

# **Grizzly** **Industrial, Inc.**®

## **MODEL T27158** **20-GALLON SANDBLASTER** **OWNER'S MANUAL** *(For models manufactured since 12/14)*



COPYRIGHT © JANUARY, 2015 BY GRIZZLY INDUSTRIAL, INC.  
**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE  
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**  
#WK17146 PRINTED IN CHINA

V1.01.15

 **WARNING!**

**This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.**

**Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.**

**The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.**

**The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.**

 **WARNING!**

**Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:**

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **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 to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.**

# Table of Contents

- INTRODUCTION..... 2**
  - Manual Accuracy..... 2
  - Machine Data Sheet..... 2
  - Contact Info..... 2
- SECTION 1: SAFETY..... 3**
  - Additional Safety for Sandblasters..... 5
- SECTION 2: SETUP..... 6**
  - Unpacking..... 6
  - Needed for Setup..... 6
  - Assembly..... 6
- SECTION 3: OPERATIONS..... 8**
  - Operation Safety..... 8
  - Basic Operation..... 8
  - Abrasive Options..... 11
  - Nozzle Options..... 11
- SECTION 4: MAINTENANCE..... 12**
  - Maintenance..... 12
- SECTION 5: PARTS..... 13**
  - Main Parts Breakdown..... 13
- WARRANTY & RETURNS..... 14**

# INTRODUCTION

## Manual Accuracy

We are proud to offer this document with your new machine! We've made every effort to be exact with the instructions, specifications, drawings, and photographs of the machine we used when writing this manual. However, sometimes we still make an occasional mistake.

Also, owing to our policy of continuous improvement, **your machine may not exactly match the manual.** If you find this to be the case, and the difference between the manual and machine leaves you in doubt, immediately call our technical support for updates or clarification.

For your convenience, we post all available documentation on our website at [www.grizzly.com](http://www.grizzly.com). Any updates to this document will be reflected on our website as soon as complete.

## Contact Info

We stand behind our machines. If you have any questions or need help, use the information below to contact us. Before contacting, please get the serial number and manufacture date of your machine. This will help us help you faster.

Grizzly Technical Support  
1203 Lycoming Mall Circle  
Muncy, PA 17756  
Phone: (570) 546-9663  
Email: [techsupport@grizzly.com](mailto:techsupport@grizzly.com)

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

Grizzly Documentation Manager  
P.O. Box 2069  
Bellingham, WA 98227-2069  
Email: [manuals@grizzly.com](mailto:manuals@grizzly.com)



## MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

### MODEL T27158 20-GALLON SANDBLASTER

Design Type ..... Portable Floor Model

#### General Specifications:

Width ..... 15"  
Height ..... 35½"  
Depth ..... 27½"  
Operating Air Pressure Range ..... 65-125 PSI  
Recommended Air Supply ..... 6-25 CFM  
Hose Length ..... 10 ft.  
Tank Size ..... 20 gal.  
Abrasive Capacity ..... 80 lbs.  
Abrasive Type ..... Dry Only  
Weight ..... 55 lbs.

*Specifications, while deemed accurate, are not guaranteed.*



# SECTION 1: SAFETY

## For Your Own Safety, Read Instruction Manual Before Operating This Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures. Always use common sense and good judgment.

 **DANGER** Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

 **WARNING** Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

 **CAUTION** Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

**NOTICE** This symbol is used to alert the user to useful information about proper operation of the machine.

## Safety Instructions for Machinery

### **WARNING**

**OWNER'S MANUAL.** Read and understand this owner's manual **BEFORE** using machine.

**TRAINED OPERATORS ONLY.** Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make workshop kid proof!

**DANGEROUS ENVIRONMENTS.** Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

**MENTAL ALERTNESS REQUIRED.** Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

**ELECTRICAL EQUIPMENT INJURY RISKS.** You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

**DISCONNECT POWER FIRST.** Always disconnect machine from power supply **BEFORE** making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

**EYE PROTECTION.** Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are **NOT** approved safety glasses.



# WARNING

**WEARING PROPER APPAREL.** Do not wear clothing, apparel or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips, which could cause loss of workpiece control.

**HAZARDOUS DUST.** Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.

**HEARING PROTECTION.** Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

**REMOVE ADJUSTING TOOLS.** Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

**USE CORRECT TOOL FOR THE JOB.** Only use this tool for its intended purpose—do not force it or an attachment to do a job for which it was not designed. Never make unapproved modifications—modifying tool or using it differently than intended may result in malfunction or mechanical failure that can lead to personal injury or death!

**AWKWARD POSITIONS.** Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

**CHILDREN & BYSTANDERS.** Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

**GUARDS & COVERS.** Guards and covers reduce accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly.

**FORCING MACHINERY.** Do not force machine. It will do the job safer and better at the rate for which it was designed.

**NEVER STAND ON MACHINE.** Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

**STABLE MACHINE.** Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

**USE RECOMMENDED ACCESSORIES.** Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase the risk of serious injury.

**UNATTENDED OPERATION.** To reduce the risk of accidental injury, turn machine **OFF** and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

**MAINTAIN WITH CARE.** Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

**CHECK DAMAGED PARTS.** Regularly inspect machine for any condition that may affect safe operation. Immediately repair or replace damaged or mis-adjusted parts before operating machine.

**MAINTAIN POWER CORDS.** When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

**EXPERIENCING DIFFICULTIES.** If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.



# Additional Safety for Sandblasters

## WARNING

**USE CORRECT ABRASIVES.** Never use wet abrasives in this sandblaster, it is designed for dry abrasives only.

**PROTECT LUNGS.** Make sure that you always use an NIOSH approved respirator when using or cleaning the sandblaster.

**PROTECT EYES.** Make sure that you always use the dust hood when using or cleaning the sandblaster.

**PROTECT ENVIRONMENT.** Always sandblast in an area where the spread of abrasive dust can be contained.

**MAINTAIN COMPONENTS.** Replace nozzles, hoses, lenses, and safety gear when they become worn.

**MAINTAIN EQUIPMENT.** Check air lines and fittings for any leaks, and replace lines and reseat fittings immediately.

**USE SAFETY WHEN SANDBLASTING.** Always secure the workpiece before sandblasting and do not use system over the rated PSI.

**USE CORRECT LIGHTING.** Always make sure that you have adequate lighting when sandblasting.

**USE SAFETY LOADING & UNLOADING.** Close the air supply ball valve and discharge the air tank before disconnecting the air supply line.

**USE SAFETY DURING MAINTENANCE.** Disconnect air supply and electrical before doing maintenance.

**MAINTAIN WORK AREA SAFETY.** Clean compressor and equipment air filters often, and repair any air hose leaks immediately.

**LEAVING THE AREA.** Always disconnect air supply when leaving the sandblaster.

## WARNING

Serious personal injury may occur when operating this machine! Accidents happen most frequently when the operator is not familiar with machine or does not pay careful attention. To minimize your risk, understand ALL machine controls and safety precautions BEFORE operating. Always use machine with respect and caution.

## CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.



# SECTION 2: SETUP

## Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover any damage, *please call us immediately at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, inventory the contents.

	<p><b>⚠ WARNING</b>  <b>SUFFOCATION HAZARD!</b>          Keep children and pets away from plastic bags or packing materials shipped with this machine. Discard immediately.</p>
--	---

## Needed for Setup

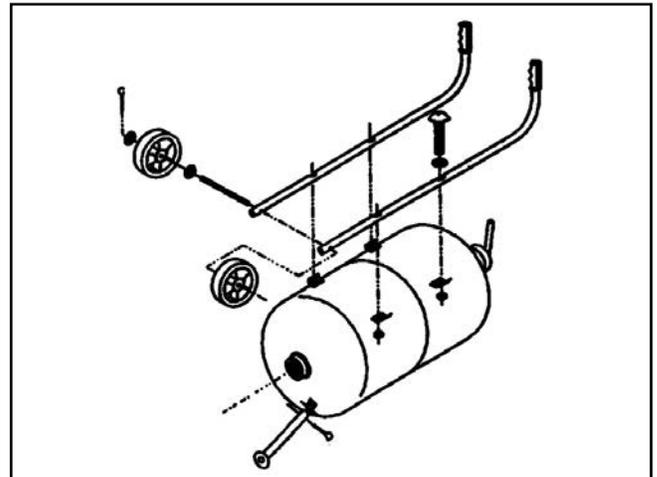
The following are needed to complete the setup process, but are not included with your machine.

Description	Qty
• Phillips Head Screwdriver #2 .....	1
• Standard Screwdriver #2.....	1
• Teflon Tape .....	1
• Wrench 10mm.....	1
• Wrench 17mm.....	1
• Wrench 22mm.....	1

## Assembly

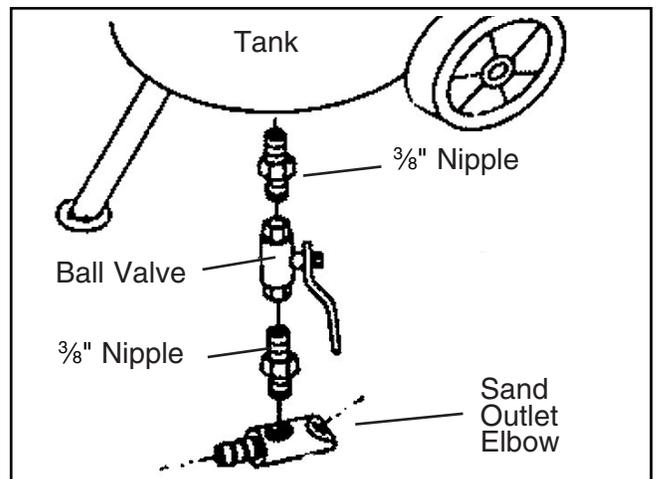
**To assemble the sandblaster:**

1. Install the wheels, handles, and leg to the tank with the screws, washers, nuts, and cotter pins, as shown in **Figure 1**.



**Figure 1.** Wheel and handle installation.

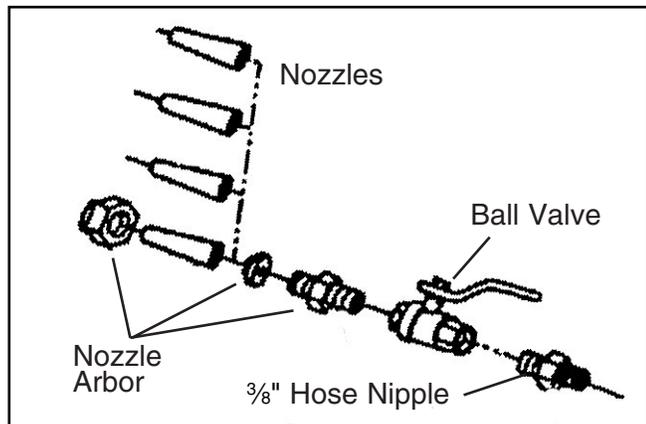
2. Seal all pipe threads with thread-seal tape, and assemble and install one of the four ball valves to the bottom of the tank with two  $\frac{3}{8}$ " nipples, and the sand outlet elbow, as shown in **Figure 2**.



**Figure 2.** Sand outlet control installation.

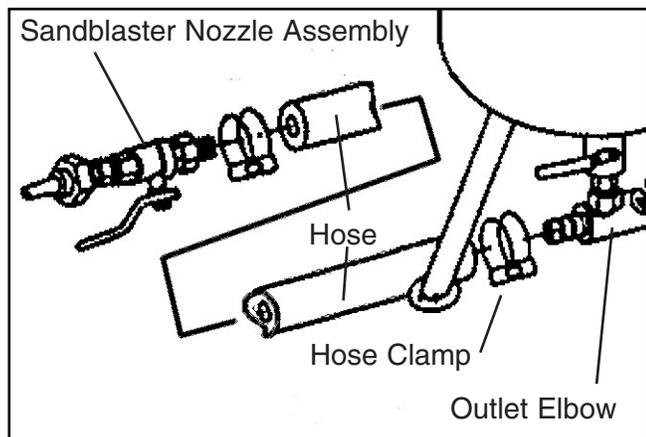


3. Assemble one of the remaining three ball valves with a  $\frac{3}{8}$ " hose nipple, and the nozzle arbor, as shown in **Figure 3**.
4. Install one of four sandblasting nozzles into the nozzle arbor, as shown in **Figure 3**.



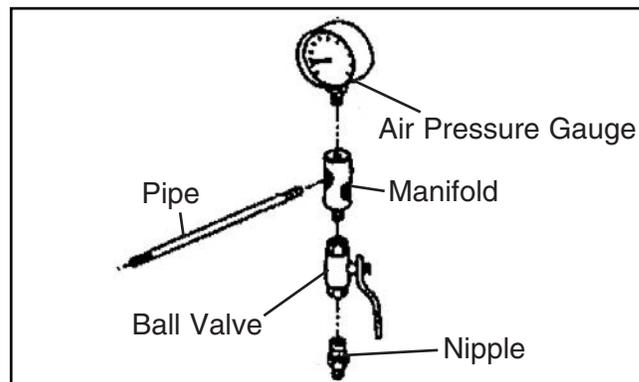
**Figure 3.** Sandblaster handle and nozzle assembly.

5. With the two hose clamps, secure the sandblaster hose to the sand outlet elbow and the sandblaster nozzle assembly, as shown in **Figure 4**.



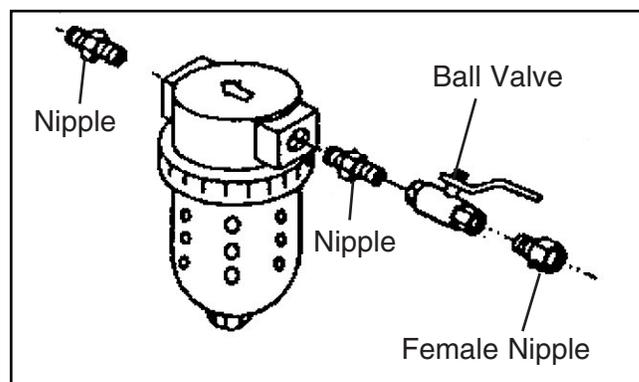
**Figure 4.** Sandblaster hose installation.

6. Attach to the manifold one of the remaining ball valves and  $\frac{3}{8}$ " hose nipple, the red hose, pressure gauge, and the pipe, as shown in **Figure 5**.



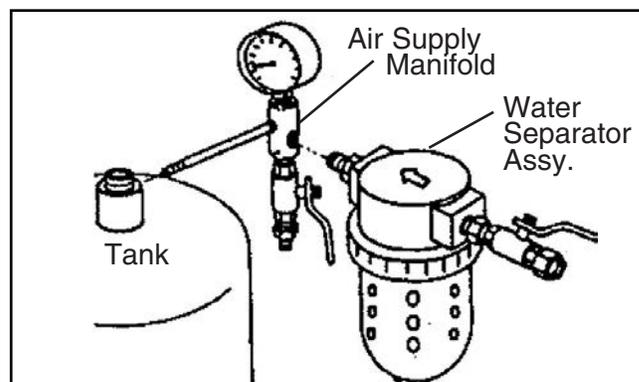
**Figure 5.** Gauge/air supply control installation.

7. Install the remaining ball valve to the water separator with two  $\frac{3}{8}$ " nipples, and the  $\frac{3}{8}$ " female nipple, as shown in **Figure 6**.



**Figure 6.** Water separator assembly.

8. Connect the water separator assembly to the air supply manifold, as shown in **Figure 7**.
9. Connect the gauge and water separator assembly to the top of the tank, as shown in **Figure 7**.



**Figure 7.** Air supply control system installation.

10. Connect the air supply hose to the sand outlet elbow at the bottom of the tank, and the other end to the air pressure gauge valve nipple.



# SECTION 3: OPERATIONS

## ⚠️ WARNING

Sandblasting presents a real hazard of silicosis and other lung contamination injuries! These injuries are permanent and can get worse over time. If you use sandblasting equipment without the proper headgear, eye protection, and respirator, your lungs and eyes may become irreversibly contaminated. **DO NOT** use this sandblaster unless you know how to use it, protect yourself correctly, and keep all unprotected bystanders away. For latest types of protective equipment and acceptable respirator types, contact your local OSHA or NIOSH office.

## Operation Safety

### ⚠️ WARNING

**NEVER** sand blast with the doors open, point the gun at yourself or anyone else, or attempt to service any part of this machine while it is plugged in or connected to air pressure. **ALWAYS** disconnect the blast cabinet from power and air pressure when not in use, or during maintenance or adjustments. Ignoring this warning may lead to severe injury.

### NOTICE

If you have never used this type of equipment before, **WE STRONGLY RECOMMEND** that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

## Basic Operation

The Model T27158 Sandblaster is equipped with an industrial-duty blast nozzle, tank, ball valves, hoses, pressure gauge, and water separator.

**To use the sandblaster:**

1. **PUT ON** safety glasses, gloves, and respirator. **Always wear these protective items when operating and while servicing your sandblaster!**
2. Select the appropriate abrasive for your sandblaster. Refer to **Page 12** for types.
3. Install the correct nozzle into the arbor for the abrasive type hose size, air pressure and CFM you will use. Refer to **Page 12** for options.
4. Move the tank air supply lever to the OFF or closed position (see **Figure 8**).



**Figure 8.** Tank air supply valve, closed.



5. Move the blast hose air supply lever to the OFF or the closed position (see **Figure 9**).



**Figure 9.** Blast hose air supply valve, closed.

6. Point the blast nozzle in a safe direction, and slowly move the blast nozzle lever to the ON or open position to exhaust any air from the tank (see **Figure 10**).
7. Make sure the air pressure gauge reads zero (see **Figure 10**).



**Figure 10.** Tank air pressure at zero PSI.

8. Remove the filler cap, insert the funnel, and carefully—without causing a hazardous dust cloud—pour or spade-in the abrasive into the sandblaster. Use only enough abrasive for your project.

**Note:** If you fill the tank to  $\frac{3}{4}$  full, and the local humidity is 90-100%, the water trap will not be able to trap all of the moisture from the compressed air. So you must reduce the load of abrasive and fill the tank more often and empty the water trap more often. Otherwise, the sand will clog in the tank outlet and in the blast hose.

9. Brush sand away from the sealing cap and O-ring, and close the filler cap.
10. Close the blast nozzle lever, and turn the compressor on (see **Figure 11**).



**Figure 11.** Blast nozzle valve, closed.

11. Adjust the air supply line regulator to an air pressure between 65-125 PSI, depending on your requirements.
12. Move the tank air supply lever to ON or the open position (**Figure 12**), and the tank will pressurize to your regulated air pressure indicated by the tank gauge.

**Note:** If the tank relief valve trips open and exhausts air, immediately turn the compressor off and correct the over-pressurization problem with the compressor. If the tank exceeds its rated pressure, it may explode, causing severe injury or death.





**Figure 12.** Tank air supply valve, opened.

13. Move the blast nozzle air supply lever to ON or the open position (see **Figure 13**).



**Figure 13.** Blast nozzle air supply valve, opened.

14. Move the sand metering valve lever to your required sand flow volume requirement (see **Figure 14**).

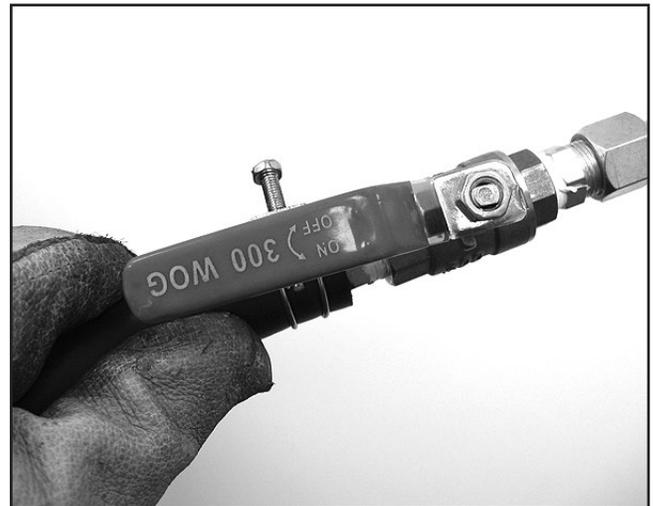


**Figure 14.** Sand metering valve in the full-open position.

## **NOTICE**

**Only sandblast with the blast nozzle valve in the fully OPEN position. Sandblasting with a partially open blast nozzle valve can lead to premature wear and cause machine damage.**

15. Point the blast nozzle at the workpiece and slowly move the blast nozzle valve (**Figure 15**) to the ON or open position. Sand blasting will begin.



**Figure 15.** Blast nozzle valve, open.

16. Move the blast nozzle in a slow circular motion.

**Note:** *A good starting point for tip distance is four inches away from the workpiece. Start out with a low air pressure setting to avoid excess peening and abrasive wear.*

**Note:** *Experiment with different pressures, abrasives, sand flow, and tips to gain practical experience.*

**Note:** *Keep the sandblasting abrasives moisture-free; otherwise, the sand elbow and the sand flow valve at the bottom of the tank will clog frequently.*

17. When sandblasting is complete, ALWAYS close the air supply lever before you disconnect the air supply line. Otherwise the residual air in the tank will expel sand backwards through the water separator and out of the air supply fitting, damaging the water separator.



# Abrasive Options

## Grizzly Blasting Media Part #

- G6535:** 15 lbs. Aluminum Oxide 220 Grit.
- G6536:** 15 lbs. Aluminum Oxide 120 Grit.
- G6537:** 15 lbs. Aluminum Oxide 60 Grit.
- G6538:** 15 lbs. Glass Bead 50-Micron Grit.

Some common blasting abrasives are listed below. All abrasives have benefits and drawbacks such as quality of surface finish, abrasive life, toxicity, and what precautions you must take to prevent environmental damage or personal injury to your respiratory system.

## Steel Type Abrasives

This aggressive abrasive creates a rough finish that accepts paint well. The abrasive is very durable and has a long life; however, it MUST be kept very dry to prevent rusting.

## Alumina Type Abrasives

This multi-purpose abrasive creates a smoother finish than the steel abrasives, but has a shorter life span. Less of the workpiece surface is removed with this more forgiving abrasive.

## Glass and Garnet Type Abrasives

Typically this abrasive works well for soft metals and addressing surface issues with equipment parts where tolerances cannot be affected. The life of this abrasive is limited and not well suited for repetitive recycling.

## Sand Type Abrasives

This abrasive is easy to find and gives an average finish that is acceptable for most projects. Sand has a good recycling life and is very economical.

## Other Types of Abrasives Available

- Plastic beads.
- Ground walnut or peanut shells.
- Ground corn cob.
- Sodium bicarbonate.
- Wheat starch.

# Nozzle Options

## Grizzly Blast Nozzles Part #

- PT27158002:** Nozzle Set ( $\frac{9}{64}$ ",  $\frac{1}{8}$ ",  $\frac{7}{64}$ ",  $\frac{3}{32}$ " ID).
- PT27158002-1:** #1 Nozzle ( $\frac{9}{64}$ " ID).
- PT27158002-2:** #2 Nozzle ( $\frac{1}{8}$ " ID).
- PT27158002-3:** #3 Nozzle ( $\frac{7}{64}$ " ID).
- PT27158002-4:** #4 Nozzle ( $\frac{3}{32}$ " ID).

Sandblasting requires a high volume of compressed air. The quality of sandblasting can be reduced by using the incorrect combination of nozzle, hose size, air pressure and CFM. Use the chart below as an estimate to get you started. Experimentation will lead you to your optimum settings for your particular sandblasting task.

Hose ID	Hose Length	Nozzle ID	Compressor HP	CFM at 125 PSI	Sand Use Per-Hour
3/8"	50 ft	3/32"	2	6	60 lbs
3/8"	25 ft	7/64"	4	12	100 lbs
1/2"	50 ft	1/8"	7	20	150 lbs
1/2"	25 ft	9/64"	10	25	200 lbs



# SECTION 4: MAINTENANCE

---

---

## Maintenance

---

---



**Depressurize the sandblaster, and check the following items each time you use the sandblaster and replace any parts immediately if found to be worn:**

- Look for excessively worn or cracked nozzles.
- Look for leaking thread fittings with soapy water and a spray bottle.
- Look at the sand blasting hose for thin walls and bubbling.
- Look for worn or leaking ball valves with soapy water and a spray bottle.





# WARRANTY & RETURNS

---

---

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.