

# PORTABLE ABRASIVE BLASTER

Stock Number M549

## OWNERS MANUAL



Performance Tool®

### SPECIFICATIONS:

Operating Pressure:	90 PSI
Min. Air Requirements:	3.5 CFM @ 50 PSI
Hopper Capacity:	50 Lbs
Nozzle Size:	3/16 in.
Air Inlet:	1/4 in. NPT

### ▲ WARNING

*It is the owner and/or operators' responsibility to study all WARNINGS, operating, and maintenance instructions contained on the product label and instruction manual prior to operating the blaster. The owner/operator shall retain product instructions for future reference.*

*The owner and/or operator are responsible for maintenance, maintaining all decals or warning labels and while in use, maintaining the unit in good working order. If the owner and/or operator are not fluent in English, the product warnings and instructions shall be read and discussed with the operators' native language by the purchaser/owner or his designee. Make sure that the operator comprehends its contents. Safety information shall be emphasized and understood prior to usage.*

*Protect yourself and others by observing all safety information.*

*Failure to comply with instructions could result in personal injury and/or property damage!*

# PT

Performance Tool®

Please read these instructions carefully and retain them for future use.

## SAFETY ALERT

The following signal words are used to emphasize safety warnings that must be followed when using this product.

**▲ WARNING!** Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

**▲ CAUTION!** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

## UNPACKING & INSPECTION

After opening the carton, unpack your new product and related parts & accessories. Please inspect it carefully for any damage that may have occurred during transit.

**▲ WARNING! DO NOT** operate this product if damaged during shipment, handling or misuse. Do not operate the product until the parts have been replaced or the fault rectified. Failure to do so may result in serious personal injury or property damage. All damaged parts must be repaired or replaced as needed prior to operating this product. Check to see that all nuts, bolts and fittings are secure before putting this product into service.

Please have the serial number, model number, and date of purchase available for reference when calling.

This unit may be shipped with a plug in the air inlet. Remove this plug before beginning the assembly process. This plug is to protect the air inlet during the shipping process.

## IMPORTANT SAFETY INFORMATION

To reduce the risks of electric shock, fire, and injury to persons, read all the instructions before using the tool.

Keep the work area clean and well lighted. Cluttered benches and dark areas increase the risks of electric shock, fire, and injury to persons.

Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. The tool is able to create sparks resulting in the ignition of the dust or fumes.

Keep bystanders, children, and visitors away while operating the tool. Distractions are able to result in the loss of control of the tool.

Stay alert. Watch what you are doing and use

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common sense when operating the tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool increases the risk of injury to persons.

Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair increases the risk of injury to persons as a result of being caught in moving parts.

Avoid unintentional starting. Be sure the switch is off before connecting to the air supply. Do not carry the tool with your finger on the switch or connect the tool to the air supply with the switch on.

Do not overreach. Keep proper footing and

## IMPORTANT SAFETY INFORMATION CONT.

balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.

Use safety equipment. A dust mask, non-skid safety shoes and a hard hat must be used for the applicable conditions.

Wear heavy-duty work gloves during use. Always wear eye protection. Wear ANSI-approved safety goggles.

Always wear hearing protection when using the tool. Prolonged exposure to high intensity noise is able to cause hearing loss.

## TOOL USE AND CARE

Use clamps or another practical way to secure and support the work piece to a stable platform. Holding the work by hand or against the body is unstable and is able to lead to loss of control.

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

Do not use the tool if the switch does not turn the tool on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.

Disconnect the tool from the air source before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool unintentionally. Turn off and detach the air supply, safely discharge any residual air pressure, and release the trigger before leaving the work area.

Store the tool when it is idle out of reach of children and other untrained persons. A tool is dangerous in the hands of untrained users.

Maintain the tool with care. Keep the tool clean and free of obstructions. A properly maintained tool reduces the risk of accidents and is easier to control.

Check for misalignment or binding of moving parts, breakage of parts, and any other condition that affects the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools. There is a risk of bursting if the tool is damaged.

Use only accessories that are identified by the manufacturer for the specific tool model. Use of an accessory not intended for use with the specific tool model, increases the risk of injury to persons.

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

When servicing a tool, use only identical replacement parts. Use only authorized parts.

## AIR SOURCE SAFETY

Never connect to an air source that is capable of exceeding 200 psi. Over pressurizing the tool may cause bursting, abnormal operation, breakage of the tool or serious injury to persons. Use only clean, dry, regulated compressed air at the rated pressure or within the rated pressure range as marked on the

tool. Always verify prior to using the tool that the air source has been adjusted to the rated air pressure or within the rated air-pressure range. Never use oxygen, carbon dioxide, combustible gases or any bottled gas as an air source for the tool. Such gases are capable of explosion and serious injury to persons.

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## SPECIFIC SAFETY PRECAUTIONS

When using the tool, wear clothing that is washable to remove the fine dust created during the blasting process. Disposable protective clothing is also recommended.

Wear protective face gear such as goggles, a face shield, a dust mask that will filter out the fine dust particles created during the abrasive blasting process, and ear protection to reduce or eliminate the noise level.

Maintain proper ventilation in the work area. Test the air quality to ensure that exposure to the fine dust created during the blasting process is lessened.

Do not exceed the maximum of 90 PSI rating.

Use only abrasives specifically intended for blasting.

**⚠ WARNING!** This product, when used for abrasive blasting and similar applications, produces chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Extended exposure to air tool noise may cause hearing loss. Ear protection gear can reduce or eliminate the noise level.

Inspect the tool's airline for cracks, fraying or other faults before each use. Discontinue use if the airline is damaged or hissing is heard from the airline or connectors, while operating the tool. Replace the defective component/airline.

## ABRASIVE BLASTING PRECAUTIONS

The blasting process emits abrasive media under pressure that breaks apart upon impact. The resulting dust is a combination of the media and the material being removed by the abrasive. Both the media and the material being removed may have toxic components such as lead in paint.

Check the abrasive media's Material Safety Data Sheet (MSDS) for information on the health risks and preventive measures that can be taken to minimize those risks.

Determine the toxicity of the material being removed and take the appropriate measures.

Work in a well-ventilated area whenever possible or use containment methods such as cabinets or blast-cleaning machines to control the hazards from exposure.

Wear NIOSH approved respirators that protect both the lower face and eyes during blasting operations whenever possible.

**⚠ WARNING!** Sand or silica particle dust can result in the lung disease known as silicosis, when inhaled over a short period of time.

## ABRASIVE BLASTING MEDIA

The blasting process emits abrasive media under pressure. There are several different abrasive medias the tool can use as an abrasive. Each type of abrasive has a different application and effect on the object being blasted. Each abrasive may also have hazards or health issues associated with their use.

### Material Types:

Mineral: Sand or silica, garnet, magnesium sulfate.

Organic: Crushed nutshells.

Synthetic: Baking soda, grain starch.

Engineered: Aluminum oxide, glass beads.

Metal: Shot or grit made from steel, copper,

aluminum or zinc.

### Recommended Blasting Media

- Aluminum Oxide
- Glass bead
- Steel Shot
- Copper Slag

### Not Recommended Blasting Media

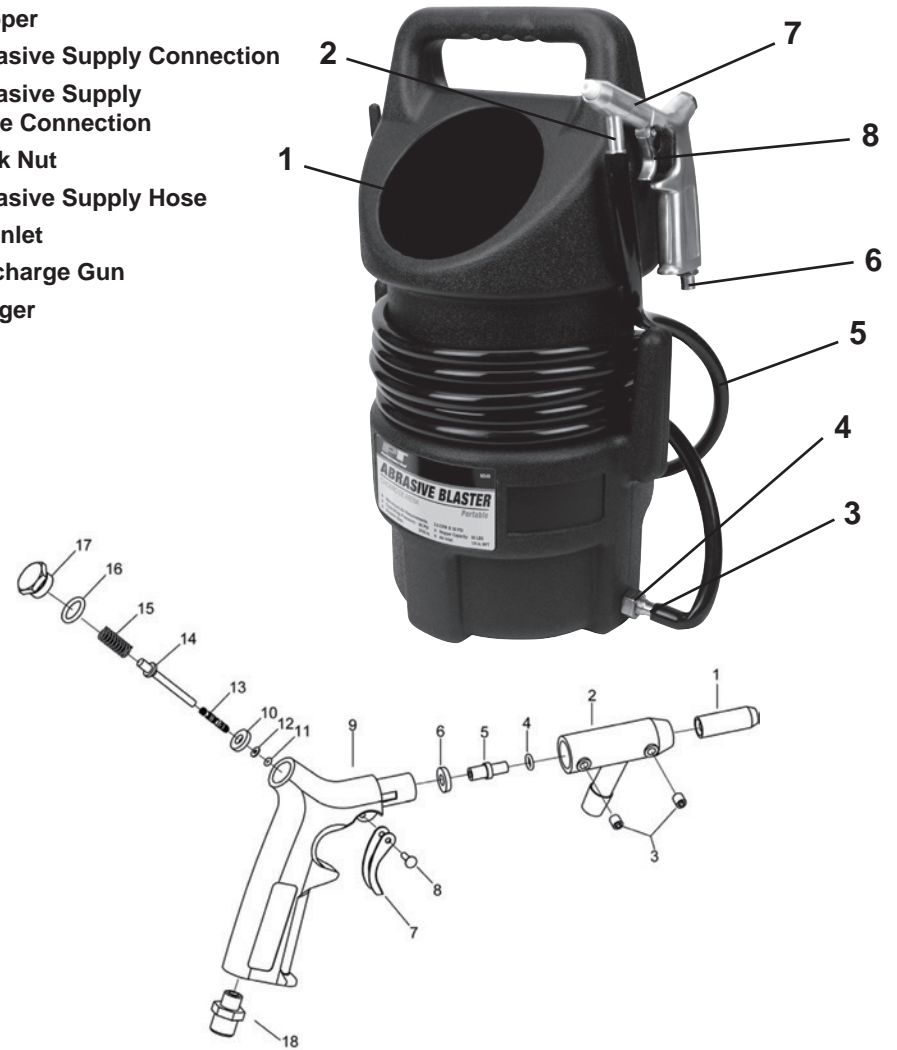
These blasting medias clog easier and require different nozzles and higher pressures.

- Baking Soda, Grain Starch
- Crush Nutshells

**NOTE:** Store abrasive in a dry location. Wet abrasive will clog the tool.

## PARTS IDENTIFICATION

1. Hopper
2. Abrasive Supply Connection
3. Abrasive Supply Hose Connection
4. Lock Nut
5. Abrasive Supply Hose
6. Air Inlet
7. Discharge Gun
8. Trigger



## DISCHARGE GUN PARTS LIST

Part	Description	Qty	Part	Description	Qty
1	Ceramic Nozzle	1	10	Gasket	1
2	Nozzle Housing	1	11	O-Ring	1
3	Bleeder Valve M6 X 1.00	2	12	Washer	1
4	O-Ring	1	13	Spring	1
5	Jet Nozzle	1	14	Valve Stem	1
6	Gasket	1	15	Spring	1
7	Trigger	1	16	O-Ring	1
8	Pin	1	17	Nut	1
9	Gun Body	1	18	Air Inlet Adapter	1

## ASSEMBLY AND OPERATION

Connect the discharge gun (7) to the abrasive supply hose (5) by pushing the open end of the abrasive supply hose (5) onto the abrasive supply connection (2) of the discharge gun (7).

Fasten the air inlet (6) to the port on the handle of the discharge gun (7).

**NOTE:** Use sealant tape on threads to prevent leaks. Check all fittings for leaks before using this unit.

The air compressor's regulator should set between 50 to 90 PSI, depending on the PSI required for the task.

Connect the air line from the air compressor to the air inlet (6) located on the discharge gun (7).

**CAUTION!** If any leaks are detected, disconnect the air hose and make any repairs before use.

Select the type of clean, dry abrasive for your project. Use of a screen to filter the abrasive material into the hopper can assist to remove some abrasive that may have become dampened.

Place work piece in an area that is well ventilated or contained and suitable for the blasting process.

**CAUTION!** The blasting process creates fine dust that will accumulate upon nearby objects, potentially damaging or contaminating the object. Place objects such as vehicles, air compressors, etc. in a location away from the blasting process to avoid such contaminants.

Turn the air compressor On, taking care not to point the discharge gun (7) towards yourself, others in the work area, or the work piece in case of accidental starting.

Firmly grasp the discharge gun (7) and depress the trigger. This should begin the abrasive flow. If no flow is seen, you may need to clear the siphon funnel. Simply shake the bucket slightly to dislodge any blockage. If this does not work, try dislodging the media with a drill bit held in your hand. You need to discard any moist media.

You should move the blast stream continuously over the work piece in an even and circular motion. To avoid undesirable peening, the flow should not be too hard or concentrated.

**NOTE:** To ensure the work piece is not damaged, test the blasting process on a scrap piece of material.

If more force is required to complete the blasting process, adjust the regulator of the air compressor up to the maximum pressure rating of the unit (see the Specifications section). If this does not correct the situation, a larger tool may be necessary.

**WARNING!** Do not exceed the maximum 90 PSI air pressure rating of the unit.

Release the trigger to halt the air flow.

**NOTE:** To avoid accidents, disconnect the air line from the air compressor and discharge any air pressure remaining in the line.

The blasting media does not need to be removed from the unit after every use. However, if a different type of blasting media is required, clean out the interior of the hopper to avoid contaminating the new media.

## MAINTENANCE

**NOTE:** Disconnect the air source and discharge any residual air pressure in the airline before performing any maintenance.

The nozzle will wear away over time, causing the internal diameter to widen and disperse the media over a larger area, reducing the tools efficiency. The compressor will also need to work harder to maintain the pressure. Check ceramic nozzle at regular intervals and replace as appropriate. Performance Tool® part number M571C.

Always check for cracks and leaks in the gun, hose, and plastic hopper bucket. These problems must be fixed immediately due to the dangers involved with air under pressure.

Keep the tool clean. Wipe the tool with a clean cloth and periodically blow out all areas with compressed air. If compressor air is not available, use a brush to remove dust from areas. Do not use harsh chemicals or solvents to clean the tool. These chemicals could seriously damage the housing.

All blasting systems are prone to plugging or wear because of the abrasive material used. The blast nozzle may become plugged from moist media. Try dislodging the media with a drill bit held in your hand. You will need to discard the moist media.

After the unit has been cleaned, the unit may then be stored in a dry, clean location out of the reach of children.

## TROUBLESHOOTING

Problem	Possible Cause	Corrective Action
Excessive dust while blasting.	Abrasive media may be worn. Too much abrasive media in the hopper. Loose air line or fitting connection.	Replace the abrasive media. Remove excess abrasive media. Tighten the fitting and make sure the air lines are secure.
Uneven blasting action.	Too much abrasive media in the hopper. Moisture is present while blasting.	Remove excess abrasive media. Check the air line to make sure that there is no moisture in it.
Inadequate speed or inefficiency of blast.	Abrasive media may be worn.  Pressure is too low.  Worn nozzle.	Replace the abrasive media.  Increase the inlet pressure.  <b>WARNING! DO not exceed the maximum pressure of 90 PSI.</b> Replace the nozzle.

## 1 YEAR LIMITED WARRANTY

PERFORMANCE TOOL® extends only the following warranties, and only to original retail purchasers. These warranties give specific legal rights. Except where prohibited by local law, the law of the State of Washington governs all warranties and all exclusions and limitations of warranties and remedies. There may be other rights which vary from state to state.

PERFORMANCE TOOL® warrants the product to be free from defects in materials and workmanship under normal use and service. A defective product may be returned for a free replacement within 90 days from the date of purchase, provided that product is returned to place of purchase immediately after discovery of defect. After 90 days and up to one year from date of purchase, PERFORMANCE TOOL® will replace at no charge any parts which our examination shall disclose to be defective and under warranty.

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