

# **OPERATOR'S MANUAL**

# MANUALLY OPERATED ABRASIVE CUT-OFF SAW MODEL: AS-350M

BAILEIGH

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Rev. 04/2021



# **Table of Contents**

THANK YOU & WARRANTY	1
INTRODUCTION	3
GENERAL NOTES	3
SAFETY INSTRUCTIONS	4
SAFETY PRECAUTIONS	7
Dear Valued Customer:	7
TECHNICAL SPECIFICATIONS	10
TECHNICAL SUPPORT	10
UNPACKING AND CHECKING CONTENTS	11
TRANSPORTING AND LIFTING	12
INSTALLATION	13
Anchoring the Machine	13
OVERALL DIMENSIONS	14
GETTING TO KNOW YOUR MACHINE	15
ASSEMBLY AND SET UP	18
ELECTRICAL	19
OPERATION	21
Miter Angle	21
Vise Operation	21
Loading Material	22
Setting Cut Length	22
Cutting Operation Cycle	23
MATERIAL SELECTION	24
MACHINE ADJUSTMENTS	25
LUBRICATION AND MAINTENANCE	26
Storing Machine for Extended Period of Time	27
CHOOSING A SAW BLADE	27
ELECTRICAL COMPONENTS	27
ELECTRICAL SCHEMATIC	28
PARTS DIAGRAM	29
Parts List	30
TROUBLESHOOTING	33



### 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, (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 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 <u>sales@baileigh.com</u>



### 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, <u>BE ALERT TO THE</u> 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.





#### 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 the saw in areas where explosion risks are high. Such areas include locations near pilot lights, open flames, or other ignition sources.



### HIGH VOLTAGE

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









# **ROTATING BLADE HAZARD**

Moving saw blade may result in loss of fingers or limb. <u>DO NOT</u> operate with guard removed. Follow lockout/tagout procedures before servicing.





#### **EMERGENCY STOP BUTTON**

In the event of incorrect operation or dangerous conditions, the machine can be stopped immediately by pressing the <u>E-STOP</u> button. Twist the emergency stop button clockwise (cw) to reset. Note: Resetting the E-Stop will not start the machine.





### **CALIFORNIA PROPOSITION 65**

WARNING: Cancer and Reproductive Harm. <u>www.P65Warnings.ca.gov</u>





# 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. <u>Always use common sense</u> and exercise <u>caution</u> 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. Dressing material edges. Always chamfer and deburr all sharp edges.



- 8. **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.
- 9. 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.
- 10. **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.
- 11. **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.
- 12. **Do not overreach**. Maintain proper footing and balance at all times. **DO NOT** reach over or across a running machine.
- 13. **Stay alert**. Watch what you are doing and use common sense. **DO NOT** operate any tool or machine when you are tired.
- 14. 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.
- 15. 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.
- 16. **Blade adjustments and maintenance**. Always keep blades sharp and properly adjusted for optimum performance.
- 17. **Keep children away**. Children must never be allowed in the work area. **DO NOT** let them handle machines, tools, or extension cords.
- 18. **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.
- 19. 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.
- 20. **Sparks and hot material** from cutting can easily go through small cracks and openings into adjacent areas.
- 21. **Do not** cut where the atmosphere might contain flammable dust, gas, or liquid vapors such as from gasoline.
- 22. Wear oil-free protective garments such as leather gloves, heavy shirt, high shoes or boots, cuffless trousers, and a cap.
- 23. Watch for fire and keep a fire extinguisher close by.



- 24. Turn off power before checking, cleaning, or replacing any torch parts.
- 25. Be sure **all** equipment is properly installed and grounded according to national, state, and local codes.
- 26. Keep all cords dry, free from grease and oil, and protected from sparks and hot metal.
- 27. Inspect power and control cables periodically. Replace if damaged or bare wires are exposed. <u>Bare wiring can kill!</u>
- 28. DO NOT bypass or defeat any safety interlock systems.
- 29. Keep visitors a safe distance from the work area.
- Always check that the work piece is securely clamped and that long pieces are properly supported.
- DO NOT use an abrasive saw blade size that is outside the limits of the machines specifications.
- The operator should stand in front of the machine using a single hand to grip the feed handle.
- Immediately release the start / run trigger button if the abrasive saw blade should get stuck in a cut. Turn power off at the disconnect switch (located in the electrical box above the motor) before raising the machine head. Then open the vise and remove the work piece. Check the saw blade for damage. If any chips or cracks are noticed, replace the blade.





### **TECHNICAL SPECIFICATIONS**

Capacity Round 45°	4" (102mm)
Capacity Round 90°	4.5" (114mm)
Capacity Square 90°	3.5" (89mm)
Capacity Square 45°	3" (76mm)
Capacity Rectangle 90°	5.5" x 3.5" (140 x 89mm)
Capacity Rectangle 45°	2.5" x 3" (64 x 76mm)
Blade Size	14" (355.6mm)
Blade Speed	4300rpm
Maximum Vise Opening	6.5" (165mm)
Drive	Belt
Power	220V, 3ph, 60hz
Motor	7.5hp (5.6kw) 220V, 3ph, 60hz, 20A
Shipping Weight	425 lbs. (193kg)
Shipping Dimensions	34" x 25" x 55" (864 x 635 x 1397mm)

### **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: <u>sales@baileigh.com</u>, 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.

#### <u>Cleaning</u>

**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 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.

#### Follow these guidelines when lifting crane or hoist:

- Always lift and carry the machine with the lifting holes provided at the top of the machine.
- Use lift equipment such as straps, chains, capable of lifting 1.5 to 2 times the weight of the machine.
- Take proper precautions for handling and lifting.
- Check if the load is properly balanced by lifting it an inch or two.
- Lift the machine, avoiding sudden accelerations or quick changes of direction.
- Locate the machine where it is to be installed, then lower slowly until it touches the floor.



### 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 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.

#### 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. 6" (153mm) minimum is preferred.





# **OVERALL DIMENSIONS**







# **GETTING TO KNOW YOUR MACHINE**





А	Spindle Motor	For driving the spindle
В	Vise lever	To quickly clamp and unclamp piece parts
С	3-piece saw guard	Provides safety protection from saw blade
D	Emergency Stop	Press this switch to stop all machine motion
Е	Main power switch	Turns on main power to the abrasive saw
F	Angle indicator	For showing angular cutting degrees
G	Trigger switch	For starting the spindle motor
Н	Feed handle	Used for guiding blade into piece part
I	Motor belt guard	Contains belts and shields pinch points.
J	Stop bar	For setting the length of cut
Κ	Front and rear jaw	For clamping piece part
L	Vise hand-wheel	Turning hand-wheel opens and closes vise
Μ	Miter lock lever	Tightens and loosens table to set angles

#### **Disk Head Assembly**

The section of the machine composed of the motor and belt drive, saw head body, disc or blade, and feed handle.

#### Feed Handle

A long tube with a grip for raising and lowering the disk head and a trigger switch to start and stop the blade motor.

#### Saw Head Body

The central part of the assembly housing the bearings, bushings, and spindle shaft.





#### Machine Base

A heavy cast iron structure that supports the miter system, vise system, and head assembly.



A clamping system which provides the basic support and grip for the work material. A hand-wheel opens and closes the vise jaws.



Support structure for the machine head assembly, machine base, and vise system.









### ASSEMBLY AND SET UP

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.

Attach the stop bar to the stand.

- Insert the threaded end of the long rod (V) into the side of the stand as shown in the photo.
- Turn clockwise (cw) until snug.
- Using a wrench, turn hex jam nut (N) clockwise (cw) until tight.





Feed handle assembly and orientation.

- Screw the handle rod (H) clockwise (cw) into the drive shaft hub. The keyslot for the cable should face down or towards the operator. Tighten the jam nut.
- Slide the trigger switch handle (O) onto the handle rod so the cable exits the keyslot as in the diagram. Attach with (2) flathead screws. Trigger switch should now point away from the operator as in the photo (below).





# ELECTRICAL

**WARNING:** Baileigh Industrial Holdings LLC is not responsible for any damage caused by wiring up to an alternative 3-phase power source other than direct 3-phase. If you are using an alternate power source, consult a certified electrician or contact Baileigh Industrial Holdings LLC prior to energizing the machine.

**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 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.

#### 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.
- 5. Check that the saw blade is running in the direction as indicated by the arrowhead on the blade guard. If not, cut the power to the machine. Swap the position of any two of the three power wires; but <u>DO NOT</u> change the position of the (green/yellow) grounding wire!



# **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.

#### Miter Angle

- Use the miter lock lever (M) to release the disk head assembly.
- Rotate the disk head assembly to the correct miter angle.
- Check the miter angle on the angle indicator (F) (below the vise).
- Use the miter lock lever (M) to lock in the angle.



**NOTICE:** Verify that the cutting blade clears all parts of the vise assembly before cutting. The blade can strike parts of the assembly (especially during miter cuts) if not properly adjusted.

#### Vise Operation

Use the hand wheel (L) to open and close the vise jaws (K) for pieces that vary in width.

- Counter clockwise (ccw) to open jaws.
- Clockwise (cw) to close jaws.

Use the vise lever (B) to quickly clamp and unclamp pieces of the same width.

- Clockwise (cw) to clamp the piece.
- Counter clockwise (ccw) to unclamp the piece.



**NOTICE:** DO NOT allow the vise base to open beyond the travel limits of the slide rails or the assembly may de-rail. (See arrow)



#### Loading Material

- Use the vise hand-wheel to open the jaws wider than the width of the piece.
- Measure and mark off the length of material to be cut.
- Place the piece on the flat surface in between the vise jaws.
- Slide the piece through the jaws so the scribed length mark lines up with the blade.
- Push the piece up against the back vise jaw.
- Turn the hand wheel clockwise (cw) to clamp the piece.

#### Setting Cut Length

Setting the cut length eliminates measuring duplicate pieces.

- Measure and mark the length of material to be cut off.
- Load the piece part.
- Line up the cut.
- Clamp the piece part.
- Loosen the hand knob at the base of the bar riser (T).
- Slide the bar riser (T) along the long rod (U) so that the tip of stop bar (J) touches the end of the piece part.
- Tighten the hand knob at the base of the bar riser.

#### Using the stop bar

- Cut off the first length from the clamped piece part.
- Unclamp the piece part.
- Slide the piece part forward until it reaches the tip of the stop bar (J).
- Clamp the piece part.
- Proceed with the cutting cycle.





### Cutting Operation Cycle

- Set the miter cut angle
- Open the vise jaws.
- Load and clamp the piece part.
- Adjust the bar stop for cutting length.
- Check that the main power disconnect switch (V) is on.
- Grasp the feed handle (H).
- Press the trigger switch (G) to start blade motor.
- Pull down the feed handle (H) applying a steady and constant pressure.
- After cut-off, raise feed handle slowly.
- Release the trigger switch (G) to stop the blade motor.
- Use vise hand wheel to open the jaws.
- Remove or advance the piece part forward for next cut.
- To turn off machine power, turn the main power switch (V) to off.
- To stop machine in an emergency situation press the **EMERGENCY STOP** button (**P**).
- Before machine can be restarted, emergency stop button must be reset with a clockwise (cw) twist.









# 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.



# MACHINE ADJUSTMENTS

WARNING: Make sure the electrical disconnect is <u>OFF</u> 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.

Replacing the saw blade: (Wear gloves when handling blade).

- Remove the allen head screw which releases the pull rod (P). This allows the pivoting guard (Q) to rotate back.
- While gripping the blade, use a hex wrench and remove the nut in a clockwise (cw) direction. (It has a left-handed thread).
- Now remove the washer (R) and blade (S) from the spindle.
- Clean out any debris that may have accumulated inside the guard.
- Install the new blade onto the spindle.
- Place washer (R) and the nut on the spindle (note how nut pilots into the washer.)
- While holding blade, tighten nut counterclockwise (ccw).
- Rotate pivot guard forward and re-attach the pull rod to the guard.
- Check depth of cut adjustment bolt for the new blade. (see below)











# LUBRICATION AND MAINTENANCE

**WARNING:** Make sure the electrical disconnect is <u>OFF</u> 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.

#### **Daily Maintenance**

- Do a general cleaning by removing dust and metal chips from the machine.
- Inspect the abrasive saw blade for wear.
- Check that the blade guard, shields, and emergency stop are in good working order.
- Check daily for any unsafe conditions and fix immediately.
- Check that all nuts and bolts are properly tightened.
- 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.

#### Weekly Maintenance

- Thoroughly clean the machine.
- Clean and grease the vise screw and sliding surfaces.
- Clean the guard housing for the saw blade.

#### **Monthly Maintenance**

- Check that all screws on the motor, the vise jaws, and the guard are tight and secure.
- Check that the saw guard is operating properly.
- Check belt tension (motor base has slide adjustment screws)

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



#### Storing Machine for Extended Period of Time

If the abrasive cut-off saw is to be inactive for a long period of time, prepare the machine as follows:

- Detach the plug from the electrical supply panel.
- Clean and grease the machine.
- Cover the machine

### CHOOSING A SAW BLADE

To achieve a quality, economical, and efficient saw cut, the following points must be taken into consideration:

- Type of material being cut (ferrous or non ferrous)
- Material hardness and physical dimensions
- Blade descent rate
- Rotational speed of blade

### **ELECTRICAL COMPONENTS**









# PARTS DIAGRAM





### Parts List

Item	Part No.	Description	Qty.
1	AS350M-1	Bolt M8x20	4
2	AS350M-2	Washer M8	6
3	AS350M-3	Spring Pin 6x12	1
4	AS350M-4	Pull Rod	1
5	AS350M-5	Bolt M6x25	2
6	AS350M-6	Washer M6	3
7	AS350M-7	Ring	2
8	AS350M-8	Nut M6	1
9	AS350M-9	Plate	1
10	AS350M-10	Circlip M45	1
11	AS350M-11	Blade Guard	1
12	AS350M-12	Blade Guard	1
13	AS350M-13	Bolt M8x35	2
14	AS350M-14	Bolt M10x70	1
15	AS350M-15	Nut M10	1
16	AS350M-16	Motor	1
17	AS350M-17	Key 8x30	2
18	AS350M-18	Block Bolt M8x12	3
19	AS350M-19	Wheel	1
20	AS350M-20	Bolt M10x25	10
21	AS350M-21	Washer M10	8
22	AS350M-22	Base	1
23	AS350M-23	Bolt M6x12	2
24	AS350M-24	Washer M6	2
25	AS350M-25	Baffle	1
26	AS350M-26	Bending Plate	1
27	AS350M-27	Belt	2
28	AS350M-28	Belt Guard	1
29	AS350M-29	Bolt M5x10	2
30	AS350M-30	Switch Handle	1
31	AS350M-31	Lock Bolt M8x10	3
32	AS350M-32	Wheel	1
33	AS350M-33	Handle Shank	1



Item	Part No.	Description	Qty.
34	AS350M-34	Ring	1
35	AS350M-35	Nut M14	1
36	AS350M-36	Brace	1
37	AS350M-37	Lock Bolt M8x40	2
38	AS350M-38	Nut M8	6
39	AS350M-39	Bearing	1
40	AS350M-40	Shaft	1
41	AS350M-41	Кеу	1
42	AS350M-42	Cover	1
43	AS350M-43	Bolt M6x16	3
44	AS350M-44	Cover	1
45	AS350M-45	Blade	1
46	AS350M-46	Cover	1
47	AS350M-47	Blade Retaining Nut	1
48	AS350M-48	Кеу	2
49	AS350M-49	Bushing	1
50	AS350M-50	Rotary Arm	1
51	AS350M-51	Flanged Shaft	1
52	AS350M-52	Shaft	1
53	AS350M-53	Lock Bolt M8x8	1
54	AS350M-54	Lower Vise	1
55	AS350M-55	Vise Plate	1
56	AS350M-56	Vise Plate	6
57	AS350M-57	Bolt M10x50	1
58	AS350M-58	Spring Washer M10	1
59	AS350M-59	Special Washer M10	1
60	AS350M-60	Bolt M6x16	3
61	AS350M-61	Vise Plate	1
62	AS350M-62	Upper Vise	1
63	AS350M-63	Adjust Plate	1
64	AS350M-64	Lock Bolt M8x25	4
65	AS350M-65	Threaded Shaft	1
66	AS350M-66	Spring	1
67	AS350M-67	Bearing	1
68	AS350M-68	Oil Cup M6	1



Item	Part No.	Description	Qty.
69	AS350M-69	Lock Ring	1
70	AS350M-70	Lock Handle	1
71	AS350M-71	Bearing	1
72	AS350M-72	Bearing Cover	1
73	AS350M-73	Handle	1
74	AS350M-74	Washer M8	1
75	AS350M-75	Bolt M8x35	1
76	AS350M-76	Lock Bolt M6x10	2
77	AS350M-77	Base	1
78	AS350M-78	Shaft	1
79	AS350M-79	Lock Handle	1
80	AS350M-80	Nut	1
81	AS350M-81	Stand	1



# TROUBLESHOOTING

# **WARNING:** Make sure the electrical disconnect is <u>OFF</u> before working on the machine.

FAULT	PROBABLE CAUSE	REMEDY
	Motor incorrectly wired.	Have checked by qualified electrician.
	Relays or motor defective.	Replace faulty component.
	Selector switch is in the "OFF" position.	Turn switch to "ON"
MOTOR DOES NOT RUN	Thermal protection of motor defective.	Replace thermal protector.
	Fuses blown.	Find reason for blown fuses and replace.
	Emergency stop button depressed.	Clear problem and twist button to reset.
EXCESSIVE	Damaged saw blade edge.	Replace the blade.
BOUNCING OR BREAKING OF THE BLADE	Using excessive down force on the blade	Don't force blade
MOTOR RUNS BUT BLADE DOES NOT ROTATE	Broken or missing belts.	Replace damaged or missing belts. (Use matched set)
	Improper belt tension.	Tighten jackscrew on motor base.
SAW BLADE SLIPS	Nut and blade washer not properly tightened.	Tighten nut and washer.



# <u>NOTES</u>

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