



OPERATOR'S MANUAL

Metal Working



3 WHEEL BELT GRINDER MODEL: BG-260-3-(110 OR 220)

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THANK YOU & WARRANTY

Thank you for your purchase of a machine from Baileigh Industrial Holdings LLC. We hope that you find it productive and useful to you for a long time to come.

Inspection & Acceptance. Buyer shall inspect all Goods within ten (10) days after receipt thereof. Buyer's payment shall constitute final acceptance of the Goods and shall act as a waiver of the Buyer's rights to inspect or reject the goods unless otherwise agreed. If Buyer rejects any merchandise, Buyer must first obtain a Returned Goods Authorization ("RGA") number before returning any goods to Seller. Goods returned without an RGA will be refused. Seller will not be responsible for any freight costs, damages to goods, or any other costs or liabilities pertaining to goods returned without a RGA. Seller shall have the right to substitute a conforming tender. Buyer will be responsible for all freight costs to and from Buyer and repackaging costs, if any, if Buyer refuses to accept shipment. If Goods are returned in unsalable condition, Buyer shall be responsible for full value of the Goods. Buyer may not return any special-order Goods. Any Goods returned hereunder shall be subject to a restocking fee equal to 30% of the invoice price.

Specifications. Seller may, at its option, make changes in the designs, specifications or components of the Goods to improve the safety of such Goods, or if in Seller's judgment, such changes will be beneficial to their operation or use. Buyer may not make any changes in the specifications for the Goods unless Seller approves of such changes in writing, in which event Seller may impose additional charges to implement such changes.

Limited Warranty. Seller warrants to the original end-user that the Goods manufactured or provided by Seller under this Agreement shall be free of defects in material or workmanship for a period of twelve (12) months from the date of purchase, provided that the Goods are installed, used, and maintained in accordance with any instruction manual or technical guidelines provided by the Seller or supplied with the Goods, if applicable. The original end-user must give written notice to Seller of any suspected defect in the Goods prior to the expiration of the warranty period. The original end-user must also obtain a RGA from Seller prior to returning any Goods to Seller for warranty service under this paragraph. Seller will not accept any responsibility for Goods returned without a RGA. The original end-user shall be responsible for all costs and expenses associated with returning the Goods to Seller for warranty service. In the event of a defect, Seller, at its sole option, shall repair or replace the defective Goods or refund to the original end-user the purchase price for such defective Goods. Goods are not eligible for replacement or return after a period of 10 days from date of receipt. The foregoing warranty is Seller's sole obligation, and the original end-user's exclusive remedy, with regard to any defective Goods. This limited warranty does not apply to: (a) die sets, tooling, and saw blades; (b) periodic or routine maintenance and setup, (c) repair or replacement of the Goods due to normal wear and tear, (d) defects or damage to the Goods resulting from misuse, abuse, neglect, or accidents, (e) defects or damage to the Goods resulting from improper or unauthorized alterations, modifications, or changes; and (f) any Goods that has not been installed and/or maintained in accordance with the instruction manual or technical guidelines provided by Seller.

EXCLUSION OF OTHER WARRANTIES. THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY AND ALL OTHER EXPRESS, STATUTORY OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. NO WARRANTY IS MADE WHICH EXTENDS BEYOND THAT WHICH IS EXPRESSLY CONTAINED HEREIN.

Limitation of Liability. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY OTHER PARTY FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR DOWN TIME) ARISING FROM OR IN MANNER CONNECTED WITH THE GOODS, ANY BREACH BY SELLER OR ITS AGENTS OF THIS AGREEMENT, OR ANY OTHER CAUSE WHATSOEVER, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY OF LIABILITY. BUYER'S REMEDY WITH RESPECT TO ANY CLAIM ARISING UNDER THIS AGREEMENT IS STRICTLY LIMITED TO NO MORE THAN THE AMOUNT PAID BY THE BUYER FOR THE GOODS.



Force Majeure. Seller shall not be responsible for any delay in the delivery of, or failure to deliver, Goods due to causes beyond Seller's reasonable control including, without limitation, acts of God, acts of war or terrorism, enemy actions, hostilities, strikes, labor difficulties, embargoes, non-delivery or late delivery of materials, parts and equipment or transportation delays not caused by the fault of Seller, delays caused by civil authorities, governmental regulations or orders, fire, lightening, natural disasters or any other cause beyond Seller's reasonable control. In the event of any such delay, performance will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

Installation. If Buyer purchases any Goods that require installation, Buyer shall, at its expense, make all arrangements and connections necessary to install and operate the Goods. Buyer shall install the Goods in accordance with any Seller instructions and shall indemnify Seller against any and all damages, demands, suits, causes of action, claims and expenses (including actual attorneys' fees and costs) arising directly or indirectly out of Buyer's failure to properly install the Goods.

Work By Others; Safety Devices. Unless agreed to in writing by Seller, Seller has no responsibility for labor or work performed by Buyer or others, of any nature, relating to design, manufacture, fabrication, use, installation or provision of Goods. Buyer is solely responsible for furnishing and requiring its employees and customers to use all safety devices, guards and safe operating procedures required by law and/or as set forth in manuals and instruction sheets furnished by Seller. Buyer is responsible for consulting all operator manuals, ANSI or comparable safety standards, OSHA regulations and other sources of safety standards and regulations applicable to the use and operation of the Goods.

Remedies. Each of the rights and remedies of Seller under this Agreement is cumulative and in addition to any other or further remedies provided under this Agreement or at law or equity.

Attorney's Fees. In the event legal action is necessary to recover monies due from Buyer or to enforce any provision of this Agreement, Buyer shall be liable to Seller for all costs and expenses associated therewith, including Seller's actual attorney fees and costs.

Governing Law/Venue. This Agreement shall be construed and governed under the laws of the State of Wisconsin, without application of conflict of law principles. Each party agrees that all actions or proceedings arising out of or in connection with this Agreement shall be commenced, tried, and litigated only in the state courts sitting in Manitowoc County, Wisconsin or the U.S. Federal Court for the Eastern District of Wisconsin. Each party waives any right it may have to assert the doctrine of "forum non conveniens" or to object to venue to the extent that any proceeding is brought in accordance with this section. Each party consents to and waives any objection to the exercise of personal jurisdiction over it by courts described in this section. Each party waives to the fullest extent permitted by applicable law the right to a trial by jury.

Summary of Return Policy.

- 10 Day acceptance period from date of delivery. Damage claims and order discrepancies will not be accepted after this time.
- You must obtain a Baileigh issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh in new condition and in original packaging.
- Altered items are not eligible for return.
- Buyer is responsible for all shipping charges.
- A 30% re-stocking fee applies to all returns.

Baileigh Industrial Holdings LLC makes every effort to ensure that our posted specifications, images, pricing and product availability are as correct and timely as possible. We apologize for any discrepancies that may occur. Baileigh Industrial Holdings LLC reserves the right to make any and all changes deemed necessary in the course of business including but not limited to pricing, product specifications, quantities, and product availability.

For Customer Service & Technical Support:

Please contact one of our knowledgeable Sales and Service team members at:
(920) 684-4990 or e-mail us at sales@baileigh.com



INTRODUCTION

The quality and reliability of the components assembled on a Baileigh Industrial Holdings LLC machine guarantee near perfect functioning, free from problems, even under the most demanding working conditions. However, if a situation arises, refer to the manual first. If a solution cannot be found, contact the distributor where you purchased our product. Make sure you have the serial number and production year of the machine (stamped on the nameplate). For replacement parts refer to the assembly numbers on the parts list drawings.

Our technical staff will do their best to help you get your machine back in working order.

In this manual you will find: (when applicable)

- Safety procedures
- Correct installation guidelines
- Description of the functional parts of the machine
- Capacity charts
- Setup and start-up instructions
- Machine operation
- Scheduled maintenance
- Parts lists

GENERAL NOTES

After receiving your equipment remove the protective container. Do a complete visual inspection, and if damage is noted, **photograph it for insurance claims** and contact your carrier at once, requesting inspection. Also contact Baileigh Industrial Holdings LLC and inform them of the unexpected occurrence. Temporarily suspend installation.

Take necessary precautions while loading / unloading or moving the machine to avoid any injuries.

Your machine is designed and manufactured to work smoothly and efficiently. Following proper maintenance instructions will help ensure this. Try and use original spare parts, whenever possible, and most importantly; **DO NOT** overload the machine or make any modifications.



Note: This symbol refers to useful information throughout the manual.



IMPORTANT

PLEASE READ THIS OPERATORS MANUAL CAREFULLY

It contains important safety information, instructions, and necessary operating procedures. The continual observance of these procedures will help increase your production and extend the life of the equipment.



SAFETY INSTRUCTIONS

LEARN TO RECOGNIZE SAFETY INFORMATION

This is the safety alert symbol. When you see this symbol on your machine or in this manual, **BE ALERT TO THE POTENTIAL FOR PERSONAL INJURY!**



Follow recommended precautions and safe operating practices.

UNDERSTAND SIGNAL WORDS

A signal word – **DANGER**, **WARNING**, or **CAUTION** – is used with the safety alert symbol. **NOTICE**, which is not related to personal injury, is used without a symbol.

DANGER: Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

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

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

NOTICE: Indicates a situation which, if not avoided, could result in property damage.

DANGER

WARNING

CAUTION

NOTICE

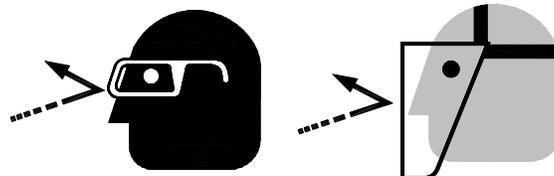


SAVE THESE INSTRUCTIONS.
Refer to them often and use them to instruct others.



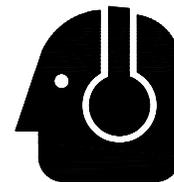
PROTECT EYES

Wear safety glasses or suitable eye protection when working on or around machinery.



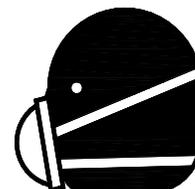
PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear suitable hearing protective devices such as ear muffs or earplugs to protect against objectionable or uncomfortable loud noises.



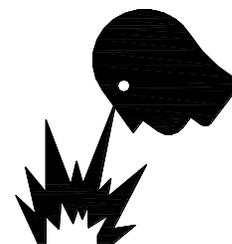
DUST HAZARD

Wear appropriate dust mask. Dust created while using machinery can cause cancer, birth defects, and long term respiratory damage. Be aware of the dust hazards associated with all types of materials.



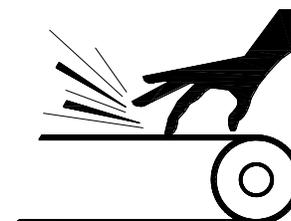
DUST PARTICLES AND IGNITION SOURCES

DO NOT operate this machine in areas where explosion risks are high. Such areas include locations near pilot lights, open flames, or other ignition sources.



MOVING BELT ABRASIONS

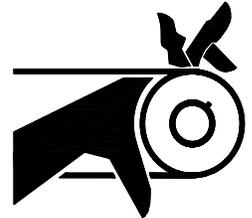
DO NOT place hands or fingers near, or in contact with sanding belt during operation.





MOVING BELTS CAN CRUSH AND DISMEMBER

DO NOT allow fingers to get pinched between belt and belt rollers. This may pull the operator's hand into the machine causing serious personal injury. **DO NOT** operate without guards in place.



HIGH VOLTAGE

USE CAUTION IN HIGH VOLTAGE AREAS. DO NOT assume the power to be off.
FOLLOW PROPER LOCKOUT PROCEDURES.



In the event of incorrect operation or dangerous conditions, the machine can be stopped immediately by pressing the **STOP** button.



CALIFORNIA PROPOSITION 65

WARNING: Cancer and Reproductive Harm.
www.P65Warnings.ca.gov





SAFETY PRECAUTIONS



Metal working can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

Safety equipment such as guards, hold-downs, safety glasses, dust masks and hearing protection can reduce your potential for injury. But even the best guard will not make up for poor judgment, carelessness or inattention. **Always use common sense** and exercise **caution** in the workshop. If a procedure feels dangerous, don't try it.

REMEMBER: Your personal safety is your responsibility.



WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

Dear Valued Customer:

- All Baileigh machines should be used only for their intended use.
- Baileigh does not recommend or endorse making any modifications or alterations to a Baileigh machine. Modifications or alterations to a machine may pose a substantial risk of injury to the operator or others and may do substantial damage to the machine.
- Any modifications or alterations to a Baileigh machine will invalidate the machine's warranty.

PLEASE ENJOY YOUR BAILEIGH MACHINE!PLEASE ENJOY IT SAFELY!

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learn the machine's application and limitations as well as the specific hazards.
2. **Only trained and qualified personnel can operate this machine.**
3. **Make sure guards are in place and in proper working order before operating machinery.**
4. **Remove any adjusting tools.** Before operating the machine, make sure any adjusting tools have been removed.
5. **Keep work area clean.** Cluttered areas invite injuries.
6. **Overloading machine.** By overloading the machine you may cause injury from flying parts. **DO NOT** exceed the specified machine capacities.



7. **Do not force tool.** Your machine will do a better and safer job if used as intended. **DO NOT** use inappropriate attachments in an attempt to exceed the machines rated capacity.
8. **Use the right tool for the job. DO NOT** attempt to force a small tool or attachment to do the work of a large industrial tool. **DO NOT** use a tool for a purpose for which it was not intended.
9. **Dress appropriate. DO NOT** wear loose fitting clothing or jewelry as they can be caught in moving machine parts. Protective clothing and steel toe shoes are recommended when using machinery. Wear a restrictive hair covering to contain long hair.
10. **Use eye protection.** Always wear ISO approved protective eye wear when operating machinery. Wear a full-face shield if you are producing metal filings. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specification. Use of eye wear which does not comply with ANSI Z87.1 specification could result in severe injury from breakage of eye protection.
11. **Do not overreach.** Maintain proper footing and balance at all times. **DO NOT** reach over or across a running machine.
12. **Stay alert.** Watch what you are doing and use common sense. **DO NOT** operate any tool or machine when you are tired.
13. **Check for damaged parts.** Before using any tool or machine, carefully check any part that appears damaged. Check for alignment and binding of moving parts that may affect proper machine operation.
14. **Observe work area conditions. DO NOT** use machines or power tools in damp or wet locations. Do not expose to rain. Keep work area well lighted. **DO NOT** use electrically powered tools in the presence of flammable gases or liquids.
15. **Keep children away.** Children must never be allowed in the work area. **DO NOT** let them handle machines, tools, or extension cords.
16. Keep visitors a safe distance from the work area.
17. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep them out of reach of children.
18. **DO NOT operate machine if under the influence of alcohol or drugs.** Read warning labels on prescriptions. If there is any doubt, **DO NOT** operate the machine.
19. **Do not** cut where the atmosphere might contain flammable dust, gas, or liquid vapors such as from gasoline.
20. Watch for fire and keep a fire extinguisher close by.
21. **Turn off** power before checking, cleaning, or replacing any parts.
22. Be sure **all** equipment is properly installed and grounded according to national, state, and local codes.



23. Inspect power and control cables periodically. Replace if damaged or bare wires are exposed. **Bare wiring can kill! DO NOT** touch live electrical components or parts.
24. **DO NOT** bypass or defeat any safety interlock systems.
25. **Reduce the risk of unintentional starting.** Make sure switch is in “**OFF**” position before plugging in power cord.
26. **Never leave machine running unattended. TURN POWER OFF.** Don't leave machine until it comes to a complete stop.
27. **Minimum Stock Dimensions. DO NOT** sand material thinner than 1/16” (1.5mm), narrower than 1/8” (3mm), or shorter than 8” (203mm).
28. **Changing Sanding Belt. DO NOT** operate the sander if the belt is damaged or badly worn. Replace at once.
29. **Inspect Piece Part.** Always inspect piece part for imperfections that could become projectiles causing personal injury.
30. **Correctly Feeding the Stock.** Grasp the piece part firmly with both hands and ease into the belt with light pressure. **NEVER** force the piece part into the belt. **DO NOT** sand tapered or pointed stock with the point facing into the feed direction of the belt. **NEVER** sand more than one piece of material at a time.
31. **Warning:** The dust generated by certain materials can be injurious to your health. Always operate machinery in well ventilated areas and provide for proper dust removal. Use a dust collection system whenever possible.
32. **Use spark and debris arresting apparatus.** Such apparatus should be connected to the machine so as to contain dust and debris that is generated, and to suppress sparks thereby limiting human inhalation risk, and the risk of fire or explosion.
33. **Protect persons from work pieces, particulates, etc.** that could be forcibly ejected from the machine. A buffing wheel or grinding belt can "grab" a work piece while the work piece is being buffed, polished, ground, or otherwise conditioned, resulting in forcible ejection toward the operator or those in the vicinity of the machine. The use of leather aprons, gloves, and eye shields are examples of protective gear that may be effective. In general do not grind, buff, or otherwise engage the traveling belt, wheel, or disc surface with the work piece pointing into the direction from which the belt, wheel, or disc is traveling. However, if you choose to do so be aware the work piece may lodge in the traveling belt, wheel, or disc and be forcibly and dangerously ejected.
34. **Do not** operate this machine if the gap (nip point) between a moving belt, wheel or disc and the work support surface exceeds 1/8” (3mm).
35. **Do not** operate this machine if the gap between the moving abrasive belt, disc or wheel and the adjacent face of the work rest (or table) will permit passage of the work piece through the gap (nip point).



 **WARNING:** Certain alloys such as titanium may create conditions where grinding debris can accumulate in a tight gap creating a potential fire hazard. When in doubt consult with your safety officer. Failure to observe this warning may result in the work piece or other item being caught in this gap, and/or being forcibly ejected. Failure to heed this warning may cause serious bodily harm to the operator and/or bystanders. **NEVER USE THIS EQUIPMENT IF YOU ARE NOT PROPERLY TRAINED IN ITS OPERATION and/or SAFE USE! IF IN DOUBT STOP and ASK FOR GUIDANCE!**

36. **Never** position the work rest table at an acute angle between the top of the work rest table and the moving belt or wheel. Doing so will create "nip point" that can cause serious injury should an operator body part become entangled (pulled into) the nip point created by this acute angle.
37. **Do not** operate the equipment, or allow others to operate the equipment without proper training in these and other rotating machinery safety requirements.
38. **Correct equipment or safety problems immediately.** Do not operate the equipment when it requires maintenance, or correction.
39. **Install and use high quality abrasive belts, wheels, discs, media, etc.,** as appropriate to your machine. Understand and follow the operating requirements provided by the manufacturer of these materials.

 In the event of incorrect operation or dangerous conditions, the machine can be stopped immediately by pressing the **STOP** button.



TECHNICAL SPECIFICATIONS

Motor	1.5 hp (1.11kw)
Power Requirements*	110V, 60hz, 12A 220V, 1ph, 60hz, 8A
Belt Size (L x W)	60" x 1.5" (1524 x 38mm), or 60" x 2" (1524 x 51mm)
Belt Speed (variable)	800 – 8000 fpm (244 – 2438mpm)
Shipping Weight	150lbs. (68kg)
Shipping Dimensions	46" x 23" x 23" (1168 x 584 x 584mm)

* Consult the machine identification plate for specific power supply information.

TECHNICAL SUPPORT

Our technical support department can be reached at 920.684.4990 and asking for the support desk for purchased machines. Tech Support handles questions on machine setup, schematics, warranty issues, and individual parts needs: (other than die sets and blades).

For specific application needs or future machine purchases contact the Sales Department at: sales@baileigh.com, Phone: 920.684.4990, or Fax: 920.684.3944.



Note: The photos and illustrations used in this manual are representative only and may not depict the actual color, labeling or accessories and may be intended to illustrate technique only.



Note: The specifications and dimensions presented here are subject to change without prior notice due to improvements of our products.



UNPACKING AND CHECKING CONTENTS

Your Baileigh machine is shipped complete. Separate all parts from the packing material and check each item carefully. Make certain all items are accounted for before discarding any packing material.

⚠ WARNING: SUFFOCATION HAZARD! Immediately discard any plastic bags and packing materials to eliminate choking and suffocation hazards to children and animals.
If any parts are missing, **DO NOT** place the machine into service until the missing parts are obtained and installed correctly.

Cleaning

⚠ WARNING: DO NOT USE gasoline or other petroleum products to clean the machine. They have low flash points and can explode or cause fire.

⚠ CAUTION: When using cleaning solvents work in a well-ventilated area. Many cleaning solvents are toxic if inhaled.

Your machine may be shipped with a rustproof waxy coating and/or grease on the exposed unpainted metal surfaces. Fully and completely remove this protective coating using a degreaser or solvent cleaner. Moving items will need to be moved along their travel path to allow for cleaning the entire surface. For a more thorough cleaning, some parts will occasionally have to be removed. **DO NOT USE** acetone or brake cleaner as they may damage painted surfaces.

Follow manufacturer's label instructions when using any type of cleaning product. After cleaning, wipe unpainted metal surfaces with a light coating of quality oil or grease for protection.



Important: This waxy coating is **NOT** a lubricant and will cause the machine to stick and lose performance as the coating continues to dry.





TRANSPORTING AND LIFTING

NOTICE: *Lifting and carrying operations should be carried out by skilled workers, such as a truck operator, crane operator, etc. If a crane is used to lift the machine, attach the lifting chain carefully, making sure the machine is well balanced.*

Follow these guidelines when lifting with truck or trolley:

- The lift truck must be able to lift at least 1.5 – 2 times the machines gross weight.
- Make sure the machine is balanced. While transporting, avoid rough or jerky motion, and maintain a safe clearance zone around the transport area.
- Use a forklift with sufficient lifting capacity and forks that are long enough to reach the complete width of the machine.
- Remove the securing bolts that attach the machine to the pallet.
- Approaching the machine from the side, lift the machine on the frame taking care that there are no cables or pipes in the area of the forks.
- Move the machine to the required position and lower gently to the floor.
- Level the machine so that all the supporting feet are taking the weight of the machine and no rocking is taking place.



INSTALLATION

IMPORTANT:

Consider the following when looking for a suitable location to place the machine:

- Overall weight of the machine.
- Weight of material being processed.
- Sizes of material to be processed through the machine.
- Space needed for auxiliary stands, worktables, or other machinery.
- Clearance from walls and other obstacles.
- Maintain an adequate working area around the machine for safety.
- Have the work area well illuminated with proper lighting.
- Keep the floor free of oil and make sure it is not slippery.



- Remove scrap and waste materials regularly, and make sure the work area is free from obstructing objects.
- If long lengths of material are to be fed into the machine, make sure that they will not extend into any aisles.
- **LEVELING:** The machine should be sited on a level, concrete floor. Provisions for securing it should be in position prior to placing the machine. The accuracy of any machine depends on the precise placement of it to the mounting surface.
- **FLOOR:** This machine distributes a large amount of weight over a small area. Make certain that the floor is capable of supporting the weight of the machine, work stock, and the operator. The floor should also be a level surface. If the unit wobbles or rocks once in place, be sure to eliminate by using shims.
- **WORKING CLEARANCES:** Take into consideration the size of the material to be processed. Make sure that you allow enough space for you to operate the machine freely.
- **POWER SUPPLY PLACEMENT:** The power supply should be located close enough to the machine so that the power cord is not in an area where it would cause a tripping hazard. Be sure to observe all electrical codes if installing new circuits and/or outlets.

When mounting the Baileigh machine on a workbench be aware of the following:

- Overall weight of the machine and the weight of material being processed.
- Make sure the workbench is properly reinforced to support the total weight.
- The strongest mounting option is where the holes are drilled all the way through the workbench and the machine is secured with bolts, washers, and nuts.



ELECTRICAL

 **CAUTION:** HAVE ELECTRICAL UTILITIES CONNECTED TO MACHINE BY A CERTIFIED ELECTRICIAN!
Check if the available power supply is the same as listed on the machine nameplate.

 **WARNING:** Make sure the grounding wire (green) is properly connected to avoid electric shock. DO NOT switch the position of the green grounding wire if any electrical plug wires are switched during hookup.

Power Specifications

Your machine is wired for either 110 volts or 220 volts, 60hz alternating current. Before connecting the machine to the power source, make sure the power source is OFF. Before switching on the power, you must check the voltage and frequency of the power to see if they meet with the requirement, the allowed range for the voltage is $\pm 5\%$, and for the frequency is $\pm 1\%$.

Considerations

- Observe local electrical codes when connecting the machine.
- The circuit should be protected with a time delay fuse or circuit breaker with an amperage rating slightly higher than the full load current of machine.
- A separate electrical circuit should be used for your machines. Before connecting the motor to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine.
- All line connections should make good contact. Running on low voltage will damage the motor.
- In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

 **WARNING:** In all cases, make certain the receptacle in question is properly grounded. If you are not sure, have a qualified electrician check the receptacle.



- Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
- Check with qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.
- Repair or replace damaged or worn cord immediately.

Extension Cord Safety

Extension cord should be in good condition and meet the minimum wire gauge requirements listed below:

AMP RATING	LENGTH		
	25ft	50ft	100ft
1-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	No
WIRE GAUGE			

An undersized cord decreases line voltage, causing loss of power and overheating. All cords should use a ground wire and plug pin. Replace any damaged cords immediately.

Power cord connection:

1. Turn the main disconnect switch on the control panel to the OFF position.
2. Unwrap the power cord and route the cord away from the machine toward the power supply.
 - a. Route the power cord so that it will NOT become entangled in the machine in any way.
 - b. Route the cord to the power supply in a way that does NOT create a trip hazard.
3. Connect the power cord to the power supply and check that the power cord has not been damaged during installation.
4. When the machine is clear of any obstruction. The main power switch may be turn ON to test the operation.
5. Turn the switch OFF when the machine is not in operation.

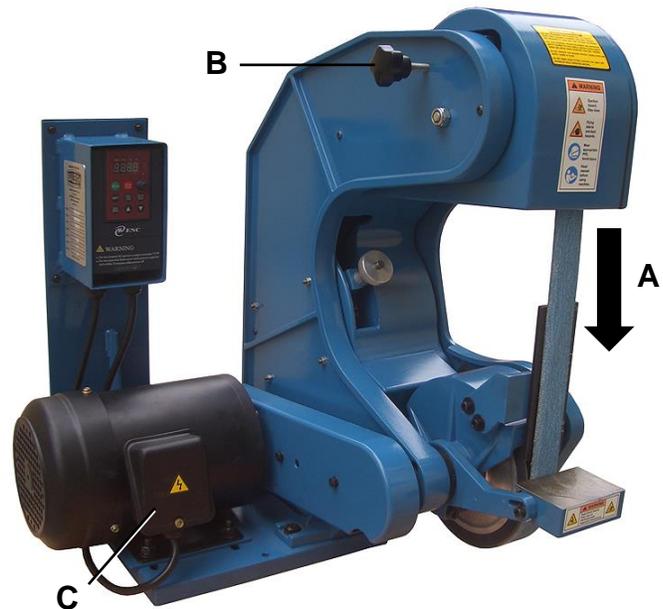


OPERATION

⚠ CAUTION: Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges. When handling large heavy materials, make sure they are properly supported.

Initial Operation

1. Start the motor by pressing the ON button. The belt should rotate smoothly with the belt traveling downward (A) past the grinding area. If either of these conditions is not met immediately turn the machine OFF.
 - a. If the abrasive belt does not remain centered on the contact wheel while the belt is moving use the tracking adjustment (B) on the upper left side of the machine to track the belt. Turning this control CW to cause the belt to track to the left, conversely turn the control CCW to cause the belt to move to the right.
 - b. If the belt runs in reverse (upward), you must correct this unsafe condition by changing the main drive motor rotation direction.



⚠ WARNING: Disconnect the machine from its power source opening any covers or making any repairs. A competent electrician should perform all electrical work.

2. Reverse the motor direction of a single phase motor by reversing leads within the metal wiring box (C) located on the motor. Follow the diagram or other instructions on the actual motor label. These diagrams are usually on the inside of the motor connection cover.
3. If the abrasive belt tensions, and tracks properly, but has excessive vibration turn the machine OFF and call the factory for assistance.



Grinding Operation

This belt grinder is a three wheel path belt grinder that uses either a 1.5" x 60" (38 x 1524mm), or a 2" x 60" (51 x 1524mm) continuous loop abrasive belt. For maximum effectiveness, and operator safety use abrasive belts manufactured by well-respected abrasive manufacturers.

- Use abrasive belts that are the proper size and type for your machine.
- Do not use abrasive belts that are old or excessively worn.
- Do not use abrasive belts that use lap splice joints. Lap spliced belts are prone to separation. They may also tend to snag your work and create a potential safety hazard by snagging and propelling the work part in the operator's direction.



WARNING: Be aware that thin section work pieces can pass through the gap between the belt and the work support if the gap is not properly adjusted. Ejected work parts can cause serious personal injury! Be aware of sharp edges and flying debris. Wear proper safety equipment such as eye and face protection as well as gloves.

The model BG-260-3 was fully tested and verified to comply with requirements prior to shipping. You should perform the following steps:

1. With the machine securely bolted to its table, pedestal, and/or floor point connect the power to its source.
2. Adjust the work support (A) and work support arm to the desired position. Take care that the gap between the face of the abrasive belt and the work rest does not exceed 1/8" (3mm).
3. Insure that the abrasive belt is tensioned properly. To do this, raise the tensioning handle (B). You will hear mechanical clicks as the tensioning ratchet moves. Generally, the belt will be adequately tensioned when you hear three to eight clicks. To reduce or release the belt tension slightly raise the tensioning handle then press the button in the center of the tensioning handle. Move the tensioning handle down slightly to reduce belt tension or all the way down to release belt tension.





4. Press the ON button to start the motor.
5. Use the UP or DOWN arrow keys on the control pad to increase or decrease the belt speed as desired for the material and type of grinding being performed.
6. Using a firm grasp to hold the material, place the material on the work support and slide it in toward the belt allowing the material to remain on the work support. Be aware of any potential for the belt to catch or snag the material and causing and ejection.
7. When grinding is complete, Press the STOP button to stop the belt.

MATERIAL SELECTION

⚠ CAUTION: It must be determined by the customer that materials being processed through the machine are **NOT** potentially hazardous to operator or personnel working nearby.

When selecting materials keep these instructions in mind:

- Material must be clean and dry. (without oil)
- Material should have a smooth surface so it processes easily.
- Dimensional properties of material must be consistent and not exceed the machine capacity values.
- Chemical structure of material must be consistent.
- Buy certificated steel from the same vendor when possible.



LUBRICATION AND MAINTENANCE



WARNING: Make sure the electrical disconnect is OFF before working on the machine.

Maintenance should be performed on a regular basis by qualified personnel.

Always follow proper safety precautions when working on or around any machinery.



Note: Proper maintenance can increase the life expectancy of your machine.

Daily Maintenance

- Check daily for any unsafe conditions and fix immediately.
- Check that all nuts and bolts are properly tightened.
- Do a general cleaning by removing dust and debris from on or around the machine.
- If available, use compressed air to remove the fine metallic filings from the wheels.
- Empty and clean out the spark trap. (as often as needed)
- Inspect the abrasive belt for wear and replace if needed.
- Check that the side belt guard, top belt guard, eye shield, and emergency stop button are in good working order.

Weekly Maintenance

- On a weekly basis clean the machine and the area around it.
- Lubricate threaded components and sliding devices.
- Apply rust inhibitive lubricant to all non-painted surfaces.
- Clean and inspect the sliding surface underneath the top side of the belt.
- Inspect the edges of the rubber contact wheel. Replace the wheel if the edges become rounded.
- Check that the bolts mounting the machine to the floor are secure.
- Inspect and tighten any loose fasteners on the machine.



Monthly Maintenance

- Apply light machine oil to the rear wheel support to rear wheel handle interface. Two drops of oil is sufficient.
- Check the v-belt tension. If you can hear the belt "slap" the belt guard when the drive motor starts, the v-belt requires tensioning. Do this by loosening the four bolts that secure the motor to the machine base and slide the motor toward the rear of the machine. Tighten the four bolts.

Storing Machine for Extended Period of Time

If this belt grinder is to be inactive for a long period of time, prepare the machine as follows:

- Detach the plugs from the electrical supply panel.
- Clean and lubricate the machine.
- Remove the belt
- Cover the machine

There are no other maintenance actions required. All bearings are sealed for life and require no additional lubrication.

Idler Wheel Alignment

When idler wheels are removed and/or replaced they must be installed such that they are in proper alignment. Failure to properly align the idler wheels will result in premature failure of the wheels.

Premature failure will be evidenced by:

- Outer diameters being excessively worn such that the wheels lose their factory crown,
- Wear to a truncated form, or
- Become out of balance.

The upper and rear idler wheels must operate in the same plane. This means that when they are correctly aligned a plane passing through the radial center of the upper wheel will exactly pass through the radial center of the rear wheel.

Never perform maintenance or adjustments without first disconnecting the machine from its power source. Failure to observe this warning may lead to serious personal injury.



1. Disconnect and lockout power to the grinder!
2. Install the rear idler such that its inside-bearing surface is approximately 0.06 inches out from the wheel support. Secure the wheel with locking set screw.
3. Install the upper wheel such that its inner bearing surface is approximately 0.06 inches out from its bearing support. Secure the wheel with locking set screw.
4. Loosen the retaining nut that locks the upper idler wheel adjusting screw. Using screw, adjust the upper idler wheel until a straight line representing the plane passing through the center of the upper idler exactly passes through the center of the contact wheel. This line represents the center of belt travel.

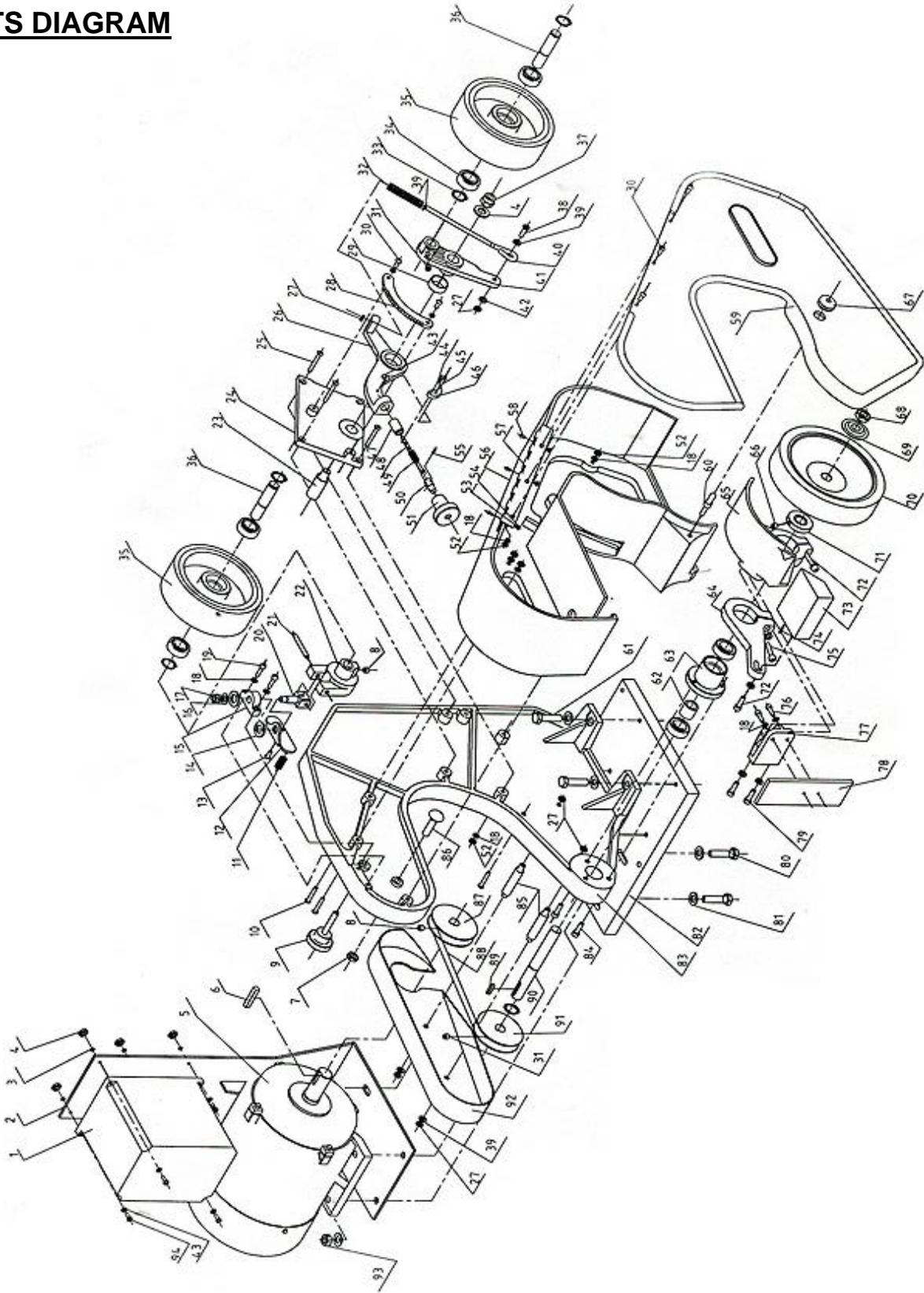


Note: *Make certain that the bearing support is against the screw end.*

5. Project a line from the upper idler outside rim to the outside rim of the rear idler. Adjust the tracking control until the wheels are on the exact same plane. That is when their radial centers are aligned.
6. Repeat step 3 and 4 until both conditions are satisfied. That is the upper and rear idlers are aligned to each other and both wheels are aligned to the contact wheel.
7. Tighten the locking nut.
8. Install a new abrasive belt. Roll the belt manually to assure that it will maintain coarse tracking. If the belt does not track manually, repeat the prior steps until it does. If after repeating these steps the belt still will not track the machine requires other maintenance and/or one or both idler wheels require replacing. The wheels should be replaced in pairs.
9. Connect power to and then start the grinder.
10. Watch the belt tracking and stop the machine immediately if the belt starts to track off of the wheels. The belt may track to one side or the other but should not start to run off of the wheels.
11. Adjust the tracking control will sweep the belt across the face of the contact wheel. At least 1/2" adjustment in both directions from center should be possible.



PARTS DIAGRAM





Parts List

Item	Part No.	Description	Qty.
1	BG2603110-1	Variable-frequency Drive, VFD, 110V Input	1
1	BG2603220-1	Variable-frequency Drive, VFD, 220V Input	1
2	BG2603-2	Work support for variable-frequency Drive, VFD	1
3	BG2603-3	Washer GB/T93 M4	4
4	BG2603-4	Nut GB/T6172.1 M4	4
5	BG2603-5	Motor	1
6	BG2603-6	Key GB/T1095	1
7	BG2603-7	Nut GB/T172.2 M10	1
8	BG2603-8	Cup point socket set screws GB/T77 M8X10	1
9	BG2603-9	Star grip knob MY8314.22 M8X40	1
10	BG2603-10	Button head cap screws GB/T70.2 M5X35	5
11	BG2603-11	Compression Spring	1
12	BG2603-12	Bracket, pivot block	1
13	BG2603-13	Button head cap screws GB/T70.2 M5X12	6
14	BG2603-14	Flat washer GB/T95 12	3
15	BG2603-15	Block, pivot	1
16	BG2603-16	Flat washer GB/T95 8	1
17	BG2603-17	Hexagon socket set screws GB/T712.2 M8	1
18	BG2603-18	Washer GB/T95 5	18
19	BG2603-19	Socket head cap screws GB/T70.1 M5X20	2
20	BG2603-20	Pivot block mount	1
21	BG2603-21	Spring pin GB/T897.1 ϕ 6X50	1
22	BG2603-22	Body, tracking	1
23	BG2603-23	Fixed shaft	1
24	BG2603-24	Base plate	1
25	BG2603-25	Screw GB/T68 M5X40	4
26	BG2603-26	Arm, Tension	1
27	BG2603-27	Panel hex nut GB/T6172.1 M6	5
28	BG2603-28	Racket	1
29	BG2603-29	Copper bushing	1
30	BG2603-30	Button head cap screws GB/T70.2 M5X12	6
31	BG2603-31	Cup point socket set screws GB/T77 M8X8	2
32	BG2603-32	Compression Spring	1



Item	Part No.	Description	Qty.
33	BG2603-33	Cir clip GB/T894.1 15	5
34	BG2603-34	Bearing GB/T276 6202-2Z	6
35	BG2603-35	Idler wheel	2
36	BG2603-36	Shaft	2
37	BG2603-37	Nut GB/T712.2 M12	1
38	BG2603-38	Cross head screw GB/T819.1 M6X20	1
39	BG2603-39	Flat washer GB/T95 6	11
40	BG2603-40	Eye bolt	1
41	BG2603-41	Rear wheel support	1
42	BG2603-42	Washer GB/T93 6	1
43	BG2603-43	Flat washer GB/T95 4	5
44	BG2603-44	Semi-tubular rivet GB/T873 ϕ 4X15	1
45	BG2603-45	Flat Head Thread Cutting Screw GB/T70.3 ϕ 5X12	1
46	BG2603-46	Pawl	1
47	BG2603-47	Nipple, pipe	1
48	BG2603-48	Strip	1
49	BG2603-49	Compression Spring	1
50	BG2603-50	Button	1
51	BG2603-51	Knob	1
52	BG2603-52	Panel hex nut GB/T6172.1 M5	12
53	BG2603-53	Washer GB/T93 3	3
54	BG2603-54	Panel hex nut GB/T6172.1 M3	3
55	BG2603-55	Spring pin GB/T897.1 ϕ 2.5X10	1
56	BG2603-56	Safety guard	1
57	BG2603-57	Hinge	1
58	BG2603-58	Socket head cap screws GB/T70.1 M3X8	3
59	BG2603-59	Door	1
60	BG2603-60	Pin	1
61	BG2603-61	Socket head cap screws GB/T70.1 M10X30	4
62	BG2603-62	Bushing	1
63	BG2603-63	Contact wheel assembly, bearing	1
64	BG2603-64	Work support for arm	1
65	BG2603-65	Guard for contact wheel	1
66	BG2603-66	Cup point socket set screws GB/T77 M5X10	1
67	BG2603-67	Rubber grommet	1



Item	Part No.	Description	Qty.
68	BG2603-68	Panel hex nut GB/T6172.1 M14	1
69	BG2603-69	Washer for spring flange	1
70	BG2603-70	Contact wheel	1
71	BG2603-71	Bushing	1
72	BG2603-72	Socket head cap screws GB/T70.1 M6X25	2
73	BG2603-73	Work rest	1
74	BG2603-74	Spring pin GB/T897.1 \varnothing 3X10	1
75	BG2603-75	Socket head cap screws GB/T70.1 M6X30	1
76	BG2603-76	Socket head cap screws GB/T70.1 M5X16	2
77	BG2603-77	Bracket for platen	1
78	BG2603-78	Platen	1
79	BG2603-79	Socket head cap screws GB/T70.1 M6X20	1
80	BG2603-80	Bolt GB/T5783 M10X40	1
81	BG2603-81	Flat washer GB/T95 10	12
82	BG2603-82	Base	1
83	BG2603-83	Main frame	1
84	BG2603-84	Flat Head Thread Cutting Screw GB/T70.3 M6X40	3
85	BG2603-85	Standoff for guard	2
86	BG2603-86	Bolt GB/T801 M10X35	1
87	BG2603-87	Pulley	1
88	BG2603-88	V Belt	1
89	BG2603-89	Key GB/T1095 5X5X20	1
90	BG2603-90	Shaft	1
91	BG2603-91	Pulley	1
92	BG2603-92	Guard for V-belt	1
93	BG2603-93	Nut GB/T6170 M10	4
94	BG2603-94	Screw GB/T818 M4X12	4



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