



# OPERATOR'S MANUAL

**Metal Working**



## VARIABLE SPEED DRILL PRESS MODEL: DP-1375VS-110

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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](mailto: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**

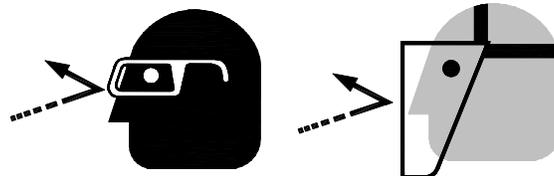


**SAVE THESE INSTRUCTIONS.**  
**Refer to them often and use them to instruct others.**



**PROTECT EYES**

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



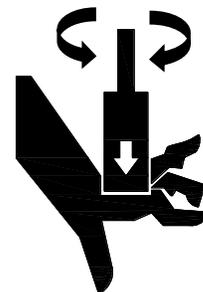
**PROTECT AGAINST NOISE**

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



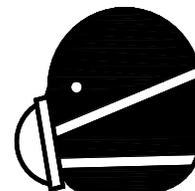
**BEWARE OF PIERCING POINTS AND CUTTING HAZARD**

**NEVER** place hands, fingers, or any part of your body on or near rotating tooling. This tooling can be extremely dangerous if you do not follow proper safety procedures. **Keep hand at least 6 inches (150mm) from the tooling while operating.**



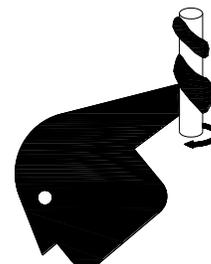
**DUST HAZARD**

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.



**ENTANGLEMENT HAZARD – ROTATING SPINDLE**

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.



### EMERGENCY STOP BUTTON

In the event of incorrect operation or dangerous conditions, the machine can be stopped immediately by pressing the **E-STOP** 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.  
[www.P65Warnings.ca.gov](http://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. **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 machine's 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 appropriately. 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. **Bit adjustments and maintenance.** Always keep bits sharp and properly installed 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. Keep visitors a safe distance from the work area.
19. **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.
20. **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.
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.



### Additional Safety Precautions

- Turn off main power to the machine and wait for the drill bit, or cutting tool to stop turning before removing debris, removing or securing the piece part, or changing the position of the work table.
- Never expose your hands or limbs to the cutting area while the machine is operating.
- When the machine is NOT in use, the drill bit or tool should NOT be rotating.
- Never leave the machine running while unattended. Turn the power OFF. Do not leave the machine until the spindle comes to a complete stop.
- Hold the piece part firmly against the table. DO NOT attempt to drill a piece part that does not have a flat surface against the table, or that is not secured by a vise. Prevent the piece part from rotating by clamping it to the table or by securing it against the drill press column.
- Never start the machine before clearing the table of all objects (tools, scrap pieces, etc.)
- Properly lock the drill bit, cutting tool, or sanding drum in the chuck before operating the machine.
- Do not remove any warning signs.
- Check safety equipment, such as safety covers, emergency stop buttons, safety mats, railings, light booms, ramps, and warning signs.
- Make sure electrical cables are well protected from damage. Check insulation periodically for wear.
- Never use the drill press without the swing-away safety guard.
- Make sure the actuator of the limit switch is seated in the detent of the round pad or the machine will not run.





## **TECHNICAL SPECIFICATIONS**

<b><u>Motor and Electricals:</u></b>	
Power Input Requirements	115V, 1 Phase
Motor Type	TEFC Induction
Motor Power	2HP (1.5kw), 220V, 3ph, 60hz, 6.6A, 1720rpm
Starting Amps	9.2A
Running Amps (No Load)	1.7A
Inverter	Economic Type, 115V, 1PH
Power Cable	3x14awg, 6 Ft
Power Plug	120V
Recommended Circuit and Fuse/Breaker Size	30A
Sound Emission Without Load	70db
Coolant Pump	1/8HP, 115V 1ph, 60hz, 0.7A
<b><u>Capacities:</u></b>	
Drilling Capacity, Cast Iron	1.5" (38.1mm)
Drilling Capacity, Mild Steel	1.375" (34.9mm)
Tapping Capacity, Cast Iron	.875" (22.2mm)
Tapping Capacity, Mild Steel	.75" (19.05mm)
Spindle To Table Maximum Distance	30.25" (768.3mm)
Spindle To Base Maximum Distance	44.5" (1130.3mm)
Spindle To Column Maximum Distance	10.4375" (265.1mm)
Coolant Capacity	2 Gal. (7.5L)
<b><u>Spindle:</u></b>	
Spindle Taper	MT-3
Spindle Speed	Variable, 120 – 2000rpm
Spindle Travel	6" (152.4mm)
Rotation	Fwd/Rev (Rev = Tapping Only)
<b><u>Table and Column:</u></b>	
Table Size	22" x 18.75" (559 x 476mm)
Table Working Surface	18.125" x 14.75" (460 x 375mm)
<b><u>Table Travel:</u></b>	
Without Rack Adjustment	15" (381mm)
Maximum Travel With Rack Adjustment	20" (508mm)
T-Slot Number	3



T-Slot Size	.625" [5/8"] (15.857mm)
T-Slot Centers	7.4375" (188.1mm)
Table Weight Capacity	154lbs (70kg)
Column Diameter	4.5" (114mm)
<b><u>Base:</u></b>	
Base Size	27 X 19 In. (686 X 483mm)
Base Working Surface	14-3/4 X 11-13/16 In. (375 X 300mm)
T-Slot Number	2
T-Slot Size	5/8 In. (16mm)
<b><u>Main Materials:</u></b>	
Head	Cast Iron, Steel Cover
Table And Base	Cast Iron
Spindle And Quill	Steel
Column	Steel
<b><u>Dimensions:</u></b>	
Assembled Machine Dimensions (L X W X H)	38-3/16 X 27-5/32 X 79-1/2 In. (970 X 690 X 2020mm)
Shipping Crate Dimensions (L X W X H)	37 X 25.5 X 75 In. (939 X 648 X 1905mm)
<b><u>Weights:</u></b>	
Net Weight	723lb (328kg)
Shipping Weight	781lb (355kg)

## **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](mailto: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.



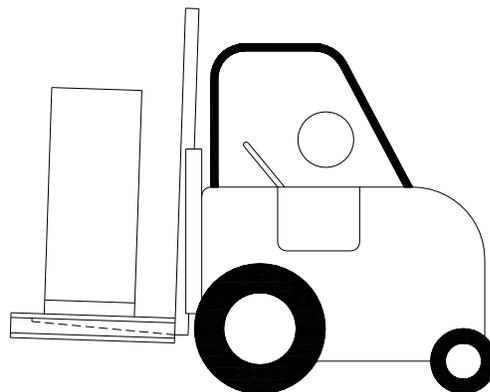


## TRANSPORTING AND LIFTING

**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.

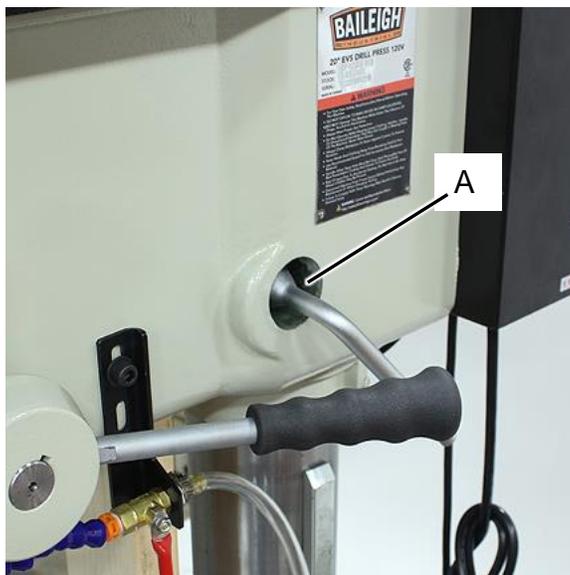
### Follow these guidelines when lifting with truck or trolley:

- 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.



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

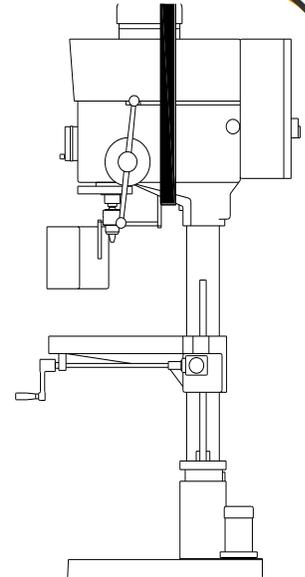
- Always lift and carry the machine with the lifting straps around the head of the machine.
- Take proper precautions for handling and lifting. Remove the coolant valve bracket from the head to avoid damaging it. **DO NOT** let the lift strap damage the guard limit switch or guard support bracket.
- Check to see that the machine head is secured to the column using the socket wrench provided on nut (A).



**IMPORTANT:** Failure to lock the machine head to the column may result in personal injury or machine damage.



- 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, and lower slowly until it touches the floor.



## **INSTALLATION**

### **IMPORTANT:**

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

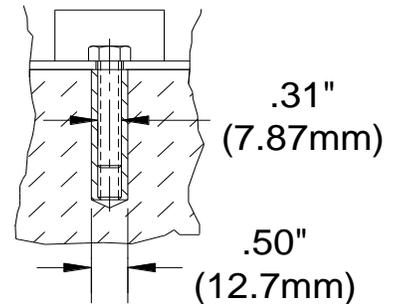
- Overall weight of the machine.
- Weight of material being processed.
- Sizes of material to be processed through the machine.
- Space needed for auxiliary stands, worktables, or other machinery.
- Clearance from walls and other obstacles.
- Maintain an adequate working area around the machine for safety.
- 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.



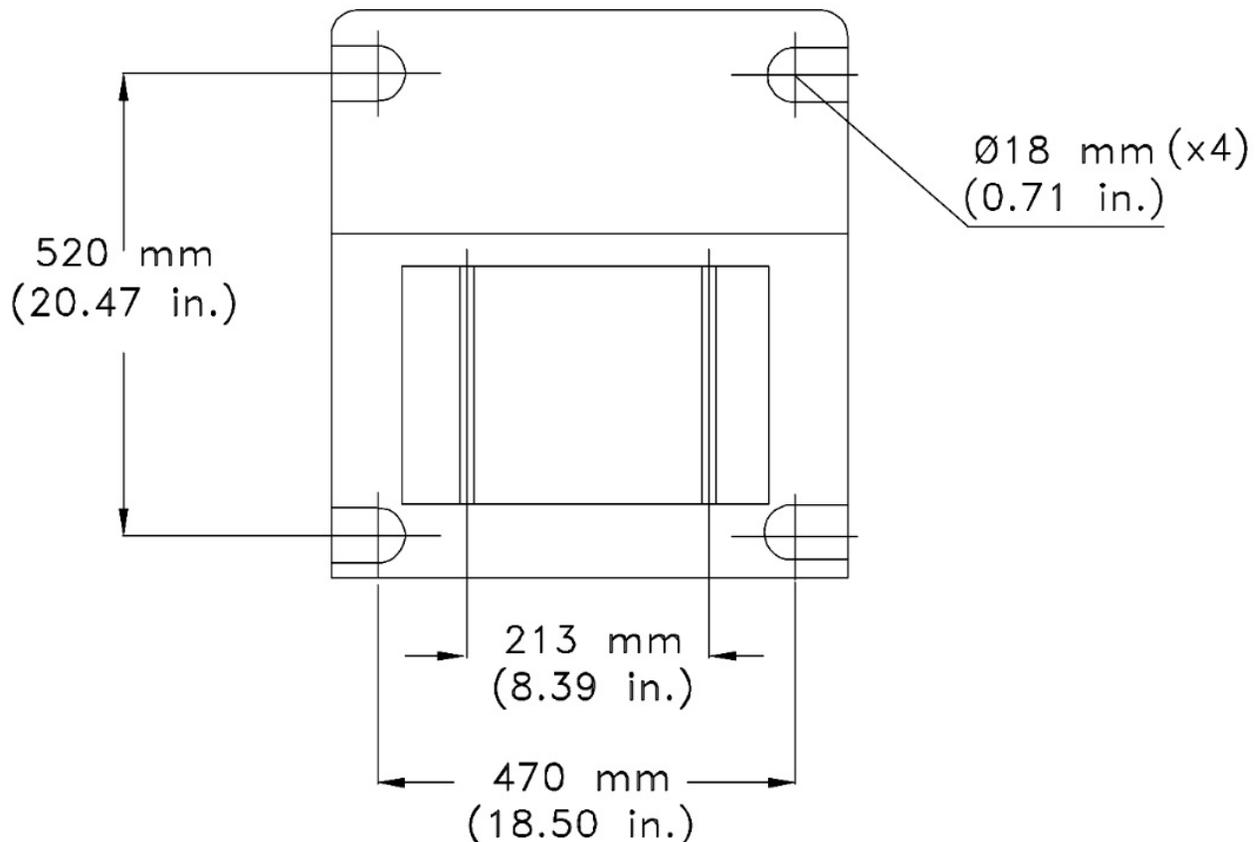
- **POWER SUPPLY PLACEMENT:** The power supply should be located close enough to the machine so that the power cord is not in an area where it would cause a tripping hazard. Be sure to observe all electrical codes if installing new circuits and/or outlets.

### 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.

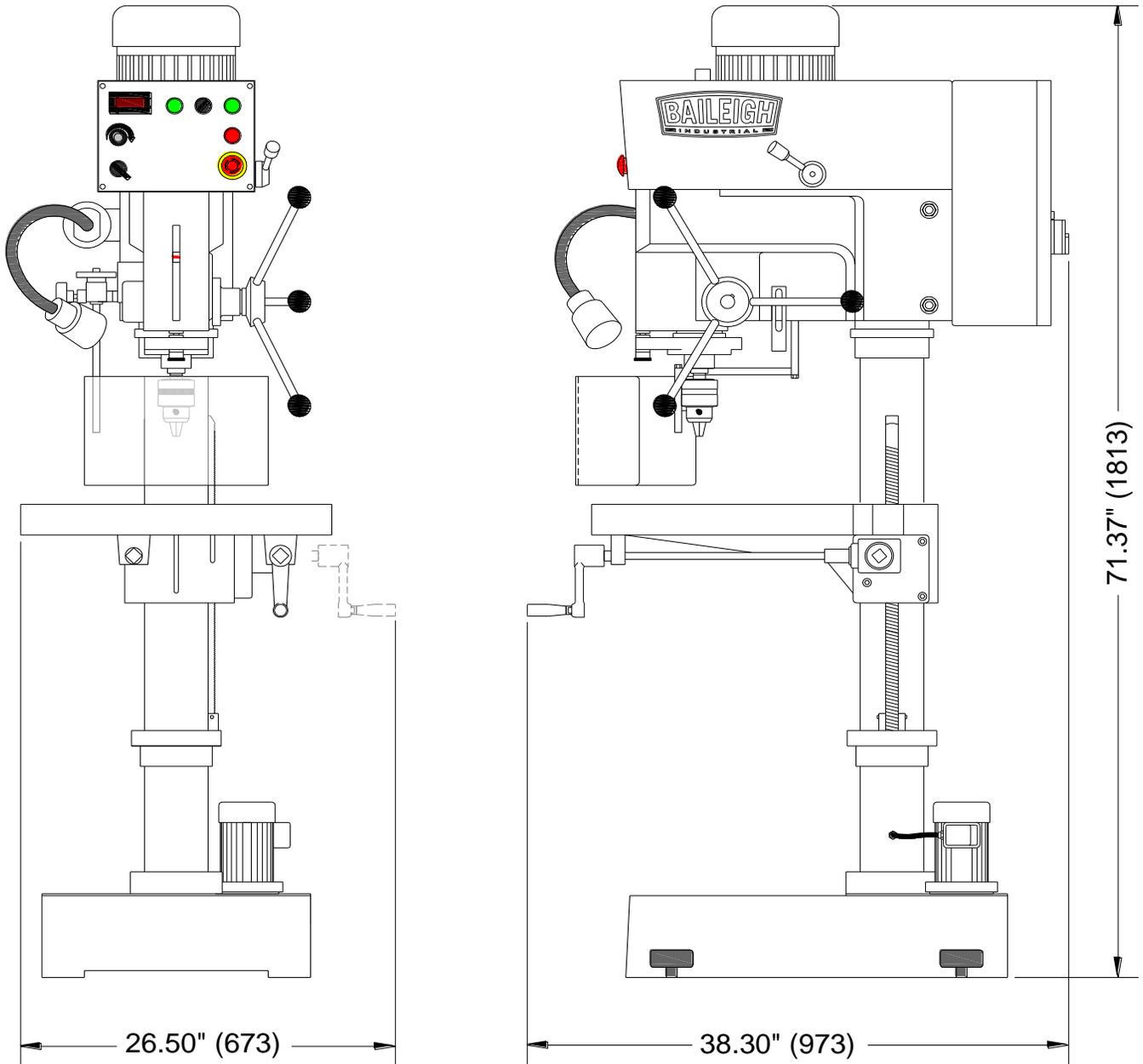


### Mounting Holes





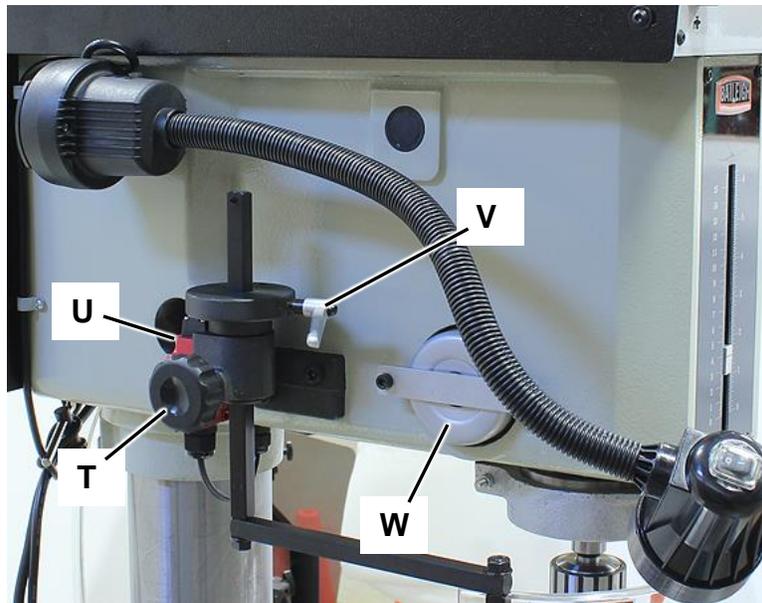
### OVERALL DIMENSIONS





## GETTING TO KNOW YOUR MACHINE

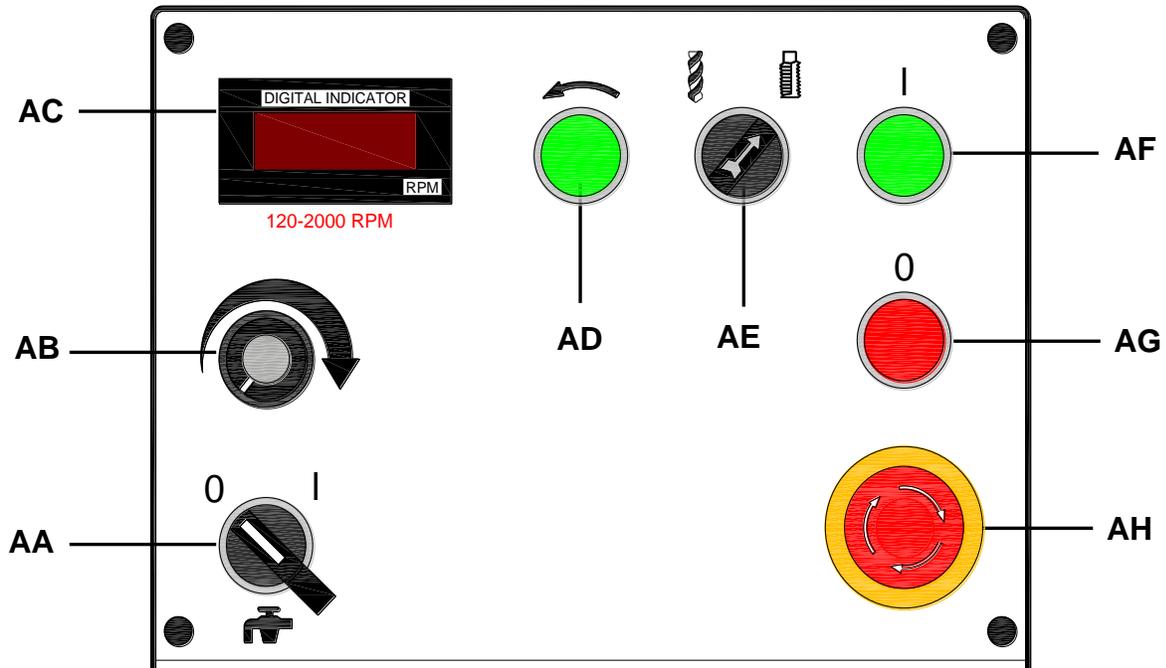




A	Table Elevation Shaft	Table height adjustment at two locations
B	Handle	Moveable crank handle to turn elevation shafts and table lock shafts.
C	Worktable Lock Shaft	Secures table when pivoting on column
D	Safety Guard	Adjustable guard with limit switch shut-off
E	Chuck	Holds various tooling for drilling and tapping
F	Depth Stop Adjustment	When unlocked, this will adjust to set the depth stop position.
G	Depth Stop Lock	Locks the position of the depth stop
H	Work Light	Provides adequate lighting for work area
I	Depth Scale	Use for setting the depth stop approximate dimension
J	Control Panel	Houses the operator's controls
K	Motor	Provides power to the chuck
L	Electrical Enclosure	Houses the electrical components
M	Down-Feed Handle	Used by the operator to move the quill down and up.
N	Coolant Shut-Off Valve	Controls volume of coolant
O	Column	Supports the table and head
P	Worktable	The sturdy worktable can be positioned at varying heights and rotated 180° in either direction. It has T-slots to allow the use of 1/2" or M14 bolts. Below the worktable are three crankshafts. The two crankshafts (A) control the up /down motion of the table. Always unlock the table with crankshaft (C) before changing the height or rotating it. Then lock the



		worktable to secure in position. The one handle (B) works for all three crankshafts.
Q	Gear Rack	Engages the table for height adjustment
R	Coolant Pump	Pumps coolant up to the chuck
S	Base	Support for drill press and coolant reservoir The machine base houses the coolant reservoir and supports the coolant pump. The coolant is pumped up to a nozzle where a valve controls the flow onto the tool. The coolant / lubricant enters the table drain and flows back to the reservoir.
T	Guard Pivot Knob	Use to hold guard after pivoting sideways
U	Limit Switch	Stops machine when guard is swung away
V	Guard Adjustment Knob	Change guard height and lock with knob.
W	Spring Cover	Tensions down-feed handles (DO NOT REMOVE)



AA	Coolant Pump On/Off Switch	Starts the coolant flow for cutting.
AB	Spindle Speed Knob	Changes the speed of spindle rotation.
AC	Digital Indicator	Displays the rate of spindle rotation in RPM.
AD	Reverse Button	Reverses the spindle rotation for tapping only.
AE	Drilling / Tapping Selector Switch	Selects the mode of operation: drilling or tapping.
AF	Start Button	Starts the spindle motor. A 10 second wait is required before a machine restart or the machine will not start.
AG	Stop Button	Stops the spindle motor.
AH	Emergency Stop Button	Stops all machine functions. Turn the switch clockwise (cw) to reset the switch.



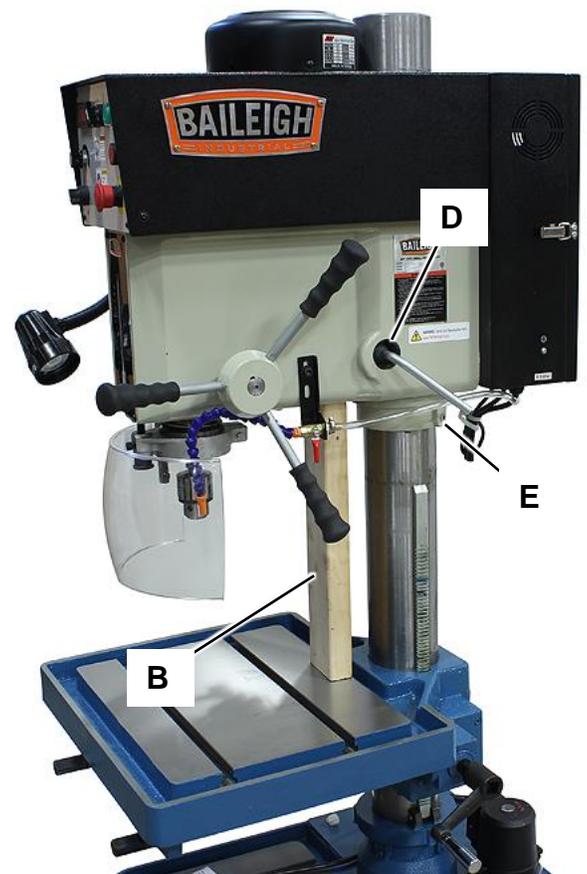
## SET UP AND ADJUSTMENTS

### Raising the Machine Head

**⚠ WARNING:** Failure to lock the collar can result in personal injury or damage to the machine.

The machine head is lowered for shipping and must be raised before operating.

1. Unlock the table by turning crankshaft (A) counterclockwise (ccw).
2. Place a piece of wood (B, typically shipped in place) between the table and the drill head frame. (DO NOT place the wood under the collar).
3. Raise the table (C) just enough to hold the block of wood (B) in place.
4. Using the wrench provided, loosen the clamping nut (D) on the machine head.
5. Turning either crankshaft (C) clockwise (cw) will raise the head.
6. STOP when the top of the machine head is flush with the top of the column. DO NOT allow the column to be below the top of the head.
7. Using the wrench, lightly tighten the clamping nut (D).
8. Loosen the two setscrews (E) on the collar and slide the collar up tight to the machine head and tighten the setscrews.
9. Loosen the clamping nut and turn the crankshaft (C) just enough to place some of the drill head weight onto the collar.
10. Securely tighten the clamping nut (D).
11. Once the machine head is safely secured, remove the block of wood.
12. To lower the head, reverse the above steps.



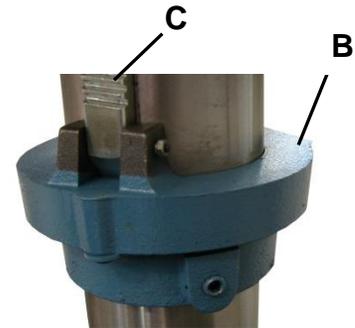


## Adjusting the Gear Rack Height

**⚠ WARNING:** Failure to lock the collar can result in personal injury or damage to the machine.

To raise the table to an adequate working height requires raising of the column gear rack.

1. Lock the table by turning crankshaft (A) clockwise (cw).
2. Unlock column bearing (B) by loosening the two setscrews.
3. Raise the gear rack (C) by turning crankshaft (D) counterclockwise (ccw).
4. Lock column bearing (B) by tightening the two setscrews.
5. After unlocking, the table can now be raised or lowered for normal operation.





## 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 110 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.

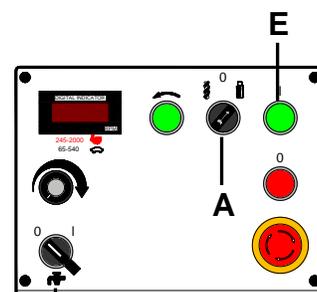


## OPERATION

**⚠ 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.

### Drilling

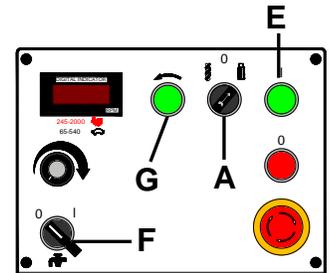
1. Load and secure the piece part to the table.
2. Secure drill bit in the chuck.
3. Unlock the table, adjust to the desired height, and relock the table.
4. Adjust the safety guard up or down as needed.
5. Select drilling mode with selector switch (A). Selector switch (A) shown in drill position.
6. Set the drill bit depth to zero position by lowering it to the top surface of the piece part, using the down-feed handles.
7. While holding the zero position, turn the depth scale lock knob (B) counterclockwise (ccw) to release depth stop knob (C).
8. Rotate Knob (C) to set the drill depth on the scale with indicator (D).
9. Re-tighten lock knob (B).
10. Start machine by pressing start button (E).
11. Turn on the coolant selector switch (F).
12. Begin drilling using the down-feed handles to lower the chuck.
13. When the desired depth has been reached, return the down feed handle to the up position. Do Not allow the handle to spin free back to the up position.
14. Press the Red Stop button to stop the drill motor.
15. Wait for the spindle to come to a full stop before opening the chuck guard and reaching into the drill area.





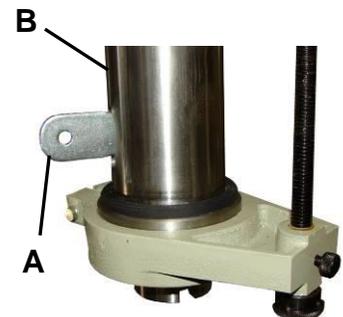
## Tapping

1. Load and secure the piece part to the table.
2. Secure tapping tool in the chuck.
3. Unlock the table, adjust to the desired height, and relock the table.
4. Adjust the safety guard up or down as needed.
5. Selector switch (A) shown in tapping position.
6. Set the tap tool depth to zero position by lowering it to the top surface of the piece part, using the down-feed handles.
7. While holding the zero position, turn the depth scale lock knob (B) counterclockwise (ccw) to release depth stop knob (C).
8. Rotate knob (C) to set the drill depth on the scale with indicator (D).
9. Tighten lock knob (B).
10. Start machine by pressing start button (E)
11. Turn on the coolant selector switch (F).
12. Begin tapping using the down-feed handles (E) to lower the chuck. When the tap reaches the bottom of the preset depth, the spindle will automatically reverse direction. You can also reverse the tapping operation at any time by pressing the green reverse button (G).



## Removing Tooling from Spindle

1. Disconnect machine from the power source.
2. Place a piece of wood on the table for protection.
3. Position the worktable approximately 10" under the bit and lower the spindle about 6".
4. Place the drift key (A) into the slot (B) of the quill and tap the end of the drift key with a hammer until the bit or chuck arbor falls out.





## **DRILLING RECOMMENDATIONS**

### **Drilling Speeds**

The speed of a drill is usually measured in terms of the rate at which the outer periphery of the tool moves in relation to the work being drilled. The common term for this is Surface Feet per Minute (SFM).

The relationship of SFM is expressed in the following formulas:

- $SFM = 0.26 \times rpm \times \text{Drill Diameter (in inches)}$
- $RPM = 3.8 \times SFM \div \text{Drill diameter (in inches)}$

In general, the higher the speed the shorter the drill life. Operating at the low end of the speed range for a particular material will result in longer life.

The most efficient speed for drill operation depends upon many variables:

- Composition and hardness of material.
- Depth of hole.
- Efficiency of cutting fluid.
- Type and condition of drilling machine.
- Desired quality of hole.
- Difficulty of set-up.

### **Drilling Feed**

The feed of a drill is governed by size of tool and the material drilled. Because feed rate partially determines rate of production and also is a factor in tool life, it should be chosen carefully for each job. In general, the most effective feeds will be found in the following ranges:

Diameter of Drill (inches)	Feed per Revolution (inches)
Under 1/8	0.001 to 0.002
1/8 to 1/4	0.002 to 0.004
1/4 to 1/2	0.004 to 0.007
1/2 to 5/8	0.007 to 0.015

### **Excessive Speed/Feed Indicators**

- A drill that splits up the web is evidence of too much feed or insufficient tip clearance at the center because of improper grinding.
- The rapid wearing away of the extreme outer corners of cutting edges indicates that speed is too high.
- A drill chipping or breaking out at the cutting edges indicates that either feed is too heavy, or drill has been ground with too much tip clearance.



### Speeds for High Speed Steel Drills

Material	Speed (SFPM)
Alloy Steel — 300 to 400 Brinell	20-30
Stainless Steel	30-40
Automotive Steel Forgings	40-50
Tool Steel, 1.2C	50-60
Steel, .4C to .5C	70-80
Mild Machinery Steel, .2C to .3C	80-110
Hard Chilled Cast Iron	30-40
Medium Hard Cast Iron	70-100
Soft Cast Iron	100-150
Malleable Iron	80-90
High Nickel Steel or Monel	40-50
High Tensile Bronze	70-150
Ordinary Brass and Bronze	200-300
Aluminum and its Alloys	200-300
Magnesium and its Alloys	250-400
Slate, Marble, and Stone	15-25
Plastics and similar materials (Bakelite)	100-150
Wood	300-400
Titanium Alloys	10-25
Titanium Alloy Sheet	50-60



**Note:** *In cases where carbon steel drills are applicable, the drill should be run at speeds of 40 to 50 percent of those given above.*



## 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.

### 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 metal chips from the machine.
- Top off the coolant reservoir. (80% of full tank capacity)
- Clean filter screen located on the machine base as often as necessary.
- Check that the guard and emergency stop are in good working order.

### Weekly Maintenance

- Thoroughly clean the machine including the coolant tank. See accessing and cleaning the cooling system.
- 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 grease the sliding surfaces.

### Monthly Maintenance

- Check that all screws on the motor, the pump, and the guard are tight and secure.
- Check that the guard is operating properly.

### Greasing the Machine

- Grease the gear rack on the column to keep the table moving smoothly.
- Lubricate the spline of the spindle and the teeth of the quill with a #2 grease.



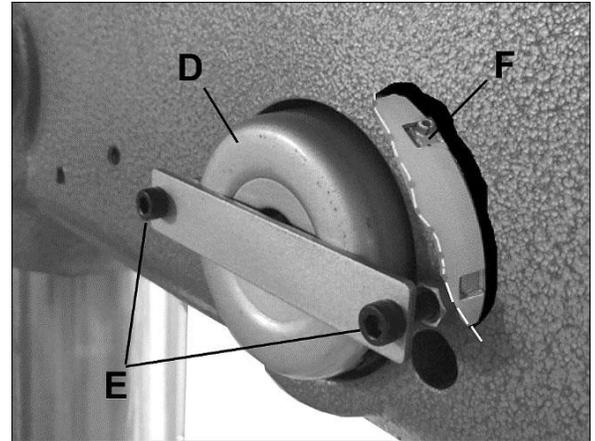


### **Spindle Return Spring Adjustment**

The spindle return is preset by the manufacturer and should not need adjustment.

If future attention is ever required, proceed as follows:

1. Do NOT remove spring cap (D).
2. Loosen screws (E) just enough to rotate spring cap past pin (F, Inside case. Not normally visible.) and engage pin into next notch.
3. Rotate spring cap clockwise to decrease spring tension. Rotate spring cap counterclockwise to increase spring tension.
4. Tighten both screws (E).



### **Accessing and Cleaning the Coolant System**

1. Clean the drain screen.
2. Drain and wash out the dirt and debris from the reservoir.
3. Replace coolant drain plug.
4. Thoroughly clean the pump and pump inlet.
5. Re-fill tank with coolant solution.



The coolant system should be filled with 2 gallons of a cutting coolant.

Fill by pouring coolant into base of machine. Add coolant in the same manner when coolant is low. Follow all coolant manufacturer's instructions for safety, mixing and disposal.

Make sure drain hose has good, tight connection into table and that coolant flows into base.

Make sure hose leaving pump and entering ball valve has good, tight connections.

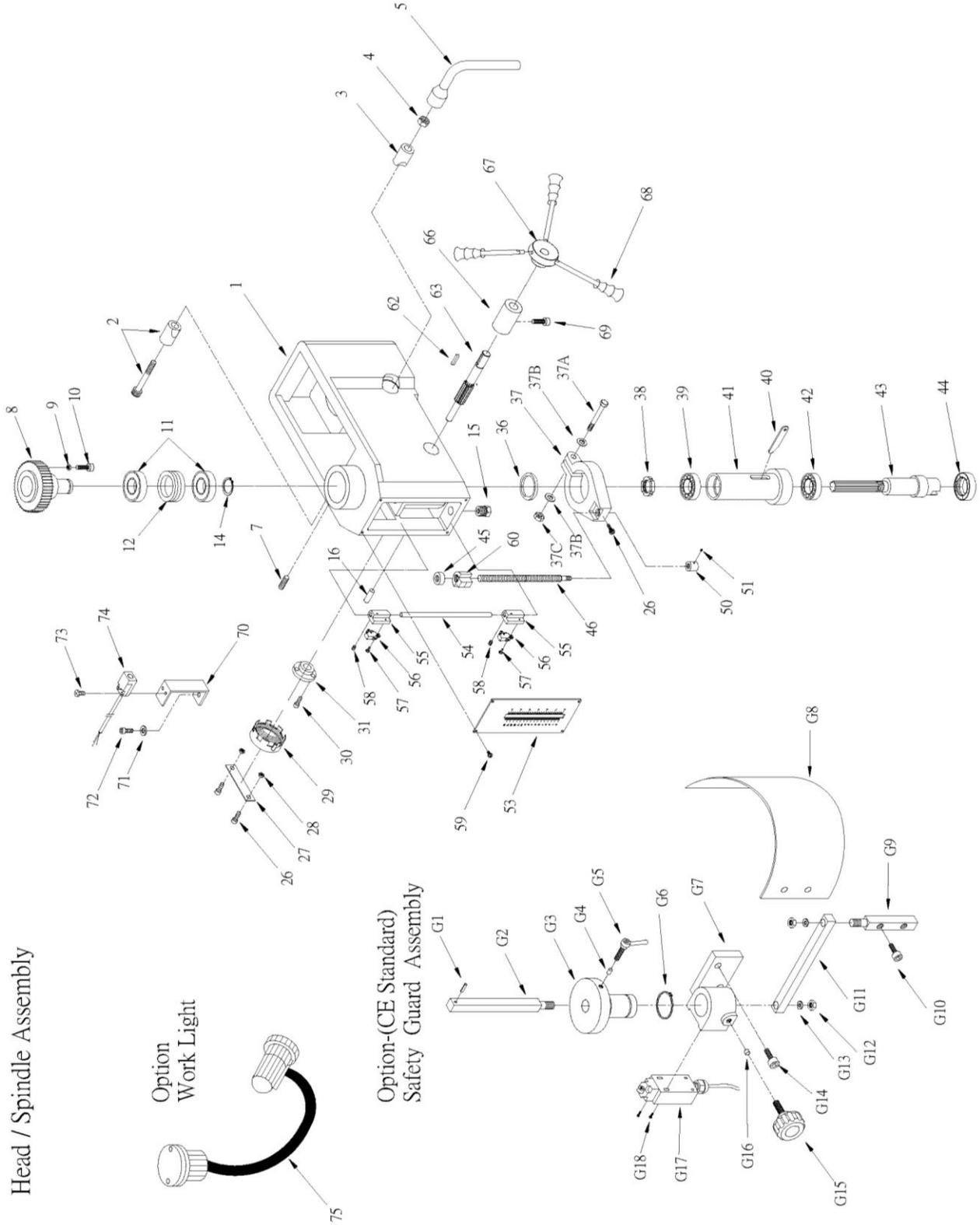
The flexible nozzle enables user to adjust coolant for each job. One ball valve controls coolant flow to nozzle.

### **Oils for Lubricating Coolant**

Any 10:1 (water to coolant) solution will work, however we recommend Baileigh B-Cool 20:1 (water to coolant) biodegradable metal cutting fluid. It has excellent cooling and heat transfer characteristics, is non-flammable, and extends tool and machine life. Each gallon of concentrate makes 21 gallons of coolant.



# HEAD and CHUCK GUARD PARTS DIAGRAM



Head / Spindle Assembly

Option Work Light

Option-(CE Standard) Safety Guard Assembly



## Head Parts List

Item	Part No.	Description	Size	Qty.
1	DP-1375VS-A01	Head Body		1
2	DP-1375VS-A02	Head Body Hex. Bolt		2
3	DP-1375VS-A03	Bushing		1
4	DP-1375VS-A04	Nut		1
5	DP-1375VS-A05	Handle		1
7	DP-1375VS-A07	Set Screw	M8x16	1
8	DP-1375VS-A08	Drive Spindle Pulley	8M x 48T	1
9	DP-1375VS-A09	Nut	3/16"	1
10	DP-1375VS-A10	Cap Screw	3/16" x 1"	1
11	DP-1375VS-A11	Ball Bearing	6009zz	2
12	DP-1375VS-A12	Bearing Spacer		1
14	DP-1375VS-A14	C-Clip	S-45	1
15	DP-1375VS-A15	Screw Bushing		1
16	DP-1375VS-A16	Quill Support Pin		1
26	DP-1375VS-A26	Hex Socket Cap Screw	M6 x 20	2
27	DP-1375VS-A27	Plate		1
28	DP-1375VS-A28	Nut	M6	2
29	DP-1375VS-A29	Spring with Cover		1
30	DP-1375VS-A30	Screw	3/16"x3/8"	3
31	DP-1375VS-A31	Spring Bracket		1
36	DP-1375VS-A36	Rubber Washer		1
37	DP-1375VS-A37	Feed Base		1
37A	DP-1375VS-A37A	Hex. Head Screw	1/4"x2"	1
37B	DP-1375VS-A37B	Spring Washer	1/4"	2
37C	DP-1375VS-A37C	Nut	1/4"	1
38	DP-1375VS-A38	Lock Nut, Spindle		1
39	DP-1375VS-A39	Taper Roller Bearing	30206	1
40	DP-1375VS-A40	Drift Key		1
41	DP-1375VS-A41	Quill		1
42	DP-1375VS-A42	Taper Roller Bearing	30207	1
43	DP-1375VS-A43	Spindle Shaft	MT3	1
44	DP-1375VS-A44	Oil Seal	72.45.10	1
45	DP-1375VS-A45	Hex. Nut		1



Item	Part No.	Description	Size	Qty.
46	DP-1375VS-A46	Scale Rod		1
50	DP-1375VS-A50	Set Knob		1
51	DP-1375VS-A51	Set Screw	M6 x 6	2
53	DP-1375VS-A53	Face Plate		1
54	DP-1375VS-A54	Micro Switch Support Rod		1
55	DP-1375VS-A55	Micro Switch Bracket		2
56	DP-1375VS-A56	Micro Switch		2
57	DP-1375VS-A57	Cross Head Screw	M3x16	4
58	DP-1375VS-A58	Set Screw	1/4"x1/4"	4
59	DP-1375VS-A59	Screw	3/16"x 5/16"	4
60	DP-1375VS-A60	Depth Scale Bracket		1
61	DP-1375VS-A61	Set Screw	3/16"x1/2"	2
62	DP-1375VS-A62	Key	6x20	1
63	DP-1375VS-A63	Pinion Shaft		1
66	DP-1375VS-A66	Flange		1
67	DP-1375VS-A67	Body Handle		1
68	DP-1375VS-A68	Handle Rod		3
69	DP-1375VS-A69	Set Screw	M8	1
70	DP-1375VS-A70	Sensor Bracket		1
71	DP-1375VS-A71	Washer	M8	1
72	DP-1375VS-A72	Hex Socket Cap Screw	M8x12	1
73	DP-1375VS-A73	Screw	M3x 20	2
74	DP-1375VS-A74	Sensor		1
75	DP-1375VS-A75	Work Light		1

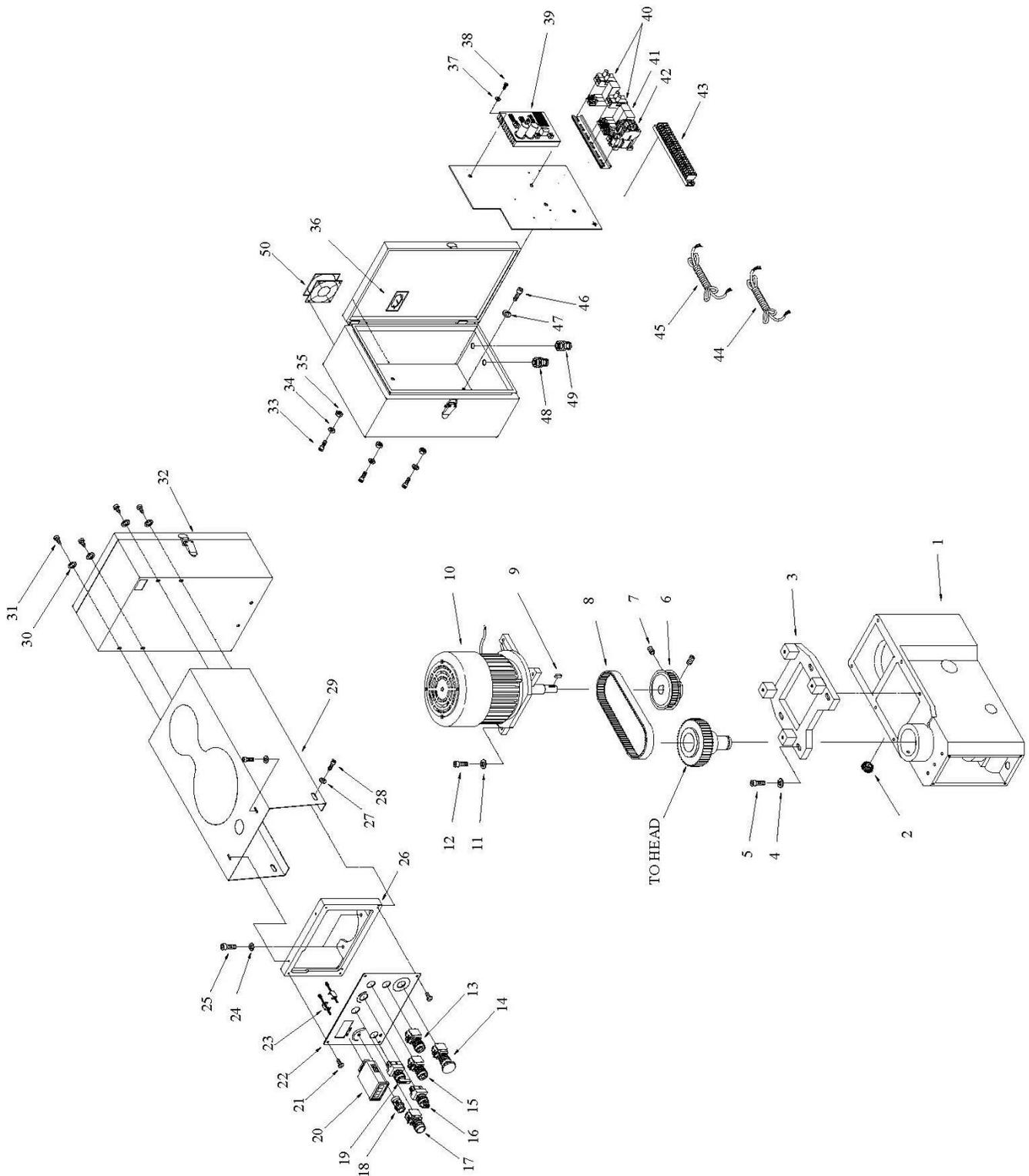


**Chuck Guard Parts List**

<b>G</b>	<b>DP-1375VS-SGA</b>	<b>Safety Guard Assembly For CE</b>	<b>Model</b>	
G1	DP-1375VS-G01	Pin	3x16	1
G2	DP-1375VS-G02	Support Bracket Bar		1
G3	DP-1375VS-G03	Bushing		1
G4	DP-1375VS-G04	Spacer		1
G5	DP-1375VS-G05	Lock Handle	M6x20	1
G6	DP-1375VS-G06	C-Clip	S-30	1
G7	DP-1375VS-G07	Bracket		1
G8	DP-1375VS-G08	Safety Guard		1
G9	DP-1375VS-G09	Lower Bracket Bar		1
G10	DP-1375VS-G10	Hex. Socket Cap Screw	M8X12	2
G11	DP-1375VS-G11	Support Arm		1
G12	DP-1375VS-G12	Hex. Nut	3/8"	2
G13	DP-1375VS-G13	Spring Washer	3/8"	2
G14	DP-1375VS-G14	Hex. Socket Cap Screw	M8x20	2
G15	DP-1375VS-G15	Lock Bolt with Know		1
G16	DP-1375VS-G16	Spacer		1
G17	DP-1375VS-G17	Safety Switch		1
G18	DP-1375VS-G18	Screw		2



# UPPER HEAD PARTS DIAGRAM





### Upper Head Parts List

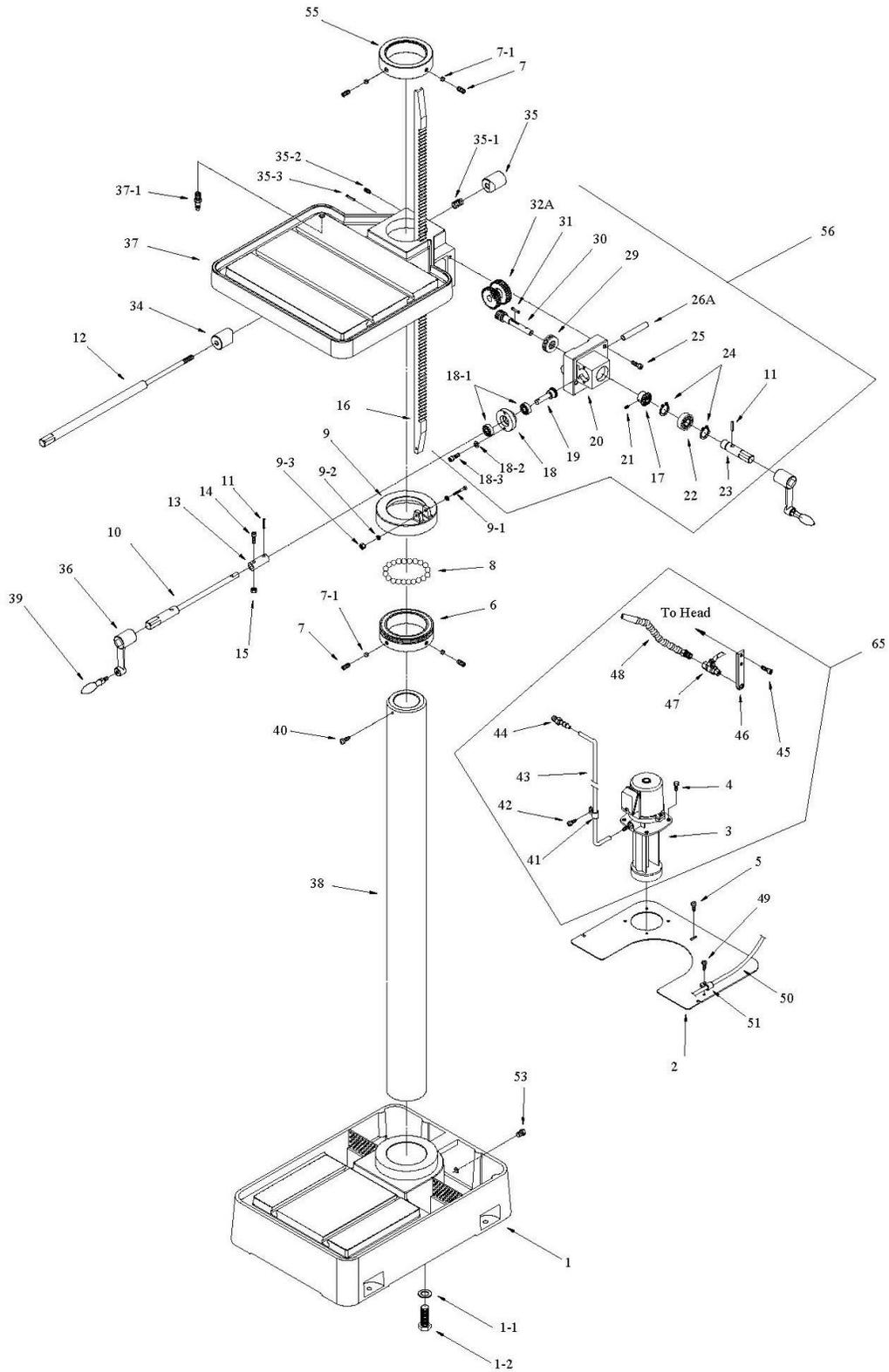
Item	Part No.	Description	Size	Qty.
1	DP-1375VS-B01	Head Body		1
2	DP-1375VS-B02	Seal		1
3	DP-1375VS-B03	Motor Bracket		1
4	DP-1375VS-B04	Washer	M8	4
5	DP-1375VS-B05	Hex Socket Cap Screw	M8 x 30	4
6	DP-1375VS-B06	Motor Pulley	8M x 22T	1
7	DP-1375VS-B07	Set Screw	M8 x 8	2
8	DP-1375VS-B08	Belt	720x8M	1
9	DP-1375VS-B09	Key	6x20	1
10	DP-1375VS-B10	Motor		1
11	DP-1375VS-B11	Spring Washer	5/16"	4
12	DP-1375VS-B12	Hex Socket Cap Screw	M8 x 25	4
13	DP-1375VS-B13	Stop Switch		1
14	DP-1375VS-B14	Emergency Stop Switch		1
15	DP-1375VS-B15	Start Switch		1
16	DP-1375VS-B16	Selection Switch D/T		1
17	DP-1375VS-B17	Reversal Switch		1
18	DP-1375VS-B18	Speed Control Knob		1
19	DP-1375VS-B19	Pump Switch		1
20	DP-1375VS-B20	Digital Display		1
21	DP-1375VS-B21	Screw	M5 x 6	4
22	DP-1375VS-B22	Control Panel LD		1
23	DP-1375VS-B23	Holder Screw		2
24	DP-1375VS-B24	Washer	M8	2
25	DP-1375VS-B25	Hex Socket Cap Screw	M8 x 25	2
26	DP-1375VS-B26	Plate Bracket		1
27	DP-1375VS-B27	Washer	M5	4
28	DP-1375VS-B28	Cap Screw	M5 x 10	4
29	DP-1375VS-B29	Pulley Cover		1
30	DP-1375VS-B30	Washer	M6	4
31	DP-1375VS-B31	Hex Socket Cap Screw	M6 x 10	4
32	DP-1375VS-B32	Electric Control Box w/Door and Latch		1
33	DP-1375VS-B33	Screw	5/16"x1"	3



Item	Part No.	Description	Size	Qty.
34	DP-1375VS-B34	Washer	5/16"	6
35	DP-1375VS-B35	Nut	5/16"	3
36	DP-1375VS-B36	Plastic Plate		1
37	DP-1375VS-B37	Washer	M4	4
38	DP-1375VS-B38	Screw	M4 x 20	4
39	DP-1375VS-B39	Inverter		1
40	DP-1375VS-B40	Fuse		4
41	DP-1375VS-B41	Relay		3
42	DP-1375VS-B42	Contactora		1
43	DP-1375VS-B43	Terminal Plate		1
44	DP-1375VS-B44	Power Cable		1
45	DP-1375VS-B45	Pump Power Cable		1
46	DP-1375VS-B46	Hex Socket Cap Screw	M8x12	4
47	DP-1375VS-B47	Washer	M8	4
48	DP-1375VS-B48	Cable Relief for Power Cable		1
49	DP-1375VS-B49	Cable Relief for Pump Cable		1
50	DP-1375VS-B50	Cooling Fan		1



# COLUMN TABLE BASE PARTS DIAGRAM





### Column Table Base Parts List

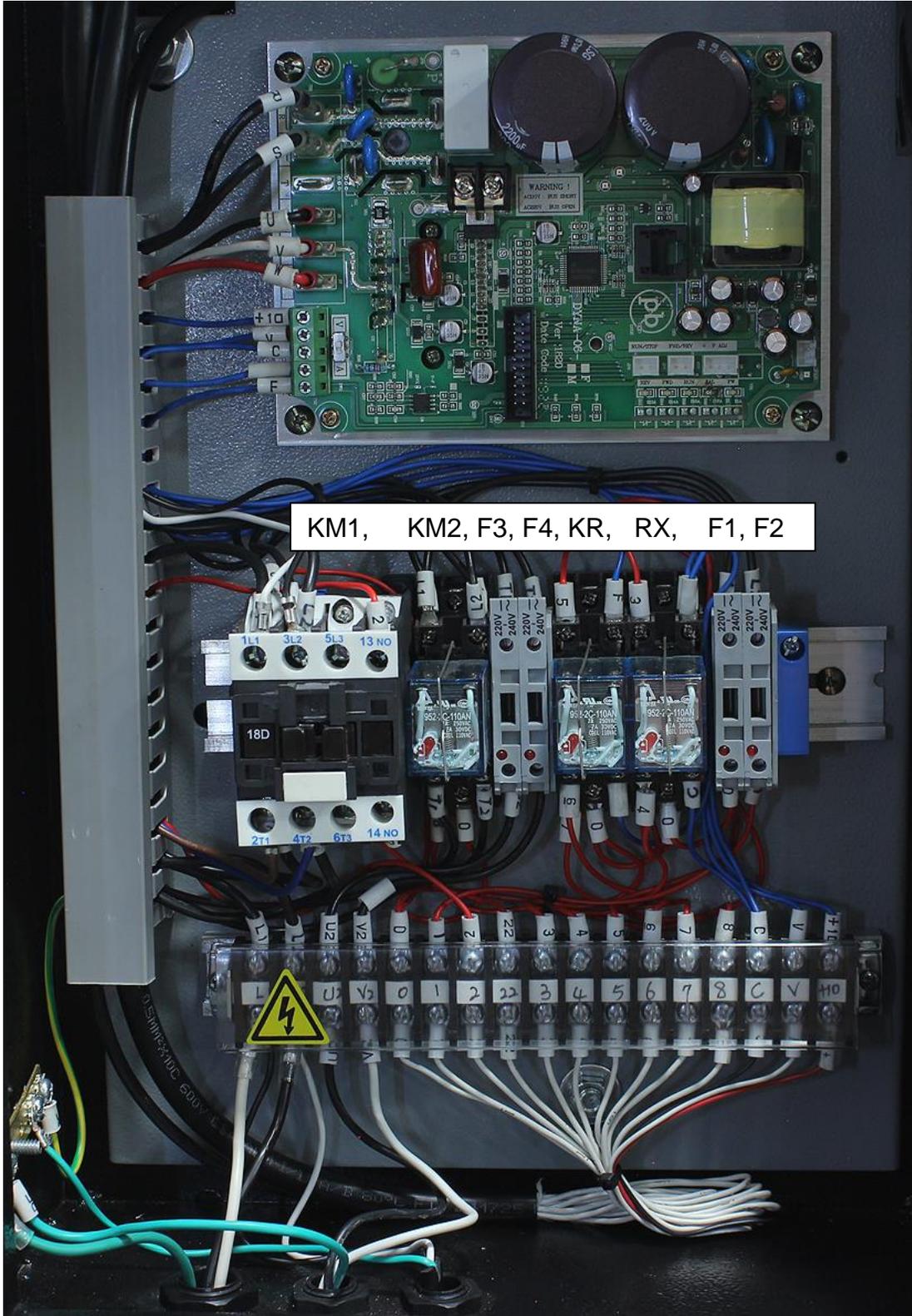
Item	Part No.	Description	Size	Qty.
1	DP-1375VS-C01	Coolant Base		1
1-1	DP-1375VS-C1-1	Washer	1/2"	6
1-2	DP-1375VS-C1-2	Hex. Cap Screw	1/2" x1-1/2"	6
2	DP-1375VS-C2	Cover		1
3	DP-1375VS-C3	Coolant Pump	1/8HP,110V	1
4	DP-1375VS-C4	Screw (W/Washer)	1/4"	2
5	DP-1375VS-C5	Cross Screw	1/4"x1/2"	1
6	DP-1375VS-C6	Support Bearing Collar		1
7	DP-1375VS-C7	Set Screw	3/8"x5/16"	4
7-1	DP-1375VS-C7-1	Brass Block	3/8"	4
8	DP-1375VS-C8	Steel Ball	M10	40
9	DP-1375VS-C9	Column Bearing Collar		1
9-1	DP-1375VS-C9-1	Screw	M4x50	1
9-2	DP-1375VS-C9-2	Spring Washer	3/16"	2
9-3	DP-1375VS-C9-3	Nut	M4	1
10	DP-1375VS-C10	Crank Shaft		1
11	DP-1375VS-C11	Spring Pin	4x25	1
12	DP-1375VS-C12	Connection Rod (Tread)		1
13	DP-1375VS-C13	Sleeve		1
14	DP-1375VS-C14	Hex Socket Cap Screw	1/4"x1-1/2"	1
15	DP-1375VS-C15	Hex Nut	1/4"	1
16	DP-1375VS-C16	Rack		1
17	DP-1375VS-C17	Bevel Gear		1
18	DP-1375VS-C18	Flange		1
18-1	DP-1375VS-C18-1	Ball Bearing	6202ZZ	2
18-2	DP-1375VS-C18-2	Washer	M6	2
18-3	DP-1375VS-C18-3	Screw	M6x16	2
19	DP-1375VS-C19	Small Bevel Gear		1
20	DP-1375VS-C20	Gear Bracket		1
21	DP-1375VS-C21	Set Screw	1/4"x3/8"	1
22	DP-1375VS-C22	Ball Bearing	6005ZZ	1
23	DP-1375VS-C23	Crank Shaft		1
24	DP-1375VS-C24	C-Clip	S-25	2



Item	Part No.	Description	Size	Qty.
25	DP-1375VS-C25	Hex Socket Cap Screw	M8x35	3
26A	DP-1375VS-C26A	Shaft		1
29	DP-1375VS-C29	Thrust Bearing	51102	1
30	DP-1375VS-C30	Worm Shaft		1
31	DP-1375VS-C31	Key	4x4x20	1
32A	DP-1375VS-C32A	Gear		1
34	DP-1375VS-C34	Lock Sleeve		1
35	DP-1375VS-C35	Lock Sleeve (Thread)		1
35-1	DP-1375VS-C35-1	Spring		2
35-2	DP-1375VS-C35-2	Hex Socket Cap Screw		1
35-3	DP-1375VS-C35-3	Spring Pin	M6x25	2
36	DP-1375VS-C36	Lift Handle Crank	5x20	1
37	DP-1375VS-C37	Table		1
37-1	DP-1375VS-C37-1	Hose Coupler		1
38	DP-1375VS-C38	Column	1/2"	1
39	DP-1375VS-C39	Handle		1
41	DP-1375VS-C41	Clamping		1
42	DP-1375VS-C42	Cross Cap Screw		1
43	DP-1375VS-C43	Tube	3/16"x3/8"	1
44	DP-1375VS-C44	Connector		1
45	DP-1375VS-C45	Hex Socket Cap Screw		1
46	DP-1375VS-C46	Mounting Bracket	M8x20	1
47	DP-1375VS-C47	ON/OFF Valve		1
48	DP-1375VS-C48	Nozzle		1
49	DP-1375VS-C49	Cross Cap Screw		1
50	DP-1375VS-C50	Tube	3/16"x3/8"	1
51	DP-1375VS-C51	Clamping		1
53	DP-1375VS-C52	Hex Head Plugs	3/8"PT	1
55	DP-1375VS-C55	Rock Collar		1
56	DP-1375VS-C56	Table Raiser Assembly		1
65	DP-1375VS-C65	Coolant System Complete	1/8HP,110V	1



## ELECTRICAL COMPONENTS



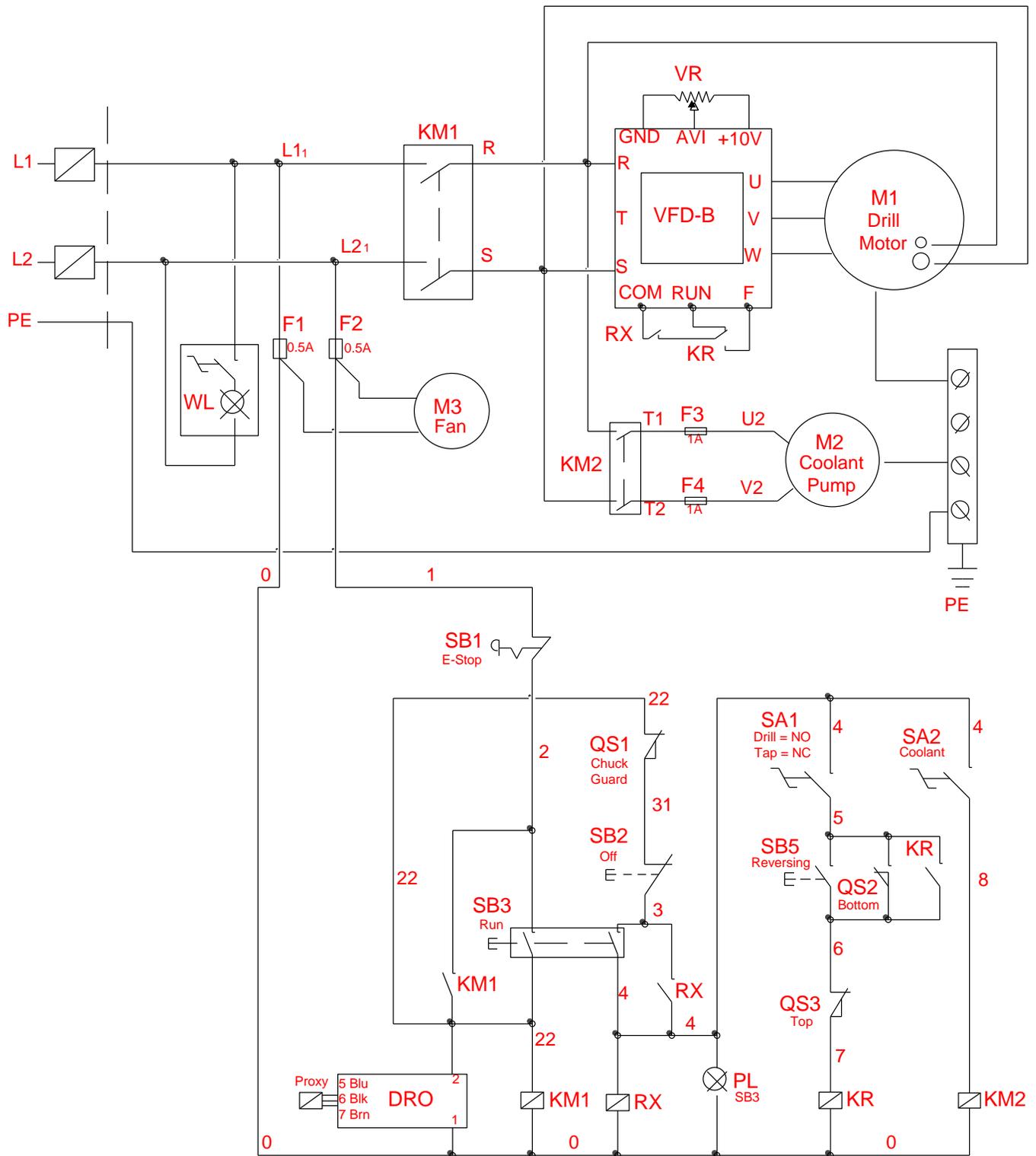
KM1, KM2, F3, F4, KR, RX, F1, F2



SB1	Emergency Stop (E-Stop) Push Button
SB2	Stop Push Button
SB3	Start Push Button
SB5	Manual Reverse Push Button (Tapping)
SA1	Drill/Tapping Selector Switch, (Contacts Open for Drilling)
SA2	Coolant Pump On/Off Selector Switch
KR	Tapping Relay
RX	Power ON Relay
VR	Variable Speed Potentiometer
QS1	Safety Guard Limit Switch
QS2	Spindle Lower (Reversing) Limit Switch (Tapping)
QS3	Spindle Upper (Forward) Limit Switch (Tapping)
KM1	Contactor, Main Motor
KM2	Contactor, Coolant Pump
F1, F2	Fuse, 0.5A
F3, F4	Fuse, 1A
PL	Power Indicator Lamp
WL	Work Lamp



# ELECTRICAL SCHEMATIC





## TROUBLESHOOTING



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

Fault	Probable Cause	Remedy
Spindle does not turn.	Motor overload protector tripped.	Press motor overload reset button.
	Circuit breaker tripped.	Reset circuit breaker.
	Branch circuit breaker tripped or fuse blown.	Reset branch circuit breaker/replace fuse.
	Open wire in switch circuit.	Repair open circuit.
	Defective switch.	Replace switch.
	Broken drive belt.	Replace drive belt.
Spindle noisy.	Damaged spindle bearings.	Replace bearings.
	Worn spline.	Replace spline.
Drill stalls.	Worn drive belt.	Check condition of belt. Replace if glazed or slipping on pulleys.
	Excessive feed rate for size of drill and material being drilled. No cutting fluid or improper cutting fluid.	Reduce feed pressure or use cutting fluid. Use correct cutting fluid.
Poorly drilled holes.	Drill dull.	Sharpen drill.
	Lack of rigidity in hold-down method.	Check that all T-slot hold-downs are tight and that table-lock and drill head bolts are tight.
	Speed too fast for material and drill size.	Check spindle speed recommendations. Reduce speed if necessary.
	Feed too fast for material and drill size.	Reduce feed rate.
	No or improper cutting fluid or coolant being used.	Use cutting fluid, or change to proper fluid or coolant for material being drilled.
	Improperly ground drill bit.	Check for proper angles and reliefs. Regrind to proper geometry.
Motor overheating.	Electrical circuit fault.	Check current draw in circuit. Make sure current draw is the same as rating on motor plate.



Fault	Probable Cause	Remedy
	Oversize drill.	Reduce drill size.
	Excessive feed.	Reduce feed rate.
	No cutting fluid, or wrong fluid.	Use correct cutting fluid for the material and drill.
Table cannot be raised.	Lack of lubrication.	Lubricate.
No speed readout.	Speed pickup out of adjustment or failed.	Adjust gap between speed pickup and post spindle pulley. If there is no readout on the LED speed indicator after adjusting the gap, replace the speed pickup.

**NOTES**



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