

# INSTALLATION, OPERATION & MAINTENANCE MANUAL

Mist Blaster™



# MANUAL CONTENTS

03	Safety Warnings
05	Rules for Safe Operation
08	Product Description
12	Start Up
15	General Operation
15	Dry Blast
16	Mist Blast
16	Wash Down/Blow Down
16	Shut Down Procedure
17	Depressurizing the Pot
17	Water Supply
17	Winterizing
18	Air and Abrasive Consumption Charts
19	Troubleshooting
21	Pneumatic and Hydraulic Diagrams
22	Abrasive Valve Diagram and Parts List
23	Automatic Air Valve Diagram and Parts List
24	Control Valve Diagram and Parts List
25	Control Panel Diagram and Parts List
26	Replacement Parts List
30	Notes
32	Contact Information

Fill in your model and serial number in the blank spaces below. These can be used for reference whenever service or maintenance is required.

Unit Serial Number \_\_\_\_\_

Date Of Issue \_\_\_\_\_





WARNING



- Read all recommended safe procedures before attempting to use this equipment.
- Prior to performing any service or maintenance, please ensure equipment has been disconnected from electrical power source. All external pneumatic and hydraulic supplies must be disconnected and depressurized prior to any maintenance or service. **Failure to do so could result in serious personal injury or death!**
- This control system operates on 12 volts DC ONLY. Do not attempt to use any other power supply or damage will result.
- Please read the “Rules for Safe Operation” portion of this manual. If you have any questions or concerns about the operation of the equipment, please contact a BlastOne representative for assistance.

#### When the unit is operating:

- DO NOT attempt to perform maintenance while the unit is under pressure or is even capable of being pressurized. This means, at a minimum, the inlet valve should be closed and ideally the air source be shut off or disconnected. Anytime the manual blow-down valve (if fitted) is closed it should be assumed the unit is under pressure.
- DO NOT aim the blast nozzle at any person or object.
- DO NOT remove, repair, or replace any parts while equipment is operating.
- DO NOT use worn or inferior quality hoses.
- DO NOT OVERFILL THE UNIT.
- DO NOT operate this machine without thorough knowledge of the machine’s operation.
- DO NOT exceed the recommended air pressure (150 psi).
- DO NOT operate without safety locking clips and whip checks on the air hoses.

**FAILURE TO FOLLOW THESE WARNINGS AND RECOMMENDATIONS COULD RESULT IN DAMAGE TO THIS EQUIPMENT, SERIOUS PERSONAL INJURY OR DEATH!**



CAUTION



The product described and illustrated in this manual is intended for experienced and knowledgeable users of similar equipment used in the blasting industry. The important safety instructions appearing in this manual cover normal conditions and situations. No representations are made or intended as to the useful life, maintenance cycles, efficiency or performance of this product or combination of products. It is the responsibility of the user to ensure that proper and comprehensive training of operators has been performed and all environmental and safety precautions observed.



Failure to install whip check restraints on all blast hoses could result in serious injury or death.



Failure to install safety pins on all blast hose couplings could result in serious injury or death.

Listed below are the warning labels & the corresponding hazards encountered with the equipment.



This control system operates on 12 volts D.C. ONLY. Do not attempt to use any other power supply or damage will result.

**FAILURE TO COMPLY WITH THIS WARNING COULD RESULT IN SERIOUS PERSONAL INJURY AND DAMAGE TO THIS EQUIPMENT**

## RULES FOR SAFE OPERATION

- MUST Depressurize unit before loading media or before any maintenance is performed.
- Do not use abrasives containing silica, lead, arsenic, copper, zinc or sharp glass particles - use of abrasives containing these elements could result in serious injury or death.
- All personnel in the work area MUST use hearing protection and approved respiratory equipment.
- Do not modify or alter any equipment or controls.
- Wear suitable eye protection when filling unit.
- Always keep fingers well clear of the working area.
- Prior to use inspect all hoses, valves and connections. Replace any hoses, valves or connections that show any signs of wear or leakage.
- All blast operators must use approved respiratory protective equipment.
- Always use dead-man controls. Do not sell, rent or operate abrasive blasters without dead-man controls. Regulations require all blast systems must be equipped with dead-man type remote controls, either pneumatic or electric. **Failure to use remote controls can cause serious injury or death to the operator(s) or other personnel in the blasting area.**
- All blast hose couplings and air hose couplings are provided with holes which must be safety pinned or wired to prevent accidental disconnections. **Failure to use safety pins or safety wire on hose connections could result in serious injury or death!**
- Unrestricted air flow through a compressed air hose end will result in a whipping action which can cause severe injury or death. Always attach a ball valve to each hose "at the source of supply or branch line". **Whip check hose restraints MUST be installed. Failure to use a whip check restraint could result in serious injury or death.**
- Before operating any abrasive blasting equipment, READ ALL operating and maintenance instructions. Personal protective equipment is REQUIRED when using this type of equipment. Blasters MUST be equipped with heavy canvas or leather gloves, and blast overalls. Safety shoes and hearing protection MUST be worn when required.
- Many coatings contain lead and other heavy metals that are toxic to humans and other life forms. It is imperative when removing lead-based coatings, that the operator be aware of the standard industrial hygiene program as referenced in State, Local and Federal guidelines. A thorough understanding of all applicable regulations are necessary before operating this equipment.
- Know your equipment. Do not operate this equipment in a manner other than its intended application. Do not operate this equipment or any other equipment without following these "Rules for Safer Operation" and all operating procedures and instructions. Learn the applications and limitations as well as the specific potential hazards related to this machine. Failure to do so could result in serious injury or death.
- Receive proper training. Do not operate this equipment unless you have received operational maintenance training. Begin by thoroughly reading and understanding this operation and maintenance manual and all included operation.
- Protect your feet. Do not operate this equipment without wearing approved foot protection. Observe all local, state and federal safety regulations.
- Protect your eyes. Do not operate this equipment without wearing approved safety glasses. Observe all local, state and federal safety regulations. When filling the abrasive blaster, there is a possibility for some abrasive to be blown back.



- Protect your lungs. Do not operate this equipment without wearing approved respiratory protection. Breathable silica may be generated by using this product. Silica can cause severe and permanent lung damage, cancer and other serious diseases. Do not breathe the dust. Do not rely on your sight or smell to determine if dust is in the air. Silica may be in the air without a visible dust cloud. If air monitoring equipment for silica is not provided at the worksite, then all personnel must wear appropriate respiratory protection when using or servicing this equipment. Breathing air supplied to respirators must be of an acceptable quality.
- Protect bystanders. All blast equipment operators and personnel entering the vicinity of the blast operation must use respiratory protective equipment that meets regulations.
- Protect your hearing. Do not operate this equipment without wearing approved hearing protection. Observe all local, state and federal safety regulations. Loud noise is generated by the blast nozzle and the blowdown operation of this equipment.
- Stay alert. Do not operate this equipment when you are tired or fatigued. Use caution and common sense while operating and/or performing maintenance on this equipment.
- Do not operate this equipment while under the influence of drugs, alcohol or any medication.
- Keep children & visitors away. Do not let children or visitors contact this equipment or the connecting hoses and cords. Always keep children and visitors away from the work area.
- Avoid dangerous environments. Keep work areas well lit. When working at an elevated location, pay attention to equipment and personnel below.
- Fire damage notice. Do not operate if the vessel has been damaged by fire. If damaged, take out of service immediately and have it inspected and/or repaired at a qualified facility.
- Depressurize vessel before performing maintenance. Do not remove, repair, or replace any item on this equipment while it is pressurized. Do not attempt to perform maintenance or load media while this equipment is pressurized or even capable of being pressurized. This means at a minimum the inlet ball valve should be closed and ideally the air source be shut off or disconnected. Any time the manual blowdown valve is closed it should be assumed that the abrasive blast vessel is pressurized.
- Do not modify vessel. Do not modify or alter any abrasive blaster, blast equipment, or controls. Do not weld, grind or sand the pressure vessel. Any modifications could lead to serious injury or death. Modifications will void your warranty and the vessel's pressure certification.
- Inspect vessel regularly. Do not operate if the vessel has been damaged. Inspect the outside and inside of the pressure vessel regularly for corrosion and damage (i.e. dents, gouges or bulges). If damaged, take out of service immediately and have it inspected and/or repaired by a qualified facility.
- Check for leaks in vessel. Do not operate this equipment if there is a leak. If leaking, take out of service immediately have it inspected and/or repaired by a qualified facility.
- Never operate over maximum working pressure. Do not operate this equipment above the maximum allowable working pressure at the maximum operating temperature as marked on the nameplate attached to the trailer.
- Always use correct replacement parts. Do not use replacement parts or accessories that are not rated for pressures equal or higher than your abrasive blaster's operating pressure (150 psi). Improper hoses and/or fittings used on, or connected to your abrasive blaster can rupture and cause serious injury or death.
- Do not aim the blast nozzle towards yourself or any person.
- Never use media not intended for blast equipment. Do not use blast media containing free silica. Silica can cause silicosis or other related respiratory damage. You must wear personal protective equipment for all abrasive blasting operations.

- Check abrasive for foreign objects. Do not use blast media that contains trash or other foreign objects. Trash or foreign objects can create a blockage and cause equipment malfunction. Screen recycled media to remove trash.
- Stop operation immediately if any abnormality is detected. Stop operation immediately for inspection and repair.
- Inspect manway opening. Inspect the assembly and all other associated parts for proper working condition.
- Maintain warning labels. Do not remove, cover, obstruct, deface or paint over any warnings, cautions or instructional material attached.

Save this operation and maintenance manual. Refer to this operation and maintenance manual as well as any additional information included from other manufacturers as needed. Never permit anyone to operate this equipment without having him/her first read this manual and receiving proper training. Provisions should be made to have this manual readily available to the operating and maintenance personnel. If for any reason the manual becomes lost or illegible, have it replaced immediately. This operation and maintenance manual should be read periodically to maintain the highest skill level; it may prevent a serious accident.

## PRODUCT DESCRIPTION

The Mist Blaster™ MB20 is a blast machine with integrated control cabinet mounted on a standard blast pot to allow for mist blast, dry blast, and wash down functionality. The blast machine consists of the blast pot, mounting frame, injection block, and associated connecting hose.

The blast pot is a certified pressure vessel with internal pop-up valve, separate electric pilot operated automatic air valve and Thompson abrasive metering valve, manually operated exhaust valve, manually operated “choke” ball valve and associated pipe work.

A three-way switch, pump regulator, blast air regulator, needle valve, and injection block are used to allow for multifunctionality and to control each function. Both the water pressure and blast air pressure may be adjusted using their dedicated regulators. The needle valve may be adjusted to meter the amount of water introduced during the mist blasting.

Precautionary safety mechanisms are provided: a dead-man control and an emergency stop button. If either the dead-man handle is released or the emergency stop is pressed, the entire system will cease operation.

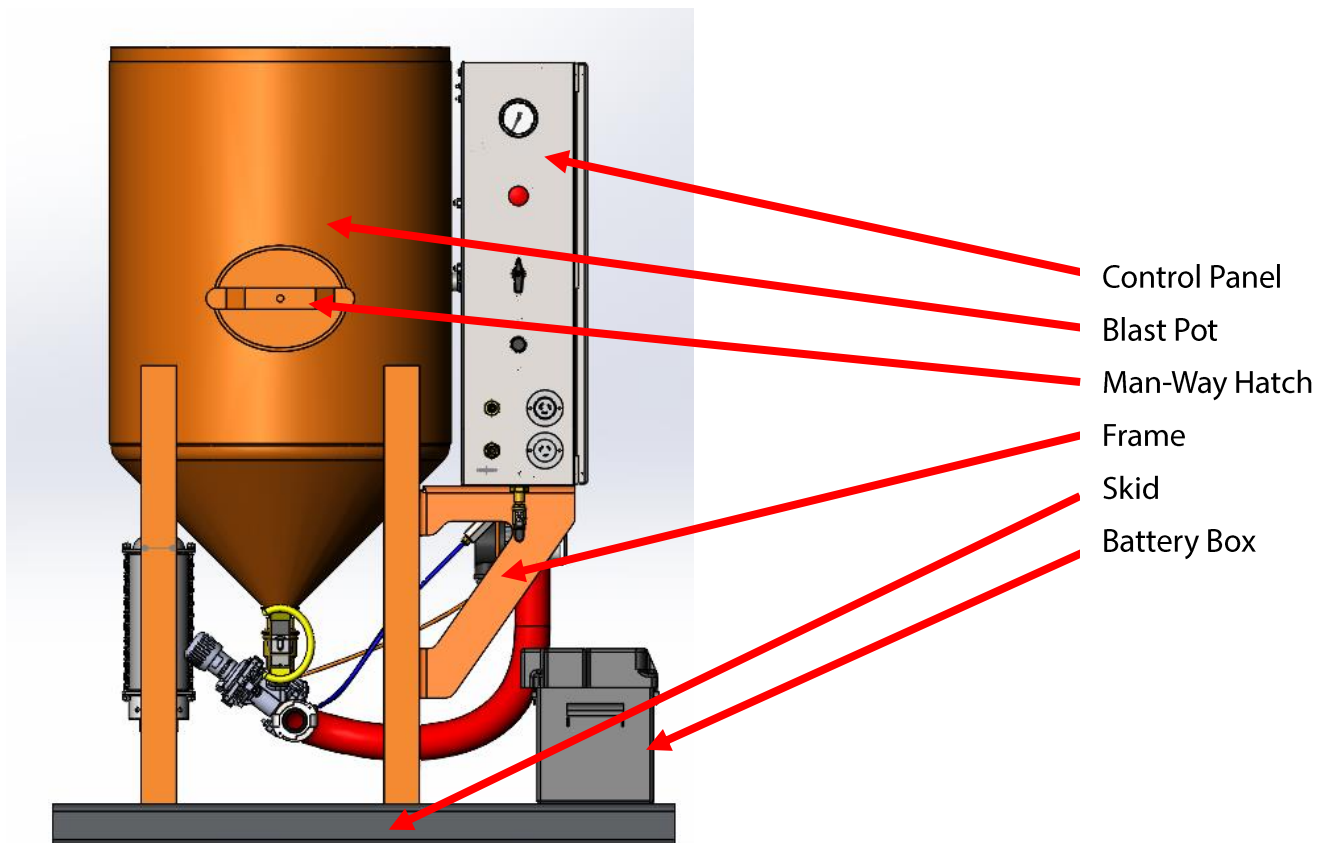


Figure 1 Front View



Air Inlet Valve  
Depressurizing Valve  
Depressurizing Muffler

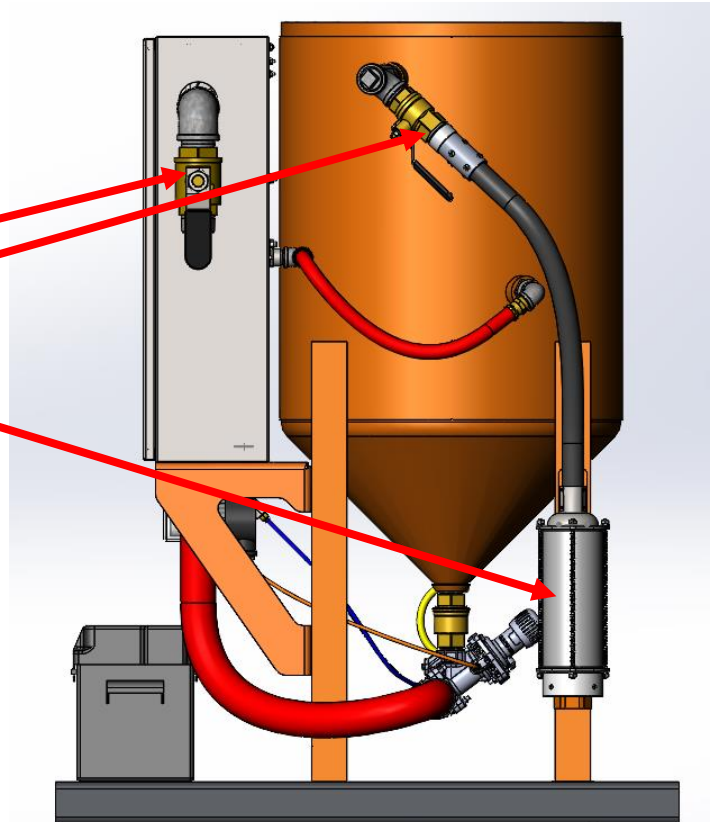
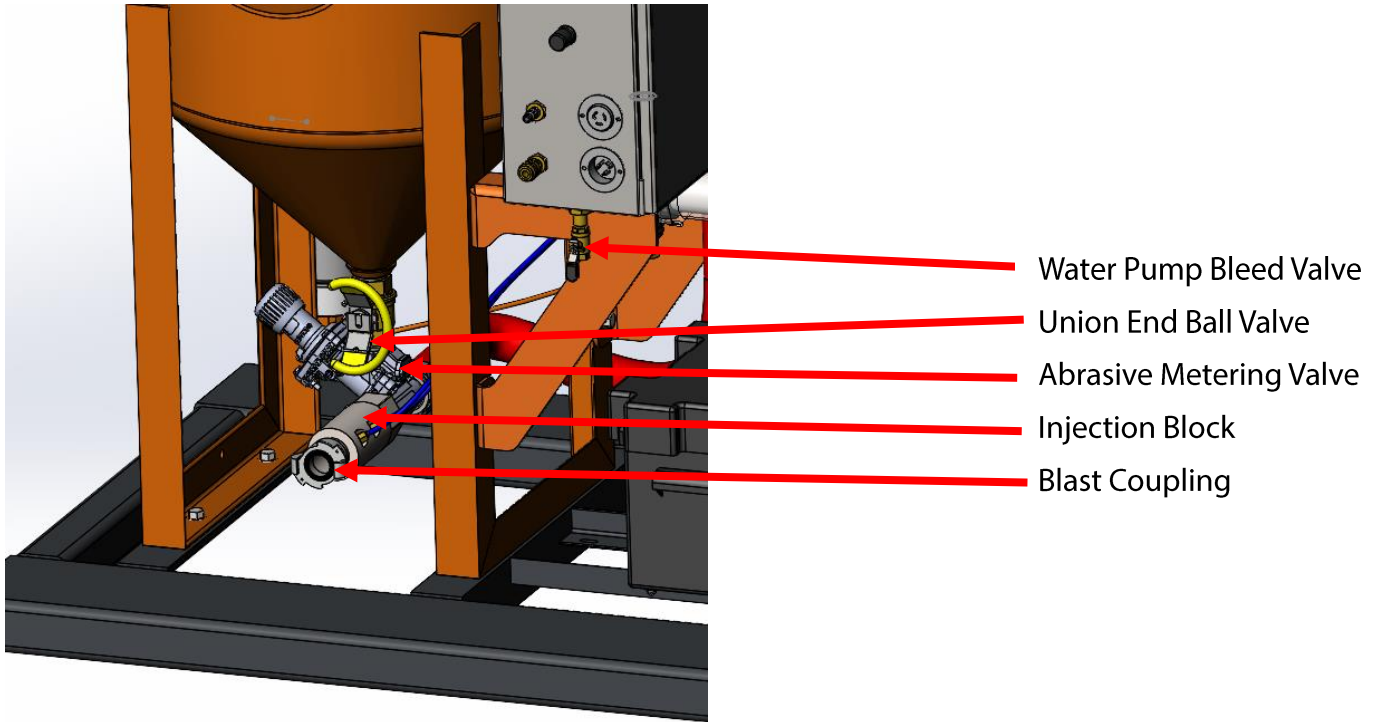


Figure 2 Back Side View



*Figure 3 Bottom of Blast Pot*

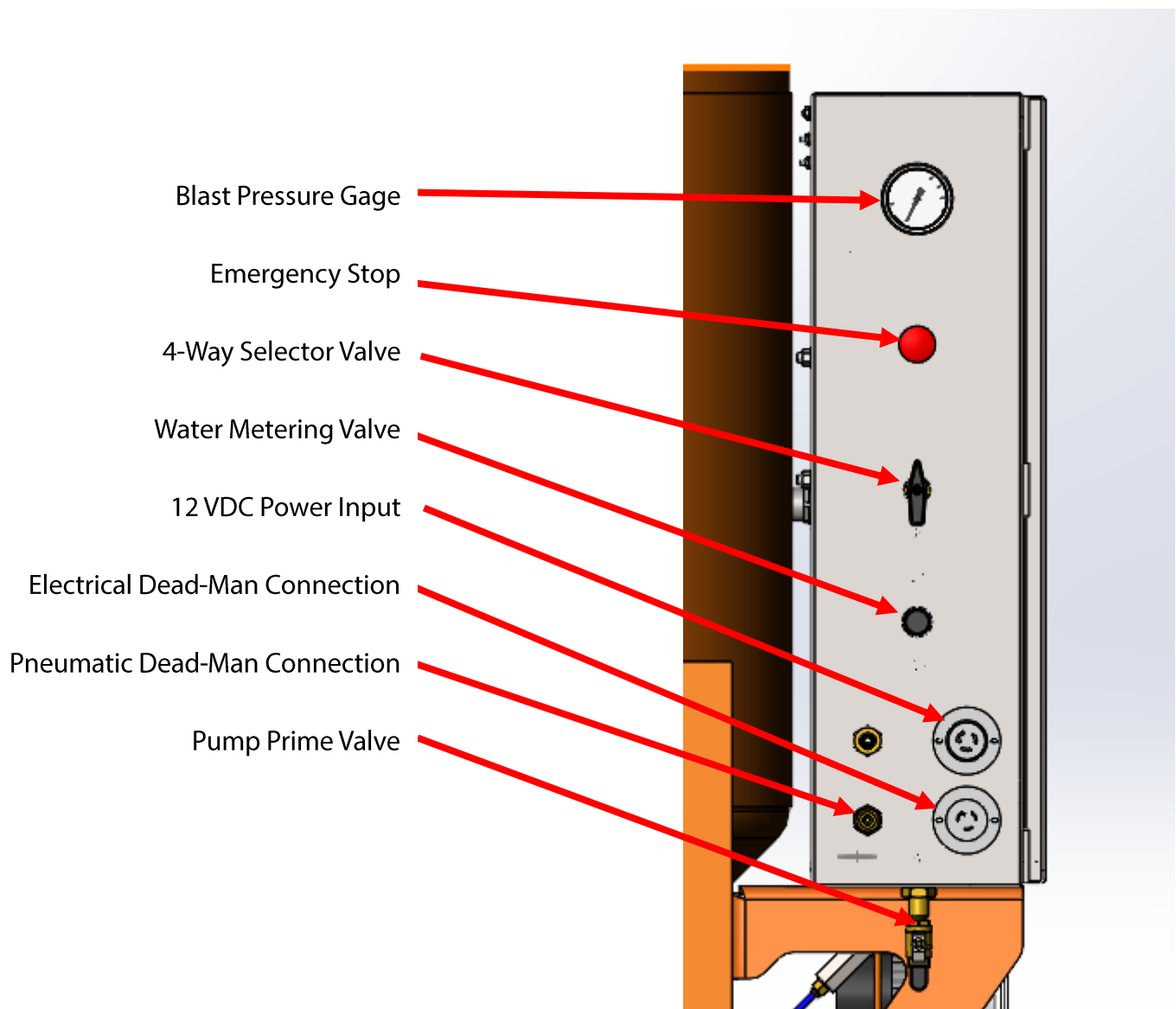
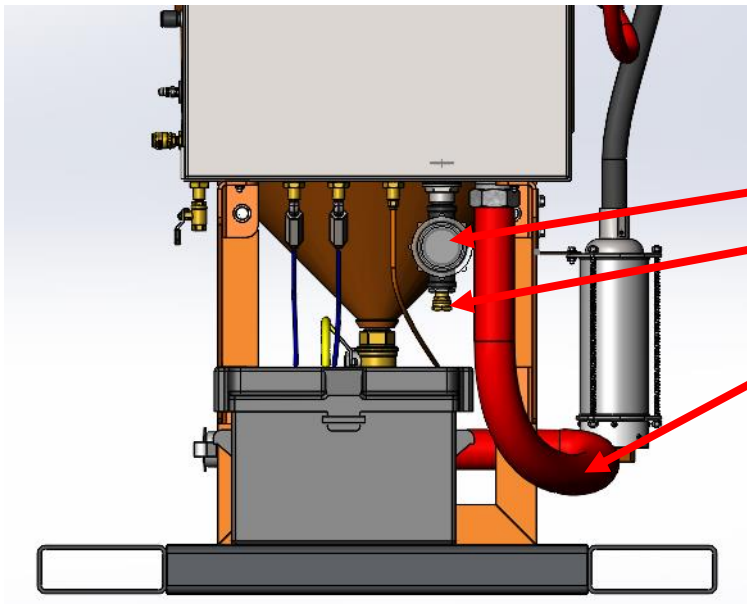


Figure 4 Control Panel

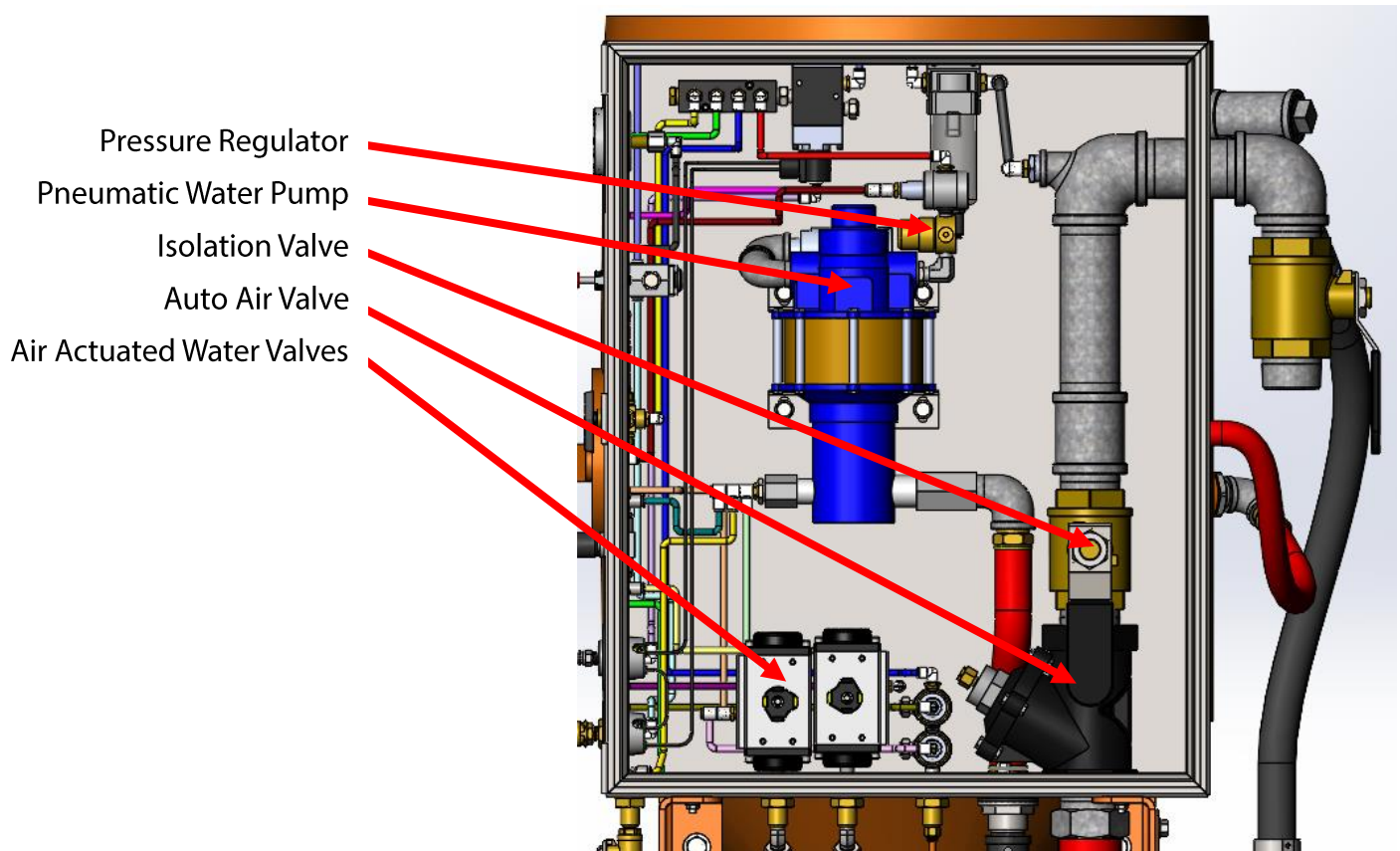


Water Filter Screen

Water Inlet

Blast Output Line

Figure 5 Right Side View



Pressure Regulator

Pneumatic Water Pump

Isolation Valve

Auto Air Valve

Air Actuated Water Valves

Figure 6 Inside Control Cabinet



*Figure 7 Whip Check and Safety Pin*

## START-UP

1. Confirm that the 12V battery attached to the skid is charged and connected to the receptacle on the control panel. Refer to *Figures 1 and 4*.
2. Make dead-man control connection as shown in *Figure 4*. Electrical or pneumatic dead-man controls may be used.
3. The blast hose is connected to the injection block blast coupling AND has a whip check and safety locking pin inserted. Please refer to *Figure(s) 3 and 7*. **CAUTION: Using a Whip Check Restraint is a MUST. Failure to do so could result in serious injury or death.**
4. Ensure air supply is adequate for chosen nozzle; refer to air consumption chart on page 18.
5. Add abrasive to the pot by pouring abrasive into blast pot thru the man-way port shown in *Figure 1*. **WARNING!!!: Blast pot MUST be depressurized, and the air inlet valve must be closed before adding abrasive. Failure to do so could result in serious injury or death.**
6. With the inlet ball valves closed (*Figure 2*), connect the supply air hose to the inlet fitting AND has a whip check and safety locking pin inserted (*Figure 7*). **CAUTION: Using a Whip Check Restraint is a MUST. Failure to do so could result in serious injury or death.** Note: some blast units may have multiple air inlet connections to accommodate a variety of air supply connections in the field.
7. Verify that the Emergency Stop button has not been actuated. Reset emergency stop button as needed. Refer to *Figure 5* to identify location of emergency stop button.
8. Inside the control cabinet, ensure the air isolation valve is OPEN. Please refer to *Figure 6*.
9. On the control panel, there is a water needle valve to meter the amount of water being injected during mist blast mode as shown in *Figure 4*. Initially set the manual needle valve open one eighth of a turn and increase/decrease as needed for proper dust suppression.
10. Referring to *Figure 2*, CLOSE the depressurizing ball valve.
11. OPEN the inlet air ball valve as shown in *Figure 2* and allow air to enter the system. As the system begins to pressurize, listen for any leaks on connections and fittings. Please consult a BlastOne representative if air leaks are detected.



## GENERAL OPERATION

After completing start-up steps 1-12, the MistBlaster blasting system is ready for operation.

When the 3-way blast mode selector valve (front of control panel), is set to the dry blasting position. Depressing the corresponding dead-man control will actuate the auto air valve and abrasive metering valve simultaneously, allowing air to pass down through the choke valve, through the 'pusher' line to the abrasive metering valve. The abrasive metering valve will introduce abrasive into the airstream, through the blast hose to the nozzle.

When the 3-way blast mode selector valve (front of control panel), is set to the mist blasting position. Depressing the corresponding dead-man control will now actuate the auto air valve and abrasive metering valve simultaneously, allowing air to pass down through the choke valve, through the 'pusher' line to the abrasive metering valve. In mist blasting mode an air actuated water valve will open. A metered amount of water will enter the airstream in the injector block. The metered water will join the abrasive from the abrasive metering valve and propelled through the blast hose to the nozzle.

When the 3-way blast mode selector valve (front of control panel), is set to the wash down position. Depressing the corresponding dead-man control will now only actuate the auto air valve, allowing air to pass down through the choke valve, through the 'pusher' line. In wash down mode, the normally open Humphrey valve is actuated which in turn de-energizes the abrasive metering valve, so no abrasive is added to the stream. Unrestricted water will be introduced into air stream at the injector block.

To Blow Down, put in Wash Down mode and turn off the water pump by depressing the water pump switch on the control panel (refer to Figure 3). Depressing the corresponding dead-man control will now only actuate the auto air valve, allowing air to pass down through the choke valve, the 'pusher' line and through the blast hose and nozzle. With the water pump switched off, and in washdown mode, no water or abrasive will be introduced to the air stream.

When the dead-man is released or the emergency stop is actuated, the entire system is de-energized, the air, water, and abrasive supply to the blast nozzle is stopped.

However, the pot remains pressurized. To release the pressure in the blast pot, close off the inlet ball valve, then open the blow down ball valve. When the air is released, the pop-up valve will drop, allowing abrasive to be added if required.

Depressurization is a noisy operation, so hearing protection for operators and persons in the vicinity is mandatory.

## DRY BLAST

To operate in dry blast mode, turn the three-way switch to dry blast. If using a transfer pump with a water tank, ensure that the transfer pump is off when dry blasting. With the nozzle pointed at the work, push the dead-man control. Air and abrasive will flow into the blast hose, and blasting will commence. The abrasive flow can be adjusted with the control knob on the abrasive metering valve (*Figure 8*). Turn clockwise for less abrasive and counterclockwise for more abrasive. Due to the length of the blast hose, there will be a slight delay in control of the abrasive at the nozzle, so allow a few seconds before adjusting further.

To stop the process, release the dead-man handle. Note that the pot will not depressurize; only the blasting process will stop. The pot is still under pressure

## MIST BLAST

To operate in mist blast mode, turn the three-way switch to mist blast. With the nozzle pointed at the work, depress the dead-man control. Air and abrasive will flow into the blast hose, and blasting will commence. Water will also be introduced, providing dust suppression. The amount of water may be adjusted using the water metering valve. It is recommended to open the needle valve one eighth of a turn. See below for approximate water consumption. Turn clockwise for less water and counterclockwise for more water.

Approximate water consumption:

- 1/8th turn – .25 GPM
- 1/4th turn – .75 GPM

The abrasive flow can be adjusted with the control knob on the abrasive metering valve (*Figure 8*). Turn clockwise for less abrasive and counterclockwise for more abrasive. Due to the length of the blast hose, there will be a slight delay in control of the abrasive at the nozzle, so allow a few seconds before adjusting further.

To stop the process, release the dead-man handle. Note that the pot will not depressurize; only the blasting process will stop. The pot is still under pressure.

## WASH DOWN/BLOW DOWN

To operate in wash down mode, turn the three-way switch to wash down. With the nozzle pointed at the work, depress the dead-man control. Air and water will flow into the blast hose, and wash down will commence. In this case the abrasive metering valve will not actuate thus no abrasive will enter the airflow

For blow down put switch in blow down mode. In this case, the water supply and abrasive supply is deactivated leaving only compressed air coming out of the blast nozzle.

To stop the process, release the dead-man control. Note that the pot will not depressurize; only the blasting process will stop. The pot is still under pressure.

**IMPORTANT:** When switching from dry or mist blast to wash down/blow down, there may still be abrasive in the blast line for a brief period. Always adhere to all safety protocol when operating the Mist Blaster™.

## PROPER SHUT DOWN PROCEDURE

It is recommended that when blasting has finished, the blast hose should be flushed free of all abrasive and water. Shut the union ball valve and set the system to dry blast and activate the dead-man. Allow air to flow through the hose and nozzle until the misty haze is no longer observed at the nozzle. The hose is clear. This will only take 20 to 30 seconds, depending on the length of the blast hose. **DO NOT DEPRESSURIZE UNIT BACKWARDS THROUGH THE COMPRESSOR THIS WILL INTRODUCE ABRASIVE TO THE CONTROL LINES. IT IS CRUCIAL TO DEPRESSURIZE THE POT THROUGH THE EXHAUST.**

This is an important procedure, especially when working at heights. This blow through prevents any residual water in the hose running backwards and accumulating at the Thompson or TeraValve valve, resulting in a clogged valve.

## DEPRESSURIZING THE POT

To release the pressure in the blast pot, close off the inlet ball valve, then open the blow down ball valve. ONLY ADD ABRASIVE WHEN THE POT IS DEPRESSURIZED. NOT DOING SO COULD RESULT IN SERIOUS INJURY OR DEATH.



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

## WATER SUPPLY

Water supply with a positive head is required for the Mist Blaster™. You can achieve this by positioning the fluid level of the reservoir above the water inlet of the pump or by providing a pressurized fluid supply.

One way to achieve a pressurized fluid supply is with a water tank and 12V transfer pump. The transfer pump should be connected to a fully charged 12V automotive or marine battery. When operating in dry blast mode, ensure that the transfer pump is off. In addition, ensure that the transfer pump is off when the Mist Blaster™ is not in use. Consult a BlastOne sales representative about suitable water supply options.

## WINTERIZING THE UNIT

When operating in freezing temperatures, it is vital that the necessary precautions are taken to prevent any water freezing in the pipes of the Mist Blaster™. To prevent such freezing, run windshield wiper fluid through the unit in place of water until only the windshield wiper fluid exits the unit. This will ensure the water pump and plumbing is protected.

## AIR CONSUMPTION (C.F.M.) PER BLAST NOZZLE

NOZZLE SIZE		60 p.s.i.	70 p.s.i.	i. 80 p.s.i.	90 p.s.i.	100 psi	120 p.s.i.
No. 2	1/8"	17	19	21	24	26	30
No. 3	3/16"	37	42	47	52	57	67
No. 4	1/4"	66	75	84	93	103	119
No. 5	5/16"	103	117	131	145	158	186
No. 6	3/8"	149	169	189	209	229	269
No. 7	7/16"	203	230	258	285	312	367
No. 8	1/2"	265	300	336	371	407	478
No. 10	5/8"	412	468	524	580	632	744
No. 12	3/4"	596	676	756	836	916	1076
Efficiency		55%	64%	74%	86%	100%	130%

## ABRASIVE CONSUMPTION (LBS PER HOUR) PER BLAST NOZZLE

NOZZLE SIZE		60 p.s.i.	70 p.s.i.	i. 80 p.s.i.	90 p.s.i.	100 psi	120 p.s.i.
No. 2	1/8"	90	105	115	130	140	165
No. 3	3/16"	205	230	260	290	320	375
No. 4	1/4"	365	420	460	500	560	660
No. 5	5/16"	575	650	725	825	900	1050
No. 6	3/8"	840	945	1050	1155	1260	1475
No. 7	7/16"	1150	1300	1450	1600	1750	2050
No. 8	1/2"	1460	1660	1850	2000	2250	2650
No. 10	5/8"	2290	2600	2900	3125	3520	4100
No. 12	3/4"	3300	3750	4180	4500	5060	5950

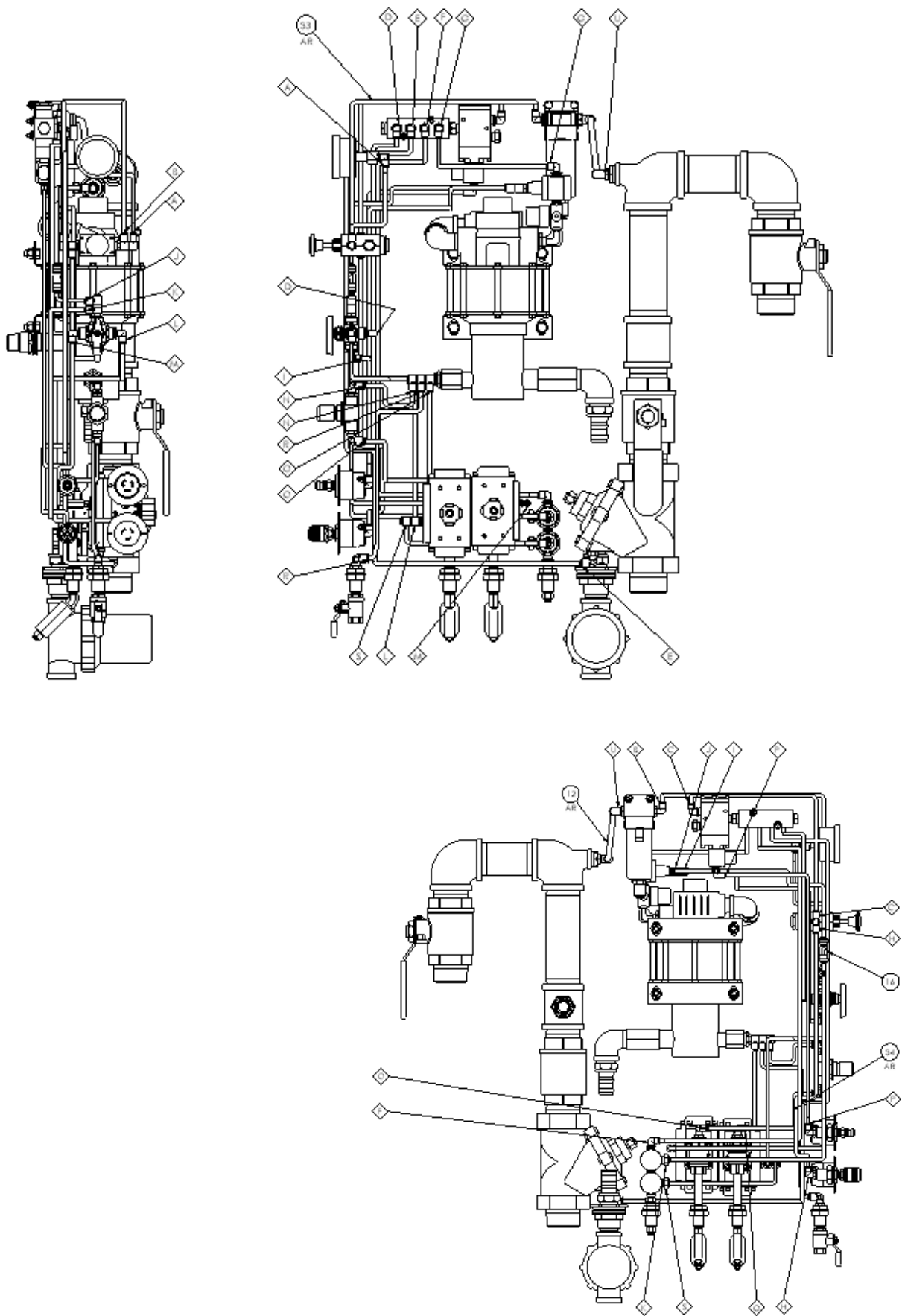
## TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	REMEDY
<b>Air Blast but No Abrasive (with water flow)</b>	The pot is empty	Refill
	Thompson valve isolation ball valve is closed	Open
	The abrasive in the pot is wet (Moisture can enter in vapor form with the compressed air - this is not uncommon depending on air quality) *	Try closing the choke valve until some abrasive is pumped out. Operating the unit in the "choked" condition will allow the use of media that is too damp to flow properly, but it greatly accelerates wear in the metering valve
	The remote abrasive control valve is faulty	Inspect for dirt jamming the internal shuttle valve
	Foreign matter is plugging the abrasive metering valve	Try closing the choke valve & opening the abrasive metering valve momentarily to see if that will blow the obstruction out. If this does not work then it will be necessary to depressurize the pot & remove the obstruction by hand
	Pop up valve/handway leak - worn or out of alignment with seal	Check and rectify
	Air control line leak	Ensure all fittings are tight and there are no holes, cuts, kinks, or abrasions in air lines
	Worn out exhaust ball valve	Check and rectify
<b>Unit turns on accidentally</b>	The deadman is faulty	Repair or replace
	Deadman control valve is faulty	Repair or replace
<b>Air Blast with Abrasive but no Water</b>	Water not turned on	Turn on
	Needle valve closed	Open
	Pump pressure regulator set too low	Raise to 50 p.s.i. on gauge
	Air actuated valve failure	Check and rectify
	Needle valve blocked	Remove and clean
	Water filter blocked	Remove and replace
	Pump failure	Repair or replace

SYMPTOM	POSSIBLE PROBLEM	REMEDY
<b>Reduced Pressure at the Nozzle (with or without abrasive flow)</b>	Undersized air compressor (see air requirements chart)	Use a larger compressor or a smaller nozzle
	Air hose is too small	The air hose diameter should be at least 3 times the nozzle diameter.
	Abrasive adjustment open too far	Start off with no abrasive (fully closed) then open slowly, whilst observing air stream existing the nozzle, until a slight color change can be seen
	Pop-up not seating properly	Check valve and "O"-ring seat
	Choke valve partially closed	Open fully
	Nozzle is worn	Inspect and replace
<b>Unit is Slow to Turn On or Will Not Turn On</b>	The control valve is faulty	Inspect for dirt jamming the internal shuttle valve
	Control hoses are leaking	Check and repair
	Control hoses are plugged or kinked	Repair as necessary
	Breather vents clogged	Inspect and replace



PNEUMATIC AND HYDRAULIC DIAGRAMS



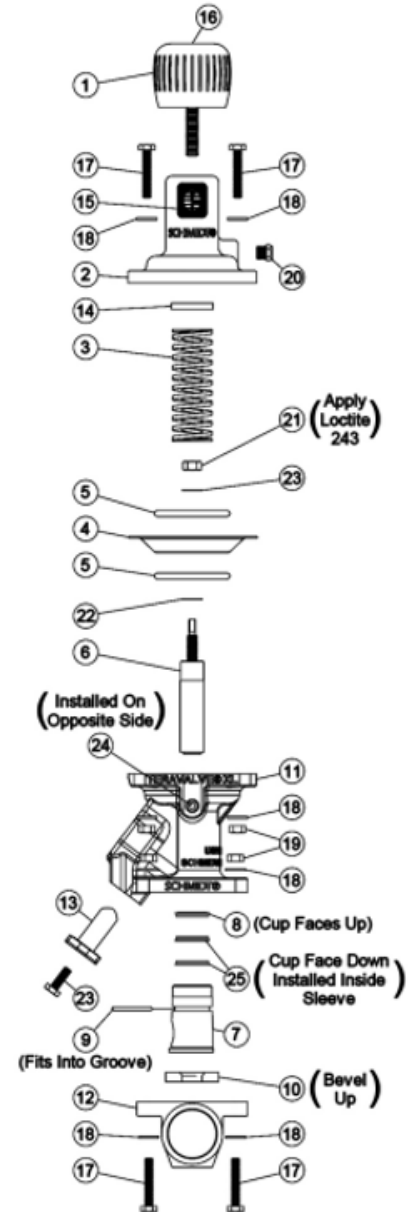
# TERAVALVE® XL

GV 2130005	Teravalue XL ¾"
GV 2130006	Teravalue XL 1"
GV 2130007	Teravalue XL 1 ¼"
GV 2130008	Teravalue XL 1 ½"
GV 213000098	Replacement Parts Kit, Seals Only (†)
GV 213000099	Replacement Parts Kit (*)
GV 213020007	Teravalue Slotted Sleeve Option

NO.	PART NO.	DESCRIPTION
1	GV 213000001	Knob
2	GV 213000002	Cap
3*	GV 213000003	Spring
4*+	GV 213000004	Diaphragm
5	GV 213000005	Diaphragm Plate
6*	GV 213000006	Tungsten Carbide Plunger
7*	GV 213000007	Tungsten Carbide Sleeve (Includes O-Ring & Internal Wipers)
8*+	GV 213000008	Plunger Seal
9*+	GV 213000009	Sleeve O-Ring
10*+	GV 213000010	Seat (Color: Yellow)
11	GV 213000011	Body
12a	GV 213000512	Base ¾" x ¾"
12b	GV 213000612	Base 1" x 1 ¼"
12c	GV 213000712	Base 1 ¼" x 1 ¼"
12d	GV 213000812	Base 1 ½" x 1 ½"
13	GV 213000013	Cleanout Plug
14	GV 213000015	Vibration Disc
15	GV 213000016	Virtual Position Indicator Decal
16	GV 213000017	Knob Decal
17	GV 701050308	Hex Bolt, ¼" UNC x 1 ½" Lg.
18	GV 702750202	Flat Washer, ¼" SAE
19	GV 7017503	Hex Nut, ¼" UNC
20	GV 2014300	Breather Vent, ⅛"
21	GV 7017505	Hex Nut, ⅝" UNC
22*+	GV 212300901	Gasket
23	GV 701050304	Hex Bolt, ¼" UNC x ½" Lg.
24	GV 3032100	Plug, ⅛"
25*+	GV 213000008	Plunger Seal (Remove O-Rings)

\* Included in Replacement Parts Kit

+ Included in Replacement Parts Kit, Seals Only



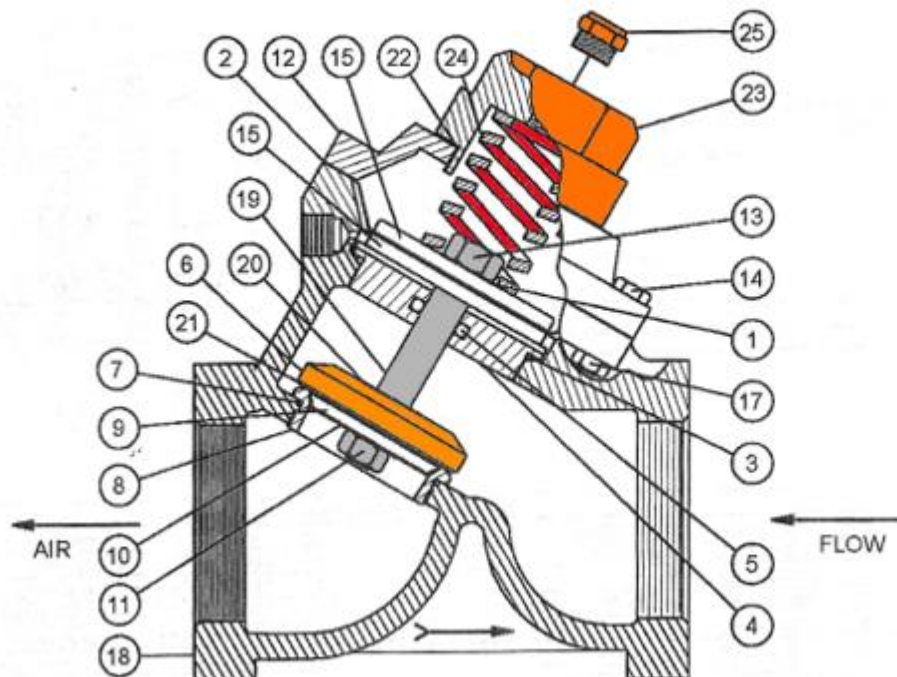
## AUTOMATIC AIR VALVE (NORMALLY CLOSED)

2123-106 1" Valve			2123-107 1 1/4" Valve 2123-108 1 1/2" Valve			2123-109 2" valve		
NO.	PART NO.	DESCRIPTION	NO.	PART NO.	DESCRIPTION	NO.	PART NO.	DESCRIPTION
	2123-006-99	Repair Kit		2123-007-99	Repair Kit		2123-009-99	Repair Kit
1*	2123-006-01	Gasket	1*	2123-007-01	Gasket	1*	2123-009-01	Gasket
2*	2123-006-02	Diaphragm	2*	2123-007-02	Diaphragm	2*	2123-009-02	Diaphragm
3*	2123-006-03	O-ring	3*	2123-007-03	O-ring	3*	2123-009-03	O-ring
4	2123-006-04	Retainer Bushing	4	2123-007-04	Retainer Bushing	4	2123-009-04	Retainer Bushing
5*	2123-006-05	O-ring	5*	2123-007-05	O-ring	5*	2123-009-05	O-ring
6	2123-006-06	Disk Retainer	6	2123-007-06	Disk Retainer	6	2123-009-06	Disk Retainer
7*	2123-006-07	O-ring	7*	2123-007-07	O-ring	7*	2123-009-07	O-ring
8	2123-006-08	Seat	8	2123-007-08	Seat	8	2123-009-08	Seat
9	2123-006-09	Disc Plate	9	2123-007-09	Disc Plate	9	2123-009-09	Disc Plate
10	"Deleted"	Lock Washer, Internal	10	"Deleted"	Lock Washer, Internal	10	"Deleted"	Lock Washer, Internal
11*	2123-006-11	Lock Nut	11*	2123-007-11	Lock Nut	11*	2123-009-11	Lock Nut
12	2123-106-12	Cap	12	2123-107-12	Cap	12	2123-109-12	Cap
13*	2123-006-13	Hex Nut (w/Locktite)	13*	2123-007-13	Hex Nut (w/Locktite)	13*	2123-009-13	Hex Nut (w/Locktite)
14	2123-006-14	Cap Screw	14	2123-007-14	Cap Screw	14	2123-009-14	Cap Screw
15	2123-006-15	Diaphragm Plate	15	2123-007-15	Diaphragm Plate	15	2123-009-15	Diaphragm Plate
17	2123-006-17	Lock Nut	17	2123-007-17	Lock Nut	17	2123-009-17	lock Nut
18	2123-006-18	Body, 1"	18	2123-007-18	Body, 1 1/4"	18	2123-009-18	Body, 2"
19	2123-006-19	Shaft		2123-008-18	Body, 1 1/2"	19	2123-009-19	Shaft
20*	2123-006-20	Gasket	19	2123-007-19	Shaft	20*	2123-009-20	Gasket
21*	2123-006-21	Disc	20*	2123-007-20	Gasket	21*	2123-009-21	Disc
22	2123-106-22	O-ring	21*	2123-007-21	Disc	22		Not Needed
23	2123-106-23	Spring Retainer	22	2123-107-22	O-ring	23	2123-109-23	Spring Retainer
24	2123-106-24	Spring	23	2123-107-23	Spring Retainer	24	2123-109-24	Spring
25	2014-300	Vent, 1/8" (not included)	24	2123-107-24	Spring	25	2014-300	Vent, 1/8" (not included)
			25	2014-300	Vent, 1/8" (not included)			

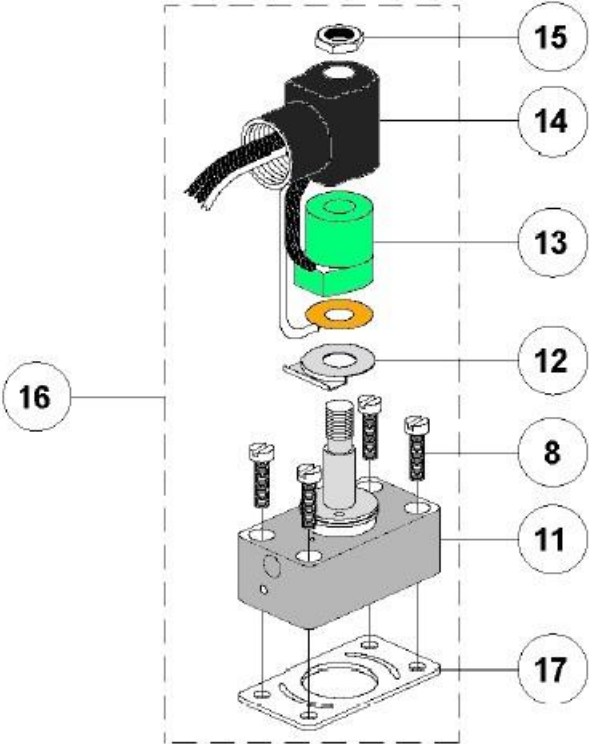
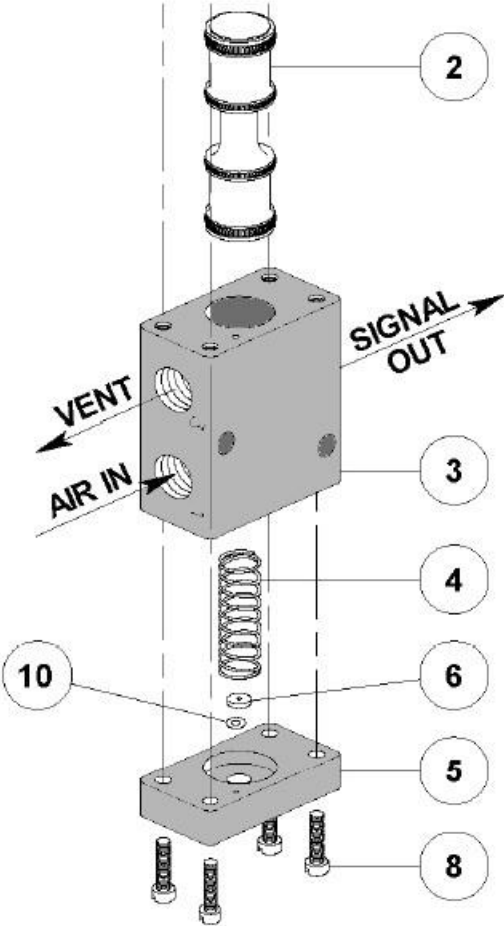
\* Included in Repair Kit

\* Included in Repair Kit

\* Included in Repair Kit



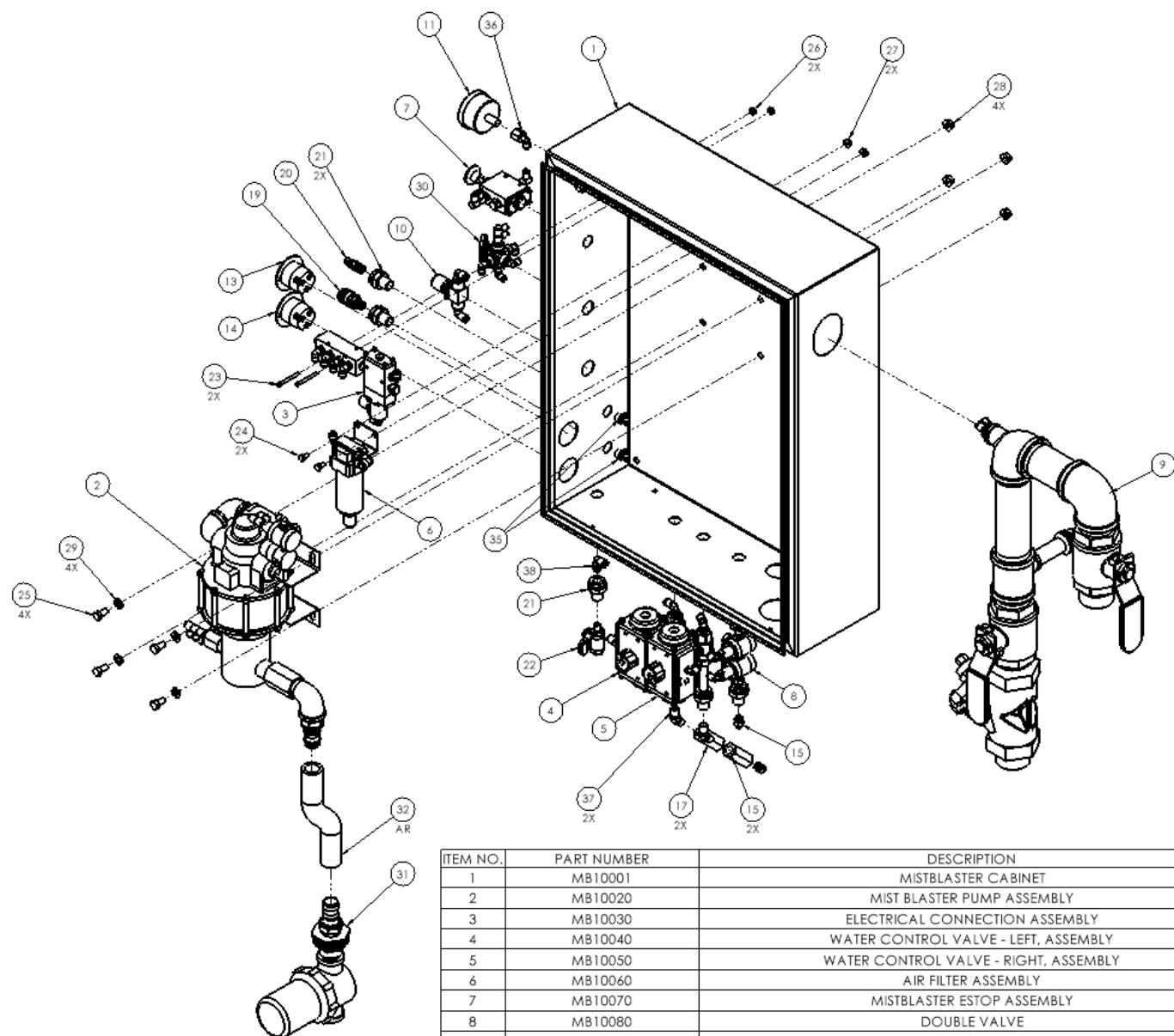
# CONTROL VALVE



	2229-100	Electric Control Valve, 12 Volt D.C.
	2229-101	Electric Control Valve, 12 Volt A.C.
	2229-102	Electric Control Valve, 24 Volt D.C.
NO.	PART NO.	DESCRIPTION
	2229-100-99	Replacement Parts Kit (Electric)
1	Not Available	Air Operator Cap
2*+	2229-000-02	Plunger w/O-Rings
3	Not Available	Valve Body
4*+	2229-000-04	Spring
5	Not Available	Spring Retainer
6*+	2229-000-06	Filter Disk
8	Not available	Screw (8)
9	2229-000-09	Air Operator Assembly
10*+	2229-000-10	O-Ring (2 ea)
11	Not Available	Electric Operator Cap
12	Not Available	Coil Cover Bottom
13	2229-100-03	Coil 12 Volt D.C.
	2229-101-03	Coil 12 Volt A.C.
	2229-102-03	Coil 24 Volt D.C.
	2229-100-03	Coil 24 Volt A.C.
14	Not Available	Coil Cover
15	Not Available	Nut
16	2229-100-06	Solenoid Pilot Assembly, 12 Volt D.C.
	2229-101-06	Solenoid Pilot Assembly, 12 Volt A.C.
	2229-102-06	Solenoid pilot Assembly, 24 Volt D.C.
17+	2229-100-07	Gasket (Electric Only)

+ Included in Replacement Parts Kit-Electric





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	MB10001	MISTBLASTER CABINET	1
2	MB10020	MIST BLASTER PUMP ASSEMBLY	1
3	MB10030	ELECTRICAL CONNECTION ASSEMBLY	1
4	MB10040	WATER CONTROL VALVE - LEFT, ASSEMBLY	1
5	MB10050	WATER CONTROL VALVE - RIGHT, ASSEMBLY	1
6	MB10060	AIR FILTER ASSEMBLY	1
7	MB10070	MISTBLASTER E-STOP ASSEMBLY	1
8	MB10080	DOUBLE VALVE	1
9	MB10110	MAIN AIR FLOW ASSEMBLY	1
10	MB10120	WATER REGULATOR ASSEMBLY	1
11	AFPRGUC200RE	PRESSURE GAUGE	1
12	AHC10-K	TUBING, 5/16" ID, 3/8" OD, BLACK, UV RATED, POLYURETHANE	AR
13	BA7162K77	TURN-LOCK CONNECTOR GROUNDED 3-SLOT FEMALE RECEPTACLE, NEMA L5-15	1
14	BA7162K8	TURN-LOCK CONNECTOR GROUNDED 3-SLOT FEMALE RECEPTACLE, NEMA L5-15	1
15	BAPTC0404	PUSH TO CONNECT, 1/4" TUBE TO 1/4" NPT, BRASS	3
16	BAPTC0V04	PUSH TO CONNECT CHECK VALVE, 1/4" TUBE, ACETAL PLASTIC	1
17	BAVAIC6	VALVE ASSY INLINE CHECK 1/4 NPT	2
18	DMECKC2500B	ELECTRICAL CONTROL CABLE, 16 AWG 2 CORE	3
19	FBQIB04	QUICK DISCONNECT HOSE FITTING, 1/4 FEMALE COUPLING, 1/4 NPT	1
20	FBQIF04	QUICK DISCONNECT HOSE FITTING, 1/4 MALE COUPLING, 1/4 NPT	1
21	FBTWA04	HIGH PRESSURE THROUGH WALL ADAPTER, 1/4" NPT FEMALE, BRASS	3
22	FVBL006MF	BRASS BALL VALVE, 1/4 NPT FEMALE X 1/4 NPT MALE	1
23	SHCS #10-32 X 1.75, ZP	SOCKET HEAD CAP SCREW, #10-32 X 1.75, ZINC PLATED	2
24	HHB 0.25-20 X 0.5, ZY, GR5	HEX HEAD BOLT, 1/4 -20 X 0.5, ZINC/YELLOW PLATED, GRADE 5	2
25	HHB 0.375-16 X 0.75, ZY, GR5	HEX HEAD BOLT, 3/8 -16 X 0.75, ZINC/YELLOW PLATED, GRADE 5	4
26	SFHN-10-32	SERRATED FLANGED HEX NUT, 10-32, ZINC/YELLOW PLATED, GRADE 5	2
27	SFHN.250-20	SERRATED FLANGE HEX NUT, 1/4-20, ZINC/YELLOW PLATED, GRADE 5	2
28	SFHN-.375-16	SERRATED FLANGED HEX NUT 3/8-16, ZINC/YELLOW PLATED, GRADE 5	4
29	FLAT WASHER - .375	FLAT WASHER, 3/8", STAINLESS STEEL	4
30	MB10130	5-WAY VALVE ASSEMBLY	1
31	MB40140	WATER FILTER ASSEMBLY	1
32	AHR25-US	HOSE, 1" ID, 1 7/16" OD, 200PSI WP, EPDM SYNTHETIC RUBBER	AR
33	AHRM06	TUBING, .17" ID, 1/4" OD, ORANGE, UV RATED, POLYURETHANE	AR
34	AHRM06B	TUBING, 1/8" ID, 1/4" OD, BLUE, 358 PSI, UV RATED, POLYURETHANE	AR
35	BAPTCSE04	90° ELBOW, PUSH TO CONNECT, 1/4" TUBE TO 1/4" NPT, PLASTIC	2
36	BAPTCSE04F	90° ELBOW, PUSH TO CONNECT, 1/4" TUBE TO 1/4" NPTF, PLASTIC	1
37	FPSE0645	45° ELBOW MALE TO MALE, 1/4" NPT, ZINC	2
38	BAPTCSE04	90° ELBOW, PUSH TO CONNECT, 1/4" TUBE TO 1/4" NPT, NICKEL PLATED BRASS	1



Thompson II valve		GV2152008
5-way switch		MB10130
Water pressure regulator		MB10120
Water pump		MB10020



Needle valve		BAN3010A
Water filter housing		BAWF8025
Air actuated valve		DMAAVSR12
Humphrey valve		DMPYT99919

Pressure gauge		AFPRGUC200RE
Deadman control valve		DM2229100
Deadman handle		DM2263402
Socket for deadman		DMECK3002
Deadman control cable		DMECKC2553
Blast air pressure regulator		AFREG40

Emergency stop		BMMBESTOP
3-slot female receptacle		BA7162K77
3-slot male receptacle		BA7162K8
Auto air valve		DM2123108
Kickstand pin		BATH

## NOTES

[illegible]





# BLASTONE

## BLASTONE INTERNATIONAL (AUST) PTY LTD

57 Alexandra Place Murarrie  
Queensland 4172 Australia

PO Box 3385 Tingalpa DC  
Queensland 4172 Australia

Toll Free 1800 190 190  
Tel (07) 3329 5000  
Fax (07) 3329 5066  
Email [sales.au@blastone.com](mailto:sales.au@blastone.com)  
[www.BlastOne.com](http://www.BlastOne.com)

## AUSTRALIAN OFFICES

Adelaide | Brisbane | Darwin | Mackay |  
Melbourne | Perth | Sydney

## BLASTONE INTERNATIONAL

4510 Bridgeway Avenue  
Columbus Ohio 43219 USA

Toll Free 800 999 1881  
Tel (614) 476 3000  
Fax (614) 476 3002  
Email [sales@blastone.com](mailto:sales@blastone.com)  
[www.BlastOne.com](http://www.BlastOne.com)

## NORTH AMERICAN OFFICES

Chicago | Columbus |  
Los Angeles | Minneapolis



BLASTONE