

# AIR POWERED ABRASIVE SPOT BLASTER

Item Number M545

## OWNER'S MANUAL



Performance Tool®

### SPECIFICATIONS:

|                               |                       |
|-------------------------------|-----------------------|
| Nozzle diameter:              | 5 mm                  |
| Hopper capacity:              | 17.2 fl. oz. (510 ml) |
| Maximum air pressure (P.S.I.) | 90                    |
| Air consumption (CFM)         | 6                     |
| Air inlet (NPT)               | 1/4 in.               |
| Weight:                       | 14 oz. (0.4 kg)       |

Specifications are subject to change without notice.

**▲WARNING:** READ, UNDERSTAND AND FOLLOW ALL INSTRUCTIONS AND WARNINGS BEFORE OPERATING THIS TOOL. FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE AND WILL VOID WARRANTY.

Some dust created by sand blasting contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. An example of this type of chemical is lead from lead based paints, Crystalline Silica from bricks and cement or other masonry, Arsenic and Chromium from chemically treated lumber. Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure: work in a well ventilated area and work with approved safety equipment, such as dusk masks that are specially designed to filter out microscopic particles.

# IMPORTANT SAFETY INFORMATION

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## **▲ WARNING!**

**Oil tool before each use. 4 to 5 drops of a good grade Air Tool Oil placed in the air inlet is sufficient. Use proper air pressure and CFM rating listed for this tool.**

1. Keep work area clean. Cluttered areas invite injuries.
2. Observe work area conditions. Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted. Do not use electrically powered tools in the presence of flammable gases or liquids. Do not bring combustible materials near the tools.
3. Keep children away. Children must never be allowed in the work area. Do not let them handle machines, tools or extension cords.
4. Store idle equipment. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children and other untrained persons. Switch off all unused electrical tools when stored. Tools are dangerous in the hands of untrained users.
5. Wear safety glasses. Always wear approved eye protection when using tools. If raising dust, wear a suitable mask.
6. Work Safe. Keep proper footing and balance at all times. Do not reach over or across running machines, hoses, etc.
7. Be sure air is in OFF position when connecting tool to air supply.
8. Be sure to disconnect tool from air supply before changing accessories, performing service on tool and when not in use.
9. Use only those accessories that are designed for use with air tools. For example, with impact wrenches do not use ordinary sockets. Use impact sockets for all air impact wrench tools.
10. Follow air source manufacturers directions for connection of regulators, filters, and other accessories to air source. Do not install quick couplers directly on tool as they put unnecessary strain on the air inlet threads possibly causing them to wear out prematurely. Instead, install them on a short length of air hose attached to the tool.
11. Stay alert. Watch what you are doing, use common sense. Be sure all personnel are clear of sandblaster spray. Do not operate any tool when you are tired.
12. Take care of your tool. Keep the tool clean for better and safer work. Follow the maintenance instructions and the notices. Regularly inspect all parts. Repairs should only be carried out by a qualified technician. Use only original PERFORMANCE TOOL® replacement parts.
13. Check for damaged parts. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly

## IMPORTANT SAFETY INFORMATION

and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician.

14. Repairs should only be carried out by a qualified electrician using original PERFORMANCE TOOLS® replacement parts. Failure to do so can lead to accidents for the operator. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Performance Tool®. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.
15. Do not operate any tool if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate any tool.
16. For your safety, maintenance should be performed regularly by a qualified technician.

**▲ WARNING:** The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator. Read and understand all of the instructions provided in the instruction manual of this product, as well as, any other tool(s) used with this product.

## AIR SUPPLY SETUP

1. Install an air regulator with pressure gauge and an in-line shutoff valve in your air line as near to your tool as possible for best service.

**IMPORTANT:** An in-line shutoff valve is an important safety device because it controls the air supply even if the air hose is ruptured. The shutoff valve should be a ball valve because it can be closed quickly.

2. Attach an air hose to the compressor's air outlet. Connect the air hose to the air inlet of the tool. Other components, such as a coupler plug and quick coupler, will make operation more efficient, but are not required.

**IMPORTANT:** Do not install a female quick coupler on the tool. Such a coupler contains an air valve that will allow the air tool to retain pressure and operate accidentally after the air supply is disconnected.

**IMPORTANT:** The air hose must have the correct inner diameter for efficient air flow. Usually an air hose of 3/8" inner diameter is recommended.

## AIR SUPPLY SETUP

**IMPORTANT:** Apply thread sealant tape to all male threads in your air line for airtight connection.

3. Close the in-line shutoff valve between the compressor and the tool.
4. Turn on the air compressor according to the manufacturer's directions and allow it to build up pressure until it cycles off.
5. Adjust the air compressor's output regulator so that the air output is enough to properly power the tool, but the output will not exceed the tool's maximum air pressure at any time. Adjust the pressure gradually, while checking the air output gauge to set the right pressure range.

**IMPORTANT:** An individual air tool has its specification of air consumption (CFM). Check the specifications of your air compressor to be sure that it can support both minimum CFM (cubic feet per minute) and PSI (pounds per square inch) required. An air hose (like 3/8 in. x 50 ft. air hose) may cause up to 15 PSI drop in pressure from the air compressor to the tool, so you may need to set the output air pressure of the compressor higher to maintain the required pressure at the tool.

## TOOL SETUP

1. Remove the hopper lid (1) and fill the hopper (2) with the provided abrasive sand (3) in bottle. Ensure that you are not exceeding the maximum fill level for the hopper of 17.2 oz. (Fig. 1)

**IMPORTANT:** Use the provided abrasive sand or other blasting media which does not contain silica. Heed the safety instructions provided by the manufacturer of the blasting media.

**IMPORTANT:** Ensure that the blasting media is totally dry and not too coarse-grained. Moist or too coarse grained blasting media will clog the gun.

2. Replace the hopper lid once the hopper is filled.



FIG. 1

## WORK AREA SETUP

**IMPORTANT:** To keep the blasting media from accidentally spilling out of the nozzle, do not point the nozzle downward.

1. Designate a work area that is clean and well-lighted. The work area must not allow access by children or pets to prevent distraction and injury.
2. Route the air hose along a safe route 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 to allow free movement while working.
3. If possible, place the work piece inside an abrasive blasting cabinet (not included). Otherwise, isolate the work piece to make sure no damage can occur to nearby walls, tools, equipment, or other property.

**IMPORTANT:** Prior to abrasive blasting, protect other people and/or property in the work area from flying debris by providing barriers or shields. Wear appropriate clothing and safety gear when operating the blaster gun.

## TYPES OF ABRASIVES

Suitable abrasives for this spot blaster are:

- Black Aluminum Oxide
- Glass Beads
- Walnut Shells
- Silicon Carbide (Carborundum)
- Pumice

## OPERATING INSTRUCTIONS

1. Connect the compressor's air hose to the air inlet (4) of the blaster gun (5). It is recommended that a male plug (not included) be first mounted into the air inlet for quick connection of air hose.
2. Turn the compressor on and set the working pressure to 90 PSI max. for the tool.

**IMPORTANT:** Working pressure refers to the air line pressure under working conditions.

3. Hold the blaster gun (5) firmly with both hands. Aim the nozzle (6) toward the work piece to be blasted. Then squeeze the trigger (7) to start operating the blaster gun.
4. Move the blaster gun close to the area to be worked. The nearer you are to the workpiece, the smaller the dispersion pattern and vice versa.

## OPERATING INSTRUCTIONS CONT.

**IMPORTANT:** Before your work piece is blasted, control the best distance between the gun nozzle and the work piece. It is recommended that you first test the sandblasting pattern and sandblasting intensity on a piece of scrap material to ensure the best result.

5. Refill the hopper with abrasive sand as necessary.

**IMPORTANT:** Before refilling the hopper, release pressure on the trigger, turn off the air compressor and squeeze the trigger once again to release any compressed air throughout the gun.

6. When you have finished using the blaster gun, release pressure on the trigger. Turn off the air compressor. Squeeze the trigger once again to release any compressed air. Disconnect the blaster gun from its air supply.

**IMPORTANT:** Dispose of used abrasive media according to local solid waste guidelines.

7. Clean and store the tool indoors out of reach of children.

## MAINTENANCE

1. BEFORE EACH USE, inspect the general condition of the tool. Check for loose screws, misalignment or binding of moving parts, clogged nozzle, cracked or broken parts, damaged air hose, and any other condition that may affect its safe operation. Do not use damaged equipment.

2. AFTER USE, immediately clean the gun body and hopper with a clean and moist cloth. If necessary, use a mild detergent.

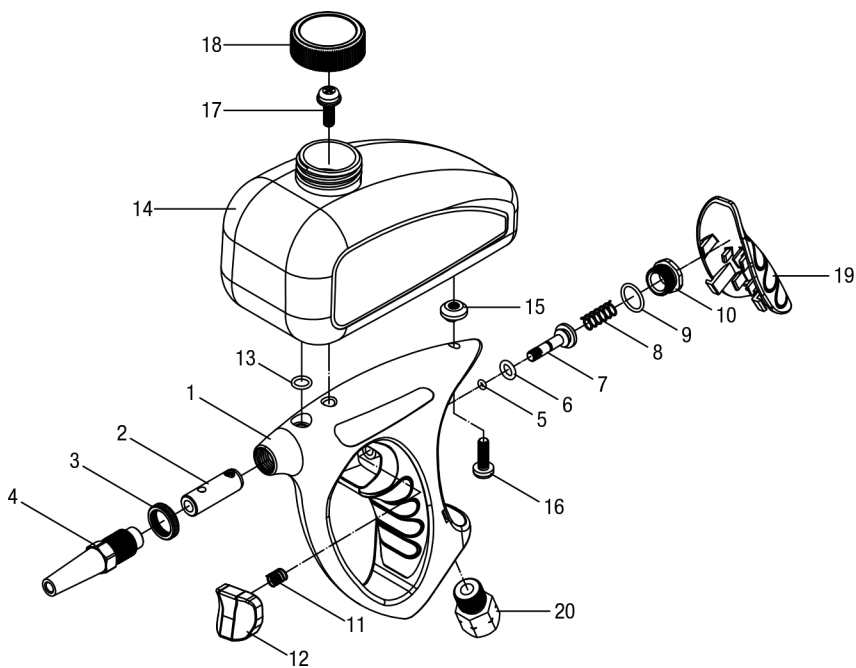
**IMPORTANT:** Do not use solvents to clean the tool, or immerse the tool in liquids, as damage to the tool may occur.

3. Store the tool in a dry and safe place out of reach of children.

**IMPORTANT:** Procedures not specially explained in this manual must be performed by a qualified technician.

## TROUBLESHOOTING

| Problem   | Probable Cause   | Solution   |
|---|--|--|
| Lack of material flow, or no material flow.             | 1. The air is not dry enough.<br>2. Air pressure too low.<br>3. Moisture in blasting media.<br>4. Excessive debris in media.<br>5. Clogged nozzle.<br>6. Hopper empty. | Use clean and dry air.<br>Increase air pressure.<br>Use dry blasting media.<br>Remove and filter media.<br>Use blow gun to clean out nozzle.<br>Fill hopper. |
| Material flow surges or excessive material consumption. | Air pressure too low.  | Increase air pressure  |
| Blasting pattern not as expected.                       | 1. The air is not dry enough.<br>2. Grain size of blasting media is not uniform.<br>3. Blasting media impure.  | Use clean and dry air.<br>Replace blasting media.<br>Clean or replace media.   |



## EXPANDED PARTS LIST

| No. | Description        | Qty. | No. | Description      | Qty. |
|-----|--------------------|------|-----|------------------|------|
| 1   | Gun body .....     | 1    | 11  | Spring .....     | 1    |
| 2   | Jet nozzle .....   | 1    | 12  | Trigger .....    | 1    |
| 3   | Lock ring .....    | 1    | 13  | O-ring .....     | 1    |
| 4   | Steel nozzle ..... | 1    | 14  | Hopper .....     | 1    |
| 5   | O-ring .....       | 1    | 15  | Washer .....     | 1    |
| 6   | O-ring .....       | 1    | 16  | Screw .....      | 1    |
| 7   | Valve stem .....   | 1    | 17  | Screw .....      | 1    |
| 8   | Spring .....       | 1    | 18  | Hopper lid ..... | 1    |
| 9   | O-ring .....       | 1    | 19  | Soft grip .....  | 1    |
| 10  | Nut .....          | 1    | 20  | Air inlet .....  | 1    |

## 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. These warranties shall be valid only when a sales receipt showing the date of purchase accompanies the defective product or defective part (s) being returned. For part (s) after 90 days, please remit your request, postage prepaid to:

PERFORMANCE TOOL, P.O. Box 88259 Tukwila, WA 98138

These warranties exclude blades, bits, punches, dies, bulbs, fuses, hoses, and other consumables which must be replaced under normal use and service. These warranties shall not apply to any product or part which is used for a purpose for which it is not designed, or which has been repaired or altered in any way so as to affect adversely its performance or reliability, nor shall these warranties apply to any product or part which has been subject to misuse, neglect, accident or wear and tear incident to normal use and service.

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