

# *Grizzly* **Industrial, Inc.**®

## **8" BUFFER MODEL H4380 INSTRUCTION MANUAL**



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**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE  
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**  
FOR MACHINES MANUFACTURED SINCE 7/02. #TR4354 PRINTED IN CHINA

# **WARNING!**

**This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.**

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

**The owner of this machine/equipment 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, blade/cutter 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.**

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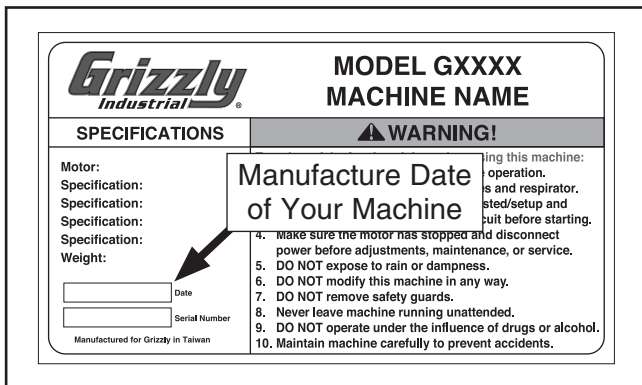
# INTRODUCTION

## Manual Accuracy

We are proud to offer this manual 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 errors do happen and we apologize for them.

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, check our website for the latest manual update or call technical support for help.

Before calling, find the manufacture date of your machine by looking at the date stamped into the machine ID label (see below). This will help us determine if the manual version you received matches the manufacture date of your machine.



For your convenience, we post all available manuals and manual updates for free on our website at [www.grizzly.com](http://www.grizzly.com). Any updates to your model of machine will be reflected in these documents as soon as they are complete.

## Contact Info

We stand behind our machines. If you have any service questions, parts requests or general questions about the machine, please call or write us at the location listed below.

Grizzly Industrial, Inc.  
1203 Lycoming Mall Circle  
Muncy, PA 17756  
Phone: (570) 546-9663  
Fax: (800) 438-5901  
E-Mail: [techsupport@grizzly.com](mailto:techsupport@grizzly.com)

If you have any comments regarding this manual, please write to us at the address below:

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





# MACHINE DATA SHEET

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## MODEL H4380 BUFFER

Design Type..... Bench Model

### Overall Dimensions:

Height ..... 8"  
 Width ..... 21"  
 Depth ..... 7<sup>1</sup>/<sub>4</sub>"  
 Shipping Weight ..... 20 lbs.  
 Net Weight ..... 17 lbs.  
 Box Size ..... 18" L x 11" W x 11<sup>1</sup>/<sub>4</sub>" H  
 Footprint..... 8" x 7<sup>5</sup>/<sub>16</sub>"  
 Arbor..... M16-2  
 Buffing Wheel Size ..... 8" x 3<sup>3</sup>/<sub>4</sub>"

### Motor:

Type ..... TEFC Capacitor-Start Induction  
 Horsepower ..... 1/2 HP  
 Phase / Voltage ..... Single-Phase / 110V  
 Amps (No Load) ..... 3.5  
 Cycle / RPM..... 60 Hertz / 3450 RPM  
 Bearings ..... Shielded & Permanently Lubricated

### Features:

.....Rocker-Type Switch  
 .....Flanges Included  
 ..... Extended Wheel-to-Motor Clearance

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



# SECTION 1: SAFETY

## WARNING

### 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.



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



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



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.

## WARNING

### Safety Instructions for Machinery

- 1. READ ENTIRE MANUAL BEFORE STARTING.** Operating machine before reading the manual greatly increases the risk of injury.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
- 3. ALWAYS WEAR A NIOSH APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Most types of dust (wood, metal, etc.) can cause severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing loss.
- 5. WEAR PROPER APPAREL. DO NOT** wear loose clothing, gloves, neckties, rings, or jewelry that can catch in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.



# WARNING

## Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN/VISITORS AWAY.** Keep all children and visitors away from machinery. When machine is not in use, disconnect it from power, lock it out, or disable the switch to make it difficult for unauthorized people to start the machine.
9. **UNATTENDED OPERATION.** Leaving machine unattended while its running greatly increases the risk of an accident or property damage. Turn machine **OFF** and allow all moving parts to come to a complete stop before walking away.
10. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
11. **KEEP WORK AREA CLEAN AND WELL LIGHTED.** Clutter and dark shadows may cause accidents.
12. **USE A GROUNDED POWER SUPPLY RATED FOR THE MACHINE AMPERAGE.** Grounded cords minimize shock hazards. Operating machine on an incorrect size of circuit increases risk of fire.
13. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
14. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
15. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
16. **REMOVE CHUCK KEYS OR ADJUSTING TOOLS.** Make a habit of never leaving chuck keys or other adjustment tools in/on the machine—especially near spindles!
17. **DAMAGED MACHINERY.** Check for binding or misaligned parts, broken parts, loose bolts, other conditions that may impair machine operation. Always repair or replace damaged parts before operation.
18. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
19. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
20. **DO NOT OVERREACH.** Maintain stability and balance at all times when operating machine.
21. **MANY MACHINES CAN EJECT WORKPIECES TOWARD OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
22. **STABLE MACHINE.** Machines that move during operations greatly increase the risk of injury and loss of control. Verify machines are stable/secure and mobile bases (if used) are locked before starting.
23. **CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Be aware of the type of dust you are exposed to and always wear a respirator designed to filter that type of dust.
24. **EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Technical Support Department at (570) 546-9663.



# **WARNING**

## **Additional Safety For Buffers**

- 1. ALWAYS WEAR EYE PROTECTION!**
- 2. WEAR AN APPROVED DUST MASK OR RESPIRATOR.** Buffing operations produce dust.
- 3. MAKE SURE BUFFER IS SECURED FIRMLY TO A BENCH OR STAND BEFORE USE.** Any “wobbles” must be corrected by shimming or blocking before operation.
- 4. DO NOT USE GRINDING WHEELS ON THIS MACHINE.** It is strictly designed for buffing and drum sanding only.
- 5. DO NOT** stand directly in front of buffing or sanding accessories when turning machine on.
- 6. PERFORM** machine inspections and maintenance service promptly when called for.
- 7. DO NOT** allow your hands to come into contact with buffing wheels during operation. Abrasive accessories have the ability to remove a lot of material, including skin, very quickly.
- 8. ANY PROBLEM** concerned with any moving parts or accessories must be investigated and corrected with the power disconnected, and after everything has come to a complete stop.
- 9. NEVER** leave the machine running unattended.
- 10. NEVER BUFF BY PLACING THE WORKPIECE ON TOP OF THE BUFFING WHEEL.** The wheel may kick the workpiece toward the operator. Always buff on the downward part of the buffing wheel.
- 11. HOLD THE WORKPIECE FIRMLY WHILE BUFFING.**

### **WARNING**

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

### **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: CIRCUIT REQUIREMENTS

## 110V Operation

### **⚠️ WARNING**

Serious personal injury could occur if you connect the machine to power before completing the setup process. **DO NOT** connect the machine to the power until instructed later in this manual.



### **⚠️ WARNING**

Electrocution or fire could result if machine is not correctly grounded or connected to the power source. Get help if you do not know what you are doing.

### Full Load Amperage Draw

This machine draws the following amps under maximum load:

Amp Draw.....3.5 Amps

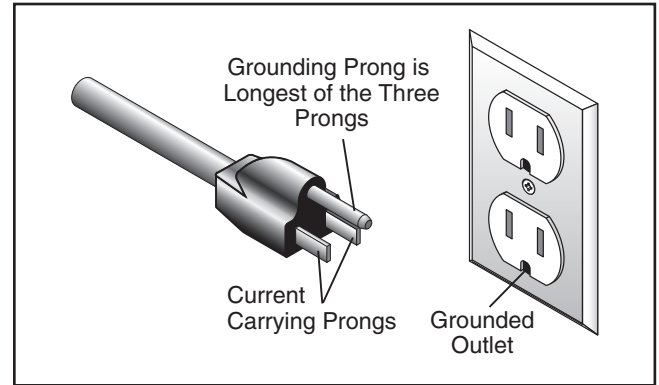
### Power Supply Circuit Requirements

The power supply circuit for your machine **MUST** be grounded and rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

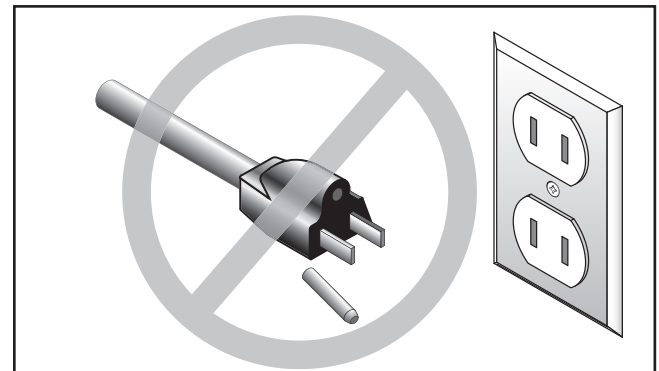
Minimum Circuit Size..... 15 Amps

### Power Connection Device

This machine comes with a plug, similar to **Figure 1**, to connect the machine to power.



**Figure 1.** Typical 5-15 plug and receptacle.



### **⚠️ CAUTION**

This machine **MUST** have a ground prong in the plug to help ensure that it is grounded. **DO NOT** remove ground prong from plug to fit into a two-pronged outlet! If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician.

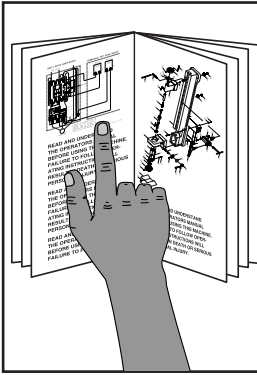
### Extension Cords

We do not recommend using extension cords, but if you find it absolutely necessary:

- Use at least a 14 gauge cord that does not exceed 50 feet in length!
- The extension cord must have a ground wire and plug pin.
- A qualified electrician **MUST** size cords over 50 feet long to prevent motor damage.

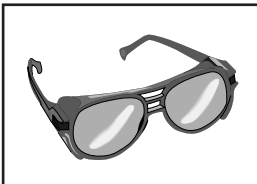


# SECTION 3: SETUP



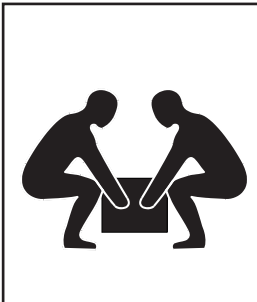
## **!WARNING**

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



## **!WARNING**

Wear safety glasses during the entire setup process!



## **!WARNING**

This machine and its components are very heavy. Get lifting help or use power lifting equipment such as a forklift to move heavy items.

## Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover the machine is damaged, *please immediately call Customer Service 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.

## Inventory

The following is a description of the main components shipped with your machine. Lay the components out to inventory them.

**Note:** *If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes.*

Box Contents:	Qty
A. Buffing Unit.....	1
B. Wheel Flanges .....	4
C. Arbor Nuts .....	2

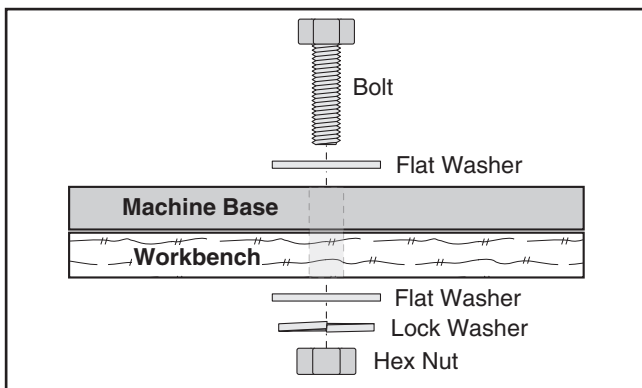
If any nonproprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.



# Mounting

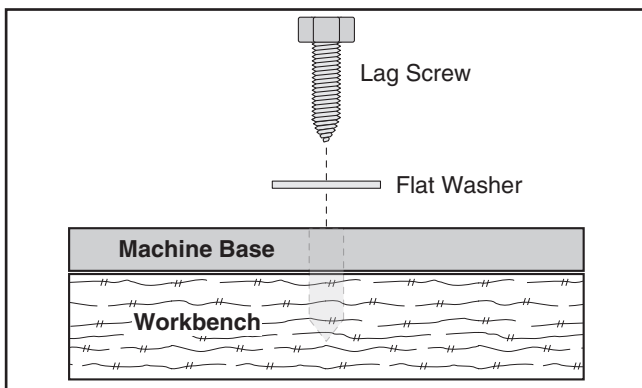
The base of this machine has holes that allow it to be mounted to a workbench. We strongly recommend that you mount your machine to a workbench to prevent it from moving during operation. An unexpected movement could result in an injury or property damage.

The strongest mounting option is a "Through Mount" where holes are drilled all the way through the workbench, and hex bolts, washers, and hex nuts are used to secure the drill press to the workbench.



**Figure 2.** Example of a through mount setup.

Another option for mounting is a "Direct Mount" where the machine is simply secured to the workbench with a lag screw.



**Figure 3.** Example of a direct mount setup.

# Test Run

Once mounting is complete and adjustments are done to your satisfaction, you are ready to test the machine.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then contact our Tech Support at (570) 546-9663 for assistance.

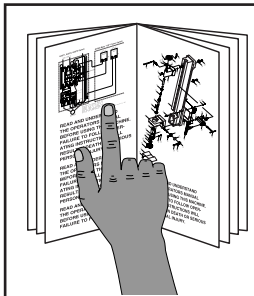
Before testing, remove the flanges and shaft nuts from the arbor. Facing the machine, the left-hand nut has left-handed threads (remove by turning clockwise) and the right-hand nut has right-handed threads (remove by turning counterclockwise).

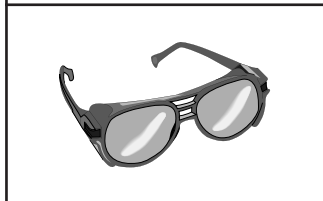

Plug in the power and turn the buffer *ON*. Make sure that your hand is poised near the switch in case there is a problem. The buffer should run smoothly with little or no vibration or rubbing noises. Strange or unnatural noises should be investigated and corrected before operating the machine further.

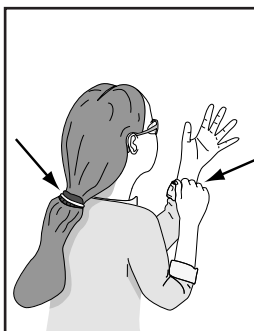
If you cannot easily locate the source of an unusual noise or vibration, feel free to contact our service department for help.



# SECTION 4: OPERATIONS

	<p><b>!WARNING</b> To reduce the risk of serious injury when using this machine, read and understand this entire manual before beginning any operations.</p>
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<p><b>!WARNING</b> Damage to your eyes and lungs could result from using this machine without proper protective gear. Always wear safety glasses and a respirator when operating this machine.</p>	
	

	<p><b>!WARNING</b> Loose hair, clothing, or jewelry could get caught in machinery and cause serious personal injury. Keep these items away from moving parts at all times to reduce this risk.</p>
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<p><b>NOTICE</b> If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, review industry 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.</p>
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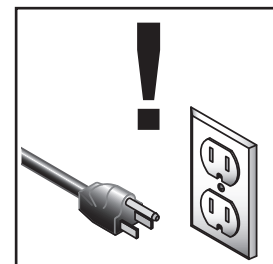
## General

The Model H4380 8" Buffer is strictly designed for buffing operations. IT IS NOT A GRINDER. The absence of grinding wheel guards prohibit the use of this machine as a grinder.

This buffer has a left and right shaft to provide the option of mounting two different buffing wheels, depending on your application. The convenience of having two shafts allows you to mount different textured buffing wheels onto each shaft.

## Wheel Removal

To remove the buffing wheels, ensure that the switch is turned OFF and the power cord is disconnected! Hold the shaft with one hand while loosening the nut with a wrench. Remember, the left-hand nut and shaft have left-handed threads.

	<p><b>!WARNING</b> Disconnect power to the machine when removing the wheels. Failure to do this may result in serious personal injury.</p>
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# Buffing & Polishing

For buffing and polishing, Grizzly offers a broad line of buffing wheels and polishing compounds. Please refer to our current catalog for more information on these. To buff or polish with the buffer:

1. Make sure the power cord is unplugged and remove the  $\frac{5}{8}$ " hex nuts at the end of each shaft. Facing the machine, the left-hand shaft has left-handed threads. The right-hand shaft has right-handed threads.
2. Sandwich a buffing wheel between the two wheel flanges provided and slide the assembly onto the shaft. Use only the wheel flanges supplied with this machine. The buffing assembly should look similar to **Figure 4**.



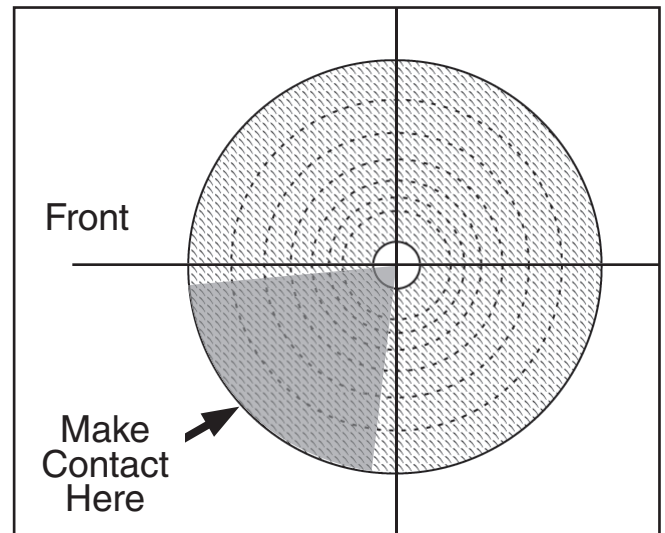
**Figure 4.** Buffing wheels mounted.

3. Tighten the hex nut while holding the shaft with your other hand. The direction of the threads and motor rotation ensure that the nuts on both sides will not self loosen.
4. Plug the buffer into the power source. Select the appropriate stick of polishing compound for your application, turn *ON* the buffer and apply the compound to the rotating face of the wheel. Always wear safety glasses because particles of polishing compound or buffing wheel may fly off.

## **⚠ CAUTION**

**DO NOT buff on the top of the wheel or the workpiece may be thrown back at you. Refer to Figure 5 before using your buffer.**

5. With both hands, firmly grasp the item to be polished. Lightly and evenly move the workpiece back and forth on the edge of the buffing wheel in the grayed in area shown in **Figure 5**. Be careful when polishing plated metals; there is a chance that the thin plated material may be damaged. A light pressure is all that is needed for quality work.



**Figure 5.** Illustrated from a side profile, shows the only portion of the wheel that should be used during buffing.



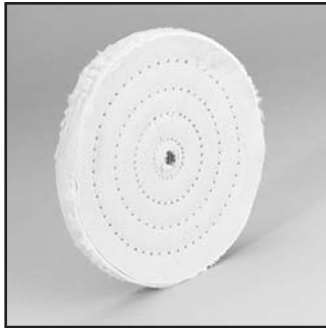
# Buffing Wheel Selection

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Buffing wheels are available for most types of metals and for different stages in the buffing process. The following pictures and descriptions describe some of the more common wheel types:

## Loose Muslin

Soft feather-edged muslin stitched together near the center leaves the outer edge to provide a wide angle, fine polishing surface. Perfect for polishing stainless steel, chrome, gold or silver.



## Airway Soft

Made of 100% cotton sheets and held together with a steel retainer. Pleats in the material help hold compound. These wheels are great for polishing soft metals and plastics.

## Spiral Sewn

Consist of layers of 100% unbleached cotton sheeting that are spiral sewn 1/8" apart. Works well for initial polish on brass, stainless steel, aluminum, bronze and cast iron.



## Airway Hard

Made of 100% cotton sheets that are treated to stiffen the material. Pleats in the material help hold compound. These are great for rough cutting plastics and initial polishing a wide variety of metals.

## Laminated Sisal

Designed for rough cutting, sisal works well with various steels, copper, aluminum and brass to remove scratches and prepare the piece for polishing.



Check with your current Grizzly catalog for availability on any of these wheel types.

# Buffing Compound Selection

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Most colors of abrasives have similar applications, but always check with the manufacturer of your particular compound. Grizzly offers the following compounds:

**Red Rouge** — Made for fine polishing on brass and gold. Provides an excellent shine when used with the loose muslin buffing wheel.

**Green (Extra Fine)** — Great for extra-fine polishing on most metals to bring out that mirror finish. Works best with loose muslin and spiral sewn buffing wheels.

**White** — Great for ivory, plastic and resins when used successively with the soft spiral sewn and soft airway buffing wheels.

**Black** — Designed to be used with sisal and airway hard buffing wheels, this compound is perfect for the initial rough cut on stainless steel and iron.

**Tripoli** — A true middle-of-the-road abrasive, Tripoli provides an excellent medium cut for brass, aluminum and zinc alloy.

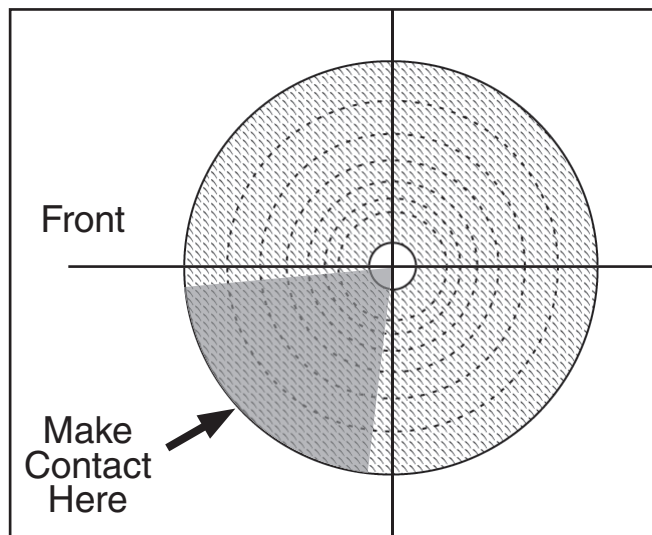
**Green (Fine)** — Slightly more abrasive than the extra fine green, this green compound is great for a medium to fine polish with most softer metals.



# Buffing Tips

Here are some quick tips for getting the most out of your buffer:

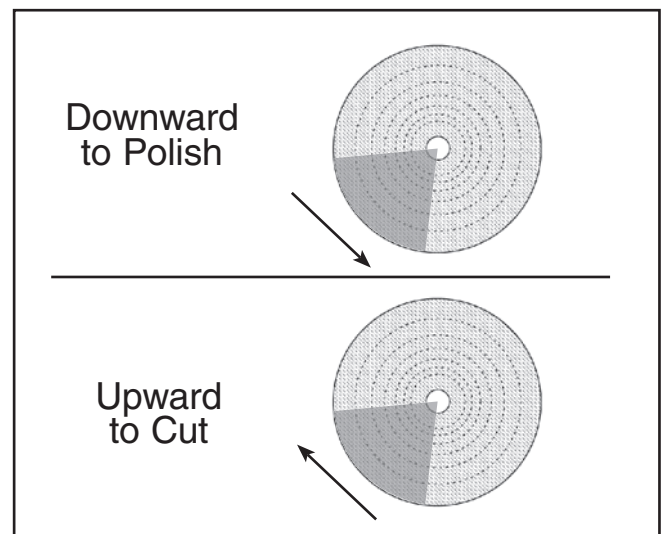
- Thoroughly clean all parts that you are planning to buff. Any kind of dirt, oil, rust, paint or other film must be removed either chemically or sprayed off with water. Make sure to dry off parts with a rag after cleaning.
- Apply buffing compounds in small amounts at a time. While the machine is running, press the compound on the wheel for a couple of seconds. Avoid using too much compound.
- Put your workpiece under the wheel when you are loading the compound on the buffing wheel. This way, you will catch any compound that would normally be wasted on the floor.
- Only use the area grayed-out in **Figure 6** to do the actual buffing. Contacting the workpiece on areas outside of the grayed out area may flip the workpiece out of your hands.



**Figure 6.** Illustrated from a side profile, shows the only portion of the wheel that should be used during buffing.

- Hold the workpiece tightly at all times while buffing. One hand near the contact point will give you better control.

- Keep buffing wheels raked out before each use and when buildup gets heavy during use. “Raking” means to clean the buffing wheels with a wheel rake to remove buildup compounds and metal particles. An old rough-cut saw blade or a large hacksaw blade will also work as an alternative to a wheel rake. ALWAYS use light pressure when raking wheels!
- Do not mix two different compounds on the same wheel. For best results, use a separate wheel for each compound.
- Use an upward stroke with heavy to moderate pressure for cutting. Use a downward stroke with light to pressure for polishing. See **Figure 7**.



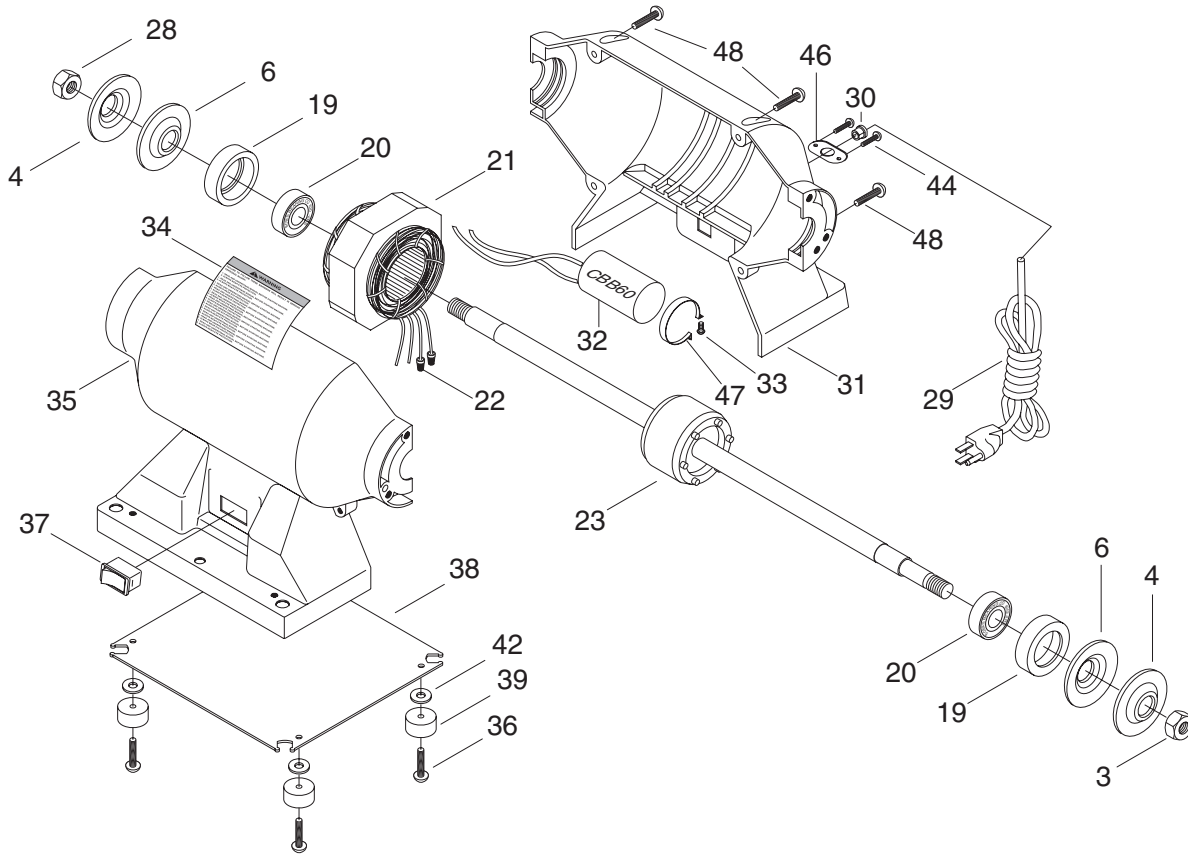
**Figure 7.** Cutting and Polishing strokes.

- Wear safety equipment when buffing. If the buffer forces the workpiece out of your hand, be prepared for it to come flying at you! Wear safety glasses and a heavy leather apron. Also, wear a dust mask to protect your lungs from microscopic particulate that will be flying off the wheel.

Remember, there is no substitute for experience. Learning how to hold the workpiece, how much pressure to apply, how to move the workpiece against the wheel and how much compound to use will require some trial-and-error.



# SECTION 5: PARTS



REF	PART #	DESCRIPTION
3	PH4380003	FLANGE NUT M16-2
4	PH4380004	OUTER FLANGE
6	PH4379004	FLANGE
19	PH4379019	BUSHING
20	P6203-2RS	BALL BEARING 6203-2RS
21	PH4379021	MOTOR STATOR
22	PH4378022	WIRE NUT
23	PH4380023	MOTOR SHAFT
28	PH4380028	FLANGE NUT M16-2 (LH)
29	PH4378029	WIRE
30	PH4378030	STRAIN RELIEF
31	PH4378031	BACK BODY
32	PH4378032	CAPACITOR CBB60

REF	PART #	DESCRIPTION
33	PS01	PHLP HD SCR 10-24 X 1/2"
34	PH4380034	MACHINE ID LABEL
35	PH4378035	FRONT BODY
36	PS22	PHLP HD SCR 10-24 X 5/8"
37	PH4378037	SWITCH
38	PH4378038	BASE PLATE
39	PH4378039	PAD
42	PW03	FLAT WASHER #10
44	PS06	PHLP HD SCR 10-24 X 3/8"
46	PH4378046	STRAIN RELIEF PLATE
47	PH4378047	CAPACITOR BRACKET
48	PS01	PHLP HD SCR 10-24 X 1"

## WARNING

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine **MUST** maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, **REPLACE** that label before using the machine again. Contact Grizzly at (800) 523-4777 or [www.grizzly.com](http://www.grizzly.com) to order new labels.



**Grizzly** WARRANTY CARD  
Industrial, Inc.

Name \_\_\_\_\_  
 Street \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Phone # \_\_\_\_\_ Email \_\_\_\_\_ Invoice # \_\_\_\_\_  
 Model # \_\_\_\_\_ Order # \_\_\_\_\_ Serial # \_\_\_\_\_

*The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.***

1. How did you learn about us?
 

<input type="checkbox"/> Advertisement	<input type="checkbox"/> Friend	<input type="checkbox"/> Catalog
<input type="checkbox"/> Card Deck	<input type="checkbox"/> Website	<input type="checkbox"/> Other: _____
  
2. Which of the following magazines do you subscribe to?
 

<input type="checkbox"/> Cabinetmaker & FDM	<input type="checkbox"/> Popular Science	<input type="checkbox"/> Wooden Boat
<input type="checkbox"/> Family Handyman	<input type="checkbox"/> Popular Woodworking	<input type="checkbox"/> Woodshop News
<input type="checkbox"/> Hand Loader	<input type="checkbox"/> Precision Shooter	<input type="checkbox"/> Woodsmith
<input type="checkbox"/> Handy	<input type="checkbox"/> Projects in Metal	<input type="checkbox"/> Woodwork
<input type="checkbox"/> Home Shop Machinist	<input type="checkbox"/> RC Modeler	<input type="checkbox"/> Woodworker West
<input type="checkbox"/> Journal of Light Cont.	<input type="checkbox"/> Rifle	<input type="checkbox"/> Woodworker's Journal
<input type="checkbox"/> Live Steam	<input type="checkbox"/> Shop Notes	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Model Airplane News	<input type="checkbox"/> Shotgun News	
<input type="checkbox"/> Old House Journal	<input type="checkbox"/> Today's Homeowner	
<input type="checkbox"/> Popular Mechanics	<input type="checkbox"/> Wood	
  
3. What is your annual household income?
 

<input type="checkbox"/> \$20,000-\$29,000	<input type="checkbox"/> \$30,000-\$39,000	<input type="checkbox"/> \$40,000-\$49,000
<input type="checkbox"/> \$50,000-\$59,000	<input type="checkbox"/> \$60,000-\$69,000	<input type="checkbox"/> \$70,000+
  
4. What is your age group?
 

<input type="checkbox"/> 20-29	<input type="checkbox"/> 30-39	<input type="checkbox"/> 40-49
<input type="checkbox"/> 50-59	<input type="checkbox"/> 60-69	<input type="checkbox"/> 70+
  
5. How long have you been a woodworker/metalworker?
 

<input type="checkbox"/> 0-2 Years	<input type="checkbox"/> 2-8 Years	<input type="checkbox"/> 8-20 Years	<input type="checkbox"/> 20+ Years
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6. How many of your machines or tools are Grizzly?
 

<input type="checkbox"/> 0-2	<input type="checkbox"/> 3-5	<input type="checkbox"/> 6-9	<input type="checkbox"/> 10+
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7. Do you think your machine represents a good value?     Yes                       No
  
8. Would you recommend Grizzly Industrial to a friend?     Yes                       No
  
9. Would you allow us to use your name as a reference for Grizzly customers in your area?  
**Note:** *We never use names more than 3 times.*                       Yes                       No

10. Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE

\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_



Place Stamp Here



GRIZZLY INDUSTRIAL, INC.
P.O. BOX 2069
BELLINGHAM, WA 98227-2069



FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name \_\_\_\_\_
Street \_\_\_\_\_
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

TAPE ALONG EDGES--PLEASE DO NOT STAPLE



# WARRANTY AND RETURNS

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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.

# *grizzly.com*<sup>®</sup>

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