MOD-U-BLAST

POWERED BY ALLREDI

MINI-BULK ABRASIVE BLASTING POTS

20 CU. FT. BULK BLASTERS

OPERATOR'S MANUAL



SUPERIOR PERFORMANCE

AND QUALITY IN BLAST CLEANING EQUIPMENT

WARNING

READ MANUAL

Failure to read, understand & follow all safety and operation procedures in this manual can cause injury or death. Manuals that are lost, incomplete, or damaged, must be replaced immediately.

Manual #MINIB 2510

PH: +1 (800) 661-3842

WWW.ALLREDI.COM

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IMPORTANT NOTICE

TO DISTRIBUTORS, PURCHASERS AND END USERS OF MOD-U-BLAST PRODUCTS
The information provided described and illustrated in this material is intended for experienced, knowledgeable users of abrasive blasting equipment and supplies (products).

The products described in this material may be combined as determined solely by the user in a variety of ways and purposes. However no representations are made as to intended use, performance standards, engineering suitability, safe practices or compliance with government regulations and laws that apply to these products, products of others, or a combination of various products chosen by the user or others. It is the responsibility of the users of these products, products of third parties, and a combination of various products, to exercise caution and familiarize themselves with all applicable laws, government regulations and safety requirements.

Nor are representations made or intended as to the useful life, maintenance cycles, efficiency or performance of the referenced products of any combination of products. This material must not be used for estimating purposes. Production rates, labour performance or surface finishes are the sole responsibility of the user based on the user's expertise, experience and knowledge of industry variables.

It is the responsibility of the user to insure that proper and comprehensive training of operators has been performed and all environmental and safety precautions observed.

Mod-U-Blast Inc. provides a variety of excellent products to the surface preparation industry, and we are confident that all proficient users, operators and contractors in this industry will continue to use our products in a safe and knowledgeable manner.

Before using this product, read all instructions, literature, labels, specifications and warnings sent with and affixed to the unit.

If operation of the unit is unclear after reading this manual, contact your supervisor for instructions. It is the responsibility of the employer to read the following instructions to users of this equipment. Periodic inspection at the work site should be made by supervisory personnel to ensure the blast machine is being properly used and maintained. A copy of this owner's manual must be kept with the blast machine and readily accessible to the blast machine operators at all times.

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IMPORTANT WARNING

Read all instructions before using this equipment. For efficient and safe production, reference OSHA requirements.

Remember:
1. Safety equipment is required by OSHA. Use NIOSH approved air fed respirator (helmet) connected to an approved breathing air compressor. Air must be filtered and monitored for carbon monoxide (co2). Air source must be rated suitable as a supply of breathing air CLASS D. Wear protective clothing, safety shoes, leather gloves, ear and eye protection.

2. Start up Preparations:
Check helmet respirator, filters and lenses. Blast machine must be grounded to avoid shock. Inspect fittings and hoses for damage and wear. Safety clip quick couplings together Install whip checks on all connections for safety. Inspect & test remote controls. OSHA regulations require remote controls on all blast vessels.

NEVER USE A BLAST VESSEL WITHOUT A REMOTE CONTROL INSTALLED.

3. **Caution**:
Watch for silicosis or toxic dust hazard (from dust created when using silica sand as a blast media). DO NOT USE MEDIA CONTAINING FREE SILICA. Unless otherwise specified, working pressure of blast machine and related components must not exceed 125 p.s.i. or 150 p.s.i. depending on vessel rating. Keep blast nozzle controlled and aimed at the work. Do not weld on or repair your blast machine, This will void National Board Approval, CRN, ABSA, etc.

4. Keep your machine in good repair. Use Mod-U-Blast replacement parts and do not substitute or modify Mod-U -Blast supplied items.

The following steps should be completed prior to beginning the blasting operation.

4.1 Inspect the condition of the blast machine. Check the pop-up valve, pop-up valve seat gasket, inspection door components, remote control components, piping and (red) air “pusher line” fittings. Prior to operating the blast machine replace excessively worn or damaged parts and tighten all fitting connections.

4.2 Check the blast hose, nozzle holder and coupling for wear and damage. Replace if excessively worn or damaged.

4.3 Inspect all fittings for proper installation. Check the “pusher line” pipe coupling connections for a secure fit. DO NOT operate the blast machine if connections are loose.

4.4 Ground the blast machine.

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IMPORTANT WARNING CONT'D

4.5 Check the blast hose couplings and nozzle holder for coupling gasket (s) and nozzle holder washer. Replace if required. REGULATIONS REQUIRE that all blast hose couplings be secured together with safety clips or wire. It is strongly advised that safety cables or whip checks are used on all air hose and blast hose connections.

4.6 Prior to putting abrasive in the machine, inspect and test the remote control system. To properly complete your equipment inspection, follow these steps...

4.7 Prior to putting abrasive in the machine, inspect and test the remote control system. To properly complete your equipment inspection, follow these steps...
(Refer to remote control set-up)

4.8 Ties are provided to attach the safety switch (deadman) assembly to the blast hose. Adjust as necessary.

4.9 Attach the remote control hose or wire to the body switch. The fittings are matched to complete the connection.

4.10 It is recommended that the remote control hose or wire be tied to the blast hose approximately every five feet.

4.11 IN ORDER FOR THE REMOTE CONTROL SYSTEM TO PROPERLY OPERATE, DO NOT MODIFY OR SUBSTITUTE ANY FITTINGS ON THE REMOTE CONTROL HOSE OR WIRE, DEADMAN HANDLE, OR CONTROL VALVE.

4.12 In accordance with ASME paragraph UG-125, all pressure vessels shall be supplied with protection against over-pressurization. A side outlet tee is provided in the inlet piping assembly to accommodate the appropriate pressure relief valve.

4.13 OSHA requires protective safety equipment and clothing be used at all times FOR ALL PERSONNEL IN THE IMMEDIATE BLASTING AREA, including but not limited to

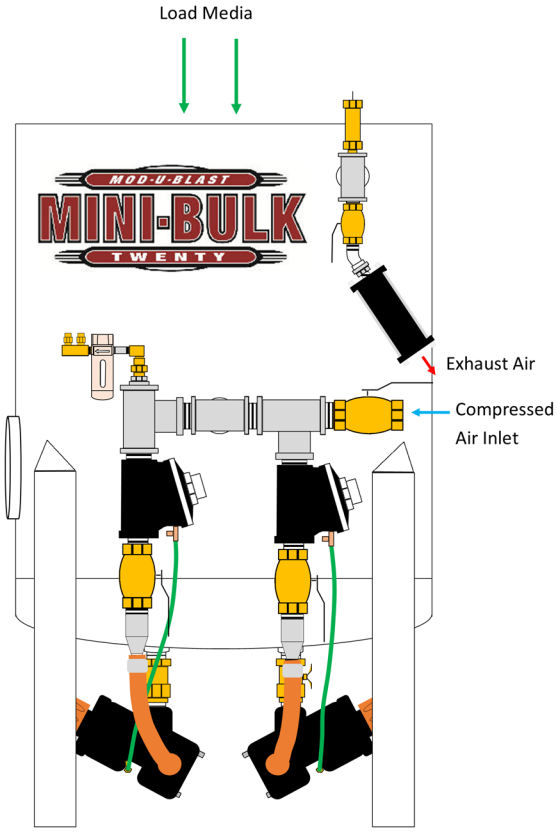
- Abrasive resistant suit, leather gloves, safety shoes, ear and eye protection.
- NIOSH approved air fed respirator (helmet) supplied by a source of breathing air that meets AT LEAST the requirements for Type 1 gaseous air described in the Compressed Gas Association Commodity Specification G-7.1 (Grade D or higher quality) as specified by law. Air must be filtered and monitored for carbon monoxide as required to assure clean, breathing air at all times.

ADHERE TO ALL NIOSH RECOMMENDATIONS, LIMITATIONS, AND REGULATIONS PERTAINING TO APPROVED RESPIRATOR USAGE, WITHIN HAZARDOUS SUBSTANCES CONCENTRATION PERMISSIBLE EXPOSURE LIMITS (PEL).

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HOW 20 CU. FT. MINI-BULK SYSTEMS WORK

Warning: This section of the manual is designed to give you a general understanding of how Abrasive Blaster functions. ALL sections of this manual must be read and understood before operating the equipment.



ADDING ABRASIVE

Abrasive is added through the hole in the top of the blaster where the pop-up and seal are located. It flows down through the hole, around the pop-up, and down the bottom of the pressure vessel where it exits through the metering valve.

PRESSURIZATION

Before pressurization can take place in a pressure hold system, the blow down valve must be closed. Then, when a compressed air source (such as an air-compressor) is connected to the inlet of the Abrasive blaster and the inlet valve is opened, compressed air flows and into the pressure vessel causing the Pop-Up (located internally) to seal against its seat allowing the pressure vessel to become pressurized. When the control handle is activated, the Auto Air Valve and Metering Valve open allowing compressed air and abrasive to flow and mix. The mixture of compressed air will now exit the Abrasive Blaster through a blast hose and nozzle connected to the coupling on the metering valve and blasting begins.

DEPRESSURIZATION (BLOW - DOWN)

When the control handle is released in a pressure hold system, the pressure vessel remains filled with compressed air. The compressed air remaining in the pressure vessel is released when the inlet valve is manually closed and the blow-down valve is manually open.

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OPERATING INSTRUCTIONS

Warning: The Procedures provided in the Operating Instructions section of the manual are designed to provide basic information on how to safely operate the features of Mod-U-Blast® Mini-Bulk Series Abrasive Blasters. Only personnel thoroughly trained in abrasive blasting should operate the Abrasive Blaster.

SETTING-UP THE BLASTER

INSPECT PRESSURE VESSEL

When you receive your Abrasive Blaster, remove the Handway Assembly and check for foreign items that may have fallen into the Abrasive Blaster. Remove any foreign materials and reinstall the Handway Assembly.

Danger: Never perform any maintenance or attempt to open the Abrasive Blaster in any way while it is pressurized. The violent release of compressed air and propelled objects will cause serious injury or death.

RE-TIGHTEN HANDWAY ASSEMBLY

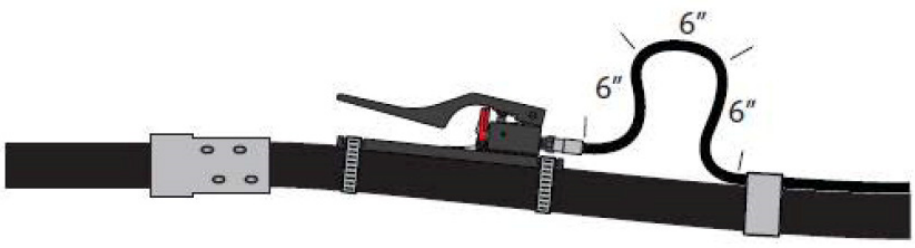
After the Abrasive Blaster has been pressurized for the first time, tighten the nuts on the Handway Assembly. Tightening the nut on the Handway Assembly should also be done any time after the Handway has been removed for maintenance before and after the next pressurization. Follow the nut torque instructions on the label above the Handway.

PURGE AIR SUPPLY HOSE

Before connecting the Air Supply Hose to the Abrasive Blaster, purge the hose of any moisture or foreign debris. Standing water or moisture in the air line will cause degraded performance of the Abrasive Blaster. Air supplied to the Abrasive Blaster must be clean, dry and cool.

ATTACH REMOTE CONTROL HANDLES

Attach the Remote Handle to the Blast Hose near the Nozzle with hose clamps or heavy wire ties. Form a loop of Twinline/Control Cord that comes 6” away from the Blast Hose, runs 6” parallel to the Blast Hose, and comes 6” parallel to the Blast Hose, and comes 6” back to Blast Hose. Using duct tape, attach the Twinline/Control Cord to the Blast Hose where the loop ends by wrapping the tape around the Blast Hose twice and then around the Twinline/Control Cord. This creates a strain-relief attachment and is only necessary on the first connection near the Control Handle. Starting from the Nozzle end of the Blast Hose, attach the Twinline/Control Cord to the blast hose by wrapping duct tape around both every 3 feet.



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OPERATING INSTRUCTIONS

BEFORE YOU BLAST

PRE-BLAST CHECK

Before each use of the Abrasive Blaster, it must be checked to ensure it is in a safe condition to be used. Closely examine all components of the Abrasive Blaster for signs of excessive wear, worn out seals and hoses, or damaged components. If any component of the Abrasive Blaster is found to be damaged or worn, it must be replaced before blasting.



Warning: Never use an Abrasive Blaster if any components are damaged or worn. Damaged or worn parts must be replaced before use.

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ADDING ABRASIVE

Before filling the Abrasive Blaster, make sure the inlet valve is closed and the pressure vessel is in a depressurized state. Abrasive is added by pouring it into the top of the Abrasive Blaster where the abrasive can flow through the opening and into the pressure vessel. Do not overfill the Abrasive Blaster. Do not allow foreign materials to enter the Abrasive Blaster.



Danger: Never reach into the opening while filling the Abrasive Blaster. The Pop-up valve can close causing severe injury.



Warning: Mod-U-Blast® Abrasive Blasters may not be used with abrasives containing silica. Never use abrasives containing silica.



Warning: Electrically conductive abrasives may not be used with Abrasive Blasters using Electric Remote Control Systems without changing to sealed strain relief connectors.



Warning: Never attempt to move or transport the Abrasive Blaster at more than 15mph when it contains Abrasive.

REMOTE CONTROL SYSTEM

Abrasive Blasters must use a Remote Control System (commonly known as a deadman) to start and stop abrasive blasting. Remote Control Systems can be electric or pneumatic

ELECTRIC: Connect the Remote Control to the Abrasive Blaster's female twist-lock connector associated with the outlet you want to blast with. Connect a 12 V DC power source (12V Battery or Optional 120 V AC to 12 V DC converter) to the Abrasive Blaster's male twist-lock connector.

PNEUMATIC: Connect the Remote Control twinline hose to the quick disconnect fittings associate with the outlet you want to blast with on the Abrasive Blaster. The twinline hose is supplied with different size fittings on each of the 2 lines to prevent them from being connected to the Abrasive Blaster incorrectly. Do not modify or reverse these fittings. It is not recommended that Pneumatic Remote Control Systems are used when the Blast Hose length will be longer than 100 feet.



Warning: Never operate the Abrasive Blaster without a remote control system.



Warning: Never reverse or modify pneumatic Remote Control twinline hose.

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Danger: Always use caution around electric sources to avoid electric shock. Do not operate electrical remote controlled Abrasive Blasters in wet or other hazardous environments.

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CONNECTING HOSES

Before connecting hoses to the Abrasive Blaster, make sure the Inlet Valve is closed and the compressed air supply is shut off. Connect the hose coming from the compressed air supply to the inlet on the Abrasive Blaster and secure with safety clips. Connect the blast hose to the coupling on the Metering Valve at the base of the Abrasive Blaster and secure with safety clips or mechanics / safety wire when using Mod-U-Blast couplings.



Warning: Always use safety devices like clips and whip-checks (safety cables) at hose connections.

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OPERATING INSTRUCTIONS

BLASTING

PRESSURIZING THE ABRASIVE BLASTER

Before pressurizing the Abrasive Blaster make sure the following conditions occur:

- All “BEFORE YOU BLAST” procedures have been followed.
- The Blow-down Valve is closed. (Pressure hold Blasters with T-Valves only)
- The inlet valve is closed (blasters with T-Valves)
- The Remote Control Handles are released.
- All hose connections are secure and have a safety clip.
- The Abrasive Blaster is set up in a safe and level
- location.
- Only personnel who have been thoroughly trained and have read and understand the manual are in the vicinity of the Abrasive Blaster.



Danger: Never perform any maintenance or attempt to open the Abrasive Blaster in any way while it is pressurized. The violent release of compressed air and propelled objects will cause serious injury or death.



Danger: Never supply compressed air exceeding 150 PSI (10.3 BAR) to the Abrasive Blaster.



Warning: Blast Hose may kick back when Remote Control Handle is activated. Be prepared and brace yourself for kick back.



Warning: All those who will be in the area while blasting is to occur must be properly trained, read the manual, and be wearing safety equipment to protect from the hazards described by the WARNING and DANGER labels located on the Abrasive Blaster. If any labels are worn or missing, they must be replaced.

USING THE ABRASIVE BLASTER

After pressurizing the Abrasive Blaster, it is ready to begin blasting. Press the safety button or push down the safety flap and squeeze the Remote Control Handle to start the flow of abrasive and compressed air. Adjustments to the air/abrasive mixture can be made by turning the handle on the APV Series Metering Valves. There will be a delay between a change made at the Metering Valve and what comes out of the Nozzle Depending on the length of Blast Hose being used. Adjustments to the Metering Valve can only be made when Abrasive Blaster is not in operation.

To stop the flow of compressed air and abrasive, release the Remote Control Handle and blasting will stop after a short time. How long it takes for blasting to stop will depend on the length of Blast Hose being used.

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Danger: Airborne particles produced by abrasive blasting can cause respiratory disease. All persons operating or located near the blasting site must wear approved NIOSH / OSHA approved breathing equipment. Never use abrasive containing silica.



Warning: Only personnel thoroughly trained in abrasive blasting should operate the Abrasive Blaster. This manual only provides basic information on how to safely operate the features of MOD-U-BLAST® Mini-Bulk Series Abrasive Blasters.



Warning: Never point the blast Nozzle at yourself, other people, or the Abrasive Blaster.



Warning: The Choke Valve must be completely open when blasting or damage to equipment will occur.

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OPERATING INSTRUCTIONS

BLASTING

DRAINING THE MOISTURE SEPARATOR (IF EQUIPPED)

During blasting, the moisture Separator must be periodically drained. The best way to accomplish this is to leave the drain valve slightly open all the time so it constantly leaks air and forces moisture out.



Warning: The Abrasive Blaster must be supplied with clean, cool, dry compressed air in order to function properly.

SHUTTING DOWN THE ABRASIVE BLASTER

When blasting is complete, the Abrasive Blaster will need to be shut down. Make sure the Remote Control Handles are released, then close the Inlet Valve. Slowly open the Blow-down Valve to allow the compressed air stored in the Abrasive Blaster to escape.



Warning: Never operate a Pressure Hold MBM series blaster without a muffler on the blow down valve. Without the muffler, the sudden release of compressed air can cause severe injury.

DISCONNECTING AIR SUPPLY HOSE

After the Abrasive Blaster has been depressurized, and the Inlet Valve has been closed, the Compressed Air Supply Hose may still contain pressure which must be released before disconnecting the hose. To do this shut off the compressed air at its source, and open the Drain Valve and Blow-Down Valve on the Abrasive Blaster. Slowly open the inlet valve on the Abrasive Blaster. The compressed air stored in the Compressed Air Supply Hose Can now escape through the Drain Valve. When you no longer hear air escaping through the drain valve, squeeze the Compressed air in the Compressed Air Supply Hose it is ready to be disconnected.



Danger: Never disconnect any compressed air supply hose without first performing the “DISCONNECTING AIR SUPPLY HOSE” procedure described above. Failure to do so can cause the hose to blow off violently injuring or killing nearby people.

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MAINTENANCE INSTRUCTIONS

Danger: Never perform any maintenance or attempt to open the Abrasive Blaster in any way while it is pressurized. The violent release of compressed air and propelled objects will cause serious injury or death.

Warning: Maintenance procedures are to be performed by experienced qualified personnel only, Failure to perform maintenance procedures correctly at the intervals specified below can lead to performance problems and equipment failure, and will void the equipment warranty.

MAINTENANCE SCHEDULE:

PROCEDURE TO BE PERFORMED	MAINTENANCE INTERVAL
1) Inspect Personal Protective Equipment (PPE) Including but not limited to; Respirators, Airline Filters, Carbon-Monoxide Monitors, Hearing Protection, Eye Protection, Foot Protection, Protective Clothing & Gloves. Inspect ALL Personal Protective Equipment (PPE) for proper fit, condition & operation as designed. Replace, repair, or be fitted as needed.	**Every 8 Hours of Use**
2) Inspect Remote Control Handle(s) and Control Hose/Cord **Pneumatic Remote Control Systems:** Inspect Control Handle for damage making sure the Safety Flap/Lever Lock/Button is in good working order and replace or repair as needed. Inspect twinline hoses and replace if leaks, areas that show abrasion, or soft spot are found. **Electric Remote Control Systems:** Inspect Control Handle for damage making sure the Safety Flap/Lever Lock/Button is in good working order and replace or repair as needed. Inspect control cord and replace if damaged plug ends, areas that show abrasion, exposed wires, or cracks are found.	**Every 8 Hours of Use**
3.) Inspect Blast Hose, Couplings & Gaskets Inspect Blast Hose for leaks, abrasion & soft spots, and replace as needed. Inspect couplings for damage, leaks & wear, and replace as needed. Inspect coupling gaskets for leaks & wear as needed. Always use safety clips & whip checks (safety cables) at Blast Hose connections.	**Every 8 Hours of Use**
4.) Inspect Blasting Nozzle Inspect the Blasting Nozzle for wear and proper bore diameter. Replace the Blasting Nozzle when the bore diameter has worn to 1/16” wider than its original diameter. Example: replace a #5 nozzle (5/16” bore) when the bore reaches 3/8”	**Every 8 Hours of Use**
5.) Inspect Air Hose, Coupling & Gaskets Inspect Air Hose for leaks, abrasion & soft spots, and replace as needed. Inspect couplings for damage, leaks & wear, and replace as needed. Inspect coupling gaskets for leaks & wear, and replace as needed. Always use safety clips & whip checks (safety cables) At Air Hose connections.	**Every 8 Hours of Use**
6.) Inspect & Clean Blow-down Muffler Remove the Blow-down muffler, turn it upside-down and tap on a hard surface to free trapped debris. If muffler is clogged and can’t be cleaned out sufficiently, it must be replaced.	**Every 40 Hours of Use**
7.) Inspect Pop-Up and Pop-Up Gaskets Inspect the Pop-Up & Pop-Up Gasket for wear and replace as necessary	**Every 200 Hours of Use**

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MAINTENANCE INSTRUCTIONS

MAINTENANCE SCHEDULE CONT'D:

PROCEDURE TO BE PERFORMED	MAINTENANCE INTERVAL
8) Service Metering Valve(s) Disassemble, clean & inspect the Metering Valve for proper and worn components. Replace any worn components found. Lubricate APV & APVII valves with anti-seize before reassembling.	**Every 600 Hours of Use**
9) Service Auto Air Valve(s) Disassemble, clean & inspect for proper operation and worn components. Replace any worn components found. Lubricate with anti-seize before reassembling.	**Every 600 Hours of Use**
10) Service Control Valve(s) Disassemble, clean & inspect for proper operation and worn components. Replace any worn components found. Lubricate with anti-seize before reassembling.	**Every 600 Hours of Use**

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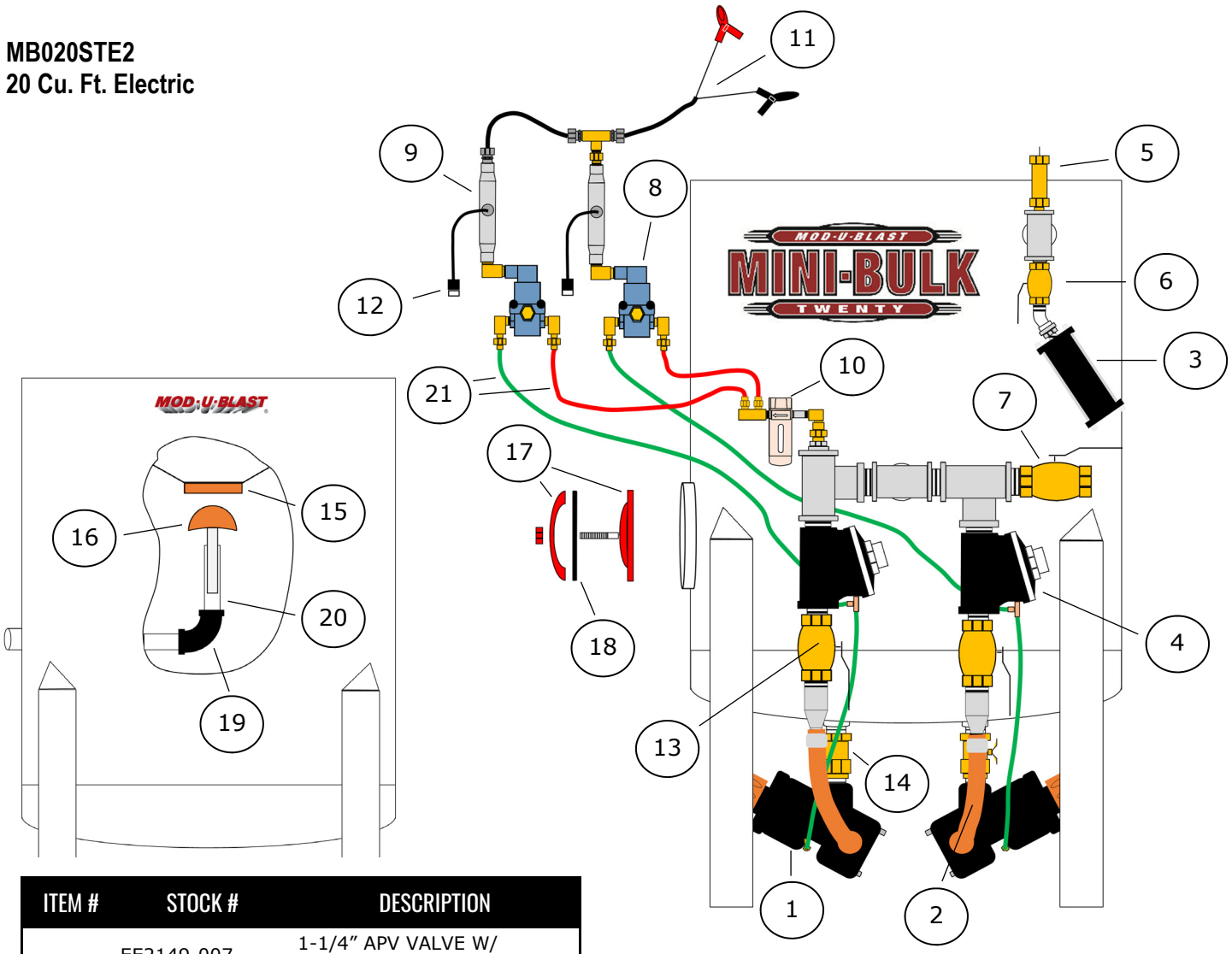
For Supplies & Parts

Call 1.800.661.3842

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20 CU. FT. PRESSURE VESSEL - ELECTRIC

MB020STE2
20 Cu. Ft. Electric



ITEM #	STOCK #	DESCRIPTION
1*^	EE2149-007	1-1/4" APV VALVE W/ TUNGSTEN CARBIDE SLEEVE
	EE2149-008	1-1/2" APV VALVE W/ TUNGSTEN CARBIDE SLEEVE
1**^	EE2148-007	1-1/4" APV-2 VALVE W/ TUNGSTEN CARBIDE SLEEVE
	EE2148-008	1-1/2" APV-2 VALVE W/ TUNGSTEN CARBIDE SLEEVE
2	10AH112	1-1/2" Air Hose
3	290340	3/4" Silencer
4	281500	Auto Air Valve 1-1/2"
5	51810-150	Kingston 118C x 1"x 150PSI
6	65-800	1" Brass Ball Valve
7	65-900	2" Brass Ball Valve
8	24047	12V Electric Solenoid
9	163601	T Box, Electric
10	50-130	Mini Moisture Trap
11	24012-25A	16-2 Wire, with Clips, 25'
12	21256	Female, 2 Prong Twist Lock

ITEM #	STOCK #	DESCRIPTION
13	1011603	1-1/2" Ball Valve Brass
14	EE2408-907	Union End Ball Valve, 1-1/4"
15	EE2100-011	Pop-Up Gasket
16	EE2100-010	Pop-Up Plunger
17	22614	Inspection Door Assembly
18	10S700000106	Gasket
19	ELB1210	Elbow, 1-1/4" to 1"
20	PN1006	Pipe Nipple 1" x 6"
21	DLR02	Hose, 1/4"
22 Not Shown	10SA1N (Alum)	1-1/2" NPT TANK COUPLER
	10SB2S (Brass)	1-1/2" NPT TANK COUPLER
	10IRSB2 (Iron)	1-1/2" NPT TANK COUPLER

* APV - Orange Adjustment Knob

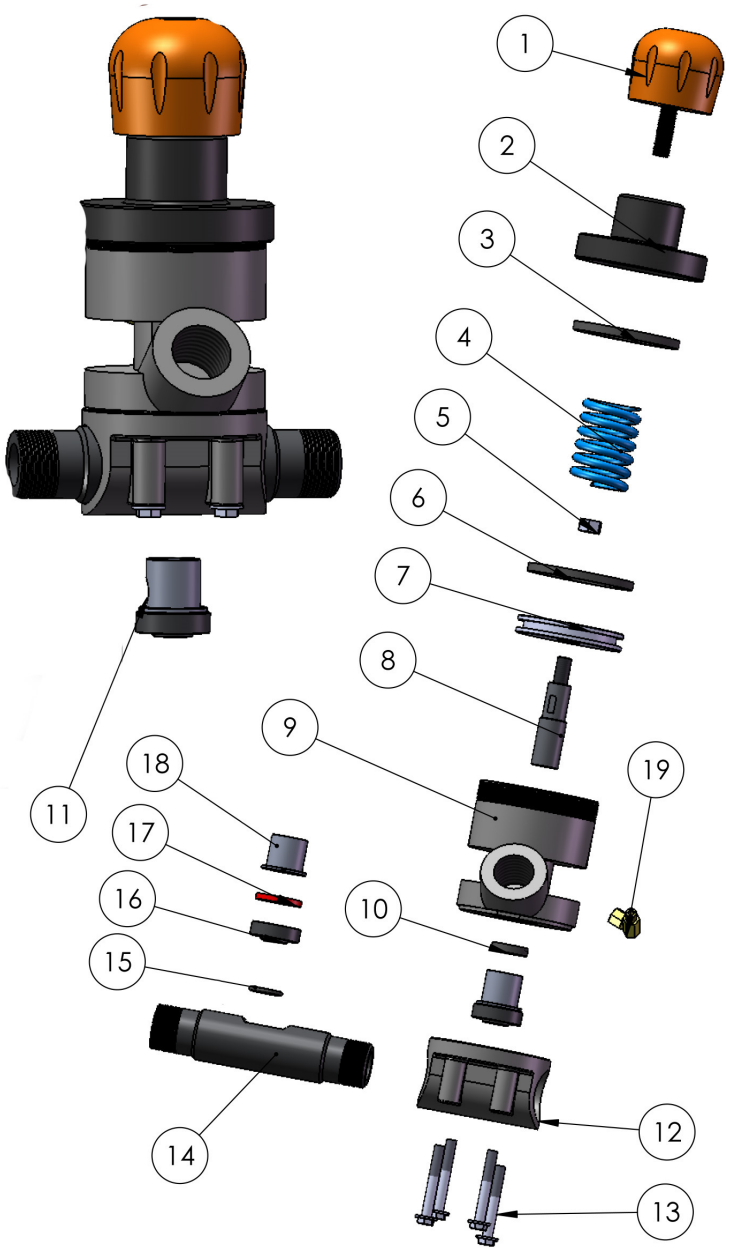
** APV-2 - Black Adjustment Knob (Not Shown)

^ Urethane Sleeve APV Valves Available

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APV VALVE

ITEM #	PART #	DESCRIPTION
	EE2149-108	1.1/2" VALVE WITH URETHANE SLEEVE, COMPLETE
	EE2149-008	.1/2" VALVE WITH TUNGSTEN CARBIDE SLEEVE, COMPLETE
	EE2149-107	1.1/4" VALVE WITH URETHANE SLEEVE, COMPLETE
	EE2149-007	1.1/4" VALVE WITH TUNGSTEN CARBIDE SLEEVE, COMPLETE
	EE2149-106	1" VALVE WITH URETHANE SLEEVE, COMPLETE
	EE2149-006	1" VALVE WITH TUNGSTEN CARBIDE SLEEVE, COMPLETE
*	EE2149-100-99	INCLUDED IN KIT FOR URETHANE SLEEVE
+	EE2149-000-99	INCLUDED IN KIT FOR TUNGSTEN CARBIDE SLEEVE
1	EE2149-000-01	KNOB
2	EE2149-000-02KT	CAP
3	EE2149-000-19	BUMP RING
4	EE2149-000-03	SPRING
5	EE2149-000-08	NUT
6*+^&	EE2149-000-04	PISTON SEAL
7	EE2149-000-05	PISTON
8*+	EE2149-000-07	PLUNGER
9	EE2149-000-09	CYLINDER
10*+^	EE2149-000-06	PLUNGER SEAL
11*&	EE2149-000-13	URETHANE SLEEVE
12	EE2149-000-11	BASE
13		BOLT W/ WASHER
14	EE2149-006-15	PIPE NIPPLE 1.1/2" (M) X 1" (F) X 8"
	EE2149-006-15	PIPE NIPPLE 1-1/4"X8"
	EE2149-007-15	PIPE NIPPLE 1-1/2"X8"
15+^&	EE2149-000-18	O RING
16+^	EE2149-000-14	INSERT
17+^&	EE2149-000-10	SEAL
18+	EE2149-00-13	TUNGSTEN CARBIDE SLEEVE
19	2222-SW1	90 DEGREE SWIVEL 1/8" X 1/8



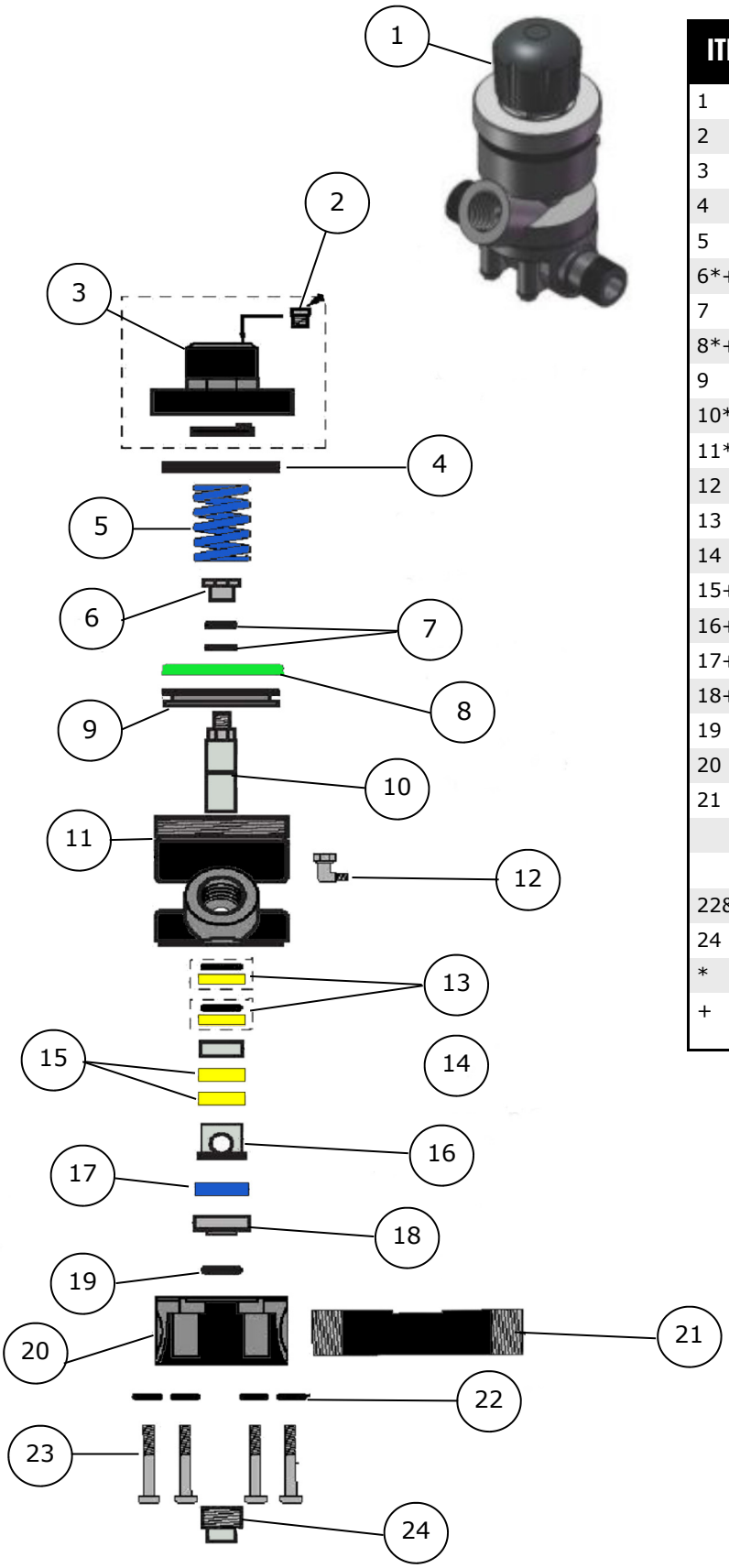
*** INCLUDED IN URETHANE SLEEVE REPAIR KIT**
+ INCLUDED IN TUNGSTEN SLEEVE REPAIR KIT
^ INCLUDED IN TUNGSTEN SOFT KIT
& INCLUDED IN URETHANE SOFT KIT

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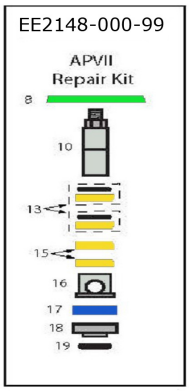
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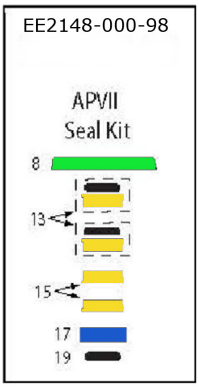
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APV-II VALVE



ITEM #	PART #	DESCRIPTION
1	EE2149-000-01	KNOB
2	86-200	MUFFLER
3	EE2149-000-02KT	CAP ASSEMBLY
4	EE2149-000-19	BUMP RING
5	EE2149-000-03	SPRING
6*+^&		PLUNGER STOP
7		NYLON WASHER
8*+	EE21490-0004	PISTON SEAL
9	EE2149-000-05	PISTON
10*+^	EE2149-000-07	TUNGSTEN PLUNGER
11*&	EE2148-000-09	CYLINDER
12	22223-SW1	SWIVEL
13	EE21490-0006	PLUNGER SEAL W/O O-RING
14	EE2149-000-17	STEEL BUSHING
15+^&	EE21490-0006	PLUNGER SEAL W/O O-RING
16+^	EE2149-000-13	TUNGSTEN SLEEVE
17+^&	EE2149-000-10	URETHANE SEAT
18+	EE2149-000-14	STEEL INSERT
19	EE2149-000-18	O-RING
20	EE2148-000-11	BASE
21	EE-2149-0615	1” NIPPLE
	EE-2149-0715	1-1/4” NIPPLE
	EE-2149-0815	1-1/2” NIPPLE
22&23	3/8” 3/8” X 2-3/4”	FLAT WASHER / BOLT
24	PLUG	PL10
*	EE2148-100-98	INCLUDED IN APV-II SEAL KIT
+	EE2148-000-99	INCLUDED IN APV-II Repair KIT





MOD-U-BLAST®

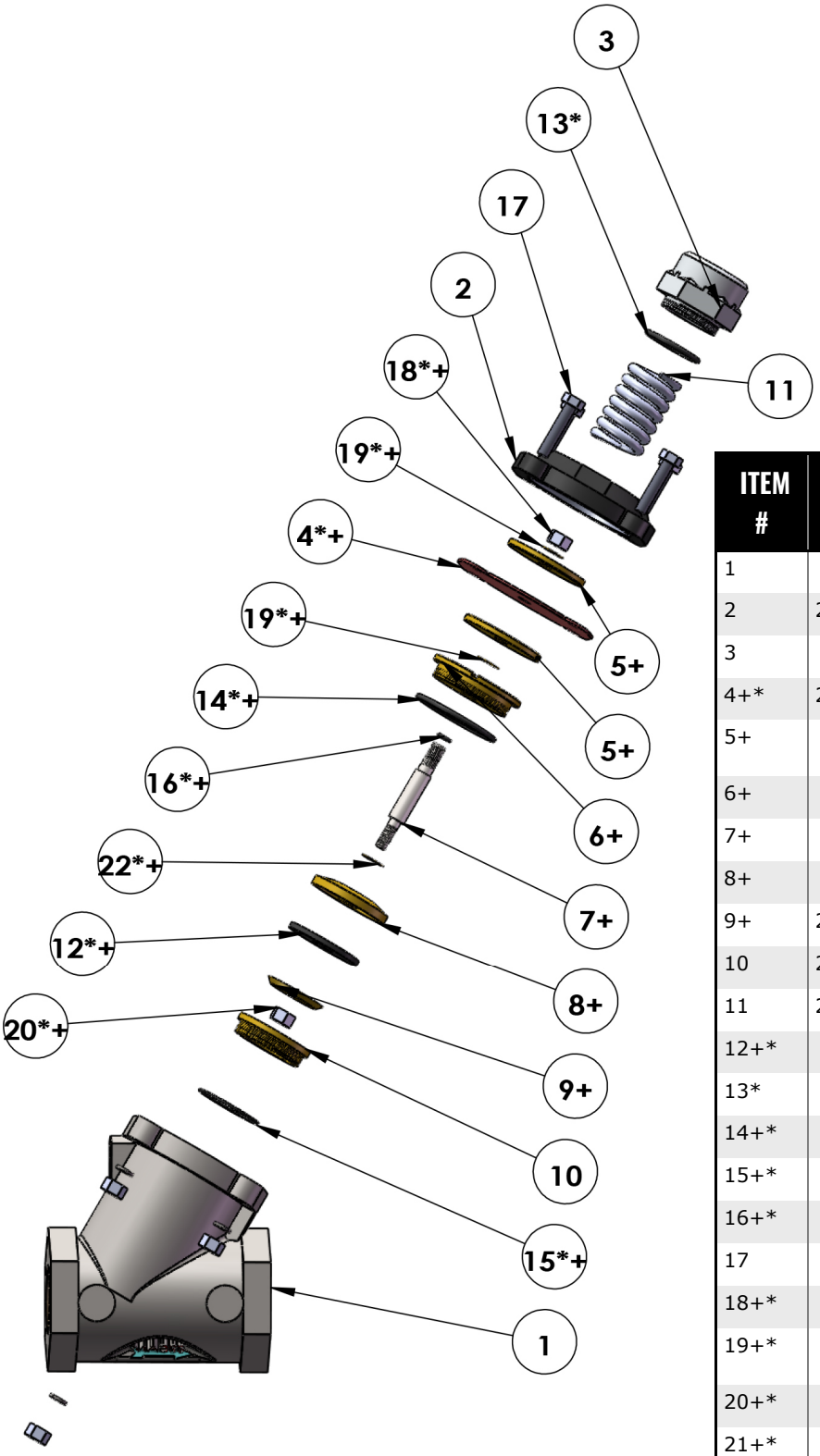
For Supplies & Parts

Call 1.800.661.3842

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AUTO AIR VALVE

Stock # 280750 (3/4”valve)
281000 (1”valve)
281250 (1-1/4”valve)
281500 (1-1/2”valve)



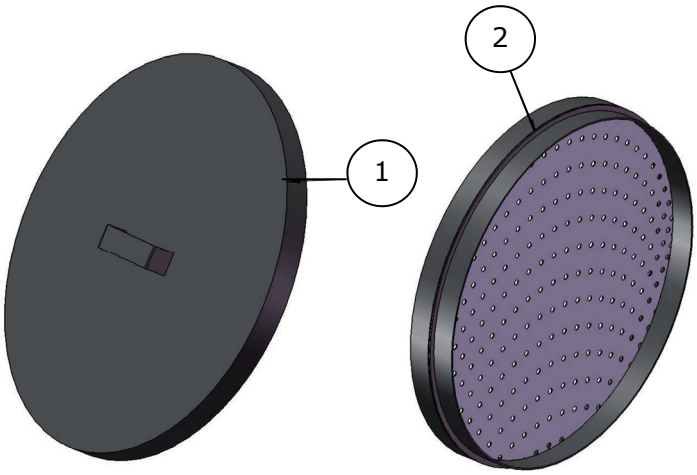
ITEM #	PART # 1.25” & 1.5”	PART # 3/4” & 1”	DESCRIPTION
1			BODY
2	281258	281007	COVER
3			CAP
4+*	281256	281006	DIAPHRAGM
5+			WASHER FLAT W201069
6+			BUSH INNER
7+			SHAFT
8+			SEAT HOLDER
9+	281261		RETAINER
10	281259		BUSH GUIDE
11	22123		SPRING
12+*			GASKET RUBBER
13*			O-RING 29.87MM I.D.
14+*			O-RING 44.12MM I.D.
15+*			O-RING 34.65MM I.D.
16+*			O-RING 9.19MM I.D
17			HEX BOLT 1/4” UNC
18+*			NYLOC NUT 1/4” UNF
19+*			WASHER FLAT 5/16” .5MM BRASS
20+*			NYLOC NUT 1/4” UNF
21+*			WASHER FLAT 1/4” DIA
	281500		AUTO AIR VALVE 1-1/2”
	281250		AUTO AIR VALVE 1-1/4”
		280750	AUTO AIR VALVE 3/4”
		281000	AUTO AIR VALVE 1”

SEAL KIT:* STK # EE2123-006-99 (3/4” & 1”)
STK # EE212300-799 (1-1/4” & 1-1/2”)

REPAIR KIT: + STK # 281003 (3/4” & 1”)
STK # 281253 (1-1/4” & 1-1/2”)

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LID & SCREEN

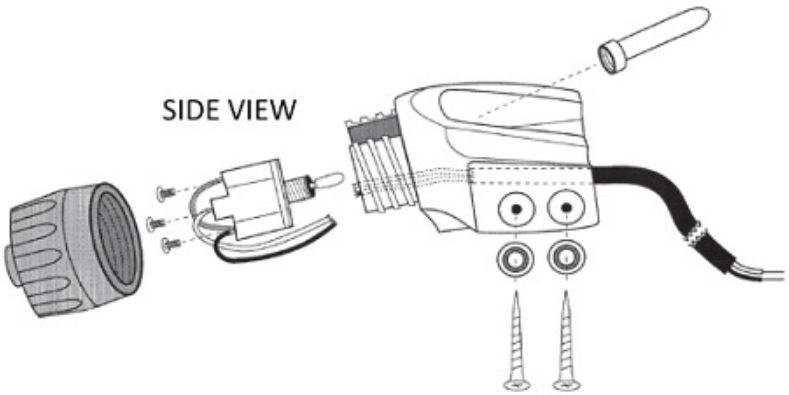


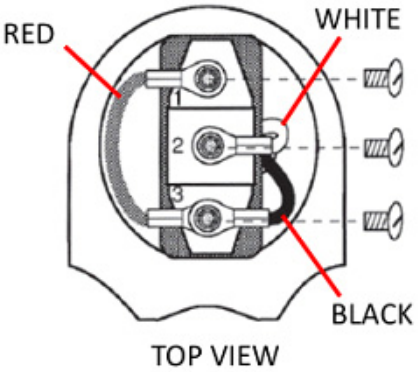
ITEM #	PART #	DESCRIPTION
1	290036	36″ Lid
2	290036S	36″ Screen

ELECTRIC DEADMAN

STOCK # 10WT1001REP







TOP VIEW



REPAIR KIT # 10WTKIT

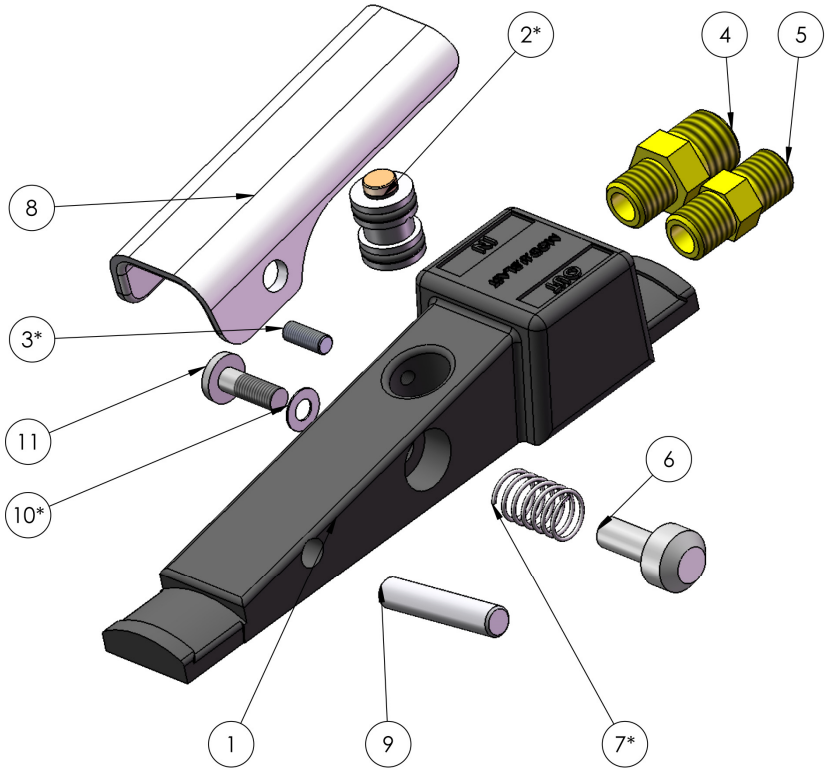


BALL & CHAIN

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PNEUMATIC DEADMAN

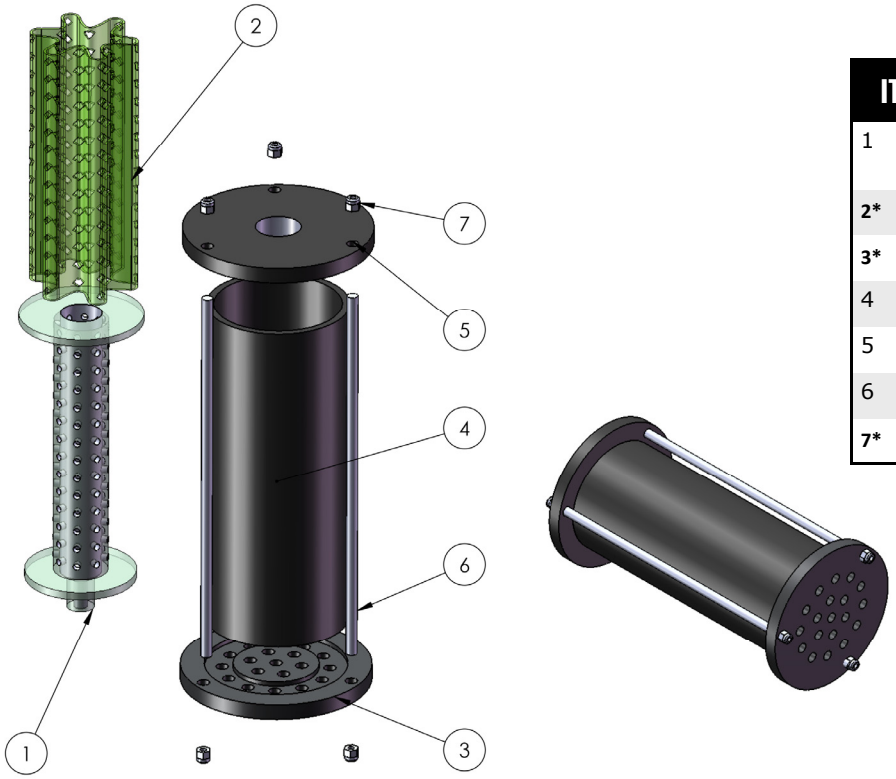
STOCK # EE2263-000



ITEM #	PART #	DESCRIPTION
1		BODY
2*		CARTRIDGE
3*		SET SCREW
4		NIPPLE 1-4
5		NIPPLE
6		BUTTON
7*		SPRING
8		LEVER
9		HINGE PIN
10*		WASHER
11		SCREW FOR BUTTON
*	EE2263-000-99	REPAIR KIT

BLOW DOWN MUFFLER 3/4”

STOCK # 290340



ITEM #	PART #	DESCRIPTION
1	2903401	SILENCER CARTRIDGE SUPPORT
2*		SILENCER CARTRIDGE
3*		SILENCER CARTRIDGE
4		SILENCER HOUSING
5		SILENCER TOP PLATE
6		SILENCER TOP PLATE
7*		NYLOC NUT

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TROUBLE SHOOTING - OPERATIONAL RELATED ISSUES

DANGER: Never attempt to open the Abrasive Blaster in any way while it is pressurized. Use extreme caution when performing troubleshooting procedures that involve pressurizing the Abrasive Blaster. Trouble shooting procedures are to be performed by experienced personnel only.

BLAST MACHINE TURNS ON ACCIDENTALLY OR WITHOUT WARNING

Possible Clauses:

1. The safety flap, lever or lock button on the Control Handle is damaged or missing.
2. The Pneumatic Control Handle is damaged, defective or worn out (if equipped)
3. A bleeder type control handle has been installed.

Warning: Never use bleeder type Remote Control Handles such as Clemco or A-BEC style handles with Mini-Bulk Bulk Machines as they may cause the Abrasive Blaster to start without warning or to not stop the Abrasive Blaster to start without warning or to not stop the Abrasive Blaster when released.

4. The Electric Control Handle is damaged, defective or worn out (if equipped)
5. The Electric Control Cord is damaged, defective or worn out (if equipped)
6. O-ring on the shaft of the Auto Air Valve is damaged, defective or worn out (if equipped)

BLAST MACHINE IS SLOW TO TURN OFF OR WILL NOT TURN OFF WHEN CONTROL HANDLE IS RELEASED

Possible Clauses:

1. A bleeder type control handle has been installed.
2. The Pneumatic Control handle is damaged, defective or worn out (if equipped).
3. The Electric Control Handle is damaged, defective or worn out (if equipped)
4. The Electric Control Cord is damaged, defective or worn out (if equipped)
5. The Control Valve is stuck or in need of service due to lack of lubrication, or is damaged, defective or worn out.

ABRASIVE BLASTER AIR BLAST STOPS BUT ABRASIVE KEEPS FLOWING WHEN CONTROL HANDLE IS RELEASED (SYSTEMS WITH APV SERIES METERING VALVES ONLY)

Possible Clauses:

1. The Urethane Seat (black) in the Metering Valve is damaged, defective, or worn out.
2. The Urethane Sleeve (black) in the Metering Valve is damaged, defective, or worn out.
3. The plunger (tungsten carbide) in the Metering Valve is damaged, defective, or worn out.
4. Foreign material is stuck between the Plunger and the Seat in the Metering Valve.
5. The Metering Valve Spring is damaged, defective, or worn out.

BLAST MACHINE ABRASIVE STOPS BUT AIR BLAST WILL NOT SHUT OFF WHEN CONTROL HANDLE IS RELEASED

Possible Clauses:

1. Auto Air Valve Seat is damaged, defective, or worn out.
2. Auto Air Valve Disc is damaged, defective, or worn out.
3. O-ring on the Auto Air Valve Shaft is damaged defective or worn out.
4. Auto Air Valve Spring is damaged, defective, or worn out.

EMERGENCY AIR TANK DOES NOT HOLD PRESSURE

See “MAINTENANCE PROCEDURES” section for diagnosis and repair information.

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TROUBLE SHOOTING - OPERATIONAL RELATED ISSUES

DANGER: Never attempt to open the Abrasive Blaster in any way while it is pressurized. Use extreme caution when performing troubleshooting procedures that involve pressurizing the Abrasive Blaster. Trouble shooting procedures are to be performed by experienced personnel only.

NO ABRASIVE FLOW WHEN BLASTING (AIR ONLY)

Possible Clauses:

1. The Abrasive Blaster is empty or has no Abrasive in it.
2. The Union-end Ball Valve above the Metering Valve is closed (if equipped).
3. Abrasive cut-off function is engaged halting the flow of abrasive (if equipped)
4. The Metering Valve is closed or has not been adjusted properly. If the Metering Valve is an APV or APVII and you are concerned the valve is not opening, the following test can be performed:

   Close the Metering Valve fully by turning the knob clockwise until it stops, then turn the knob counter-clockwise about 9 full turns. Close the Union-end Ball Valve above the Metering Valve (if equipped), Close the Choke Valve, then depress the control handle and check to see if the knob is hard to turn or if it will not turn at all. If the knob is hard to turn or will not turn at all then the Metering Valve is opening properly. Lastly, release the control handle and open the Choke Valve and Union-end Ball Valve located above the Metering Valve if equipped.
5. There is an obstruction in the Metering Valve. To clear the obstruction for APV series, MPV series & #100 Metering Valves, perform the following procedure:

   Turn the knob on the Metering Valve clockwise until it stops and then turn the knob counter-clockwise 9 full turns to open it completely. Depress the control handle and have a second qualified person close the choke valve for 2 seconds, and then open it again immediately. This will push minor obstructions such as a small amount of wet abrasive a piece of paper from a bag, or bridged paint chips through the Metering Valve and out the Nozzle. Readjust the Metering Valve back to the desired setting for blasting, and check to see if the obstruction has been cleared.

   If there is still an obstruction and your Abrasive Blaster is equipped with a Union-end Ball Valve above the Metering Valve, close the Union-end Ball Valve and depressurize the Abrasive Blaster. Remove the Metering Valve by loosening the union on the Union-end Ball Valve. With the Metering Valve removed and the Abrasive Blaster depressurized, open the Union-end Ball Valve slowly to see if a steady stream of abrasive falls out. If you do not see a steady stream of abrasive there is a large obstruction such as a large piece of paper from a bag of abrasive. If your Abrasive Blaster is not equipped a Union-end Ball Valve, then you must depressurize the Abrasive Blaster, remove the pusher line, and remove the Metering Valve to check for a steady stream of abrasive. If abrasive flows, wait until the Abrasive Blaster is empty before reinstalling the Metering Valve.

   If you have determined there is a large obstruction, then the obstruction must be removed from inside the pressure vessel. To do this, make sure the Abrasive Blaster is depressurized and open to the 4" Blind Flange Assembly or 4" Plug under the pressure vessel to remove as much abrasive as possible. Then remove the Manway Assembly and remove the obstruction. Reinstall the Manway Assembly and Metering Valve, and then tighten them securely, then Refill the Abrasive Blaster.
6. The Abrasive Blaster has wet abrasive in it. The wet abrasive must be removed by depressurizing the Abrasive Blaster, draining as much of the abrasive as possible through the 4" Blind Flange Assembly or 4" plug under the pressure vessel, then removing the Manway Assembly, and scooping or vacuuming it out.

DRY ABRASIVE MUST ALWAYS BE USED. CLEAN, COOL, DRY AIR MUST BE SUPPLIED TO THE ABRASIVE BLASTER IN ORDER TO PREVENT THE ABRASIVE FROM GETTING WET.

ABRASIVE STREAM IS TOO HEAVY OR THROBBING WHEN BLASTING

Possible Clauses:

1. Choke Valve is partially closed. Never run the Abrasive Blaster with the Choke Valve in any other position except fully open or damage to the Abrasive Blaster will occur.
2. The Metering Valve needs to be adjusted.

LOW PRESSURE AT THE NOZZLE

Possible Clauses:

1. Air compressor is the wrong size (too small) or the load button has not been pushed or turned on.
2. Nozzle is worn out and the compressor cannot keep up with the increased demand.
3. Air supply hose to the blast machine is too small.
4. There is a hole in the blast hose.
5. Manway assembly is leaking.
6. Dirty or clogged Auto Air Valve Vent (if equipped).
7. Diaphragm in Auto Air Valve is damaged, defective, or worn out (if equipped)
8. Choke Valve is partially closed. Never run the Abrasive Blaster with the Choke Valve in any other position except fully open or damage to the Abrasive Blaster will occur.
9. Abrasive Metering Valve is open too far.
10. Obstruction in Nozzle.
11. Regulator needs adjustment (if equipped)

ABRASIVE BLASTER WILL NOT TURN ON OR IS SLOW TO TURN ON

Possible Clauses:

1. Air compressor is the wrong size (too small) or the load button has not been pushed or turned on.
2. Nozzle is worn out and the compressor cannot keep up with the increased demand.
3. Air supply hose to the blast machine is too small.
4. Control hoses and/or fittings are leaking.
5. 90 micron strainer clogged (if equipped)
6. Obstruction in Nozzle.
7. Dirty or clogged Auto Air Valve Vent (if equipped).
8. The Pneumatic Control Handle is damaged, defective or worn out (if equipped)
9. The Electric Control Handle is damaged defective or worn out (if equipped).
10. The Electric Control Coil(s) are defective (if equipped).
11. Power Source (battery or AC-DC converter) is not providing sufficient power to open electric control valves (if equipped)
12. The Electric Control Cord is damaged, defective or worn out (if equipped)
13. Control Valve stuck or in need of service due to lack of lubrication, or is damaged, defective or worn out (if equipped)
14. Diaphragm in Auto Air Valve is damaged, defective or worn out (if equipped). To test, put your thumb over the vent. If any air coming out with the control handle depressed, the diaphragm must be replaced.

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WARRANTY POLICY COVERAGE

Allredi warrants all equipment listed in this manual that is manufactured by Mod-U-Blast to be free of defects in material and workmanship from the date of sale to the end-user. Not withstanding any special, extended or limited warranty published by Mod-U-Blast will, for a period of TWELVE (12) months from the date of sale, repair or replace any part of the equipment determined by Mod-U-Blast to be defective.

This warranty applies only when the equipment is installed, operated and maintained in accordance with Mod-U-Blast's written recommendations.

This warranty does not cover, and Mod-U-Blast will not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Mod-U-Blast component parts.

This warranty is conditional upon the prepaid return of the equipment or part claimed to be defective to an authorized Mod-U-Blast distributor for verification of the claimed defect. (Proof of purchase may be required) If found to be defective then the Mod-U-Blast distributor will repair or replace free of charge any defective part. The equipment will be returned to the original purchaser, transportation prepaid. If the inspection of the equipment does not disclose any defect in material workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Mod-U-Blast's obligation and buyer's remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach or warranty must be brought forward within one (1) year of the date of sale.

Items sold, but not manufactured by Mod-U-Blast are subject to the warranty, if any, of their manufacturer. Mod-U-Blast will provide the purchaser with reasonable assistance in making any claim for the breach of these warranties.

The following items are not covered under the Mod-U-Blast Warranty policy:

- Any component or body of this equipment determined by Mod-U-Blast to be normal wear and tear.
- Normally wearable items such as, nozzles, hoses, etc.

Claims will be honored only if the warranty card is returned within a period of two months from the factory shipping date.

The card can be returned to your Mod-U-Blast salesperson or mailed to the address below.

ALLREDI BLAST & ABRASIVES
6602-45 Street, Leduc, AB Canada, T9E 7C9
PH: (780) 468-2588 • FAX: (780) 465-7317

In the event of failure of this equipment Please contact an Allredi/Mod-U-Blast service centre.

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