

SB40

40 lb. Portable Soda Blaster Assembly & Operating Instructions



READ ALL INSTRUCTIONS AND WARNINGS BEFORE USING THIS PRODUCT.

This manual provides important information on proper operation and maintenance. Every effort has been made to ensure the accuracy of this manual. We reserve the right to change this product at any time without prior notice. Before use, read carefully and understand all warnings, cautions, instructions and labels. Failure to do so could result in serious personal injury, property damage or even death.

STOP! CONTACT CUSTOMER SERVICE WITH QUESTIONS OR PROBLEMS.

DO NOT RETURN THIS PRODUCT TO THE RETAILER.

If you experience a problem or need parts for this product, call our customer help line at 1-888-287-6981, Monday-Friday, 8 AM - 4 PM Central Time or visit our website <http://www.buffalotools.com>.

A copy of the sales receipt is required.

IF THERE IS ANY QUESTION ABOUT A CONDITION BEING SAFE OR UNSAFE, DO NOT OPERATE THIS PRODUCT!

FOR CONSUMER USE ONLY – NOT FOR PROFESSIONAL USE.

KEEP THIS MANUAL, SALES RECEIPT & APPLICABLE WARRANTY FOR FUTURE REFERENCE.

RECOGNIZE SAFETY SYMBOLS, WORDS AND LABELS

What You Need to Know About Safety Instructions

Warning and Important Safety Instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when assembling or using this product.

Always contact your dealer, distributor, service agent or manufacturer about problems or conditions you do not understand.



This is a safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



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GENERAL PRODUCT SPECIFICATIONS

FEATURES:

• Average air consumption	8.5 CFM
• Material	Steel
• Maximum Operating PSI	90
• Media capacity (lb.)	40 lbs.
• Minimum operating PSI	35
• Moisture separator (y/n)	Yes
• Operating Pressure (PSI)	35 - 90
• Recommended media	Sodium Bicarbonate
• Shut off valve	Yes
• Hose Length	5 ft.
• Accessories Included	Manual, 0.094 in. nozzle, hose



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When unpacking, check to make sure all parts listed are included. If any parts are missing or broken, please call Customer Service at 1-888-287-6981.

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IMPORTANT SAFETY RULES

COMMON SENSE AND CAUTION ARE FACTORS WHICH CANNOT BE BUILT INTO ANY PRODUCT. THESE FACTORS MUST BE SUPPLIED BY THE OPERATOR.

WARNING

Keep your work area clean and well lit. Cluttered work benches and dark work areas may cause accidents or injury.

Do not operate the soda blaster in explosive areas, such as in the presence of flammable liquids, gases or dust. Tools create sparks which may ignite the dust or fumes.

Keep bystanders, children and visitors away while operating the soda blaster. Distractions can cause you to lose control.

CAUTION

Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.

Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.

DANGER

Always check to make sure that the trigger is not on before connecting blaster to air supply. Tool may cause damage to property or person if plugged in while on.

WARNING

Wash hands after handling the air hose. Touching the air hose could expose you to lead, which is known in the State of California to cause cancer, birth defects and other reproductive harm.

WARNING

All work areas should be clean and well lit. Accidents are more likely to occur in poorly lit and cluttered areas.

WARNING

Keep children, and other distractions at a distance while operating the Soda Blaster.

WARNING

Keep the air hose in good condition, and replace damaged air hose immediately. Keep the air hose away from materials and surfaces that could damage air hose.

Use common sense while operating this soda blaster.

Do not use this tool if you are:

- Feeling tired or are under the influence of alcohol or drugs.
- Wearing loose clothing or jewelry. Keep long hair pulled back and away from moving parts.
- Overreaching or have improper footing. Handling the tool in this way could cause serious injury.
- When using this Soda Blaster, always:
 - Wear the proper safety equipment, such as safety goggles, dust masks, non-skid shoes, etc.
 - Check to be sure all adjusting keys or wrenches have been removed before starting the power tool.
 - Check that the power switch is in the "OFF" position before plugging the unit into an electrical outlet.

⚠ CAUTION

Follow these steps to maintain safe working conditions and good working condition of air blaster. Improper care can result in electric shock or serious injury.
Secure and support the work piece using clamps. **Do not use your hands to hold the piece in place.**
Use the correct tool for the job. Using the correct tool is safer and faster.
Keep out of reach of children, or any untrained person. Store tools in a safe and dry place.
Keep tools clean. Maintain tools with proper care to increase the life of the tool, and reduce risk of injury.
Check to be sure all moving parts are free from binding and are properly aligned.
Use only accessories that are recommended by the manufacturer for your tool model.

⚠ WARNING

Safety glasses and ear protection must be worn during operation.

SERVICE

Tool service must be performed only by qualified repair personnel. Service or maintenance by unqualified personnel could result in a risk of injury.

When servicing a tool, use only identical replacement parts and follow instructions in the manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of shock or injury.

SAVE THESE IMPORTANT SAFETY INSTRUCTIONS FOR FUTURE REFERENCE.

This manual contains important information regarding safety, operation, maintenance and storage of this product. Before use, read carefully and understand all warnings, cautions, instructions and labels. Failure to do so could result in serious personal injury, property damage or even death.






⚠ WARNING

Before using this tool, you need to become familiar with its operation. If you are unsure about the operation of the tool, or have any questions about its proper use, call the Customer Service Department at 1-888-287-6981. Follow these instructions for safe handling of the tool:

- **Always secure and support the work piece using clamps. Do not use your hands to hold the piece.**
- **Be sure your work area is clean and secure.** Be sure the area is free from all foreign material, nails, staples, or any other material.
- **Always use the appropriate safety gear when operating this Soda blaster.** Including but not limited, to goggles, dust mask or respirator. Always work in a well-ventilated area to reduce your exposure to harmful chemicals and dust particles.
- **Keep hands away from the cutting area. Do not reach under the work piece.**

SPECIFIC SAFETY RULES AND/OR SYMBOLS

The following symbols may be used on your tool. Be familiar with and learn the symbols to operate the tool safely.

Symbol	Name	Description
V	Volts	Voltage (Potential)
A	Amperes	Current
Hz	Hertz	Frequency (Cycles per Second)
W	Watt	Power
Kg	Kilograms	Weight
	Alternating Current	Type of Current
	Direct Current	Type of Current
	Alternating or Direct Current	Type of Current
	Earthing Terminal	Grounding Terminal
	Class II Construction	Denotes Double Insulation
min	Minutes	Time
s	Seconds	Time
φ	Diameter	Size of Drill Bits, Grinding Wheels, etc.
n_0	No Load Speed	No-load Rotational Speed
.../min	Revolutions per Minute	Revolutions, Surface Speed, Strokes, etc. per Minute
1,2,3...	Ring Selector Settings	Speed, Torque or Position Settings

ATTACH AIR PRESSURE REGULATOR

1. Wrap the threads of the Pressure Gauge with thread sealer tape (not included). Screw the Pressure Gauge into the opening in the face of the Air Pressure Regulator. Tighten snugly using a 9/16" wrench on the back of the gauge block. Rotate till snug but do not overtighten.
2. Attach Bracket to the Tank using the two Socket Head Screws and wrench tighten. Observe the orientation, remove the Compression Nut past the Air Pressure Regulator Knob and through the Bracket. Align the tab on the Bracket with the recess at gauge side of the regulator, attach compression Nut, and finger tighten until snug.

LOADING MEDIA INTO TANK

WARNING! Never service or disassemble the Soda Blaster with the air hose attached. Always release any built-up air even after disconnecting the hose.

This portable Soda Blaster is designed to be used with Bicarbonate of Soda (Baking Soda) as the only media. Use of other media may damage this tool.

Avoid clogging the Media Outlet Hose by making sure the media used is dry. Pull up on the Quick Release Fitting blue ring and pull out Air Hose. Hold Bushing with a wrench and Hex Nut on the Bushing with another wrench. Remove entire media discharge assembly slowly, being careful with the Pickup Tube as it may contain residual media which can spill when removed. Allow time for the trapped aggregate to safely discharge back into the Storage Tank.

Using a funnel, pour up to 40 pounds of media into the Storage Tank. Inspect condition of the O-ring at the bottom of the Bushing, and replace if damaged. Insert the Pick up tube into the storage tank, attach the Hex Nut and finger tighten. Tighten the nut (do not over tighten). Pull up on the blue pressure ring and insert the tube deep into the fitting. Release the ring (if air leaks around the tube, remove it and cut approximately a quarter of an inch of its length and reattach.

NOTE: If this is a large job, fill the Tank only 3/4 full and reload as needed to finish the job.

4. If the humidity is 90 to 100%, it is recommended to reduce the amount of media and refill more frequently. This will reduce the possibility of clogging the bottom of the Storage Tank and the Media Outlet Hose or Ceramic Discharge Nozzle. Insert the Pickup Tube into the Storage Tank. Place the O-Ring onto the top of the Pickup Tube and position the Media Regulator on top of it.

ATTACH TO AIR COMPRESSOR

Be sure that the Media Release Valve on top of the Media Regulator is in the OFF (horizontal) position. Air Hose should be attached to Air Pressure Regulator outlet and Media Regulator. Attach the pressure line from the air compressor (not included) to the Regulator. Open the Air Input Valve (turn to horizontal position) at the air pressure inlet. Adjust the air pressure to no more than 90 PSI. To do so, lift the Air Pressure Regulator Knob and turn it clockwise to increase or counterclockwise to decrease the air pressure (Read the pressure on the Pressure Gauge). When set, push the knob down to lock the Regulator Knob and save the setting. Check to be sure all connections are tight with no leaks. Disconnect the air supply and discharge air from the tank before making any needed repairs.

After putting on all required safety equipment, direct the Ceramic Discharge Nozzle on a piece of test material. Open the Media Release Valve of the Media Regulator. Adjust the media flow as needed by turning the Media Flow Control Knob. Turning this knob clockwise increases media flow, counterclockwise reduces flow.

You can also adjust the impact power of the media by adjusting the air pressure. Do this by adjusting the Air Pressure Regulator Knob. Do not exceed 90 PSI.

After completing the test and insuring that the Soda Blaster works properly, turn off media flow. You are now ready to set up the work piece.

Work Piece and Work Area Set Up

Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent distraction and injury.

Route the air hose along a safe path to reach the work area without creating a tripping hazard or exposing the air hose to possible damage. The air hose must be long enough to reach the work area with enough extra length to allow free movement while working. Secure loose work pieces using a vise or clamps (not included) to prevent movement while working.

There must not be hazardous objects (such as utility lines or foreign objects) nearby that will present a hazard while working. There will be considerable excess blasting medium left in the work area. Contain it and clean it up.

General Operating Instructions

WARNING: Do not hold the work piece in hand while blasting it. You may seriously injure yourself.

If possible, place the work piece inside a sandblast cabinet. Otherwise, isolate the work piece to make sure no damage can occur to nearby walls, tools, personal property, etc.

Make sure bystanders are completely clear of the work area before beginning work.

Turn the Air Input Valve at the Air Pressure Regulator to the ON position (aligned with the line).

Grip the Media Outlet Hose and Ceramic Nozzle firmly. Rotate the Media Release Valve of the Media Regulator clockwise to release the media.

NOTE: The flow rate of the media may be irregular when first started. Provided the media is dry, the flow rate will normalize in approximately one minute.

Spray the soda media onto the work material, moving the gun from side to side. Adjust Media Flow Control Knob to increase or decrease the media flow rate.

Adjust the Air Pressure Regulator to trim the total air flow and pressure at the Ceramic Nozzle. Do not set the pressure higher than 90 PSI.

If the Soda Blaster requires more force to accomplish the task, verify that the Soda Blaster receives sufficient, unobstructed airflow (CFM) and increase the pressure (PSI) output of the regulator up to the maximum air pressure rating of this Soda Blaster.

CAUTION! To prevent Soda Blaster and accessory failure, resulting in injury: Do not exceed the Soda Blaster's maximum air pressure rating. If the Soda Blaster still does not have sufficient force at maximum pressure and sufficient airflow, then a larger Soda Blaster may be required.

If excessive air pressure is used, or Media Regulator becomes clogged, the Safety Valve may open, releasing air pressure. Shut OFF Air Input Valve. Adjust Air Pressure Regulator to below 90 PSI. Turn the Air Input Valve back on. If the problem happens again, detach the air supply and clean out the Media Regulator and Media Outlet Hose.

To prevent accidents, turn off the Soda Blaster, detach the air supply, safely discharge any residual air pressure in the Soda Blaster, and turn the switch to its off position after use. Clean external surfaces of the Soda Blaster with clean, dry cloth. Then store the Soda Blaster indoors out of children's reach.

When work is completed, turn off the air pressure supply. Clean up all materials and store your Soda Blaster safely and securely.

OPERATION

CAUTION

Always wear hood, dust mask and heavy duty canvas gloves when operating the blaster.

WARNING

Before operating your soda blaster, inspect each connection, double checking to make sure that all are tight and properly sealed.

Loading Soda Media

1. Check to make sure the soda media is dry and clean so that it does not clog the unit.
2. Close the brass Air Supply Valve by turning it to the vertical position.
3. To release the pressure from the Tank, press Safety Trigger until air stops.
4. Make sure the Pressure Gauge reads "0".
5. Remove the Filler Cap .
6. Using the Funnel, pour the selected soda media into the tank. Do not fill the tank more than 3/4 full. If humidity in your region is 90% or more, only fill the tank half full and check the water trap more frequently.
7. Close the Filler Cap securely, assuring o-ring is in place.

Note: Place your air compressor in another room to prevent damage to it.

To Start Blasting

Note: Start with all valves in the closed position. Following the instructions below will help prevent the formation of clogs in the abrasive hose, outlet manifold and the safety trigger.

1. Connect air compressor to the Inlet Connector.
2. Start compressor and open Air Supply Valve .
3. Open Throttling Valve.
4. Check for leaks at the Filler Cap and along all hoses and fittings as the system pressurizes. If leaks are observed, release the pressure from the tank and repair immediately.
5. Point Safety Trigger in a safe direction away from people, pets or anything around you that may be damaged by direct or indirect abrasive spray.
6. Press and hold Safety Trigger until air is flowing through the trigger.
7. With the Safety Trigger open, slowly open the Abrasive Control Valve until soda media material begins to flow out of the Safety Trigger.
8. Adjust the Abrasive Control Valve until the desired amount of soda media material is flowing through the Trigger.
9. Begin blasting.

To Stop Blasting

1. While continuing to press and hold the Safety Trigger, turn the Abrasive Control Valve to the closed position (this is to prevent any clogging.)
2. When you notice only air (no abrasive) is coming out of the Safety Trigger, you can stop the air flow by releasing the trigger. By doing this you are ensuring a clean and clog-free manifold, hose, and safety trigger.

Releasing Pressure from the Tank

1. When finished blasting, point Safety Trigger in a safe direction away from people, pets or anything around you that may be damaged by direct or indirect abrasive spray.
2. Press and hold the Safety Trigger to expel any remaining abrasive material from the Abrasive Hose.
3. Close the Abrasive Control Valve.
4. Release pressure on the Safety Trigger.
5. Close the Throttling Valve and the Air Supply Valve.
6. Disconnect air supply hose from abrasive blaster.
7. Press the Safety Trigger until air stops flowing and Pressure Gauge reads "0".

MAINTENANCE

Procedures not specifically explained in this manual must be performed only by a qualified technician.

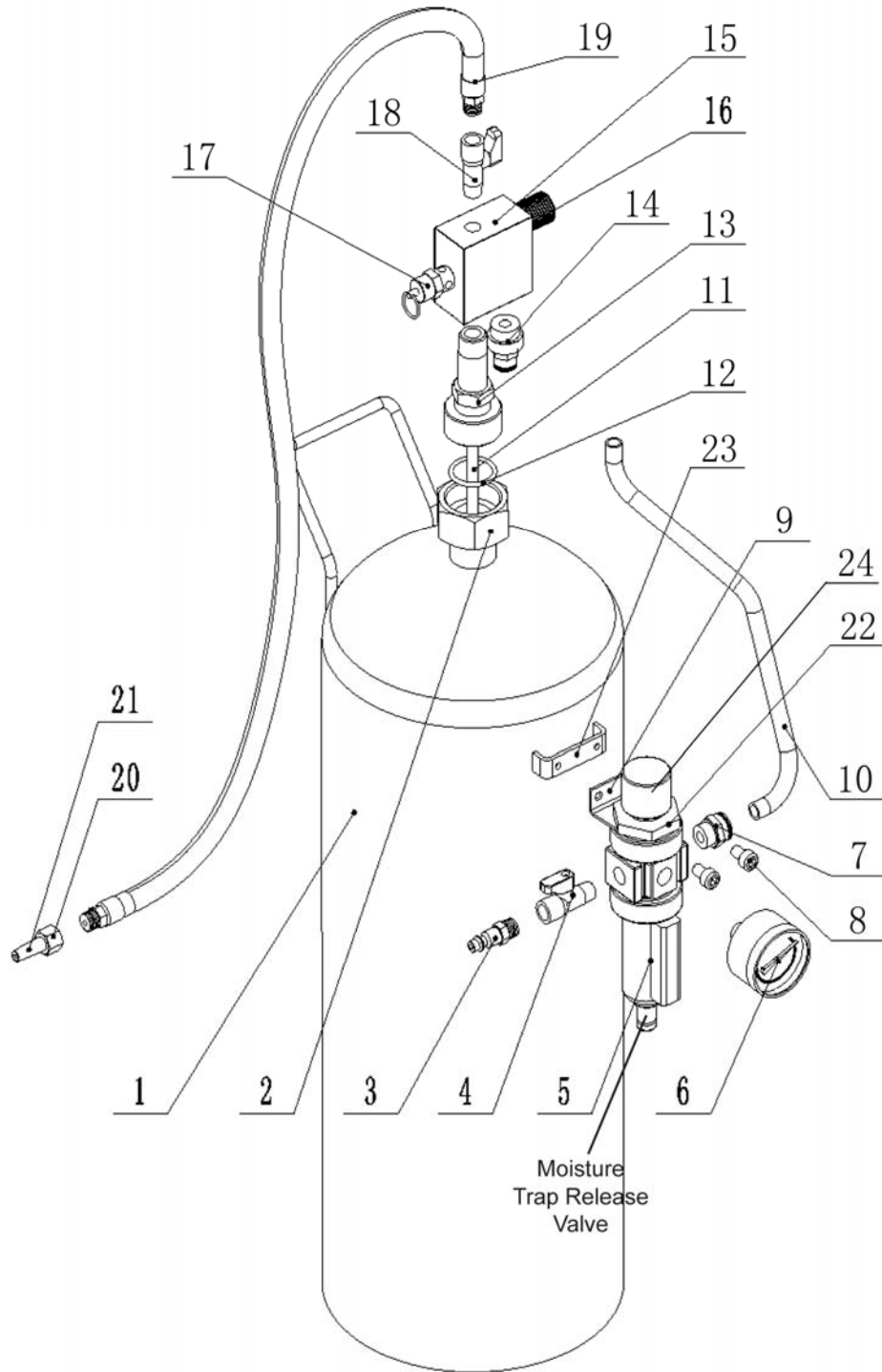
To prevent serious injury from accidental operation: Turn off the Soda Blaster, detach the air supply, safely discharge any residual air pressure in the Blaster before performing any inspection, maintenance, or cleaning procedures.

To prevent serious injury from Soda Blaster failure: Do not use damaged equipment. If abnormal noise, vibration, or leaking air occurs, have the problem corrected before further use.

Separated moisture from supplied air will automatically drip from bottom of the filter. At the end of each project/daily, pull down on the moisture trap release valve underneath the filter. This will allow discharge of possibility trapped small particles.

1. When initially pressurizing, check for leaks at the tank top and at all hoses and fittings. Leaking joints may be repaired by replacing worn or damaged parts and teflon tape at joints.
2. Check for worn abrasive hose and fittings. The Abrasive Control Valve, manifold, and all parts after the soda media is ejected from the tank are subject to rapid wear due to the flow of abrasive. Watch especially for leaks, blistering, bulging or thinness of the hose. Replace any parts which appear worn.

PARTS DIAGRAM



PARTS LIST

Part	Description	Qty
1	Storage Tank	1
2	Hex Nut (M42 x 2)	1
3	Male Coupler 1/4"	1
4	Air Input Valve (M/F 1/4" x 3/8")	1
5	Air Pressure Regulator	1
6	Pressure Gauge (1MPa-1/4")	1
7	Quick Disconnect Safety Valve (SPC12-02)	1
8	Socket Head Cap Screw (M6 x 10)	2
9	Bracket	1
10	Air Hose (350mm)	1
11	Pickup Tube	1
12	O-Ring (Ø35 x 3.1mm)	1
13	Bushing (M42 x 2-1/2")	1
14	Quick Release Fitting	1
15	Media Regulator	1
16	Media Flow Control Knob	1
17	Safety Valve	1
18	Media Release Valve	1
19	Media Hose Outlet	1
20	Nozzle Coupler	1
21	Ceramic Discharge Nozzle	1
22	Compression Nut	1
23	Tank Bracket	1
24	Air Pressure Regulator Knob	1