualified facility. Contact Blastrite for technical support. Check the pressure vessel internal piping for corrosion, cracks, and holes. See Figure 8.1.

8.3. **POPUP ASSEMBLY:**

The popup alignment and operation is tested by the manufacturer, however vibration and creeping during shipment may cause the internal popup support piping to shift resulting in misalignment. Check the popup gap and alignment prior to initial usage and weekly thereafter. Inspect the popup as follows:

- 8.3.1. Depressurize the SCBP pressure vessel.
- 8.3.2. Disconnect air supply hose from the claw coupler.
- 8.3.3. Inspect the popup o-ring and popup head sealing surfaces for wear or deformations. Replace either if necessary.
- 8.3.4. Check that the popup is centered within the gasket opening. If necessary, use a pry bar as a lever between the popup and gasket to deflect the internal support piping and shift the popup to the center of the gasket opening.
- 8.3.5. Check the popup gap (distance between the popup surface and the gasket). It should be between 15mm and 22m. See Figure 8.1. An excessive gap will expose the top of the vertical nipple to blasting media when the popup closes which could result in premature wear to the popup.
- 8.3.6. After checking the alignment and gap, the SCBP can be re-pressurized and the popup is then checked for leaks. If a leak is present, repeat the above steps to isolate the problem.

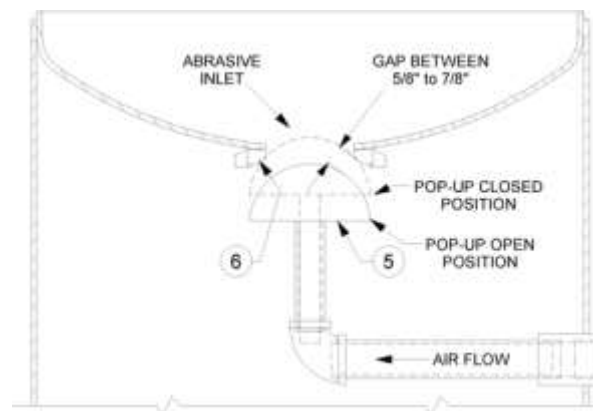


Figure 8.1 – Standard Popup Assembly and Internal Piping

8.4. BLASTING AND AIR HOSES:

All air hoses, blasting media blasting hoses, and control hoses should be inspected daily for wear, dry rotting, cracking or leakage. Repair or replace any hoses that show any signs of wear, leakage or other damage. Damaged hoses can cause system malfunctions and can result in serious injury or death to operating personnel.

Blasting hoses are a high wear component of the SCBP system. Sharp bends in the blasting media blasting hose create high wear points resulting in soft spots that can rupture while blasting. Check the full length of the blasting hose assembly for soft spots caused by wear. To protect against serious injury to personnel replace blasting media blasting hoses with soft spots. **Note:** Static electricity is generated by the blasting media flow through the hose. To minimize chance of electric shock to operators only use static dissipating hose and install a grounding strap on the SCBP.



Worn hose assemblies can rupture while blasting and the resulting blasting media blast can cause serious personal injury.



Static electric shock hazard. To minimize the chance of static electric shock install a grounding strap on the SCBP and only use static dissipating hose.

8.5. BLASTING AND AIR HOSE COUPLINGS (SEE FIGURE 8.2)

All air hose and blasting media blasting hose couplings have pin holes that align when connected. To protect against accidental hose disconnections safety pins must be installed through these holes. Each hose connection must also include a hose whip check that will hold the hose if there is an accidental disconnection. Connect one loop to each side of the connection and stretch out as shown in Figure 8.2 below. Check hose connections daily and replace missing or damaged pins and whip checks.



Failure to install safety pins on all air and blasting media blasting hose couplings can result in hose disconnects and could result in serious injury or death.

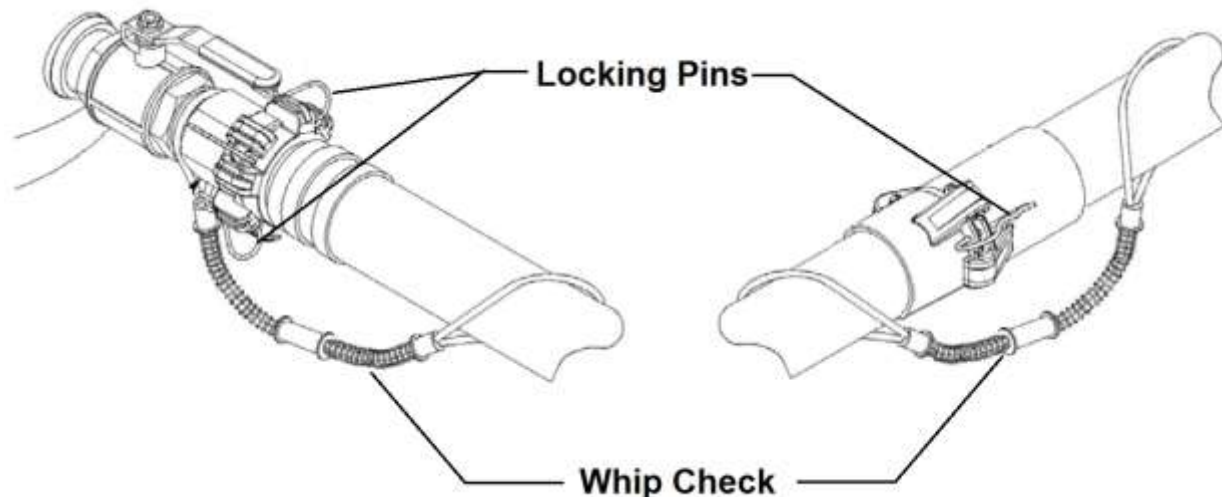


Figure 8.2 – Hose Connection Disconnect Protection



Depressurize vessel before performing any maintenance. Removing any part of the system while the SCBP is pressurized will result in serious injury or death.



Use of replacement components that are not Blastrite original factory replacement parts may result in equipment failure which can result in serious personal injury.

8.6. PPE

Check daily to verify that all personal protective equipment is available for each abrasive blasting operator. Check daily to verify that all personal protective equipment is in good operating condition. Consult the operating and maintenance instructions provided by the manufacturer of each PPE item. See Section 3.4.



Failure to use personal protective equipment could result in serious injury or death.

8.7. WARNING DECALS

Check monthly to verify that all the warning decals are in position and legible. See Section 0.0, Figure 1.5 for full descriptions and locations.



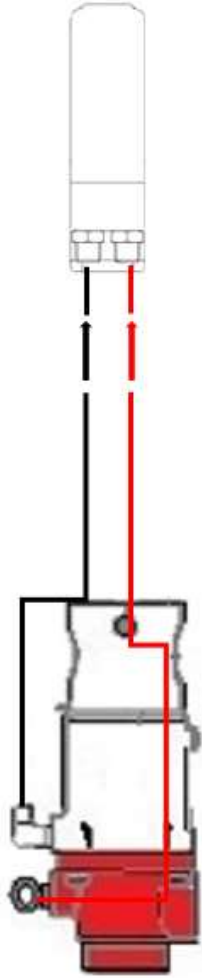
Failure to maintain warning decals risks the possibility of not alerting the abrasive blasting operator to potential dangers which can result in serious injury or death. See Section 0.0.

8.8. HAND HOLE ASSEMBLY

Refer to Section 6.3 for installation and inspection procedures.

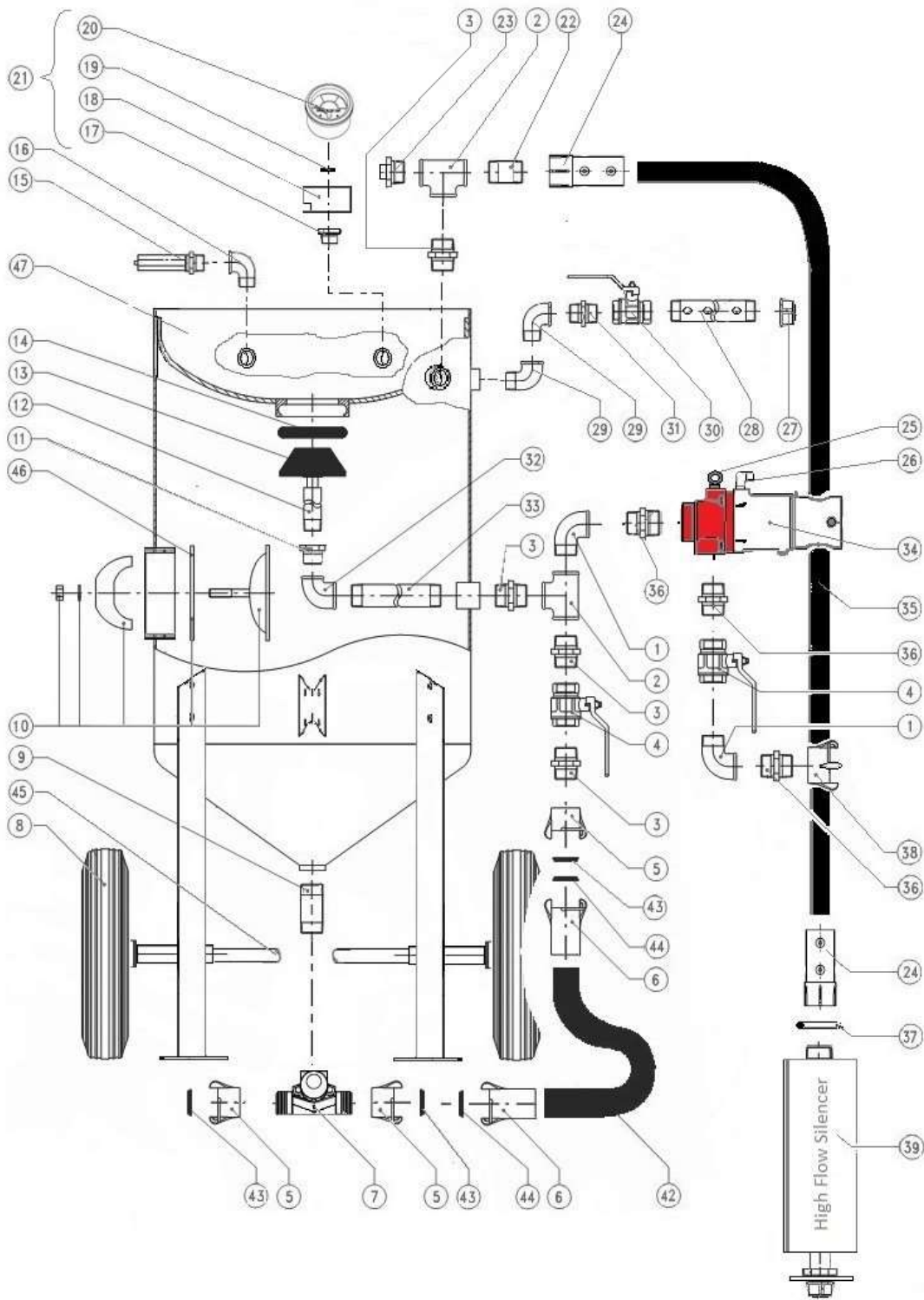
9. Trouble Shooting

Defect Causes	Defect						Solution
	No air escapes from the vent hole in the deadmans handle	After starting, the system will not stop.	Blast pot does not pressurize	Abrasive surges in the blast hose	Too much abrasive flow	Moisture and contaminates in the abrasive flow	
Deadmans Handle inlet nipple clogged	X	X					Clear restrictor nipple on air inlet to Deadmans handle - blow signal lines clean
Deadmans Handle vent hole clogged	X	X					Remove plate on deadmans handle to clear blockage - blow signal lines clean
Safety Ball Valve still open	X	X					Close Safety Ball Valve on Remote Valve
Low air pressure		X	X		X		Increase Air pressure - Replace Compressor - to match flow and air requirements of the blast nozzle orifice - ie. 8mm nozzle requires at least 250cfm.
Signal lines connections interchanged		X					Check Signal lines - signal line from bottom of remote valve to top of Deadmans [Red Hose] - return line from bottom of Deadmans to top of Remote Valve [Black Hose] see above diagram
Defective deadmans handle		X	X				Check connections and modify if switched as per diagram above or inspect and replace rubber stopper grommet on deadmans handle if pressure not being maintained
Defective Remote control Valve		X	X				Disassemble valve and check proper operation and look for worn or defective parts
Abrasive metering Valve defective				X	X		Replace or repair valve check for wear and clear any blockages
Pop up valve not sealing				X			Disassemble valve and check proper operation replace pop-up valve or internal O ring if wear observed
Moisture laden compressed air				X	X		Fit Water trap if not fitted -Advise to use Aftercooler in supply air line
Contaminated abrasive media					X		Replace blasting media make sure new media is dry from all moisture and any contaminates
Grit valve blocked or partially blocked				X			Remove contaminats or replace blasting media - check and clean Grit Valve
Nozzle blocked or partially blocked				X			Remove and clear blockage check for damage
System air leaks						X	Check for leaks, repair, or replace leaking parts check all hose supply clamps make sure whip check fitted at all air and abrasive connections -check blast pot inspection hatch seal
Grit valve opened to the maximum				X	X		Reset Abrasive metering Valve valve to supply correct amount of grit



SYSTEM DIAGRAM FOR REMOTE CONTROL VALVE

10. **Parts List (See Figure 10)**



HIGH FLOW POT PART LIST

ITEM	PART.NR.	DESCRIPTION	QTY
1	EQP-AB-21996	32MM MALE & FEMALE ELBOW GALV	2
2	EQP-AB-22116	32MM TEE GALV	2
3	EQP-AB-22256	32MM HEX NIPPLE	4
4	EQP-AB-11930-DN31	31MM 400 FORGED BRASS BALLVALVE	2
5	EQP-AB-21630	32MM POT COUPLER GALV	3
6	EQP-AB-21520	HOSE COUPLING 32mm NYLON YELLOW	2
7	AB-BAC-VA-9918-00	FINA II NPT-BSP 1 1/4 BLACK	1
8	EQP-AB-10680	400 MM WHEELS-WSS163B/C	2
9	EQP-AB-60924-32	PIPE NIPPLE 32x80MM BSPXNPT	1
10	EQP-AB-10480	INSPECTION DOOR ASSEMBLY	1
11	EQP-AB-22905-1x1-1/4	1"x1 1/4" REDUCING RING FM	1
12	EQP-AB-10500	1" INTERNAL PIPE- PLUMBING 200L POTS	1
13	EQP-AB-11880	POP-UP VALVE FLAT WITH SHAFT 200L	1
14	EQP-AB-11920	EQUIPMENT POP-UP O RING	1
15	EQP-AB-108972	3/4" SAFETY VALVE WP 9 BAR	1
16	EQP-AB-22910	3/4" MALE & FEMALE ELBOW GALV	1
17	EQP-AB-22905-3/4x1/4	REDUCTION RING 3/4x1/4	1
18	EQP-AB-77250	1600KPA GAUGE SHROUD	1
19	EQP-AB-52500	METRIC O RING 5X25	1
20	EQP-AB-0-1600KPA	1/4 R/E GAUGE 0-1600KPA	1
21	EQP-AB-77250-ASS	1600KPA GAUGE AND SHROUD COMPLETE	1
22	EQP-AB-22906-32	PIPE NIPPLE 32MM	1
23	EQP-AB-30331	32MM SQUARE HEAD PLUG	1
24	EQP-AB-21340	AL NOZ HOLDER 1"HOSE - FINE THREAD	2
25	YAC-PF-PB-0234	1/8 MALE FEMALE SWIVEL ELBOW	1
26	EQP-AB-78200	ELBOW 1/4" MM BRASS	1
27	EQP-AB-60826	25MM PIPE CAP CALV	1
28	EQP-AB-10190-4	1" PIPE INCL VENT HOLES	1
29	EQP-AB-21995	25MM MALE & FEMALE ELBOW GALV	2
30	EQP-AB-11130	25MM BALLVALVE BRASS	1
31	EQP-AB-22255	1" HEX NIPPLE	1
32	EQP-AB-21986	32MM FEMALE & FEMALE ELBOW GALV	1
33	EQP-AB-10270	INNER PIPE 1 1/4" 200L POT	1
34	AB-BAC-RC-0662-00	KOMBI III REMOTE CONTROL VALVE	1
35	EQP-AB-25070	25MM BLAST HOSE HW60 - OD 39MM	1
36	EQP-AB-22758	REDUCING NIPPLE 1 1/2"TO 1 1/4"	3
37	EQP-AB-30271	RUBBER GASKET 57X42X6	1
38	EQP-AB-21697	QUICK COUPLING 1- 1/2 FEMALE	1
39	EQP-AB-11690-HF	HIGH FLOW SILENCER ASSEMBLY	1
40			
41			
42	EQP-AB-25080	BLAST HOSE HW60 - 1M (NOT FOR SALE)	1

43	EQP-AB-21650	EQUIPMENT BLAST HOSE POT COUPLER SEAL	3
44	EQP-AB-21652	GASKET FOR CQN-2/3/4 CFN HOSE COUPL SEAL	2
45	EQP-AB-80003-ASS	25mm ROUND BAR AXLE COMPLETE WITH SHAFT	1
46	EQP-AB-10470	INSPECTION DOOR GASKET	1
	EQP-AB-101101002-HF	200L BLANK POT WITHOUT LEGS HIGH FLOW	1
47	EQP-AB-7002-006	200L POT - LEG & HANDLE PACKAGE	1
	EQP-AB-101-PLATE	BLAST POT NAME PLATE	1