

S-BLASTER

S-Blaster User Guide



S-Blaster User Guide					
Document No.	61-180	Revision:	8	Date:	3/14/2024

Limited Warranty Statement

Perfect Point EDM Corp. warrants to the end user that its products will be free from defects in material and workmanship for a period of twelve (12) months from the date of delivery, but not more than eighteen (18) months after date of shipment. This warranty extends only to the original purchaser, is expressly in lieu of all other warranties, expressed or implied, and is further in lieu of all other liabilities or obligations for any consequential damages or losses incurred by the buyer in connection with the purchase or use of the product.

This warranty applies to systems subjected to normal operating conditions established by PPEDM for this product and explicitly excludes equipment subjected to:

- User alteration
- Accident, or damage caused by the end user.
- Improper handling, installation, maintenance, application, or contamination as established by PPEDM equipment operating instructions and preventative maintenance.
- Use with blasting media not approved by PPEDM.
- Use contrary to the operation instructions, and failure to properly service and maintain this equipment per PPEDM user and maintenance instructions.
- Unauthorized disassembly, repair, or alteration by anyone other than PPEDM Corp. No allowances will be made for repairs or alterations effected without specific written authorization from PPEDM.

This warranty does not cover: Normal wear and tear of soft goods (seals), Filters, Locators, Nozzles, Media or other fixtures and tools.

Credit will NOT be allowed nor shipment accepted on any machine or component thereof without Perfect Point's prior written consent and issuance of a PPEDM Return Material Authorization (RMA).

PPEDM will at its option, repair or replace any defective machine or component thereof for the specified warranty period. PPEDM reserves the right to substitute new equipment and/or improve the part(s) on any machine or part thereof judged defective without further liability. Machines or components thereof will be repaired and the warranty time continued.

All machines or components thereof returned for warranty consideration MUST NOT HAVE BEEN TAMPERED WITH and be intact. Disassembled, or partially disassembled units or will be cause to VOID these warranty terms and conditions.

All machines or components thereof returned for warranty consideration MUST NOT HAVE BEEN SUBJECTED TO EXCESSIVE MOISTURE OR SHOP AIR SYSTEM CONTAMINANTS. Units subjected to excessive shop air system contamination will be cause to VOID these warranty terms and conditions.

Liability Limitations: Under no circumstances shall PPEDM have any liability for liquidated damages or collateral, consequential, or special damages loss of production or progress of production resulting from delays in delivery or performance, breach of warranty, negligent manufacture or otherwise. Purchaser agrees to indemnify and hold harmless the PPEDM from all claims by third parties in excess of these limitations.

THIS WARRANTY IS THE SOLE WARRANTY OF PPEDM AND ANY OTHER WARRANTIES EXPRESSED OR IMPLIED IN FACT, INCLUDING ANY WARRANTIES OR MERCHANTABILITY AND FITNESS FOR USE, ARE HEREBY SPECIFICALLY EXCLUDED.

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Operating Environment

The Perfect Point S-Blaster system described by this User Guide is intended to be connected to facility shop air for use in a protected industrial environment supporting repair, manufacturing, or similar operations. These locations are often referred to as industrial locations.

The Perfect Point S-Blaster system is configured for a specific shop air input and air quality. Refer to this User Guide for proper power shop air input specifications. Use of out-of-specification pneumatic levels can result in component or airframe damage and will void the System Warranty. The product described in this User Guide is intended for the support of aircraft repair operations by operators familiar with this User Guide and the S-Blaster system. It is the responsibility of the owner/operator to ensure the system is used as intended and to comply with relevant safety agency and local code requirements and the S-Blaster is used in a safe manner.

Product Warnings



This surface coating removal system (S-Blaster) should only be operated by personnel who have completely reviewed this User Guide. Failure to properly operate this system can result in airframe damage, tool damage, or personal injury. Follow all Warning and Caution statements outlined in this User Guide and all equipment Warning placards. Proper care of equipment and good judgment must always be observed. Do not proceed with any periodic or remedial repair unless this User Guide has been thoroughly reviewed and understood. This unit is not field repairable beyond the remedial actions described in the Troubleshooting section of this User Guide. If malfunctions are encountered, please contact Perfect Point™ EDM Corporation immediately. Contents and illustrations in this document are subject to change and may not match the S-Blaster product exactly.

1. Never attempt to operate the S-Blaster in any manner not described in this manual.
2. Ensure all covers, filters, and hose connections are in place and secure before connecting the shop air.
3. Use caution when connecting the air inlet. Only apply the air pressures, flows, and air quality specified in this User Guide.
4. Never remove DANGER or WARNING labels from the S-Blaster. Replace lost or damaged labels immediately.
5. S-Blaster servicing other than described in this User Guide, should only be performed by PPEDM factory qualified personnel.

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6. Do not operate the system without providing proper environmental protection and in accordance with all city state and federal regulations. Review OSHA Standards for PPE in 29 CFR 1910 Subject I to ensure proper use of any applicable PPE. Approved respirators and eye protection should be used at all times during S-Blaster use.
7. During S-Blaster operations be mindful of all hose routing and connections. Unattended air hoses are potential trip hazards.
8. Never point the Hand Tool at anything you do not intend to clean. Inadvertent actuation of the blast cycle may cause unwanted spills or injuries.

CAUTION!

If the S-Blaster tank is filled, and the system is connected to air, the system is capable of shooting media if the blast lever is actuated even if the hand tool is not positioned on the work piece.








To safely and properly handle this tool, you must understand that injury to you or others may result from unsafe or careless use. It must be kept in mind that while the general rules of safe tool handling always apply, circumstances or conditions may exist that require additional precautions to be taken.

- Connect the air hose only when ready to use the S-Blaster.
- Do not carry the S-Blaster by the tank vacuum hose.
- Always keep the Hand Tool pointed in a safe direction.
- Treat S-Blaster as if it is charged when connected to shop air and the Hand Tool is not positioned on the work.
- Do not depress the Safety Lock and Lever unless the Hand Tool is inserted into the S-Blaster Locator, the Locator is placed on the area to be cleaned, and you are ready to commence the cleaning cycle.
- Keep fingers off of and away from the Safety Lock until the Hand Tool is inserted into the S-Blaster Locator and you are ready commence the cleaning cycle.
- Move the Safety Lock and Lever to the blast position only when ready to commence a cleaning cycle.
- Even if you have used blast media systems before; practice inserting and removing the S-Blaster Hand Tool into the Locator and actuating the Safety Lock and Safety Lever blast and vacuuming controls to become accustomed to the S-Blaster handling characteristics.
- NEVER RELY ON MECHANICAL FEATURES ALONE. Only your safe S-Blaster handling habits will ensure the safe use of your S-Blaster system. This is your responsibility.
- When moving over, under, around or on any obstacles, always maintain control of the Hand Tool direction. Disconnect the air hose if there is any chance that you might fall and or lose control of the Hand Tool direction.
- Always disconnect the shop air when changing Hand Tool parts or servicing the system.

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Description of Symbols Used in Product Labeling

Symbol	Publication	Description
	ISO 3864-2	Attention, consult accompanying documents
	ISO 3864-2	Read and understand manual before operation
	ISO 3864-2	Use a dust mask during operation
	ISO 3864-2	Wear eye protection during operation
	ISO 3864-2	Wear face shield during operation
	ANSI 7535.4	Vacuum/Pressure Force
	ANSI 7535.4	Exhaust

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1.0 Product Overview:

1.1 Major Components:

The S-Blaster comprises 2 primary subassemblies:

1. Chassis and Tank Subassembly
2. Hand Tool and Umbilical Hose Subassembly:
 - Vacuum Hose Subassembly
 - Umbilical Subassembly,

The system is provided with the following accessories:

- 4 each S-Blaster Locators (Original)
 - 0.3" Masking diameter
 - 0.4" Masking diameter
 - 0.5" Masking diameter
 - 0.6" Masking diameter
- 5 each S-Blaster Locators (Magnetic)
 - 0.3" Masking diameter (Green)
 - 0.4" Masking diameter (Orange)
 - 0.5" Masking diameter (Blue)
 - 0.6" Masking diameter (Yellow)
 - 0.7" Masking diameter (Grey)
- 4 each Media Bottles
 - 2 each Type II Plastic Blast Media (Anti-Static)
 - 2 each Type V Acrylic Blast Media (Anti-Static)

1.2 Technical Specifications:

S-Blaster Weight (with Blast Media): 21 Lbs.

Umbilical and Vacuum Hose Lengths: 5 ft.

System Air Inlet Assembly: 1/4 inch Female NPT

Facility Air Requirements: Dry, Filtered Shop Air at 150 PSI Max. 90 PSI Min (Recommended at 120-150 PSI)

Air Consumption: 16 CFM at 120 PSI

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1.3 Description of Operation:

The Perfect Point EDM Corporation's S-Blaster is a handheld, closed loop, coating and corrosion removal system, using regulated shop air and Plastic Blast Media (PBM) to remove aircraft paint and fillers from the surface of airframe fasteners.

During fastener cleaning operations the S-Blaster delivers a mixture of pressurized air and the Plastic Blast Media through an Umbilical Hose Assembly to a Hand Tool. A Blast Locator seals the gap between the Hand Tool and the surface being blasted, completely enclosing the blast area and capturing and recycling the media and removed material. As the blast media removes the surface coatings, the removed material is vacuumed away from the Hand Tool by means of a vacuum tube attached to the Hand Tool. A cyclone separator removes blast debris and particulate contamination and is collected by a sealed waste bottle for disposal. Exhaust air is passed through a HEPA filter assembly removing all airborne dust and debris from the cut cycle. The Media is returned to the S-Blaster system media tank where it is recycled. The duration of the media cleaning cycle is controlled by means of a pneumatic timer.

Different diameter Blast Locators and variation of cleaning time settings are controlled to affect the diameter and aggressiveness of the cleaning process.

The cleaning cycle is initiated by the operator by placing an S-Blaster Blast Locator on the fastener to be cleaned and inserting the Hand Tool into the Locator. The function of the Blast Locator is to confine the area to be blasted to just the fastener head, and to stop the escape of dust or debris.

The cleaning cycle begins when the operator rolls the Hand Tool Safety Lock upwards to the blast position and depresses the Safety Lock and Safety Lever, continuously holding them in the depressed position until the pre-set pneumatic timer completes the cleaning cycle.

Upon completion of the timed cleaning cycle, the S-Blaster automatically switches from blast to vacuum mode removing dust and debris from the immediate blast area. The vacuum mode will continue as long as the operator continues to depress the Safety Lock and Lever.

When the Safety Lock and Lever is released S-Blaster operation stops, and the Hand Tool may be removed from the Locator.

The S-Blaster vacuum-only feature may be used alone to clean up any surrounding dust and debris from the immediate area by simply depressing the Safety Lever WITHOUT rolling the Safety Lock upwards to the blast position.

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1.4 S-Blaster General Features:



Figure 1. S-Blaster System Components

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1.5 Chassis and Tank Subassembly:

The S-Blaster chassis is configured to allow the operator to use it as a backpack or it may be carried by a handle mounted at the top of the chassis. The S-Blaster should only be operated in the vertical position.

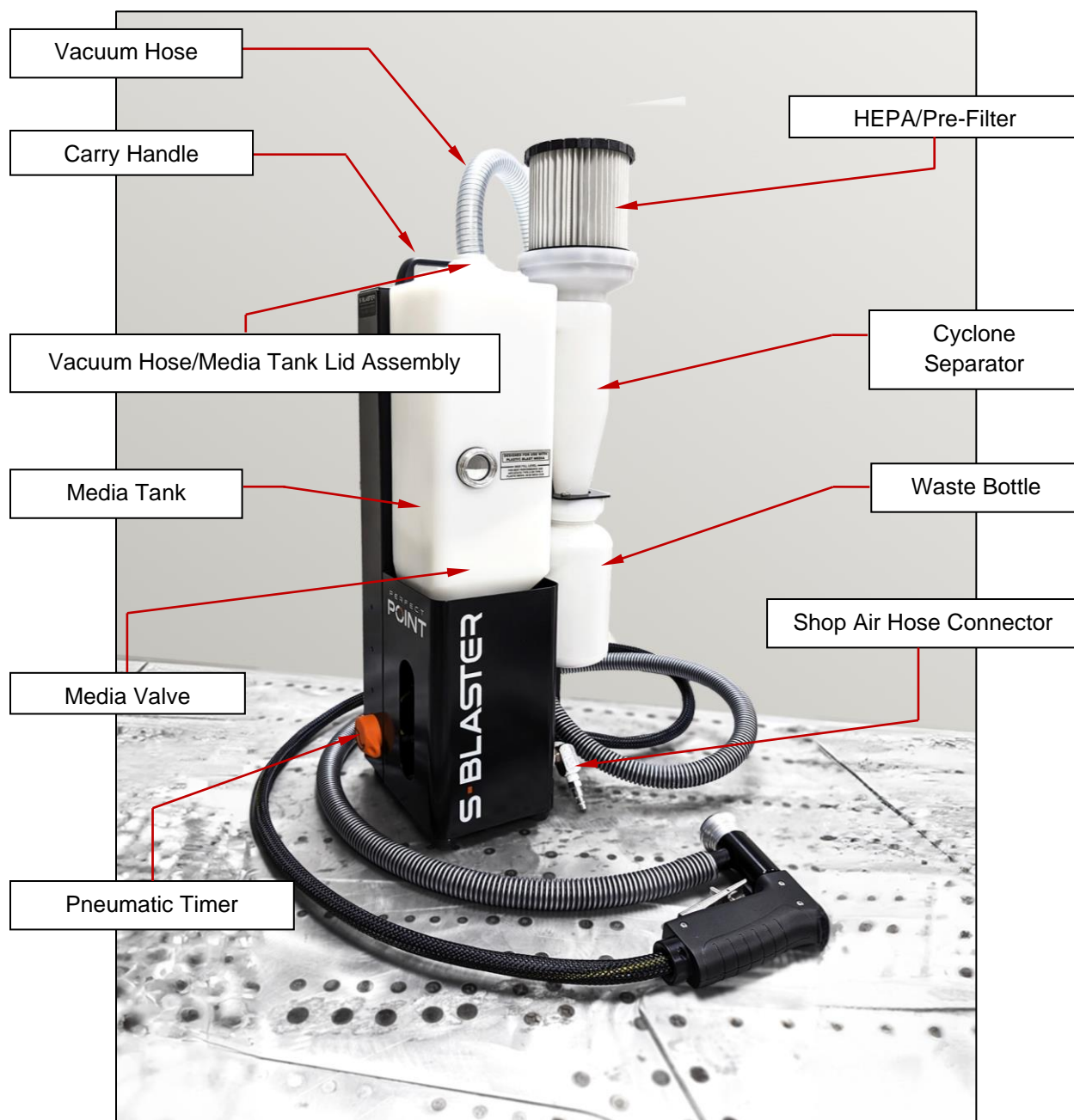


Figure 2. S-Blaster Chassis and Tank System Components

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1.6 Hand Tool:

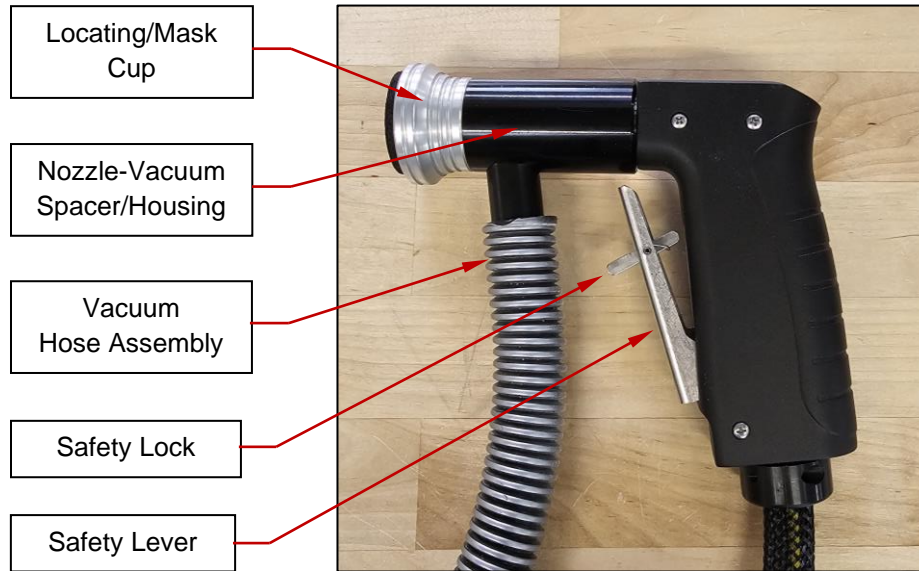


Figure 3. S-Blaster Hand Tool

1.6.1 Safety Lever and Safety Lock Assembly:

The S-Blaster incorporates two functions into a Safety Lock and Safety Lever assembly. These functions are:

- Vacuum
- Blast

The Safety Lock is biased in the Vacuum position. This means that if the Safety Lock is left in position and the Safety Lever is depressed then only Vacuum will be actuated.

When the Safety Lock is rolled upward to the flush position and the Safety Lever depressed the system will produce blast pressure and media flow. When the Safety Lock and Lever is released, all functions will immediately stop, and the Safety Lock will spring back to the Vacuum position.

Figure 4 and **Figure 5** on the following page illustrate the two Safety Lock and Lever Operating positions.

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Figure 4. S-Blaster Locked/Vacuum Position



Figure 5. S-Blaster Unlocked/Firing Position

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1.6.2 Hand Tool Blast Locators:

The S-Blaster system includes interchangeable Blast Locators (**Figure 6**). Each Locator has a different size aperture to define the blast diameter when fitted to the tip of the Hand Tool Nozzle/Vacuum Assembly. The Soft Masks remain compatible with all configurations of the S-Blaster while the Hard Masks require the v1.3 S-Blaster magnetic housing. The new Hard Mask Locators offer more compliance and significantly higher wear resistance than the original urethane masks. The Hard Masks also provide size identifying color coding.

Note: These are consumable items that are subject to wear and tear and will eventually need to be replaced to maintain an effective masking diameter. Type II media will wear out these components at a much higher rate than Type V media. When operating with Type V media the wear on these items is reduced and is negligible when using the hard masks.



Figure 6. Original Locating/Masking Cups (Soft Mask)

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Figure 7. Magnetic Locating/Masking Cups (Hard Mask)

The hard masks have a foam gasket seal on the bottom that should be replaced as needed. To replace the seal, simply pull out the old seal and push the new seal into the barbed groove on the bottom of the tool as shown in **Figure 8**. Spares (x10) will be provided with each system or replacement assembly.



Figure 8. Magnetic Locating Cup Seal Replacement

2.0 Operation:

The system is shipped fully assembled and ready for use. All that is required is to install a suitable air fitting, connect to shop air, and fill the S-Blaster media tank with media.

2.1 S-Blaster Filling Procedure:

Premeasured bottles of plastic blast media are supplied with the system that must be vacuumed up into the system before operation.

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Do not exceed 2 media bottles. The media level should never exceed the sight-glass level.



Rolling the Safety Lock to the Blast position and depressing the Safety Lock and Lever with the Hand Tool in the Media will result in air pressure dispersing media over the immediate area. Be sure to ONLY use the Vacuum position when filling the S-Blaster. The operator should familiarize themselves with the S-Blaster controls before attempting to fill the system.



Do not use any other media other than what is recommended by PPEDM. Use of unapproved media will void the system warranty and may damage airframe or the S-Blaster system.

1. Connect the system to shop air assuring it is preset to the proper pressure settings for S-Blaster operation (150 PSI max. 90 PSI min.).
2. Pour media into a clean tray or bucket, hold the Nozzle slightly above media, depress the VACUUM Safety Lever (NOT THE BLAST Safety Lock) to vacuum up the media.

Note: The Media Shipping Bottle is interchangeable with the Waste Bottle and can be recycled or used to dispose of blast debris.



Do not operate the S-Blaster until all fittings and hoses are re-connected.

2.2 Hand Tool Configuration and Adjustment:

Changing Blast Masks and Blast Timer settings will change the outcome of blast effects. Each coating removal situation is unique, and the operator should experiment with S-Blaster blast aperture and timer settings to find the optimum cleaning results.

2.3 Pneumatic Timer Settings:

A Pneumatic Timer is located on the side of the chassis (**Figure 9**). Blast times may be varied from approximately 3 seconds to 30 seconds. Adjust the timer to the desired blast time by turning the timer knob Clockwise for longer blast times, or Counter-Clockwise for shorter times. Once the Blast Trigger is depressed by the operator the pneumatic timer starts and will stop upon reaching its setting and automatically switch the system to vacuum mode.

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Figure 9. Pneumatic Time in 3 Second (Left) and 30 Second Position (Right)

3.0 Fastener Cleaning Procedure:

The following procedure assumes the S-Blaster is connected to shop air and a Blast Locator has been selected which matches the diameter of the fastener head.



Wear eye, face and respirator protection during all cleaning operations. A 3M No. 8710 Dust and Mist Respirator is recommended along with standard OSHA approved eye and face protection.

Place the S-Blaster Locator over the fastener to be cleaned centering around the fastener head (Fig. 8), insert the S-Blaster Hand Tool into the Locator and hold firmly in place.

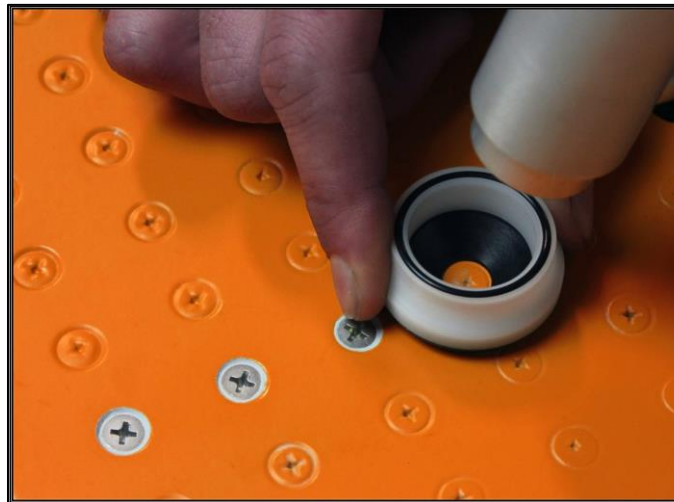


Figure 9. Locating Process Example

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Use forefinger to “roll” the Safety Lock upwards to the blast position and simultaneously depress the Safety Lever and the blast sequence will start (See **Figure 5**).

KEEP THE SAFETY LOCK and LEVER DEPRESSED DURING THE BLAST CYCLE. The S-Blaster Pneumatic Timer will automatically time and terminate the blast cycle upon reaching its setting and automatically switch to vacuum mode removing residual blast media and removed dust and debris.

Note: The Vacuum will continue to operate as long as the Safety Lock and Lever are held in the depressed position.

1. Keep the trigger depressed as the s-blaster is removed from the fastener. Once satisfied that all media and dust has been vacuumed away, release the Safety Lock and Lever, all operation will stop, and the Hand Tool can be removed from the Blast Locator.

Note: A slight rocking motion can be induced to the Hand Tool and Locator to assist in vacuuming up surrounding media and dust.

2. If the blast cycle must be terminated prematurely for any reason, simply RELEASE both Safety Lock and Lever and operation will stop and the Lock and Lever will return to the Vacuum position. The blast sequence can be restarted by repeating steps 1 and 2.
3. If at any time the operator wishes to vacuum up excess blast media or dust from the immediate work area simply depress the Safety Lock and Lever WITHOUT ROLLING THE SAFETY LEVER to the Blast Position. The system vacuum feature will engage, and the area can be vacuumed. The vacuum will continue to operate as long as the Safety Lock and Lever are depressed. Vacuum is not a timed feature.

Note: To ensure the best cleanup of media and debris, tilt the Hand Tool slightly as you vacuum.



It is very important the Safety Lock NOT BE ROLLED TO THE BLAST POSITION DURING VACUUM OPERATION. Actuating the blast sequence will cause an accidental discharge of media. Always keep the Hand Tool pointed in a safe direction away from your body while using the S-Blaster.



Only vacuum up S-Blaster debris and media, do not use this system as a general shop vacuum. Ingesting drill shards or dirt and debris other than media and blast dust will cause S-Blaster system blockages, and potentially damage the S-Blaster.

4.0 Maintenance:

It is wise to regularly inspect the S-Blaster system during operation. Keeping the system in optimum operating condition will avoid system blockages, and breakdowns. Monitoring media level, waste level and filter condition will ensure proper S-Blaster operation.

4.1 Waste Bottle:

During cleaning operations monitor the Waste Bottle on the bottom of the Cyclone Separator. When the Waste Bottle becomes filled it must be replaced. Remove the

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Bottle from the bottom of the Cyclone Separator, seal with a screw cap provided with a replacement bottle and dispose of removed material in accordance with local regulations.

Note: The standard S-Blaster consumables kit includes media, a replacement waste bottle and cap, and replacement Pre-Filter.

4.2 HEPA and Pre-Filters:

Periodically inspect the HEPA and Pre-Filter assemblies and replace as necessary. Remove the HEPA Filter from the bayonet style fitting by turning counterclockwise and lifting it free of the Media Tank Assembly. The Pre-Filter is located directly below the HEPA Filter. Check to see if the Pre-Filter is domed or still flat. If it is domed, then it should be replaced. Remove the Filter Seal Ring first, then lift the Pre-Filter from its counterbore.

4.2.1 Filter Change Recommendations:

It is IMPORTANT that the Pre-Filter be replaced weekly during normal operation or if a decline in vacuum performance is observed. The HEPA Filter should be replaced quarterly, or as needed.



PPEDM does not recommend cleaning HEPA or Pre-Filters. If the S-Blaster is being used to remove hazardous materials it is recommended that the HEPA and Pre-Filters be disposed of in accordance with local regulations.



It is NOT recommended that HEPA or Pre-Filters be blown out with shop air as this will release considerable amounts of airborne dust and particles that will disperse undesired contamination throughout the area.

4.3 Inspect Media Tank Mesh Filter:

If system blockages are encountered is advisable to inspect the Media Tank Mesh Filter.

During cleaning operations, the vacuum line is capable of ingesting larger particles from the surface being cleaned. The Media Tank Mesh Filter is designed to catch larger particulates that may cause system blockages. To inspect the Media Tank Mesh Filter:

1. Disconnect the top corrugated Vacuum hose *from the chassis side vacuum hose barbed fitting*. Unscrew the clear plastic vacuum hose and media tank lid as a unit.
2. The Mesh Filter Assembly is slip fit into the top of the Media Tank opening and may be removed for cleaning by lifting it out of the Media Tank.
3. Replace the Mesh Filter Assembly after cleaning and re-install the Media Tank Lid and clear vacuum hose onto the Media Tank. Reattach the Chassis Vacuum hose on the barbed chassis side vacuum line fitting.

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Do not operate the S-Blaster unless all fittings and hoses are re-connected.



If a system blockage is suspected refer to the troubleshooting section of the User guide for remedial action.

4.4 Nozzle Inspection and Replacement:

Nozzles are very reliable and will provide hundreds of cleaning cycles, however Nozzles need to be inspected periodically for erosion of the inner bore that could affect blast efficiency and pattern. To inspect or replace a Nozzle do the following:

1. The Vacuum Tube Housing is held in position by a retaining O-Ring. To remove the Vacuum Tube Housing simply pull it away from the Hand Tool.
2. Use a 1/2" AF wrench to unscrew the nozzle, turning it counterclockwise.
3. Inspect the O-Ring seal seated at the bottom of the bore in the Hand Tool body. Inspect the nozzle for excessive wear and replace the nozzle and O-Ring if necessary. Always replace the O-Ring whenever the Nozzle is replaced.
4. Reinstall the Vacuum Tube Housing and the Hand tool is ready for use.

4.5 Media Type Replacement

S-Blaster utilizes a cyclone filtering system that separates the lighter used media apart from heavier fresh media. However cyclone efficiency can be affected by various substrates and may require a media change.

1. Wear proper safety protection such as safety glasses and masks. Remove supply line to unit.
2. Gently pull hose from barbed tank cap and unscrew remaining.
3. Wipe off dirt and dust from O-ring and regrease using silicon grease or similar seal conditioner.
4. Removing screen trap by sliding straight up.
5. Use a shop vacuum to vacuum up remaining media. Please be cautious with components inside media tank.
5. Properly dispose of media, following facility guidelines

Refer to section 2.1 Filling Procedure for proper fill instructions.

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4.6 Water Separator

This S-Blaster has been equipped with an in-line compressed air filter to prevent any contaminants or moisture from being introduced into the system via the air supply.

The filter is located underneath the front chassis sheet metal and can be viewed and accessed through the slotted window on the bottom right side of the system. Remove media waste container if additional access is required.



Details

Filter Rating:	5 micron
Maximum Flow Rate:	26 cfm
Maximum Operating Pressure:	150 psi
Filter Bowl Capacity:	1 oz



Maintenance: Check daily for water or contaminants and drain/empty as needed.






Drain: Press the pin on the bottom side of the filter bowl to drain any captured water.

Empty: Rotate the clear filter bowl counterclockwise to unlock and remove it from the housing.

If a replacement is needed for any reason, please contact PPEDM and reference product number SBS032.

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Appendix 1: Quick Reference Guide

		15192 Triton Lane Huntington Beach, CA 92649 Office Tel: 714-892-3400 Hotline Tel: 714-891-6533 www.ppedm.com	
S-Blaster Quick Start Guide			
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CONNECTING THE SYSTEM:			
Install a 1/4 in. NPT air fitting into the S-Blaster Banjo fitting located at the bottom of the S-Blaster chassis. Use of Teflon Tape on the fitting threads is recommended.			
FILLING THE SYSTEM:			
Connect S-Blaster to shop air. Pour media into a clean tray or bucket, hold the Nozzle slightly above media, depress the VACUUM Safety Lever (NOT THE BLAST Safety Lock) to vacuum up the media from the bucket into the media tank.			
Note: The Media Shipping Bottle is interchangeable with the Waste Bottle and can be recycled or used to dispose of blast debris.			
BLASTING OPERATION:			
It is recommended that the operator do some practice spot blasting to become familiar with S-Blaster operation and the Safety Lever and Safety Lock operation.			
 Wear eye, face and respirator protection during all cleaning operations. A 3M No. 8710 Dust and Mist Respirator is recommended along with standard OSHA approved eye and face protection.			
 DO NOT POINT THE HAND TOOL AT ANYTHING YOU DO NOT INTEND TO CLEAN. Always use the S-Blaster Locator in conjunction with the Hand Tool. Never point the S-Blaster at a person.			
The operator should experiment with the combinations of Blast Locator and Blast Time settings to achieve the desired results.			
<ol style="list-style-type: none"> Select Blast Locator that most closely matches area to be cleaned. Adjust the timer to the desired blast time by turning the timer knob. (Clockwise for longer blast times, Counter-Clockwise for shorter blast times). Insert the S-Blaster Hand Tool into the Locator and hold firmly in place. Use forefinger to "roll" the Safety Lock upwards to the blast position and simultaneously depress the Safety Lever and the blast sequence will start. KEEP THE SAFETY LOCK and LEVER DEPRESSED DURING THE BLAST CYCLE. The timer will stop the blast cycle upon reaching its setting and automatically switch the vacuum on. If the blast cycle must be terminated for any reason, RELEASE the Safety Lock and Lever and blasting will stop. The Lock and Lever will spring back to the Vacuum position. The blast sequence can be restarted by repeating steps 3 and 4. To vacuum blast media or dust from the work area, depress the Safety Lock and Lever <u>WITHOUT</u> ROLLING THE SAFETY LEVER to the Blast Position. The system vacuum will start and the area can be vacuumed. The vacuum will continue to operate as long as the Safety Lever remains depressed. To ensure the best cleanup of media and debris, tilt the Hand Tool slightly. 			
 It is very important the Safety Lock NOT BE ROLLED TO THE BLAST POSITION DURING VACUUMING OPERATIONS. Actuating the blast sequence will cause an accidental discharge of media. Always keep the Hand Tool pointed in a safe direction while using the S-Blaster.			
 DO NOT vacuum debris other than S-Blaster blast media and dust. Ingesting large particulate contamination such as drill shards, fastener parts or other debris will cause S-Blaster system blockages and potential damage to the S-Blaster.			
MAINTENANCE REQUIREMENTS:			
Periodic maintenance is required to keep this system operating properly, foremost of which is emptying the Waste Bottle when it fills up. Periodic checks of Waste Bottle levels, Media Levels and Filter and Pre-Filter condition are required. Refer to the User Guide for detailed maintenance instructions.			
Contact PPEDM Customer Service at: 714-891-6533 if assistance is required.			

Note: This Quick Reference Guide is provided as a laminated sheet with the system documentation packet for ease of startup. This guide does not replace the requirement to completely review the User Guide.

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Appendix 2: Trouble-Shooting Guide

This section of the User Guide lists common maintenance issues encountered and their solutions. It is recommended the following basic steps be done before proceeding to a higher level of trouble shooting.


- Check Waste Bottle level and replace if filled.
- Check HEPA and Pre-Filter for cleanliness and free air flow.
- Check supply air pressure and quality.
- Backflush the nozzle to clear any media blockage as follows:
 1. Insert a center punch or pencil tip in the Nozzle tip and hold firmly in place.
 2. While observing the media tank, apply 2 to 3 short “Blast” bursts to the system. The media in the tank should appear to bubble as air is blasted back through it.

In the event these basic steps do not remedy the issue, review the Troubleshooting Guide for helpful maintenance remedies.

If a solution cannot be found in this Trouble-Shooting Guide, do not hesitate to contact the **Customer Service Hotline Phone at 714-891-6533**. This number is located in multiple places for ease of access.

- Back-side of the S-Blaster chassis.
- Printed in the header and at the bottom of the Quick-Start Guide.
- Printed in the header of this User Guide.


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S-Blaster General Fault		
Trouble	Probable Cause	Remedy
 Assure the Hand Tool Nozzle and any fittings are pointed in a safe direction when performing the following clearing operations. Wear eye protection at all times.		
The S-Blaster is delivering air but no blast media.	No media in tank	Refill
Part 1: The S-Blaster is delivering air but no blast media.	There is a blockage in the media delivery system. Most likely cause is an oversize particle that has been ingested from the work area. The particle may be lodged in the umbilical line or the pneumatic	Perform a “back-flush” procedure. <ol style="list-style-type: none"> 1. Remove the Vacuum Tube Housing from the front of the gun. 2. Insert a center punch or pencil tip in the Nozzle tip and hold firmly in place. 3. While observing the media tank, apply 2 to 3 short “Blast” bursts to the system. The media in the tank should appear to bubble as air is blasted back through it. This process will “back-flush” the Hand Tool and umbilical cable back to the Media Tank and through the media delivery pneumatic valve. 4. Reassemble and re-attempt cleaning procedures.

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S-Blaster General Fault

Trouble	Probable Cause	Remedy
Part 2: Attempted “back-flush” procedure did not produce blasting results.	Most likely cause is that the large particle blockage has not been dislodged.	<ol style="list-style-type: none"> 1. Remove Vacuum Hose from the top of S-Blaster chassis fitting. 2. Remove Tank Lid and check Media Tank Screen for large particle contamination. 3. Remove all Media by pouring into a suitable container. 4. Check Media and Media Tank for large particle contamination. Remove or replace as necessary. 5. Reconnect shop air to S-Blaster and repeat back-flush procedure. 6. If media blockage does not clear, then proceed to Part 3.
Part 3: Cleaning out tank did not produce blasting results.	Most likely cause is that the large particle blockage is in the umbilical.	<ol style="list-style-type: none"> 7. Disconnect media feed line from push-to-connect fitting  <p style="text-align: center;">Tube Fitting</p> <ol style="list-style-type: none"> 8. Hold media tube over a bucket and do a back-flush procedure. Ensure air flows freely from the tube.

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Appendix 3: Accessories and Consumables Lists

PART NO.	DESCRIPTION
SBS001-2	6 lbs. Type II Plastic Blast Media (Anti-Static) stored in 4 Waste Bottles 4 Pre-Filters 1 HEPA Filter
SBS001-5	6 lbs. Type V Acrylic Blast Media (Anti-Static) stored in 4 Waste Bottles 4 Pre-Filters 1 HEPA Filter
SBS002	HEPA Filter (Pack of 2)
SBS003	Pre-Filters (Pack of 25)
SBS004-2	S-Blaster Replacement Type II Media Bottles Includes: - (6) bottles filled with 1.5lb Type II blast media each (Media meets Mil-Spec Mil-P-85891)
SBS004-5	S-Blaster Replacement Type V Media Bottles Includes: - (6) bottles filled with 1.5lb Type V blast media each (Media meets Mil-Spec Mil-P-85891)
SBS009	S-Blaster Adapter Specifically Machined for Tight Access Locations. - 0.300" Aperture for Smaller Fasteners
SBS010	S-Blaster Adapter Specifically Machined for Tight Access Locations. - 0.400" Aperture for Smaller Fasteners
SBS012	Machined Front Housing, S-Blaster (For use with 1/4" Standoff)
SBS013	S-Blaster Divergent Nozzle
SBS014	Stand-Off, 0.25", S-Blaster
SBS015	Stand-Off, 0.75", S-Blaster
SBS016	S-Blaster Divergent Nozzle Kit
SBS017-300	Mask Locator, Magnetic, S-Blaster, 0.300" (Green)
SBS017-400	Mask Locator, Magnetic, S-Blaster, 0.400" (Orange)
SBS017-500	Mask Locator, Magnetic, S-Blaster, 0.500" (Blue)
SBS017-600	Mask Locator, Magnetic, S-Blaster, 0.600" (Yellow)
SBS017-700	Mask Locator, Magnetic, S-Blaster, 0.700" (Grey)
SBS021	S-Blaster Hand-Tool holster - clips onto harness, or belt, or Tool Cart Pro mount rail
SBS022	S-Blaster Hand-Tool Hanger Clip - clips onto Tool Cart Pro mount rail
SBS023	Blast Locator, 0.300", 0.25" Spacer
SBS024	Blast Locator, 0.400", 0.25" Spacer
SBS025	Blast Locator, 0.500", 0.25" Spacer
SBS026	Blast Locator, 0.600", 0.25" Spacer

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SBS006	Blast Locator, 0.300", 0.50" Spacer			
SBS007	Blast Locator, 0.400", 0.50" Spacer			
SBS008	Blast Locator, 0.500", 0.50" Spacer			
SBS011	Blast Locator, 0.600", 0.50" Spacer			
SBS027	Blast Locator, 0.300", 0.75" Spacer			
SBS028	Blast Locator, 0.400", 0.75" Spacer			
SBS029	Blast Locator, 0.500", 0.75" Spacer			
SBS030	Blast Locator, 0.600", 0.75" Spacer			
SBS032	Water Separator			
SBS033	Mask Locator, Magnetic Cup Upgrade Kit			

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Appendix 4a: Type II Material Safety Data Sheet

Maxi-Blast® Inc.

An ISO Certified Company

Plastic Blast Cleaning Medias ▪ Finishing Equipment and Technology

Safety Data Sheet

According to regulation (EC) No 1907/2006 Reach

Trade name: MB Multi-Blast blast cleaning media

Revision Date: 11/1/21

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

Trade Name: Multi-Blast blast cleaning media granulate in all sizes:
MB-8/12, MB-10/20, MB-11/14, MB-1, MB-1.5, MB-2,
MB-3, MB-4, MB-5, MB-100, MB-60/80

Product Category: Hardened, molded & cured urea resin

Intended Use: Cleaning, deburring, paint-removing

Manufacturer: Maxi-Blast Inc
3650 North Olive Road
South Bend, IN 46628, USA

Information contact: 001-574-233-1161

Emergency phone: 001-574-233-1161

2. HAZARDS IDENTIFICATION

The unused product does not contain any components in concentrations, which require a classification as a hazardous substance according to regulation (EC) No 548/1967.

During mechanical application (e.g. in blasting machines), dust may occur. The usual precautions should be taken. The statutory limit values for dust in your country have to be observed.

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Safety Data Sheet

According to regulation (EC) No 1907/2006 Reach

Trade name: MB Multi-Blast blast cleaning media

Revision Date: 11/1/21

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization/identification number

Main Ingredients	Hazard Symbols	Percent by weight	R-phrases	CAS	EINECS
Hardened urea resin		>99			

The ingredients mentioned above are not free available. All ingredients are bonded firmly in the molecular matrix.

4. FIRST AID MEASURES

In case of inhalation:	Ensure sufficient fresh air supply and consult a physician if necessary
In case of skin contact:	No measures necessary
In case of eye contact:	Rinse out with plenty of water for at least 10 minutes with the eyelids held wide open. Consult an ophthalmologist
In case of ingestion:	Do not ingest, but a small amount is not harmful

5. FIRE-FIGHTING MEASURES

The product is flammable, but self extinguishing

Suitable extinguishing media: foam, powder, CO₂, H₂O

In case of fire, hazardous combustion-products may be generated

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Safety Data Sheet

According to regulation (EC) No 1907/2006 Reach

Trade name: MB Multi-Blast blast cleaning media

Revision Date: 11/1/21

6. ACCIDENTAL RELEASE MEASURES

For the unused product, no special measures are necessary

Spilled material should be collected and placed in refuse container

7. HANDLING AND STORAGE

Handling: Non-hazardous, no special handling requirements

Storage: Store preferably in a dry environment

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Specific control parameters are only defined for the elements in the article/compound, whereas no such limits have been established for the article/compound as such in the EC

Dust and vapor have to be maintained below the statutory limits in your country by providing adequate dust collection

Hand protection: Not necessary, or use skin protection gloves

Eye protection: Safety glasses

Feet protection: Safety shoes are recommended

Protective clothing: Normal working clothes are sufficient

Respiratory protection: Disposable dust mask is recommended, type FFP2

Avoid contact with skin, eyes, mouth and nose

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Safety Data Sheet

According to regulation (EC) No 1907/2006 Reach

Trade name: MB Multi-Blast blast cleaning media

Revision Date: 11/1/21

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	solid, granular
Color:	colorful-white with color
Odor:	typical odor of plastic
pH-Value:	4-8 (250 g/l)
Melting point:	none
Boiling point:	none
Flash point:	no data available
Ignition temp:	530° F/279°C
Lower explosion limit:	no data available
Upper explosion limit:	no data available
Vapor pressure:	no data available
Vapor density:	no data available
Evaporation number:	no data available
Density:	1.47-1.50 g/cm ³
Bulk density:	0.77 g/cm ³ (depends on the grain class)
Hardness:	Mohs 3.5
Solubility in water:	none
Dynamic viscosity:	no data available

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Safety Data Sheet

According to regulation (EC) No 1907/2006 Reach

Trade name: MB Multi-Blast blast cleaning media

Revision Date: 11/1/21

10. STABILITY AND REACTIVITY

Stability: Stable
Thermal decomposition: >450° C
Conditions to be avoided: high temperature
Hazardous reactions: no data available
Decomposition products: no data available

11. TOXICOLOGICAL INFORMATION

There are no quantitative data for the product. It can be assumed, that there are no toxicological effects with appropriate handling and use of the product

Irritation to the skin: none
Irritation to the eyes: none
Sensitivity: none

12. ECOLOGICAL INFORMATION

The product is not soluble in water, no precautions required.

13. DISPOSAL INFORMATION

The information below applies to the product as it is and not with regard to material that may be mixed with other products or materials. Other disposal methods may be necessary with other unknown materials

Dispose of in accordance with applicable local/municipal, state/provincial and federal regulations

14. TRANSPORT INFORMATION

ADR/RID Not dangerous goods, non-hazardous

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Safety Data Sheet

According to regulation (EC) No 1907/2006 Reach

Trade name: MB Multi-Blast blast cleaning media

Revision Date: 11/1/21

ADN	Not dangerous goods, non-hazardous
IATA	Not dangerous goods, non-hazardous
IMDG	Not dangerous goods, non-hazardous
Special precautions for user: Not dangerous cargo	

15. REGULATORY INFORMATION

Labeling according to EC directives:	none
Hazard symbols:	none
R-phrases:	none
S-phrases:	none

16. OTHER INFORMATION

The indications made in this Safety Data Sheet are based on the present state of our know-how and experience. The Safety Data sheet describes the unused product in view of safety requirements. The indications do not constitute any guarantee with regard to product and do not create a contractual legal relationship.

All information given above refers to the unused product. The chemical and physical properties of the waste strongly depend on the conditions of use. All indications made in this Safety Data Sheet concerning composition, dangers, first-aid, fire-fighting measures, accidental release measures, handling and storage, exposure control and personal protection, physical and chemical properties, stability, and reactivity, toxicological information, ecological information, disposal information, transport information and regulatory information are only valid for the unused product and not for abrasive waste

It is the responsibility of the user to find out all the necessary information.

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Appendix 4b: Type V Material Safety Data Sheet

Maxi-Blast® Inc.

An ISO Certified Company

Plastic Blast Cleaning Medias ▪ Finishing Equipment and Technology

SAFETY DATA SHEET

According to regulation (EC) No 1907/2006 Reach

Trade name: AC Aero-Clean blast cleaning media

Revision Date: 11/1/21

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

Trade Name: Aero-Clean blast cleaning media granulate in all sizes:
AC-1, AC-1.5, AC-2, AC-3, AC-4, AC-5

Product Category: Acrylic resin, molded and cured

Intended Use: Cleaning, deburring, paint-removing

Manufacturer: Maxi-Blast Inc
3650 North Olive Road
South Bend, IN 46628, USA

Information contact: 001-574-233-1161
Emergency phone: 001-574-233-1161

2. HAZARDS IDENTIFICATION

The unused product does not contain any components in concentrations, which require a classification as a hazardous substance according to regulation (EC) No 548/1967.



During mechanical application (e.g. in blasting machines), dust may occur. The usual precautions should be taken. The dust should not be inhaled by the operator. The statutory limit values for dust in your country have to be observed.

3650 North Olive Road ▪ South Bend, Indiana 46628
(574) 233-1161 ▪ (800) 535-3874 ▪ Fax No. (574) 234-0792 ▪ <http://www.maxiblast.com>

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SAFETY DATA SHEET

According to regulation (EC) No 1907/2006 Reach

Trade name: AC Aero-Clean blast cleaning media

Revision Date: 11/1/21

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization/identification number

Main Ingredients	Hazard Symbols	Percent by weight	R-phrases	CAS	EINECS
Poly methyl-methacrylate/acrylic resin		100		9011-14-7	

The ingredients mentioned above are not free available. All ingredients are bonded firmly in the molecular matrix. Acrylic is an 'article' and is commonly used as plexiglass which is the basic make up of AC media

4. FIRST AID MEASURES

In case of inhalation:	Ensure sufficient fresh air supply and consult a physician if necessary
In case of skin contact:	No measures necessary
In case of eye contact:	Rinse out with plenty of water for at least 10 minutes with the eyelids held wide open. Consult an ophthalmologist
In case of ingestion:	Do not ingest, but a small amount is not harmful

5. FIRE-FIGHTING MEASURES

The product is flammable

Suitable extinguishing media: foam, powder, CO2

In case of fire, hazardous combustion-products may be generated

Firefighters should use protective breathing devices

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SAFETY DATA SHEET

According to regulation (EC) No 1907/2006 Reach

Trade name: AC Aero-Clean blast cleaning media

Revision Date: 11/1/21

6. ACCIDENTAL RELEASE MEASURES

For the unused product, no special measures are necessary

Spilled material should be collected and placed in refuse container

7. HANDLING AND STORAGE

Handling: Non-hazardous, no special handling requirements

Storage: Store preferably in a dry environment

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Specific control parameters are only defined for the elements in the article/compound, whereas no such limits have been established for the article/compound as such in the EC

Dust and vapor have to be maintained below the statutory limits in your country by providing adequate dust collection

Hand protection: Not necessary, or use skin protection gloves

Eye protection: Safety glasses

Feet protection: Safety shoes are recommended

Protective clothing: Normal working clothes are sufficient

Respiratory protection: Disposable dust mask is recommended, type FFP2

Avoid contact with skin, eyes, mouth and nose

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SAFETY DATA SHEET

According to regulation (EC) No 1907/2006 Reach

Trade name: AC Aero-Clean blast cleaning media

Revision Date: 11/1/21

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	solid, granular
Color:	clear, white, gray and some colors
Odor:	typical odor of plastic
pH-Value:	not applicable
Melting point:	none
Boiling point:	none
Flash point:	no data available
Ignition temp:	>390° C
Upper explosion limit:	no data available
Vapor pressure:	no data available
Vapor density:	no data available
Evaporation number:	no data available
Density:	1.18 g/cm ³
Bulk density:	0.70 g/cm ³ (depends on the grain class)
Hardness:	Mohs 3.5
Solubility in water:	none
Dynamic viscosity:	no data available