



**MODEL G0964**  
**1-1/2 HP PORTABLE FUME**  
**EXTRACTOR w/PRECISION ARM**  
**OWNER'S MANUAL**  
*(For models manufactured since 09/24)*



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#CS22625 PRINTED IN TAIWAN

V2.08.24

**\*\*\*Keep for Future Reference\*\*\***



## **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.**

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# INTRODUCTION

## Contact Info

We stand behind our machines! If you have questions or need help, contact us with the information below. Before contacting, make sure you get the **serial number** and **manufacture date** from the machine ID label. This will help us help you faster.

Grizzly Technical Support  
1815 W. Battlefield  
Springfield, MO 65807  
Phone: (570) 546-9663  
Email: 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

### 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.



## Manual Accuracy

We are proud to provide a high-quality owner's manual with your new machine!

We made every effort to be exact with the instructions, specifications, drawings, and photographs in this manual. Sometimes we make mistakes, but our policy of continuous improvement also means that **sometimes the machine you receive is slightly different than shown in the manual.**

If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.grizzly.com**.

Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **manufacture date** and **serial number** from the machine ID label (see below). This information is required for us to provide proper tech support, and it helps us determine if updated documentation is available for your machine.

		MODEL GXXXX MACHINE NAME	
SPECIFICATIONS		 WARNING!	
Motor:		To reduce risk of serious injury when using this machine:	
Specification:		1. Read manual before operation.	
Specification:		2. Wear safety glasses and respirator.	
Specification:		3. Make sure machine is properly adjusted/setup and	
Specification:		4. Make sure the motor has stopped and disconnect	
Weight:		power before adjustments, maintenance, or service.	
		5. DO NOT expose to rain or dampness.	
		6. DO NOT modify this machine in any way.	
		7.	
		8.	
		9.	
		10. Maintain machine carefully to prevent accidents.	

Manufactured for Grizzly in Taiwan

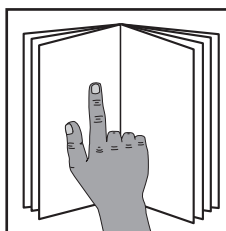
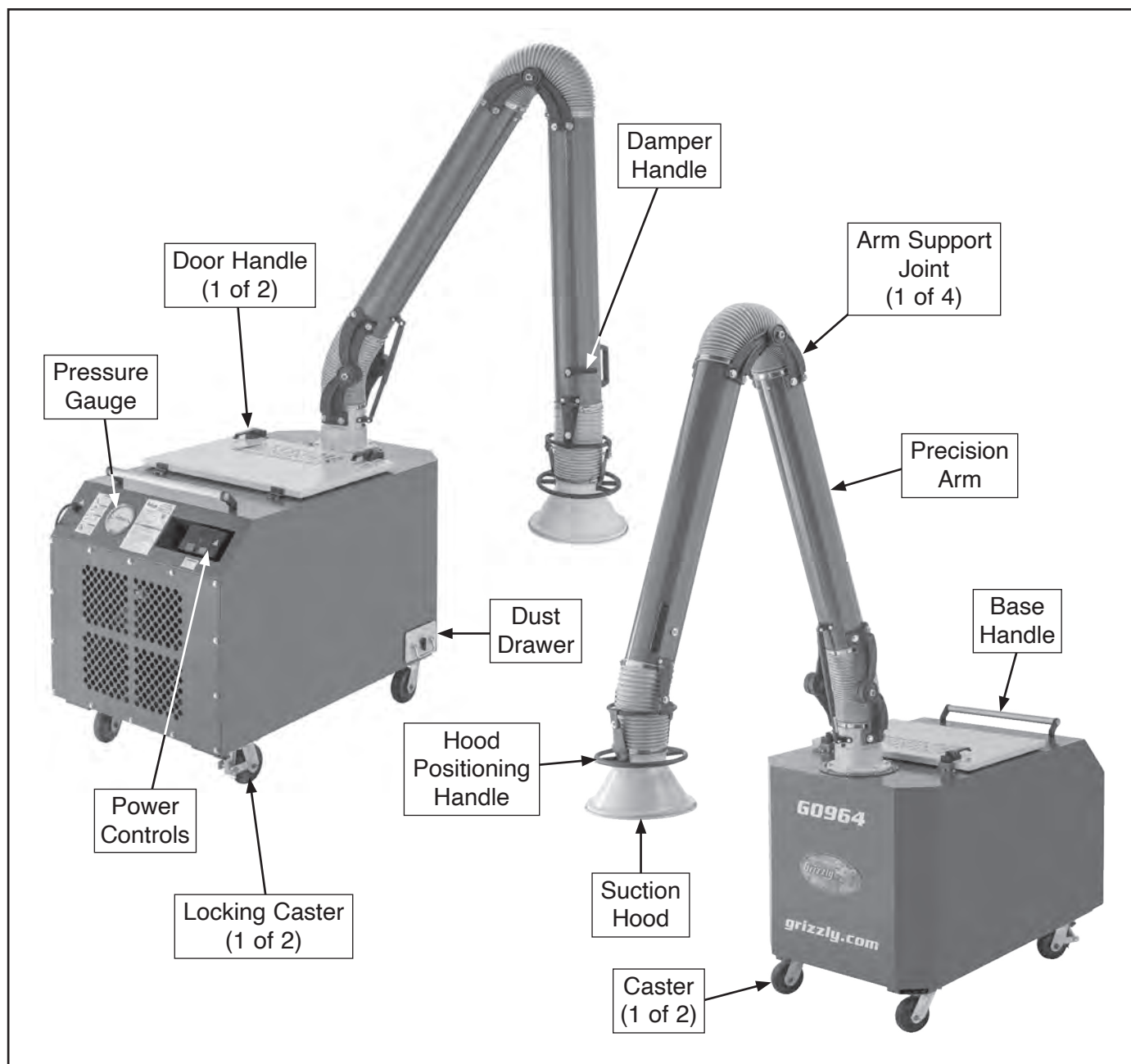
Manufacture Date: \_\_\_\_\_

Serial Number: \_\_\_\_\_



# Identification

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.

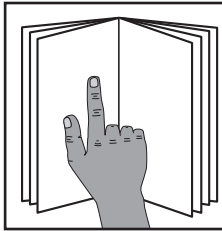


## **⚠ WARNING**

To reduce your risk of serious injury, read this entire manual **BEFORE** using machine.



# Controls & Components

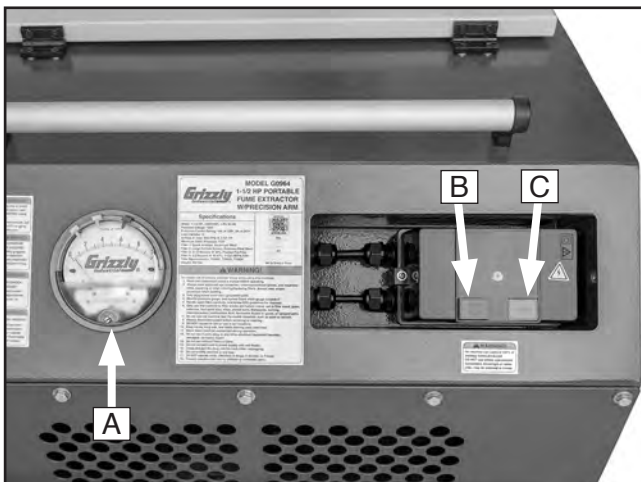


## **! WARNING**

To reduce your risk of serious injury, read this entire manual **BEFORE** using machine.

Refer to the following figures and descriptions to become familiar with the basic controls and components of this machine. Understanding these items and how they work will help you understand the rest of the manual and minimize your risk of injury when operating this machine.

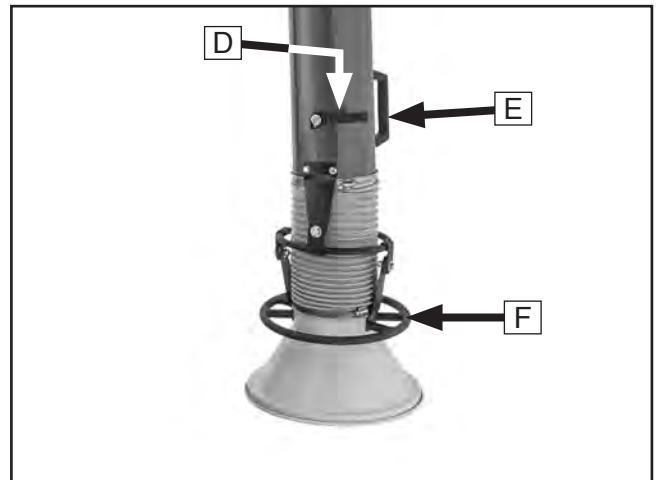
### Control Panel



**Figure 1.** Pressure gauge and magnetic switch power controls.

- A. Pressure Gauge:** Displays vacuum pressure, indicating soil level of filters. Remove and clean pre-filter when operating pressure exceeds 6 inches of water (inAq). Replace filters when cleaning does not improve performance.
- B. OFF Button:** Turns power to motor **OFF**.
- C. ON Button:** Turns power to motor **ON**.

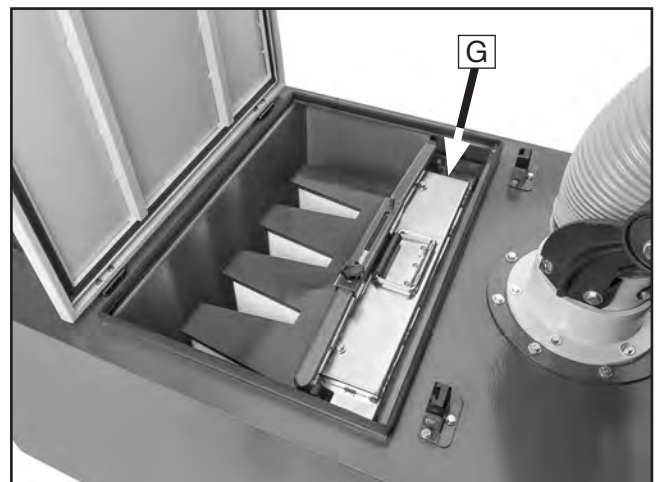
### Precision Arm



**Figure 2.** Precision arm adjustment components.

- D. Damper Handle:** Turn clockwise to open damper and increase airflow; turn counter-clockwise to close damper and decrease airflow.
- E. Precision Arm Handle:** Manipulates arm height, position, and rotation for best operation configuration.
- F. Hood Positioning Handle:** Swivels and pivots suction hood to desired position for fume extraction.

### Filter Housing



**Figure 3.** Filter housing.

- G. Filter Housing:** Secures pre-filter and HEPA filter behind a stainless steel mesh. Remove for maintenance and to access aluminum mesh spark arrestor filter.





# MACHINE DATA SHEET

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

## MODEL G0964

### 1-1/2 HP PORTABLE FUME EXTRACTOR W/PRECISION ARM

#### Product Dimensions:

Weight ..... 492 lbs.  
Width (side-to-side) x Depth (front-to-back) x Height ..... 29-1/2 x 88-1/2 x 84 in.  
Footprint (Length x Width) ..... 48-1/2 x 29-1/2 in.

#### Shipping Dimensions:

##### Carton#1

Type ..... Wood Crate  
Content ..... Machine  
Weight ..... 512 lbs.  
Length x Width x Height ..... 53 x 35 x 43 in.  
Must Ship Upright ..... Yes

##### Carton#2

Type ..... Cardboard Box  
Content ..... Precision Arm  
Weight ..... 89 lbs.  
Length x Width x Height ..... 70 x 16 x 28 in.  
Must Ship Upright ..... Yes

#### Electrical:

Power Requirement ..... 120V or 240V, Single-Phase, 60 Hz  
Prewired Voltage ..... 120V  
Full-Load Current Rating ..... 18A at 120V, 9A at 240V  
Minimum Circuit Size ..... 20A at 120V, 15A at 240V  
Connection Type ..... Cord & Plug  
Power Cord Included ..... Yes  
Power Cord Length ..... 118 in.  
Power Cord Gauge ..... 14 AWG  
Plug Included ..... Yes  
Included Plug Type ..... 5-20 for 120V  
Recommended Plug Type ..... 6-15 for 240V  
Switch Type ..... Magnetic Switch w/Overload Protection

#### Motors:

##### Main

Horsepower ..... 1-1/2 HP  
Phase ..... Single-Phase  
Amps ..... 18A/9A  
Speed ..... 3450 RPM  
Type ..... TEFC Capacitor-Start Induction  
Power Transfer ..... Direct  
Bearings ..... Shielded & Permanently Lubricated  
Centrifugal Switch/Contacts Type ..... Internal





## Main Specifications:

### Operation Information

Max. Airflow Performance (6-in. Inlet).....	850 CFM @ 1.72 in. SP
Max. Static Pressure (at 0 CFM) .....	7.02 in.
Main Inlet Size.....	6 in.
Max. Precision Arm Length.....	10 ft.
Precision Arm Diameter .....	6 in.
Precision Arm Rotation.....	350 deg.
Hood Diameter.....	13 in.
Machine Collection Capacity at One Time.....	1

### Filter Information

Number of Filters.....	4
Total Filter Surface Area.....	177.6 sq. ft.
First-Stage Filter Type.....	Spark Arrestor Aluminum Mesh Filter
First-Stage Filter Size.....	440 x 540 x 22mm
Second-Stage Filter Type.....	Large Particle Stainless Steel Mesh
Second-Stage Filter Size .....	595 x 595 x 22mm
Third-Stage Filter Type.....	Pleated Pre-Filter
Third-Stage Filter Rating .....	2 - 10 Microns @ 35%
Third-Stage Filter Size .....	595 x 595 x 45mm
Fourth-Stage Filter Type .....	V-Cell HEPA Filter
Fourth-Stage Filter Rating.....	0.3 Microns @ 99.97%
Fourth-Stage Filter Size .....	595 x 595 x 292mm

### Impeller Information

Impeller Type.....	Radial Fin
Impeller Size .....	12.1 in.
Impeller Blade Thickness .....	4mm

### Construction

Body .....	Steel
Casters.....	Rubber
Impeller.....	Aluminum
Hood.....	Aluminum
Pipes .....	Galvanized Steel
Flex Hoses .....	PVC
Paint Type/Finish.....	Powder Coated

## Other Specifications:

Country of Origin.....	Taiwan
Warranty .....	1 Year
Approximate Assembly & Setup Time.....	30 Minutes
Serial Number Location.....	ID Label
ISO 9001 Factory .....	Yes

## Features:

Filters Provide a Combined Surface Area of 177.6 Sq. Ft.  
V-Cell MERV-17 HEPA Filter Collects 99.97% of Particles at 0.3 Microns  
6" Diameter Adjustable Precision Arm w/13" Hood  
Vacuum Pressure Gauge Indicates When to Clean/Replace Filters  
Steel Body w/Two Locking Caster Wheels  
Built-In Damper on Precision Arm for Adjusting Air Flow  
Removable Dust Drawer





# 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.



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**

Alerts the user to useful information about proper operation of the machine to avoid machine damage.

## Safety Instructions for Machinery



**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 your 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 loose clothing, gloves, neckties, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

**HAZARDOUS DUST.** Dust created by machinery operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. 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 **BEFORE** operating machine.

**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.

**DAMAGED PARTS.** Regularly inspect machine for damaged, loose, or mis-adjusted parts—or any condition that could affect safe operation. Immediately repair/replace **BEFORE** operating machine. For your own safety, **DO NOT** operate machine with damaged parts!

**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 Fume Extractors

## WARNING

Welding fumes can cause suffocation or poisoning if operating in an enclosed space without adequate ventilation and fume extraction. All users must be properly trained on the potential hazards, manufacturer's operating procedures, use of personal protective equipment (PPE), emergency procedures, and safety precautions for welding operations. To reduce these risks, operator and bystanders **MUST** completely heed the warnings below.

**TOXIC FUMES.** Welding produces hazardous fumes that can suffocate or poison without warning. Reduce this risk by researching consumables needed for operation, atmospheric contaminants, materials, and material coatings, and take necessary precautions for fumes that will be produced. Use ANSI-approved respirator for applicable type of operation and protect others from fumes. Position hood near workpiece to extract fumes before they spread throughout and contaminate work area. If extractor malfunctions, immediately stop and correct the issue.

**FLAMMABLE MATERIALS.** Keep flammable materials and vapors away from fume extractor and welding operation. Sparks from welding operation and heat from fumes present a fire hazard.

**WELDING SAFETY.** Welding without approved personal protective equipment can cause severe damage to eyes and body. Read and understand all safety warnings provided by manufacturer for any welder you plan to use with fume extractor and take proper precautions.

**ADEQUATE VENTILATION.** Do not use fume extractor in confined space without adequate ventilation. Fume extractors do not replace oxygen that is consumed by welding operations. Suffocation or explosion can occur if this warning is ignored. Open covers, doors, and windows to sustain fresh air ventilation or use an additional form of mechanical ventilation to ventilate space. Those inside work area should wear air-line respirators. Have personnel monitor operator from outside operating area in case of equipment failure.

**INSPECTIONS/MAINTENANCE.** Always inspect equipment and all seals/gaskets prior to operations. Repair or replace defective components before starting. Stop welding operation if fume extractor is leaking or malfunctions.

**FUME EXTRACTION.** NEVER modify machine or bypass safety features. Machine is not designed to collect wood, glass, asbestos, lead paint dust, silica, animal parts, biohazards, burning materials/ashes, combustible dust, flammable liquids or gases, sprayed paint, burning slag, molten metal, or fumes from laser engravers/cutters. Always position hood to only collect smoke and fumes, and operate machine with all filters and covers in place. If any filter is missing or replaced with non-specification filter, fume extractor will not properly filter contaminated air and will be unsafe to use.

**FILTER CLEANING/DISPOSAL.** Filters and dust drawer must be changed regularly according to the frequency of use, or as specified by manufacturer. When servicing filters, make sure operator and any bystanders are wearing personal protective equipment. When cleaning filters and cabinet, do not use compressed air. Only use a shop vacuum that is equipped with a HEPA filter, or dangerous particulates may be spread throughout the area and contaminate the air. Wrap all waste filters in air-tight plastic bags, then mark and dispose of according to current laws and regulations.

**MOVING.** Use base handle, not arm, to move machine. Moving machine by arm could damage it and reduce air flow efficiency and machine's ability to extract dangerous fumes. Lock casters prior to adjusting arm to avoid dragging machine and putting unnecessary stress on arm.

**EXPERIENCING DIFFICULTIES.** Keep in mind that welding hazards are intensified in a confined space. If you are experiencing difficulties performing the intended operation, stop using the equipment, and contact the Occupational Safety and Health Administration (OSHA) at (800) 321-6742, or online at [www.osha.gov](http://www.osha.gov) to find out how to design and maintain the best overall welding fume extraction system for your needs.



# Meeting Welding Fume Extraction Codes & Standards

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Welding metals can give off poisonous fumes containing zinc, lead, beryllium, cadmium, mercury, fluorine, hexavalent chromium, and others. These fumes typically originate from fluxes, anti-corrosion coatings, pigments, metal fillers, and residual chemicals on the workpiece. This machine is designed to help meet the welding shop clean air requirements mandated by OSHA beginning in 2006. The Model G0964 Portable Fume Extractor is designed to be a part of an overall fume control system. It is NOT designed to serve as a "single-solution" for keeping workers safe from all welding fumes. You must contact OSHA to find out how to design and maintain the best overall welding fume control system for your work station or shop. Often, depending on the workspace size, volume of work, type of material to be welded, or other special circumstances, you must use additional safety equipment such as personal air line respirators, hoods, masks, and complete body protection.

Contact the organizations below to help you meet welding fume extraction requirements:

**Occupational Safety and Health Administration (OSHA).**

- Code of Federal Regulations, Title 29 Labor, Parts 1910.1 to 1910.1450, available from the U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 (telephone: 800-321-6742; web site: [www.osha.gov](http://www.osha.gov)).

**American Welding Society (AWS)**, 8669 NW 36 Street, #130, Miami, FL 33166-6672 (telephone: 800-443-9353; web site: [www.aws.org](http://www.aws.org)).

- Safety & Health Fact Sheets

**American National Standards Institute (ANSI)**, 25 West 43rd Street, 4th Floor, New York, NY 10036 (telephone: 212-642-4900; web site: [www.ansi.org](http://www.ansi.org)).

- ANSI Z49.1, Safety in Welding, Cutting, and Allied Processes

**National Institute for Occupational Safety and Health (NIOSH).**

- Safety and Health in Arc Welding and Gas Welding and Cutting, NIOSH Publication No. 78-138. Cincinnati, OH (telephone: 800-356-4674; web site: <http://www.cdc.gov/niosh>).

**International Agency For Research On Cancer (IARC).**

- Monographs on the Evaluation of Carcinogenic Risks to Humans, Chromium, Nickel, and Welding, Vol. 49 (1990), Oxford University Press, 198 Madison Avenue, New York, NY 10016 (telephone: 212-726-6000; web site: [www.oup-usa.org](http://www.oup-usa.org)).

**National Fire Protection Association (NFPA)**, P. O. Box 9101, 1 Batterymarch Park, Quincy, MA 02269-9101 (telephone: 617-770-3000; website: [www.nfpa.org](http://www.nfpa.org)).

- NFPA Standard 70, National Electrical Code
- NFPA Standard 51, Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes
- NFPA Standard 51B, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work

**American Conference of Governmental Industrial Hygienists (ACGIH).**

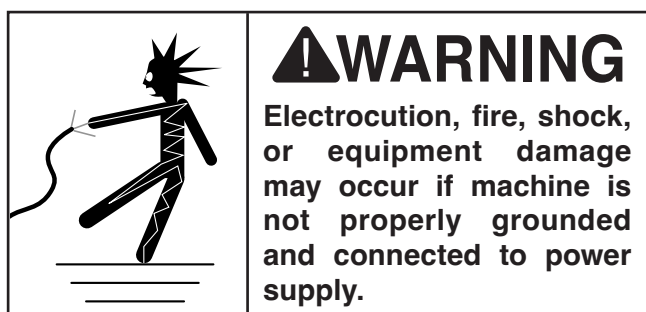
- Documentation of the Threshold Limit Values and Biological Exposure Indices, available from ACGIH, 3640 Park 42 Drive, Cincinnati, OH 45241 (telephone: 513-742-2020; web site: [www.acgih.org](http://www.acgih.org)).



# SECTION 2: POWER SUPPLY

## Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by an electrician or qualified service personnel in accordance with all applicable codes and standards.



## Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

**Full-Load Current Rating at 120V ..... 18 Amps**

**Full-Load Current Rating at 240V ..... 9 Amps**

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result—especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the specified circuit requirements.

## Circuit Information

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

## ! CAUTION

**For your own safety and protection of property, consult an electrician if you are unsure about wiring practices or electrical codes in your area.**

**Note:** *Circuit requirements in this manual apply to a dedicated circuit—where only one machine will be running on the circuit at a time. If machine will be connected to a shared circuit where multiple machines may be running at the same time, consult an electrician or qualified service personnel to ensure circuit is properly sized for safe operation.*

## Circuit Requirements for 120V

This machine is prewired to operate on a power supply circuit that has a verified ground and meets the following requirements:

**Nominal Voltage ..... 110V, 115V, 120V**  
**Cycle ..... 60 Hz**  
**Phase ..... Single-Phase**  
**Power Supply Circuit ..... 20 Amps**  
**Plug/Receptacle ..... NEMA 5-20**

## Circuit Requirements for 240V

This machine can be converted to operate on a power supply circuit that has a verified ground and meets the requirements listed below. (Refer to **Voltage Conversion** instructions for details.)

**Nominal Voltage ..... 208V, 220V, 230V, 240V**  
**Cycle ..... 60 Hz**  
**Phase ..... Single-Phase**  
**Power Supply Circuit ..... 15 Amps**  
**Plug/Receptacle ..... NEMA 6-15**

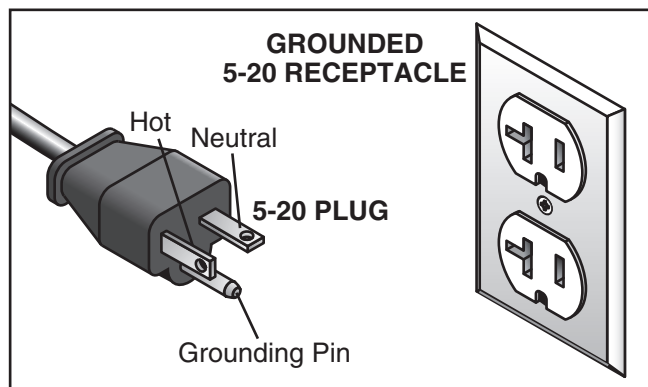




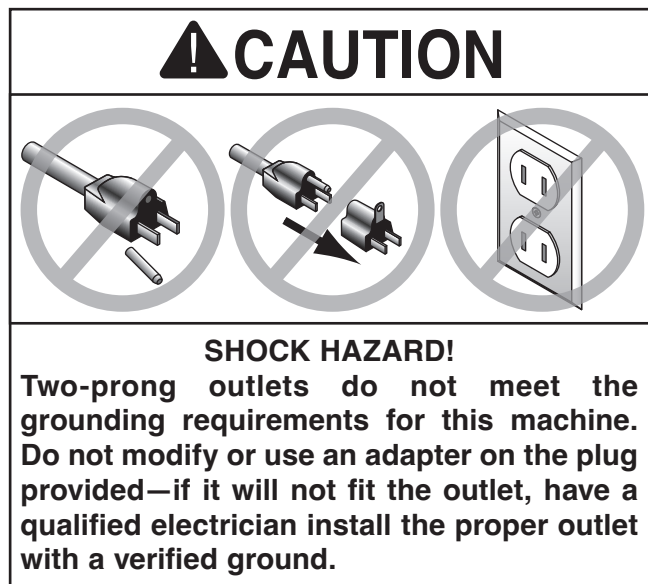
## Grounding Requirements

This machine **MUST** be grounded. In the event of certain malfunctions or breakdowns, grounding reduces the risk of electric shock by providing a path of least resistance for electric current.

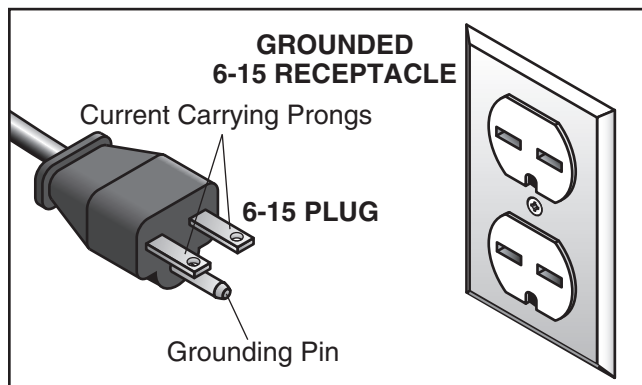
**For 120V operation:** This machine is equipped with a power cord that has an equipment-grounding wire and a grounding plug (see following figure). The plug must only be inserted into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances.



**Figure 4.** Typical 5-20 plug and receptacle.



**For 240V operation:** The plug specified under “Circuit Requirements for 240V” on the previous page has a grounding prong that must be attached to the equipment-grounding wire on the included power cord. The plug must only be inserted into a matching receptacle (see following figure) that is properly installed and grounded in accordance with all local codes and ordinances.



**Figure 5.** Typical 6-15 plug and receptacle.

Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

## Extension Cords

We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

Extension cords cause voltage drop, which can damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must be in good condition and contain a ground wire and matching plug/receptacle. Additionally, it must meet the following size requirements:

**Minimum Gauge Size (120V) .....12 AWG**  
**Maximum Length (Shorter is Better).....50 ft.**



# Converting Voltage to 240V

The voltage conversion **MUST** be performed by an electrician or qualified personnel.

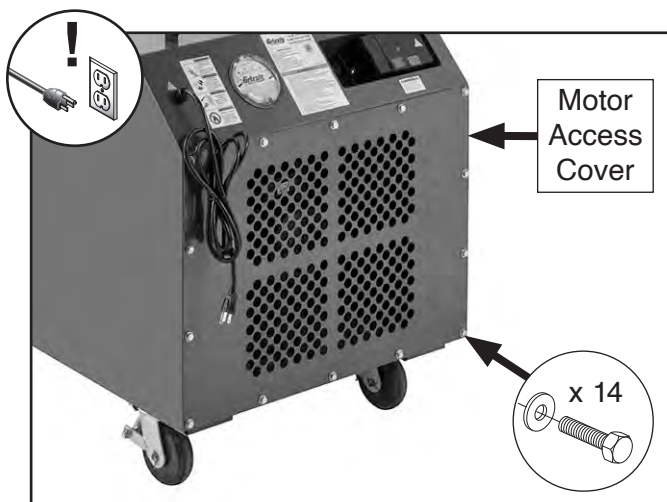
To perform the voltage conversion, rewire the motor, replace the magnetic switch, and install the correct plug.

**IMPORTANT:** If the diagram included on the motor conflicts with the one in this manual, the motor may have changed since the manual was printed. Use the diagram provided on the motor.

Items Needed	Qty
Wire Cutters/Strippers .....	1
Wrench or Socket 12mm .....	1
Open-End Wrenches 24mm .....	2
Phillips Head Screwdriver #2 .....	1
Wire Nut (14#AWG) .....	1
Electrical Tape .....	As Needed
Magnetic Switch 240V (#P0964016X) .....	1
NEMA Plug 6-15 .....	1

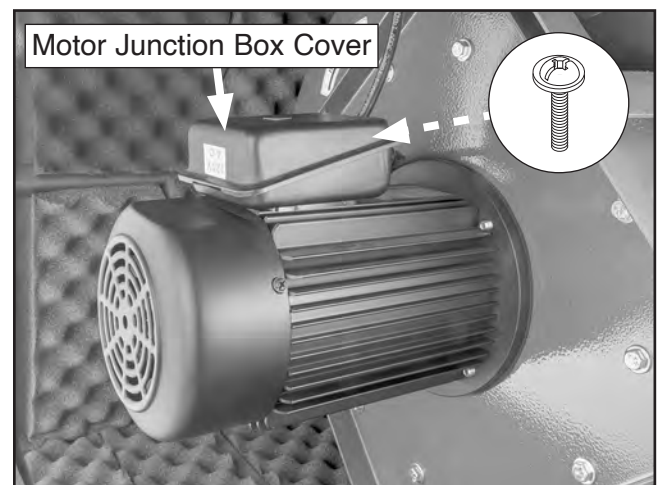
## To convert machine to 240V operation:

1. DISCONNECT MACHINE FROM POWER!
2. Cut off included 5-20 plug.
3. Remove (14) hex bolts and flat washers shown in **Figure 6** to remove motor access cover.



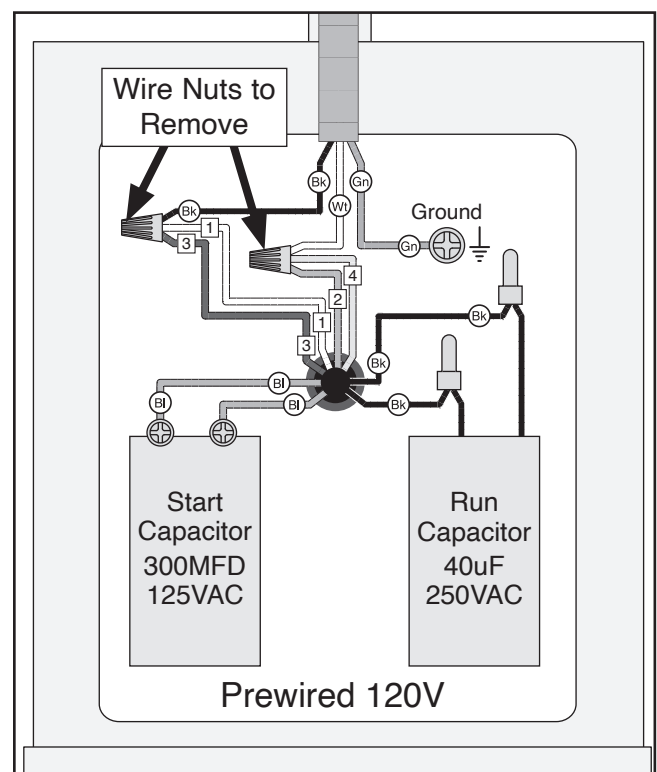
**Figure 6.** Motor access cover and fasteners.

4. Remove screw shown in **Figure 7** to remove motor junction box cover.



**Figure 7.** Motor junction box cover and screw.

5. Remove (2) wire nuts indicated in **Figure 8**.

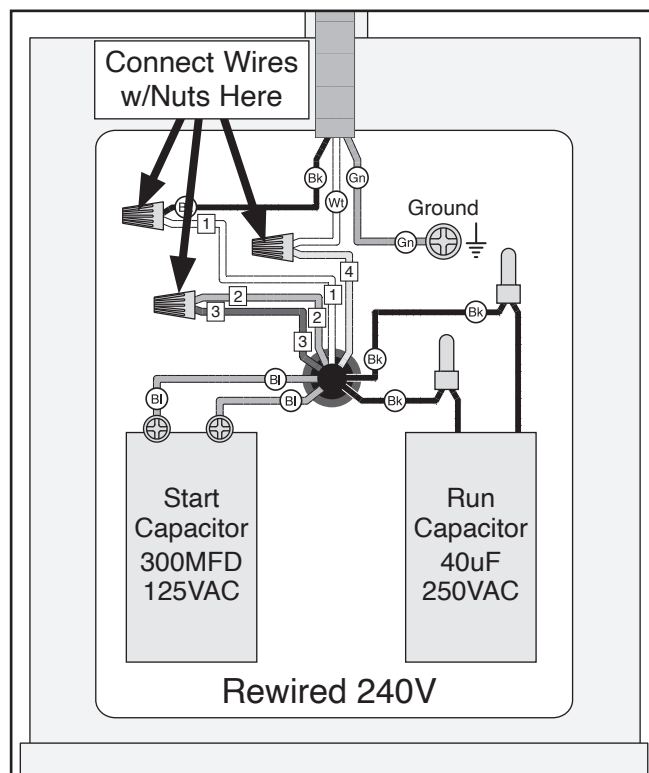


**Figure 8.** Motor prewired for 120V.



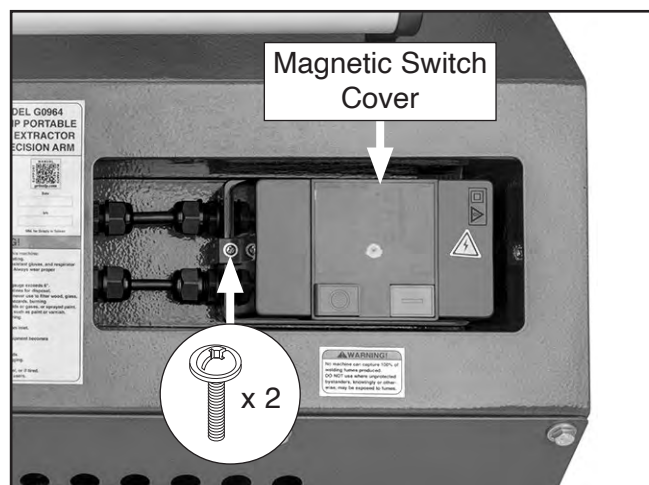


6. Use wire nuts to connect wires as indicated in **Figure 9**. Twist wire nuts onto their respective wires and wrap them with electrical tape so they will not come loose during operation.



**Figure 9.** Motor rewired for 240V.

7. Close and secure motor junction box cover.
8. Install motor access cover.
9. Fully loosen (2) screws shown in **Figure 10** to remove magnetic switch cover.

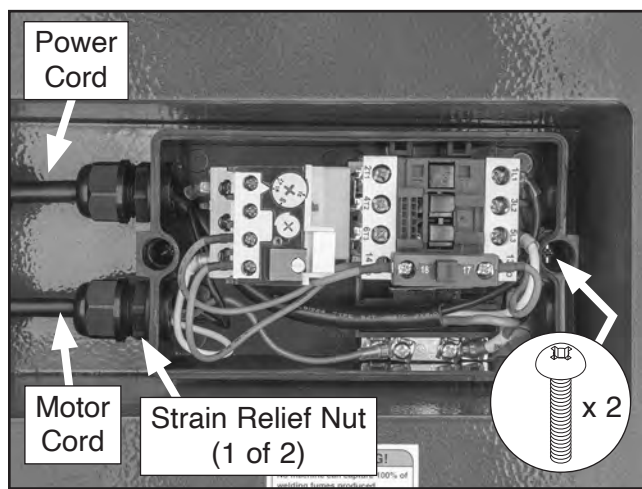


**Figure 10.** Magnetic switch cover and screws.

10. Disconnect power cord and motor cord wires from contactor, overload relay, and ground terminals inside 120V magnetic switch box (see **Figure 11**).

11. Loosen (2) strain relief nuts shown in **Figure 11** to remove motor and power cords from strain relief holes.

12. Remove (2) screws shown in **Figure 11** to remove 120V magnetic switch box from machine.



**Figure 11.** Location of magnetic switch box components.

13. Remove cover on 240V magnetic switch box, and install box on machine with screws removed in **Step 12**.

14. Insert motor and power cords removed in **Step 11** through 240V magnetic switch box strain relief holes, then attach wires to terminals according to wiring diagram on **Page 34**.

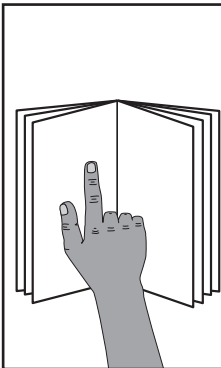
15. Install 240V magnetic switch cover and tighten strain relief nuts.

16. Install 6-15 plug on end of power cord, according to instructions and wiring diagrams provided by plug manufacturer.

— If plug manufacturer did not include instructions, wiring of generic NEMA 6-15 plug is illustrated on **Page 34**.

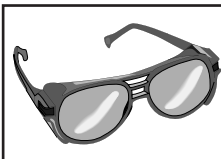


# SECTION 3: SETUP



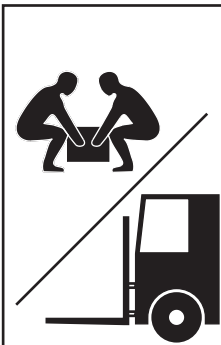
## !WARNING

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

### HEAVY LIFT!

Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.

## Needed for Setup

The following items are needed, but not included, for the setup/assembly of this machine.

Description	Qty
• Safety Glasses (for each person).....	1
• Another Person .....	1
• Wrench or Socket 10mm.....	1

## Unpacking

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. ***If items are damaged, please call us immediately at (570) 546-9663.***

**IMPORTANT:** Save all packaging materials until you are completely satisfied with the machine and have resolved any issues between Grizzly or the shipping agent. *You MUST have the original packaging to file a freight claim. It is also extremely helpful if you need to return your machine later.*



# Inventory

The following is a list of items shipped with your machine. Before beginning setup, lay these items out and inventory them.

If any non-proprietary 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.

## NOTICE

If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.

### Box 1 (Figure 12)

Qty

A. Machine Base..... 1

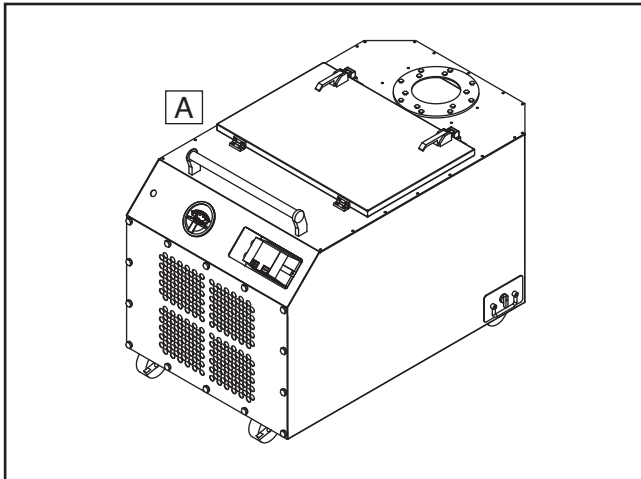


Figure 12. Box 1 inventory.

### Box 2 (Figure 13)

Qty

B. Precision Arm..... 1

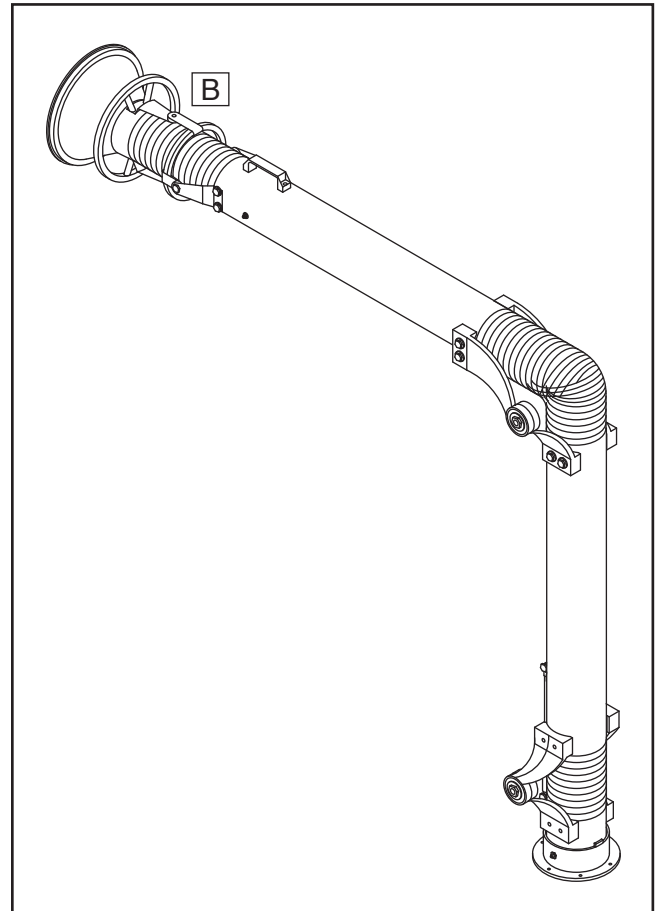


Figure 13. Box 2 inventory.



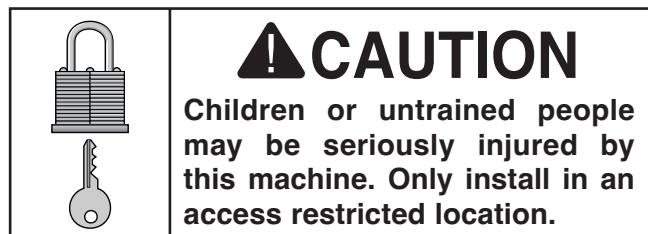
# Site Considerations

## Weight Load

Refer to the **Machine Data Sheet** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

## Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. **See below for required space allocation.**



## Physical Environment

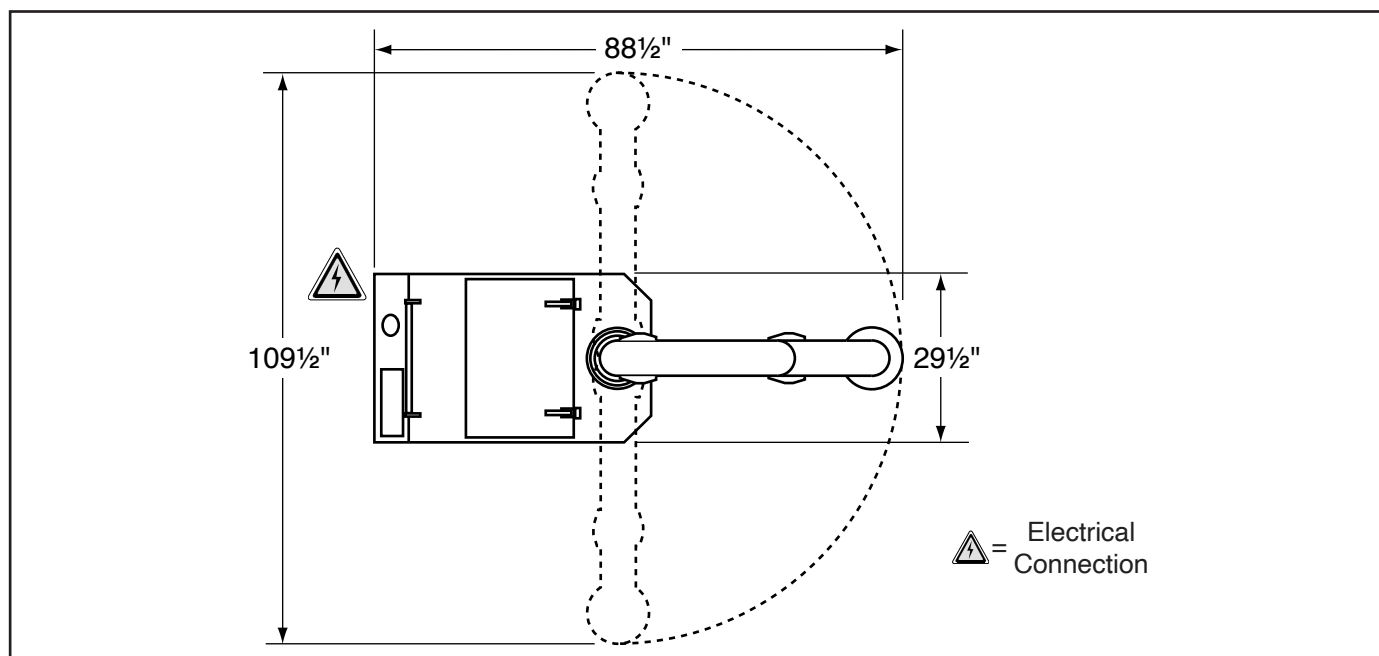
The physical environment where the machine is operated is important for safe operation and longevity of machine components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41°–104°F; the relative humidity range exceeds 20%–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

## Electrical Installation

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave enough space around machine to disconnect power supply or apply a lockout/tagout device, if required.

## Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.

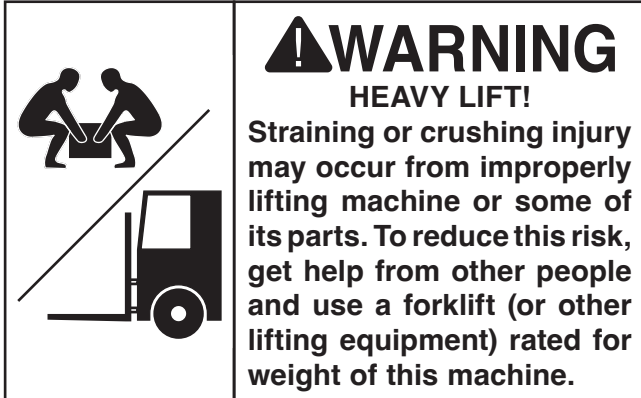


**Figure 14.** Minimum working clearances.



# Assembly

The machine must be fully assembled before it can be operated. Before beginning the assembly process, refer to **Needed for Setup** and gather all listed items. To ensure the assembly process goes smoothly, first clean any parts that are covered or coated in heavy-duty rust preventative (if applicable).



## To assemble machine:

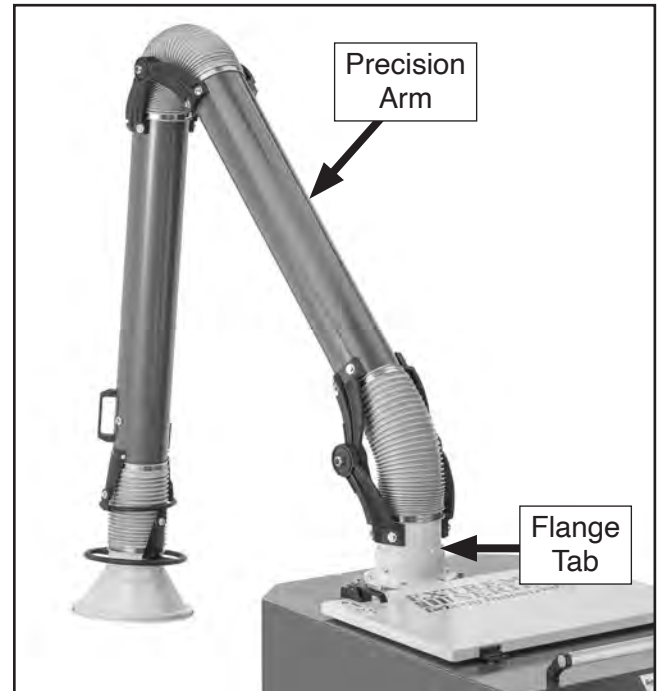
1. Remove top and sides of shipping crate.
2. Unlock (2) locking casters on machine base.
3. With an assistant to help balance machine, move machine base off of pallet.
4. Lock locking casters.
5. Remove (6) 1/4"-20 x 3/4" hex bolts and 1/4" fender washers shown in **Figure 15**.



**Figure 15.** Location of precision arm fasteners.

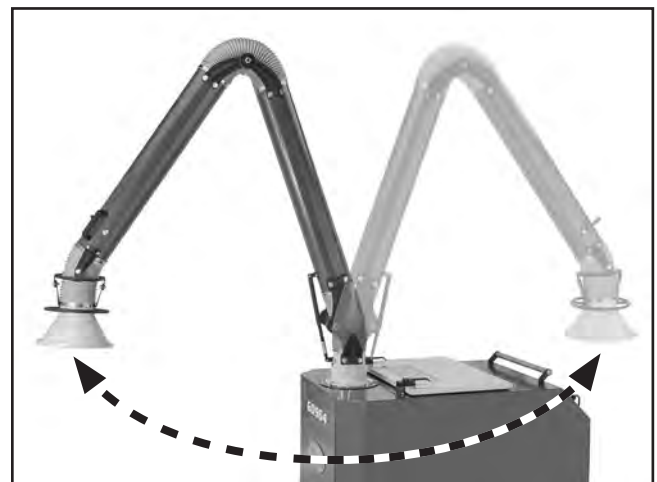
6. With help of assistant, attach precision arm to machine base, as shown in **Figure 16**, with hex bolts and flat washers removed in **Step 5**.

**Note:** *Flange tab shown in **Figure 16** must face machine base power controls.*



**Figure 16.** Precision arm attached to machine base.

7. Use precision arm handle to rotate arm through its full range of motion (see **Figure 17**) to confirm it has been installed correctly. Arm should rotate all the way around flange without binding until it contacts flange tab shown in **Figure 16**.



**Figure 17.** Rotating arm through its full range of motion.



# Test Run

Once assembly is complete, test run the machine to ensure it is properly connected to power and safety components are functioning correctly.

If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem BEFORE operating the machine again. The **Troubleshooting** table in the **SERVICE** section of this manual can help.

The Test Run consists of verifying the following: 1) The motor powers up and runs correctly.

## WARNING

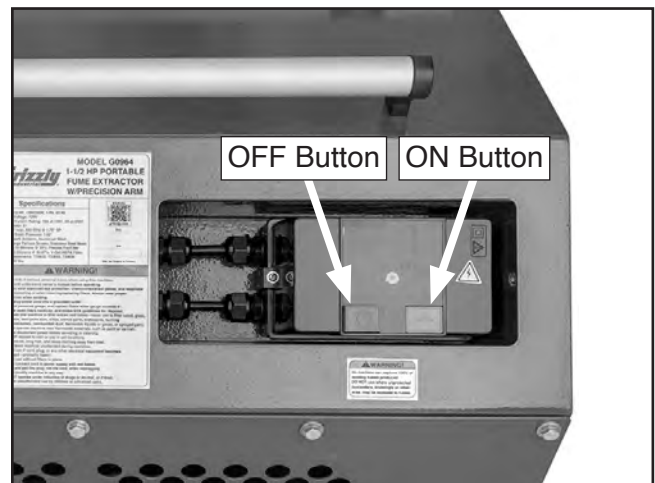
Serious injury or death can result from using this machine BEFORE understanding its controls and related safety information. DO NOT operate, or allow others to operate, machine until the information is understood.

## WARNING

DO NOT start machine until all preceding setup instructions have been performed. Operating an improperly set up machine may result in malfunction or unexpected results that can lead to serious injury, death, or machine/property damage.

### To test run machine:

1. Clear all setup tools away from machine.
2. Lock locking casters on base.
3. Connect machine to power supply.
4. Press green ON button to turn machine **ON** (see **Figure 18**). Verify motor runs smoothly and without unusual problems or noises.
5. Press red OFF button to turn machine **OFF** (see **Figure 18**).



**Figure 18.** Location of power controls.

Congratulations! Test Run is complete.





# SECTION 4: OPERATIONS

## Operation

This fume extractor is designed *exclusively* to extract and filter fumes and particulate generated during welding. **DO NOT** use this fume extractor to collect wood dust or metal chips due to potential fire risk. This machine is not designed to collect the slag and molten metal produced by cutting torches and plasma cutters.

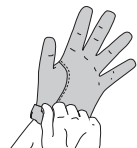
This machine does not substitute the need for a respirator or proper workpiece preparation. Make sure that you are familiar with the materials to be welded, know what types of fumes will be created, and take the necessary precautions. Many metal coatings will produce poisonous fumes when heated. Strip coatings off at least four inches away from the area of heat application before welding. It is always better to follow good welding practices and remove coatings that may smoke and possibly contaminate the weld.

### DANGER

**Always wear welding personal protective equipment, including hood, respirator, gloves, boots, and long sleeves when welding.**

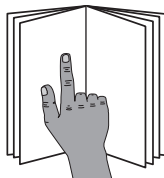
### WARNING

**Wear approved respirator, safety goggles, and protective gloves whenever cleaning machine or handling filters to reduce risk of eye, face, and lung injuries**



### WARNING

**To reduce risk of serious injury, read entire manual BEFORE using machine.**



### WARNING

**Never operate machine with damaged or worn parts. Never operate machine with filters removed, or filter door open.**

**To complete a typical operation, the operator does the following:**

1. Positions machine close to welding operation, locks casters, then directs suction hood within 6"–18" of workpiece.

**Note:** Hood should be as close to workpiece as possible without interfering with operation by obstructing workpiece view or disturbing shielding gases.

2. Connects machine to power and turns it **ON**.
3. Adjusts damper for welding operation.
4. Puts on personal protective equipment required by welding operation.
5. Performs welding operation, then turns **OFF** welder.
6. Allows machine to remove any residual fumes from environment, then turns machine **OFF** and disconnects it from power.
7. Empties dust drawer while wearing safety goggles, protective gloves, and respirator.

### NOTICE

**If you are not experienced with this type of machine, WE STRONGLY RECOMMEND that you seek additional training outside of this manual. Read books/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.**





# SECTION 5: ACCESSORIES

## **! WARNING**

Installing unapproved accessories may cause machine to malfunction, resulting in serious personal injury or machine damage. To reduce this risk, only install accessories recommended for this machine by Grizzly.

## **NOTICE**

Refer to our website or latest catalog for additional recommended accessories.

### **Model G0964 Replacement Filters**

#### **T33832—Aluminum Mesh Filter for G0964**

This mesh filter arrests sparks and stops slag from entering the other filters. 440 x 540 x 22mm.



**Figure 19.** T33832 Aluminum Mesh Filter.

#### **T33833—Pleated Pre-Filter for G0964**

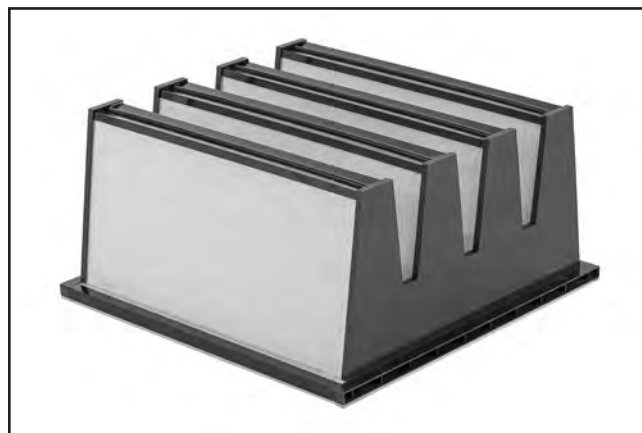
The T33833 pleated pre-filter captures 35% of particles from 2–10 microns in size and has a 9.7 square foot surface area. Removing these particles helps the unit maintain airflow and increase filtration efficiency. This is especially vital to extending the life of the HEPA filter. 595 x 595 x 45mm.



**Figure 20.** T33833 Pleated Pre-Filter.

#### **T33834—V-Cell HEPA Filter for G0964**

This MERV-17 HEPA filter captures 99.97% of particles 0.3 microns in size and has a 167.9 square foot surface area. 595 x 595 x 292mm.



**Figure 21.** T33834 V-Cell HEPA Filter.

**order online at [www.grizzly.com](http://www.grizzly.com) or call 1-800-523-4777**



### **G0879—Flux-Cored Wire Feed Welder**

Operating the G0879 is as easy as carrying the lightweight, 36-pound welder to the job site, plugging it in, attaching the ground clamp, and you're ready to weld! Flux-core welders can produce cleaner welds than stick welding and offer superior weld puddle control, even on thinner metals.



**Figure 22.** G0879 Flux-Cored Wire Feed Welder.

### **G0883—160A AC/DC TIG Welder**

This welder is perfect for those ultra-clean, "stack of dimes" weld beads you expect from a traditional TIG unit, while offering the functionality of switching arc control from foot pedal control to finger-activated.



**Figure 23.** G0883 160A AC/DC TIG Welder.

### **T31771—Mobile Welding Table**

Designed for mobility, simply roll the T31771 Mobile Welding Table in place and lock the four casters down. When you are done with your job and need the floor space, unlock the casters and move the table away! The table top is 18" x 36", made of 12-gauge steel with  $\frac{5}{8}$ " holes on 2 $\frac{1}{2}$ " centers.



**Figure 24.** T31771 Mobile Welding Table.

### **T32859—24" x 36" Folding Welding Table**

This folding welding table has a 350-pound load capacity and collapses for storage when not in use. It has a 9-gauge table with  $\frac{5}{8}$ " diameter holes spaced every 2".



**Figure 25.** T32859 24" x 36" Folding Welding Table.

**order online at [www.grizzly.com](http://www.grizzly.com) or call 1-800-523-4777**



### **T28996—Vertical Swing Clamp**

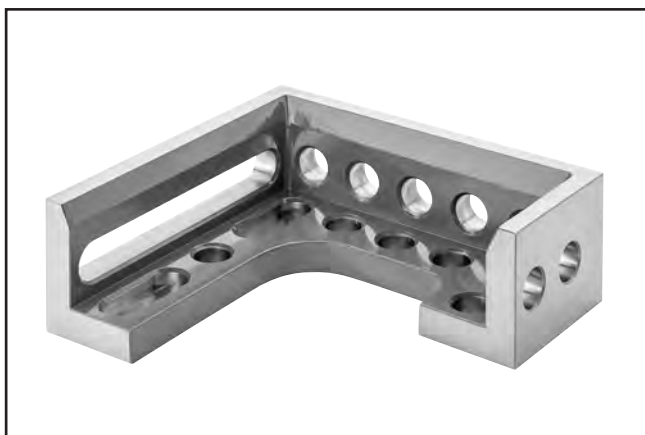
The T28996 makes securing welding workpieces fast and simple. This clamp pairs perfectly with your worktable and angle fixtures to help apply pressure where it's needed most.



**Figure 26.** T28996 Vertical Swing Clamp.

### **T28986—Right-Hand Corner Fixture**

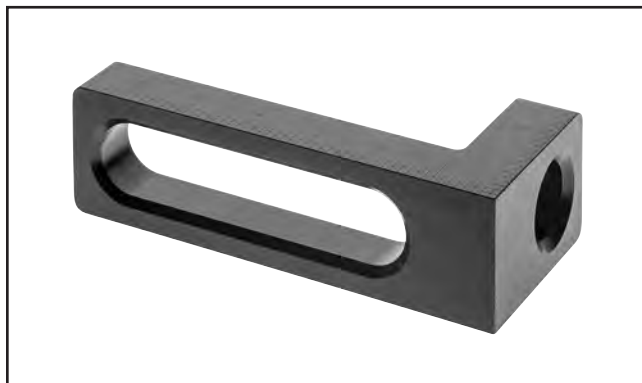
With nearly endless accessory attachment options, the T28986 Right-Hand Corner Fixture angle block offers the support you need. This clamping and locating fixture reveals a multitude of clamping possibilities due to its three dimensionality and allows for the use of heavy parts. Use it as a limit stop and table extension. Measures 10 $\frac{1}{4}$ " x 11 $\frac{3}{4}$ ".



**Figure 27.** T28986 Right-Hand Corner Fixture.

### **T28999—Universal 90 Degree Fixture**

This fixture has one bored and one oblong hole that can be used as a large stop. It has machined scale markings and integrated 28mm fixture holes for use with clamping bolts.



**Figure 28.** T28999 Universal 90 Degree Fixture.

### **T28990—Corner Clamping Attachment**

The T28990 Corner Clamping Attachment provides more working space as a result of diagonally extending the table at a 45° angle. Precision-machined, high-tensile strength welded steel adds incredible rigidity for the best 90° angle alignment.

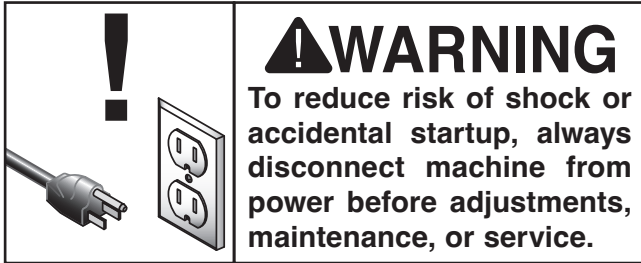


**Figure 29.** T28990 Corner Clamping Attachment.

***order online at [www.grizzly.com](http://www.grizzly.com) or call 1-800-523-4777***



# SECTION 6: MAINTENANCE



## Schedule

For optimum performance from this machine, this maintenance schedule must be strictly followed.

### Ongoing

To minimize your risk of injury and maintain proper machine operation, shut down the machine immediately if you ever observe any of the items below, and fix the problem before continuing operations:

- Fire hazards or smoldering combustibles.
- Loose mounting bolts.
- Damaged filters or gaskets/seals.
- Worn or damaged wires.
- Any other unsafe condition.

### Daily Maintenance

- Check operating pressure. If operating pressure exceeds 6 inches of water (inAq), refer to **Cleaning/Replacing Filters** on Page 26.
- Empty dust drawer.

### Weekly Maintenance

- Clean/vacuum dust buildup from outside of machine and precision arm.
- Lubricate precision arm flange.

### Monthly Check

- Clean/vacuum dust buildup from inside machine base and off motor.

## Cleaning

Cleaning the Model G0964 is relatively easy. Always put on ANSI-approved safety goggles, a NIOSH-approved respirator, and protective gloves before cleaning machine to protect against any airborne particles disturbed by cleaning.

Once a week, use a vacuum equipped with a HEPA filter to remove dust and fume buildup from the outside of the machine. Once a month, remove the access cover and filters and vacuum inside of the machine. Wipe up any remaining dust with a disposable cloth that has been wet with water.

**IMPORTANT:** DO NOT use compressed air to clean the machine—especially if indoors—as it will likely cause unnecessary dust to become airborne and can damage the filters.

### ! WARNING

**Wear ANSI-approved safety goggles, NIOSH-approved respirator, and protective gloves when removing, cleaning, and replacing filters. Carefully minimize amount of dust allowed to become airborne, and prevent spread of dust onto hands or clothing. Dispose of all waste properly according to local regulations for material type.**

### ! WARNING

**DO NOT clean or degrease fume extractor with any form of chlorinated hydrocarbons. When introduced to arc welding operations, chlorinated hydrocarbons produce phosgene gas which can result in serious injury and even death.**



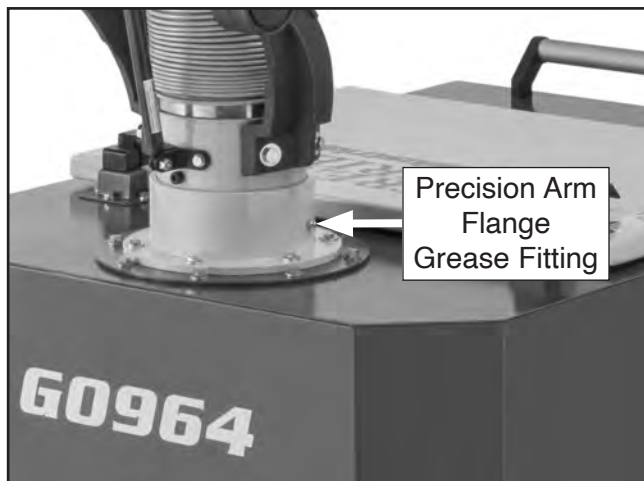
# Lubrication

Once a week, apply a pump of NLGI#2 grease like the one shown in **Figure 30** below to the precision arm flange using the grease fitting shown in **Figure 31**. The grease gun dispensing tip style must be compatible with a conical head (sometimes called "standard" or "DIN 71412") grease fitting.

**T26419—NLGI#2 Syn-O-Gen Synthetic Grease**  
Formulated with 100% pure synthesized hydrocarbon basestocks that are compounded with special thickeners and additives to make Syn-O-Gen non-melt, tacky, and water resistant. Extremely low pour point, extremely high temperature oxidation, and thermal stability produce a grease that is unmatched in performance.



**Figure 30.** T26419 Syn-O-Gen Synthetic Grease.



**Figure 31.** Location of precision arm flange grease fitting.

# Emptying Dust Drawer

Empty the dust drawer at the end of the day's use. If you allow dust and debris to accumulate, airflow efficiency can drop and machine may be damaged.

## ⚠ WARNING

**Wear ANSI-approved safety goggles, NIOSH-approved respirator, and protective gloves when removing, cleaning, and replacing filters. Carefully minimize amount of dust allowed to become airborne, and prevent spread of dust onto hands or clothing. Dispose of all waste properly according to local regulations for material type.**

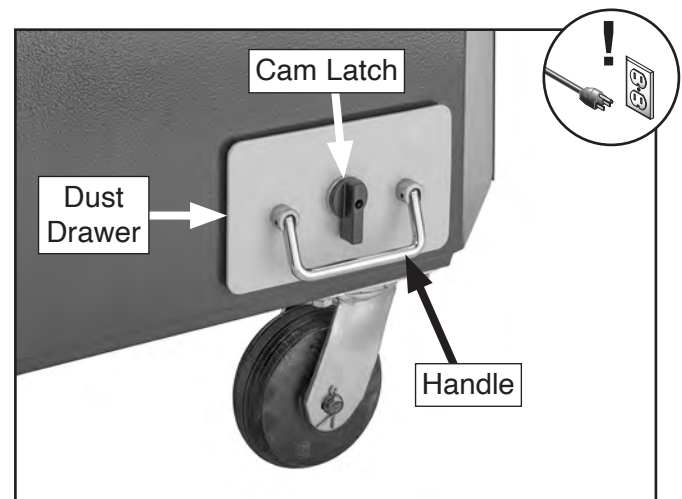
### Items Needed

### Qty

ANSI-Approved Safety Goggles.....	1 Pr.
NIOSH-Approved Respirator.....	1
Protective Gloves .....	1 Pr.
Vacuum Cleaner w/HEPA Filter.....	1

### To empty dust drawer:

1. DISCONNECT MACHINE FROM POWER!
2. Put on personal protective equipment.
3. Turn dust drawer cam latch 90° counterclockwise to unlock, then use handle to pull drawer from machine base (see **Figure 32**).



**Figure 32.** Dust drawer components.





4. Vacuum accumulated dust from dust drawer, install drawer, then turn cam latch clockwise to secure.
5. Dispose of collected dust according to local regulations.

## Cleaning/Replacing Filters

Clean the aluminum mesh and pre-filter filters when the operating pressure on the pressure gauge exceeds 6 inches of water (inAq). Replace the filters when cleaning does not improve the machine performance.

Always clean the filters outdoors when possible! However, take special care to avoid contaminating the environment. When cleaning or replacing the filters, always inspect for damage and replace the filters if ANY damage or tears are found.

**IMPORTANT:** DO NOT use compressed air to clean the filters—especially if indoors—as it will likely cause a large amount of dust to become airborne and could damage the filters.

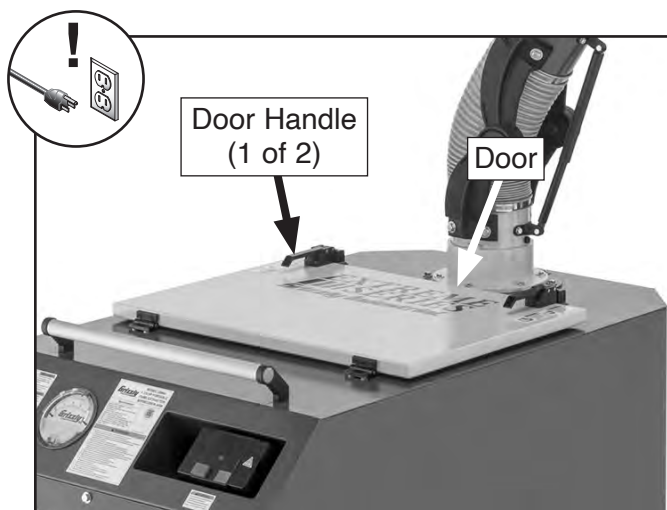
### **WARNING**

Wear ANSI-approved safety goggles, NIOSH-approved respirator, and protective gloves when removing, cleaning, and replacing filters. Carefully minimize amount of dust allowed to become airborne, and prevent spread of dust onto hands or clothing. Dispose of all waste properly according to local regulations for material type.

Items Needed	Qty
ANSI-Approved Safety Goggles.....	1 Pr.
NIOSH-Approved Respirator .....	1
Protective Gloves .....	1 Pr.
Wrench or Socket 12mm .....	1
Soft Bristle Brush .....	1
Vacuum Cleaner w/HEPA Filter.....	1
Wire Brush.....	1
Replacement Filters.....	As Needed

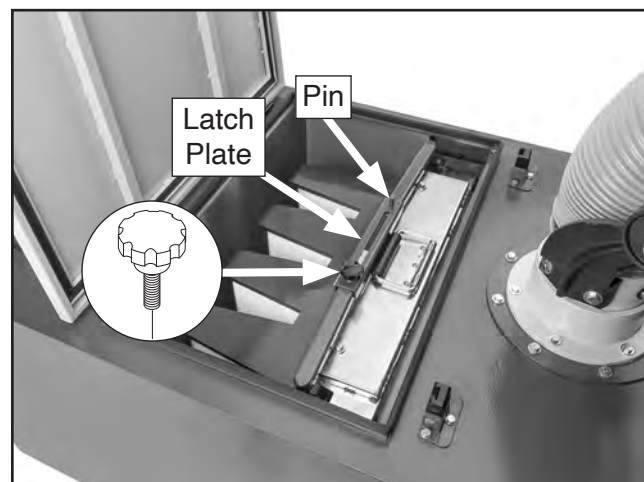
### To clean/replace filters:

1. DISCONNECT MACHINE FROM POWER!
2. Put on personal protective equipment.
3. Lift (2) door handles to open door (see **Figure 33**).



**Figure 33.** Location of door handles.

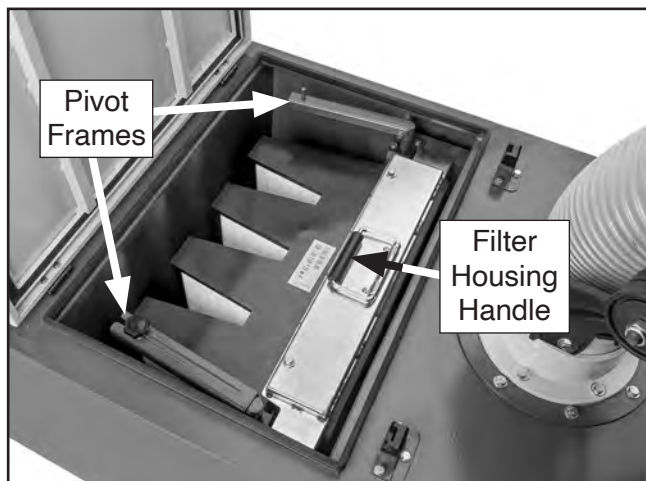
4. Loosen knob shown in **Figure 34**, then slide latch plate away from pin.



**Figure 34.** Location of filter housing retaining knob, latch plate, and pin.

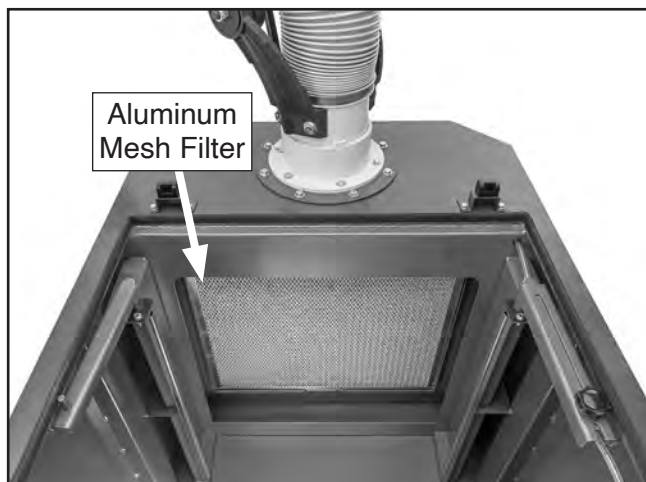


5. Move pivot frames toward pressure gauge to release filter housing (see **Figure 35**), then lift filter housing out of machine base with handle.



**Figure 35.** Pivot frames moved to release filter housing and location of filter housing handle.

6. Move aluminum mesh filter up in order to remove it from machine base (see **Figure 36**).

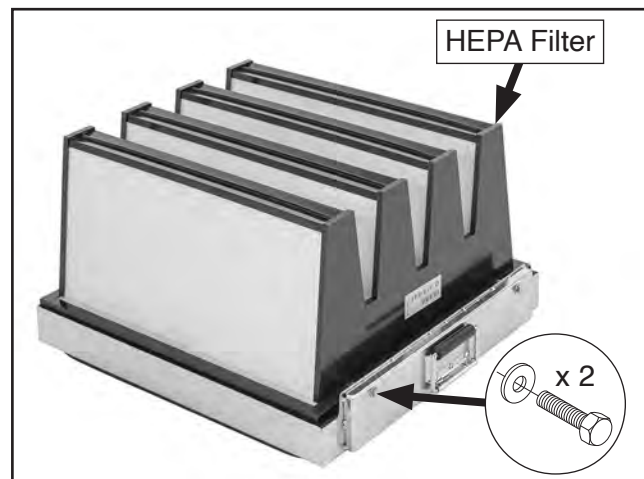


**Figure 36.** Location of aluminum mesh filter.

7. Flush aluminum mesh filter with water in enclosed container and allow filter to air dry.
  - If mesh filter is worn, damaged, or too clogged to clean, replace filter (part #P0964029).
8. Remove (2) hex bolts and flat washers shown in **Figure 37** to release filters from housing.

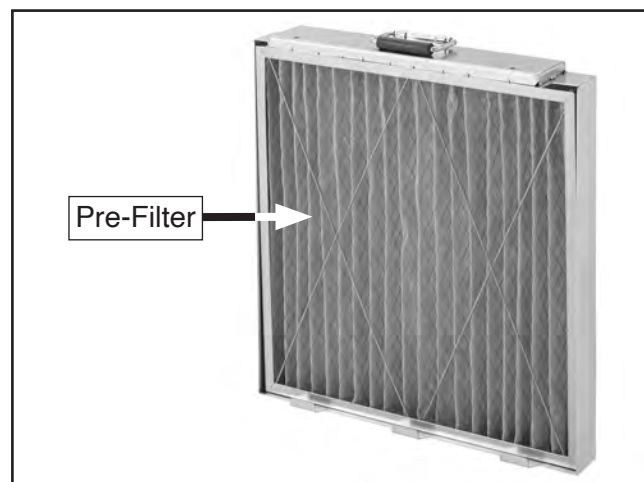
9. Remove HEPA filter from filter housing (see **Figure 37**) and set aside for now.

**Note:** HEPA filter cannot be cleaned without being damaged. Do not get it wet during the following steps.



**Figure 37.** Location of filter retaining fasteners and HEPA filter.

10. Remove pre-filter from filter housing (see **Figure 38**).



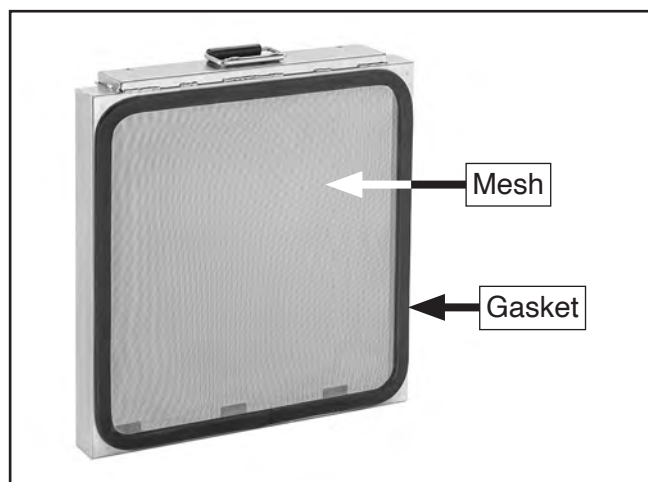
**Figure 38.** Location of pre-filter.

11. Clean pre-filter with soft bristle brush, and vacuum with shop vacuum equipped with HEPA filter.
  - If you have already cleaned pre-filter and operating pressure has not improved, replace pre-filter (part #P0964037).



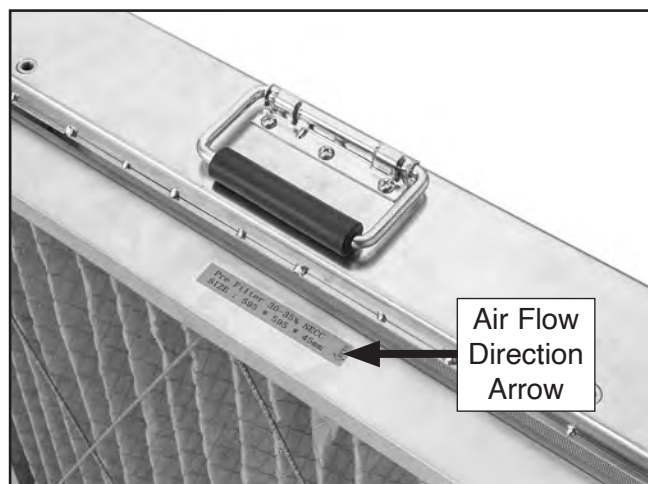


12. Tap stainless steel mesh on filter housing (see **Figure 39**) and carefully use wire brush to brush away built up dust and slag. If a piece of solder or slag has welded itself to screen, do not pry it off or you may put hole in screen.
13. Examine filter housing gasket and stainless steel mesh (see **Figure 39**).
  - If gasket or mesh is damaged, replace filter housing (part #P0964036).

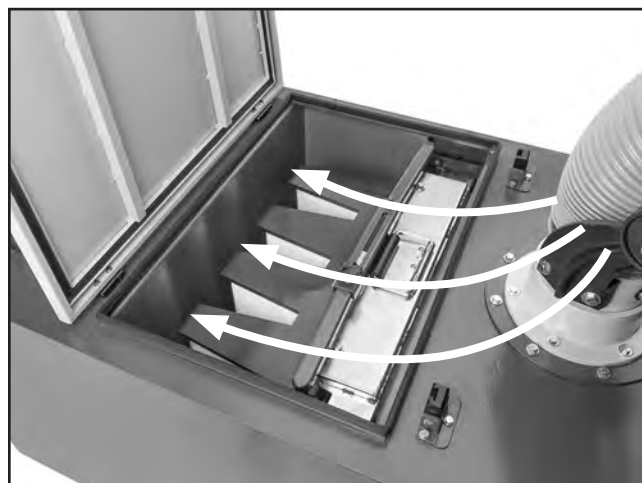


**Figure 39.** Location of filter housing gasket and stainless steel mesh.

14. Place pre-filter in filter housing. Pre-filter must be installed so filter air flow direction arrow (see **Figure 40**) points in direction of machine air flow when filter housing is installed (see **Figure 41**).



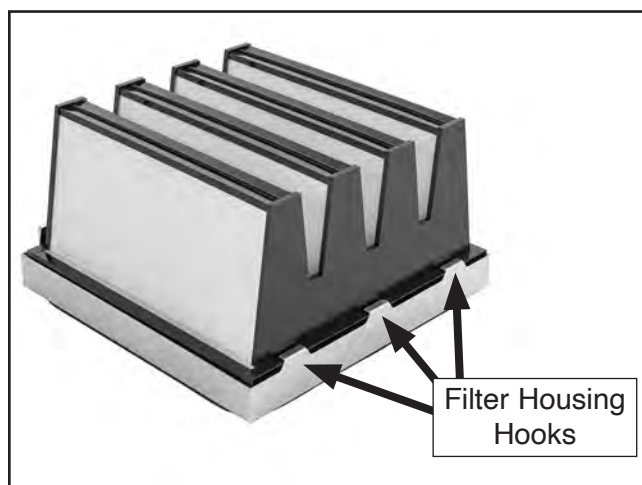
**Figure 40.** Location of pre-filter air flow direction arrow.



**Figure 41.** Direction of machine air flow.

15. Align HEPA filter with filter housing hooks, as shown in **Figure 42**, then place HEPA filter in filter housing. HEPA filter must be installed so filter air flow direction arrow points in direction of machine air flow when filter housing is installed (see **Figure 41**).

- If gasket on HEPA filter is damaged or pre-filter has already been cleaned and replaced and operating pressure has not improved, replace HEPA filter (part #P0964038).

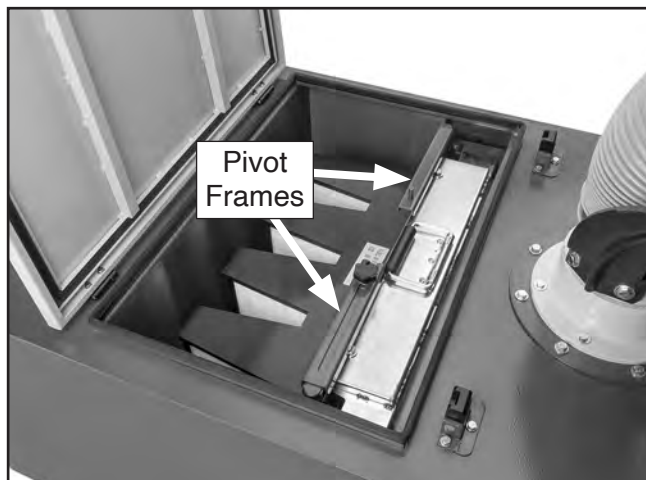


**Figure 42.** HEPA filter aligned with filter housing hooks.

16. Install hex bolts and flat washers removed in **Step 8** to secure filters in housing.

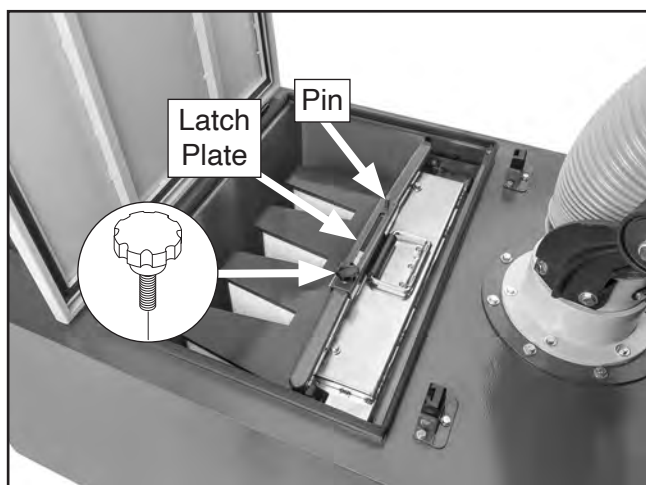


17. Install aluminum mesh filter in machine base. Aluminum mesh filter must be installed so filter air flow direction arrow points in direction of machine air flow (see **Figure 41** on **Page 28**).
18. Place filter housing in machine base, then move pivot frames over filter housing (see **Figure 43**).



**Figure 43.** Filter housing placed in machine base with pivot frames moved over it.

19. Slide latch plate until it engages pin, then tighten knob shown in **Figure 44** to secure filter housing in machine base.



**Figure 44.** Filter housing secured in base.

20. Close door and secure with door handles.
21. Dispose of any old filters, water used to clean aluminum mesh filter, and any waste collected in vacuum according to local regulations.

## Machine Storage

If this machine needs to be stored for a long period of time, use the steps in this section to ensure that it remains in good condition.

### **!WARNING**

**Wear ANSI-approved safety goggles, NIOSH-approved respirator, and protective gloves when removing, cleaning, and replacing filters and dust drawer. Carefully minimize amount of dust allowed to become airborne, and prevent spread of dust onto hands or clothing. Dispose of all waste properly according to local regulations for material type.**

Items Needed	Qty
ANSI-Approved Safety Goggles .....	1 Pr.
NIOSH-Approved Respirator .....	1
Protective Gloves .....	1 Pr.
Wrench or Socket 12mm .....	1
Soft Bristle Brush .....	1
Vacuum Cleaner w/HEPA Filter.....	1
Wire Brush.....	1
Replacement Filters.....	As Needed
Desiccant Packs .....	As Needed
Tarp/Plastic Sheet .....	1

### To prepare machine for storage:

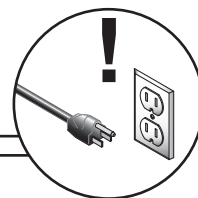
1. DISCONNECT MACHINE FROM POWER and lockout/tagout controls.
2. Empty dust drawer.
3. Remove filters and motor access cover to clean inside of machine.
4. Clean/replace filters, then install.
5. Place a few moisture-absorbing desiccant packs inside of filter and motor housings.
6. Completely cover machine with tarp or plastic sheet that will keep out dust and resist liquid or moisture. If machine will be stored in/near direct sunlight, use cover that will block sun rays.



# SECTION 7: SERVICE

Review the troubleshooting procedures in this section if a problem develops with your machine. If you need replacement parts or additional help with a procedure, call our Technical Support. **Note:** *Please gather the serial number and manufacture date of your machine before calling.*

## Troubleshooting



### Motor & Electrical

Symptom	Possible Cause	Possible Solution
Machine does not start, or power supply breaker immediately trips after startup.	<ol style="list-style-type: none"> <li>1. Incorrect power supply voltage or circuit size.</li> <li>2. Plug/receptacle at fault/wired incorrectly.</li> <li>3. Power supply circuit breaker tripped or fuse blown.</li> <li>4. Motor wires connected incorrectly.</li> <li>5. Thermal overload relay has tripped/at fault.</li> <li>6. Start capacitor at fault.</li> <li>7. Centrifugal switch adjustment/contact points at fault.</li> <li>8. Contactor not energized/at fault.</li> <li>9. Wiring broken, disconnected, or corroded.</li> <li>10. ON button loose/misadjusted/at fault.</li> <li>11. Auxiliary contactor at fault.</li> <li>12. Motor or motor bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Ensure correct power supply voltage and circuit size (<b>Page 11</b>).</li> <li>2. Test for good contacts; correct wiring.</li> <li>3. Ensure circuit is free of shorts. Reset circuit breaker or replace fuse.</li> <li>4. Correct motor wiring connections (<b>Page 32</b>).</li> <li>5. Reset. Adjust or replace if at fault.</li> <li>6. Test/replace if at fault.</li> <li>7. Adjust centrifugal switch/clean contact points. Replace either if at fault.</li> <li>8. Test all legs for power; replace if necessary.</li> <li>9. Fix broken wires or disconnected/corroded connections (<b>Page 32</b>).</li> <li>10. Tighten/adjust/replace button.</li> <li>11. Replace auxiliary contactor.</li> <li>12. Replace motor.</li> </ol>
Machine stalls or is underpowered.	<ol style="list-style-type: none"> <li>1. Damper closed.</li> <li>2. Air flow is blocked or connections are leaking.</li> <li>3. Filter(s) clogged/at fault.</li> <li>4. Motor wires connected incorrectly.</li> <li>5. Plug/receptacle at fault/wired incorrectly.</li> <li>6. Fume extractor undersized.</li> <li>7. Motor overheated.</li> <li>8. Run capacitor at fault.</li> <li>9. Extension cord too long.</li> <li>10. Contactor not energized/at fault.</li> <li>11. Centrifugal switch/contact points at fault.</li> <li>12. Motor or motor bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Open damper.</li> <li>2. Clear blockages, seal leaks.</li> <li>3. Clean/replace filter(s) (<b>Page 26</b>).</li> <li>4. Correct motor wiring connections (<b>Page 32</b>).</li> <li>5. Test for good contacts; correct wiring.</li> <li>6. Move suction hood closer to welding operation/use larger fume extractor.</li> <li>7. Clean motor, let cool, and reduce workload.</li> <li>8. Test/repair/replace.</li> <li>9. Move machine closer to power supply; use shorter extension cord (<b>Page 12</b>).</li> <li>10. Test all legs for power; repair/replace if at fault.</li> <li>11. Adjust centrifugal switch/clean contact points. Replace either if at fault.</li> <li>12. Replace motor.</li> </ol>
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> <li>1. Motor loose.</li> <li>2. Motor fan rubbing on fan cover.</li> <li>3. Centrifugal switch needs adjustment/at fault.</li> <li>4. Motor bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace damaged or missing bolts/nuts or tighten if loose.</li> <li>2. Fix/replace fan cover; replace loose/damaged fan.</li> <li>3. Adjust/replace if at fault.</li> <li>4. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.</li> </ol>



## Operation

Symptom	Possible Cause	Possible Solution
Fume extractor does not adequately collect fumes; poor performance.	<ol style="list-style-type: none"> <li>1. Damper closed.</li> <li>2. Motor access cover is blocked.</li> <li>3. Suction hood too far away from welding operation.</li> <li>4. Dust drawer is full.</li> <li>5. Filter(s) clogged/at fault.</li> <li>6. Leak in connections.</li> <li>7. Air flow blocked/restricted.</li> <li>8. Gasket on filter housing is damaged.</li> <li>9. Fume extractor is undersized.</li> </ol>	<ol style="list-style-type: none"> <li>1. Open damper.</li> <li>2. Unblock motor access cover.</li> <li>3. Position suction hood closer to better collect fumes produced by operation.</li> <li>4. Empty dust drawer (<b>Page 25</b>).</li> <li>5. Clean/replace filter(s) (<b>Page 26</b>).</li> <li>6. Seal leak.</li> <li>7. Unblock restriction.</li> <li>8. Replace filter housing.</li> <li>9. Install a larger fume extractor.</li> </ol>
Loud, repetitious noise, or excessive vibration coming from fume extractor (non-motor related).	<ol style="list-style-type: none"> <li>1. Fume extractor not on flat surface and wobbles; casters not locked or not properly adjusted.</li> <li>2. Component loose.</li> <li>3. Suction hood vibrating against workpiece.</li> <li>4. Impeller damaged and unbalanced.</li> <li>5. Impeller loose on motor shaft.</li> </ol>	<ol style="list-style-type: none"> <li>1. Stabilize fume extractor; lock/adjust casters.</li> <li>2. Replace damaged or missing bolts/nuts or tighten if loose.</li> <li>3. Position suction hood so it will not contact workpiece.</li> <li>4. Inspect impeller for cracks or damage; replace impeller if damaged.</li> <li>5. Secure impeller; replace motor and impeller as a set if motor shaft and impeller hub are damaged.</li> </ol>
Precision arm does not maintain position.	<ol style="list-style-type: none"> <li>1. Support joints need adjustment; damaged.</li> <li>2. Gas strut loose or worn.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust support joints; replace if damaged.</li> <li>2. Tighten fasteners on gas strut; replace if worn.</li> </ol>
Precision arm does not adjust easily.	<ol style="list-style-type: none"> <li>1. Precision arm flange needs lubrication.</li> <li>2. Precision arm support joint fasteners are too tight.</li> </ol>	<ol style="list-style-type: none"> <li>1. Apply grease to flange grease fitting (<b>Page 25</b>).</li> <li>2. Loosen fasteners.</li> </ol>



# SECTION 8: WIRING

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.

## ⚠ WARNING

### Wiring Safety Instructions

**SHOCK HAZARD.** Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

**MODIFICATIONS.** Modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire. This includes the installation of unapproved after-market parts.

**WIRE CONNECTIONS.** All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

**CIRCUIT REQUIREMENTS.** You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

**WIRE/COMPONENT DAMAGE.** Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components.

**MOTOR WIRING.** The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, use the wiring diagram inside the motor junction box.

**CAPACITORS/INVERTERS.** Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

**EXPERIENCING DIFFICULTIES.** If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

#### NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at [www.grizzly.com](http://www.grizzly.com).

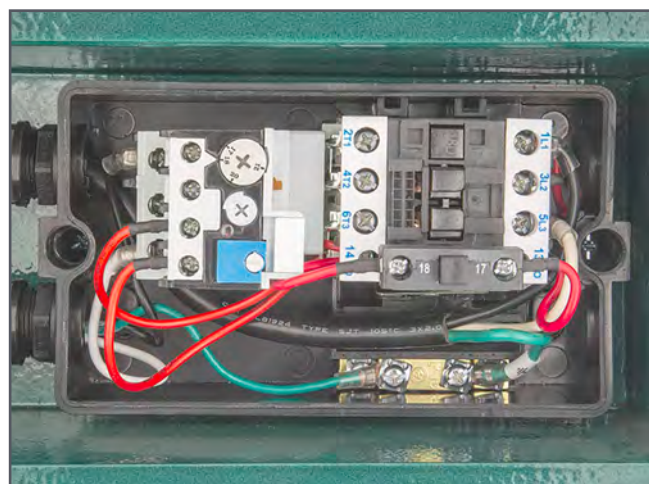
#### COLOR KEY

BLACK		BLUE		YELLOW		LIGHT BLUE	
WHITE		BROWN		YELLOW GREEN		BLUE WHITE	
GREEN		GRAY		PURPLE		TURQUOISE	
RED		ORANGE		PINK			





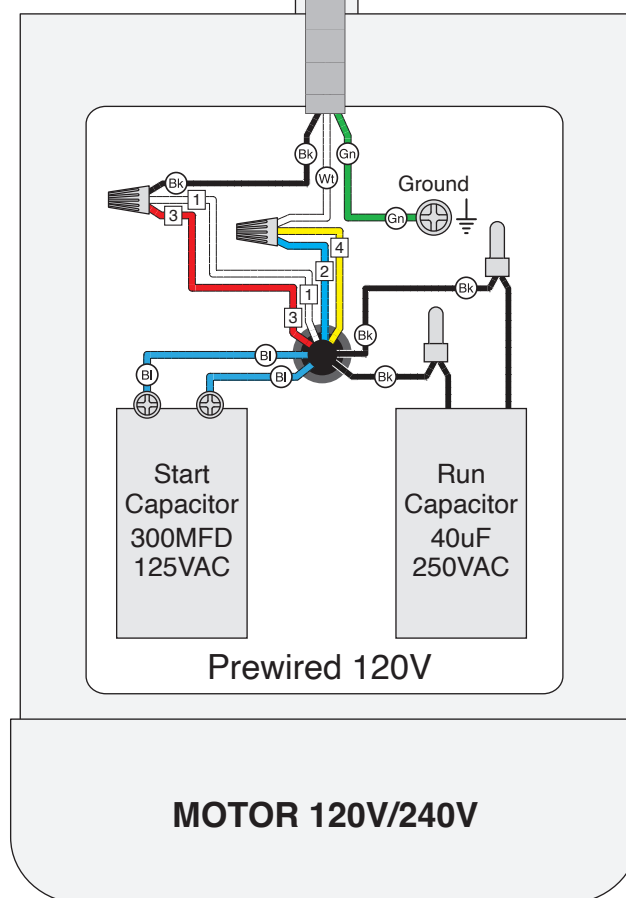
**MAG SWITCH 120V**  
NHD MS1-18D2E7N212PBVO



**Figure 45.** Magnetic switch wiring (120V).

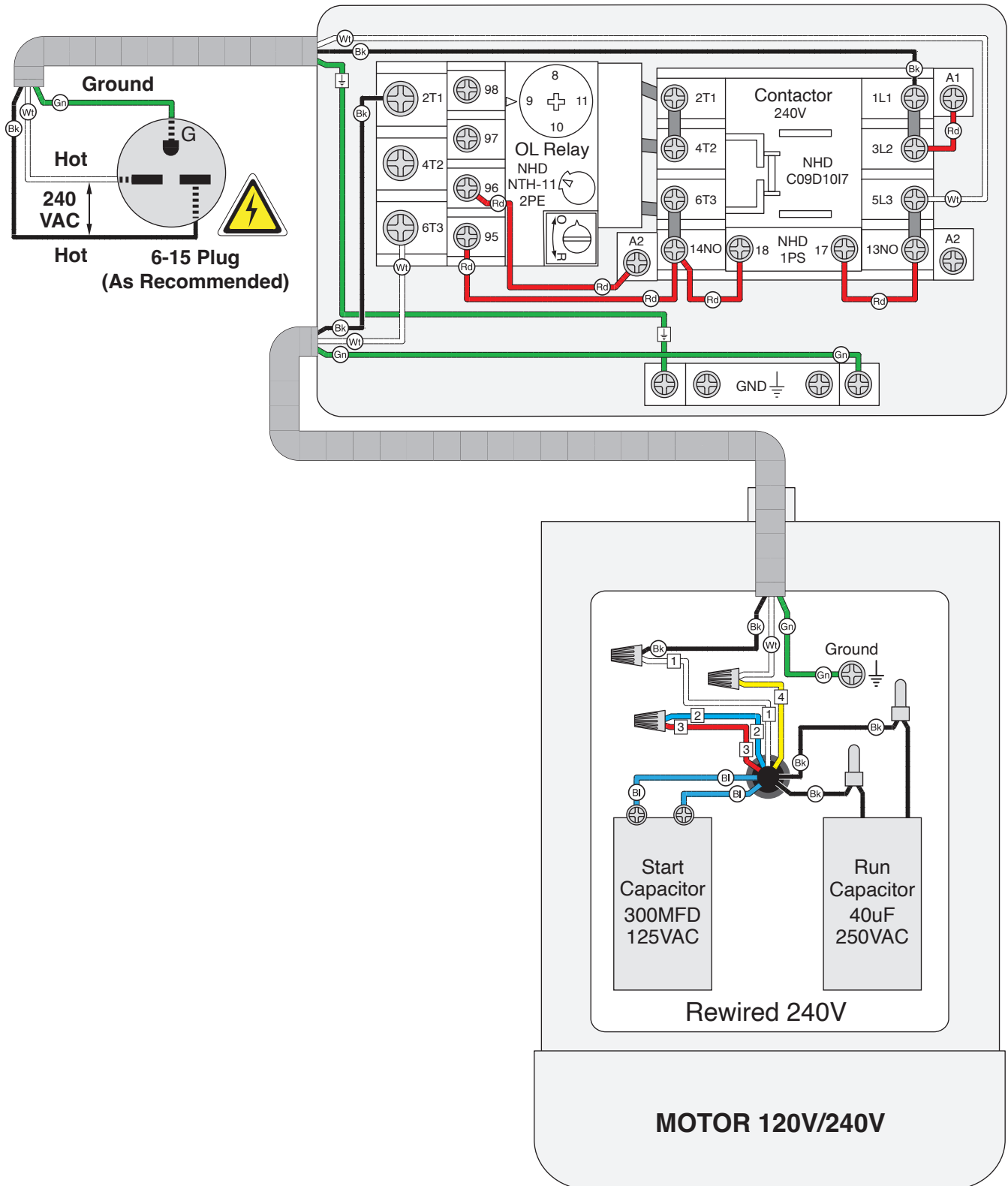


**Figure 46.** Motor junction box wiring (120V).



# Wiring Diagram 240V

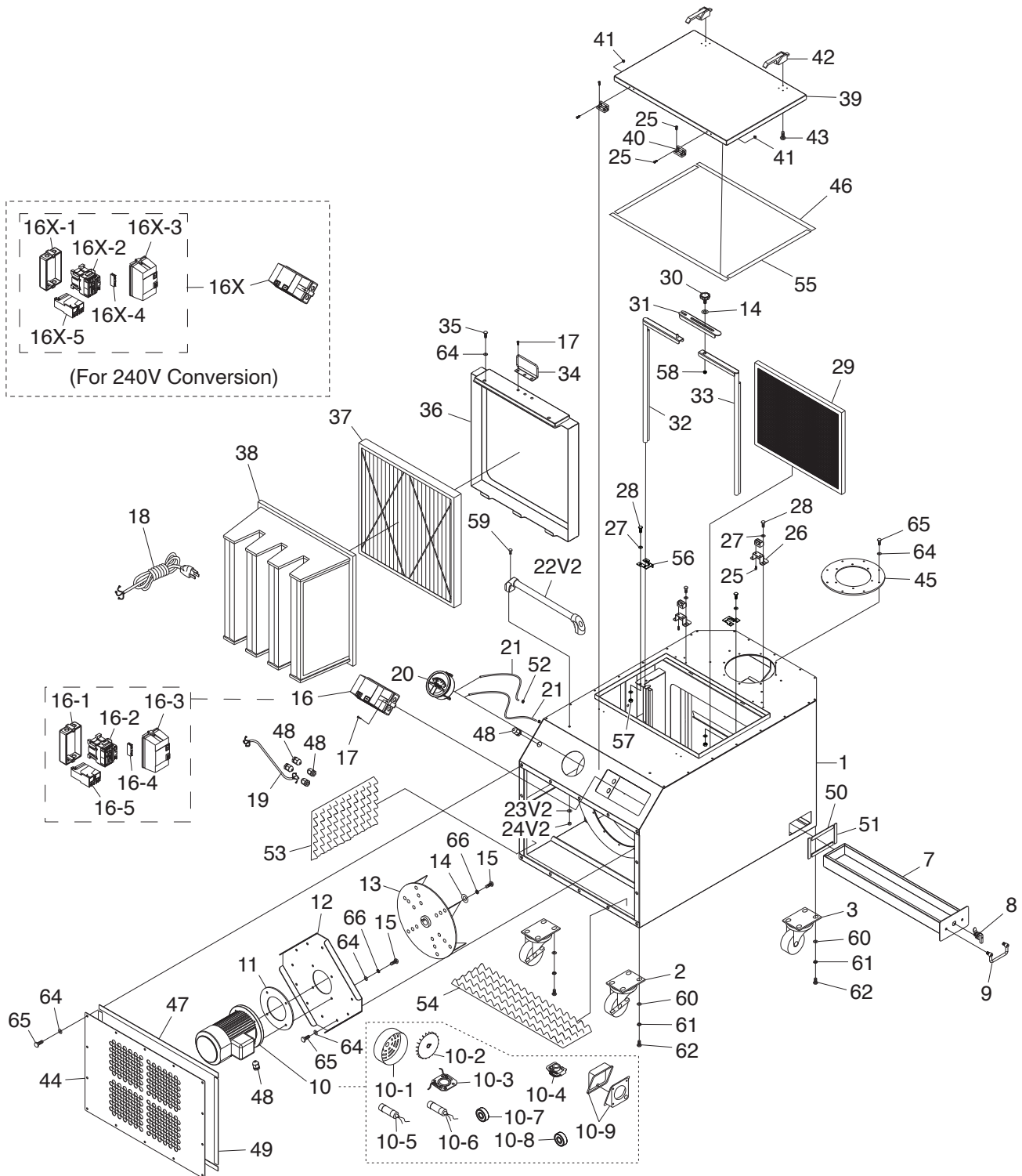
**MAG SWITCH 240V**  
NHD MS1-09D2I7N112PBVO



# SECTION 9: PARTS

We do our best to stock replacement parts when possible, but we cannot guarantee that all parts shown are available for purchase. Call **(800) 523-4777** or visit **[www.grizzly.com/parts](http://www.grizzly.com/parts)** to check for availability.

## Main



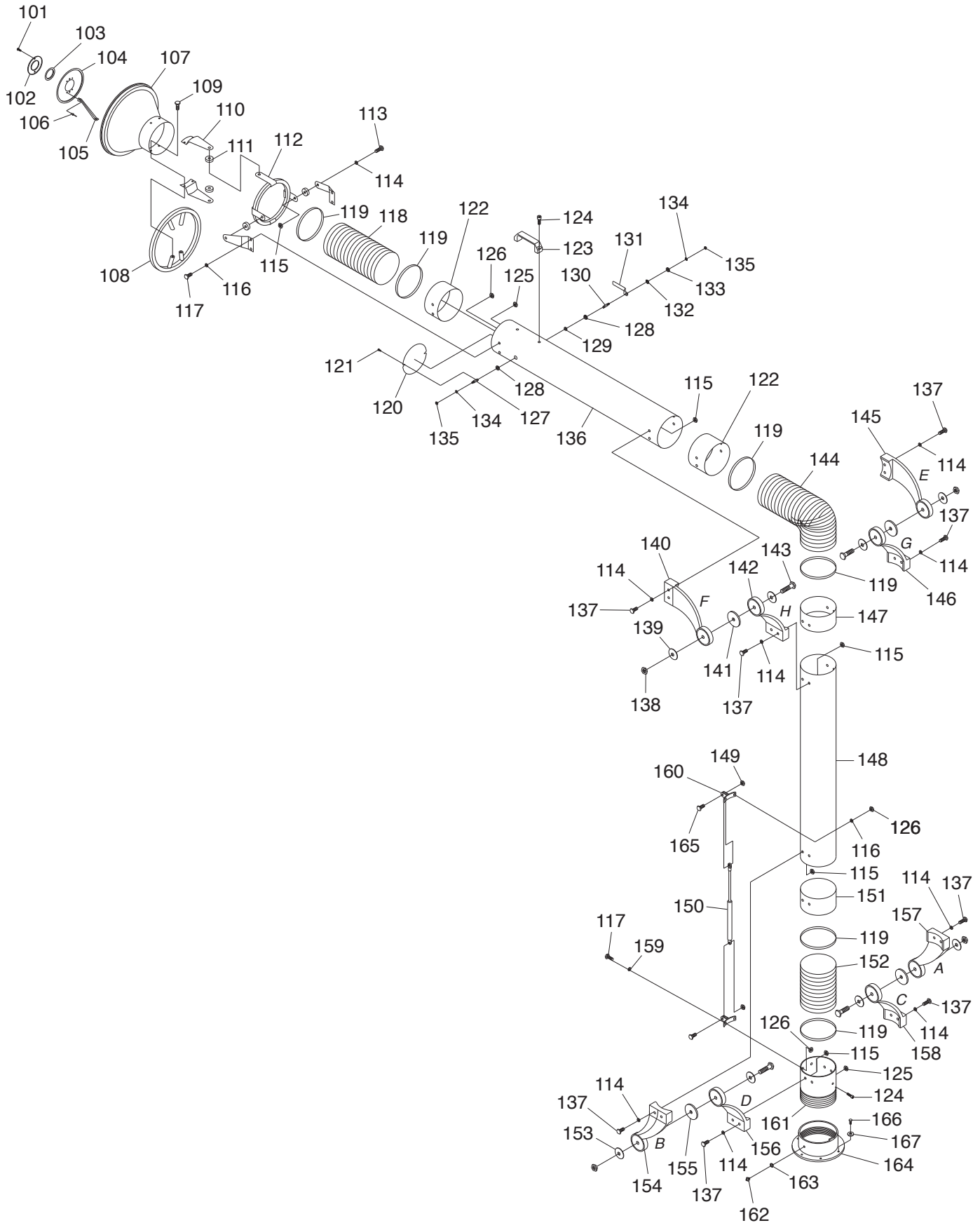
# Main Parts List

REF	PART #	DESCRIPTION
1	P0964001	MACHINE BODY
2	P0964002	CASTER, 5" LOCKING SWIVEL
3	P0964003	CASTER, 5" SWIVEL
7	P0964007	DUST DRAWER
8	P0964008	CAM LATCH
9	P0964009	PULL HANDLE
10	P0964010	MOTOR 1.5 HP 120/240V 1-PH
10-1	P0964010-1	MOTOR FAN COVER
10-2	P0964010-2	MOTOR FAN
10-3	P0964010-3	CONTACT PLATE 19 X 70 INT
10-4	P0964010-4	CENTRIFUGAL SWITCH 9/16 3450
10-5	P0964010-5	S CAPACITOR 300M 125V 1-3/8" X 2-3/4"
10-6	P0964010-6	R CAPACITOR 40M 250V 1-9/16" X 2-7/16"
10-7	P0964010-7	BALL BEARING 6205ZZ (FRONT)
10-8	P0964010-8	BALL BEARING 6202ZZ (REAR)
10-9	P0964010-9	JUNCTION BOX
11	P0964011	MOTOR MOUNT GASKET 137 X 195 X 66MM
12	P0964012	IMPELLER COVER
13	P0964013	IMPELLER 12-1/8"
14	P0964014	FENDER WASHER 5/16
15	P0964015	HEX BOLT 5/16-18 X 1
16	P0964016	MAGNETIC SWITCH NHD MS1-18D2E7N212PBVO
16-1	P0964016-1	MAGNETIC SWITCH BOX
16-2	P0964016-2	CONTACTOR NHD C18D10E7 120V
16-3	P0964016-3	MAGNETIC SWITCH COVER
16-4	P0964016-4	AUX CONTACTOR NHD 1PS 1A 600V
16-5	P0964016-5	OL RELAY NHD NTH-21 2PE 17-21A
16X	P0964016X	MAGNETIC SWITCH NHD MS1-09D2I7N112PBVO
16X-1	P0964016X-1	MAGNETIC SWITCH BOX
16X-2	P0964016X-2	CONTACTOR NHD C-09D10I7 240V
16X-3	P0964016X-3	MAGNETIC SWITCH COVER
16X-4	P0964016X-4	AUX CONTACTOR NHD 1PS 1A 600V
16X-5	P0964016X-5	OL RELAY NHD NTH-11 2PE 8-11A
17	P0964017	PHLP HD SCR 10-24 X 1/2
18	P0964018	POWER CORD 14G 3W 118" 5-20P
19	P0964019	MOTOR CORD 14G 3W 40"
20	P0964020	PRESSURE GAUGE
21	P0964021	CLEAR TUBE 5 X 8 X 1189MM
22V2	P0964022V2	HANDLE V2.09.24
23V2	P0964023V2	FLAT WASHER 10 X 15 X 2MM V2.09.24
24V2	P0964024V2	HEX NUT M10-1.5 V2.09.24

REF	PART #	DESCRIPTION
25	P0964025	CAP SCREW M5-.8 X 12
26	P0964026	LATCH BASE
27	P0964027	FENDER WASHER 1/4
28	P0964028	HEX BOLT 1/4-20 X 3/4
29	P0964029	ALUMINUM MESH FILTER
30	P0964030	KNOB BOLT 5/16-18 X 1, 6-LOBE, D1/8
31	P0964031	LATCH PLATE
32	P0964032	PIVOT FRAME (LEFT)
33	P0964033	PIVOT FRAME (RIGHT)
34	P0964034	FILTER FRAME PULL HANDLE
35	P0964035	HEX BOLT 5/16-18 X 2-1/2
36	P0964036	FILTER HOUSING
37	P0964037	PRE-FILTER PLEATED
38	P0964038	HEPA FILTER V-CELL
39	P0964039	DOOR
40	P0964040	HINGE
41	P0964041	FLANGE NUT M5-.8
42	P0964042	COMPRESSION LATCH
43	P0964043	FLAT HD CAP SCR M5-.8 X 12
44	P0964044	ACCESS COVER
45	P0964045	PRECISION ARM FLANGE
46	P0964046	DOOR SEAL 25.6"
47	P0964047	PANEL SEAL 29.5"
48	P0964048	STRAIN RELIEF TYPE-3 PG13.5
49	P0964049	PANEL SEAL 20.5"
50	P0964050	DRAWER SEAL 6.7"
51	P0964051	DRAWER SEAL 5.5"
52	P0964052	GROMMET 8 X 13 X 11MM
53	P0964053	SOUND INSULATION FOAM 26" X 15-3/4"
54	P0964054	SOUND INSULATION FOAM 29-1/8" X 15-3/4"
55	P0964055	DOOR SEAL 16-7/8"
56	P0964056	PIVOT FRAME FIXING PLATE
57	P0964057	HEX NUT 1/4-20
58	P0964058	ACORN NUT 5/16-18
59	P0964059	HEX BOLT M10-1.5 X 45
60	P0964060	FLAT WASHER 3/8
61	P0964061	LOCK WASHER 3/8
62	P0964062	HEX BOLT 3/8-16 X 3/4
64	P0964064	FLAT WASHER 5/16
65	P0964065	HEX BOLT 5/16-18 X 3/4
66	P0964066	LOCK WASHER 5/16



# Precision Arm





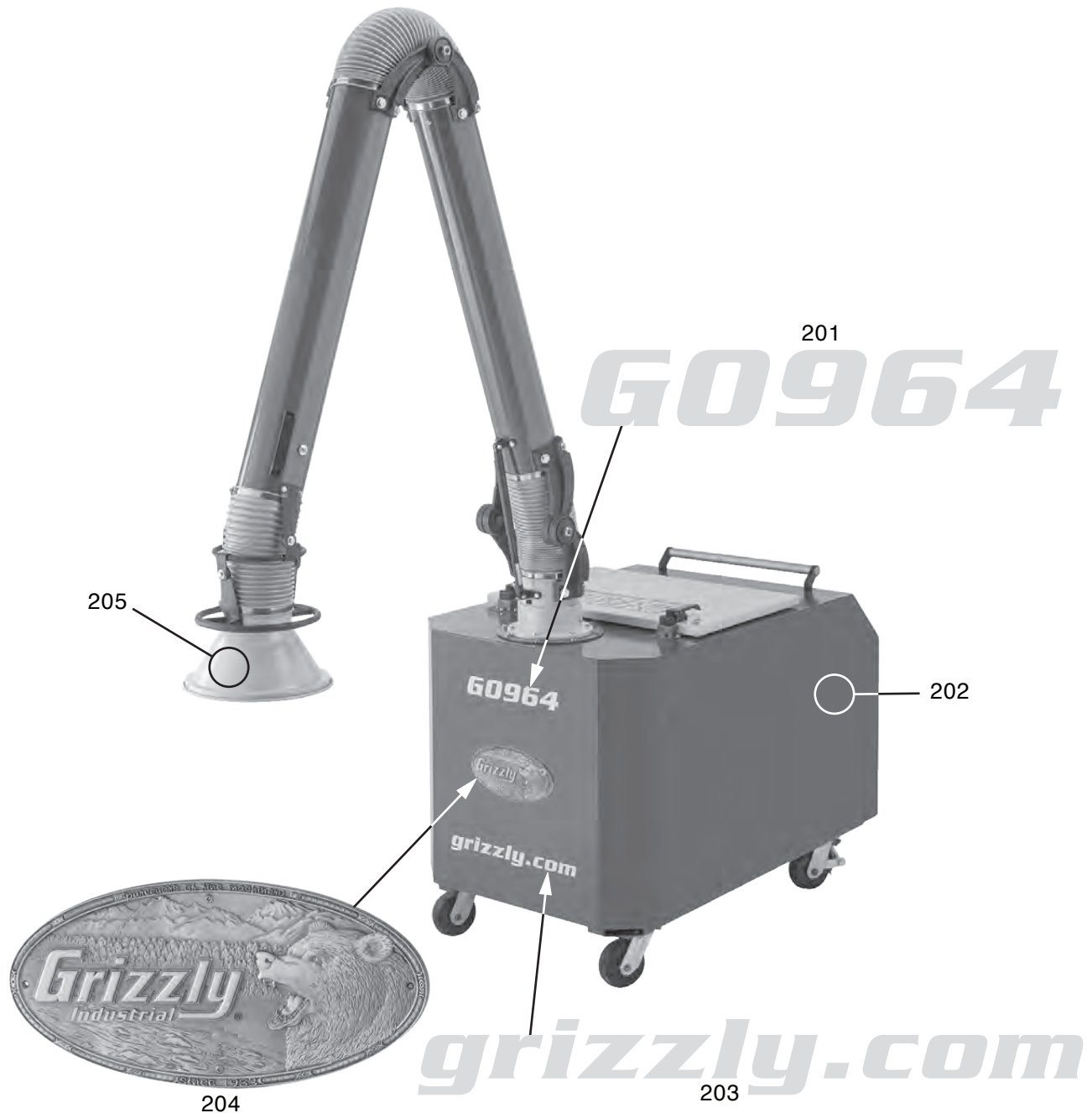
# Precision Arm Parts List

REF	PART #	DESCRIPTION
101	P0964101	PHLP HD SCR 10-24 X 5/8
102	P0964102	SLAG GUARD SEAT
103	P0964103	SLAG GUARD COVER
104	P0964104	SLAG GUARD
105	P0964105	SLAG GUARD MOUNTING BRACKET
106	P0964106	RIVET 4.2 X 10MM BLIND
107	P0964107	SUCTION HOOD
108	P0964108	HANDLE HOOD POSITIONING
109	P0964109	HEX BOLT M6-1 X 16
110	P0964110	PIVOT RING MOUNT
111	P0964111	SPACER 8 X 32 X 6MM
112	P0964112	PIVOT RING
113	P0964113	HEX BOLT 5/16-18 X 1
114	P0964114	FLAT WASHER 5/16
115	P0964115	LOCK NUT 5/16-18
116	P0964116	FLAT WASHER 1/4
117	P0964117	HEX BOLT 1/4-20 X 3/4
118	P0964118	HOSE 6" X 8.7" NYLON
119	P0964119	HOSE CLAMP 6"
120	P0964120	DAMPER
121	P0964121	PHLP HD SCR M4-.7 X 8
122	P0964122	PIPE REINFORCEMENT RING 6" X 1-9/16"
123	P0964123	ARM HANDLE
124	P0964124	CAP SCREW 5/16-18 X 3/4
125	P0964125	HEX NUT 5/16-18
126	P0964126	HEX NUT 1/4-20
127	P0964127	DAMPER ROTATION AXLE
128	P0964128	GROMMET 9.5 X 19 X 5MM
129	P0964129	FLAT WASHER 3/8
130	P0964130	DAMPER FIXED AXLE
131	P0964131	DAMPER HANDLE
132	P0964132	EXT TOOTH WASHER 10MM
133	P0964133	FLAT WASHER 8MM
134	P0964134	FENDER WASHER 6MM

REF	PART #	DESCRIPTION
135	P0964135	LOCK NUT M6-1
136	P0964136	PIPE 6" X 39-1/2" STEEL
137	P0964137	HEX BOLT 5/16-18 X 1-1/2
138	P0964138	LOCK NUT M14-2
139	P0964139	TAPER WASHER 14.2 X 50
140	P0964140	JOINT F
141	P0964141	SPACER 14.2 X 60 X 6MM
142	P0964142	JOINT H
143	P0964143	HEX BOLT M14-2 X 55
144	P0964144	HOSE 6" X 20-1/2" NYLON
145	P0964145	JOINT E
146	P0964146	JOINT G
147	P0964147	PIPE REINFORCEMENT RING 6" X 1-9/16"
148	P0964148	PIPE 6" X 39" STEEL
149	P0964149	LOCK NUT 1/4-20
150	P0964150	GAS STRUT W/ROD ENDS 600N
151	P0964151	PIPE REINFORCEMENT RING 6" X 3-7/8"
152	P0964152	HOSE 6" X 12-9/16" NYLON
153	P0964153	TAPER WASHER 14.2 X 60MM
154	P0964154	JOINT B
155	P0964155	SPACER 14.2 X 70 X 6MM
156	P0964156	JOINT D
157	P0964157	JOINT A
158	P0964158	JOINT C
159	P0964159	LOCK WASHER 1/4
160	P0964160	STRUT MOUNT
161	P0964161	ARM SWIVEL BASE
162	P0964162	GREASE FITTING M8-1 STRAIGHT
163	P0964163	LOCK WASHER 8MM
164	P0964164	ARM FLANGE
165	P0964165	HEX BOLT 1/4-20 X 1
166	P0964166	HEX BOLT 1/4-20 X 3/4
167	P0964167	FENDER WASHER 1/4



# Labels & Cosmetics (Front)



REF	PART #	DESCRIPTION
201	P0964201	MODEL NUMBER LABEL
202	P0964202	TOUCH-UP PAINT, GRIZZLY GREEN
203	P0964203	GRIZZLY.COM LABEL

REF	PART #	DESCRIPTION
204	P0964204	GRIZZLY NAMEPLATE, LARGE
205	P0964205	TOUCH-UP PAINT, GRIZZLY BEIGE

## WARNING

Safety labels help reduce the risk of serious injury caused by machine hazards. If any label comes off or becomes unreadable, the owner of this machine **MUST** replace it in the original location before resuming operations. For replacements, contact (800) 523-4777 or [www.grizzly.com](http://www.grizzly.com).



# Labels & Cosmetics (Rear)

206

## EXTREME III SERIES Grizzly Industrial®

208

**MODEL G0964**  
**1-1/2 HP PORTABLE**  
**FUME EXTRACTOR**  
**W/PRECISION ARM**

**Specifications**

Motor: 1 1/2 HP, 120V/208V, 1 PH, 60 Hz  
Rated Voltage: 120V  
Full-Load Current Rating: 16A at 120V, 8A at 208V  
Inlet Diameter: 9" Inlet, 800 CFM @ 1.2" SP  
Maximum Static Pressure: 7.02"  
Filter: 1- 3 Stage Activated Aluminum Mesh  
Filter: 2- Large Particle Screen, Stainless Steel Mesh  
Filter: 3- 2-10 Microns @ 95%, Pleated Pre-Filter  
Filter: 4- 0.3 Microns @ 99.97%, HEPA Filter  
Filter Replacements: T3300, T3303, T3304  
Weight: 450 lbs.

**WARNING!**

- Read and understand owner's manual before operating.
- Always wear approved eye protection, chemical-resistant gloves, and respirator when operating in which overexposure to fumes. Always wear proper protection when welding.
- Only plug power cord into a grounded outlet.
- Monitor pressure gauge, and replace filter when gauge exceeds 6".
- Handle used filter carefully, and follow EPA guidelines for disposal.
- Only use this machine to filter smoke and fumes—never use to filter wood, glass, asbestos, lead paint dust, silica, metal parts, liquids, burning materials, combustible dust, flammable liquids or gases, or sprayed paint.
- Do not operate machine near flammable materials, such as paint or varnish.
- Always disconnect power before servicing or cleaning.
- DO NOT expose to salt or use in wet locations.
- Keep hands, long hair, and loose clothing away from inlet.
- Never leave machine unattended during operation.
- Do not use if cord, plug, or any other electrical equipment becomes damaged—promptly repair!
- Do not use without filter in place.
- Do not connect to power supply with wet hands.
- Grip and pull the plug, not the cord, when unplugging.
- Do not modify machine in any way.
- DO NOT operate under influence of drugs or alcohol, or if tired.
- Prevent unauthorized use by children or untrained users.

207

**WARNING!**  
**INJURY HAZARD!**  
Do not open door while machine is connected to power or impeller is in motion.

**POISON HAZARD!**  
Wear safety goggles, chemical-resistant gloves, and respirator when cleaning or replacing filters.

207

**WARNING!**  
**INJURY HAZARD!**  
Do not open door while machine is connected to power or impeller is in motion.

**POISON HAZARD!**  
Wear safety goggles, chemical-resistant gloves, and respirator when cleaning or replacing filters.

210

**WARNING!**  
To reduce risk of death or serious injury, read manual BEFORE using machine.

**WARNING!**  
To get a new manual, visit 800-523-4777 or go to [www.grizzly.com](http://www.grizzly.com)

**WARNING!**  
**EYE/SLASH SKIN INJURY HAZARD!**  
Wear safety goggles, chemical-resistant gloves, and respirator when servicing machine.

**WARNING!**  
**ELECTRIC SHOCK HAZARD!**  
Disconnect power before adjustments, maintenance, or service.

**WARNING!**  
**EXPLOSION HAZARD!**  
Do not use machine to collect flammable materials or vapors, machine is flammable materials or fumes.

214

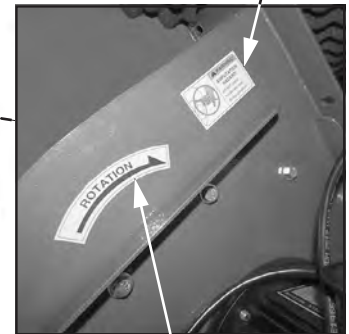
210

**WARNING!**  
No machine can capture 100% of welding fumes produced. DO NOT use where unprotected welders, brazing or other activities, may be exposed to fumes.

211

212

**WARNING!**  
**AMPUTATION HAZARD!**  
DO NOT place hands near inlet during operation!



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210

REF	PART #	DESCRIPTION
206	P0964206	EXTREME SERIES LABEL
207	P0964207	COMBO WARNING LABEL DOOR
208	P0964208	MACHINE ID LABEL
210	P0964210	ELECTRICITY LABEL

REF	PART #	DESCRIPTION
211	P0964211	BYSTANDERS WARNING LABEL
212	P0964212	INLET WARNING LABEL
213	P0964213	ROTATION LABEL
214	P0964214	COMBO WARNING LABEL MACHINE



# WARRANTY & 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.

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.

In the event you need to use 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.

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.

For further information about the warranty, visit <https://www.grizzly.com/forms/warranty> or scan the QR code below to be automatically directed to our warranty page.





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