OPERATOR'S MANUAL

Metal Working

DISC GRINDER

MODEL: DG-500HD

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Pella, IA 50219
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Rev. 11/2017

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THANK YOU & WARRANTY

Thank you for your purchase of a machine from Baileigh Industrial. 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 a 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 30 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, (f) 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 INCIDENTIAL, 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 Majuere. 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's 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 attorneys' 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 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 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 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
- Set-up 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 and inform them of the unexpected occurrence. Temporarily suspend installation.

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

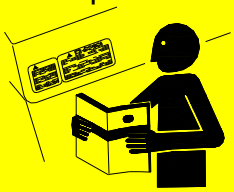
Your machine is designed and manufactured to work smoothly and efficiently. Following proper maintenance instructions will help ensure this. Try and use original spare parts, whenever possible, and most importantly; **DO NOT** overload the machine or make any modifications.

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. **DANGER** identifies a hazard or unsafe practice that will result in severe **Injury or Death**.

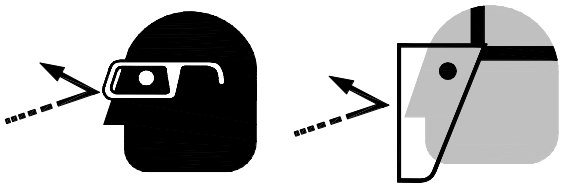
Safety signs with signal word **DANGER** or **WARNING** are typically near specific hazards.

General precautions are listed on **CAUTION** safety signs. **CAUTION** also calls attention to safety messages in this manual.

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

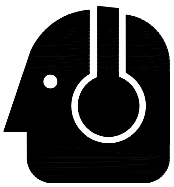
PROTECT EYES

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



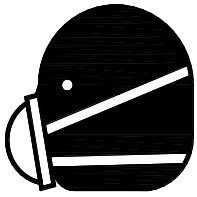
PROTECT AGAINST NOISE

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.



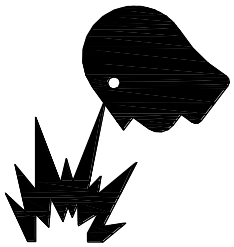
DUST HAZARD

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.



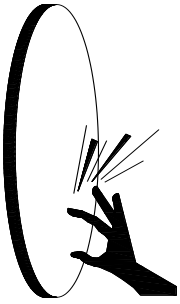
DUST PARTICLES AND IGNITION SOURCES

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.

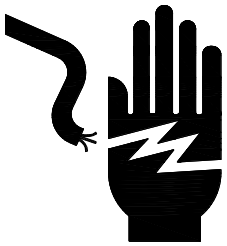


ROTATING DISC ABRASIONS – ENTANGLEMENT HAZARD

DO NOT place hands or fingers near, or in contact with sanding disc during operation. Contain long hair, **DO NOT** wear jewelry or loose-fitting clothing.



HIGH VOLTAGE



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

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 won't 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 and ear protection**. Always wear ISO approved impact safety goggles. Wear a full-face shield if you are producing metal filings.
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. **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.
17. **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.
18. **Sparks and hot material** from cutting can easily go through small cracks and openings into adjacent areas.
19. **Do not** grind 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. Keep **all** cords dry, free from grease and oil, and protected from sparks and hot metal.
24. 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.
25. **DO NOT** bypass or defeat any safety interlock systems.
26. Keep visitors a safe distance from the work area.

Specific Safety Precautions

1. Support piece part and maintain control of the part at all times.
2. **DO NOT** wet grind or polish. Never use a stream of water on the piece part. Only quench the piece part in water to cool it.
3. **DO NOT** grind or polish magnesium as it may catch on fire.
4. Make sure table locking knob is always tight.
5. Remove electrical plug from power source outlet when adjusting table, changing discs, or removing or adjusting platen.
6. After turning switch ON, always allow the disc to come up to full speed before sanding or grinding.
7. Keep your hands clear of the disc.
8. Replace sanding discs when they become loaded and glazed or frayed.
9. Do not allow familiarity gained from frequent use of your sander/grinder to become commonplace.

Always remember – a careless fraction of a second is sufficient to cause severe injury.

TECHNICAL SPECIFICATIONS

Disc Diameter	20” (508mm)
Disc Speed	1,720 rpm
Table Dimensions	27.5” x 10.5” (699mm x 267mm)
Table Height above Floor – Minimum	28.15” (715mm)
Table Height above Floor – Maximum	36” (915mm)
Table to Disk Gap	.181” (4mm)
Table Adjustments	Hand Crank Worm Gear and Rack
Table Tilt – Upward	30°
Table Tilt – Downward	45°
Dust Port	1 @ 4” (100mm)
Motor	2hp (1.5 kw) 220V, 1ph, 60hz, 15A
Power Requirements	220V, 1ph, 60hz, 30A
Foot Print Dimensions (L x W x H)	27.5” x 27.5” x 48” (699mm x 699mm x 1219mm)
Shipping Dimensions (L x W x H)	48” x 45” x 57” (1219mm x 1143mm x 1448mm)
Net Weight	400lbs. (180kg.)
Shipping Weight	463lbs. (210kg.)

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.

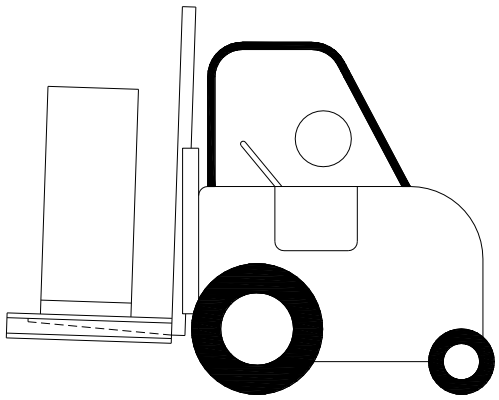
Your machine may be shipped with a rustproof waxy coating and/or grease on the exposed unpainted metal surfaces. Fully and completely remove this protective coating using a degreaser or solvent cleaner. Moving items will need to be moved along their travel path to allow for cleaning the entire surface. 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

IMPORTANT: *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 fork lift 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:

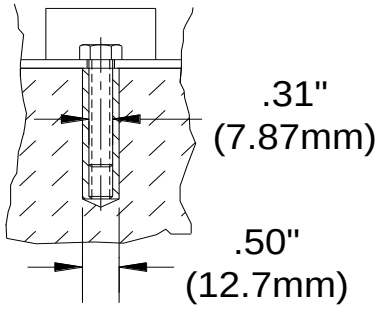
Consider the following when looking for a suitable location to place the machine:

- Overall weight of the machine.
- Weight of material being processed.
- Sizes of material to be processed through the machine.
- Space needed for auxiliary stands, work tables, 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 tool 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.

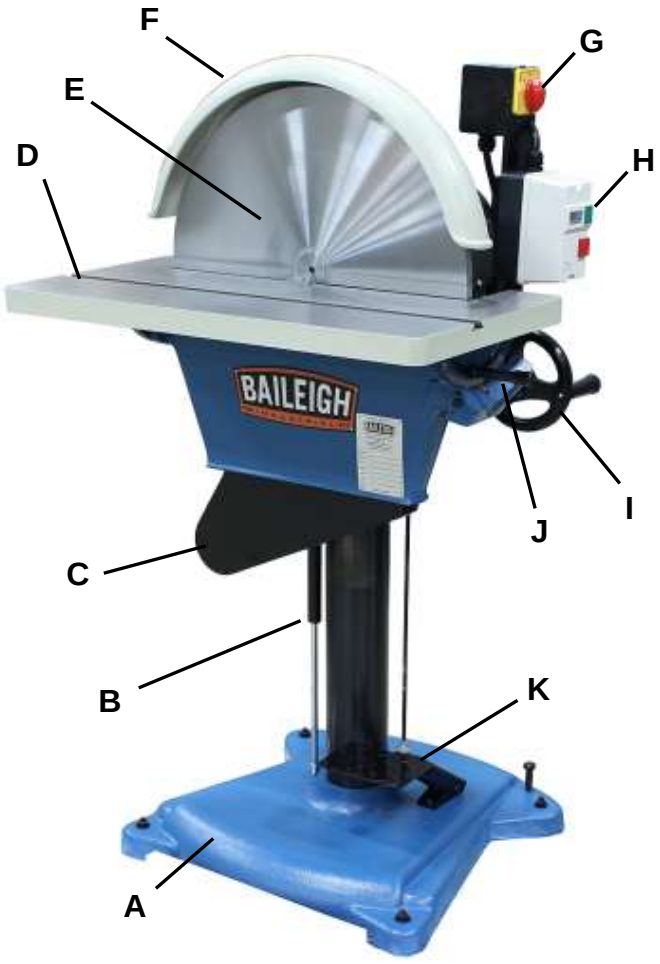
Anchoring the Machine

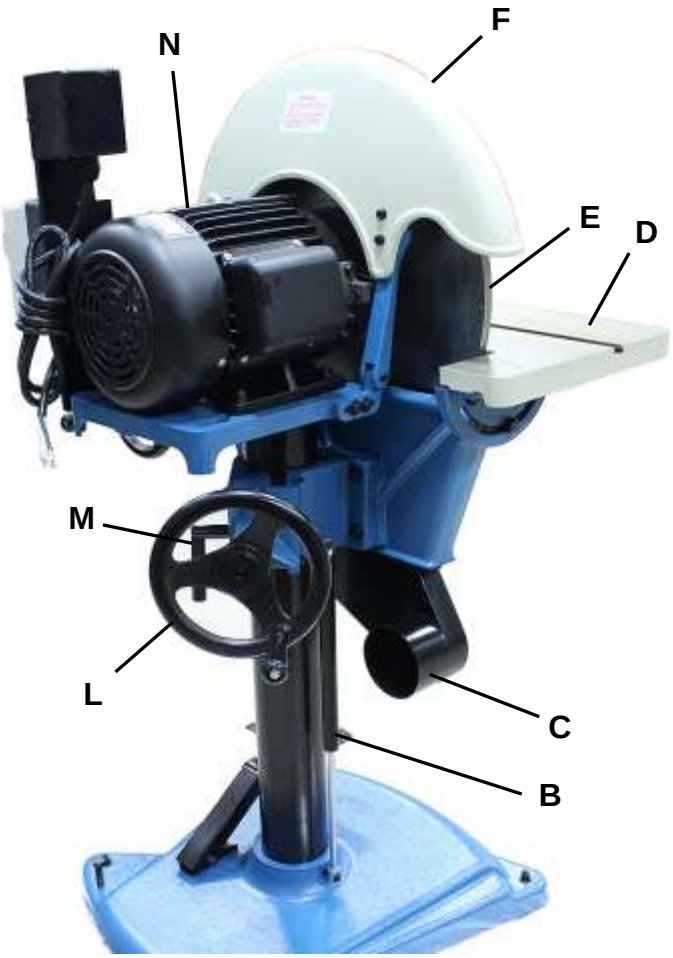
- Once positioned, anchor the machine to the floor, as shown in the diagram. Use bolts and expansion plugs or sunken tie rods that connect through and are sized for the holes in the base of the stand.
- This machine requires a solid floor such as concrete at a minimum of 4” (102mm) thick.



WARNING: For your own safety, DO NOT connect the machine to the power source until the machine is completely assembled and you read and understand the entire instruction manual.

GETTING TO KNOW YOUR MACHINE





Item	Description	Function
A	Base	Used to support the column and grinding head assembly, has anchor holes and jack bolts.
B	Lift Assist Cylinder	Gas cylinder used to assist with the lifting and lowering of the work table.
C	Dust Chute	Dust port may be connected to a material compatible dust collector.
D	Working Table	Used to support the piece part. Includes miter guide slot. Miter gauge not shown.
E	Drive Disc	Used to attach sanding media.
F	Disc Guard	Covers disc edges to prevent inadvertent contact and help to control sparks and dust.
G	Forward / Off / Reverse Switch	Selects the direction of rotation of the sanding disc.
H	Start / Stop Switch	After a rotation direction has been selected, Press the green button to start the motor/disc. Press the Red button to stop.
I	Tilt Hand Wheel	Turn hand wheel to rotate table up or down.
J	Tilt Knob	Loosen when rotating the table.
K	Brake Pedal	After the motor has been turned off, press down on the pedal to shorten the time that the disc requires to stop turning / free spinning.
L	Column Handwheel	Turn hand wheel to raise or lower table on column.
M	Column Knob	Loosen when raising or lowering the table.
N	Motor	Turns the disc at 1,720 rpm

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 tool is wired for 220 volts, 60Hz alternating current. Before connecting the tool to the power source, make sure the machine is cut off from power source.
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 ±5%, and for the frequency is ±1%.

Considerations

- Observe local electrical codes when connecting the machine.
- The circuit should be protected with a time delay fuse or circuit breaker with a amperage rating slightly higher than the full load current of machine.
- A separate electrical circuit should be used for your tools. 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 tool.
- 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 tool 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 a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool 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:

	LENGTH		
AMP RATING	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. Turn the switch OFF when the machine is not in operation.

CHANGING THE DISC

⚠ CAUTION: Avoid material catching and being thrown from the machine. The gap between the abrasive surface and the table edge must not exceed 3/16" (4.75mm). If it does, loosen the four motor mount bolts and move the motor forward to minimize the gap.

Before changing the abrasive disc:

1. Make sure the power to the sander is turned **OFF** at the source yellow lock insert is removed from the start/stop switch.
2. Lower the working table to the lowest position.
3. Tilt back the guard to expose the top of the disc. The sander takes standard 20” (508mm) diameter cloth or paper back discs. A good recommendation would be 60 grit for coarse or rough sanding, 80 grit for general purpose medium duty sanding, and 100 grit for fine sanding.
4. Pull at the edge of the mounted grinding disc to get it started, then pull it completely off of the drive disc.
5. Make sure the drive disc surface is clean. Use a putty knife to remove the old abrasive or if necessary, use a cleaner which dries film-free such as naphtha to remove any old adhesive (or dust) which might adhere to the drive disc.
6. Remove about 1/3 of the protective cover from the back side of the new grinding disc.
7. Put the exposed edge of the new grinding disc against the drive disc and center the grinding disc carefully onto the drive disc. Press to hold that section against the drive disc.
8. Rotate the drive disc 180°. The part of the grinding disc which is attached to the drive disc will now be at the bottom of the drive disc, and will be slightly hidden behind the table. With the drive disc in this position, you can keep the grinding disc accurately centered while reaching between the grinding disc to remove the rest of the protective backing. Securely press the rest of the grinding disc against the face of the drive disc.
9. Move the wheel guard forward so it covers the edge of the grinding and drive disc.
10. Adjust the table to working height.
11. Reconnect power to the machine.
12. Turn the machine "**ON**" and observe the action of the disc for possible unbalance. When you are sure that everything is operating correctly, you can resume sanding / grinding operations.

POSITIONING A PIECE PART TO THE DISC FACE

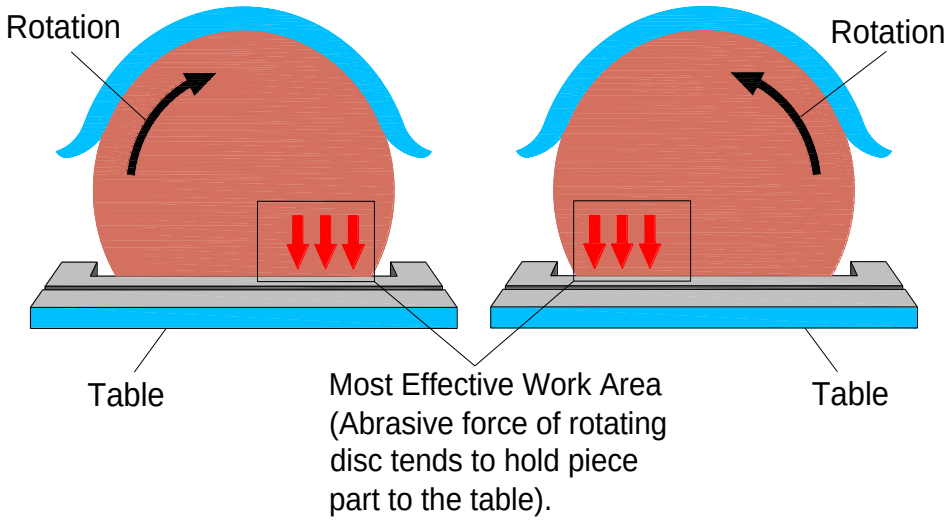
WARNING: All machinery poses a potential for danger when being operated. Accidents result from lack of machine knowledge and failure to pay attention. Always be cautious and alert to the potential for serious injury. Follow safety rules and precautions to lessen the chances of an accident.

No matter what size or type piece part you will be sanding or grinding, there are several important points to consider.

1. Always be sure that the wheel guard is positioned over the disc edge. Dust and grit removed from the piece part can be hurled off the wheel if the wheel guard is not in position.

IMPORTANT: **Always allow time for the disc to come up to full speed before contacting the piece part to the disc.**

2. This is a very powerful and aggressive grinding device which operates at high surface speeds so you always want to properly support the piece part while using the work table.
3. The safest position at which to do any grinding is with the part on the work table where the disc is moving downward past the work table. Whenever possible, keep the workpiece in this area when grinding. In addition to safety, keeping the piece part in this area greatly increases the effectiveness of the dust control chute and any vacuum dust control system you might be using.



4. The speed and aggressiveness of the machine means that CONTROL of the piece part is absolutely essential. **ALWAYS USE TWO HANDS** to control the piece part.
5. Because of the speed with which the disc can grind, heat build-up on piece parts is usually very quick. To prevent burns and/or possible loss of control of any piece part:
    a. Use heat resistant gloves to hold the piece part.
    b. Where possible and appropriate, use additional tooling or fixturing to hold the workpiece when pressing against the grinding disc.

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.

1. Place the rotation direction switch to OFF.
2. Verify that the sanding disc is of the proper material and grit to match the desired result. Change the sanding disc if needed.
3. Set the table height and angle to match the desired result.
4. If using the miter gauge, set the gauge to the desired angle and place in the guide slot.
5. Verify that there is nothing in contact with the sanding disc.
6. Place the rotation switch in the desired position to rotate as desired.
7. Press the green start button to start the motor and disc.

⚠ ***IMPORTANT:*** **Always allow time for the disc to come up to full speed before contacting the material to the disc.**

8. Using firm even pressure, place the material onto the table and slide the material into the sanding disc on the downward side of the rotation. **ALWAYS USE TWO HANDS** to control the piece part. Small parts may require special clamping to maintain grip and control of the piece part.
9. When the sanding operation is complete, press the red stop button or place the rotation switch in the off position to stop the motor and disc.
10. Step on the brake pedal to stop the rotation of the disc.

⚠ CAUTION: Never leave the disc spinning unattended. Verify that power is Off and stop the rotation with the brake. From full RPM, it may take 10 minutes or more for the disc to coast to a stop on its own.

MACHINE ADJUSTMENTS

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

The working table can be tilted 30° towards and 45° away from the sanding disc.

1. Loosen the knob and turn the hand wheel.
2. Use the scale on the side of the gear rack to indicate the angle of tilt.
3. After the table is adjusted, retighten the knob.

The working table can also be raised or lowered on the column. The entire work table and lower disc guard will raise or lower with this adjustment.

1. Loosen the knob and adjust the table height with the hand wheel.
2. When the desire position is achieved, retighten knob.

DUST COLLECTION

The **DG-500HD** has a dust chute with an outlet. To attach a dust collection system simply slide the appropriate sized hose over the outlet and secure with a hose clamp. If your dust collection hose is a different size than the outlet on the **DG-500HD**, you may need to purchase an adapter from a local retailer. The O.D. of the outlet is 4” (101mm).

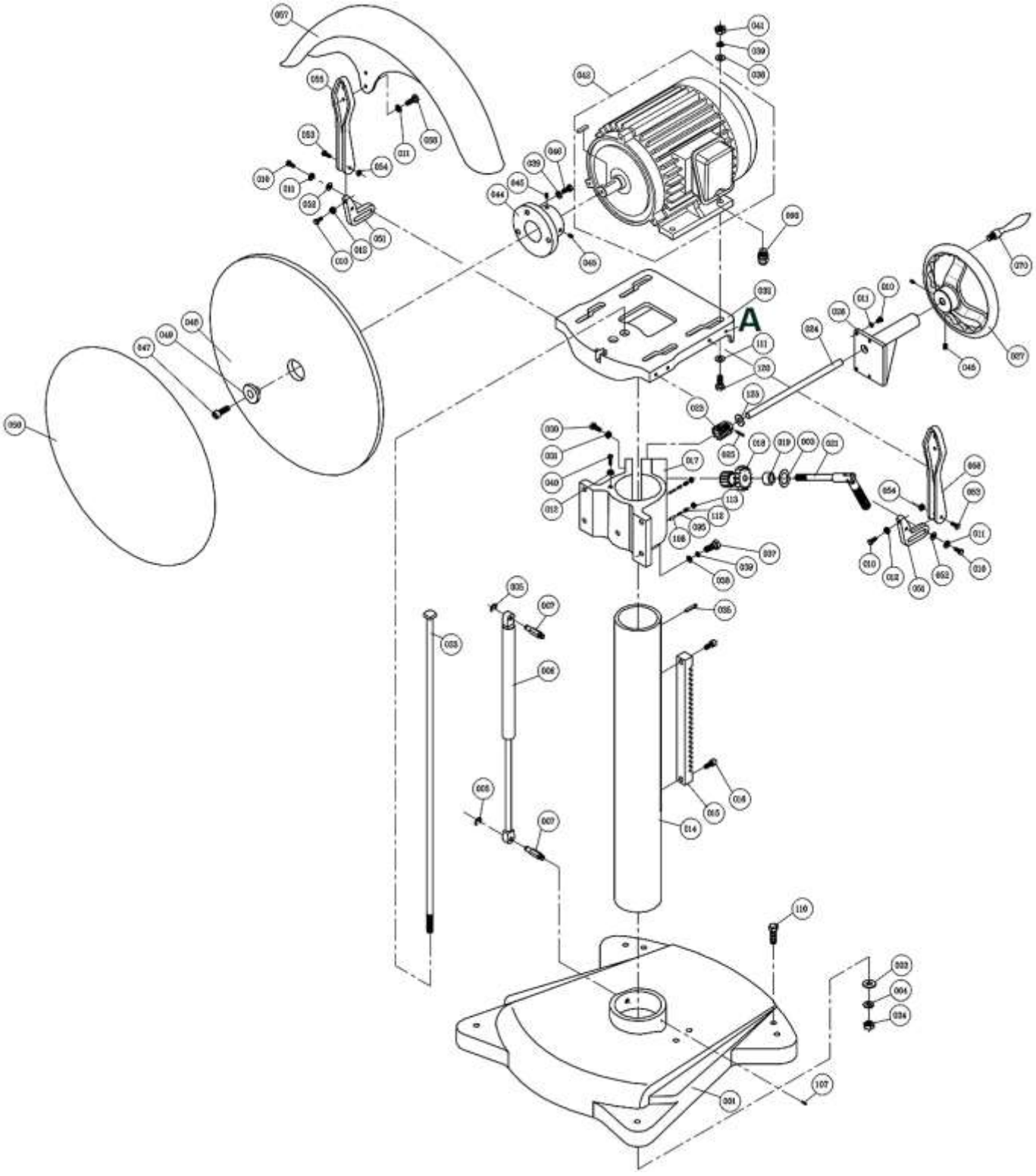
MATERIAL SELECTION

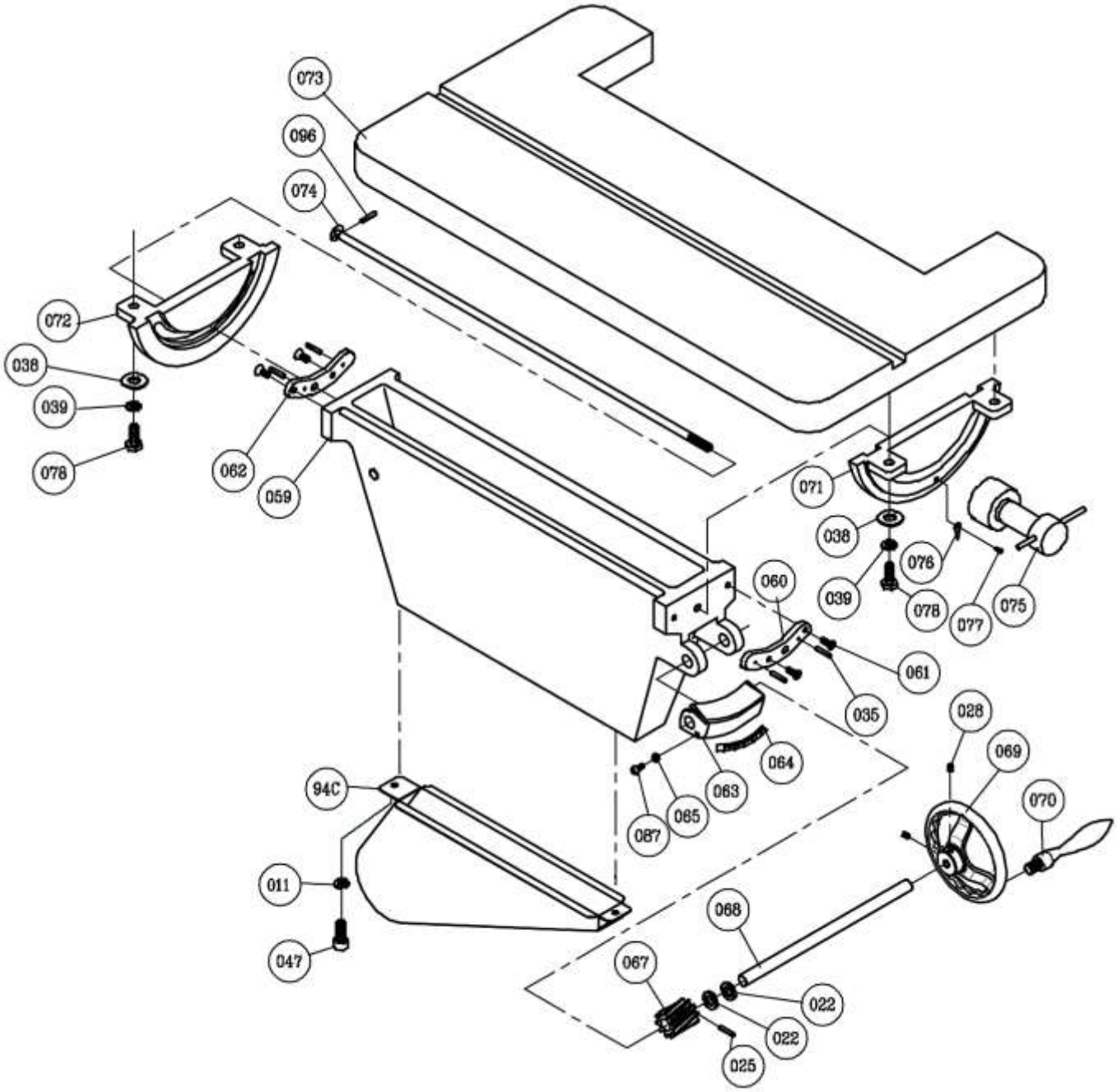
⚠ CAUTION: It must be determined by the customer that materials being processed through the machine are NOT potentially hazardous to operator or personnel working nearby.

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.

PARTS DIAGRAM

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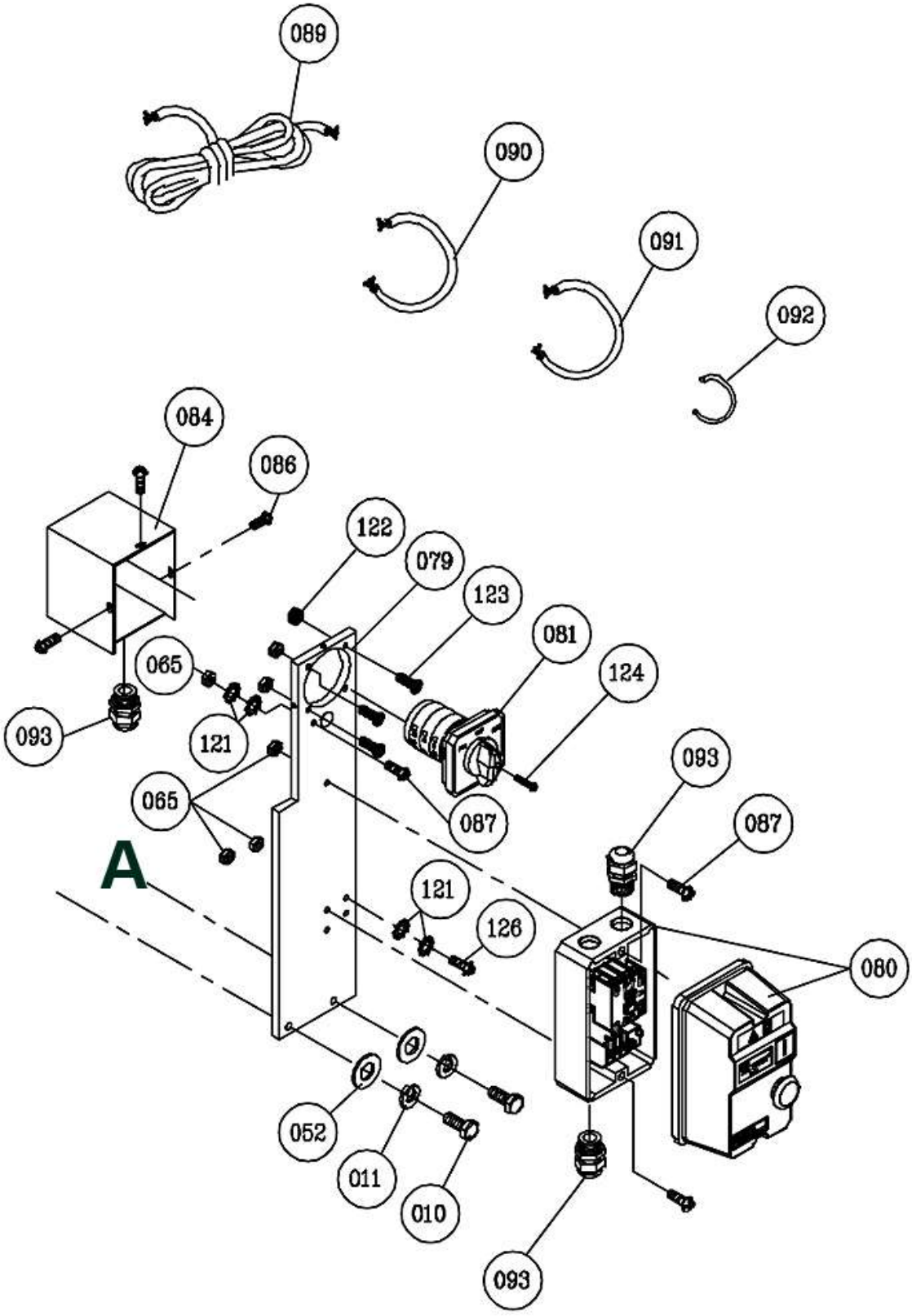
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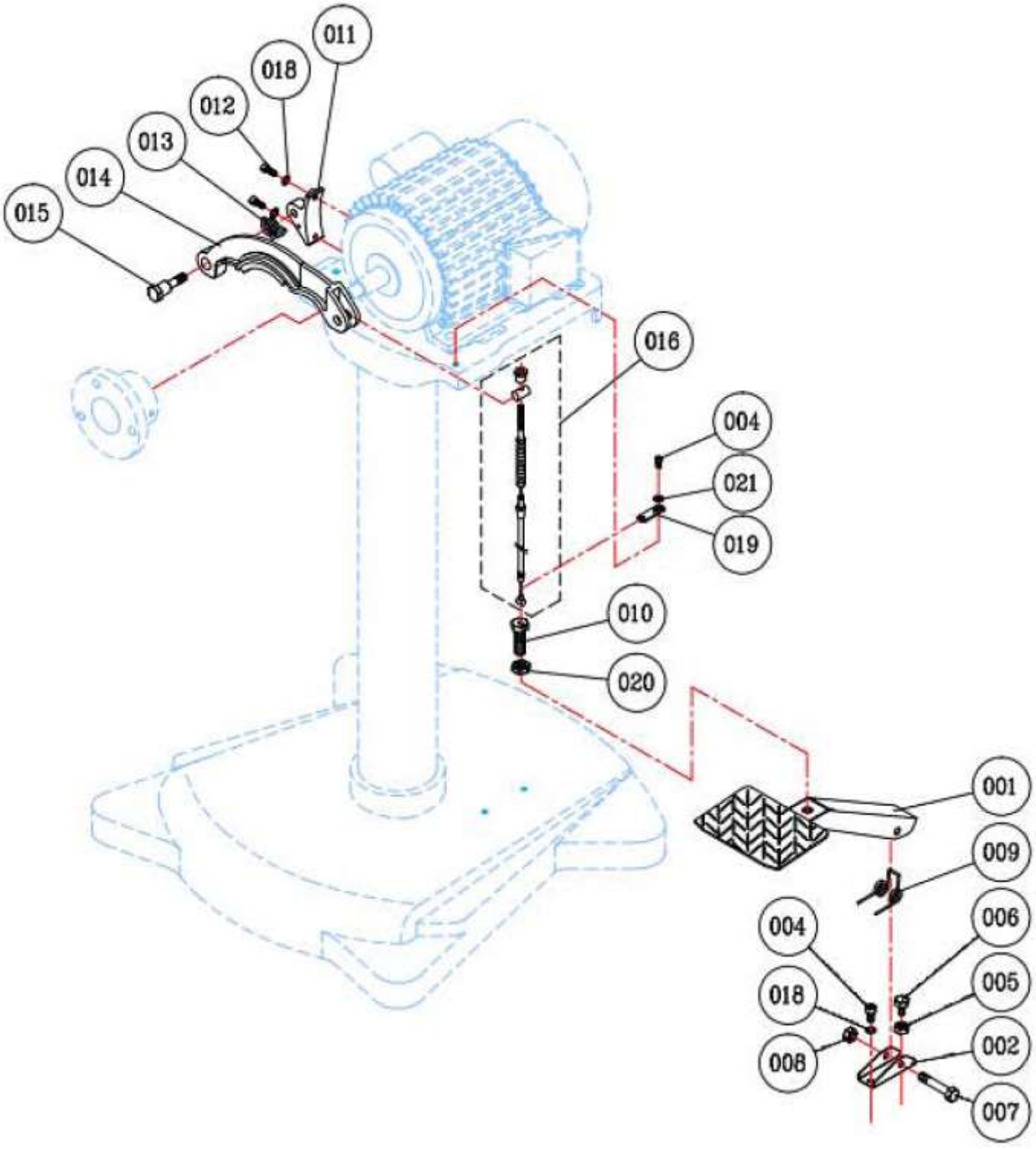
Parts List

Item	Part No.	Description	Specification	Qty.
1	38011051	Base		1
3	50351045	Flat Washer	1/2"*32*3T	3
4	50352014	Spring Washer	1/2"	2
5	38011003	Bracket		1
6	38021004	Cylinder		1
7	23021012	Upper Cylinder Fitting		2
10	50151106	Fixed Screw	1/4"-20UNC*1"L	12
11	50302002	Fixed Washer	1/4"	16
12	50252023	Hex Nut	1/4"-20UNC	2
14	38011009	Column		1
15	38011010	Rack		1
16	50152023	Cap Screw	5/16"-18UNC*1/2"L	2
17	38011011	Cover & Support		1
18	38011012	Worm Gear		1
19	38012004	Washer		1
21	38011101	Up & Down Handle Set		1
22	50351072	Washer	1/2"*20*0.8T	2
23	38011017	Worm, Table Lifting		1
24	38011018	Shaft		1
25	50602019	Spring Pin	4*20L	2
26	38011019	Shaft Base		1
27	38012011	Handle Wheel		1
28	50153008	Set Screw	5/16"-18UNC*1/2"L	2
30	50151105	Hex. Screw	5/16"-18UNC*2"	2
31	50251035	Hex. Nut	5/16"-18UNC	2
32	38011022	Motor Mount		1
33	38011023	Stud Bolt		1
34	50251016	Hex. Nut	1/2"-12UNC	1
35	50602041	Spring Pin	5*16L	5
37	50151091	Hex. Screw	3/8"-16UNC*1 3/4"L	4
38	50351051	Flat Washer	3/8"*23*2T	12
39	50352004	Spring Washer	3/8"	14
40	50151003	Hex. Screw	1/4"-20UNC*3/4"L	1

Item	Part No.	Description	Specification	Qty.
41	50251023	Hex. Nut	3/8"-16UNC	4
42	3801150A	Motor		1
44	38011027	Hub		1
45	50153009	Set Screw	5/16"-18UNC*3/4"L	4
46	50152040	Cap Screw	3/8"-16UNC*7/8"	3
47	50152003	Cap Screw	1/4"-20UNC*3/4"	1
48	38011028	Disc		1
49	38011029	Clamp Block		1
50	38011030	Sanding Cloth	20" #100	1
52	50351068	Flat Washer	1/4"*19*2T	7
53	50151104	Hex Screw	1/4"-20UNC *1-1/4"L	2
54	50252023	Nut	1/4"-20UNC	2
55	38011032	R.H Guard Arm		1
56	38011033	L.H Guard Arm		1
57	38011034	Disc Guard		1
58	50151005	Hex Screw	1/4"-20UNC*5/8"L	4
59	38011035	Solid Segment		1
60	38011036	Pilot Right		1
61	50158004	PLP Head Screw	1/4"-20UNC*1/2"L	4
62	38011037	Pilot Left		1
63	38011038	Scale Indicator		1
64	38011039	Protractor		1
65	50251033	Hex. Nut	3/16"-24UNC	4
67	38011040	Worm, Table Tilt		1
68	38011041	Shaft		1
69	38011042	Pointer/Wheel		1
70	38011025	Knob		2
71	38011043	Gear Segment		1
72	38011044	Table Fixer		1
73	38011045	Table		1
74	38011046	Fixed Pin		1
75	38011047	Scale Set Knob		1
76	35011016	Scale Indicator		1
77	50104010	Round Head Screw	M4*0.7P*6L	1
78	50151020	Hex. Screw	3/8"-16UNC*1"L	4

Item	Part No.	Description	Specification	Qty.
79	38011053	Switch Plate		1
80	3801160A	Switch		1
81	3801160C	Reverse Switch		1
84	38011090	Reverse Switch Cover		1
86	50154039	Round Head Screw	3/16"-24UNC*3/8"L	3
87	50154031	Round Head Screw	3/16"-24UNC*3/4"L	3
89	3801180A	Power Cord		1
90	3801170A	Motor Cord		1
91	3801190A	Switch Cord		1
92	3801190B	Ground Wire		1
93	51104008	Cable Glands		4
94C	38021003	Dust Chute		1
95	38011092	Spring		2
96	50602004	Spring Pin	3*20L	1
107	50602017	Spring Pin	5*25L	1
108	38011091	Pin		2
110	50101044	Hex, Screw	M12*1.75P*80L	2
111	50351067	Flat Washer	3/8"*28*2T	4
112	50153015	Set Screw	5/16"-18UNC*1"	2
113	50251035	Hex. Nut	5/16"-18UNC	2
120	50151097	Hex. Screw	3/8"-16UNC*1 1/2"L	4
121	50303003	Teeth Washer	M5	4
122	50201011	Hex. Nut	M4*0.7P	4
123	50105026	Philip Screw	M4*0.7P*25L	4
124	50104071	Round Head Screw	M3*0.5P*15L	1
125	50351074	Flat Washer	1/2"*26*1T	1
126	50154043	Round Head Screw	3/16"-24UNC*5/8"L	1

BRAKE PARTS DIAGRAM



Brake Parts List

Item	Part No.	Description	Specification	Qty.
1	38013001	Foot Pedal		1
2	38013002	Pedal Base		1
4	50152021	Cap Screw	1/4"-20UNC*1/2"L	2
5	50251002	Hex Nut	1/4"-20UNC	1
6	50151104	Hex Screw	1/4"-20UNC*1-1/4"L	1
7	50151107	Hex Screw	3/8"-16UNC*2"L	1
8	50252021	Nylon Nut	3/8"-16UNC	1
9	38013003	Spring		1
10	38013012	Bolt		1
11	38013004	Connector		1
12	50152003	Cap Screw	1/4"-20UNC*3/4"L	2
13	38013005	Spring		1
14	38013006	Draw Bar		1
15	38013007	Center Rod		1
16	38013101	Brake Wire		1
18	50352002	Spring Washer	1/4"	3
19	38013015	Wire Clip		1
20	50251016	Hex Nut	1/2"-12UNC	1
21	50351003	Flat Washer	1/4"*13*1T	1

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