

6.5 Cubic Foot M-Series Blast Pot

Operator's Manual #1090058 - April 15, 2011



WARNING

Before using this equipment, read, understand and follow all instructions in the Operator's Manuals provided with this equipment. If the user and/or assistants cannot read or understand the warnings and instructions, the employer of the user and/or assistants must provide adequate and necessary training to ensure proper operation and compliance with all safety procedures pertaining to this equipment. If Operator's Manuals have been lost, contact your distributor or call 563.324.2519 for replacements. Failure to comply with the above warning could result in death or serious injury.



Company Profile

Since 1944, Marco has developed a strong tradition of providing innovative and reliable products and services to the surface preparation industry. We are the world's premier provider of Abrasives, Blasting Equipment, Engineered Systems, Painting Equipment, Rental Equipment, Safety Equipment, and Service & Repair.

Profitability is driven by the efficient use of labor, equipment, and abrasives. Through innovative designs and a total commitment to quality, Marco manufactures products that create a safer workplace, optimize production rates, and reduce maintenance costs. Marco's industry experience, legendary customer service, logistics services, manufacturing capabilities, product availability, and technology leadership is your assurance we deliver high quality products and services, providing the best value to you, our customer.

The Marco Difference

» Industry Experience

With Marco on your team, you have access to expertise which can only come from over 65 years of industry leadership. We have organized our engineering department, production specialists, customer operations and safety support into a "Center of Competence". As a Marco customer you have access to hundreds of years of cumulative experience related to your operations.

» Manufacturing Capabilities

As an ASME-certified manufacturer selling directly to the end-user, Marco is in a unique position to serve you. Our in-house engineers have benchmarked our competitor's equipment to ensure that we design and manufacture superior products. Marco's products set the "Gold Standard" for performance, safety and quality. All Marco facilities are ISO 9001:2008 certified to provide consistent quality throughout our organization.

» Legendary Customer Service

We understand the demands of today's intense working environment. Marco's legendary customer service team is staffed by friendly, highly-trained individuals who are focused on providing the highest level of product support, order accuracy, and customer satisfaction.

» Product Availability

We stock over 10,000 SKU's and have over 45 shipping locations to serve North American and international markets. In addition to Marco products, we stock components for all major brands. As the largest provider of surface preparation equipment in the world, our inventory levels are unmatched. Product availability is a cornerstone of our legendary customer service. You can count on Marco for an inventory solution that keeps your operations up and running.

» Logistics Services

Marco's in-house logistics team is dedicated to moving your shipment anywhere in the world. Let Marco's logistics team take the hassle out of moving your freight. We move over 14,000 truckloads every year allowing you to save on freight costs by leveraging our buying power. Lower your process costs with a single invoice that includes product and freight. You can count on Marco for your logistics solutions.

» Technology Leadership

Marco's "3 Net strategy" ensures access to timely and accurate information. Our Internet provides: Features, Advantages & Benefits Guides, Operator's Manuals, Part Numbers & Schematics Guides, and MSDS information, allowing you to make informed buying decisions 24/7. Our Extranet application allows you to receive quotes and place orders online. Our Intranet houses detailed information relating to your account. Our systems maintain a complete record of your purchase history to assist with ongoing support of your existing equipment and future purchasing decisions.











Vision Statement

To be the world's premier provider of Abrasives, Blasting Equipment, Engineered Systems, Painting Equipment, Rental Equipment, Safety Equipment, and Service & Repair.

Mission Statement

To provide leadership and innovation to the surface preparation industry. We will dedicate our efforts to the continuous improvement of our products, services, processes, people and most importantly the quality of our Customer's experience.

Quality Statement

Marco is committed to providing superior quality in the design, manufacturing, distribution and service of our products. As an ISO 9001:2008 registered company, Marco's quality systems assure our products will meet or exceed our Customer's expectations. Continuous Improvement in our processes and Supply Chain Integration comprise the core of our Business Strategy for delivering exceptional quality and value in all Marco products and services.

Management Philosophy

We are a Company dedicated to the success of every Customer and Associate. We will discuss, debate, challenge, measure and test our ideas. We will be boundless and limitless in our passion to improve. Through sound leadership and dedicated associates, we will ensure a long term, profitable future for Marco, our Associates, Customers and Suppliers.

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Definition of Terms

A DANGER

THIS IS AN EXAMPLE OF DANGER. THIS INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY.

▲ CAUTION

THIS IS AN EXAMPLE OF A CAUTION. THIS INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY. IT CAN ALSO BE USED TO ALERT AGAINST UNSAFE PRACTICES.

A WARNING

THIS IS AN EXAMPLE OF A WARNING. THIS INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.

NOTICE

THIS IS AN EXAMPLE OF A NOTICE. THIS INDICATES POLICY OR PRACTICE DIRECTLY RELATED TO SAFETY OF PERSONNEL OR PROTECTION OF PROPERTY.



Failure to comply with ANY WARNING listed below could result in death or serious injury.

- ▶ Breathing dust containing silica could cause silicosis, a fatal lung disease. Breathing dust during blasting operations, post-blast cleaning operations, and/or servicing equipment within the blasting area may expose an individual to conditions that could cause asbestosis, lead poisoning and/or other serious or fatal diseases. Harmful dust containing toxic material from medias or surfaces being blasted can remain suspended in the air for long periods of time after blasting has ceased. A NIOSH-approved, well-maintained, respirator designed for the specific operation being performed must be used by anyone blasting, handling or using the media, and anyone in the area of the dust.
- ▶ Contact NIOSH and OSHA offices to determine the proper respirator for your specific application. The air supplied to the respirator must be at least Grade D quality as described in Compressed Gas Association Commodity Specification G-7.1 and as specified by OSHA Regulation 1910.134. Ensure air filter and respirator system hoses are not connected to non-air sources or in-plant lines that may contain nitrogen, oxygen, acetylene or other non-breathable gases. Before removing respirator, use an air monitoring instrument to determine if the atmosphere is safe to breathe.
- ➤ You must comply with all OSHA, Local, City, State, Province, Country and jurisdiction regulations, ordinances and standards, related to your particular work area and environment. Keep unprotected individuals out of the work area.
- ▶ Blast operators must receive thorough training on the use of media resistant attire which includes: supplied-air respirator, blast suit, safety shoes, gloves, ear protection and eye protection. Protect the operator and bystanders by complying with NIOSH and OSHA Safety Standards.
- ▶ Inspect all equipment for wear or damage before and after each use. Failure to use Original Equipment Manufacturer repair parts and failure to immediately replace worn or damaged components could void warranties and cause malfunctions.
- ▶ OSHA requires blast-cleaning nozzles be equipped with an operating valve, which shall be designed to be held open only by continuous hand pressure and shall close immediately upon release of hand pressure (i.e., a "deadman" control). The valve shall not be modified in any manner that would allow it to remain open without the application of continuous hand pressure by the operator. Failure to comply with the above warning could result in release of high speed media and compressed air resulting in death or serious injury. (OSHA 29 CFR 1910.244(b))
- ▶ Point the blast nozzle only at the surface being blasted. Never point the blast nozzle or media stream at yourself or others.
- ▶ Unless otherwise specified, maximum working pressure of Blast Pots and related components must not exceed 125 PSI. Exceeding maximum working pressure of 125 PSI could cause the Blast Pot and components to burst.
- ▶ Never weld, grind or drill on the Blast Pot (or any pressure vessel). Doing so will void ASME certification and manufacturer's warranty. Welding, grinding or drilling on the Blast Pot (or any pressure vessel) could weaken the vessel causing it to burst. (ASME Pressure Vessel Code, Section VIII, Division 1)
- ▶ This equipment is not intended for use in any area that might be considered a hazardous location, as described in the National Electric Code NFPA 70, Article 500. Use of this equipment in a hazardous location could cause an explosion or electrocution.
- Never hang objects from the Blast Pot handle. Doing so may cause the Blast Pot to become unstable and tip over.



Failure to comply with ANY WARNING listed below could result in death or serious injury.

- ► This product is not for use in wet environments. Always use a Ground Fault Interrupter Circuit (GFIC) for all electrical power source connections. Use of this product in wet environments could create a shock hazard.
- ► Frozen moisture could cause restrictions and obstructions in pneumatic control lines. Any restriction or obstruction in the pneumatic control lines could prevent the proper activation and deactivation of the remote control system, resulting in the release of high speed media and compressed air. In conditions where moisture may freeze in the control lines an antifreeze injection system approved for this application can be installed.
- ▶ Do not cut, obstruct, restrict or pinch pneumatic control lines. Doing so could prevent the proper activation and deactivation of the remote control system, resulting in the release of high speed media and compressed air.
- ▶ Never attempt to move a Blast Pot containing media. Never attempt to manually move Blast Pots greater than 6.5 Cubic Foot capacity. Always use at least two capable people to manually move a Blast Pot on flat, smooth surfaces. A mechanical lifting device must be used if a Blast Pot is moved in any other manner.
- ▶ Use of Marco remote control switches with other manufacturer's remote control systems could cause unintended activation of remote control systems resulting in the release of high speed media and compressed air. Only Marco remote control switches should be used with Marco remote control systems.
- ▶ Always be certain to have secure footing when blasting. There is a recoil hazard when blasting starts that may cause user to fall and misdirect the media stream at operator or bystander.
- ▶ Never use a Blast Pot or attachments as a climbing device. The person could slip and fall. The Blast Pot could become unstable and tip over.
- ▶ The use of this product for any purpose other than originally intended or altered from its original design is prohibited.
- ► For equipment manufactured by entities other than Marco, you must consult the Original Equipment Manufacturer operator's manuals, information, training, instructions and warnings, for the proper and intended use of all equipment.
- ► Flammable fumes, such as solvent and paint fumes in the work area can present an ignition or explosion hazard if allowed to collect in adequate concentrations. To reduce conditions that could result in a fire or an explosion, provide adequate ventilation, eliminate all ignition or spark sources, keep the work area free of debris, store solvents and solvent contaminated rags in approved containers, follow proper grounding procedures, do not plug/unplug power cord or turn on/off power switches when flammable fumes are present, keep a working fire extinguisher or provide another fire suppression system in the work area. Cease all operations and correct condition if a spark or ignition source is identified during operation.
- Always depressurize the entire system, disconnect all electrical power sources and lockout/tagout all components before any maintenance or troubleshooting is attempted. Failure to comply with the above warning could cause electrical shock and inadvertent activation of equipment resulting in death or serious injury.
- Moving parts can present an area where crushing, pinching, entanglement or amputation may occur. Do not place body parts or foreign objects in any area where there are moving parts.
- Surfaces of heated supply tanks, drums and/or lines as well as the adjoining plumbing may become hot during normal use. Do not touch these heated surfaces without proper protection. Deactivate and allow sufficient time for all surfaces to cool before attempting any maintenance.



Failure to comply with ANY WARNING listed below could result in death or serious injury.

- ▶ High-pressure fluid from gun, hose leaks, or ruptured components can pierce skin and can cause a serious injury that may result in amputation. Do not point gun or spray tip at anyone or at any part of the body. Keep clear of any leaks or ruptures. Depressurize the entire system before attempting cleaning, inspecting, or servicing equipment.
- ▶ Exposure to toxic fluids or fumes may occur during the normal operation of this system. Before attempting to fill, use, or service this system, read MSDS's to know the specific hazards of the fluids you are using. Always use proper Personal Protective Equipment when attempting to fill, use, or service this system.

A CAUTION

Failure to comply with ANY CAUTION listed below may result in minor or moderate injury.

- ▶ Static electricity can be generated by media moving through the blast hose causing a shock hazard. Prior to use, ground the Blast Pot and blast nozzle to dissipate static electricity.
- ► High decibel noise levels are generated during the blasting process which may cause loss of hearing. Ensure appropriate Personal Protective Equipment and Hearing Protection is in use.

NOTICE

Failure to comply with ANY NOTICE listed below could pose a hazard to personnel or property.

- ▶ See Media Consumption Chart for consumption rates and required air flow (cubic feet per minute). The system must meet these minimum requirements to ensure proper function and performance.
- ▶ Always use media that is dry and properly screened. This will reduce the potential for obstructions to enter the remote control system, metering valve and blast nozzle.
- Moisture build-up occurs when air is compressed. Any moisture within the blast system will cause medias to clump, clogging metering valves, hoses and nozzles. Install an appropriately sized moisture separator at the inlet of the Blast Pot. Leave the moisture separator petcock slightly open to allow for constant release of water. If insufficient volume of air exists and petcock is unable to be left open (at all times) petcock should be opened frequently to release water.
- ▶ To reduce media intrusion in the air supply hose, depressurize the Blast Pot before shutting off air supply from compressor.
- Inspect nozzle before placing in service. Damage to nozzle liner or jacket may occur during shipping. If you receive a damaged nozzle, contact your distributor immediately for replacement. Nozzles placed into service may not be returned. Nozzle liners are made of fragile materials and can be damaged by rough handling and striking against hard surfaces. Never use a damaged blast nozzle.
- ▶ Blasting at optimal pressure for the media used is critical to productivity. Example: for a media with an optimal blasting pressure of 100 PSI at the nozzle, one pound per square inch of pressure loss will reduce blast efficiency by 1.5%. A 10 PSI reduction in air pressure will cause a 15% loss of efficiency. Use a Needle Pressure Gauge to identify pressure drops in your system. Consult with your media supplier for the requirements of your media.
- ▶ Replace Blast Nozzle if liner or jacket is cracked or damaged. Replace nozzle if original orifice size has worn 1/16" or more. Determine nozzle wear by inserting a drill bit 1/16" larger than original size of nozzle orifice. If drill bit passes through nozzle, replacement is needed.



NOTICE

Failure to comply with ANY NOTICE listed below could pose a hazard to personnel or property.

- See Media Consumption Chart for consumption rates and required air flow (cubic feet per minute). The system must meet these minimum requirements to ensure proper function and performance.
- ▶ When it comes to media & air mixtures, more is not necessarily better. Optimum blasting efficiency takes place when a lean media & air mixture is used. To correctly set the metering valve, begin with the valve fully closed and slowly increase the amount of media entering the airstream. As you increase the media flow, watch for a "blue flame" (Figure 1) at the exit of the nozzle. Faster cutting, reduced media consumption and lower clean-up costs, are benefits of the "blue flame".
- ▶ Blasting at optimal pressure for the media used is critical to productivity. Example: for a media with an optimal blasting pressure of 100 PSI at the nozzle, one pound per square inch of pressure loss will reduce blast efficiency by 1.5%. A 10 PSI reduction in air pressure will cause a 15% loss of efficiency. Use a Needle Pressure Gauge to identify pressure drops in your system. Consult with your media supplier for the requirements of your media.

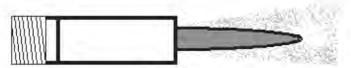


Figure 1

Media Consumption Chart*

Pressure at the Nozzle (PSI) Air (in cfm), Media Nozzle & Compressor Requirements Orifice No. 2 Air (cfm) Media (lbs/hr) (1/8")5.5 3.5 4.5 6.2 Compressor Horsepower No.3 Air (cfm) Media (lbs/hr) (3/16")q Compressor Horsepower No. 4 Air (cfm) Media (lbs/hr) (1/4")Compressor Horsepower No. 5 Air (cfm) Media (lbs/hr) (5/16")Compressor Horsepower No. 6 Air (cfm) Media (lbs/hr) (3/8")Compressor Horsepower No. 7 Air (cfm) Media (lbs/hr) (7/16")Compressor Horsepower No. 8 Air (cfm) Media (lbs/hr) (1/2")Compressor Horsepower No. 10 Air (cfm) (5/8")Media (lbs/hr) 68.5 79.5 100.5 Compressor Horsepower Air (cfm) No. 12 (3/4")Media (lbs/hr) 174.5 Compressor Horsepower

*Media consumption is based on media with a bulk density of 100 bs per Cubic Foot

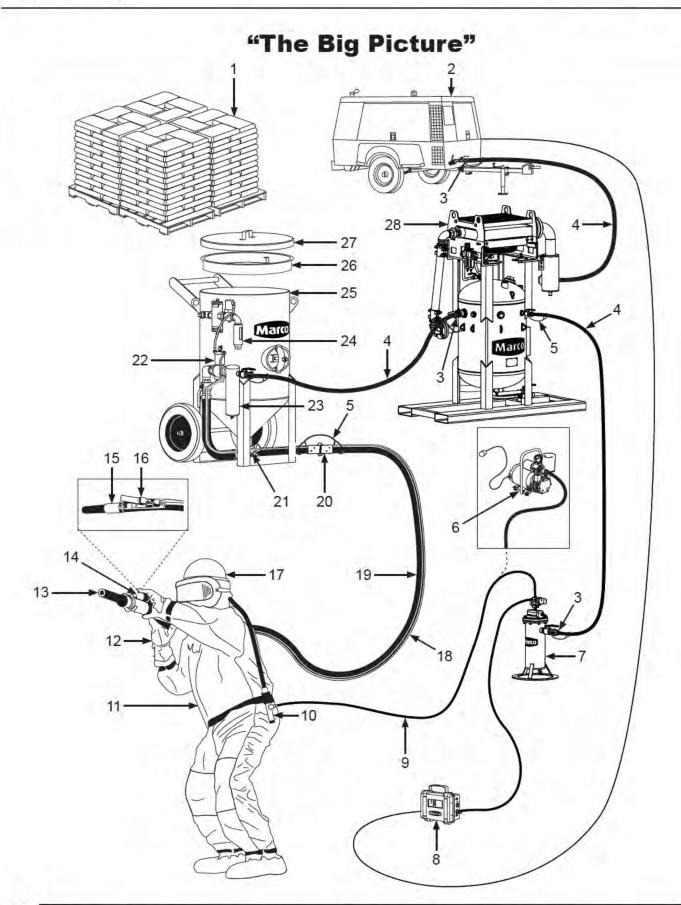
NOTICE

Inspect nozzle before placing in service. Damage to nozzle liner or jacket may occur during shipping. If you receive a damaged nozzle, contact your distributor immediately for replacement. Nozzles placed in to service may not be returned. Nozzle liners are made of fragile materials and can be damaged by rough handling and striking against hard surfaces. Never use a damaged blast nozzle.

NOTICE

Replace Blast Nozzle if liner or jacket is cracked or damaged. Replace nozzle if original orifice size has worn 1/16" or more. Determine nozzle wear by inserting a drill bit 1/16" larger than original size of nozzle orifice. If drill bit passes through nozzle, replacement is needed.







Daily Pre-operation Checklist

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Daily Pre-operation Checklist ☐ 1. Abrasive Media ☐ 2. Air Compressor	Abrasive Media – Select the correct Abrasive Media (1) for the application. Review the MSDS (Material Safety Data Sheet) to ensure the correct PPE (Personal Protective Equipment) and Environmental Controls have been selected and are in place.
□ 3. Air Hose Couplings & Gaskets □ 4. Air Hose □ 5. Safety Cable	Air Compressor – Select an Air Compressor (2) of adequate size to support all equipment requirements. Refer to "Media Consumption Chart" for Blast Nozzle (13) air consumption requirements. Before connecting Air Hose (4), sample the air being produced by the air compressor (2) to ensure it is free of petroleum contaminants.
☐ 6. Ambient Air Pump* ☐ 7. Breathing Air Filter ☐ 8. CO Monitor ☐ 9. Breathing Line	Air Hose, and Air Hose Couplings & Gaskets – Select Air Hoses (4) of sufficient size to support all subsequent volumetric requirements and with a sufficient PSI (pound per square inch) rating. Inspect all Air Hose (4), and Air Hose Couplings & Gaskets (3) for damage or wear. Repair or replace damaged or worn components.
 □ 9. Breathing Line □ 10. Climate Control Device □ 11. Blast Suit □ 12. Blasting Gloves 	Blast Hose, Blast Hose Couplings & Gaskets, and Blast Nozzle Holder – Select a Blast Hose (19) that has an inner diameter 3 to 4 times larger than your Blast Nozzle (13). Inspect Blast Hose (19), Blast Hose Couplings & Gaskets (20), and Blast Nozzle Holder (15) for damage or wear. Repair or replace damaged or worn components.
13. Blast Nozzle	Safety Cables – Install a Safety Cable (5) at each Air Hose (4), and Blast Hose (19) connection points.
☐ 14. Blast Light* ☐ 15. Blast Nozzle Holder ☐ 46. "Dandwar" Quitel	Aftercooler and Moisture Separator – Ensure Aftercooler (28) is positioned on stable ground. Keep petcock drain of Moisture Separator (23) slightly open during use. Drain both devices after each use.
 ☐ 16. "Deadman" Switch ☐ 17. Blast Helmet ☐ 18. Control Line ☐ 19. Blast Hose 	Blast Helmet, Breathing Line, Breathing Air Filter, Climate Control Device, CO Monitor, Ambient Air Pump – You MUST consult the Operator's Manual supplied with your Respiratory Equipment (6, 7, 8, 9, 10, 17) for ALL applicable instructions and warnings. Inspect all Respiratory Equipment components for damage or wear. Repair or replace damaged or worn components.
□ 20. Blast Hose Couplings & Gaskets□ 21. Abrasive Metering Valve□ 22. Remote Control System	Blast Suit and Blasting Gloves – Select an abrasive media-resistant Blast Suit (11) that is slightly oversized to allow ease of movement and allows air to flow around your body. Select abrasive media-resistant Blast Gloves (12) with a tight fit and a long cuff that overlaps the sleeve of the Blast Suit (11).
☐ 23. Moisture Separator ☐ 24. Exhaust Muffler	Abrasive Metering Valve and Blast Pot – Confirm Blast Pot (25) is positioned on stable ground. Inspect Blast Pot (25) and Abrasive Metering Valve (21) for damage or wear. Repair or replace damaged or worn components.
☐ 25. Blast Pot ☐ 26. Blast Pot Screen ☐ 27. Blast Pot Lid	Blast Pot Screen and Blast Pot Lid – Always use a Blast Pot Screen (26) when filling Blast Pot (25) with Abrasive Media (1) to prevent debris from entering the Blast Pot (25). Remove Blast Pot Lid (27) before operating the Blast Pot (25). Install Blast Pot Lid (27) after use to protect the Blast Pot's (25) interior.

☐ 28. Aftercooler*

damaged or worn components. Ensure Control Line (18) fittings connected to the Remote Control System (22) are tight and free of leaks. Ensure "Deadman" Switch (16) is functioning properly. Consult "Deadman" Switch Operator's Manual for applicable instructions.

"Deadman" Switch, Control Line, Remote Control System – Inspect Remote

Control System (22) and Control Line (18) for damage or wear. Repair or replace

Exhaust Muffler – Inspect Exhaust Muffler (24) at start and end of daily use. Replace element of Exhaust Muffler (24) per Operator's Manual instructions.

Blast Light – Ensure the Blast Light (14) is connected to a proper power supply before use.

^{*} Optional or alternative device. Ask your Marco Representative for more details.



Inspect all equipment for wear or damage before and after each use. Failure to use Original Equipment Manufacturer repair parts and failure to immediately replace worn or damaged components could void warranties and cause malfunctions. Failure to comply with the above warning could result in death or serious injury.

A WARNING

Never weld, grind or drill on the blast machine (or any pressure vessel). Doing so will void ASME certification and manufacturer's warranty, Welding, grinding or drilling on the blast machine (or any pressure vessel) could weaken the vessel causing it to burst. Failure to comply with the above warning could result in death or serious injury. (ASME Pressure Vessel Code Section VIII, Division 1)

A WARNING

OSHA requires blastcleaning nozzles be equipped with an operating valve, which shall be designed to be held open only by continuous hand pressure and shall close immediately upon release of hand pressure (i.e., a "deadman" control). The valve shall not be modified in any manner that would allow it to remain open without the application of continuous hand pressure by the operator. Failure to comply with the above warning could result in release of high speed media and compressed air resulting in death or serious injury. OSHA 29CFR 1910.244(b)

Description

Always Innovative. Always Reliable. The Marco 6.5 Cubic Foot M-Series Blast Pot is a portable pressure vessel built in accordance with ASME Pressure Vessel Code to a working pressure of 150 psi. The 24" diameter vessel holds up to 6.5 cubic feet of abrasive. The KwikFire 125 Remote Control System allows the operator to remotely activate and deactivate the Blast Pot without the need of a pot tender. Pour abrasive through the Fill Hole in the top of the Blast Pot and activate the KwikFire 125 Remote Control System to pressurize the Blast Pot. When the remote control system is activated, compressed air enters the Blast Pot and raises the Pop-Up Valve, sealing the Fill Hole and pressurization begins. Once the Blast Pot reaches full pressure, air travels down the Pusher Line to the Bantam Abrasive Metering Valve. The Bantam Abrasive Metering Valve regulates the amount of abrasive entering the stream of air that carries abrasive to the blast nozzle. When the remote control system is deactivated, air traveling down the Pusher Line and entering the Blast Pot is stopped. The pressurized air in the Blast Pot exhausts through a 1" I.D. port, and the Pop-Up Valve drops down from the Fill Hole, returning to the non-blasting position.

Dimensions: Overall Height: 50" Width: 35" Depth: 35" Weight: 390 pounds

Operational Requirements

The following may cause safety hazards or reduced performance:

- · Improper installation and/or maintenance of components
- · Failure to place Blast Pot on a secure, flat surface
- Improper air supply pressure (50–150 PSI)
- · Incorrect lifting/transporting of Blast Pot or incorrect or worn lifting devices

Operating Instructions

Fig. 2

Before using:

- Inspect Pop-Up Valve Seat (1) and Pop-Up Valve (2) for damage. Replace damaged components before use.
- Inspect Muffler Assembly (3) as instructed in the device's operator's manual.
- Inspect Remote Control System (7) components as instructed in the device's operator's manual.
- Inspect Pusher Line (6) for damage. Replace damaged components before use.
- Inspect Blast Pot for damage. Do not use Blast Pot if damaged.
- Locate Blast Pot on an even, flat surface that can withstand the weight of a full Blast Pot. Be aware of possible erosion of surface and load shifting.
- Connect air supply hose from compressor to inlet (4) of the Blast Pot. To provide best performance, an air supply hose with an inner diameter five to six times the size of blast nozzle orifice is recommended.
- · Connect blast hose to coupling installed on Metering Valve (5).



Moving parts can present an area where crushing, pinching, entanglement or amputation may occur. Do not place body parts or foreign objects in any area where there are moving parts. Failure to comply with the above warning could result in death or serious injury.

A CAUTION

High decibel noise levels are generated during the blasting process which may cause loss of hearing. Ensure appropriate Personal Protective Equipment and hearing protection is in use. Failure to comply with the above caution may result in minor or moderate injury.

A CAUTION

Release of high speed media and compressed air occurs during depressurization of the blast machine. Ensure appropriate Personal Protective Equipment is in use. Failure to comply with the above caution may result in minor or moderate injury.

A WARNING

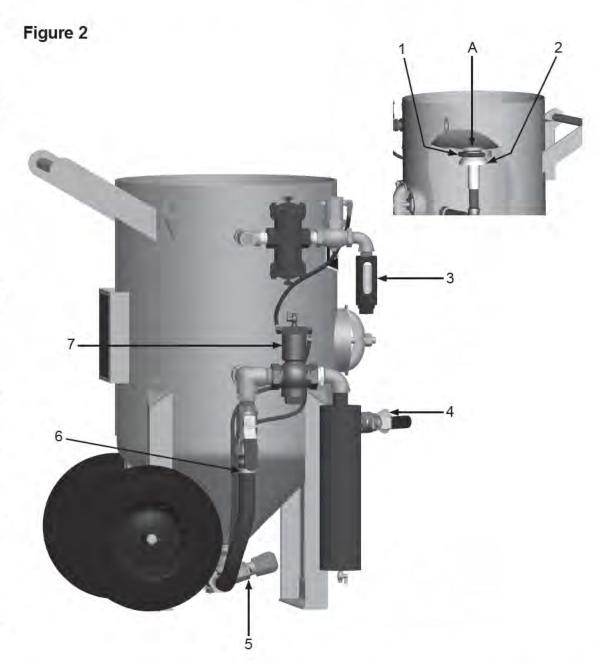
Always depressurize the entire blasting system, disconnect all power sources and lockout/ tagout all components before any maintenance or troubleshooting is attempted. Failure to comply with the above warning could cause electrical shock and inadvertent activation of equipment resulting in death or serious injury.

NOTICE

To reduce media intrusion in the air supply hose, depressurize the blast machine before shutting off air supply from compressor.

During use:

- Fill Blast Pot through Hole (A) in top of Blast Pot. Do not overfill. The capacity of the Blast Pot is 6.5 cubic feet of abrasive.
- To start/stop abrasive blasting, follow instructions in the remote control system (7) operator's manual.
- · Monitor Remote Control System (7) components per operator's manual.





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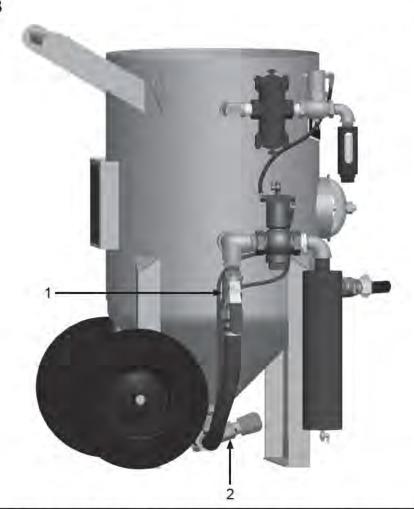
To reduce media intrusion in the air supply hose, depressurize the blast machine before shutting off air supply from compressor.

Operating Instructions (Continued) Fig. 3

After use:

- · Empty media from Blast Pot when blasting is concluded for the day.
- To remove media, place Metering Valve (2) in the FULL OPEN position. Place Choke Valve (1) in the OFF (shut) position. Remove Blast Nozzle from nozzle holder on blast hose. Ensure blast hose is placed in a container suitable for catching the media. Ensure Operator is prepared for strong recoil, the blast hose will provide strong recoil as the media exits the blast hose. Activate Remote Control System per Operator's Manual. When Blast Pot is empty, only air will exit the blast hose. Deactivate the Remote Control System to depressurize the Blast Pot. Place Metering Valve (2) in the CLOSED position.
- Inspect Blast Pot components for damage. Replace damaged components before use.
- Cover Blast Pot when not in use to reduce debris and water intrusion.

Figure 3





Moving parts can present an area where crushing, pinching, entanglement or amputation may occur. Do not place body parts or foreign objects in any area where there are moving parts. Failure to comply with the above warning could result in death or serious injury.

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Troubleshooting

If the 6.5 M-Series Blast Pot does not function properly, check the following:

ACTION

SYMPTOM (Cause)

Blast Pot will not pressurize

(Damaged components, improper air supply, Remote Control System malfunctions) Refer to Remote Control System Operator's Manual.

Insufficient air supply. Ensure minimum of 50 PSI is supplied to Blast Pot and sufficient air volume to support blast nozzle.

Ensure internal piping is aligned with Fill Hole.

Ensure Pop-Up Valve and Pop-Up Valve Seat are seating without air leaks. Replace damaged components.

Blast Pot will not depressurize or depressurizes slowly

(Damaged components)

Refer to Remote Control System Operator's Manual.

Refer to Muffler Operator's Manual.

No Air/Media or no media exits the blast nozzle

(Blockages, Metering Valve)

Depressurize Blast Pot. Inspect nozzle and blast hose for blockage. Remove blockage or remove components from use.

Pressurize Blast Pot and open and close Choke Valve rapidly. If problem persists refer to Metering Valve Operator's Manual.

Intermittent media flow

(Wet media, Metering Valve, Blast Nozzle)

Damp or wet media. Remove media from Blast Pot by cleaning out the vessel. Ensure dry media is used.

Install a Moisture Separator at the inlet of the Blast Pot. Increase the inner diameter of Air Supply hose.

Blast Nozzle is worn, or too large for compressor size. Replace Blast Nozzle.



Maintenance

A WARNING

Always depressurize the entire blasting system, disconnect all power sources and lockout/ tagout all components before any maintenance or troubleshooting is attempted. Failure to comply with the above warning could cause electrical shock and inadvertent activation of equipment resulting in death or serious injury.

A WARNING

Never weld, grind or drill on the blast machine (or any pressure vessel). Doing so will void ASME certification and manufacturer's warranty. Welding, grinding or drilling on the blast machine (or any pressure vessel) could weaken the vessel causing it to burst. Failure to comply with the above warning could result in death or serious injury. (ASME Pressure Vessel Code. Section VIII, Division 1)

NOTICE

Piping may loosen during transit. Ensure all internal and external piping is aligned and tightened before use. Ensure Pop-Up Valve will seal properly with Pop-Up Valve Seat at opening in top of blast machine.

Maintenance of the Blast Pot is limited to the daily cleaning and the immediate replacement of damaged or worn parts.

Disassembly:

Inspection Door Assembly: Fig. 4

- 1) Unthread Nut (1) from Bolt (3).
- 2) Remove Yoke (2) from Bolt (3).
- 3) With Bolt (3) captured in slot in Door (5), grasp Bolt (3) and push on Door (5) towards the interior of Blast Pot to free the Door (5) and Gasket (4).
- 4) Remove Door (5) from Blast Pot interior.

Pop-Up Valve: Fig. 5

- 1) Remove Inspection Door Assembly (1).
- 2) Unthread Vertical Pipe (4) from Pipe Elbow (5). Remove Vertical Pipe (4) and Pop-Up Valve (3) from the Blast Pot through Inspection Door opening.
- 3) Remove Pop-Up Valve (3) from pipe.

Pop-Up Valve Seat: Fig. 5

 Pry Pop-Up Valve Seat (2) from recess below the fill hole (A) in top of Blast Pot and remove through fill hole (A).

Assembly:

Pop-Up Valve Seat: Fig. 5

1) Insert the Pop-Up Valve Seat (2) in the recess below the fill hole (A). Ensure Pop-Up Valve Seat (2) is completely seated in recess.

Pop-Up Valve: Fig. 5

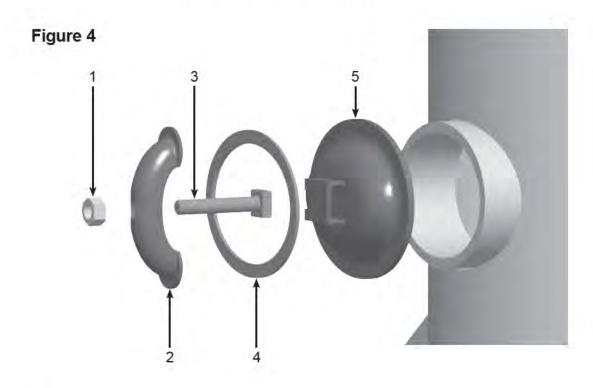
- Inspect Horizontal Pipe (6) and Pipe Elbow (5) for damage. Replace if damaged.
- 2) Insert Pop-Up Valve (3) on non-threaded end of Vertical Pipe (4).
- 3) Place Pop-Up Valve (3) and Vertical Pipe (4) in Blast Pot and thread in to Pipe Elbow (5).
- 4) Ensure Vertical Pipe (4) is perpendicular to Horizontal Pipe (6). Slide Pop-Up Valve (3) up and down to ensure freedom of movement and properly seats against Pop-Up Valve Seat (2).
- 5) Tighten Vertical Pipe (4) 1/4 turn beyond hand tight.

Inspection Door Assembly: Fig. 4

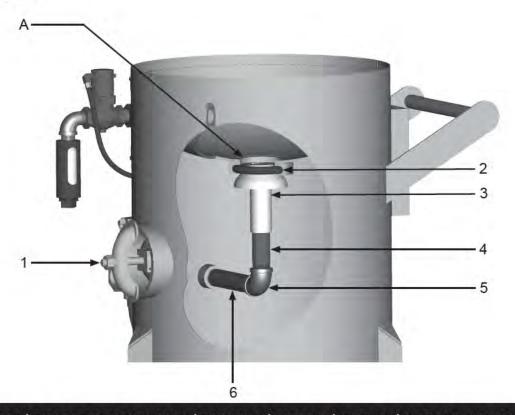
- 1) Ensure Door (5) is free of debris. Place Gasket (4) on Door (5) and insert through opening in side of Blast Pot.
- Place head of Bolt (3) in slot on Door (5). Grasp Bolt (3) and seat Door (5) and Gasket (4) on interior ring of opening. Ensure Gasket (4) creates positive seal.
- 3) Place Yoke (2) on Bolt (3) and tighten Nut (1). Ensure Yoke (2) is tight and an air-tight seal is produced.



Maintenance





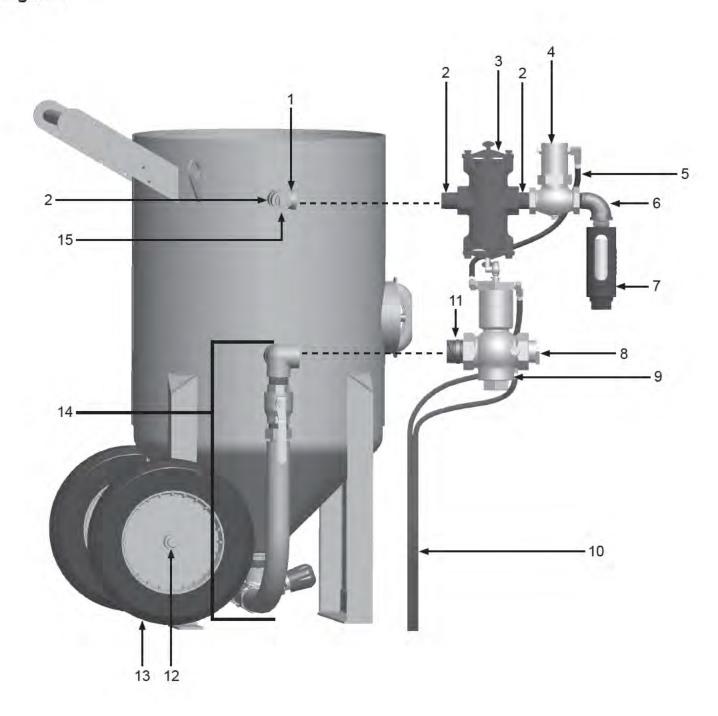




Item # Part #		Description
Fig. 6		
1	1011816	1" NPT Pipe Tee
2	1012151	1" NPT Close Nipple (3 required)
3	1012000	1" Abrasive Trap – Complete
4	1012050	1" Outlet Valve – Complete
5	10CL18	18" Single Control Line
6	1011838	1" NPT Street Elbow
7	1011100	Muffler Assembly – Complete (includes 1" NPT Close Nipple)
8	1011501	1-1/2" NPT (M) x 1-1/4" NPT (F) Pipe Bushing
9	1012200	1-1/2" Inlet Valve – Complete
10	10TL5	5 Feet of Coupled Control Line
11	1014015	1-1/2" NPT Close Nipple
12	1006064	Wheel Clip for 6.5 Cubic Foot Blast Machine (2 required)
13	1006205	16" Wheel (2 required)
14	_	Piping String (see Fig. 7)
15	1011901	1" NPT Square Head Pipe Plug
	1090014	Operator's Manual – KwikFire 125 Remote Control System
	1090016	Operator's Manual – Exhaust Muffler
	1090022	Operator's Manual – Bantam Abrasive Metering Valve
_	1090058	Operator's Manual – 6.5 Cubic Foot M-Series Blast Pot



Figure 6





Item # Part #		Description
Fig. 7	7	
_		1" I.D. Piping
1	1011201	1-1/4" NPT Close Nipple (2 required)
2	10SB2S	1-1/2" NPS Brass Tank Coupling
3	1014100	1" Bantam Abrasive Metering Valve
4	1012151	1" NPT Close Nipple
5	1006310	1" I.D. Air Hose Pusher Line Kit (see Figure 8)
6	1012151	1" NPT Close Nipple (2 required)
7	1011601	1" NPT Full Port Brass Ball Valve
8	1011507	1" NPT (F) x 1-1/2" NPT (M) Pipe Bushing
9	1011804	1-1/2" NPT 90° Elbow with Side Out
10	1011501	1-1/2" NPT (M) x 1-1/4" NPT (F) Pipe Bushing
Item	# Part #	Description
Fig.	7	
_		1-1/4" I.D. Piping
1	1011201	1-1/4" NPT Close Nipple (2 required)
2	10SB2S	1-1/2" NPS Brass Tank Coupling
3	1014101	1-1/4" Bantam Abrasive Metering Valve
5	1006311	1-1/4" I.D. Air Hose Pusher Line Kit (see Figure 8)
6	1011201	1-1/4" NPT Close Nipple (2 required)
7	1011602	1-1/4" NPT Full Port Brass Ball Valve
8	1011501	1-1/2" NPT (M) x 1-1/4" NPT (F) Pipe Bushing
9	1011804	1-1/2" NPT 90° Elbow with Side Out
10	1011501	1-1/2" NPT (M) x 1-1/4" NPT (F) Pipe Bushing
14	# Dow# #	Description
item	# Part #	Description
Fig. 7	7	
		1-1/2" I.D. Piping
1	1011201	1-1/4" NPT Close Nipple (2 required)
2	10SB2S	1-1/2" NPS Brass Tank Coupling
3	1014102	1-1/2" Bantam Abrasive Metering Valve
5	1006312	1-1/2" I.D. Air Hose Pusher Line Kit (see Figure 8)

6

7

9

10

1014015

1011603

1011804

1011501

1-1/2" NPT (M) x 1-1/4" NPT (F) Pipe Bushing

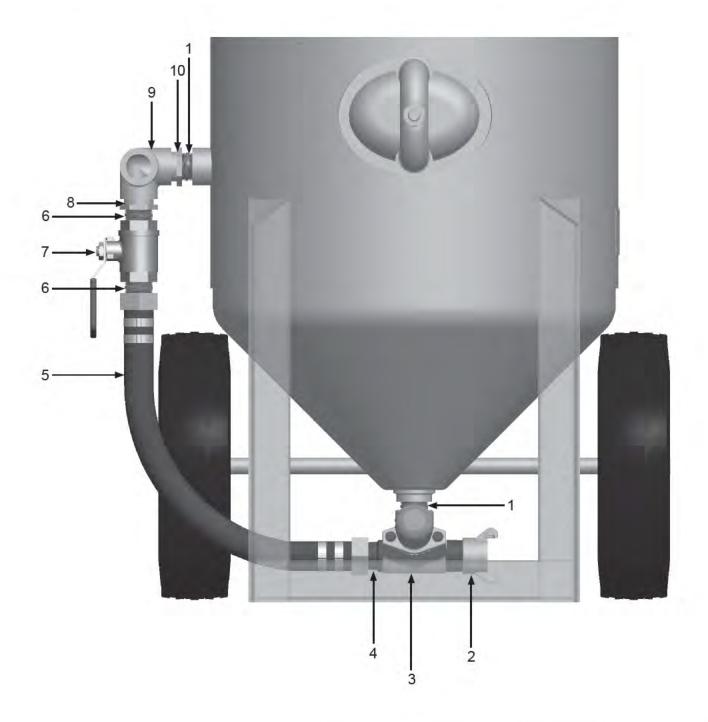
1-1/2" NPT Close Nipple (2 required)

1-1/2" NPT Full Port Brass Ball Valve

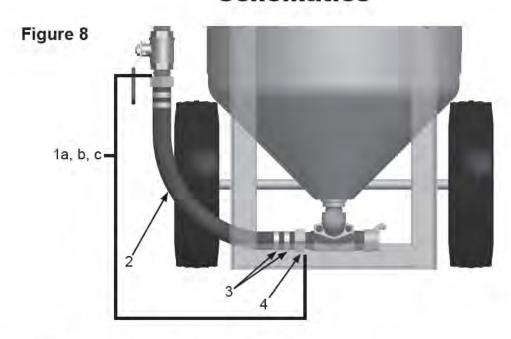
1-1/2" NPT 90° Elbow with Side Out



Figure 7



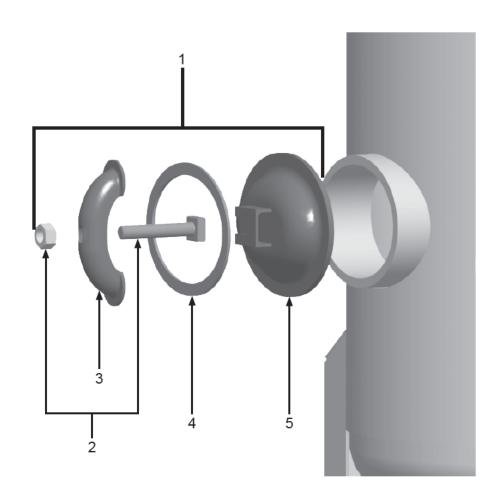




Item # Part #		Description		
Fig. 8				
1a	1006310	1" I.D. Pusher Line Service Kit Includes: 10AH100B (quantity of 3 feet), 1015503 (quantity of 4), and 10SFE2 (quantity of 2)		
2	10AH100B	Air Hose - 1" I.D. (per foot) - (3 feet required)		
2	1015503	Screw Type Hose Clamp (4 required)		
4	10SFE2	Swivel Female Air Hose End - 1" NPT (2 required)		
ltem #	Part #	Description		
Fig. 8	P 197			
1b	1006311	1-1/4" I.D. Pusher Line Service Kit Includes: 10AH114B (quantity of 3 feet), 1015503 (quantity of 4), and 10SFE3 (quantity of 2)		
2	10AH114B	Air Hose - 1-1/4" I.D. (per foot) - (3 feet required)		
2	1015503	Screw Type Hose Clamp (4 required)		
4 10SFE3		Swivel Female Air Hose End - 1-1/4" NPT (2 required)		
Item # Part #		Description		
Fig. 8		The same of the sa		
1c	1006312	1-1/2" I.D. Pusher Line Service Kit		
		Includes: 10AH100B (quantity of 3 feet), 1015503 (quantity of 4), and 10SFE2 (quantity of 2)		
2	10AH112B			
3 1015503 Screw Type Hose Clamp (4 required)				
4 10SFE4 Swivel Female Air Hose End - 1-1/2" NPT (2 required)				



Figure 9



Item # Part #		Description
Fig. 9		
1	1006200	6" x 8" Inspection Door Assembly
		Includes: 1006201, 1006212, 1006214, and 1006215
2	1006215	6" x 8" Inspection Door Nut and Bolt
3	1006214	6" x 8" Inspection Door Yoke
4	1006201	6" x 8" Inspection Door Gasket
5	1006212	6" x 8" Inspection Door



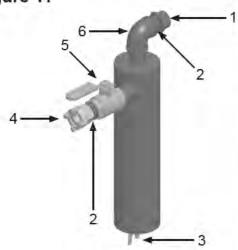
Figure 10



Item # Part #		Description		
Fig. 10				
1	1006050	Pop-Up Valve Seat		
2	1011214	1-1/4" NPT x 10" Pipe Nipple		
3	1006204	1-1/4" 90° Elbow		
4	1006208	1-1/4" NPT x 5-1/2" Pipe Nipple		
5	1006020	Pop-Up Valve - External Sleeve		

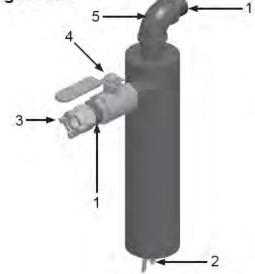


Figure 11



Item	# Part #	Description	
Fig.	11		
	1011740	Extractor L Moisture Separator 1-1/4" Inlet – 1-1/4" Outlet (optional)	
1	1012157	1-1/4" x 1-1/2" Bushing	
2	1011201	1-1/4" NPT Close Nipple (2 required)	
3	1012101	1/4" NPT Brass Petcock	
4	10ME3	4-lug Air Hose End, 1-1/4" NPT Female Threads	
5	1011602	1-1/4" NPT Full Port Ball Valve	
6	1006204	1-1/4" NPT 90° Elbow	

Figure 12



Item	# Part #	Description	
Fig.	12		
-	10101313	Extractor XL Moisture Separator 1-1/2" Inlet – 1-1/2" Outlet (optional)	
1	1014015	1-1/2" NPT Close Nipple (2 required)	
2	1012101	1/4" NPT Brass Petcock	
3	10ME4	4-lug Air Hose End, 1-1/2" NPT Female Threads	
4	1011603	1-1/2" NPT Full Port Ball Valve	
5	1011842	1-1/2" NPT 90° Elbow	



Figure 13



Item # Part # Description Fig. 13		Description	
1 1006101		24" Lid – 6.5 Cubic Foot Blast Pot (optional)	
2	10100733	Umbrella Assembly – 6.5 Cubic Foot Blast Pot (optional) (1006102 not included)	
3 1006102		24" Screen – 6.5 Cubic Foot Blast Pot (optional)	



Figure 14



Item # Part #		Description	
Fig. 14			
	1065040	Loading Skid Assembly — 6.5 Cubic Foot Blast Pots (optional) Includes: 10L805003 (quantity of 8), 10L805014 (quantity of 4), 1035046 (quantity of 4), and 1035045 (quantity of 4)	
1	10L805003	5/16" Flat Washer (8 required)	
2	10L805014	5/16" Lock Washer (4 required)	
3	1035046	5/16" - 18 Nut (4 required)	
4	1035045	5/16" - 18 x 1" Grade 5 Bolt (4 required)	



Maintenance Notes

DATE	TYPE OF SERVICE	PART NUMBER



ADDITIONAL TECHNICAL DATA

The associations listed below offer information, materials and videos pertaining to media blasting and safe operating practices.

- American Society for Testing and Materials (ASTM)
 100 Barr Harbor Drive West Conshohockon, PA 19428-2959
 Phone: (610) 832-9585
 FAX: (610) 832-9555
 www.astm.org
- Occupational Safety & Health Administration (OSHA) United States Department of Labor 200 Constitution Avenue Washington, DC 20210 Phone: (800) 321-OSHA (800) 321-6742 www.osha.gov
- The National Board of Boiler & Pressure Vessel Inspectors 1055 Crupper Avenue Columbus, Ohio 4322
 Phone: (614) 888-8320
 FAX: (614) 888-0750 www.na ionalboard.org
- of Corrosion Engineers (NACE) 1440 South Creek Drive Houston, TX 77084-4906 Phone: (281) 228-6200 FAX: (281) 228-6300 www.nace.org

National Association

The Society for Protective Coatings (SSPC)
40-24th Street, 6th Floor Pittsburgh, PA 15222-4656
Phone: (412) 281-2331
FAX: (412) 281-9992
www.sspc.org

WARRANTY

Seller warrants to the original purchaser that the Product covered by this Warranty will remain free from defects in workmanship or material under normal commercial use and service for a period of one year from the date of shipment to the original Purchaser. This Warranty shall not apply to defects arising, in whole or in part, from any accident, negligence, alteration, misuse or abuse of the Product, operation not in accordance with applicable instructions or manuals or under conditions more severe than, or otherwise exceeding, those set forth in the written specifications for the Product, nor shall this Warranty extend to repairs or alterations of the Product by persons other than Seller or Seller's authorized representatives, or to maintenance parts.

DISCLAIMER OF WARRANTY

The foregoing Warranty is exclusive and is in lieu of all other warranties of quality, whether oral or written and whether express or implied. All warranties of merchantability or fitness for a particular purpose are hereby excluded and are inapplicable to the Product. Seller makes no warranties or representations concerning respirators, or equipment made by other manufacturers.

EXCLUSIVE REMEDIES FOR WARRANTY CLAIMS

THE SOLE AND EXCLUSIVE REMEDIES OF PURCHASER FOR UNDER THE FOREGOING WARRANTY COVERING THIS PRODUCT SHALL BE REPAIR OR REPLACEMENT, FREE OF CHARGE, F.O.B. POINT OF MANUFACTURE, OF ANY DEFECTIVE PART OR PARTS OF THE PRODUCT THAT WERE MANUFACTURED. BY SELLER, AND WHICH ARE RETURNED TO SELLER AT SELLER'S PRINCIPAL PLACE OF BUSINESS, POSTAGE PREPAID. THIS SOLE AND EXCLUSIVE REMEDY IS CONDITIONED UPON PURCHASER'S PROMPT WRITTEN NOTICE TO SELLER AT SELLER'S PLACE OF BUSINESS THAT A DEFECT HAS BEEN DISCOVERED, TOGETHER WITH A REASONABLY DETAILED DESCRIPTION OF THE DEFECT IN THE PRODUCT, WITHIN THIRTY (30) DAYS AFTER DISCOVERY OF THE DEFECT, OTHERWISE SUCH CLAIMS SHALL BE DEEMED WAIVED. NO ALLOWANCE WILL BE GRANTED FOR ANY REPAIRS OR ALTERATIONS. MADE BY PURCHASER OR OTHERS WITHOUT SELLER'S PRIOR WRITTEN CONSENT. IF SUCH NOTICE IS TIMELY GIVEN, SELLER WILL HAVE THE OPTION TO EITHER MODIFY THE PRODUCT OR COMPONENT PART THEREOF TO CORRECT THE DEFECT, REPLACE THE PRODUCT OR PART WITH COMPLYING PRODUCTS OR PARTS, OR REFUND THE AMOUNT PAID FOR THE DEFECTIVE PRODUCT, ANY ONE OF WHICH WILL CONSTITUTE THE SOLE LIABILITY OF SELLER AND FULL SETTLEMENT OF ALL CLAIMS. PURCHASER SHALL AFFORD SELLER PROMPT AND REASONABLE OPPORTUNITY TO INSPECT THE PRODUCT FOR WHICH CLAIM IS MADE. THE SOLE PURPOSE OF THE FOREGOING STIPULATED EXCLUSIVE REMEDY SHALL BE TO REPAIR OR REPLACE DEFECTIVE PRODUCTS OR COMPONENTS THEREOF, OR TO REFUND PURCHASER THE PURCHASE PRICE THEREOF. THIS STIPULATED EXCLUSIVE REMEDY SHALL NOT BE DEEMED TO HAVE FAILED OF ITS ESSENTIAL PURPOSE SO LONG AS SELLER IS WILLING AND ABLE TO REPAIR OR REPLACE THE DEFECTIVE PARTS OR REFUND THE PURCHASE PRICE IN ACCORDANCE WITH THE TERMS HEREOF.

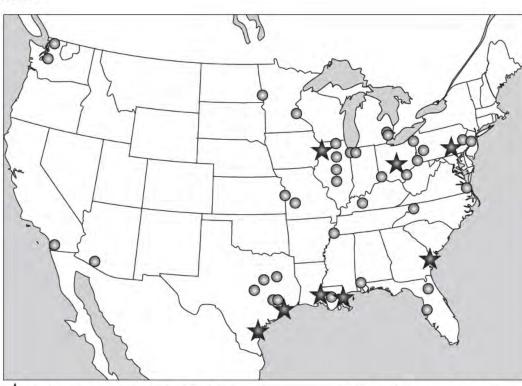
LIMITATION OF REMEDIES

The foregoing stipulated exclusive remedies is in lieu of all other remedies for breach of contract, warranty and/or tort. Seller shall not be liable for the Purchaser's expenses for downtime or for making up downtime, damages for which the Purchaser may be liable to other persons and/or entities, damages to property, and injury to or death of any persons and/or any claims for incidental or consequential damages, including but not limited to loss of profits, regardless of whether Seller has been informed of the possibility of such damages. Seller neither assumes nor authorizes any person to assume for it any other liability in connection with the sale or use of any Products covered by the foregoing Warranty and Disclaimers, and there are no oral agreements relating to remedies which are collateral to or which affect this limitation.



Nationwide Shipping Locations





Marco Regional Branch Offices and/or Shipping Locations

Direct Shipping Locations

Contact Us



GLOBAL HEADQUARTERS

» 3425 East Locust Street Davenport, IA 52803

ph: 800.BLAST.IT (800.252.7848)

ph: 563.324.2519 fax: 563.324.6258





» 701 East Boulevard Deer Park, TX 77536

ph: 800.BLAST.IT (800.252.7848)

ph: 281.930.0905 fax: 281.542.0736

REGIONAL BRANCH OFFICES

- » GA, Savannah 800.252.7848
- » IA, Davenport 800.252.7848
- » LA, Harvey 504.361.3158
- » LA, Lafayette 337.281.4070
- » OH, Columbus 614.202.7601
- » PA, Harrisburg 800.252.7848
- » TX, Corpus Christi 361.244.8747
- » TX, Deer Park 281.930.0905