

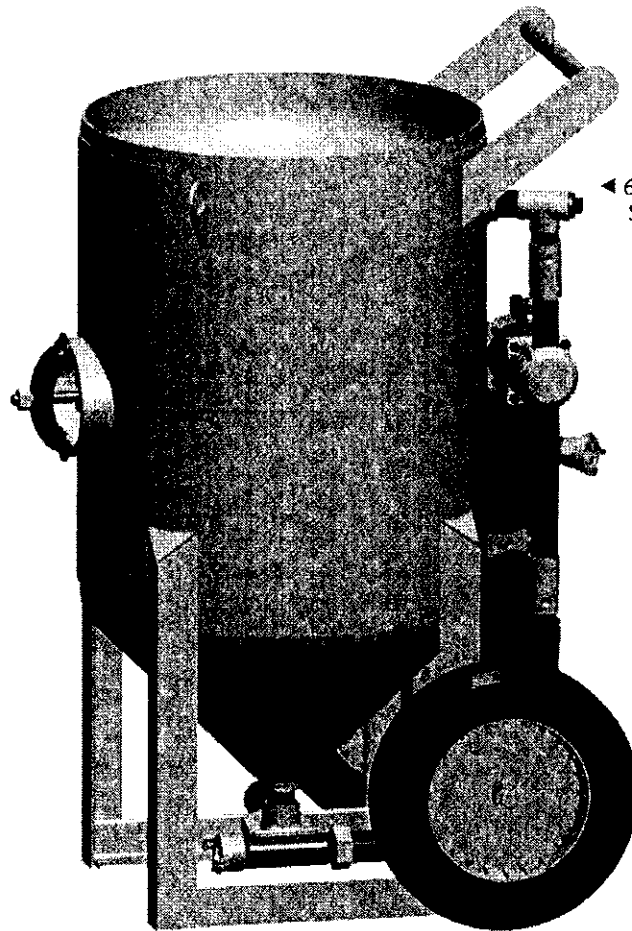
Operator's Manual  
Part #1090054

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sales@blast-it-all.com



# 6.5 Cubic Foot Industrial

## SERIES BLAST MACHINE



← 6.5 Cubic Foot Industrial  
Series Blast Machine

### **⚠ DANGER**

Before using this equipment, read, understand and follow all instructions in the Operator's Manuals. If the User or Assistants cannot read or understand the Warnings and Instructions, the Employer of the User and Assistants must provide adequate and necessary training to ensure proper Operation and Compliance with all Safety Procedures pertaining to this equipment.

Failure to avoid the above Danger will result in death or serious injury.



## 6.5 CUBIC FOOT INDUSTRIAL SERIES BLAST MACHINE

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### NOTICE

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

### NOTICE

- ▶ When it comes to abrasive & air mixtures, more is not necessarily better. Optimum blasting efficiency takes place when a lean abrasive & air mixture is used. To correctly set the 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" (Figure 1) at the exit of the nozzle. Faster cutting, reduced abrasive consumption and lower clean up costs, are benefits of the "blue flame".

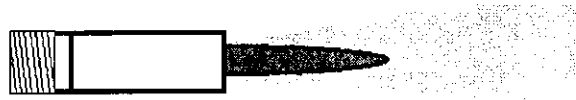


Figure 1

### NOTICE

See Abrasive Consumption Chart for consumption rates and required air flow (cubic feet per minute). The system must meet these minimum requirements to ensure proper function and performance.

### NOTICE

The optimal blasting air pressure of 100 psi should be maintained at the nozzle. For each pound per square inch of air pressure below 100 psi, blasting efficiency is reduced 1.5%. A 10 psi reduction in air pressure will cause a 15% loss of productivity. Use a Needle Pressure Gauge to test air pressure in your air hose and blast hose.

### NOTICE

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

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

\*Abrasive consumption is based on abrasive with a bulk density of 100 lbs per cubic foot.



**⚠ PELIGRO**

Antes de usar este equipo, lea, entienda y siga todas las instrucciones que se encuentran en el Manual del Operador. Si el usuario o sus ayudantes no pueden leer ni entienden las instrucciones y advertencias, el empleador del usuario y de sus ayudantes debe proporcionar la capacitación adecuada y necesaria para asegurar la operación y el cumplimiento apropiado con todos los procedimientos de seguridad relacionados con este equipo.

La falta de cumplimiento con las medidas anteriores relacionadas para evitar peligro resultará en muerte o lesión grave.

**⚠ DANGER**

Avant la mise en service de l'appareil, lire, comprendre et suivre toutes les instructions dans le Manuel de l'Utilisateur. Si l'Utilisateur ou des Assistants ne peuvent pas lire ou comprendre les Avertissements et les Instructions, l'Employeur de l'Utilisateur et des Assistants doit fournir la formation nécessaire et adéquate pour garantir le bon Fonctionnement et la Conformité avec toutes les Procédures de Sécurité concernant cet appareil.

L'inobservation des instructions concernant le Danger signalé ci-dessus entraînera la mort ou des blessures graves.

**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.

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### DANGER

**Failure to avoid ANY DANGER listed below will result in death or serious injury.**

- ▶ Breathing dust from silica sand may cause silicosis, a fatal lung disease. Breathing dust during blasting operations may also cause asbestosis, lead poisoning and/or other serious or fatal diseases. A NIOSH-approved, well-maintained, supplied-air abrasive blasting respirator must be used by anyone blasting, anyone handling or anyone using the abrasive and anyone in the area of the dust. Harmful dust containing toxic material from abrasive or surface being blasted (*asbestos, lead paint, heavy metal paint and other toxins*) can remain suspended in the air for long periods of time after blasting has ceased.
- ▶ Contact NIOSH and OSHA offices to determine the proper respirator for your specific application. The air supplied to the respirator must be at least Grade D quality as described in Compressed Gas Association Commodity Specification G-7.1 and as specified by OSHA Regulation 1910.134. Ensure air filter and respirator system hoses are not connected to non-air sources or in-plant lines that may contain nitrogen, oxygen, acetylene or other non-breathable gases. Before removing respirator, use an air monitoring instrument to determine if the atmosphere is safe to breathe.
- ▶ You must comply with all OSHA, local, City, State, Province, Country and jurisdiction regulations, ordinances and standards, related to your particular work area and environment. Keep unprotected individuals out of the work area.
- ▶ Blast operators must receive thorough training on the use of abrasive resistant attire which includes: supplied-air respirator, blastsuit, safety shoes, gloves, ear protection and eye protection. Protect the operator and bystanders by complying with NIOSH and OSHA Safety Standards.
- ▶ You must consult the Original Equipment Manufacturer for operator's manuals, information, training, instructions and warnings, for the proper and intended use of all equipment.
- ▶ Inspect all equipment before and after each use. Failure to use Original Equipment Manufacturer repair parts and failure to immediately replace worn or damaged components will void warranties and cause malfunctions.
- ▶ 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 avoid the above dangers will result in death or serious injury.
- ▶ OSHA requires blast-cleaning nozzles be equipped with an operating valve, which shall be designed to be held open only by continuous hand pressure and shall close immediately upon release of hand pressure (i.e., a "dead man" control). The valve shall not be modified in any manner that would allow it to remain open without the application of hand pressure by the operator. Failure to avoid the above danger will result in release of high speed media and compressed air resulting in death or serious injury. OSHA 29CFR 1910.244(b)
- ▶ Point the blast nozzle only at the surface being blasted. Never point the blast nozzle or abrasive blast stream at yourself or others.
- ▶ Unless otherwise specified, maximum working pressure of blast machines and related components must not exceed 125 psi. Exceeding maximum working pressure of 125 psi will cause the blast machine and components to burst.
- ▶ Never weld, grind or drill on the blast machine (or any pressure vessel) without a National Board 'R' Stamp. Doing so will void ASME certification as well as manufacturer's warranty. Welding, grinding or drilling on the blast machine (or any pressure vessel) can weaken the vessel causing it to burst. Failure to avoid the above danger will result in death or serious injury.

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### **⚠ DANGER**

**Failure to avoid ANY DANGER listed below will result in death or serious injury.**

- ▶ 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 will cause an explosion or electrocution.
- ▶ Blast-it-all® control switches should only be used with Blast-it-all® remote control systems. Using a Blast-it-all® control switch on another manufacturer's remote control system may cause malfunctions.
- ▶ Do not cut, obstruct, restrict or pinch pneumatic control lines. Doing so will prevent the proper activation and deactivation of the remote control system, resulting in the release of high speed media and compressed air.
- ▶ Frozen moisture will cause restrictions and obstructions in pneumatic control lines. Any restriction or obstruction in the pneumatic control lines will prevent the proper activation and deactivation of the remote control system, resulting in the release of high speed media and compressed air.
- ▶ This product is not for use in wet environments. Always use a Ground Fault Interrupter Circuit (GFCI) for all electrical power source connections. Use of this product in wet environments will create a shock hazard.

### **⚠ WARNING**

**Failure to avoid ANY WARNING listed below could result in death or serious injury.**

- ▶ Never hang objects from the blast machine handle. Doing so may cause the blast machine to become unstable and tip over.
- ▶ Never attempt to move a blast machine containing abrasive. Never attempt to manually move blast machines greater than 6.5 cubic foot capacity. Always use at least two capable people to manually move a blast machine on flat, smooth surfaces. A mechanical lifting device must be used if blast machine is moved in any other manner.
- ▶ Always be certain to have secure footing when blasting. There is a recoil hazard when blasting starts that may cause user to fall and misdirect the abrasive stream at operator or bystander.

### **NOTICE**

- ▶ Always use abrasive that is dry and properly screened. This will reduce the potential for obstructions to enter the remote control system, metering valve and blast nozzle.
- ▶ Moisture build-up occurs when air is compressed. Any moisture within the blast system will cause abrasives to clump, clogging metering valves, hoses and nozzles. Install an appropriately sized moisture separator at the inlet of the blast machine. 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.



### **⚠ DANGER**

You must consult the Original Equipment Manufacturer for operator's manuals, information, training, instructions and warnings, for the proper and intended use of all equipment. Failure to avoid the above danger will result in death or serious injury.

### **⚠ DANGER**

Inspect all equipment before and after each use. Failure to use Original Equipment Manufacturer repair parts and failure to immediately replace worn or damaged components will void warranties and cause malfunctions. Failure to avoid the above danger will result in death or serious injury.

### **⚠ DANGER**

Never weld, grind or drill on the blast machine (or any pressure vessel). Doing so will void ASME certification as well as manufacturer's warranty. Welding, grinding or drilling on the blast machine (or any pressure vessel) will weaken the vessel causing it to burst. Failure to avoid the above danger will result in death or serious injury.

### **⚠ DANGER**

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

## 6.5 Cubic Foot Industrial Series Blast Machine

### **Description**

Rugged and reliable is what you get with the Blast-it-all® 6.5 Cubic Foot Industrial Series Blast Machine. Standing 47" high allows for easy filling of bagged abrasive to the blast machine's 6.5 cubic foot capacity. With a 90 degree bottom head and 150 psi working pressure, the blast machine can handle almost any job. Heavy-duty 16" wheels and Lifting Lugs, mounted on the vessel, allows for portability on your jobsite. The remote controls are mounted on the back of the vessel providing a width of only 31", this allows the blast machine to fit through standard doorways.

### **Features:**

- Built in accordance with ASME Pressure Vessel Code
- 150 psi working pressure for increased productivity
- 90 degree Toriconical Bottom Head allows smooth flow of abrasive
- Overall width of 31" fits through standard doorways
- 47" tall for easy loading of bagged abrasive
- 16" Wheels and Lifting Lugs for easy portability
- Powder coat finish to withstand harsh environments
- Dimensions: Overall Height: 50" Width: 31" Depth: 35"

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### **Operational Requirements**

#### **The following may cause safety hazards or reduced performance:**

- Improper installation and/or maintenance of components
- Failure to place blast machine on a secure, flat surface
- Improper air supply pressure (minimum 50 psi, 150 psi maximum)
- Incorrect lifting / transporting of blast machine or incorrect or worn lifting devices

### **Operating Instructions (Figure 2)**

#### **Before using:**

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

**6.5 CUBIC FOOT INDUSTRIAL SERIES BLAST MACHINE**



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**6.5 Cubic Foot Industrial Series Blast Machine**

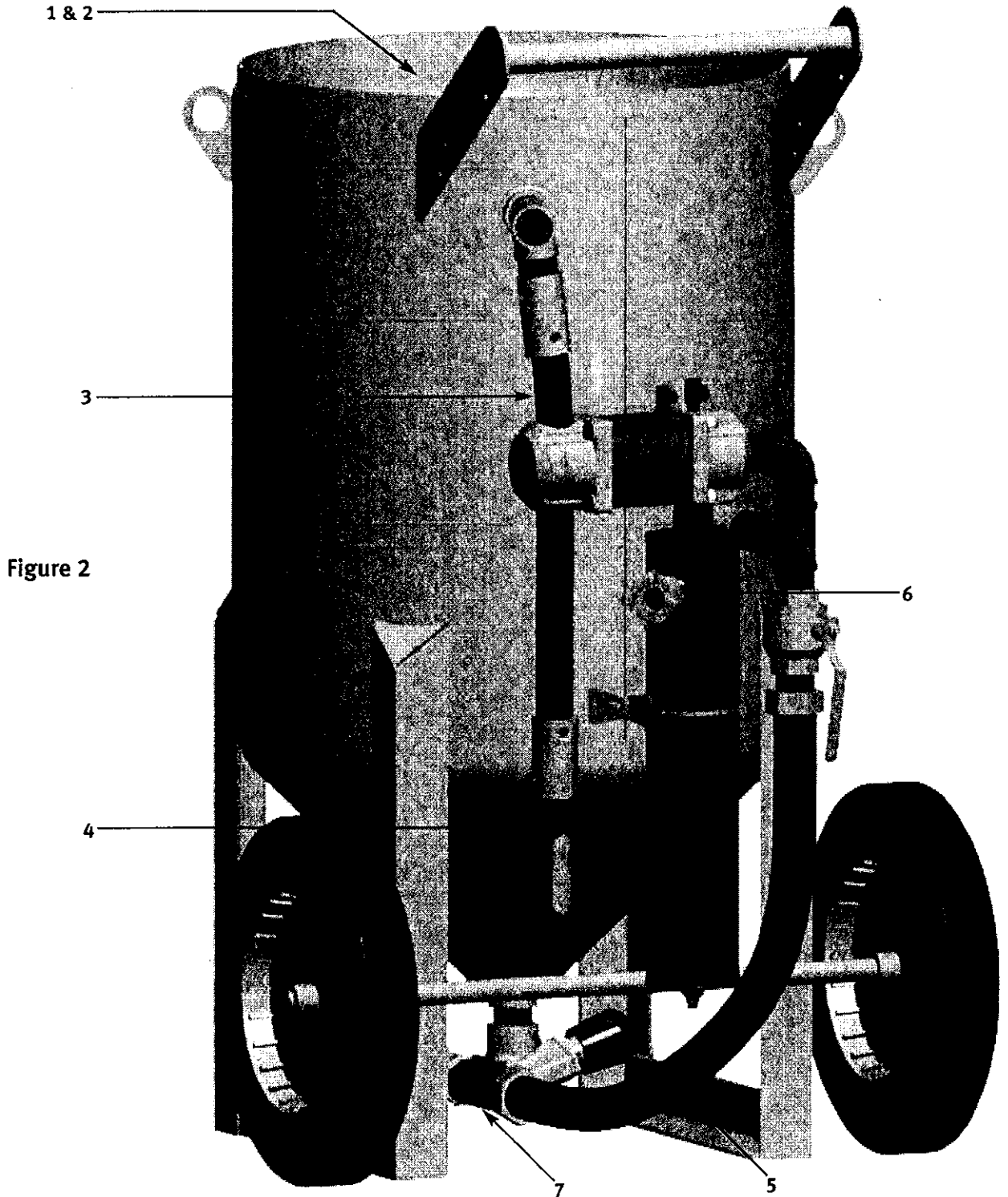


Figure 2



## 6.5 Cubic Foot Industrial Series Blast Machine

### Operating Instructions (Figure 3)

#### CAUTION

Crushing and pinching are normal functions of this component. Do not place body parts or foreign objects in any area where there are moving parts. Failure to comply with the above caution may result in minor or moderate injury.

#### WARNING

Always be certain to have secure footing when blasting. There is a recoil hazard when blasting starts that may cause user to fall and misdirect the abrasive stream at operator or bystander. Failure to comply with the above warning could result in death or serious injury.

#### DANGER

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 avoid the above dangers will cause electrical shock and inadvertent activation of equipment resulting in death or serious injury.

#### NOTICE

To reduce abrasive intrusion in the air supply hose, depressurize the Blast Machine before shutting off air supply from compressor.

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#### During use:

- Fill Blast Machine through hole (A) in top of Blast Machine. Do not overfill, the capacity of the blast machine is 6.5 cubic feet of abrasive.
- To start / stop abrasive blasting, follow instructions in the remote control system (1) operator's manual.
- Monitor remote control system components per operator's manual.

#### After use:

- Empty abrasive from Blast Machine when blasting is concluded for the day.
- To remove abrasive, place Metering Valve (3) in the FULL OPEN position. Place Choke Valve (2) in the OFF (shut) position. Remove Blast Nozzle from nozzle holder on blast hose. Ensure blast hose is placed in a container suitable for catching the abrasive. Ensure Operator is prepared for strong recoil, the blast hose will provide strong recoil as the abrasive exits the blast hose. Activate Remote Control System per Operator's Manual. When Blast machine is empty, only air will exit the blast hose. Deactivate the Remote Control System to depressurize the Blast Machine. Place Metering Valve (3) in the CLOSED position.
- Inspect Blast Machine components for damage. Replace damaged components before use.
- Cover Blast Machine when not in use to reduce debris and water intrusion.

#### Troubleshooting

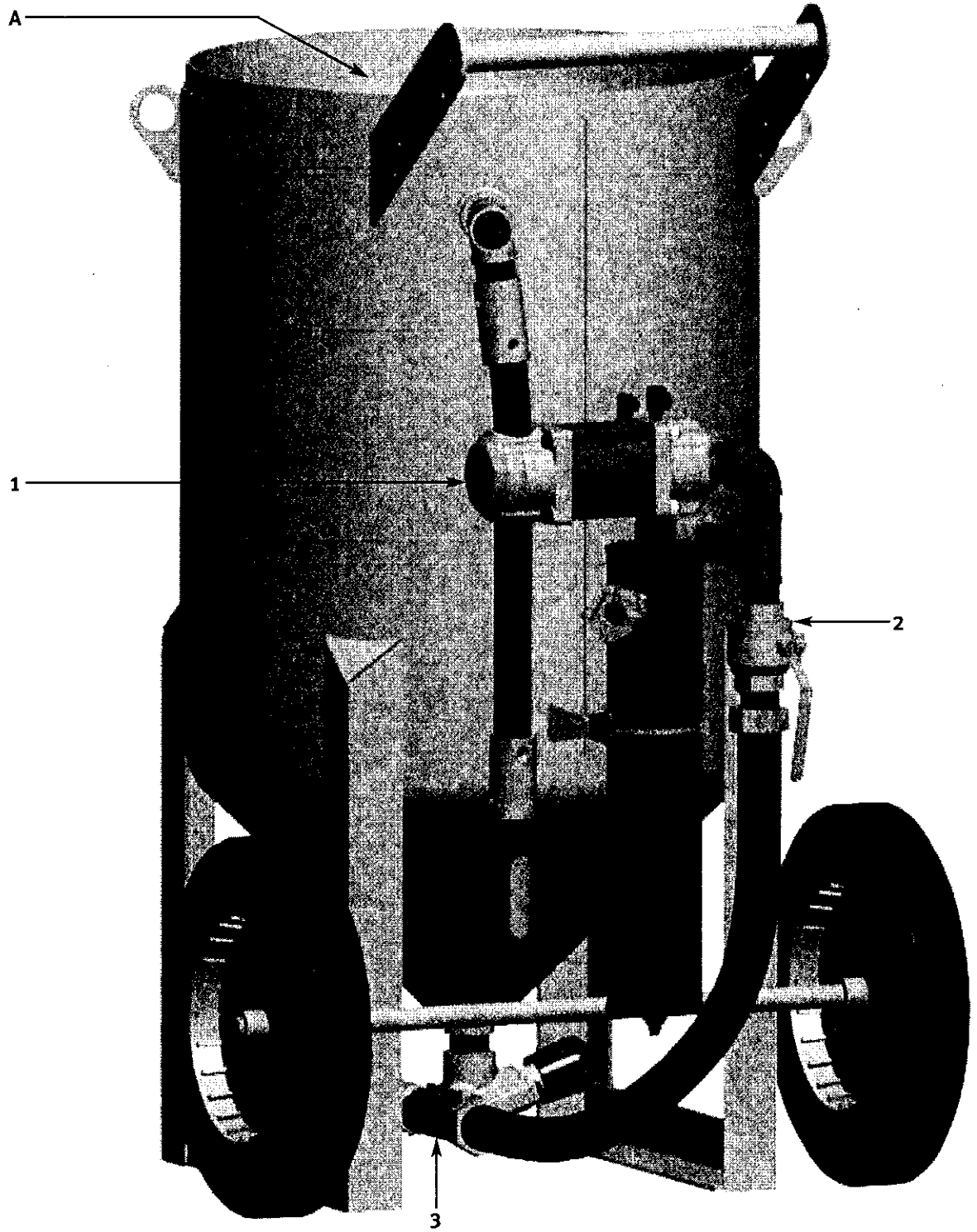
If the Blast Machine does not function properly, check the following:

SYMPTOM (Cause)	ACTION
<b>Blast Machine will not pressurize</b> (Damaged components, improper air supply, Remote Control System)	Refer to Remote Control System Operator's Manual.  Insufficient air supply. Ensure minimum of 50 psi is supplied to Blast Machine and sufficient air volume to support blast nozzle.  Ensure Pop Up Valve and Pop Up Valve Seat are seating without air leaks. Replace damaged components. Ensure internal piping is aligned with Fill Hole.
<b>Blast Machine will not depressurize or depressurizes slowly</b> (Damaged components)	Refer to Operator's Manual of Remote Control System and Blast Machine.  Refer to Muffler Operator's Manual.
<b>No Air/Abrasive or no abrasive exits the blast nozzle</b> (Blockages, wet abrasive, metering valve)	Depressurize Blast Machine. Inspect nozzle and blast hose for blockage. Remove blockage or remove components from use.  Pressurize blast machine and open and close Choke Valve rapidly. If problem persists refer to Metering Valve Operator's Manual.
<b>Intermittent abrasive flow</b> (wet abrasive, metering valve, blast nozzle)	Damp or wet abrasive. Remove abrasive from Blast Machine by cleaning out the vessel. Ensure dry abrasive is used.  Install a Moisture Separator at the inlet of the Blast Machine. Increase the inner diameter of Air Supply hose.  Blast Nozzle is worn or too large for compressor size. Replace Blast Nozzle.



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## **⚠ DANGER**

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 avoid the above dangers will cause electrical shock and inadvertent activation of equipment resulting in death or serious injury.

## **⚠ DANGER**

Never weld, grind or drill on the blast machine (or any pressure vessel). Doing so will void ASME certification as well as manufacturer's warranty. Welding, grinding or drilling on the blast machine (or any pressure vessel) will weaken the vessel causing it to burst. Failure to avoid the above danger will result in death or serious injury.

## 6.5 Cubic Foot Industrial Series Blast Machine

### Maintenance

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

### 6.5 Cubic Foot Industrial Series Blast Machine

#### Disassembly:

#### Inspection Door Assembly: Fig. 4

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

#### Pop-Up Valve: Fig. 5

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

#### Pop-Up Valve Seat: Fig. 5

- 1) From inside Blast Machine and Pop-Up Valve (2) removed, pry Pop-Up Valve Seat (1) from recess in top of Blast Machine.

#### Assembly:

#### Pop-Up Valve Seat: Fig. 5

- 1) From inside Blast Machine and Pop-Up Valve (2) removed, insert new Pop-Up Valve Seat (1) (with curved side facing bottom of Blast Machine) in recess in top of Blast Machine. Ensure Pop-Up Valve Seat (1) is completely seated in recess.

#### Pop-Up Valve: Fig. 5

- 1) Inspect Horizontal Pipe (5) and Pipe Elbow (4) for damage. Replace if damaged.
- 2) Insert Pop-Up Valve (2) in non-threaded end of Vertical Pipe (3).
- 3) Place Pop-Up Valve and vertical Pipe in Blast Machine and thread in to Pipe Elbow (4).
- 4) Ensure Vertical Pipe (3) is perpendicular to Horizontal Pipe (5). Slide Pop-Up Valve (2) up and down to ensure freedom of movement and proper seating against Pop-Up Valve Seat (1).
- 5) Tighten Vertical Pipe (3).

#### Inspection Door Assembly: Fig. 4

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

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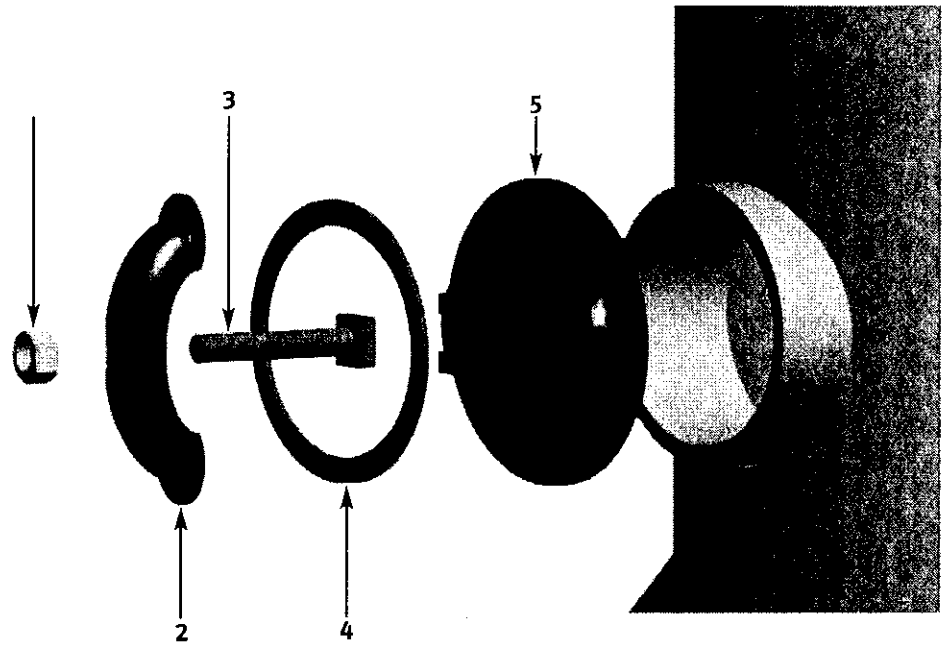
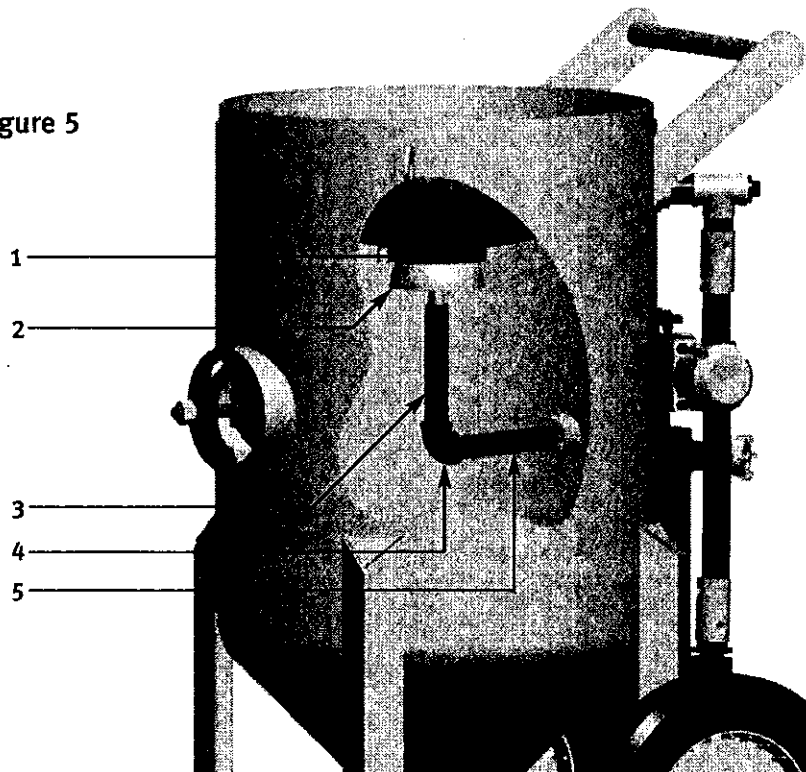


Figure 5





## 6.5 CUBIC FOOT INDUSTRIAL SERIES BLAST MACHINE

### 6.5 Industrial Series Blast Machine Schematic

Item #	Part #	Description
-	1065001	6.5 Cubic Foot Blast Machine w/ 1" Bantam Metering Valve, Tandem Valve, KwikFire 158 Control Handle and 55 feet of Pneumatic Control Line
-	1065002	6.5 Cubic Foot Blast Machine w/ 1-1/4" Bantam Metering Valve, Tandem Valve, KwikFire 158 Control Handle and 55 feet of Pneumatic Control Line
-	1065003	6.5 Cubic Foot Blast Machine w/ 1-1/2" Bantam Metering Valve, Tandem Valve, KwikFire 158 Control Handle and 55 feet of Pneumatic Control Line
-	1065001PKA	6.5 Cubic Foot Blast Machine w/ 1" Bantam Metering Valve, Tandem Valve, KwikFire 158 Control Handle, 55 feet of Pneumatic Control Line and Moisture Separator
-	1065002PKA	6.5 Cubic Foot Blast Machine w/ 1-1/4" Bantam Metering Valve, Tandem Valve, KwikFire 158 Control Handle, 55 feet of Pneumatic Control Line and Moisture Separator
-	1065003PKA	6.5 Cubic Foot Blast Machine w/ 1-1/2" Bantam Metering Valve, Tandem Valve, KwikFire 158 Control Handle, 55 feet of Pneumatic Control Line and Moisture Separator

**Figure 6**

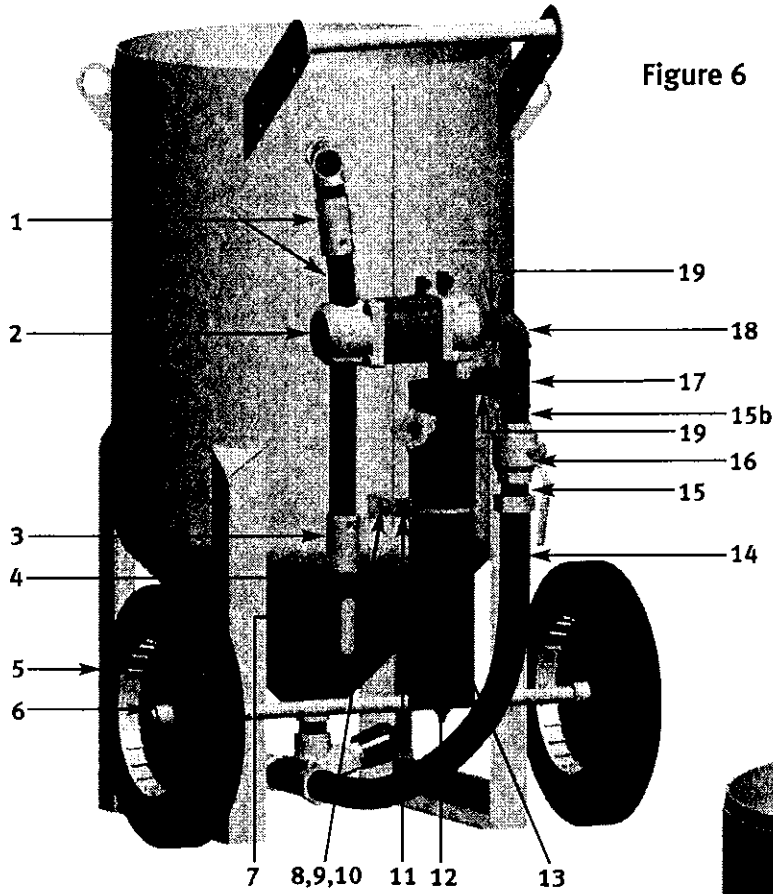
1	1012350	Blowdown Hose Assembly
2	1012300	Tandem Remote Control Valve
3	10NHA1	Aluminum Nozzle Holder for 3/4" i.d. Blast Hose
4	1012157	1-1/4" (M) x 1" (F) Pipe Bushing
5	1006064	16" Wheel (2 required)
6	1006205	Wheel Clip for 16" Wheels (4 required)
7	1011100	Muffler Assembly
8	1011747	3/8"- 16 x 1" Bolt (For use on PKA models)
9	1014241	3/8" Washer (For use on PKA models)
10	1012318	3/8"- 16 Nut (For use on PKA models)
11	10000249	Moisture Separator Mounting Tab (For use on PKA models)
12	1011746	Moisture Separator Screw Clamp (For use on PKA models)
13	1011740	The Extractor Moisture Separator - 1-1/4" Entry (For use on PKA models)
14a	1006309	Coupled 1" i.d. Pusher Line w/ 10SFE2 (for use on 1065001)
14b	1006310	Coupled 1-1/4" i.d. Pusher Line w/ 10SFE3 (for use on 1065002)
14c	1006304	Coupled 1-1/2" i.d. Pusher Line w/ 10SFE4 (for use on 1065003)
15a	1012151	1" Close nipple (for use on 1065001)
15b	1011201	1-1/4" Close Nipple (for use on 1065002)
15c	1014015	1-1/2" Close Nipple (for use on 1065003)
16a	1011601	1" Full Port Brass Ball Valve (for use on 1065001)
16b	1011602	1-1/4" Full Port Brass Ball Valve (for use on 1065002)
16c	1011603	1-1/2" Full Port Brass Ball Valve (for use on 1065003)
17a	1011817	1" x 1" x 1-1/4" Pipe Tee (for use on 1065001)
17b	1011803	1-1/4" Pipe Tee (for use on 1065002 and 1065003)
18	1011802	1-1/4" Street Elbow
19	1011204	1-1/4" x 3" NPT Pipe Nipple

**Figure 7**

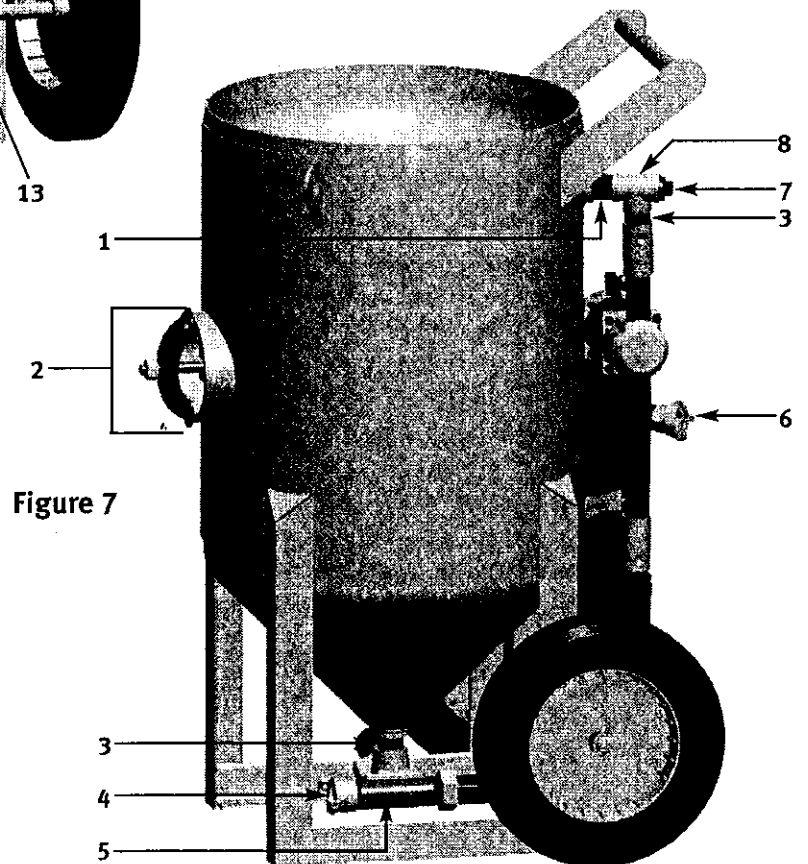
1	1011204	1-1/4" x 3" NPT Pipe Nipple
2	1006200	6" x 8" Inspection Door Assembly (includes: Door, Yoke, Bolt, Nut and Gasket)
3	1011201	1-1/4" Close Nipple
4	10SB2S	1-1/2" NPS Brass Tank Coupling
5a	1014100	1" Bantam Metering Valve (for use on 1065001)
5b	1014101	1-1/4" Bantam Metering Valve (for use on 1065002)
5c	1014102	1-1/2" Bantam Metering Valve (for use on 1065003)
6	10ME3	1-1/4" NPT (F) Air Hose Coupling (optional)
7	1011902	1-1/4" Square Head Pipe Plug
8	1011803	1-1/4" Pipe Tee



## 6.5 Industrial Series Blast Machine Schematic



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**6.5 Industrial Series Blast Machine Schematic**

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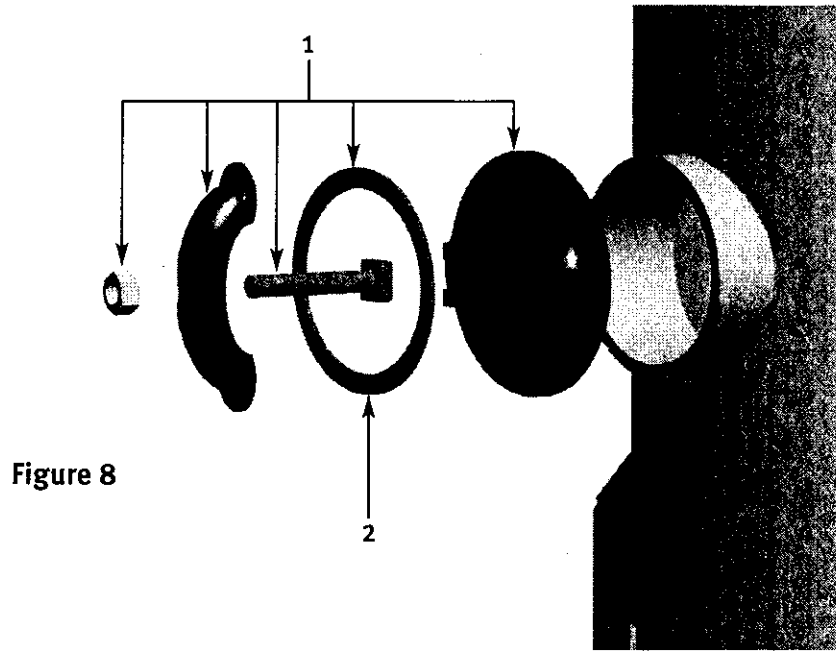


Figure 8

Item #	Part #	Description
<b>Fig. 8</b>		
1	1006200	6" x 8" Inspection Door Assembly (Includes: Door, Bolt, Gasket, Yoke and Nut)
2	1006201	6" x 8" Inspection Door Gasket

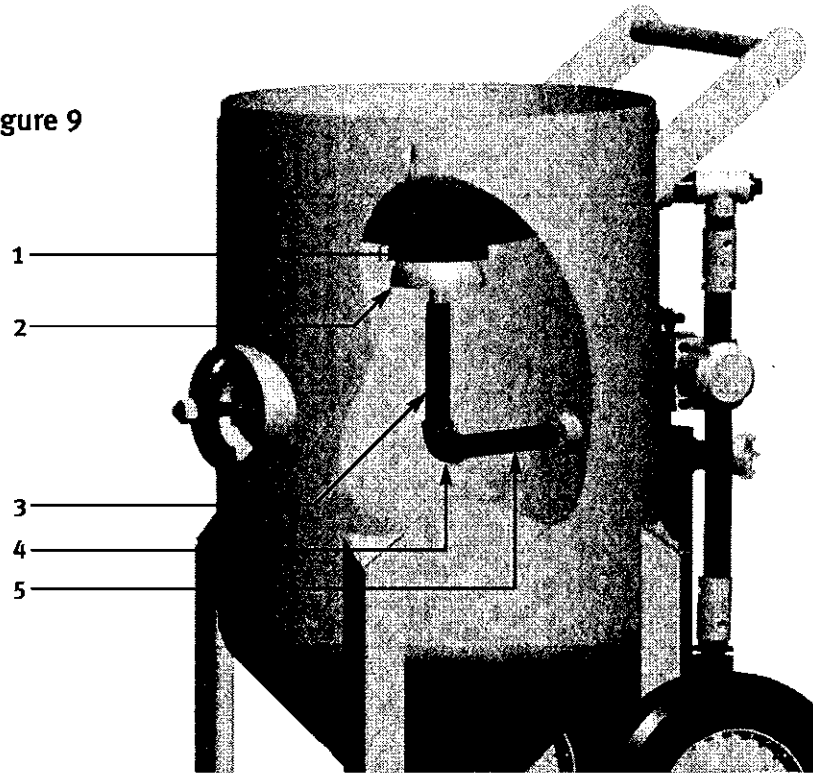
Item #	Part #	Description
<b>Accessories Not Shown</b>		
-	1006101	24" Diameter Industrial Series Blast Machine Cover
-	1006102	24" Diameter Industrial Series Blast Machine Screen
-	1065040	6.5 Cubic Foot Industrial Series Blast Machine Roll Cage with mounting hardware



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## **6.5 Industrial Series Blast Machine Schematic**

Figure 9



Item #	Part #	Description
Fig. 9		
1	1006040	Pop Up Valve Seat for 3.5 & 6.5 Cubic Foot Industrial Series Blast Machines
2	1006030	Pop Up Valve for 3.5 & 6.5 Cubic Foot Industrial Series Blast Machines
3	1006209	1" x 9" Toe Nipple
4	1006210	1-1/4" x 1" Reducing Pipe Elbow
5	1006203	1-1/4" x 9-1/2" NPT Pipe Nipple

## 6.5 CUBIC FOOT INDUSTRIAL SERIES BLAST MACHINE



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### 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 43229  
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

### WARRANTY

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

### DISCLAIMER OF WARRANTY

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

### EXCLUSIVE REMEDIES FOR WARRANTY CLAIMS

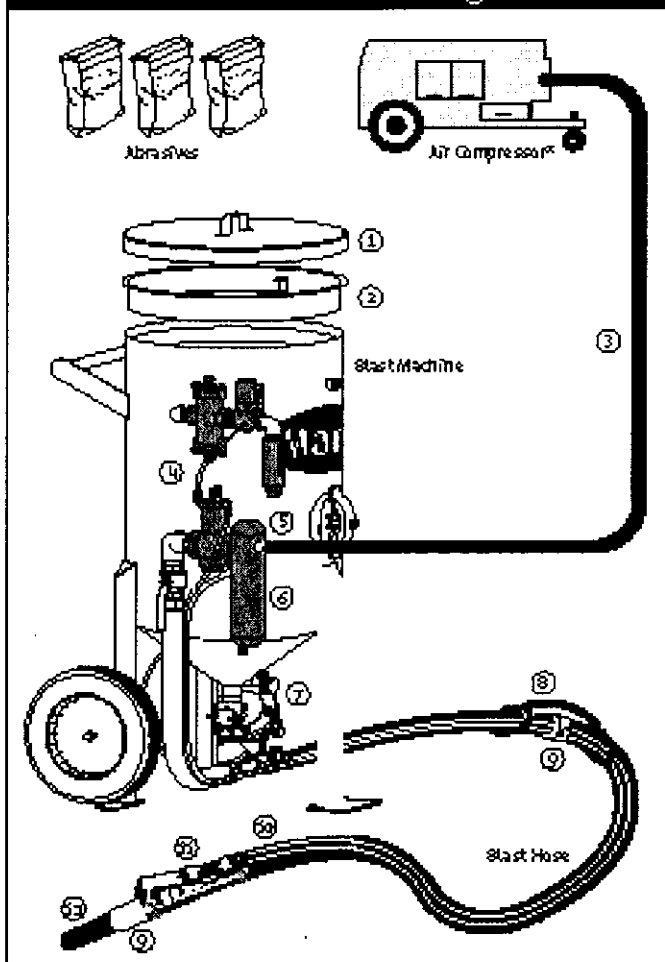
THE SOLE AND EXCLUSIVE REMEDIES OF PURCHASER FOR UNDER THE FOREGOING WARRANTY COVERING THIS PRODUCT SHALL BE REPAIR OR REPLACEMENT, FREE OF CHARGE, F.O.B. POINT OF MANUFACTURE, OF ANY DEFECTIVE PART OR PARTS OF THE PRODUCT THAT WERE MANUFACTURED BY SELLER, AND WHICH ARE RETURNED TO SELLER AT SELLER'S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

### LIMITATION OF REMEDIES

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

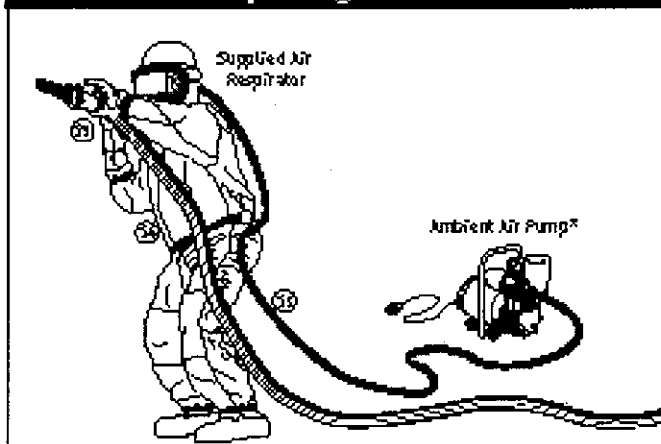


## Blast Machine – Hose Configuration



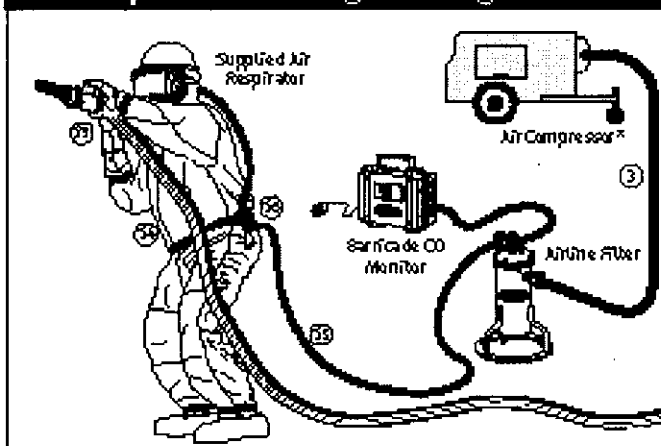
\*Grade D quality air in an atmosphere free of contaminants

## Ambient Air Pump Configuration



\*Grade D quality air in an atmosphere free of contaminants

## Air Compressor Breathing Air Configuration



\*Grade D quality air in an atmosphere free of contaminants

## DAILY PRE-OPERATION CHECKLIST

### Additional Components

- ☒ blast machine lid
- ☒ blast machine screen
- ☒ air hose
- ☒ remote control system
- ☒ air hose couplings & gaskets
- ☒ moisture separator
- ☒ metering valve
- ☒ safety cable
- ☒ blast hose couplings & gaskets
- ☒ remote control line
- ☒ remote control handle
- ☒ blasting nozzle
- ☒ blasting gloves
- ☒ abrasive resistant blastsuit
- ☒ breathing line
- ☒ climate control device

### ☐ ABRASIVES:

- Review the Abrasive MSDS (*Material Safety Data Sheet*) to ensure the material is free of toxic or harmful substances such as lead, silica, cyanide or arsenic. Use properly sized abrasive to ensure required surface finish.

### ☐ BLAST MACHINE:

- Inspect the Blast Machine for internal and external wear, abrasions and leaks.
- Ground the Blast Machine to dissipate static electricity created by the Abrasive moving through the Blast Hose.
- Install a Moisture Separator at the Inlet Port of the Blast Machine. Removing moisture from the Air Supply will allow Abrasive to flow smoothly from the Blast Machine to the work surface.

### ☐ AIR SUPPLY: Blast Machine

- Use an Air Compressor that will provide sufficient CFM (*Cubic Feet Per Minute*) volume of air to the Blast Nozzle and all other pneumatic tools, with an additional 50% to allow for Nozzle wear.

### ☐ AIR SUPPLY: Respirator

- Inspect Respirator Assemblies for worn components and replace as needed.
- You MUST consult the Operator's Manual supplied with your Respirator for ALL applicable Warnings and Hazards.

### ☐ BLAST NOZZLES:

- Replace Blast Nozzles if liner or jacket is cracked, damaged or an orifice size 1/16" larger than the original size.  
– *Determine Nozzle wear by inserting a drill bit 1/16" larger than original size of the Nozzle orifice. If the drill bit passes, replacement is needed.*
- Long Venturi Nozzles are most effective when the distance from Nozzle to work surface is 24-36".

### ☐ AIR & BLAST HOSE:

- Inspect all Hoses for internal and external wear, abrasions and leaks.
- Lay out Air Hose and Blast Hose as straight as possible to remove restrictions which cause reduced performance and premature wear.
- Blast Hose I.D. should be 3-4 times the size of Nozzle orifice.
- Blast Hose and Air Hose Couplings are to mate securely using Gaskets and Nozzle Washers to provide a positive seal without leaks. Inspect and replace any worn or damaged component before use.
- Install Safety Clips and Safety Cables at each connection.

### ☐ PROTECTIVE CLOTHING:

- Wear appropriate Protective Clothing and Equipment (*supplied-air respirator, blastsuit, safety shoes, leather gloves, ear protection and eye protection*) appropriate for the work environment.



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