

OPERATOR'S MANUAL

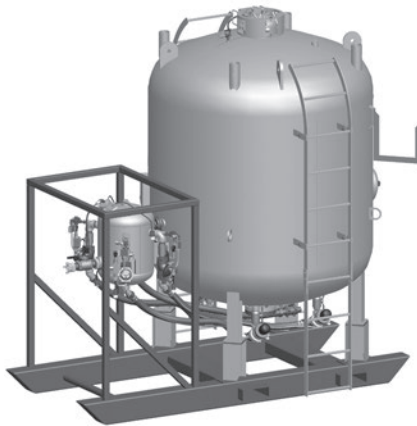
BLASTMASTER® 160 CU. FT. ABRASIVE BLASTING POTS



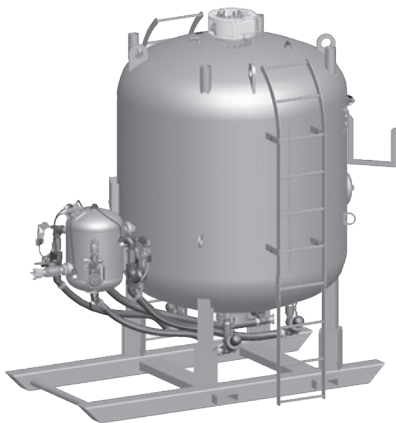
Highway Trailer



Yard Trailer



Offshore



Fork-Pocket Skid



Stationary

BUILT MARCO TOUGH
MARCO MANUFACTURED

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, please visit www.marco.us, or contact Marco at 563.324.2519 for replacements. Failure to comply with the above warning could result in death or serious injury.

Marco®

Experience, Trust, Service

Company Profile

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

Through innovative designs and a total commitment to quality, Marco manufactures products that increase production rates, create a safer workplace, and reduce maintenance costs. Marco's industry experience, manufacturing capabilities, legendary customer service, product availability, logistics services, and technology leadership is your assurance that 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 Excellence** – Marco is a U.S. based, ISO 9001:2008 certified manufacturer of equipment for the Surface Preparation and Protective Coatings industries. Marco's engineers benchmark the industry to ensure that we design and manufacture superior products that set the "Gold Standard" for performance, safety, and quality.
- **Legendary Customer Service** – 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 for all major brands of blasting and painting equipment. As the largest provider of surface preparation and protective coatings equipment in the world, our inventory levels and product availability are unmatched.
- **Logistics Services** – Marco's in-house logistics team is dedicated to moving your shipment anywhere in the world. 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, which includes product and freight.
- **Technology Leadership** – Our website provides: Operator's Manuals, Part Numbers and Schematics Guides, MSDS information, and Features, Advantages, and Benefits Guides, providing access to information 24/7. Our Extranet application allows you to receive quotes and place orders online. Our Intranet maintains a complete record of your purchase history to assist with ongoing support of your existing equipment and future purchasing decisions.

Vision Statement

Marco is the world's premier provider of Abrasives, Blasting Equipment, Coating and Painting Equipment, Engineered Systems, Rental Equipment, Safety Equipment, Service, and Repair.

Mission Statement

Marco provides strong leadership and innovation to the surface preparation and protective coatings industries. We 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, rental, service, and repair of our products. Our ISO 9001:2008 certification extends throughout all operations in all locations. Continuous improvement of 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 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.

DEFINITION OF TERMS

Company Profile	1	
Definition of Terms	2	
Hazard Identifications	3-6	
Air & Abrasive Consumption Chart	6	
Daily Pre-operation Checklist	7-8	
Blastmaster® 160 cu. ft.		
Abrasive Blasting Pots	9-58	
Description	9	
Loading and Unloading from Transport ..	9-10	
Dimensions, Weight, Center of Gravity ..	11-18	
Stationary & Skid Mounted Models	11-12	
Offshore Skid Mounted Models	13-14	
Yard Trailer Mounted Models	15-16	
Highway Trailer Mounted Models	17-18	
Operating Instructions	19-24	
Before Using	19-20	
During Use	19-20	
After Use	21-22	
Pressurization & Depressurization	23-24	
Maintenance	25-41	
Adjust Camlock Assemblies	25	
Remove & Install		
Manway Assembly	26	
Wheel & Tire Assemblies	27	
Blastmaster® Pneumatic Closure		
Lockout Device	28	
Clean-Out Flange	29	
Disassemble & Assemble		
120-Volt AC to 12-Volt AC		
Power Converter	30	
Power Distribution Box	31-32	
Remove & Install		
Blastmaster® Large Exhaust Muffler	33-34	
Hinged Ladder Extension	35-36	
Blastmaster® Bulk Bag Racks	37-38	
Troubleshooting	39-41	
Assembly Part Numbers & Schematics ..	42-61	
External Fittings, Side View	42	
External Fittings, Rear View	43	
Internal Fittings	44	
Pipe String Assembly	45	
Moisture Separator Mounting Assembly ..	46	
Moisture Separator Assembly	47	
Power Distribution Boxes	48	
Blastmaster® Pneumatic Closure		
Lockout Device	49-50	
Highway Trailer	51-52	
Yard Trailer	53-54	
Offshore Skid	55	
Fork-Pocket Skid	56	
Stationary Legs	56	
Optional Accessories		
Hinged Ladder Extension	57	
Blastmaster® Bulk Bag Racks	58	
Blastmaster® Bulk Bag Rack Locking Pin ..	58	
Blastmaster® Large Exhaust Muffler	59-60	
Abrasive Screen & Funnel	61	
Warranty	62	
Disclaimer of Warranty	62	
Exclusive Remedies for Warranty Claims	62	
Limitation of Remedies	62	

Definition of Terms

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.

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.

HAZARD IDENTIFICATIONS

WARNING

- ▶ Breathing dust containing silica could cause silicosis, a fatal lung disease. Breathing dust during abrasive blasting operations, post-blast cleaning operations, and/or servicing equipment within the abrasive 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 abrasives or surfaces being abrasive blasted can remain suspended in the air for long periods of time after abrasive blasting has ceased. A NIOSH-approved, well-maintained, respirator designed for the specific operation being performed must be used by anyone abrasive blasting, handling or using the abrasive, 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.
- ▶ Abrasive blasting operators must receive thorough training on the use of abrasive resistant attire which includes: supplied-air respirator, abrasive blasting 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 abrasive blasting 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 abrasive and compressed air resulting in death or serious injury. OSHA 29CFR 1910.244(b)
- ▶ Point the abrasive blasting nozzle only at the surface being abrasive blasted. Never point the abrasive blasting nozzle or abrasive stream at yourself or others.
- ▶ Unless otherwise specified, maximum working pressure of abrasive blasting pots and related components must not exceed 125 psi. Exceeding maximum working pressure of 125 psi could cause the abrasive blasting pot and components to burst. Failure to comply with the above warning could result in death or serious injury.
- ▶ Never weld, grind or drill on the abrasive blasting pot (or any pressure vessel). Doing so will void ASME certification and manufacturer's warranty. Welding, grinding or drilling on the abrasive blasting pot (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)
- ▶ 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 abrasive blasting pot handle. Doing so may cause the abrasive blasting pot to become unstable and tip over.
- ▶ Never attempt to move an abrasive blasting pot containing abrasive. Never attempt to manually move abrasive blasting pots greater than 6.5 cubic foot capacity. Always use at least two capable people to manually move an abrasive blasting pot on flat, smooth surfaces. A mechanical lifting device must be used if an abrasive blasting pot is moved in any other manner.
- ▶ The use of this product for any purpose other than originally intended or altered from its original design is prohibited.

HAZARD IDENTIFICATIONS

WARNING

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 (GFI) for all electrical power source connections. Use of this product in wet environments could create a shock or electrocution 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 abrasive 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 abrasive and compressed air.
- ▶ 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 abrasive and compressed air. Only Marco remote control switches should be used with Marco remote control systems.
- ▶ Always be certain to have secure footing when abrasive blasting. There is a recoil hazard when abrasive blasting starts that may cause user to fall and misdirect the abrasive stream at operator or bystander.
- ▶ Never use an abrasive blasting pot or attachments as a climbing device. The person could slip and fall. The abrasive blasting pot could become unstable and tip over.
- ▶ 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 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.
- ▶ 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.

HAZARD IDENTIFICATIONS

⚠ CAUTION

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

- ▶ Static electricity can be generated by abrasive moving through the abrasive blasting hose causing a shock hazard. Prior to use, ground the abrasive blasting pot and abrasive blasting nozzle to dissipate static electricity.
- ▶ High decibel noise levels are generated during the abrasive 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.

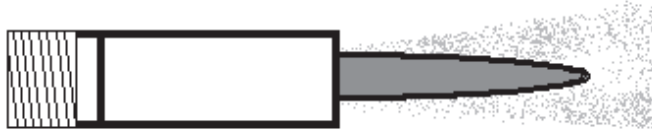
- ▶ See Air & Abrasive Consumption Chart for estimated abrasive consumption rates and required air flow (cubic feet per minute). Your system must meet these minimum requirements to ensure proper function and performance.
- ▶ Always use abrasive that is dry and properly screened. This will reduce the potential for obstructions to enter the remote control system, abrasive metering valve and abrasive blasting nozzle.
- ▶ Moisture build-up occurs when air is compressed. Any moisture within the abrasive blasting system will cause abrasive to clump, clogging metering valves, hoses and nozzles. Install an appropriately sized moisture separator at the inlet of the abrasive blasting system. 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 abrasive intrusion in the air supply hose, depressurize the abrasive blasting pot before shutting off air supply from compressor.
- ▶ Inspect abrasive blasting nozzle before placing into service. Damage to abrasive blasting nozzle liner or jacket may occur during shipping. If you receive a damaged abrasive blasting nozzle, contact your distributor immediately for replacement. Abrasive blasting nozzles placed into service may not be returned. Abrasive blasting nozzle liners are made of fragile materials and can be damaged by rough handling and striking against hard surfaces. Never use a damaged abrasive blasting nozzle.
- ▶ Abrasive blasting at optimal pressure for the abrasive used is critical to productivity. Example: For an abrasive with an optimal abrasive blasting pressure of 100 psi at the abrasive blasting nozzle, one pound per square inch of pressure loss will reduce abrasive blasting 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 abrasive supplier for the requirements of your abrasive.
- ▶ Replace abrasive blasting nozzle if liner or jacket is cracked or damaged. Replace abrasive blasting nozzle if original orifice size has worn 1/16" or more. Determine abrasive blasting nozzle wear by inserting a drill bit 1/16" larger than original size of abrasive blasting nozzle orifice. If the drill bit passes through abrasive blasting nozzle, replacement is needed.

AIR & ABRASIVE CONSUMPTION CHART

NOTICE

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

- ▶ See Air & Abrasive Consumption Chart for estimated abrasive consumption rates and required air flow (cubic feet per minute). Your system must meet these minimum requirements to ensure proper function and performance.
- ▶ When it comes to air & abrasive mixtures, more is not necessarily better. Optimum abrasive blasting efficiency takes place when a lean air & abrasive mixture is used. To correctly set the abrasive metering valve, begin with the valve fully closed and slowly increase the amount of abrasive entering the airstream. As you increase the abrasive flow, watch for a "blue flame" at the exit of the abrasive blasting nozzle. Faster cutting, reduced abrasive consumption and lower clean up costs, are benefits of the "blue flame".
- ▶ Abrasive blasting at optimal pressure for the abrasive used is critical to productivity. Example: For an abrasive with an optimal abrasive blasting pressure of 100 psi at the abrasive blasting nozzle, one pound per square inch of pressure loss will reduce abrasive blasting 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 abrasive supplier for the requirements of your abrasive.



NOTICE

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

Air & Abrasive Consumption Chart*

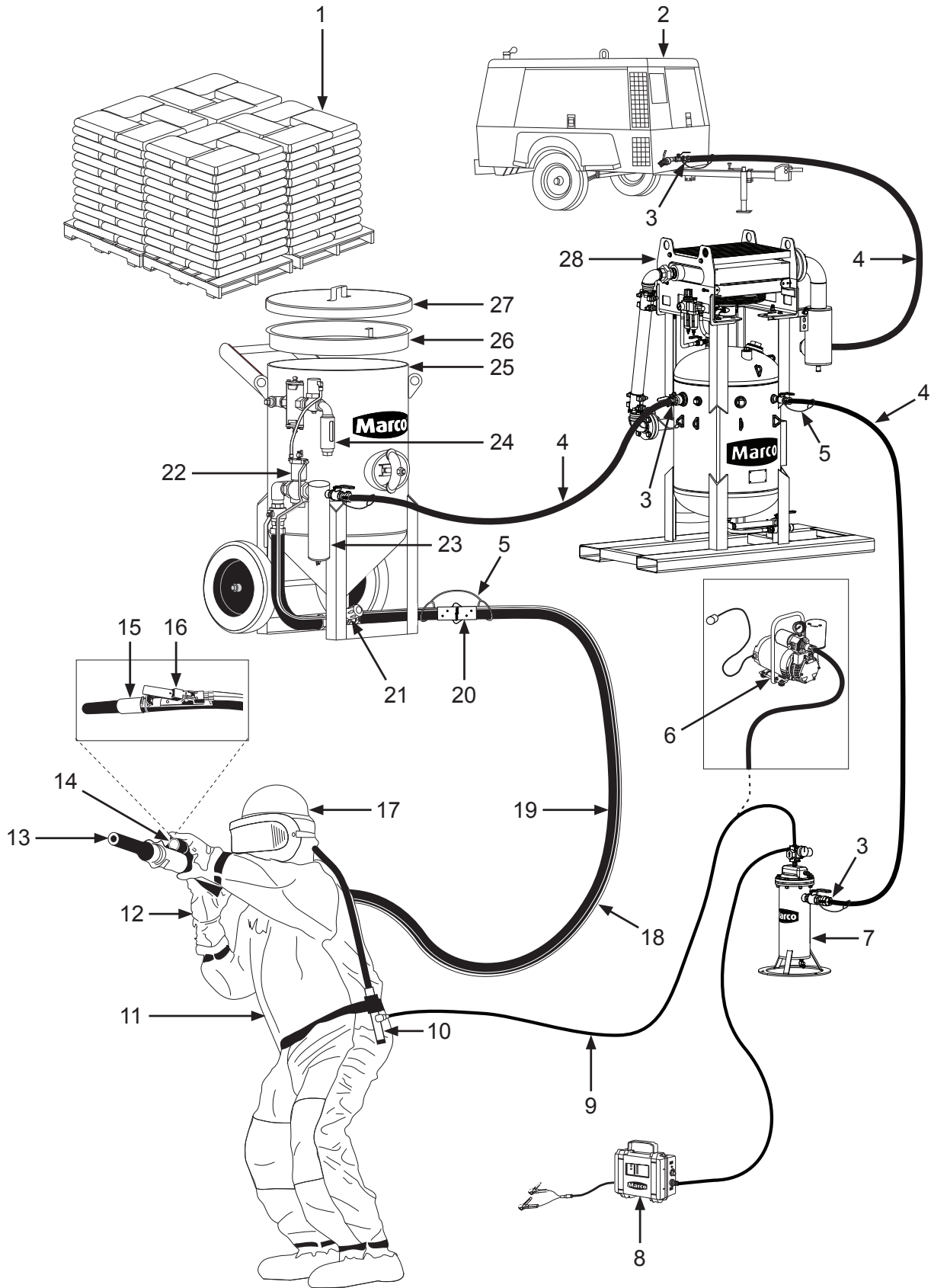
Nozzle Orifice	Pressure at the Nozzle (PSI)								Air (in cfm), Abrasive & Compressor Requirements
	50	60	70	80	90	100	125	140	
No. 2 (1/8")	11 67 2.5	13 77 3	15 88 3.5	17 101 4	18 112 4.5	20 123 5	25 152 5.5	28 170 6.2	Air (cfm) Abrasive (lbs/hr) Compressor Horsepower
No. 3 (3/16")	26 150 6	30 171 7	33 196 8	38 216 9	41 238 10	45 264 10	55 319 12	62 357 13	Air (cfm) Abrasive (lbs/hr) Compressor Horsepower
No. 4 (1/4")	47 268 11	54 312 12	61 354 14	68 408 16	74 448 17	81 494 18	98 608 22	110 681 25	Air (cfm) Abrasive (lbs/hr) Compressor Horsepower
No. 5 (5/16")	77 468 18	89 534 20	101 604 23	113 672 26	126 740 28	137 812 31	168 982 37	188 1100 41	Air (cfm) Abrasive (lbs/hr) Compressor Horsepower
No. 6 (3/8")	108 668 24	126 764 28	143 864 32	161 960 36	173 1052 39	196 1152 44	237 1393 52	265 1560 58	Air (cfm) Abrasive (lbs/hr) Compressor Horsepower
No. 7 (7/16")	147 896 33	170 1032 38	194 1176 44	217 1312 49	240 1448 54	254 1584 57	314 1931 69	352 2163 77	Air (cfm) Abrasive (lbs/hr) Compressor Horsepower
No. 8 (1/2")	195 1160 44	224 1336 50	252 1512 56	280 1680 63	309 1856 69	338 2024 75	409 2459 90	458 2754 101	Air (cfm) Abrasive (lbs/hr) Compressor Horsepower
No. 10 (5/8")	308 1875 68.5	356 2140 79.5	404 2422 90	452 2690 100.5	504 2973 112	548 3250 122	663 3932 146	742 4405 165	Air (cfm) Abrasive (lbs/hr) Compressor Horsepower
No. 12 (3/4")	432 2672 96	504 3056 112	572 3456 127	644 3840 143	692 4208 154	784 4608 174.5	948 5570 209	1062 6238 236	Air (cfm) Abrasive (lbs/hr) Compressor Horsepower

*Abrasive consumption is based on abrasive with a bulk density of 100 lbs per Cubic Foot

NOTICE

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

"THE BIG PICTURE"



DAILY PRE-OPERATION CHECKLIST

Daily Pre-operation Checklist

- 1. Abrasive
- 2. Air Compressor
- 3. Air Hose Couplings & Gaskets
- 4. Air Hose
- 5. Safety Cable
- 6. Ambient Air Pump*
- 7. Breathing Air Filter
- 8. CO Monitor
- 9. Breathing Line
- 10. Climate Control Device
- 11. Abrasive Blasting Suit
- 12. Gloves
- 13. Abrasive Blasting Nozzle
- 14. Lighting System*
- 15. Abrasive Blasting Nozzle Holder
- 16. Remote Control Switch
- 17. Supplied-Air Respirator
- 18. Control Line
- 19. Abrasive Blasting Hose
- 20. Abrasive Blasting Hose Couplings & Gaskets
- 21. Abrasive Metering Valve
- 22. Remote Control System
- 23. Moisture Separator
- 24. Abrasive Blasting Pot Exhaust Muffler
- 25. Abrasive Blasting Pot
- 26. Abrasive Blasting Pot Screen
- 27. Abrasive Blasting Pot Lid
- 28. Aftercooler*

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

Abrasive – Select the correct Abrasive (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.

Air Compressor – Select an Air Compressor (2) of adequate size to support all equipment requirements. Refer to “Air & Abrasive Consumption Chart” for Abrasive Blasting 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.

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 Hoses (4), and Air Hose Couplings & Gaskets (3) for damage or wear. Repair or replace damaged or worn components.

Abrasive Blasting Hose, Abrasive Blasting Hose Couplings & Gaskets, and Abrasive Blasting Nozzle Holder – Select an Abrasive Blasting Hose (19) that has an inner diameter 3 to 4 times larger than your Abrasive Blasting Nozzle (13). Inspect Abrasive Blasting Hose (19), Abrasive Blasting Hose Couplings & Gaskets (20), and Abrasive Blasting Nozzle Holder (15) for damage or wear. Repair or replace damaged or worn components.

Safety Cables – Install a Safety Cable (5) at each Abrasive Blasting Hose (19), and Air Hose (4) connection points.

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.

Supplied-Air Respirator, 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.

Abrasive Blasting Suit and Gloves – Select an abrasive-resistant Abrasive Blasting Suit (11) that is slightly oversized to allow ease of movement and allows air to flow around your body. Select abrasive-resistant Gloves (12) with a tight fit and a long cuff that overlaps the sleeve of the Abrasive Blasting Suit (11).

Abrasive Metering Valve and Abrasive Blasting Pot – Confirm Abrasive Blasting Pot (25) is positioned on stable ground. Inspect Abrasive Blasting Pot (25) and Abrasive Metering Valve (21) for damage or wear. Repair or replace damaged or worn components.

Abrasive Blasting Pot Screen and Abrasive Blasting Pot Lid – Always use an Abrasive Blasting Pot Screen (26) when filling Abrasive Blasting Pot (25) with Abrasive (1) to prevent debris from entering the Abrasive Blasting Pot (25). Remove Abrasive Blasting Pot Lid (27) before operating the Abrasive Blasting Pot (25). Install Abrasive Blasting Pot Lid (27) after use to protect the Abrasive Blasting Pot’s (25) interior.

Remote Control System, Remote Control Switch, Control Line, – Inspect Remote Control System (22) and Control Line (18) for damage or wear. Repair or replace damaged or worn components. Ensure Control Line (18) fittings connected to the Remote Control System (22) are tight and free of leaks. Ensure Remote Control Switch (16) is functioning properly. Consult Remote Control Switch Operator’s Manual for applicable instructions.

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

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

WARNING

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. Failure to comply with the above warning could result in death or serious injury.

WARNING

The use of this product for any purpose other than originally intended or altered from its original design is prohibited. Failure to comply with the above warning could result in death or serious injury.

WARNING

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. Failure to comply with the above warning could result in death or serious injury.

WARNING

Do not use any component other than the attached ladders as climbing devices. Ensure appropriate Fall Protection is used when climbing the ladder. Failure to comply with the above warning could result in death or serious injury.

Description

The Blastmaster® 160 cu. ft. Abrasive Blasting Pot is the right equipment for large scale industrial abrasive blasting projects. Its large abrasive capacity allows up to 4 operators to abrasive blasting for an extended period of time. The vessel can be filled with abrasive from a storage hopper, pneumatic tanker, or bulk bags, reducing the time to fill the abrasive blasting pot with abrasive. Bulk abrasives cost less than packaged abrasives and require less handling. Blastmaster® 160 cu. ft. Abrasive Blasting Pots are commonly used in high production applications, such as; shipyards, bridges, oil refineries, storage tanks, and offshore platforms.

Unloading from Transport

Fig. 1

- 1) Attach appropriate lifting devices to Lifting Lugs (2). See Dimensions & Weight, and Center of Gravity section.
- 2) Detach Abrasive Blasting Pot from transport at tie-down lugs (1).
- 3) Lift Abrasive Blasting Pot off transport.
- 4) If applicable, install tires on Trailer Mounted Systems.
- 5) Place Abrasive Blasting Pot on ground.
- 6) Close Hatch (4). See Maintenance Section.
- 7) Install Blastmaster® Pneumatic Closure Lockout Device (3) over closed Hatch (4). See Maintenance Section.

Loading onto Transport

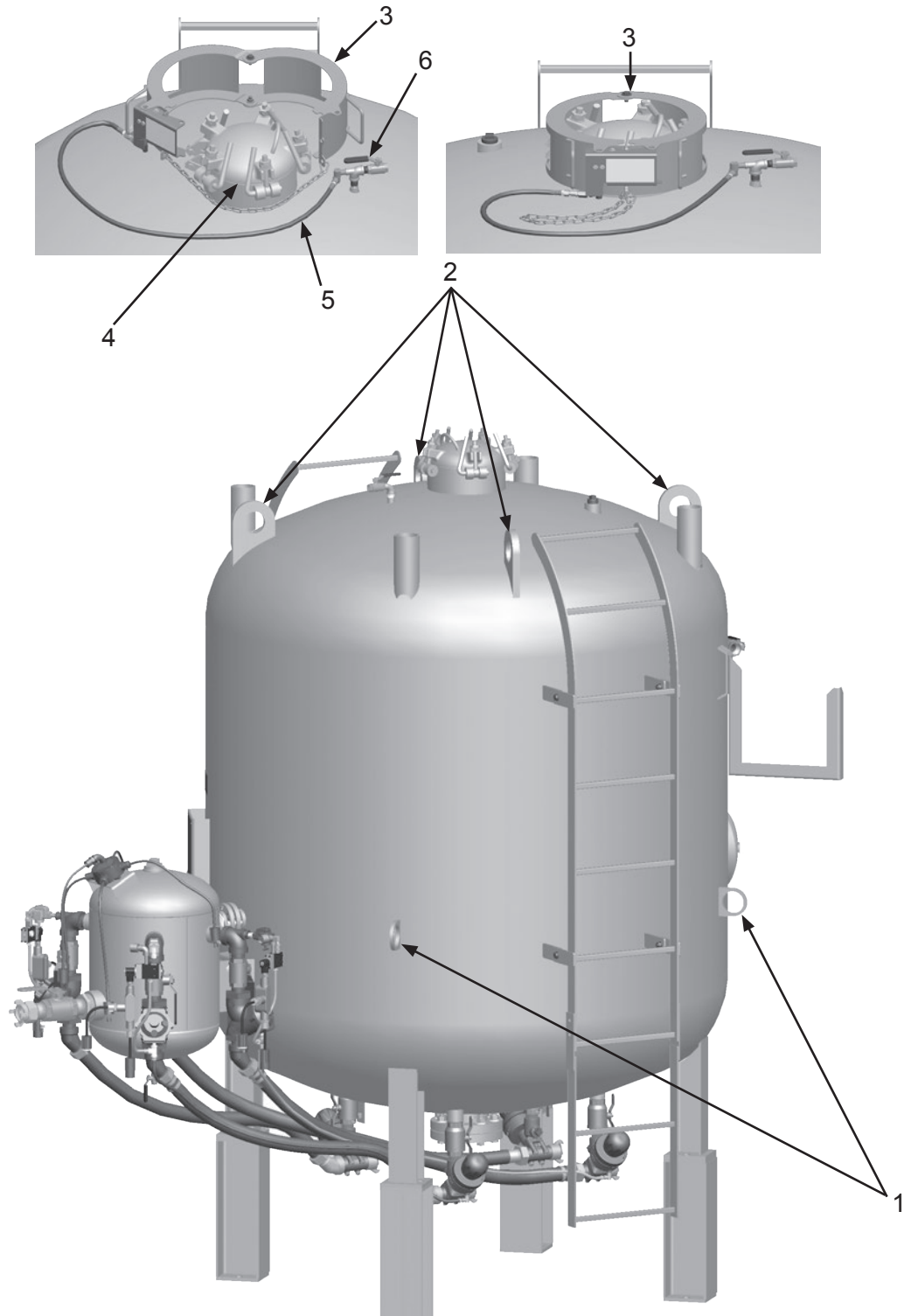
- 1) Depressurize Abrasive Blasting Pot. See Operating Instructions for procedure.
- 2) Disconnect all abrasive blasting hoses and remote control lines from remote control system.
- 3) Disconnect Air Hose Assembly (5) from Pressure Indicating Ball Valve (6), then remove Blastmaster® Pneumatic Closure Lockout Device (3) from Hatch (4). Open Hatch.
- 4) Attach appropriate lifting devices to Lifting Lugs (2). See Dimensions & Weight, and Center of Gravity section.
- 5) Raise and position on transport. For Trailer Mounted units, removal of tires may be required. Ensure unit is sufficiently supported before removing tires.
- 6) Secure Abrasive Blasting Pot to transport using Tie-down Lugs (1), following local Department of Motor Vehicle guidelines.
- 7) Disconnect lifting device.

UNLOADING AND LOADING INSTRUCTIONS

Figure 1

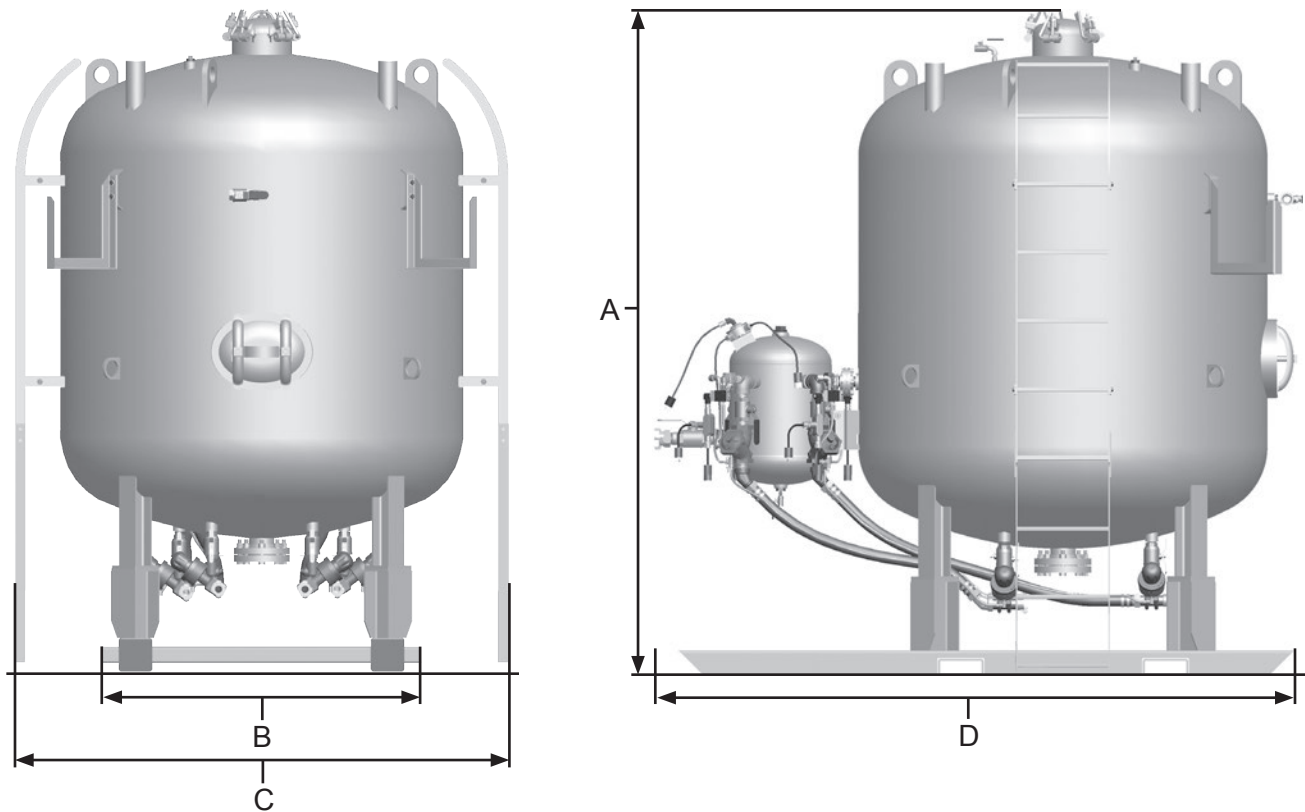
⚠ WARNING

Transporting, lifting, or moving this device must be conducted in accordance with applicable OSHA standards and ASME B30 standards, as well as any applicable local, state, or federal requirements. Failure to comply with the above warning could result in death or serious injury.



DIMENSIONS & WEIGHT

Figure 2: Stationary & Skid Mounted Models



Dry Weight:

Stationary Model - 4020 pounds

Fork-Pocket Skid Model - 4660 pounds

Overall Dimensions:

A: 120"

B: 48"

C: 89"

D: 111"

System Capacities:

Maximum Working Compressed Air Pressure: 150 psig

Abrasive Capacity: 16,000 lbs.

Torque Specifications:

Swing Bolt Nut: 20 ft./lb.

CENTER OF GRAVITY

Figure 3: Stationary & Skid Mounted Models

⚠ WARNING

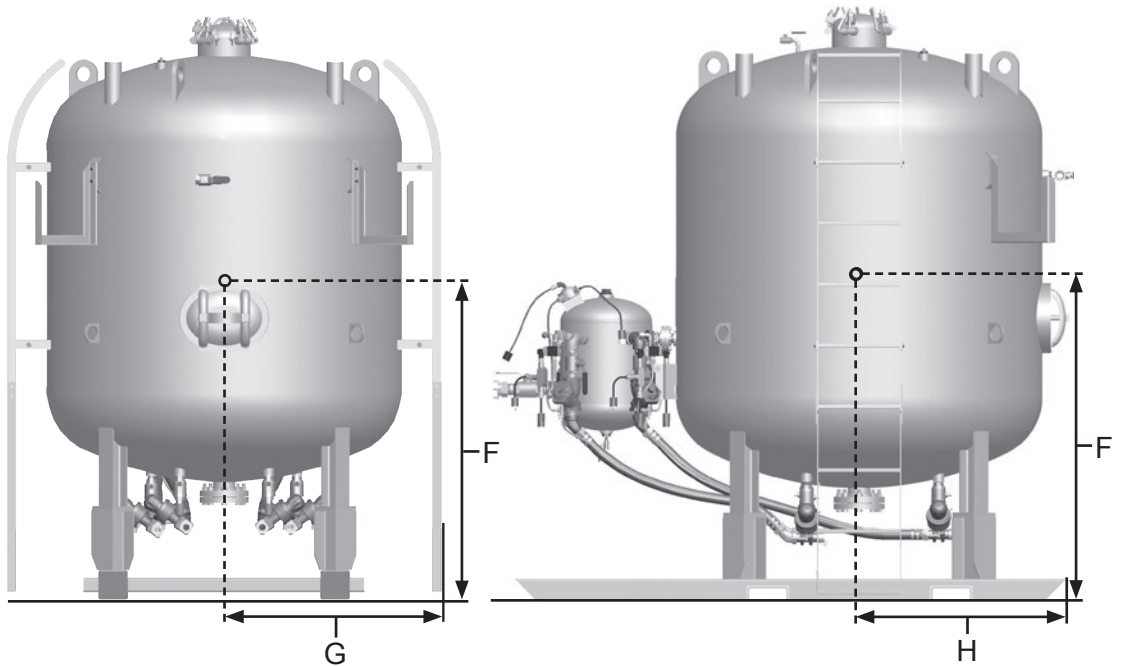
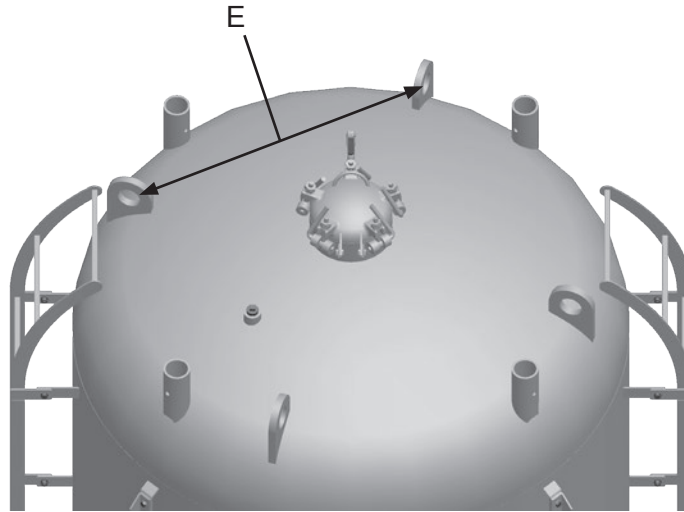
Transporting, lifting, or moving this device must be conducted in accordance with applicable OSHA standards and ASME B30 standards, as well as any applicable local, state, or federal requirements. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

Do not use any component other than the attached ladders as climbing devices. Ensure appropriate Fall Protection is used when climbing the ladder. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

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. Failure to comply with the above warning could result in death or serious injury.



Dry Weight:

Stationary Model - 4020 pounds

Fork-Pocket Skid Model - 4660 pounds

Distance Between Lifting Lugs:

E: 60"

Center of Balance:

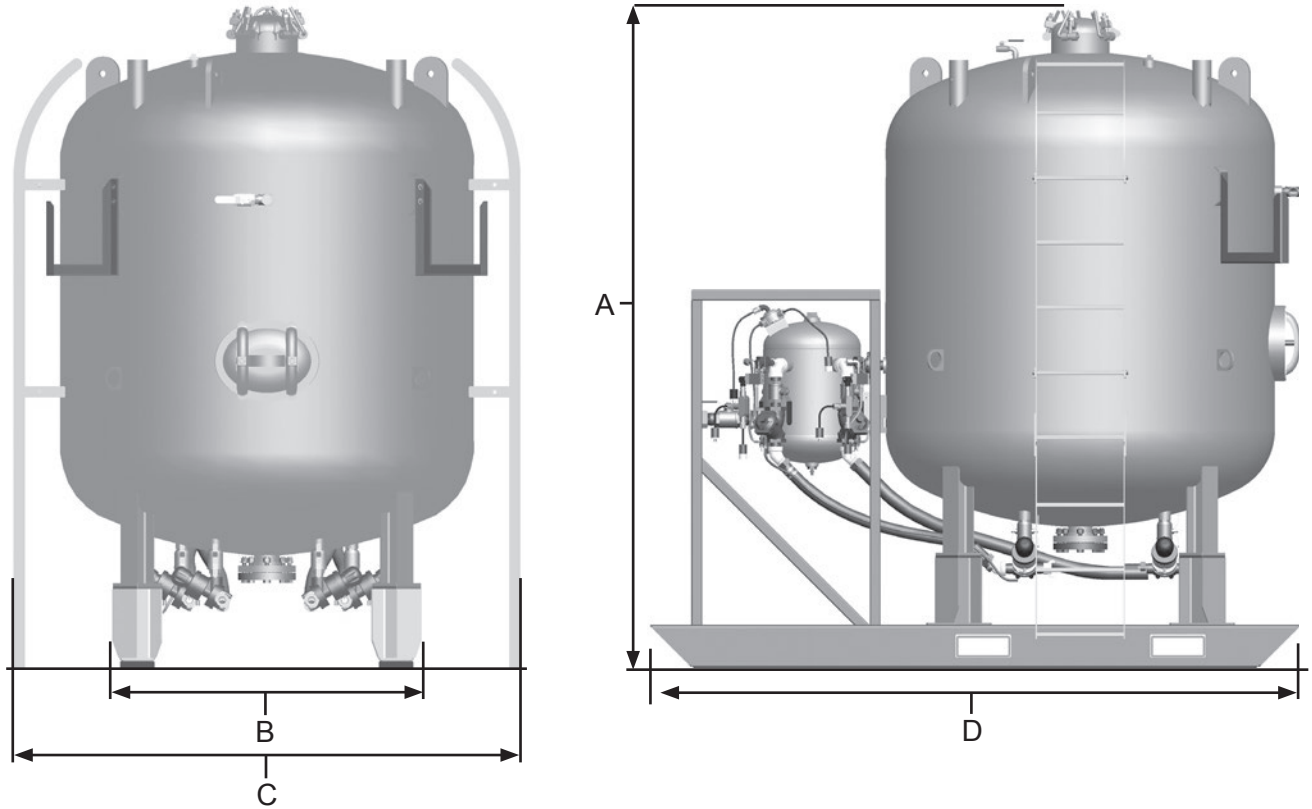
F: 57.1"

G: 44.5"

H: 43.4"

UNLOADING AND LOADING

Figure 4: Offshore Abrasive Blasting Pots – Dimensions & Weight



Dry Weight:
Offshore Model - 5150 pounds

Overall Dimensions:
A: 122"
B: 48"
C: 89"
D: 119"

UNLOADING AND LOADING

Figure 5: Offshore Abrasive Blasting Pots – Center of Gravity

⚠ WARNING

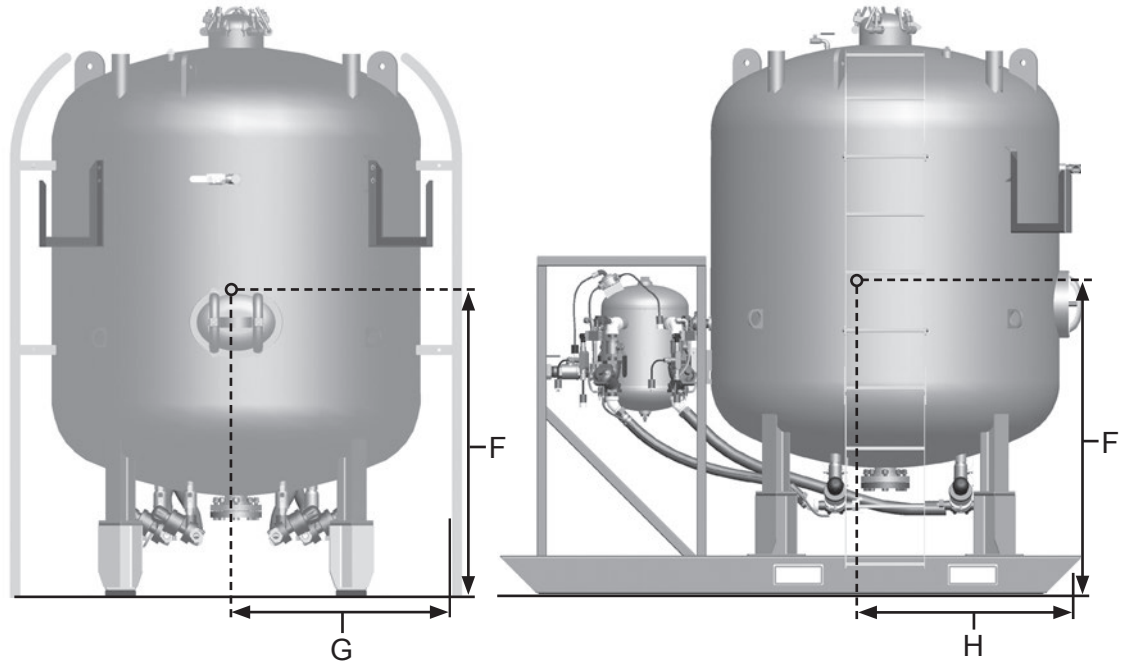
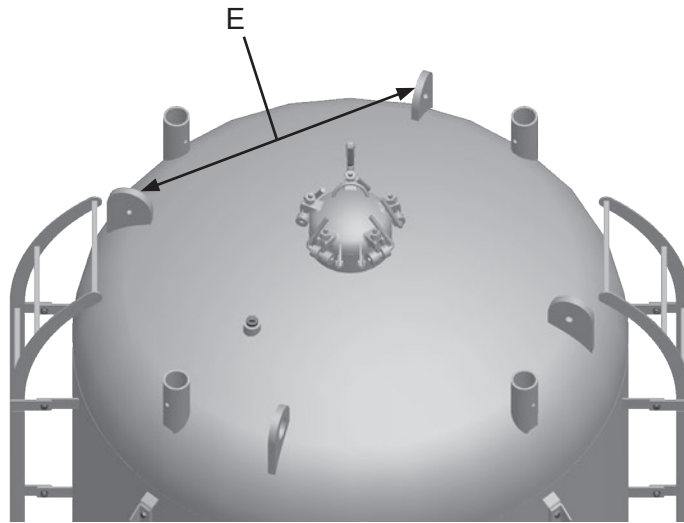
Transporting, lifting, or moving this device must be conducted in accordance with applicable OSHA standards and ASME B30 standards, as well as any applicable local, state, or federal requirements. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

Do not use any component other than the attached ladders as climbing devices. Ensure appropriate Fall Protection is used when climbing the ladder. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

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. Failure to comply with the above warning could result in death or serious injury.



Dry Weight:

Offshore Model - 5150 pounds

Distance Between Lifting Lugs:

E: 60"

Center of Balance:

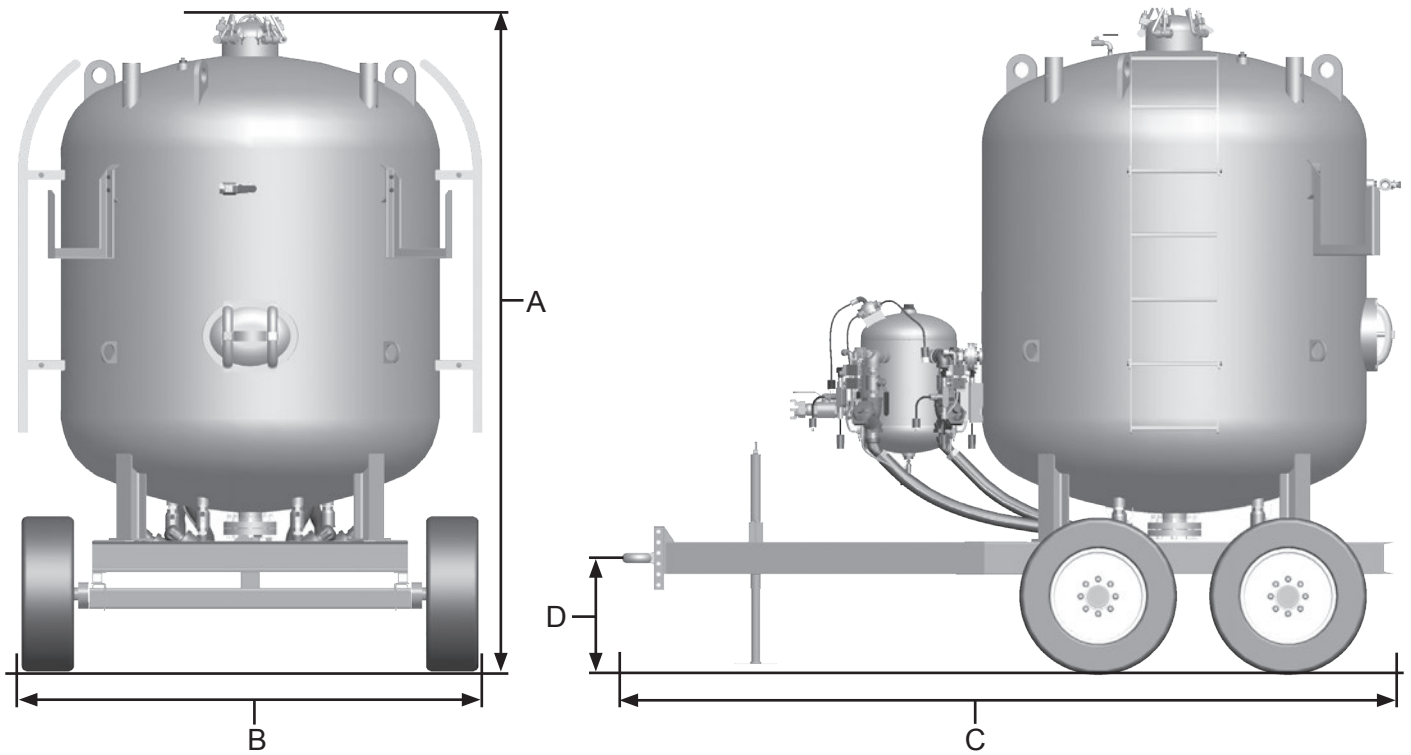
F: 56.6"

G: 44.5"

H: 45.75"

DIMENSIONS & WEIGHT

Figure 6: Yard Trailer Mounted Models



Dry Weight:

Yard Trailer Model - 5450 pounds

Overall Dimensions:

A: 124"

B: 89"

C: 145"

D: Adjustable 19" – 23"

CENTER OF GRAVITY

Figure 7: Yard Trailer Mounted Models

⚠ WARNING

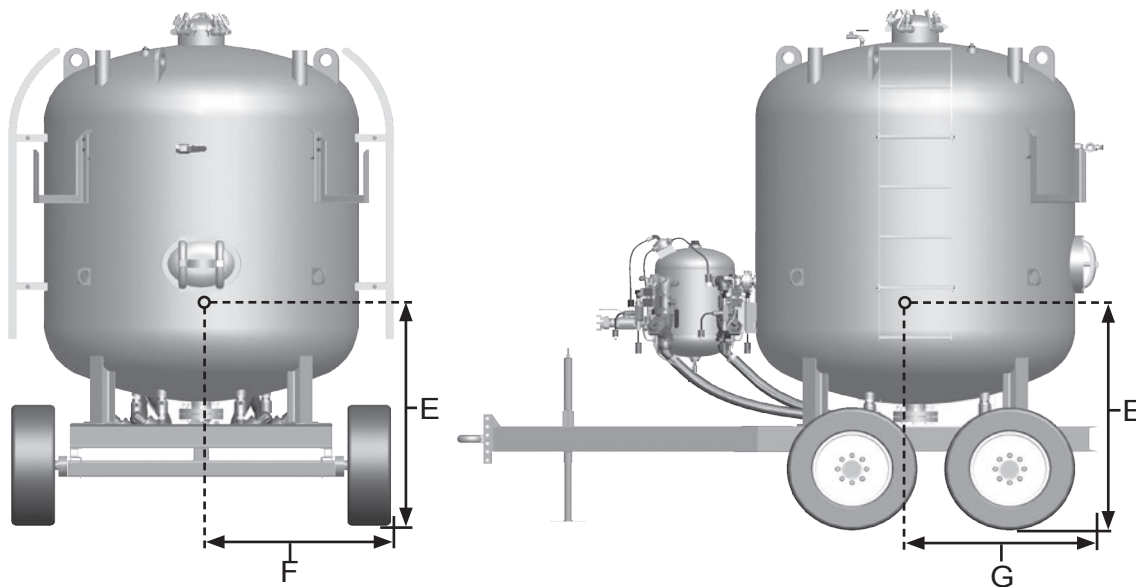
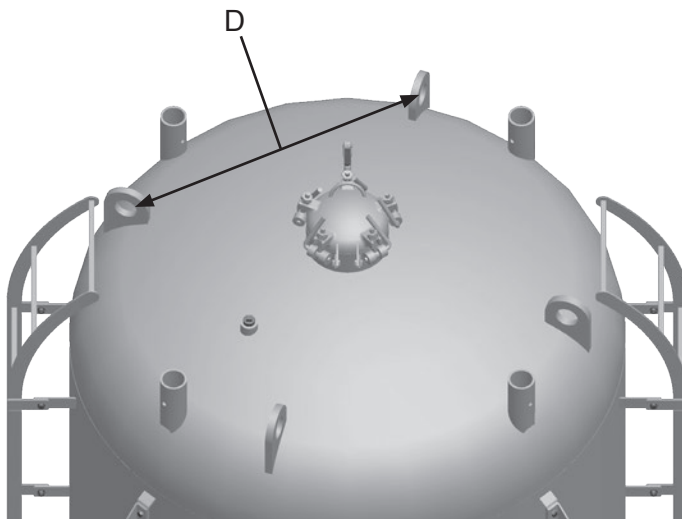
Transporting, lifting, or moving this device must be conducted in accordance with applicable OSHA standards and ASME B30 standards, as well as any applicable local, state, or federal requirements. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

Do not use any component other than the attached ladders as climbing devices. Ensure appropriate Fall Protection is used when climbing the ladder. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

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. Failure to comply with the above warning could result in death or serious injury.



Dry Weight:

Yard Trailer Model - 5450 pounds

Distance Between Lifting Lugs:

D: 60"

Center of Balance:

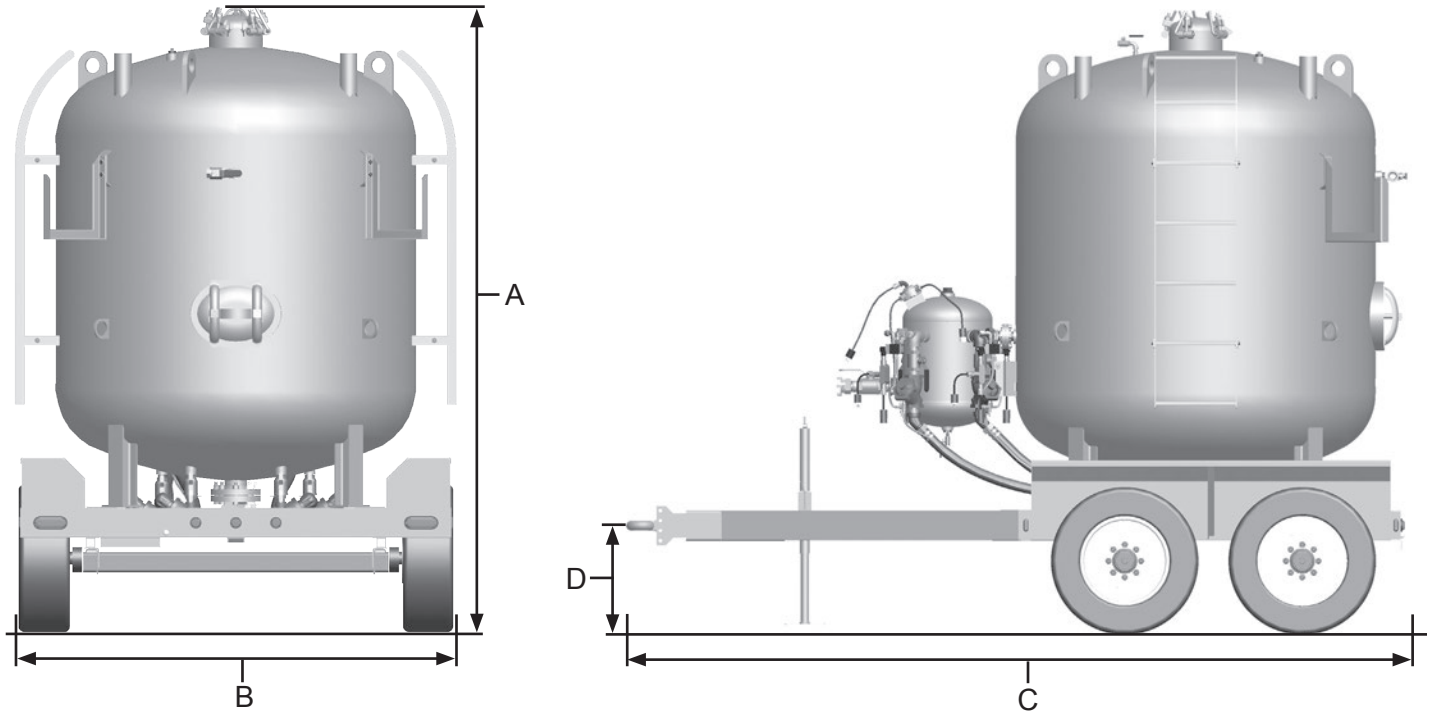
E: 57.53"

F: 44.5"

G: 43.4"

WEIGHT & DIMENSIONS

Figure 8: Highway Trailer Mounted Models



Dry Weight:

Highway Trailer Model - 5910 pounds

Overall Dimensions:

A: 124"

B: 89"

C: 156"

D: Adjustable 19" – 23"

CENTER OF BALANCE

Figure 9: Highway Trailer Mounted Models

⚠ WARNING

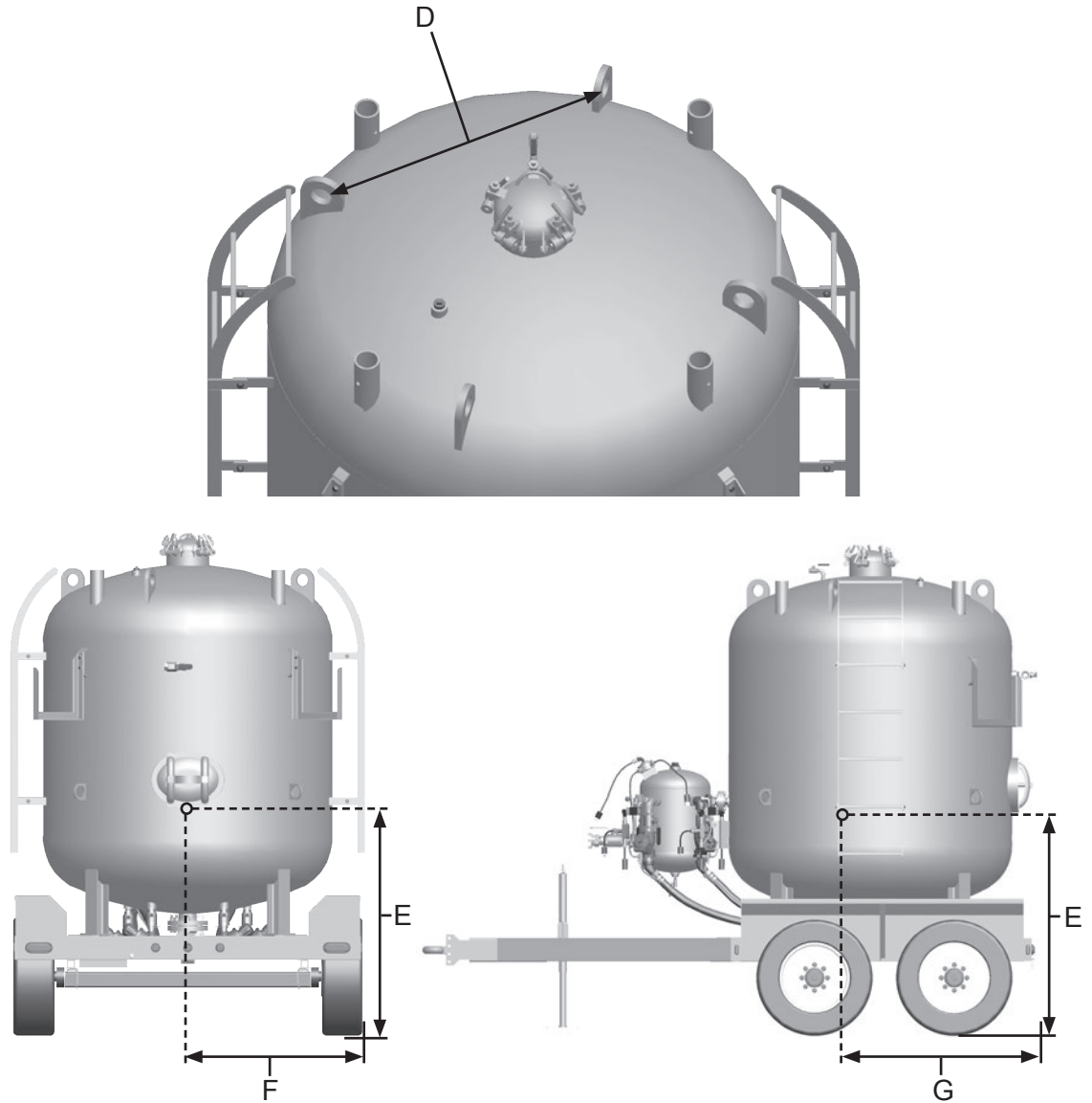
Transporting, lifting, or moving this device must be conducted in accordance with applicable OSHA standards and ASME B30 standards, as well as any applicable local, state, or federal requirements. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

Do not use any component other than the attached ladders as climbing devices. Ensure appropriate Fall Protection is used when climbing the ladder. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

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. Failure to comply with the above warning could result in death or serious injury.



Dry Weight:

Highway Trailer Model - 5910 pounds

Distance Between Lifting Lugs:

D: 60"

Center of Balance:

E: 55.9"

F: 44.5"

G: 45.5"

OPERATING INSTRUCTIONS

WARNING

Ensure tongue jack of the trailer is properly engaged. Improper engagement of the tongue jack on trailer could cause the abrasive blasting pot to become unstable causing the abrasive blasting pot to tip. Failure to comply with the above warning could result in death or serious injury.

WARNING

Do not use any tools or devices to aid in moving a Camlock Handle or Swing Bolt during opening of the Hatch Assembly. If a Camlock Handle and Swing Bolt do not move freely during the opening of the Hatch Assembly stop immediately as the abrasive blasting pot could be under pressure. Ensure the abrasive blasting pot is depressurized before continuing with opening the Hatch Head. Failure to comply with the above warning could result in death or serious injury.

WARNING

For trailer mounted abrasive blasting pots, ensure sufficient blocking of the wheels is used reducing the possibility of movement of unit when in use or in storage. Lack of or insufficient blocking of the wheels could allow for unintended movement of the unit. Failure to comply with the above warning could result in death or serious injury.

Operational Requirements

The following may cause safety hazards or reduced performance:

- Insufficient volume of compressed air.
- Improper installation and/or maintenance of components.
- Incorrect lifting/transporting of Abrasive Blasting Pot or incorrect or worn lifting devices.
- Failure to place Abrasive Blasting Pot on surface capable of supporting the weight of the Abrasive Blasting Pot containing abrasive.
- Failure to properly secure trailer mounted models from movement.
- Exceeding 15 mph speed limit when trailer mounted models are filled with abrasive.
- Exceeding 45 mph speed limit when towing empty highway trailer mounted models.
- Exceeding 15 mph speed limit when towing empty yard trailer mounted models.
- Use of abrasive that is not properly dried and screened of debris.

Operating Instructions

Fig. 10

Before use:

- 1) Ensure Abrasive Blasting Pot is on a stable surface. Block wheels of Trailer Mounted units to stop unintended movement.
- 2) Open Hatch (1). See *Depressurization* in Operating Instructions.
- 3) If equipped, install Blastmaster® Bulk Bag Rack. See Remove & Install Blastmaster® Bulk Bag Rack in Maintenance Instructions.
- 4) Fill abrasive blasting pot with abrasive.
- 5) If equipped, remove Blastmaster® Bulk Bag Rack. See Remove & Install Blastmaster® Bulk Bag Rack in Maintenance Instructions.
- 5) Close Hatch (1). See *Pressurization* in Operating Instructions.
- 6) Place Blastmaster® Pneumatic Closure Lockout Device (4) in the open position, and orient Chain (9), as shown.
- 7) Grasp Handles (6,8), and close Blastmaster® Pneumatic Closure Lockout Device (4). Ensure Latch Handle (7) engages properly.
- 8) Close Pressure Indicating Ball Valve (5)

During use:

- 1) Connect abrasive blasting hose to each Abrasive Metering Valve (3) that will be in use.
- 2) See remote control system Operator's Manual for proper installation of control lines.
- 3) Ensure Union End Ball Valve (2) above each Abrasive Metering Valve (3) that will be in use is in the open position.
- 4) Connect air supply hose to the Moisture Separator Inlet (10).

OPERATING INSTRUCTIONS

Figure 10

⚠ WARNING

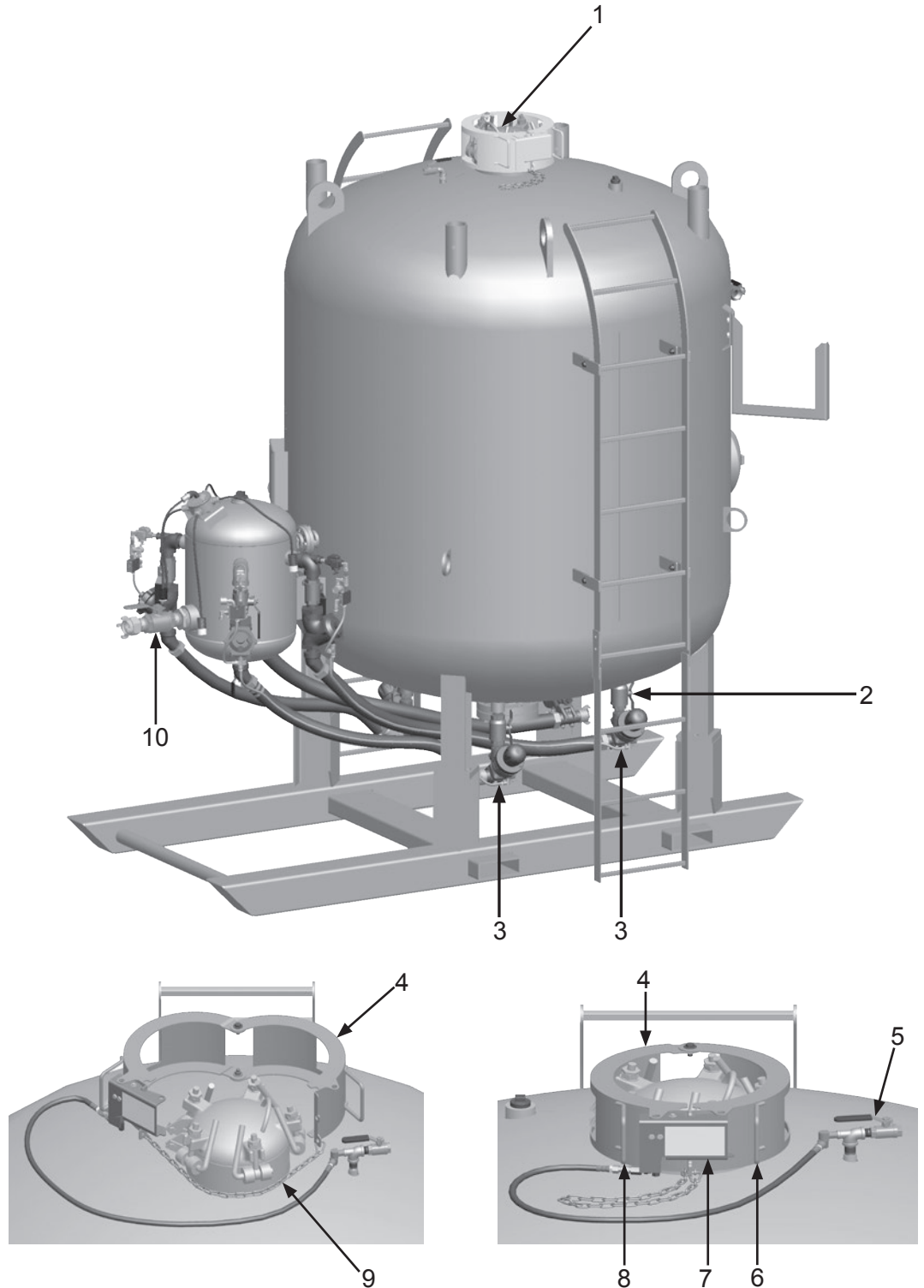
Before attempting to open the Hatch Assembly, ensure the abrasive blasting pot is not pressurized by opening the Pressure Indicator Ball Valve located on the top of the abrasive blasting pot. If air is released when the Pressure Indicator Ball Valve is opened do not attempt to open Hatch Assembly. Attempting to open the Hatch Assembly when the abrasive blasting pot is pressurized could release high speed abrasive and compressed air and allow the Hatch Assembly to be forced open. Follow proper depressurization instructions before proceeding. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

Do not use any component other than the attached ladders as climbing devices. Ensure hand and foot contact with ladder while ascending / descending the ladder. The person can slip and fall. Ensure appropriate Fall Protection is used when climbing the ladder. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

Do not walk on, stand on or climb on the top head of abrasive blasting pot. Doing so can damage the abrasive blasting pot and poses a slip and fall hazard. Failure to comply with the above warning could result in death or serious injury.



OPERATING INSTRUCTIONS

WARNING

Never attempt to move an abrasive blasting pot containing abrasive. Never attempt to manually move abrasive blasting pots greater than 6.5 cubic foot capacity. Always use at least two capable people to manually move an abrasive blasting pot on flat, smooth surfaces. A mechanical lifting device must be used if an abrasive blasting pot is moved in any other manner. Failure to comply with the above warning could result in death or serious injury.

WARNING

Failure to properly secure the abrasive blasting pot during transport could cause the abrasive blasting pot to become unstable. Use only the Tie-Down Lugs affixed to the bottom of the abrasive blasting pot as connection points for strapping devices adequate for the weight of the abrasive blasting pot. Failure to comply with the above warning could result in death or serious injury.

CAUTION

Do not attach or stow any items not original equipment on the abrasive blasting pot. Non-original equipment may become dislodged during transport and impact property or personnel. Failure to comply with the above caution may result in minor or moderate injury.

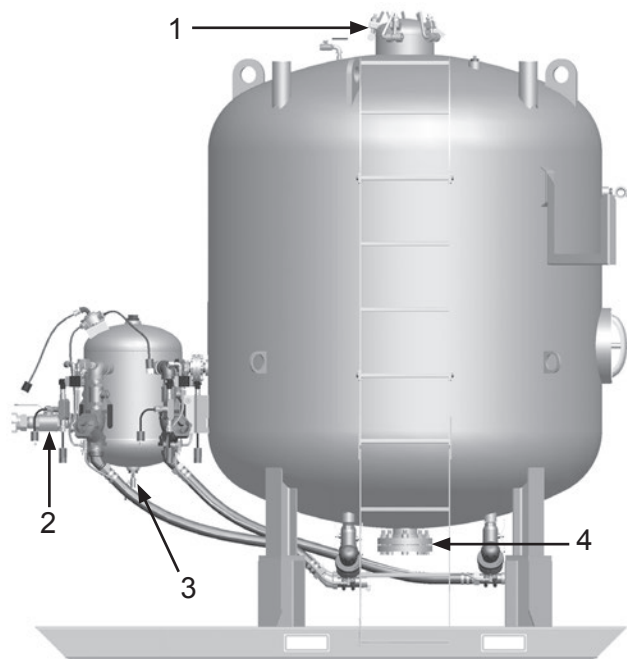
Operating Instructions

After use:

Fig. 11

- Depressurize the Abrasive Blasting Pot. See Pressurization & Depressurization in Operating Instructions.
- Disengage and remove Blastmaster® Pneumatic Closure Lockout Device (*not shown*) and open Hatch (1). See Pressurization & Depressurization in Operating Instructions.
- Do not leave Hatch (1) open when Abrasive Blasting Pot is not in use to keep debris and water from entering the vessel.
- Disconnect air supply hose from Inlet Ball Valve (2). Open Moisture Separator Drain Ball Valve (3) to release residual water.
- Do not store with abrasive in the vessel. To remove abrasive, remove Flange Cover (4) on the bottom of vessel and extract remaining abrasive. See Remove & Install Clean-Out Flange in Operating Instructions.

Figure 11



OPERATING INSTRUCTIONS

⚠ WARNING

Do not exceed 45 miles per hour when towing a highway trailer mounted abrasive blasting pot on public roads. Do not tow a highway trailer mounted abrasive blasting pot with abrasive in the abrasive blasting pot on public roads. A highway trailer mounted abrasive blasting pot can be towed with abrasive in the abrasive blasting pot at 15 miles per hour or less on non-public roads. Exceeding the speed rating could cause damage to components and the unit to become unstable causing it to tip over or cause the tow vehicle to become unstable. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

Trailer mounted abrasive blasting pots are not designed for use on rough terrain. The abrasive blasting pot could become unstable causing the unit to tip and disengage from the transport device. Failure to comply with the above warning could result in death or serious injury.

⚠ CAUTION

For Trailer Mounted Abrasive Blasting Pots, ensure tow vehicle is disconnected from the trailer hitch during use and storage. Removing the trailer from the tow vehicle may reduce the possibility of unintended movement. Failure to comply with the above warning could result in death or serious injury.

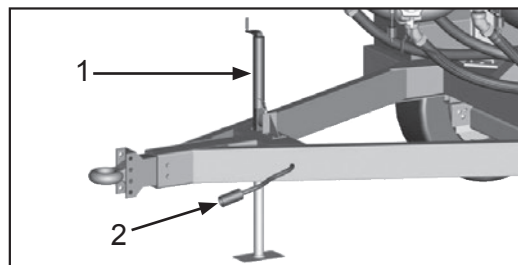
Operating Instructions

After use (continued):

Fig. 12

- For Trailer Mounted units, ensure wheel blocking is removed and the Tongue Jack (1) is in the up position. On Highway Trailer models, connect Wiring Harness (2) to tow vehicle before moving. The maximum speed for a Yard Trailer unit is 15 miles per hour. Do not exceed 15 miles per hour on non-public roads when abrasive is in a Highway Trailer model. Do not transport a Highway Trailer model on public roads with abrasive in the vessel. For Highway Trailer models, do not exceed 45 miles per hour when traveling on public roads.

Figure 12



OPERATING INSTRUCTIONS

Pressurize & Depressurize Abrasive Blasting Pot

WARNING

Before attempting to open the Hatch Assembly, ensure the abrasive blasting pot is not pressurized by opening the Pressure Indicator Ball Valve located on the top of the abrasive blasting pot. If air is released when the Pressure Indicator Ball Valve is opened do not attempt to open Hatch Assembly. Attempting to open the Hatch Assembly when the abrasive blasting pot is pressurized could release high speed abrasive and compressed air and allow the Hatch Assembly to be forced open. Follow proper depressurization instructions before proceeding. Failure to comply with the above warning could result in death or serious injury.

WARNING

Do not use any component other than the attached ladders as climbing devices. Ensure appropriate Fall Protection is used when climbing the ladder. Failure to comply with the above warning could result in death or serious injury.

CAUTION

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

Operating Instructions Fig. 13

Pressurization:

- Ensure Abrasive Blasting Pot is on a stable surface. Block wheels of Trailer Mounted units to stop unintended movement.
- Ensure Abrasive Blasting Pot is not pressurized. Ensure Inlet Ball Valve (9) is in the closed position and Exhaust Ball Valve (8) is in the open position. Ascend ladder to inspect Pressure Indicator Ball Valve (10). Close Pressure Indicator Ball Valve.
- Inspect Hatch O-ring (*not shown*) for damage and proper seating in groove, replace if needed. Ensure all components are free of corrosion and damage, replace if needed. Ensure Camlocks and Swing Bolts move freely without binding, replace if needed. Visually inspect internal components and abrasive level in vessel before filling.
- To secure Hatch, move Camlock (1) to the up position by hand only. Do not use any device or tool to aid in moving the Camlock. Do not move Swing Bolt (6) at this time. Move each Camlock to the up position, following the numbered sequence shown. Move all Camlocks to the up position and descend the ladder. Ensure Air Inlet Ball Valve (9) is in the open position and Exhaust Ball Valve (8) is in the closed position.
- Move Swing Bolt on first Camlock to the up position. Move each Swing Bolt to the up position in a star pattern with Camlock (5) being the last one.
- Close Blastmaster® Pneumatic Closure Lockout Device (7) around Hatch.
- Close Outlet Ball Valve (8).
- Open Inlet Ball Valve (9) to begin pressurization.

Depressurization:

- Move Inlet Ball Valve (9) to the closed position.
- Move Exhaust Ball Valve (8) to the open position.
- When air has stopped exhausting from the Exhaust Ball Valve (8), ascend ladder to inspect Pressure Indicator Ball Valve (10). Open Pressure Indicator Ball Valve (10). If no air is released from the Pressure Indicator Ball Valve continue with removing the Blastmaster® Pneumatic Closure Lockout Device (7).
- Disengage Blastmaster® Pneumatic Closure Lockout Device (7) and slide away from Hatch.
- To open Hatch, move Camlock (1) to the down position by hand only. Do not use any device or tool to aid in moving the Camlock. Do not move Swing Bolt (6) at this time. Move each Camlock to the down position, following the numbered sequence shown. If at any time during the moving of the Camlocks, air is released from the Hatch opening, stop immediately. Move all Camlocks to the up position and descend the ladder. Ensure Air Inlet Ball Valve (9) is in the closed position and Exhaust Ball Valve (8) is in the open position. If air is not released when the Camlocks are in the down position, continue with opening the Hatch.
- Move Swing Bolt (6) on first Camlock to the down position. Move each Swing Bolt to the down position in a star pattern with Camlock (5) being the last one. If at any time during the moving of the Swing Bolts, air is released from the Hatch opening, stop immediately. Return all Swing Bolts to the up position and return the Camlocks to the up position. Ensure Air Inlet Ball Valve (9) is in the closed position and Exhaust Ball Valve (8) is in the open position.
- Inspect Hatch O-ring for damage and proper seating in groove, replace if needed. Ensure all components are free of corrosion and damage, replace if needed. Ensure Camlocks and Swing Bolts move freely without binding, replace if needed. Visually inspect internal components and abrasive level in vessel before filling.

OPERATING INSTRUCTIONS

Figure 13

⚠ WARNING

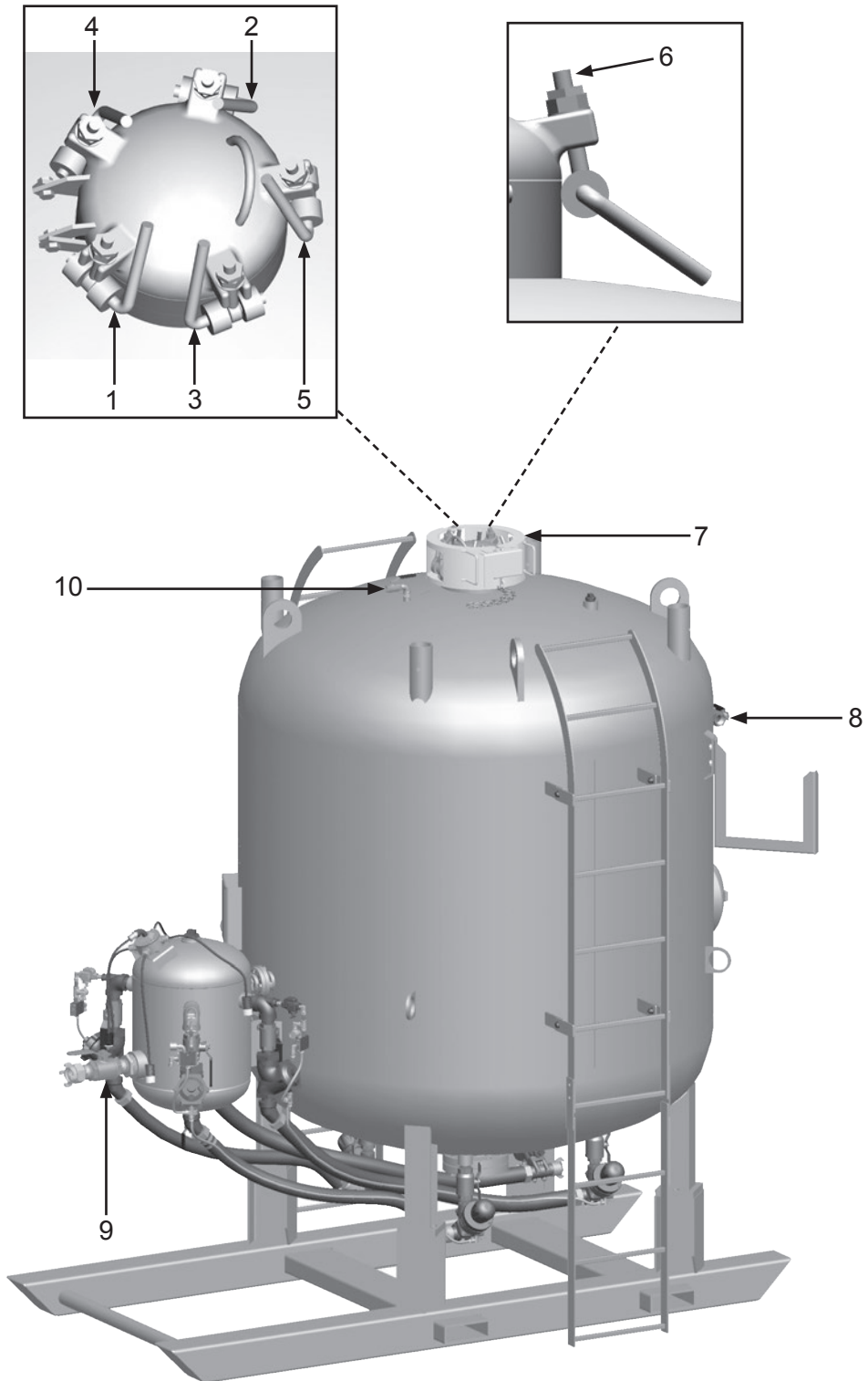
Do not use any tools or devices to aid in moving a Camlock Handle or Swing Bolt during opening of the Hatch Assembly. If a Camlock Handle and Swing Bolt do not move freely during the opening of the Hatch Assembly stop immediately as the abrasive blasting pot could be under pressure. Ensure the abrasive blasting pot is depressurized before continuing with opening the Hatch Head. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

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.

⚠ WARNING

Abrasive blasting pots are not intended for transport of personnel. Personnel should not be carried on the abrasive blasting pot during transit or moving of the unit as they can fall from the unit. Failure to comply with the above warning could result in death or serious injury.



MAINTENANCE

Adjust Camlock Assemblies

WARNING

Always depressurize the entire 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.

WARNING

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.

Maintenance of the Blastmaster® 160 cu. ft. Abrasive Blasting Pot is limited to the daily cleaning and the immediate replacement of damaged or worn parts.

Figure 14

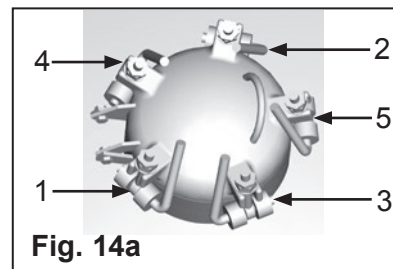
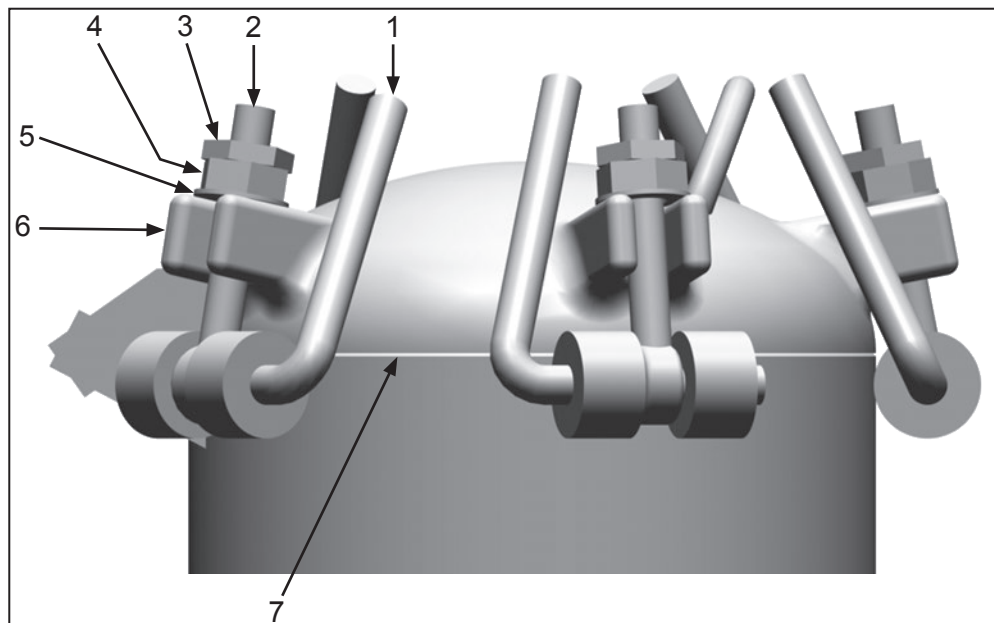


Fig. 14

- 1) Open Hatch. Inspect Hatch O-ring (7) and replace if damaged.
- 2) With Camlock Assemblies (1) in the closed position, loosen Locking Nut (3), then loosen Swing Bolt Nut (4), releasing Washer (5). Inspect items and replace if damaged.
- 3) Adjust Swing Bolt (2) position so it is fully seated in Holding Lug (6). Install Swing Bolt Nut on to Swing Bolt to hand tight. Do not over tighten.
- 4) Working one Camlock Assembly at a time, repeat steps 2 and 3 for remaining four Camlock Assemblies.
- 5) Using a torque wrench, tighten Swing Bolt Nut (2) on Camlock Assembly #5 to a final torque of 20 ft/lbs. Tighten remaining Swing Bolt Nuts in the sequence shown in Fig. 14a.
- 6) Install Locking Nut (3) on to Swing Bolt (2). Using a wrench to hold Swing Bolt Nut in place, tighten Locking Nut. Tighten remaining Locking Nuts in the sequence shown in Fig. 14a.
- 7) Inspect Camlock Assemblies for proper function.

MAINTENANCE

Remove & Install Manway Assembly

WARNING

Always depressurize the entire 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.

CAUTION

Ensure content of abrasive blasting pot is free of hazardous material before entry. If hazardous material is detected, follow prescribed methods for handling the material. Failure to comply with the above caution may result in minor or moderate injury.

CAUTION

When entering and exiting the abrasive blasting pot via the manway, ensure the surface in the abrasive blasting pot is stable. Loose abrasive in the abrasive blasting pot may cause a slip / fall hazard. Failure to comply with the above caution may result in minor or moderate injury.

CAUTION

Ensure the person entering the abrasive blasting pot can pass through the 12" x 16" manway opening as they can become wedged. Failure to comply with the above caution may result in minor or moderate injury.

Maintenance of the Blastmaster® 160 cu. ft. Abrasive Blasting Pot is limited to the daily cleaning and the immediate replacement of damaged or worn parts.

Figure 15

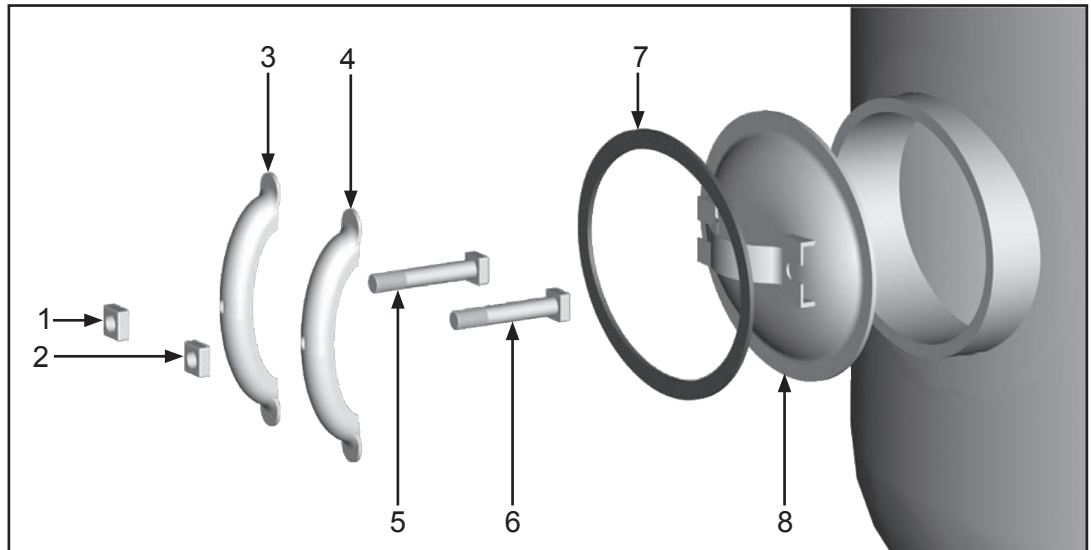


Fig. 15

Remove:

- 1) Ensure abrasive in abrasive blasting pot is below the opening of the Manway Door opening.
- 2) Loosen Nut (1) from Bolt (5). Do not remove Nut (1). Repeat step for Nut (2).
- 3) Grasp Manway Door (8). Remove loosened Nut (1) from Bolt (5). Repeat step for Nut (2).
- 4) Remove Yoke (3) from Bolt (5). Repeat step for Yoke (4).
- 5) Remove Bolts (5 and 6) from Manway Door (8). Push on Manway Door toward the interior of Abrasive Blasting Pot to free the Manway Door and Gasket (7).
- 6) Remove Manway Door (8) and Gasket (7) from Abrasive Blasting Pot interior.

Install:

- 1) Ensure Manway Door (8) is free of debris. Place Gasket (7) on Manway Door (8) and insert through opening in side of Abrasive Blasting Pot.
- 2) Grasp Manway Door (8) and seat Manway Door and Gasket (7) on interior ring of opening. Ensure Gasket creates a positive seal.
- 3) Place head of Bolt (5) in slot on Manway Door (8). Place Yoke (3) on Bolt and thread Nut (1) on to Bolt. Do not tighten Nut. Repeat for opposite side.
- 4) Secure Manway Door (8) by tightening Nuts (1 and 2), alternate tightening nuts for even gasket seal.

MAINTENANCE

Remove & Install Wheel and Tire Assemblies

Maintenance of the Blastmaster® 160 cu. ft. Abrasive Blasting Pot is limited to the daily cleaning and the immediate replacement of damaged or worn parts.

Figure 16

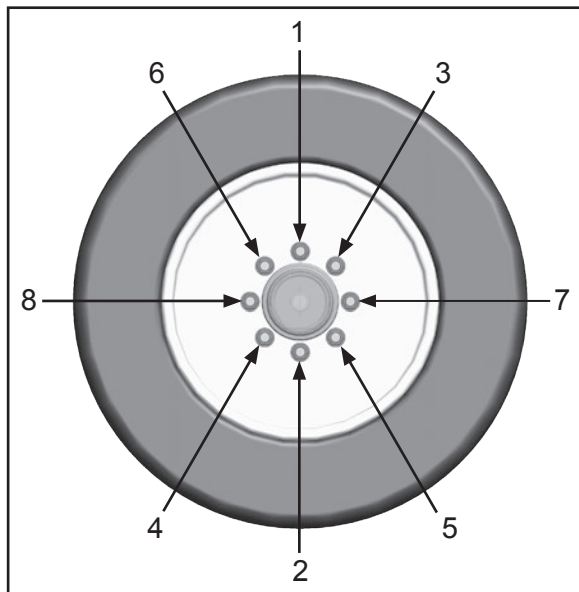


Fig. 16

Install:

- 1) Ensure tire is inflated to the tire manufacturer's recommended pressure. See sidewall of tire for recommended pressure.
- 2) Mount Tire and Wheel Assembly on Wheel Hub of Trailer.
- 3) Thread Lug Nut on to Stud (1). Thread remaining Lug Nuts on to Stud in the sequence shown. Tighten to hand tight.
- 4) Tighten Lug Nut to 250 ft/lbs of torque. Repeat for remaining Lug Nuts in the sequence shown.
- 5) For Yard Trailer Abrasive Blasting Pot models, tighten Wheel Lug Nuts weekly. For Highway Trailer Abrasive Blasting Pot models, tighten Wheel Lug Nuts after the first 50 miles of use. Check Wheel Lug Nut torque every 90 days.

⚠ WARNING

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. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

Ensure Wheel Lug Nuts are tightened to 250 ft/lbs of torque. Incorrect torque could allow for the wheel to become disengaged causing loss of control of the Trailer. For yard towable abrasive blasting pot models, tighten wheel lug nuts after each filling of abrasive. For highway towable abrasive blasting pot models, tighten wheel lug nuts after the first 50 miles of use. Check wheel lug nut torque every 90 days. Failure to comply with the above warning could cause death or serious injury.

⚠ CAUTION

Do not transport trailer mounted abrasive blasting pots on transport devices with the wheel assemblies installed. The abrasive blasting pot may become unstable causing unintended movement and disengage from the transport device. Failure to comply with the above caution may result in minor or moderate injury.

MAINTENANCE

Install Blastmaster® Pneumatic Closure Lockout Device

⚠ WARNING

Always depressurize the entire 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.

⚠ WARNING

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. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

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.

Figure 17

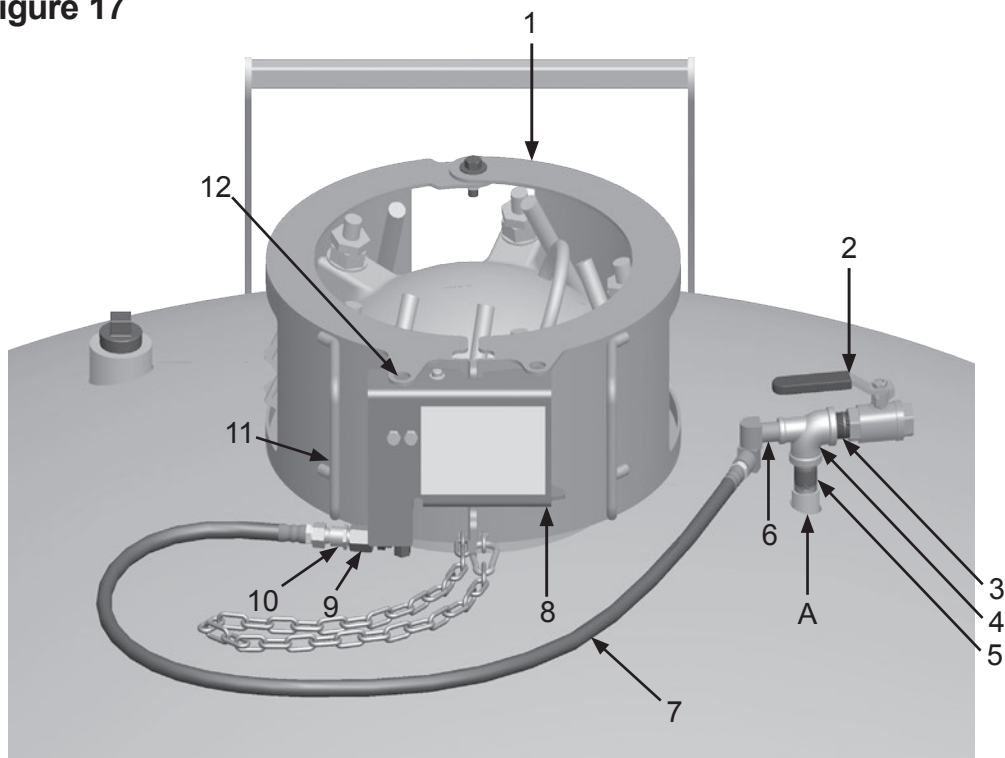


Fig. 17

Install:

- 1) Depressurize abrasive blasting pot.
- 2) Place Blastmaster® Pneumatic Closure Lockout Device (1) on camlock closure as shown.
- 3) Remove existing piping from Port (A).
- 4) Install Pipe Nipple (5) into Port (A).
- 5) Install Elbow with Side-out (4) onto Pipe Nipple (5).
- 6) Install Close Nipple (3) into Elbow with Side-out (4).
- 7) Install Pressure Indicating Ball Valve (2) onto Close Nipple (3).
- 8) Install Swivel Connector (6) into Elbow with Side-out (4).
- 9) Install Reducing Fitting (9) into 1/8" 90° Elbow (*not shown*).
- 10) Install Swivel Hose End (10) into Reducing Fitting (9)
- 11) Connect Air Hose (7) into Swivel Connector (6) and Swivel Hose End (10).
- 12) Ensure Pressure Indicating Ball Valve (2) is in the closed position, and pressurize abrasive blasting pot. Verify Pneumatic Locking Piston (12) engages Latch Handle (8). Grasp Latch Handle and attempt to disengage from Blastmaster® Pneumatic Closure Lockout Device (1). The Latch Handle should not disengage.

NOTE: See Blastmaster® Pneumatic Closure Lockout Device Operator's Manual for operating and maintenance instructions.

MAINTENANCE

Remove & Install Clean-Out Flange

WARNING

Always depressurize the entire 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.

WARNING

Do not remove Clean-out Flange Plate when the abrasive blasting pot is pressurized. Removal of the Clean-out Flange Plate while the abrasive blasting pot is pressurized could release high speed abrasive and compressed air. Failure to comply with the above warning could result in death or serious injury.

Figure 18

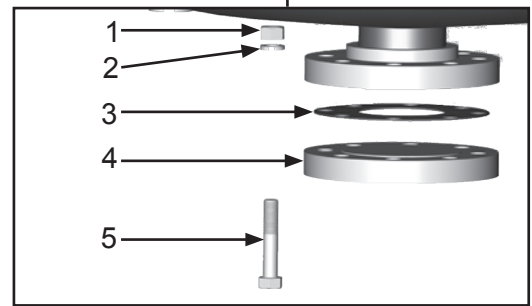
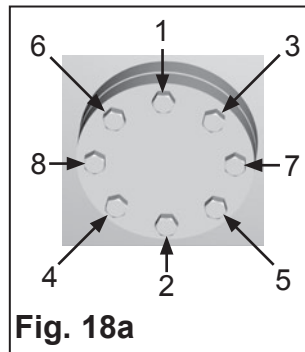
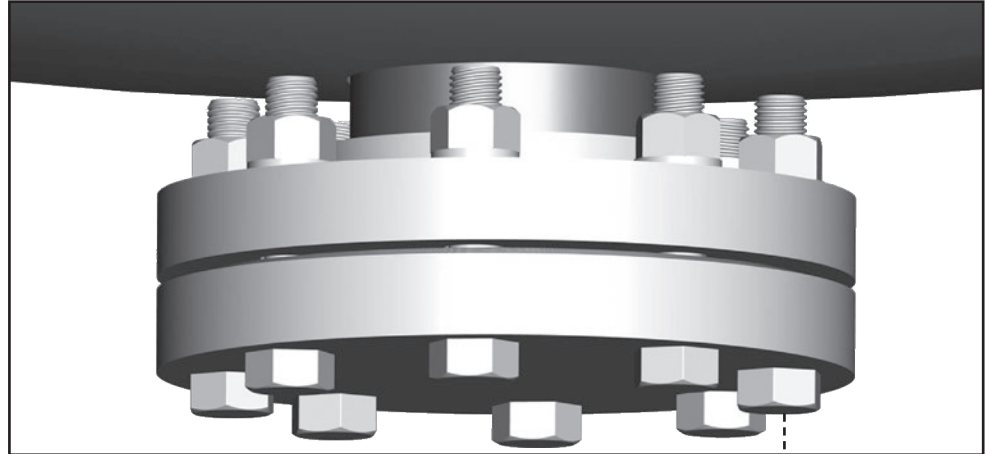


Fig. 18

Remove:

- 1) Loosen Nut (1) from Bolt (5). Do not remove Nut and Washer (2). Loosen remaining seven Nuts.
- 2) Remove Nut (1) and Washer (2) from Bolt (5). Repeat for remaining seven bolts. Abrasive will begin flowing from the vessel.
- 3) Remove Flange Plate (4) and Flange Gasket (3). Allow abrasive to empty from vessel.

Install:

- 1) Place Flange Gasket (3) on Flange Plate (4).
- 2) Align Flange Plate (4) and Flange Gasket (3) with holes in flange on bottom of vessel.
- 3) Slide Bolt (5) in one hole of Flange Plate. Place Washer (2) on Bolt. Install Nut (1) on to Bolt and tighten to hand tight. Repeat for remaining seven bolts.
- 4) Tighten bolts in sequence shown in Fig. 18a.

MAINTENANCE

Disassemble & Assemble 120-Volt AC to 12-Volt AC Power Converter

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.

WARNING

This product is designed for use with a 12-volt DC battery or Marco 120 Volt AC-to-12 Volt AC Power Converter only. Use of any other power supply could cause electric shock and/or damage to the product. Failure to comply with the above warning could result in death or serious injury.

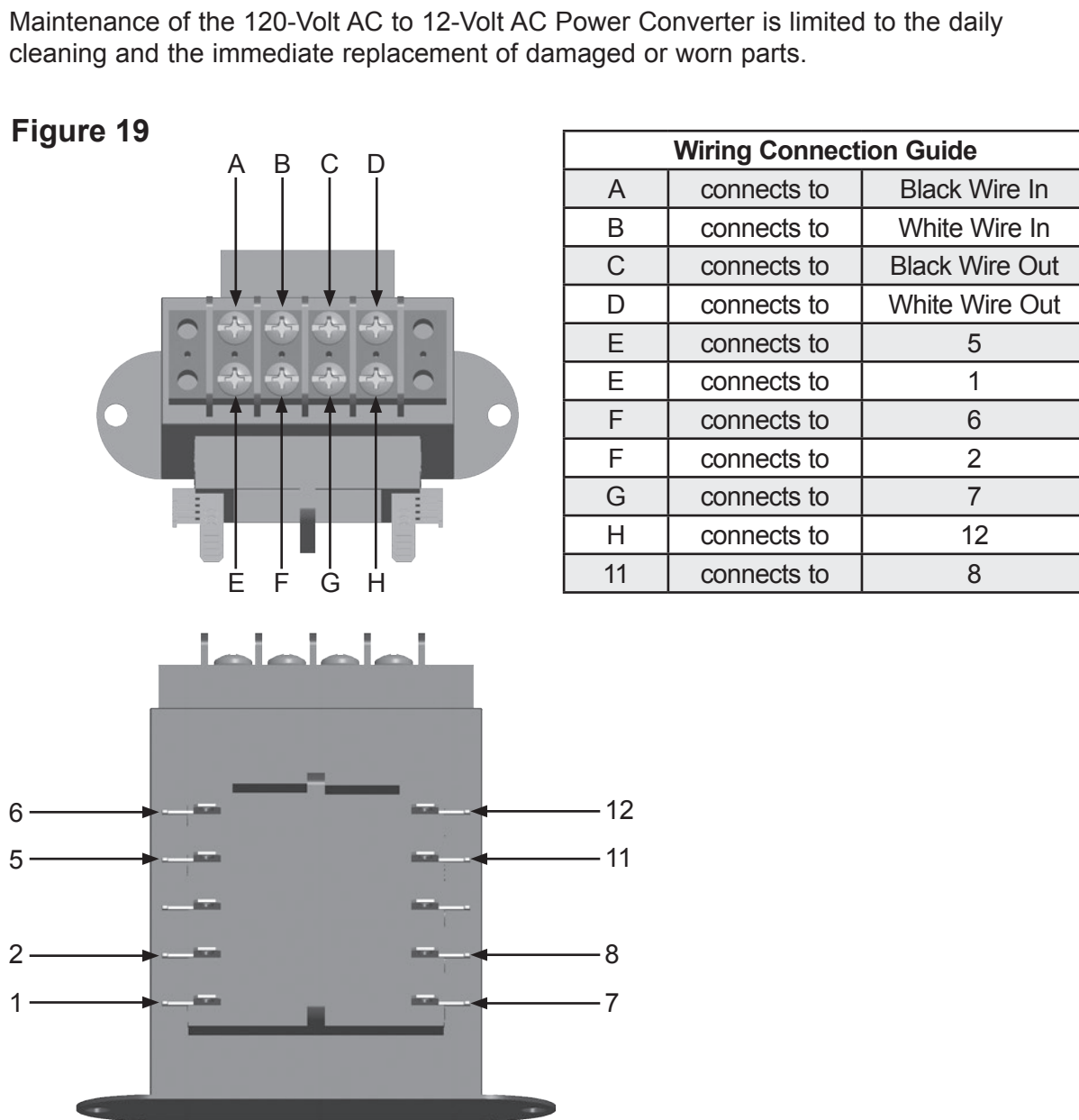


Fig. 19

Disassemble:

- 1) Disconnect power converter from power source.
- 2) Loosen four screws on cover of power converter enclosure and remove cover.
- 3) Remove two nuts securing transformer to enclosure, and remove transformer.
- 4) Disconnect and retain wires from transformer.

Assemble:

- 1) Connect retained wires to transformer using the Wiring Connection Guide.
- 2) Install transformer in enclosure, and secure it using two nuts.
- 3) Install cover on power converter enclosure and tighten four screws.

MAINTENANCE

Assemble Power Distribution Box

WARNING

Always depressurize the entire 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.

Figure 20

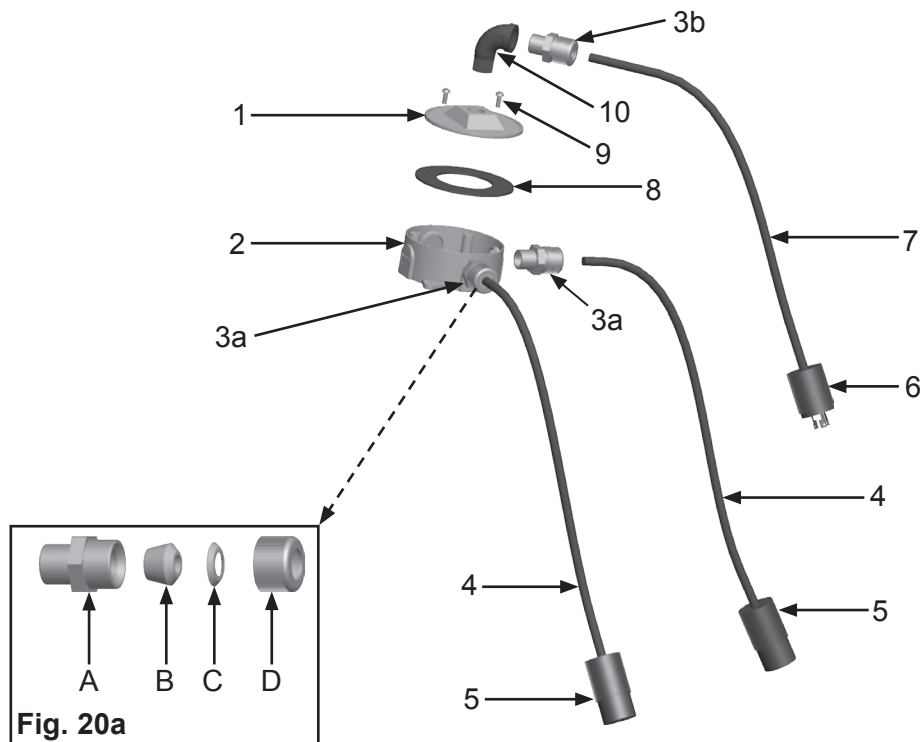


Fig. 20

Assemble:

- 1) Install 1/2" NPT Street Elbow (8) into Conduit Box Cover (1).
- 2) Install Cord Grip (3b) into 1/2" NPT Street Elbow (10).
- 3) Install Cord Grip (3a) into Conduit box (2). Repeat as required, one per Pot outlet.
- 4) Install Female Twist-Lock Plug (5) onto a 24" piece of 16/2 Power Cord (4), ensuring white lead is installed into the silver toned contact and the black lead into the gold toned contact. Repeat as required, one per outlet.
- 5) Disassemble Gripping Assembly (see Fig. 20a) from Cord Grip (3a), thread Control Power Cord Assembly (4 and 5) through Cord Grip (3a) into Conduit Box (2), leaving 6" of Power Cord (4) exposed inside of Conduit Box. Assemble Gripping Assembly and hand tighten. Repeat as required, one per outlet.
- 6) Install Male Twist-Lock Plug (6) onto a 24" piece of 16/2 Power Cord (4), ensuring white lead is installed into the silver toned contact and the black lead into the gold toned contact.
- 7) Disassemble Gripping Assembly (see Fig. 18a) from Cord Grip (3b), thread Power Supply Cord Assembly (6 and 7) through Cord Grip (3b), 1/2" NPT Street Elbow (8), and Conduit Box Cover (1), leaving 6" of Power Cord (7) exposed through Conduit Box Cover (1). Reassemble Gripping Assembly and hand tighten.
- 8) Strip 3" of outer insulation from all exposed ends of Power Cords (4 and 7).
- 9) Place Conduit Box Cover (1) and Cover Gasket (8) on Conduit Box (2).
- 10) Install two Cover Screws (9) through conduit Box Cover (1) and in to Conduit Box (2) and tighten.
- 11) Tighten all Cord Grips (3a,3b).
- 12) Install assembly on mounting bracket located on Moisture Separator.

MAINTENANCE

Assemble Power Distribution Box (*continued*)

WARNING

Always depressurize the entire 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.

Figure 21

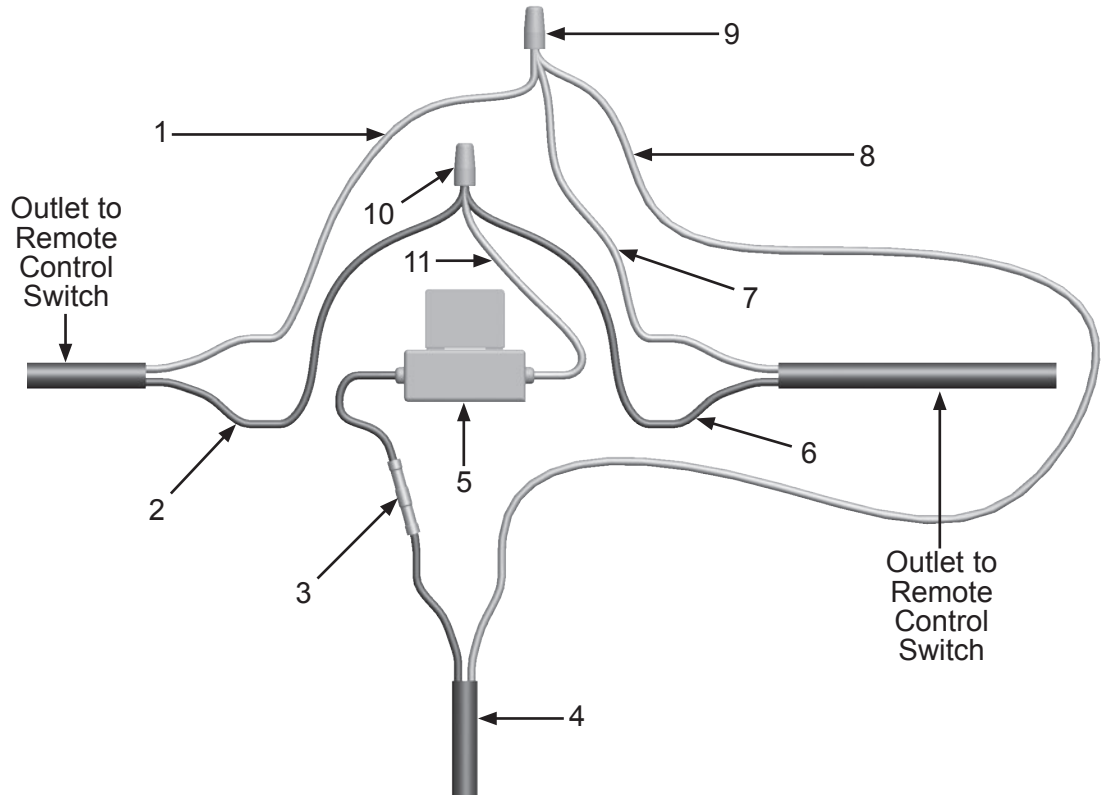


Fig. 21

Electrical Assembly:

- 1) Strip 1/2" of insulation from all leads.
- 2) Insert black wire from Supply Power Cord (4) exposed from bottom of Conduit Box Cover in to Butt Splicer (3) and crimp.
- 3) Insert black wire from 5 Amp Fuse (5) in to Butt Splicer (3) and crimp.
- 4) Group white wires (1, 7 and 8) together. Install Wire Nut (9) on grouped wires. For 3- and 4-Outlet models, group white wires from each outlet with Wire (8).
- 5) Group wires (2, 6 and 11) together. Install Wire Nut (10) on grouped wires. For 3- and 4-Outlet models, group black wires from each outlet with Wire (11).

MAINTENANCE

Remove & Install Blastmaster® Large Exhaust Muffler

CAUTION

High decibel noise levels are generated during the air-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.

WARNING

Release of high speed abrasive and moisture-laden compressed air that occurs during depressurization of an abrasive blasting pot could cause blockage of the Blastmaster® Large Exhaust Muffler. Any obstruction could cause incomplete depressurization of the abrasive blasting pot. Consult Original Equipment Manufacturer Operator's Manuals for proper use of equipment. Failure to comply with the above warning could result in death or serious injury.

Fig. 22

Remove:

- 1) Disassemble Pipe Union (5).
- 2) Remove Hose Assembly (12) from Tee Pipe Assembly (11).
- 3) Remove half of Pipe Union (5) from Exhaust Port Ball Valve (4).
- 4) Remove U-Bolt Assemblies (7,9) from Mounting Bracket (2).
- 5) Remove Silencer Assembly (8) from Mounting Bracket (2).
- 6) Remove Tee Pipe Assembly (11) from Bell Reducer Assembly (10).
- 7) Remove Bell Reducer Assembly (10) from Silencer (8).
- 8) Remove Rain Cap (6) from Silencer Assembly (8).
- 9) Remove Bolts, Washers, and Nuts (1) from Muffler Assembly Bracket (2) and Hose Rack (3) and remove from abrasive blasting pot.

Install:

- 1) Remove Hose Rack (3) from abrasive blasting pot, and discard bolts, nuts and washers.
- 2) Install Muffler Assembly Bracket (2) and Hose Rack (3), as shown, using Bolts, Washers, and Nuts (1) included with Blastmaster® Large Exhaust Muffler.
- 3) Install Bell Reducer Assembly (10) on Silencer (8).
- 4) Install Tee Pipe Assembly (11) on Bell Reducer Assembly (10).
- 5) Install Silencer Assembly (8) on Mounting Bracket (2) using U-Bolts (7,9). Do not tighten.
- 6) Disassemble Pipe Union (5).
- 7) Install one half of Pipe Union (5) into Exhaust Port Ball Valve (4).
- 8) Install other half of Pipe Union (5) into Hose Assembly (12).
- 9) Install Hose Assembly (12) on Tee Pipe Assembly (11).
- 10) Assemble Pipe Union (5).
- 11) Install Rain Cap (6) on Silencer Assembly (8).
- 12) Tighten U-bolt Assemblies (7,9).

MAINTENANCE

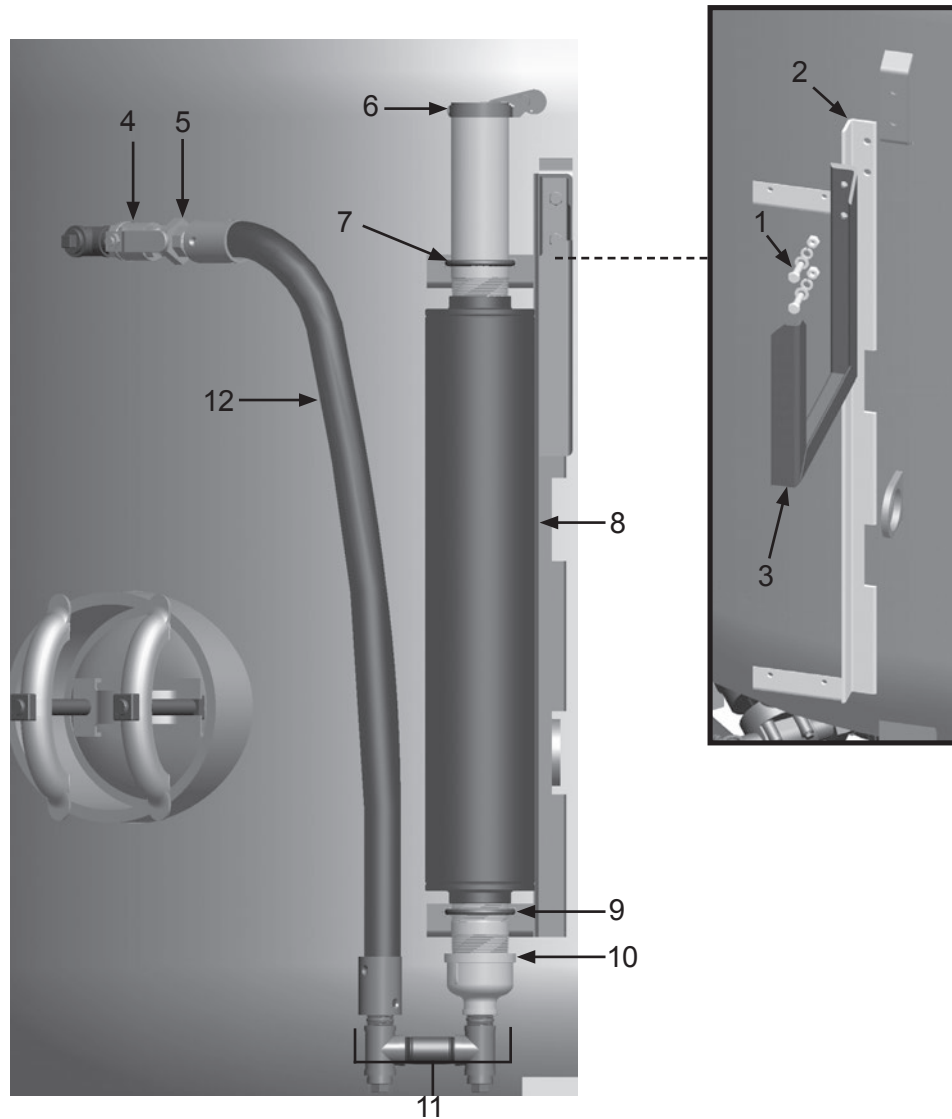
Figure 22

CAUTION

High decibel noise levels are generated during the air-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.

WARNING

Release of high speed abrasive and moisture-laden compressed air that occurs during depressurization of an abrasive blasting pot could cause blockage of the Blastmaster® Large Exhaust Muffler. Any obstruction could cause incomplete depressurization of the abrasive blasting pot. Consult Original Equipment Manufacturer Operator's Manuals for proper use of equipment. Failure to comply with the above warning could result in death or serious injury.



MAINTENANCE

Install Hinged Ladder Extension

Figure 23

WARNING

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. Failure to comply with the above warning could result in death or serious injury.

WARNING

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.

WARNING

The use of this product for any purpose other than originally intended or altered from its original design is prohibited. Failure to comply with the above warning could result in death or serious injury.

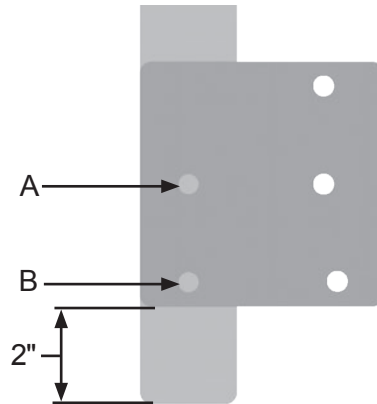


Fig. 23

Installation:

- 1) Measure two inches up from the base of the existing ladder and make a mark.
- 2) Place Ladder Extension Bracket (4) side with two holes on the mark. Mark placement of Holes (A,B).
- 3) Drill two holes using a 13/32" drill bit.

Figure 24

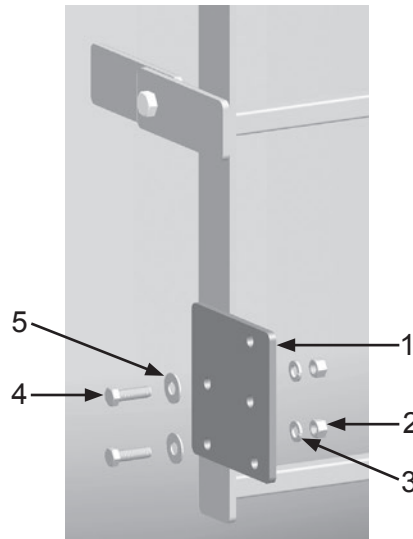


Fig. 24

Installation:

- 1) Install Ladder Extension Bracket (1) using Bolts (4), Washers (5), Lock Washers (3), and Hex Nuts (2).

MAINTENANCE

Install Hinged Ladder Extension (*continued*)

Figure 25

WARNING

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. Failure to comply with the above warning could result in death or serious injury.

WARNING

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.

WARNING

The use of this product for any purpose other than originally intended or altered from its original design is prohibited. Failure to comply with the above warning could result in death or serious injury.

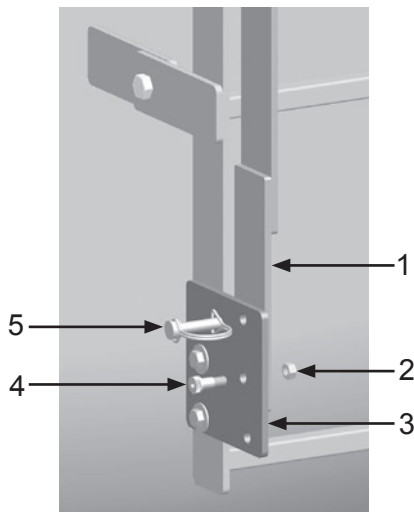


Fig. 25

Installation:

- 1) Install Ladder Extension (1) in "up" position to Ladder Extension Mounting Bracket (3) using Shoulder Bolt (4) and Hex Nut (2). Repeat on other leg of Ladder Extension.
- 2) Secure Ladder Extension in the "up" position using D-Locking Pins (5).

NOTE: Always transport or store abrasive blasting pot with Hinged Ladder Extension in the "up" position.

MAINTENANCE

Remove & Install Blastmaster® Bulk Bag Rack

WARNING

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. Failure to comply with the above warning could result in death or serious injury.

WARNING

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.

WARNING

Keep clear of Bulk Bag Rack Collars when lowering or raising Bulk Bag Rack into operating position. Do not attempt to guide the Bulk Bag Rack into position with the use of hands or feet. Failure to comply with the above warning could result in death or serious injury.

Fig. 26

Before use:

If Equipped:

- 1) Place Lanyard Assembly (7) into opening of Blastmaster® Bulk Bag Rack Collar (4), as shown. Ensure Split Ring (8) exits Hole (6) at base of Blastmaster® Bulk Bag Rack Collar.
- 2) Install Locking Pin (9) onto Lanyard Assembly (7) by threading Split Ring (8) through hinge on Locking Pin.

Installation:

- 1) Ascend abrasive blasting pot ladder and ensure Locking Pins (9) are not inserted in Bulk Bag Rack Collar Pin Holes (5).
- 2) Open hatch per instructions.
- 3) Descend abrasive blasting pot ladder.
- 4) Place abrasive bulk bag in Blastmaster® Bulk Bag Rack.
- 5) Secure Bulk Bag in position by placing Blastmaster® Bulk Bag Lifting Loops (2) over Blastmaster® Bulk Bag Rack Lifting Eyes (1).
- 6) Attach lifting device to Blastmaster® Bulk Bag Rack Lifting Eyes (1), or use Fork Pockets, if equipped.
- 7) Raise and position Blastmaster® Bulk Bag Rack Legs (3) in Blastmaster® Bulk Bag Rack Collars (4).
- 8) Ascend abrasive blasting pot ladder and, if equipped, insert Locking Pin (9) through Pin Holes (5) in Blastmaster® Bulk Bag Rack Collar (4) and Blastmaster® Bulk Bag Rack Legs (3). Repeat on remaining three Blastmaster® Bulk Bag Rack Collars.

After use:

If Equipped:

- 1) Ascend abrasive blasting pot ladder and remove Locking Pins (9) from Blastmaster® Bulk Bag Rack Collar Pin Holes (5).
- 2) Descend abrasive blasting pot ladder.
- 3) Attach lifting device to Blastmaster® Bulk Bag Rack Lifting Eyes (1), or use Fork Pockets, if equipped.
- 4) Raise Blastmaster® Bulk Bag Rack out of Blastmaster® Bulk Bag Rack Collars (4) and lower to the ground.
- 5) Ascend abrasive blasting pot ladder and close hatch.

MAINTENANCE

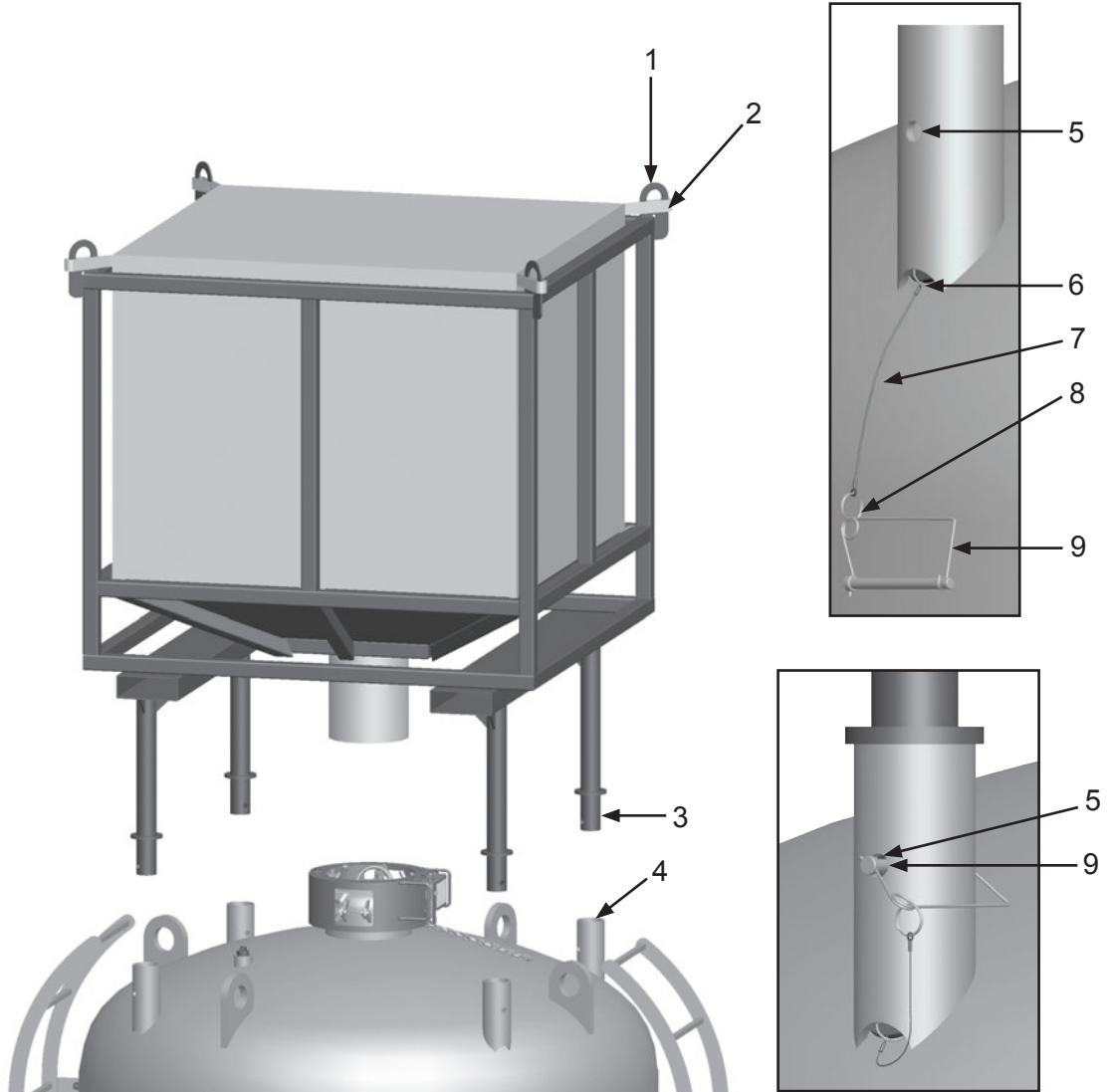
Figure 26: Blastmaster® Bulk Bag Rack

⚠ WARNING

Always remove any locking device securing the bulk bag rack before attempting removal. Do not use the installed bulk bag rack as a lifting device for the abrasive blasting pot. Lifting an abrasive blasting pot using the bulk bag rack can cause the abrasive blasting pot to become unstable and damage components. Failure to comply with the above warning could result in death or serious injury.

⚠ WARNING

Do not transport abrasive blasting pot with bulk bag rack installed. Transporting abrasive blasting pot with bulk bag rack installed could cause the abrasive blasting pot to become unstable or allow the bulk bag rack to become disengaged from the abrasive blasting pot. Failure to comply with the above warning could result in death or serious injury.



Weight:

620 pounds

Overall Dimensions:

Length: 62"

Width: 60"

Height: 80"

TROUBLESHOOTING

WARNING

Always depressurize the entire blasting 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.

WARNING

Do not use any tools or devices to aid in moving a Camlock Handle or Swing Bolt during opening of the Hatch Assembly. If a Camlock Handle and Swing Bolt do not move freely during the opening of the Hatch Assembly stop immediately as the abrasive blasting pot could be under pressure. Ensure the abrasive blasting pot is depressurized before continuing with opening the Hatch Head. Failure to comply with the above warning could result in death or serious injury.

WARNING

During the opening of the Hatch Assembly, any air pressure released from the area indicates the abrasive blasting pot is still pressurized and the Hatch Assembly can be propelled open. Stop immediately and depressurize the abrasive blasting pot. Failure to comply with the above warning could result in death or serious injury.

If the Blastmaster® 160 cu. ft. Abrasive Blasting Pot does not function properly, check the following:

SYMPTOM (Cause)

ACTION

Abrasive Blasting Pot will not pressurize or pressurizes slowly
(Damaged components, Insufficient air compressor output capacity, Clogged exhaust muffler)

Ensure Inlet Ball Valve is in the open position. Inspect for damage. Replace damaged components.

Ensure Hatch is closed and properly secured. Inspect Camlocks and Swing Bolts for correct installation. See proper torque specifications of Swing Bolt nuts.

Ensure Exhaust Ball Valve is in the closed position. Inspect for damage. Replace damaged components.

Inspect 'Y'-Strainer on the internal pipe string for blockage or damage. Clean out blockage. Replace damaged components.

Insufficient air volume from compressor. Ensure air compressor output capacity will support the abrasive blasting nozzles being used.

Inspect for air leaks. Tighten fittings if leaks are present.

Inspect Tee Pipe Assembly on Blastmaster® Large Exhaust Muffler for clogged abrasive.

Air and abrasive do not exit Abrasive Blasting Nozzle
(Abrasive Blasting Pot is not pressurized, Malfunctioning Remote Control System)

Open Pressure Indicator Ball Valve. If air does not exit Pressure Indicator Ball Valve, ensure Inlet Ball Valve is in the open position. If air does exit the Pressure Indicator Ball Valve, consult Remote Control System and Remote Control Handle Operator's Manual.

Inspect Abrasive Blasting Hose and Abrasive Blasting Nozzle for blockage. Repair or replace immediately.

Only air exits Abrasive Blasting Nozzle

(Abrasive Blasting Pot does not have abrasive in it, Malfunctioning Remote Control System)

Follow instructions in the Before Use section of this Operator's Manual. Fill Abrasive Blasting Pot with abrasive.

Ensure Union End Ball Valve between abrasive blasting pot and abrasive metering valve is in the open position.

Ensure Abrasive is dry and free of debris. If Abrasive is wet, empty Abrasive from abrasive blasting pot and replace with dry Abrasive.

See remote control system and remote control switch Operator's Manual.

TROUBLESHOOTING

If the Blastmaster® 160 cu. ft. Abrasive Blasting Pot does not function properly, check the following:

WARNING

Always depressurize the entire blasting 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.

WARNING

Do not use any tools or devices to aid in moving a Camlock Handle or Swing Bolt during opening of the Hatch Assembly. If a Camlock Handle and Swing Bolt do not move freely during the opening of the Hatch Assembly stop immediately as the abrasive blasting pot could be under pressure. Ensure the abrasive blasting pot is depressurized before continuing with opening the Hatch Head. Failure to comply with the above warning could result in death or serious injury.

WARNING

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.

SYMPTOM (Cause)

ACTION

Abrasive Blasting Pot will not depressurize
(*Damaged components*)

- Follow the sequence below:
- 1) Ensure Exhaust Ball Valve is in the open position.
 - 2) If Exhaust Ball Valve is in the open position and not exhausting air from the abrasive blasting pot, close the inlet ball valve. Terminate air supply from compressor.
 - 3) Turn Abrasive Metering Valve flow setting to the closed position. While maintaining control of Abrasive Blasting Hose, brace for recoil and activate remote control system. Air from the abrasive blasting pot should exhaust through the Abrasive Blasting Hose.
 - 4) After air stops exiting the Abrasive Blasting Hose, open the Pressure Indicator Ball Valve located on the top of the vessel. If air does not exit the Pressure Indicator Ball Valve, follow instructions for removing the Pneumatic Closure Lockout Device and opening the hatch assembly. Inspect internal piping of the abrasive blasting pot for damage. Replace damaged Exhaust Ball Valve and piping immediately.
 - 5) If air exits the Pressure Indicator Ball Valve, the vessel is still pressurized. Open Moisture Separator Drain Ball Valve to full open, allow air to exhaust from the Moisture Separator. If air stops exiting the Moisture Separator within five minutes, open the Pressure Indicator Ball Valve. If air does not exit the Pressure Indicator Ball Valve, follow instructions for opening the hatch. Inspect internal piping of the air-blast pot for damage. Replace damaged Exhaust Ball Valve and piping immediately.

Air and / or abrasive exits Abrasive Blasting Nozzle after abrasive blasting is stopped
(*Malfunctioning Remote Control System or Remote Control Switch*)

See remote control system and remote control switch Operator's Manual.

Only abrasive exits Abrasive Blasting Nozzle
(*Closed or damaged Choke Valve, Malfunctioning Remote Control System or Remote Control Switch*)

Ensure Choke Valve located on pusher line is in the open position. Replace Choke Valve if damaged.

See remote control system and remote control switch Operator's Manual.

TROUBLESHOOTING

If the Blastmaster® Pneumatic Closure Lockout Device does not function properly, check the following:

WARNING

Always depressurize the entire 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.

WARNING

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. Failure to comply with the above warning could result in death or serious injury.

WARNING

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.

SYMPTOM (Cause)

ACTION

Latch Handle does not properly engage

(Improper alignment, Obstruction of Latch Handle or Pneumatic Closure Lockout Device, Damaged components)

Inspect components for damage. Repair or replace components as necessary.

Inspect components for proper alignment. Repair or replace components as necessary.

Ensure abrasive blasting pot camlocks are in the fully closed position.

Latch Handle will not disengage

(Abrasive blasting pot is pressurized, Improper alignment, Obstruction of Latch Handle or Pneumatic Closure Lockout Device, Damaged components)

Ensure abrasive blasting pot is depressurized.

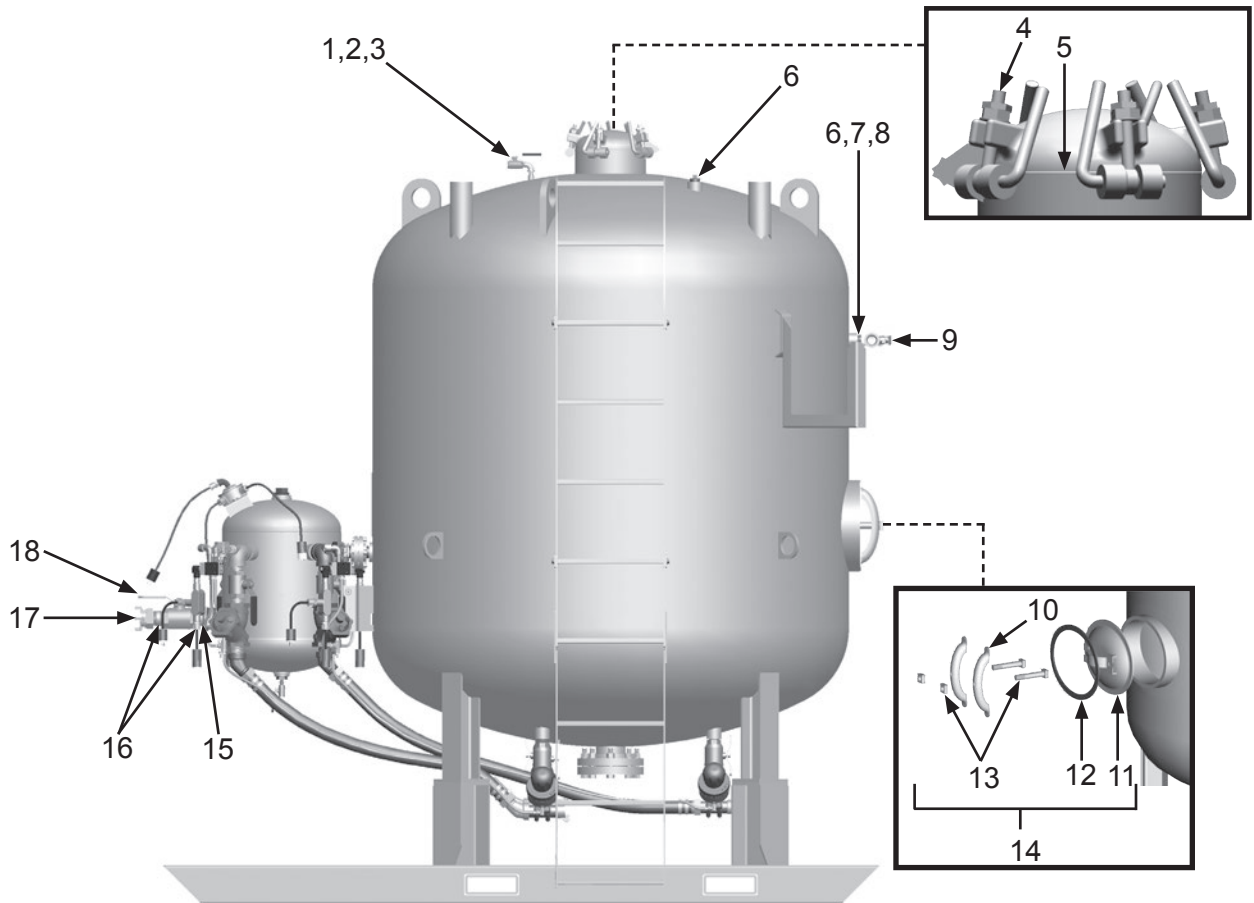
Ensure Pneumatic Locking Piston is disengaged from Latch Handle. Open Pressure Indicating Ball Valve to release air pressure from Pneumatic Locking Piston. If abrasive blasting pot is not depressurized, depressurize abrasive blasting pot.

Inspect components for damage. Repair or replace components as necessary.

Verify abrasive blasting pot camlocks are in the fully closed position. Depressurize abrasive blasting pot.

ASSEMBLY PART NUMBERS & SCHEMATIC

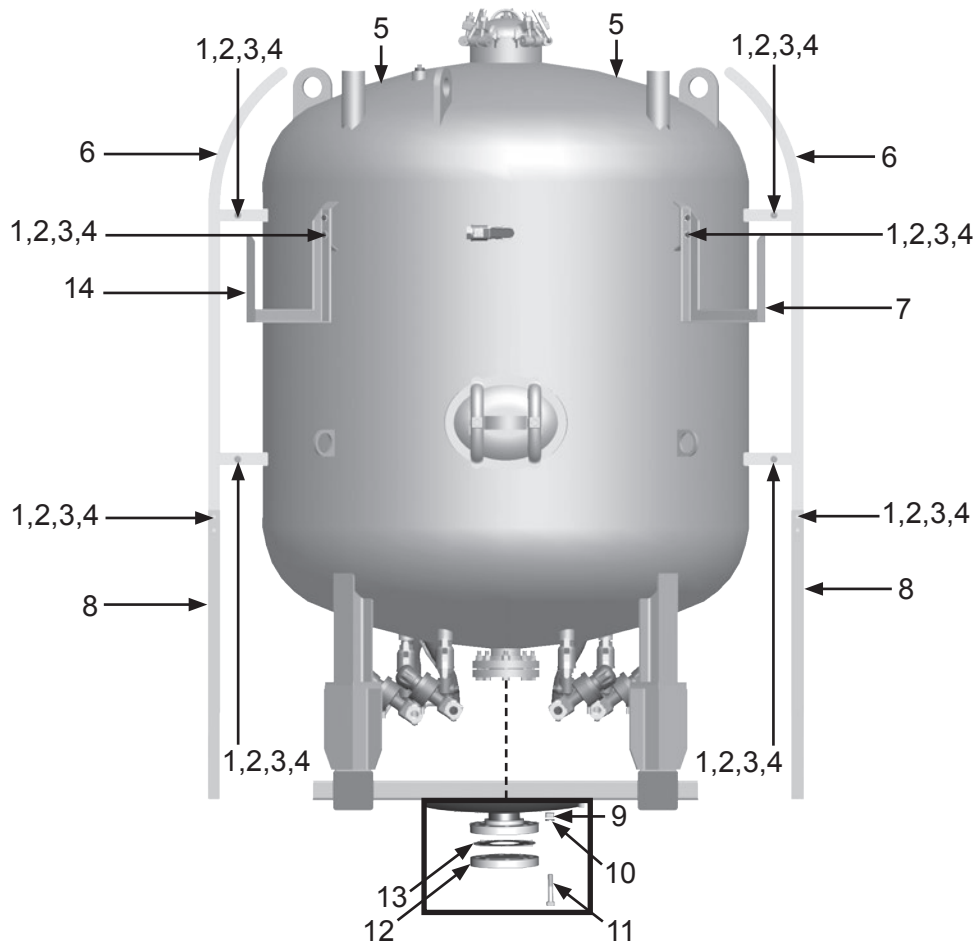
Figure 27: External Fittings, Side View



Item #	Part #	Description
Fig. 27		
1	10L363	1/2" NPT Full Port Brass Ball Valve
2	1011819	1/2" NPT Street Elbow
3	10L803035	1/2" NPT Close Nipple
4	10100698	Camlock Assembly (<i>Five Required</i>)
5	10100697	10" Hatch O-ring
6	1011902	1-1/4" NPT Pipe Plug (<i>Two Required</i>)
7	10101750	1-1/4" NPT Schedule 80 Close Nipple (<i>Two Required</i>)
8	1011803	1-1/4" NPT Pipe Tee
9	1011602	1-1/4" NPT Full Port Brass Ball Valve
10	10000365	Manway Crab (<i>Two Required</i>)
11	10000364	12" X 16" Manway Cover
12	10100703	12" X 16" Manway Assembly Gasket
13	1011848	Manway Nut and Bolt (<i>Two Required</i>)
14	10100702	12" X 16" Manway Assembly (<i>Includes Item #'s: 10, 11, 12, 13</i>)
15	10101183	3" MNPT x 2" FNPT Bushing
16	1001806	2" NPT Close Nipple (<i>Two Required</i>)
17	10ME5	2" 4-Lug Female NPT Coupling
18	1011604	2" NPT Full Port Brass Ball Valve

ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 28: External Fittings, Rear View



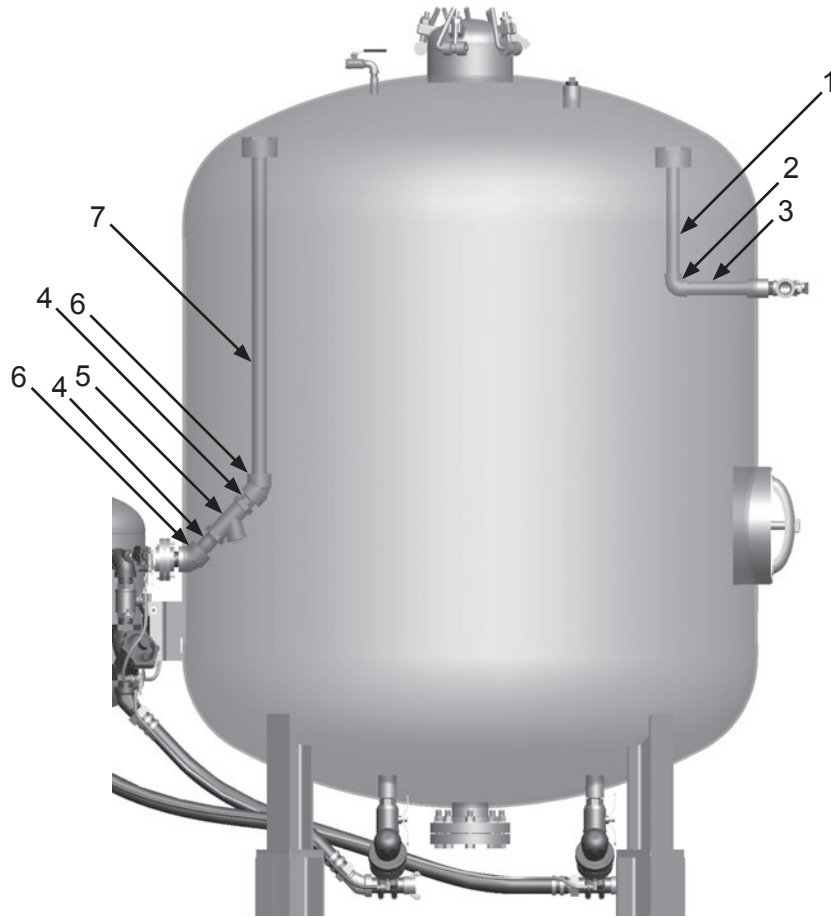
Item #	Part #	Description
--------	--------	-------------

Fig. 28

1	10100597	1/2-13 X 1-1/4" UNC Hex Bolt (Four Required per Ladder)
2	10101941	1/2-13 Hex Nut (Four Required per Ladder)
3	10100674	1/2" Washer (Four Required per Ladder)
4	10100675	1/2" Lock Washer (Four Required per Ladder)
5	1091052	Hazard Identification Sticker (Two Required)
6	10000343	Ladder Kit (Two Required per Abrasive Blasting Pot)
7	10100555	Right Hose Storage Bracket (Two Each Required of Item #'s 1,2,3, and 4)
8	10000512	Ladder Extension (Two Required and Four Each Required of Item #'s 1,2,3, and 4)
9	10100595	3/4-10 Hex Nut (Eight Required)
10	10100596	3/4" Lock Washer (Eight Required)
11	10100594	3/4-10 X 4" Hex Bolt (Eight Required)
12	10000498	4" Blind Flange
13	10000501	4" Flange Gasket
14	10100556	Left Hose Storage Bracket (Two Each Required of Item #'s 1,2,3, and 4)

ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 29: Internal Fittings



Item #	Part #	Description
--------	--------	-------------

Fig. 29

1	10100683	1-1/4" NPT x 14" Pipe Nipple with Deflector
---	----------	---

2	1006204	1-1/4" NPT 90° Elbow
---	---------	----------------------

3	1006207	1-1/4" NPT x 8" Nipple
---	---------	------------------------

4	1011849	1-1/2" NPT Close Nipple (<i>Two Required</i>)
---	---------	---

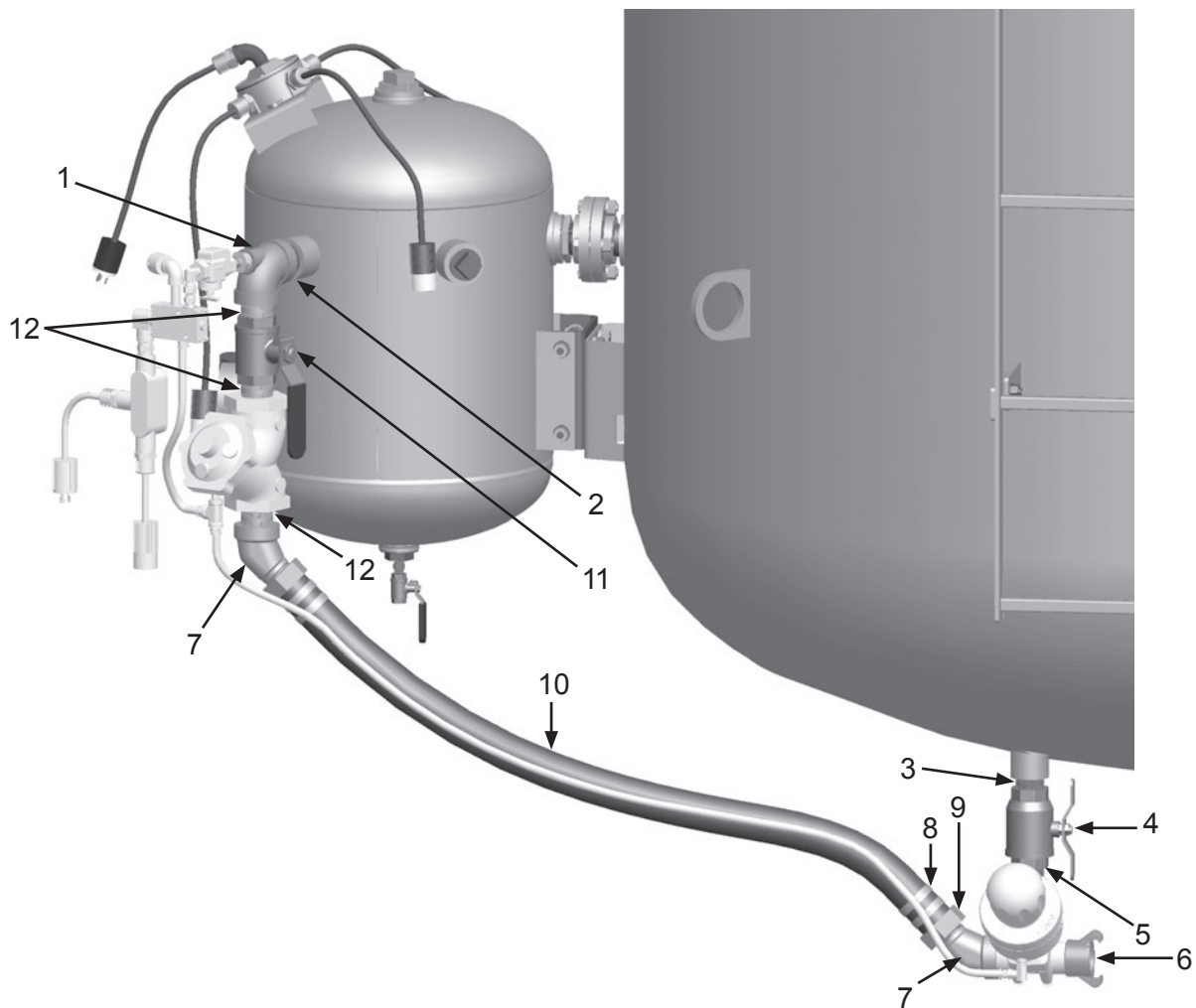
5	1011841	1-1/2" Y-Strainer
---	---------	-------------------

6	10000328	1 1/2" NPT 45° Coupling (<i>Two Required</i>)
---	----------	---

7	10100682	1-1/2" NPT x 39" Internal Air Inlet Pipe with Deflector
---	----------	---

ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 30: Pipe String Assembly



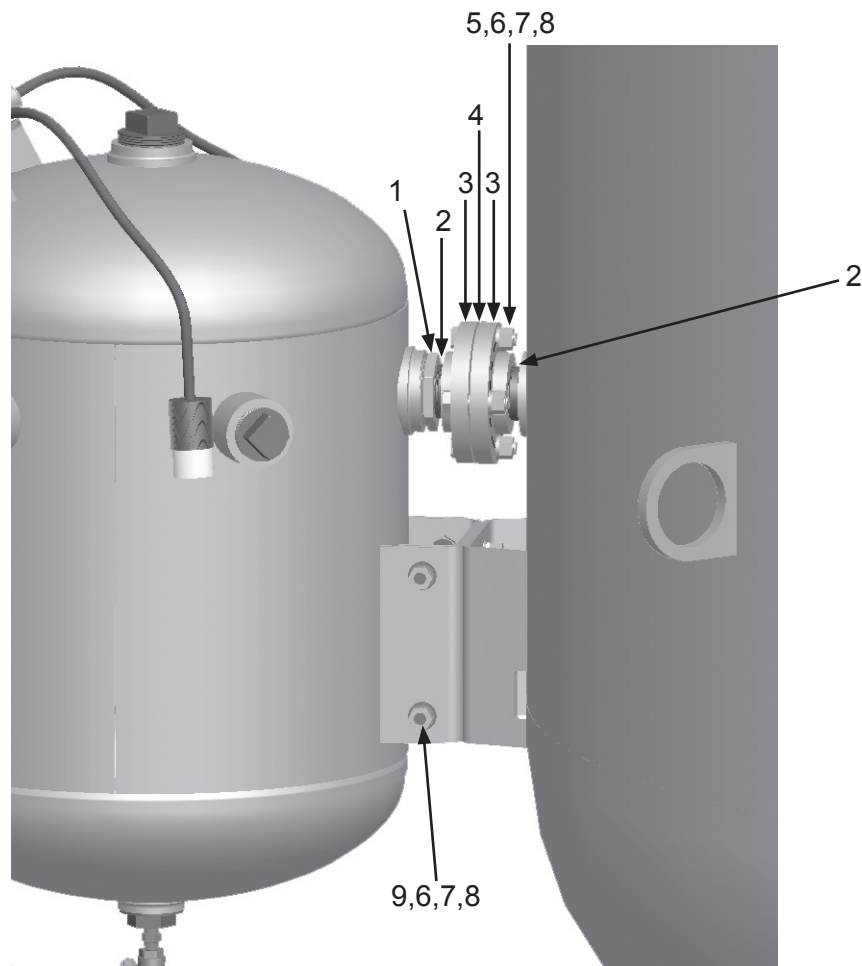
Item #	Part #	Description
--------	--------	-------------

Fig. 30

1	1011828	1-1/2" NPT Elbow with 1/2" Side-out
2	1001868	2" x 1-1/2" Bushing
3	1011204	1-1/4" X 3" NPT Nipple
4	1011606A	1-1/4" Union End Brass Ball Valve
5	1011201	1-1/4" NPT Close Nipple
6	10SB2S	1-1/2" NPT Brass Tank Coupling
7	1011805	1-1/2" NPT 45° Street Elbow (<i>Two Required</i>)
8	10AHCL3	Air Hose Clamp (<i>Four Required</i>)
9	10SFE4	1-1/2" NPT Swivel Female Air Hose Fitting (<i>Two Required</i>)
10	10AH112B	1-1/2" I.D. Air Hose – Per Foot
11	1011603	1-1/2" NPT Full Port Brass Ball Valve
12	1011849	1-1/2" Close Nipple (<i>Three Required</i>)

ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 31: Moisture Separator Mounting Assembly



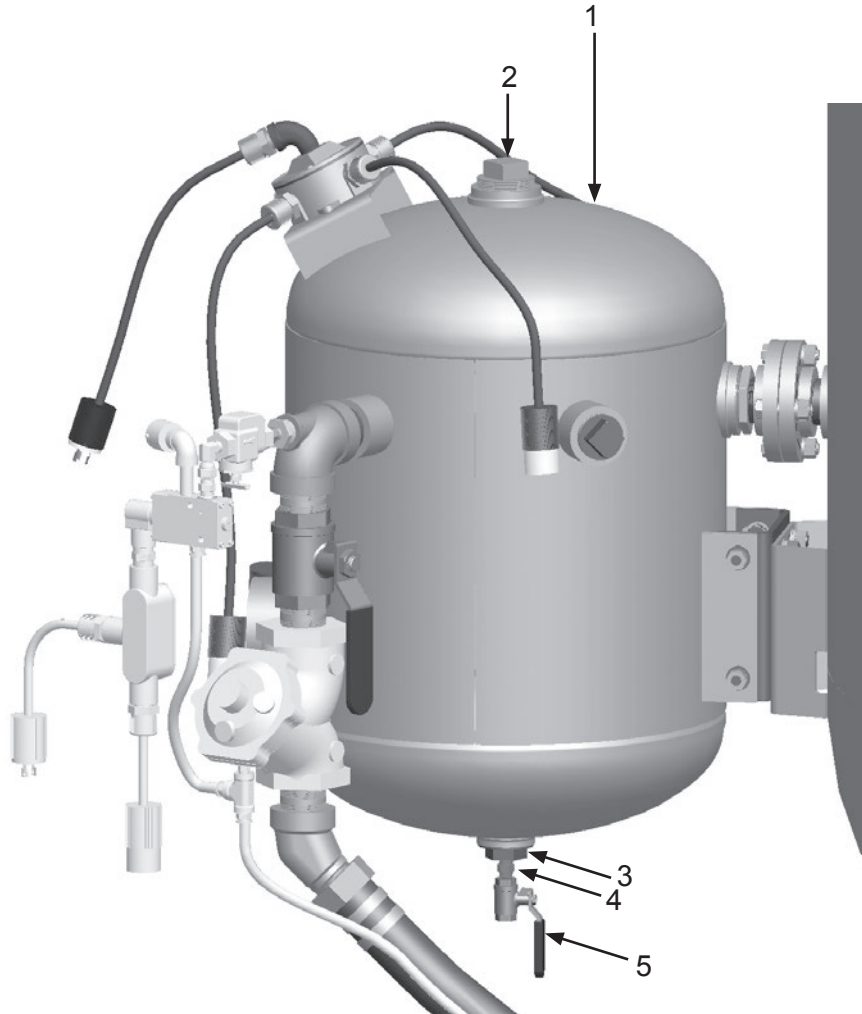
Item #	Part #	Description
--------	--------	-------------

Fig. 31

1	1001868	2" x 1-1/2" Bushing
2	1011849	1-1/2" Close Nipple (<i>Two Required</i>)
3	1011784	1-1/2" Flange (<i>Two Required</i>)
4	1011785	1-1/2" Flange Gasket
5	1011786	1/2" UNC X 2-1/4" Hex Bolt (<i>Four Required</i>)
6	10100675	1/2" Lock Washer (<i>Eight Required</i>)
7	10100674	1/2" Flat Washer (<i>Eight Required</i>)
8	10101941	1/2-13 Hex Nut (<i>Eight Required</i>)
9	10100597	1/2-13 X 1-1/4" UNC Hex Bolt (<i>Four Required</i>)
—	105M060	Features, Advantages, and Benefits Guide – Blastmaster® 160 cu. ft. Abrasive Blasting Pots
—	106M060	Part Numbers and Schematics Guide – Blastmaster® 160 cu. ft. Abrasive Blasting Pots
—	1090060	Operator's Manual – Blastmaster® 160 cu. ft. Abrasive Blasting Pots

ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 32: Moisture Separator Assembly



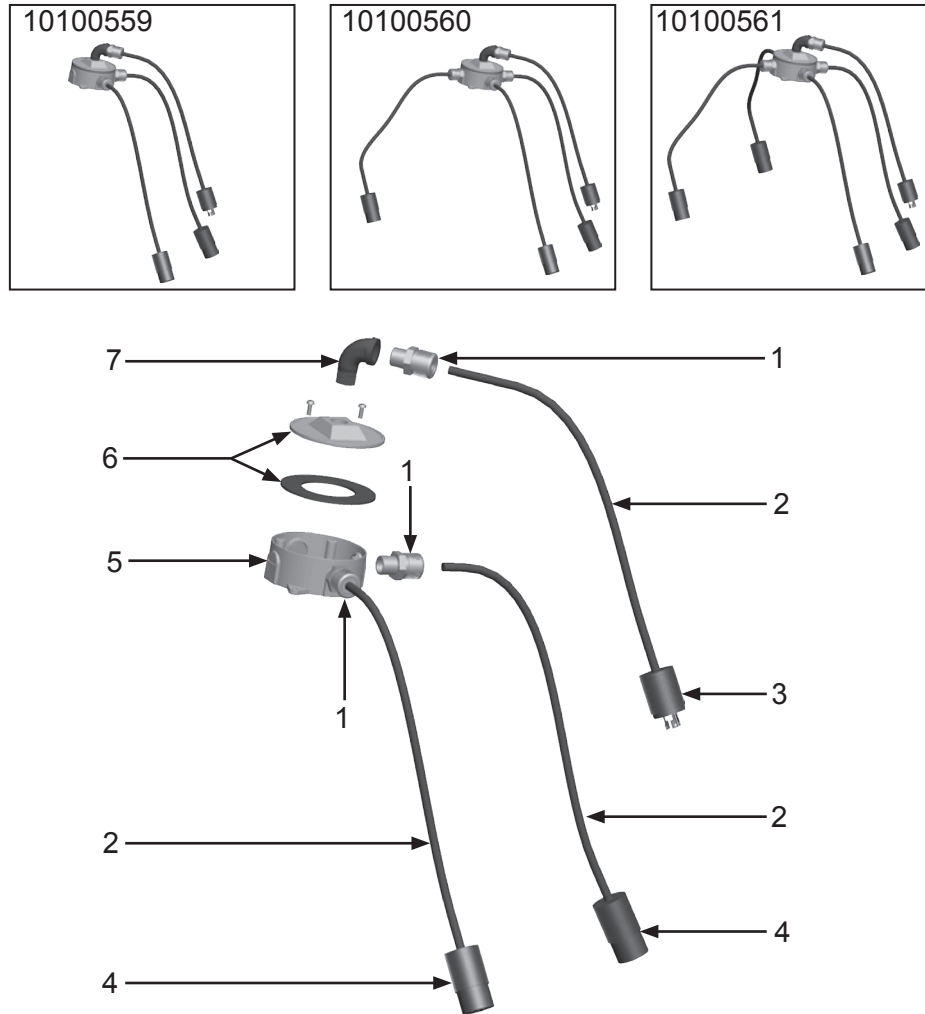
Item #	Part #	Description
--------	--------	-------------

Fig. 32

1	1081616	1600 CFM Moisture Separator for 160 cu. ft and 120 cu. ft. Abrasive Blasting Pots
2	1011823	2" Pipe Plug
3	1011822	1-1/2" (M) NPT X 1/4" (F) NPT Bushing
4	1017019	1/4" x 1/4" NPT Hex Nipple
5	1080050	1/4" NPT Full Port Brass Ball Valve

ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 33: Power Distribution Boxes



Item #	Part #	Description
--------	--------	-------------

Fig. 33

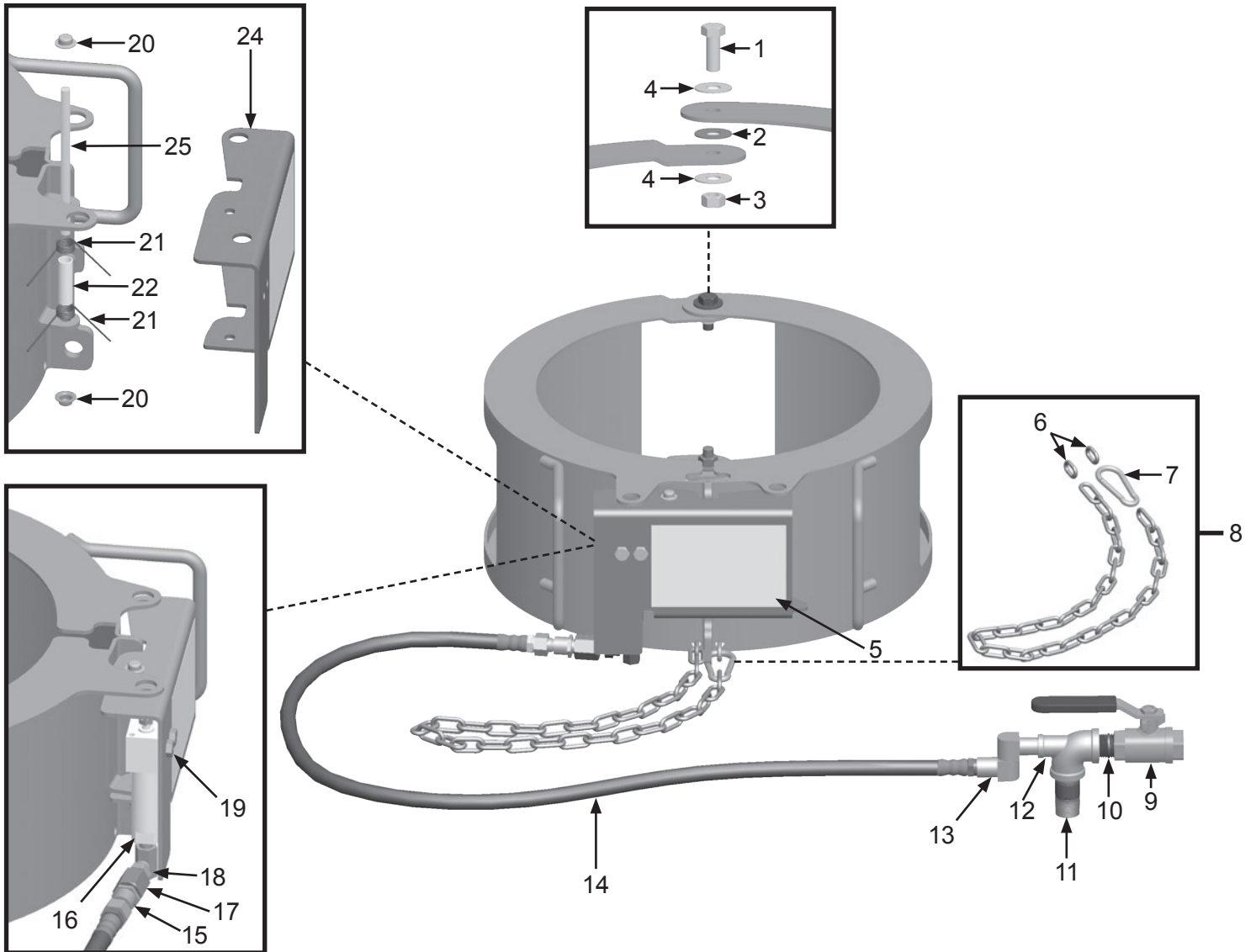
—	10100559	2-Outlet Power Distribution Box
—	10100560	3-Outlet Power Distribution Box
—	10100561	4-Outlet Power Distribution Box
1	1019021	Cord Grip (<i>One Required per Outlet</i>)
2	1015540	16/2 SO Electric Cord – sold per foot
3	1015555	3-prong Male Twist-Lock Plug
4	1015556	3-prong Female Twist-Lock Plug (<i>One Required per Outlet</i>)
5	10100495	5-Outlet Conduit Box
6	10100496	Conduit Box Cover (<i>Includes: Gasket and Screws</i>)
7	1011819	1/2" Street Elbow
—	1030028	Butt Splicer (<i>Not Shown</i>)
—	10100562	Inline Fuse Block (<i>Not Shown</i>)
—	10100563	5-Amp Inline Fuse (<i>Not Shown</i>)

ASSEMBLY PART NUMBERS

Item#	Part#	Description
Fig. 34		
—	10102326	Blastmaster® Pneumatic Closure Lockout Device – Complete
1	1011747	3/8-16 x 1" Bolt <i>(Two Required)</i>
2	10102327	3/8" Nylon Washer <i>(Two Required)</i>
3	10102329	3/8-16 Lock Nut <i>(Two Required)</i>
4	10102331	3/8" Washer <i>(Four Required)</i>
5	1091106	Hazard Identification Decal
6	10102338	Split Link <i>(Two Required)</i>
7	10102410	Carabiner
8	10102419	Chain Assembly <i>Includes Items: #6 (Quantity of Two), #7, and Chain</i>
9	10L363	1/2" NPT Brass Full Port Ball Valve
10	10L803035	1/2" NPT Close Nipple
11	10L803038	1/2" NPT x 2" Pipe Nipple
12	10102337	1/2" NPT 90° Elbow with 1/4" NPT Side-out
13	10102576	1/4" Swivel Connector
14	10102336	1/4" I.D. Air Hose Assembly
15	10102575	1/4" (M) x 1/4" (F) Swivel Hose End
16	10102529	Pneumatic Locking Piston <i>Includes Item #'s: 16, 18, and 19 (Quantity of Two)</i>
17	10102335	1/4" NPT (F) x 1/8" NPT (M) Reducing Fitting
18	1012113	1/8" Street Elbow
19	10102391	1/4-20 x 1/2" Bolt <i>(Two Required)</i>
20	10102325	1/4" Cap Nut <i>(Two Required)</i>
21	10102324	Torsion Spring <i>(Two Required)</i>
22	10103294	2-3/4" x 3/8" I.D. Spacer
23	10102323	Latch Pin
24	10102352	Latch Handle <i>(Includes Item #5)</i>
—	105M095	Features, Advantages & Benefits Guide – Blastmaster® Pneumatic Closure Lockout Device
—	106M095	Part Numbers & Schematics Guide – Blastmaster® Pneumatic Closure Lockout Device
—	1090095	Operator's Manual – Blastmaster® Pneumatic Closure Lockout Device

SCHEMATIC

Figure 34: Blastmaster® Pneumatic Closure Lockout Device



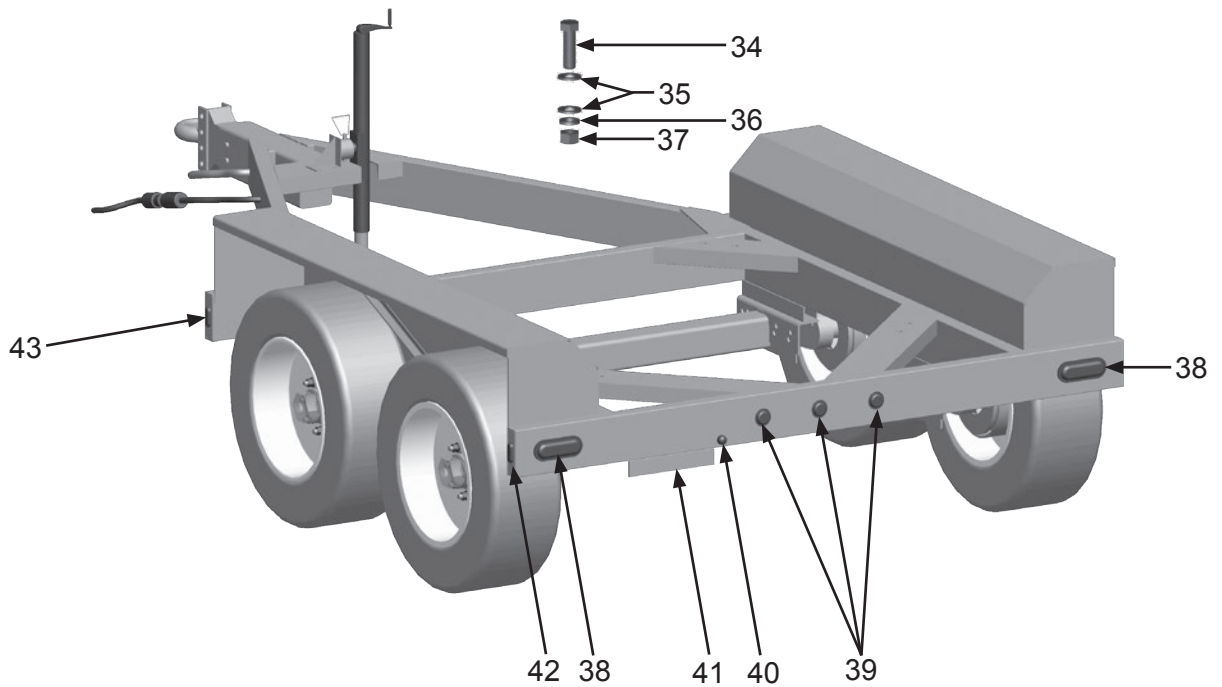
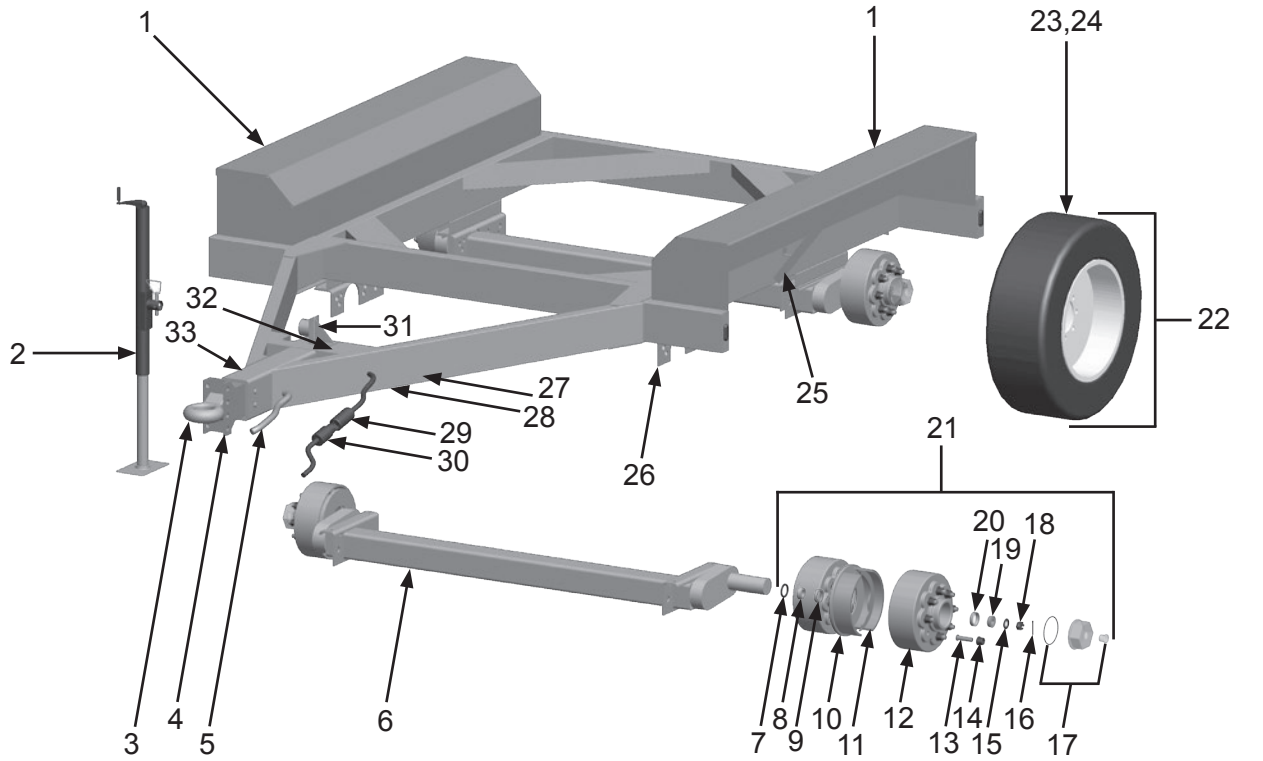
ASSEMBLY PART NUMBERS

Highway Trailer

Item #	Part #	Description	Item #	Part #	Description
Fig. 35			24	10100480	215 - 17.5" 16 Ply Tire
—	1081664	Highway Trailer	25	10000418	Fender Brace
1	10000399	Fender Assembly	26	10100476	#13 Axle Mount Bracket
2	10100482	Tongue Jack	27	10100585	Hazard Identification Sticker - Trailer Towing
3	10100481	Pintle Eye Coupler	28	10100586	Wiring Sticker
4	10100472	Hydraulic Hitch Assembly	29	10100572	Trailer Connector – Female
5	10100493	Chain <i>(Two Required)</i>	30	10100573	Trailer Connector – Male
6	10100565	Torsion Axle – Highway Trailer	31	10100483	Jack Mount Assembly
7	10100571	Oil Seal	32	1091053	Hazard Identification Sticker – Tire Installation
8	10100578	Inner Bearing	33	10100588	Brake Sticker
9	10100580	Inner Bearing Cup	34	10100701	3/4-10 x 2-1/2" Bolt <i>(Eight Required)</i>
10	10100576	Left Hand Brake Shoe	35	10100704	3/4" Flat Washer <i>(16 Required)</i>
11	10100577	Right Hand Brake Shoe	36	10100596	3/4" Lock Washer <i>(Eight Required)</i>
12	10100566	Idler Hub – Highway Trailer	37	10100595	3/4" Nut <i>(Eight Required)</i>
13	10100568	5/8-18 UNF Lug Stud	38	10100486	Tail Light – Oval – Red <i>(Two Required)</i>
14	10100569	5/8-18 Lug Nut	39	10100488	Rear Light – Round <i>(Three Required)</i>
15	10100591	Spindle Washer	40	10100487	License Plate Light
16	10100477	Cotter Pin for Spindle Nut	41	10000420	License Plate Bracket
17	10100592	Oil Cap with Plug and O-Ring	42	10100489	Clearance Light – Red <i>(Two Required)</i>
18	10100590	Spindle Nut	43	10100490	Clearance Light – Amber <i>(Two Required)</i>
19	10100579	Outer Bearing			
20	10100581	Outer Bearing Cup			
21	10100567	Hub and Drum Assembly – Highway Trailer <i>(Includes Item #'s: 7–20)</i>			
22	10100478	Wheel and Tire Assembly <i>(Includes Item #'s: 23 and 24)</i>			
23	10100479	Wheel <i>(8-Lug)</i>			

SCHEMATIC

Figure 35: Highway Trailer



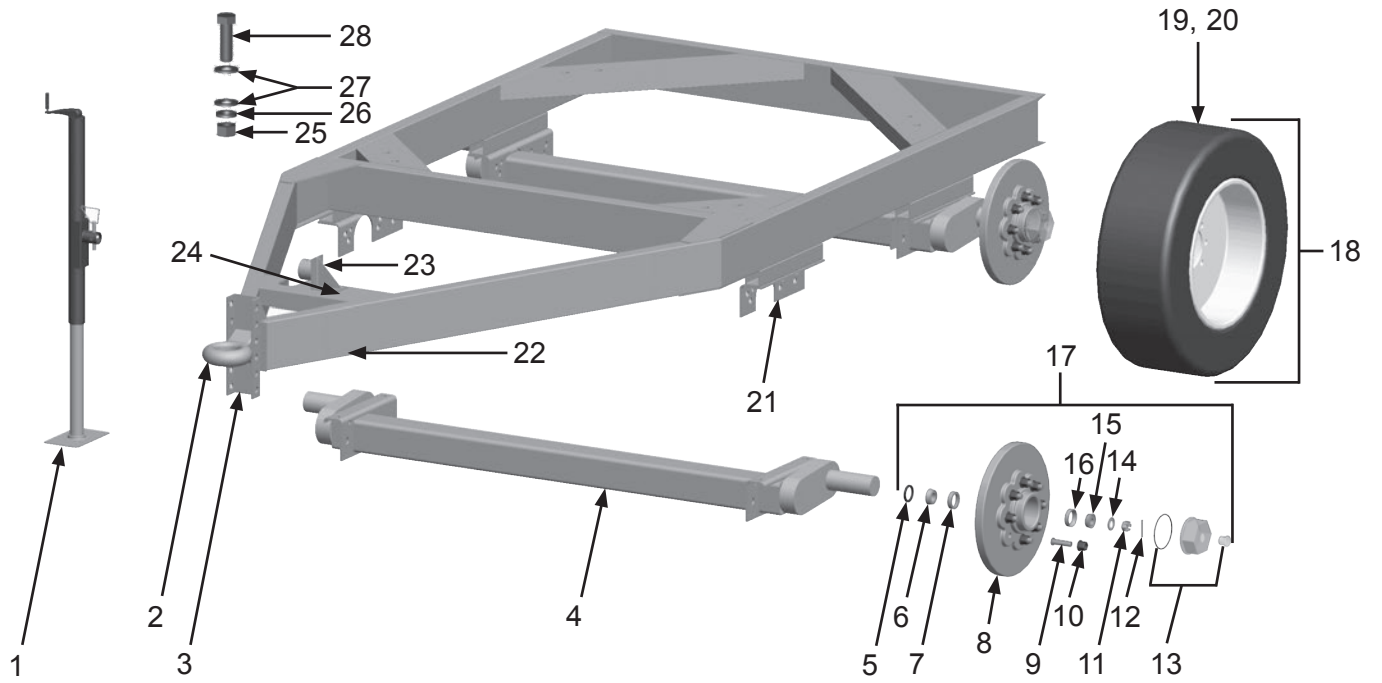
ASSEMBLY PART NUMBERS

Yard Trailer

Item #	Part #	Description
Fig. 36		
—	1081663	Yard Trailer
1	10100482	Tongue Jack
2	10100481	Pintle Eye Coupler
3	10100471	Adjustable Hitch Mount
4	10100564	Torsion Axle – Yard Trailer
5	10100571	Oil Seal
6	10100578	Inner Bearing
7	10100580	Inner Bearing Cup
8	10100566	Idler Hub – Yard Trailer
9	10100568	5/8-18 UNF Lug Stud
10	10100569	5/8-18 Lug Nut
11	10100591	Spindle Nut
12	10100477	Cotter Pin for Spindle Nut
13	10100592	Oil Cap with Plug and O-Ring
14	10100590	Spindle Washer
15	10100579	Outer Bearing
16	10100581	Outer Bearing Cup
17	10100566	Idler Hub Assembly – Yard Trailer <i>(Includes Item #'s: 5–16)</i>
18	10100478	Wheel and Tire Assembly <i>(Includes Item #'s: 19 and 20)</i>
19	10100479	Wheel <i>(8-Lug)</i>
20	10100480	215 - 17.5" 16-Ply Tire
21	10100476	#13 Axle Mount Bracket
22	10100585	Safety Label
23	10100483	Jack Mount Assembly
24	1091053	Hazard Identification Sticker – Tire Installation
25	10100701	3/4-10 x 2-1/2" Bolt <i>(Eight Required)</i>
26	10100596	3/4" Lock Washer <i>(Eight Required)</i>
27	10100704	3/4" Flat Washer <i>(16 Required)</i>
28	10100595	3/4" Nut <i>(Eight Required)</i>
—	10100493	Chain Assembly <i>(Not Shown) (Two Required)</i>

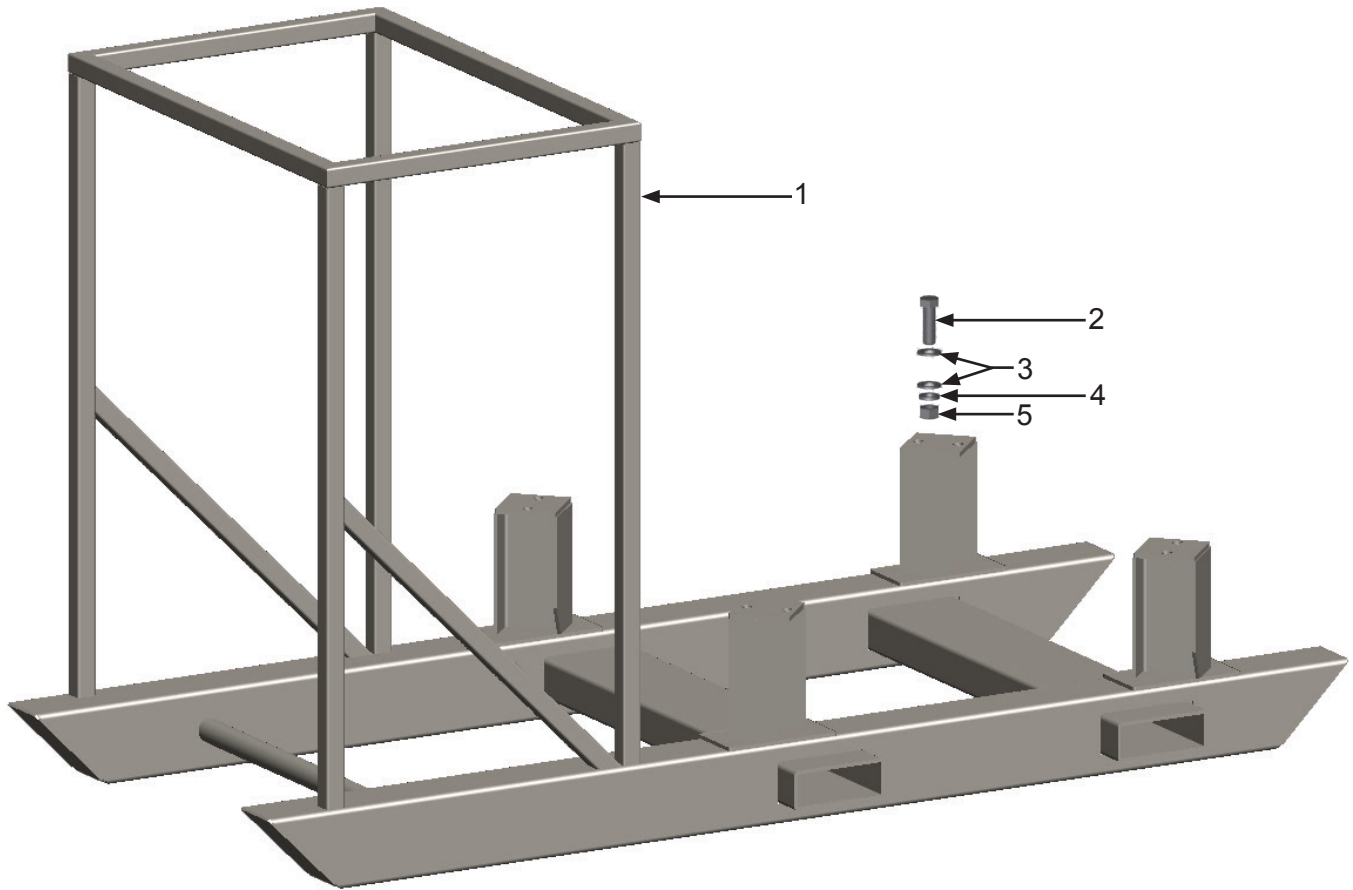
SCHEMATIC

Figure 36: Yard Trailer



ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 37: Blastmaster® Xtreme-Duty™ Abrasive Blasting Pot Skid



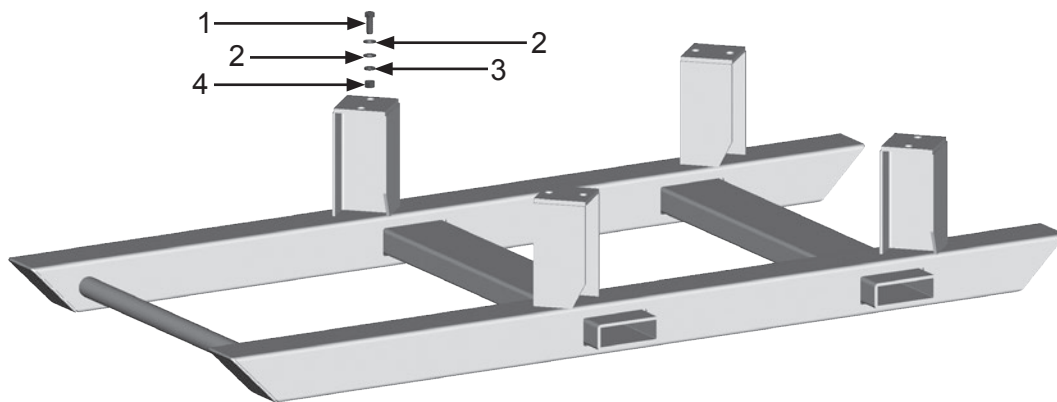
Item #	Part #	Description
--------	--------	-------------

Fig. 37

1	10101828	Blastmaster® Xtreme-Duty™ Abrasive Blasting Pot Skid
2	10100701	3/4-10 x 2-1/2" Bolt (<i>Eight Required</i>)
3	10100704	3/4" Flat Washer (<i>16 Required</i>)
4	10100596	3/4" Lock Washer (<i>Eight Required</i>)
5	10100595	3/4" Nut (<i>Eight Required</i>)

ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 38: Fork-Pocket Skid

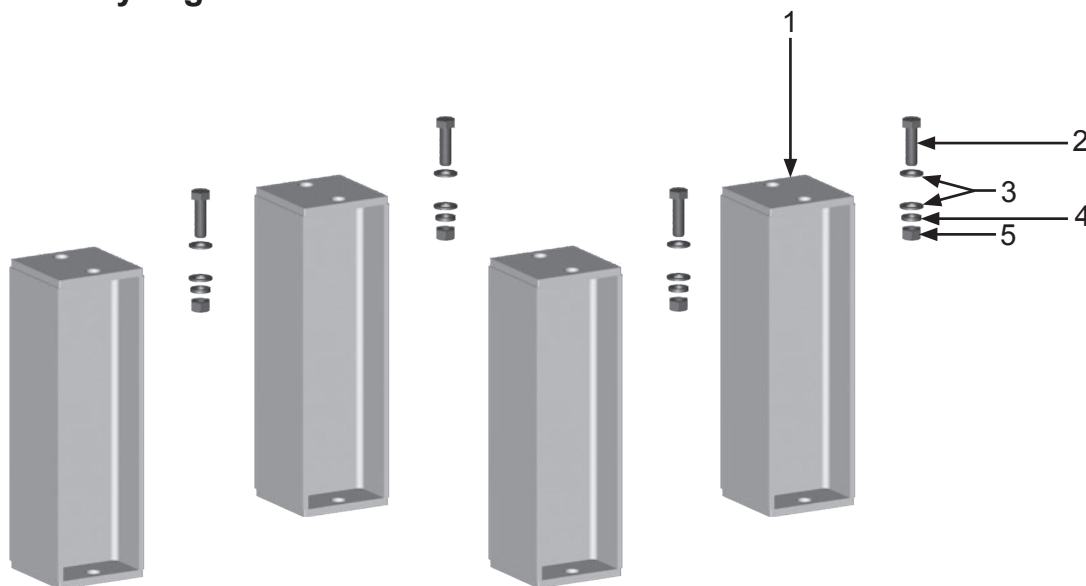


Item #	Part #	Description
--------	--------	-------------

Fig. 38

—	10100852	Fork-Pocket Skid
1	10100701	3/4-10 x 2-1/2" Bolt (<i>Eight Required</i>)
2	10100704	3/4" Flat Washer (<i>16 Required</i>)
3	10100596	3/4" Lock Washer (<i>Eight Required</i>)
4	10100595	3/4" Nut (<i>Eight Required</i>)

Figure 39: Stationary Legs



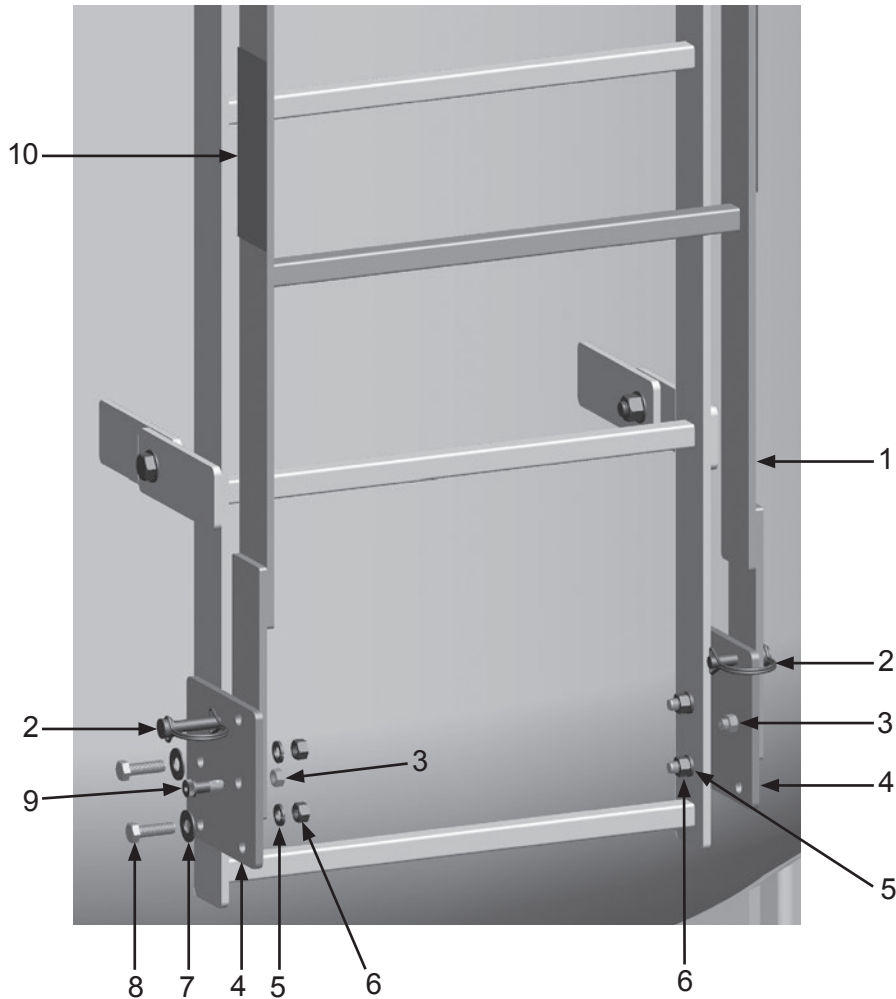
Item #	Part #	Description
--------	--------	-------------

Fig. 39

—	1081660	Stationary Legs and Mounting Kit – Complete Set of Four
1	10000514	Stationary Leg (<i>Four Required</i>)
2	10100701	3/4-10 x 2-1/2" Bolt (<i>Two Required per Leg</i>)
3	10100704	3/4" Flat Washer (<i>Four Required per Leg</i>)
4	10100596	3/4" Lock Washer (<i>Two Required per Leg</i>)
5	10100595	3/4" Nut (<i>Two Required per Leg</i>)

ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 40: Hinged Ladder Extension (*Optional*)



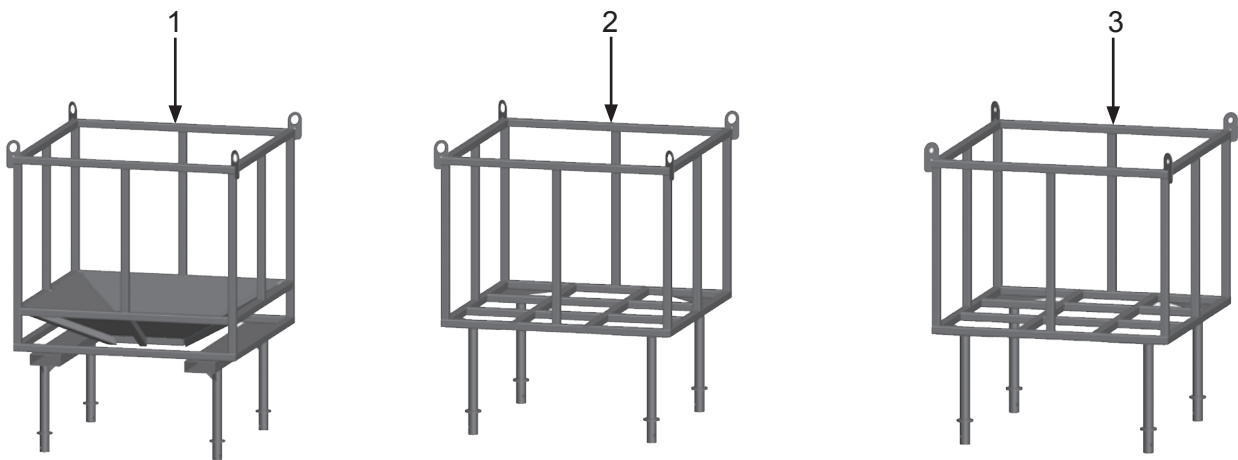
Item #	Part #	Description
--------	--------	-------------

Fig. 41

—	10103727	Hinged Ladder Extension – Complete (<i>Optional</i>) <i>Includes Two Ladder Extension Kits</i>
1	10103915	Ladder Extension Body (<i>Two Required</i>) <i>Includes Item #10</i>
2	10103728	3/8" D-Locking Pin (<i>Four Required</i>)
3	10103730	5/16-18 Hex Nut (<i>Four Required</i>)
4	10103509	Ladder Extension Bracket (<i>Four Required</i>)
5	10101936	3/8" Lock Washer (<i>Eight Required</i>)
6	10101938	3/8-16 Hex Nut (<i>Eight Required</i>)
7	10101942	3/8" Flat Washer (<i>Eight Required</i>)
8	10101059	3/8-16 x 1-1/4" Bolt (<i>Eight Required</i>)
9	10103729	3/8" Shoulder Bolt (<i>Four Required</i>)
10	10103881	2" Red Conspicuity Tape (<i>Sold per inch. 12 Inches required per Ladder</i>)

ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 42: Blastmaster® Bulk Bag Racks (Optional)

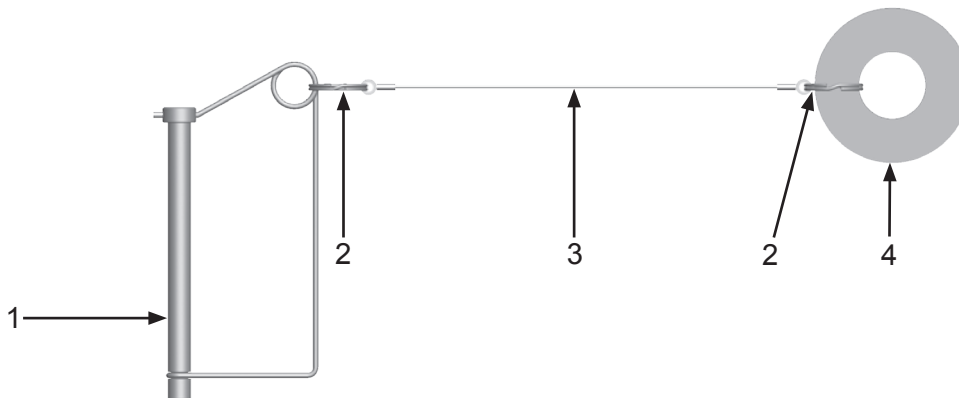


Item #	Part #	Description
--------	--------	-------------

Fig. 42

1	10100765	Blastmaster® Heavy-Duty Bulk Bag Rack with Tapered Support Panels with Four Locking Pin Assemblies (Optional)
2	10102133	Bulk Bag Rack with Grid Support (Optional)
3	10103271	Offshore Bulk Bag Rack with Grid Support and Locking Pins (Optional)

Figure 43: Blastmaster® Bulk Bag Rack Locking Pin (Optional)



Item #	Part #	Description
--------	--------	-------------

Fig. 43

—	10103386	Locking Pin Assembly – Complete (Optional)
1	10103387	3/8" x 4" Locking Pin
2	10103388	Split Ring (Two Required)
3	10103390	7" Lanyard with Eyelets
4	10103389	2-1/4" O.D. x 1-1/4" I.D. Flat Washer

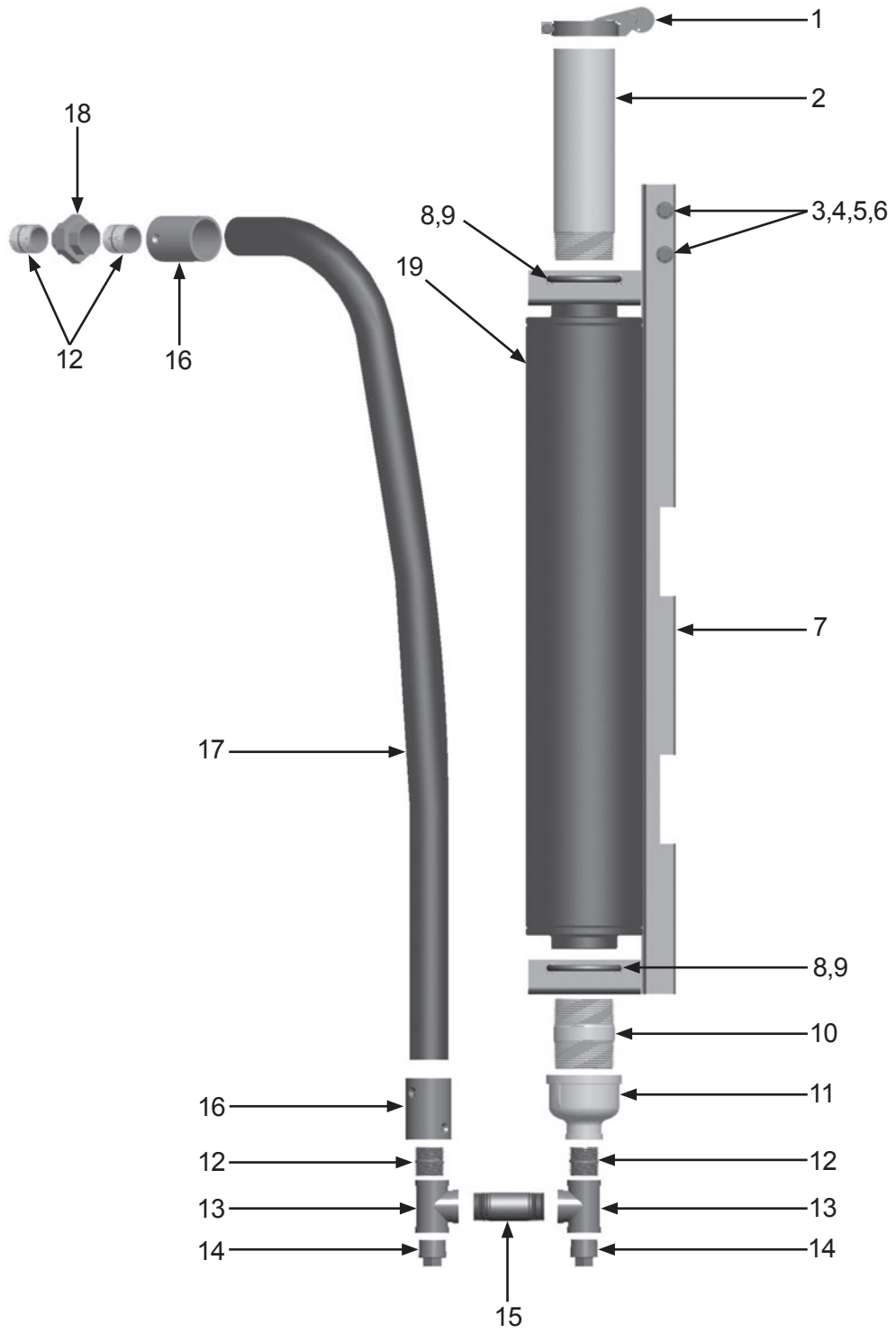
ASSEMBLY PART NUMBERS

Blastmaster® Large Exhaust Muffler (*Optional*)

Item #	Part #	Description
Fig. 44		
—	10103651	Blastmaster® Large Exhaust Muffler – Complete (<i>Optional</i>)
1	10103587	3" Aluminized Rain Cap
2	10103580	3" x 12" Toe Nipple
3	10101943	1/2-13 x 1-3/4" NPT Galvanized Hex Bolt (<i>Two Required</i>)
4	10100674	1/2" Flat Washer (<i>Two Required</i>)
5	10100675	1/2" Lock Washer (<i>Two Required</i>)
6	1014022	1/2" Hex Nut (<i>Two Required</i>)
7	10103584	Muffler Assembly Bracket
8	10103581	3" x 3/8" U-Bolt Assembly (<i>Two Required</i>)
9	10103582	3/8" Lock Nut (<i>Four Required</i>)
10	10103579	3" x 4" NPT Pipe Nipple
11	10103578	3" to 1-1/4" Bell Reducer
12	1011201	1-1/4" NPT Galvanized Close Nipple (<i>Four Required</i>)
13	1011803	1-1/4" NPT Galvanized Pipe Tee (<i>Two Required</i>)
14	1011902	1-1/4" NPT Galvanized Pipe Plug (<i>Two Required</i>)
15	1011207	1-1/4" X 4" Galvanized Pipe Nipple
16	10NHA3	1-1/4" NPS Aluminum Nozzle Holder (<i>Two Required</i>)
17	10BH1142BR	1-1/4" Black Heavy-Duty Abrasive Blasting Hose (<i>Five Feet Required</i>)
18	1006502	1-1/4" Female Pipe Union
19	10103575	Silencer
—	105M103	Features, Advantages, and Benefits Guide – Blastmaster® Large Exhaust Muffler
—	1090108	Hazard Identification Decal

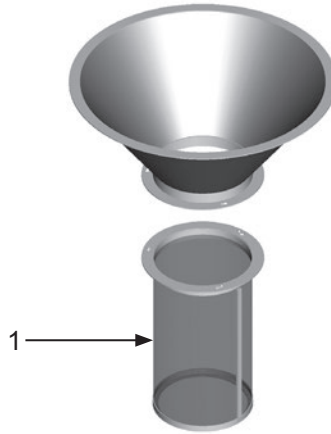
SCHEMATIC

Figure 44



ASSEMBLY PART NUMBERS & SCHEMATIC

Figure 45: Abrasive Screen and Funnel (*Optional*)



Item #	Part #	Description
--------	--------	-------------

Fig. 45

—	10101705	Abrasive Screen and Funnel for 10" Diameter Camlock Closure (<i>Optional</i>)
---	----------	---

1	10101704	Abrasive Screen for 10" Diameter Camlock Closure
---	----------	--

ADDITIONAL TECHNICAL DATA

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

- **American Society for Testing and Materials (ASTM)**
100 Barr Harbor Drive
West Conshohocken, 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 43222
Phone: (614) 888-8320
FAX: (614) 888-0750
www.nationalboard.org
- **National Association of Corrosion Engineers (NACE)**
1440 South Creek Drive
Houston, TX 77084-4906
Phone: (281) 228-6200
FAX: (281) 228-6300
www.nace.org
- **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
- **American National Standards Institute (ANSI)**
1899 L Street, NW, 11th Floor
Washington, DC 20036
Phone: (202) 293-8020
FAX: (202) 293-9287
www.ansi.org

LIMITED WARRANTY

Seller warrants to the original purchaser that the Product covered by this Limited 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 of the Product which is 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 and/or any maintenance part by persons other than Seller or Seller's authorized representatives. This warranty does not apply to accessory items. Further, this Warranty does not apply to damage or wear to the surface finish or appearance of the Product or normal wear and tear to the Product. This Warranty is limited to a purchaser who purchases the Product either directly from the Seller or from one of Seller's "Authorized Distributors". An Authorized Distributor is a Seller approved distributor that purchases the Product directly from the Seller for the sole purpose of re-selling the Product at retail, without any use or modifications whatsoever, to an end-purchaser. This warranty is specifically non-assignable and non-transferable.

DISCLAIMER OF WARRANTY

The foregoing Limited Warranty is exclusive and is in lieu of all other warranties, whether oral or written and whether express, implied, or statutory. SELLER HEREBY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE AND ALL SUCH OTHER WARRANTIES ARE HEREBY EXCLUDED AND ARE INAPPLICABLE TO THE PRODUCT. Seller makes no warranties or representations of any kind concerning respirators, or equipment made by other manufacturers. Seller's agents and representatives are not authorized to offer any further warranties.

EXCLUSIVE REMEDY FOR WARRANTY CLAIMS

THE SOLE AND EXCLUSIVE REMEDY UNDER THE FOREGOING LIMITED WARRANTY, AND TO THE EXTENT PERMITTED BY LAW, ANY WARRANTY OR CONDITION IMPLIED BY LAW, COVERING THIS PRODUCT SHALL BE, AT THE SELLER'S OPTION, THE 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 BY THE PURCHASER. 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, PROOF OF PURCHASE OF THE PRODUCT, AND THE MODEL AND IDENTIFICATION NUMBER OF 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. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY OBLIGATION GREATER THAN THE ORIGINAL PURCHASE PRICE OF THE PRODUCT UNDER THIS WARRANTY. PURCHASER SHALL AFFORD SELLER PROMPT AND REASONABLE OPPORTUNITY TO INSPECT THE PRODUCT FOR WHICH A 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. PRODUCTS THAT HAVE BEEN REPAIRED OR REPLACED UNDER THIS WARRANTY DO NOT RECEIVE A NEW WARRANTY AND ARE ONLY COVERED BY THE REMAINING PORTION OF THE ORIGINAL WARRANTY.

LIMITATION OF REMEDIES

The foregoing stipulated exclusive remedy is in lieu of all other remedies for breach of contract, warranty, and/or tort or otherwise. Seller shall not be liable, either directly or indirectly, for any consequential, incidental or special losses or damages of Purchaser, including but not limited to 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.

GLOBAL HEADQUARTERS

- 3425 East Locust Street
Davenport, IA 52803

ph: 800.BLAST.IT (800.252.7848)

ph: 563.324.2519

fax: 563.324.6258

GULF STATES HEADQUARTERS

- 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

- **Iowa**
Davenport
- **Louisiana**
Harvey
Lafayette
- **Ohio**
Youngstown
- **Texas**
Beaumont
Corpus Christi
Deer Park



Experience, Trust, Service

ABRASIVES

BLASTING

COATING & PAINTING

ENGINEERED SYSTEMS

RENTAL

SAFETY

SERVICE & REPAIR

40+ NATIONWIDE SHIPPING LOCATIONS



★ Marco Regional Branch Offices
and Shipping Locations

● Direct Shipping Locations

CONTACT MARCO

800.BLAST.IT
(800.252.7848)

563.324.2519

FAX: 563.324.6258

WWW.MARCO.US
SALES@MARCO.US