



MAKSIWA®

HBM.1000

Hinge Boring Machine

INSTRUCTION MANUAL



Attention: Read this manual before using the machine.



Greetings,

Congratulations, you just purchased the HBM.1000 – Maksiwa hinge Boring Machine, which was developed with the Maksiwa's highest standards of technology and quality. Your Hinge Boring Machine allows you to have the highest productivity in woodworking. It should be noted that to use this machine with maximum efficiency, you should read and understand the instructions in this manual. Visit our website to know about our launches and other product lines: www.maksiwa.com/usa

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1 Safety Regulations

Read all instructions in this manual. Failure to follow all instructions listed below may result in personal injury and equipment damage. **WARNING:** When using electrical equipment, always follow the safety precautions to reduce risk of fire, electric shock and personal injury. The manufacturer declares that they are not liable for damages to person(s) or object(s) which may be caused by failure to comply with the safety regulations.

1.1 Workspace

- Keep the work surface clean. Disorganized surfaces and areas are an invitation for accidents in the work place.
- Do not use the saw in hazardous environments. Do not use the machine in places that are damp, wet, exposed to rain, or in the presence of flammable liquids or gases. Keep your work area well lit.
- Visitors must be kept at a safe distance from the workspace. Take the appropriate precaution by using padlocks or following the appropriate lock-out-tag procedures.

1.2 Electrical Safety

- Ensure that your power supply is in accordance with the rating of the machine. A 10% increase or decrease in voltage will cause power loss and overheating. All Maksiwa equipment is factory tested. If this Machine does not operate properly, first check the power supply.
- **CAUTION:** WHEN SERVICING OR REPAIRING THE MACHINE, ONLY USE OEM PARTS.
- The plug used for the machine must be rated for the correct voltage/Amps and compatible with the electrical outlet. Never modify the plug.
- Do not use any adapter plugs. Using the correct plug (without modifications) with the correct outlet will reduce the risk of electrical shock.

1.3 Personal Safety

- Stay alert, pay attention at what you are doing and use common sense when operating the machine. Do not use the machine when you are tired or under the influence of drugs, alcohol, or medication. If distracted, while operating the machine, it may result in serious personal injury.



ALWAYS USE PROPER PROTECTION WHEN OPERATING THIS EQUIPMENT.

- Always wear safety glasses, face protection, safety anti-slip shoes, and ear protection to reduce personal injury.
- Always wear safety glasses, face protection, safety anti-slip shoes, and ear protection to reduce personal injury.
- Do not wear loose clothing, gloves, chains, rings, bracelets or other accessories. It is also recommended to use hair protection.
- Do not over stretch to reach. Keep balanced and feet firmly planted at all times.
- Disconnect the machine from the power supply before servicing or performing repairs.
- Reduce the risk of unintended starts by making sure that the main power switch is turned off before plugging the cord into the outlet.
- Use recommended accessories. Refer to the instruction manual to check the recommended accessories. Improper use of the accessories may cause personal injury.
- Never stand on the machine. serious accidents can occur if the machine is tilted.
- Your safety is your responsibility. Serious risks are involved when working with machinery.
- Always focus on the job, do not operate machine when tired.
- Never use in dangerous environment such as in damp, wet location, or expose under the rain.
- Never leave machine running without attention.
- Never open the protection cover while the machine is still running.
- The machine operator must not be younger than the minimum age established by legislation and must also be fully qualified to work with this machine.
- Many accidents are caused by appropriate clothing and personal objects (i.e. bracelets, watches, necklaces etc.). Make sure that buttons are securely fastened.
- Do not wear ties and tie back long hair.
- Wear approved footwear and safety glasses for your eyes at all time.
- The machine and working area around it must always be kept clean, keep well lighted and ventilation.
- The use of safety devices is obligatory and must never be removed, modified or damaged. The manufacturer declines all responsibility if safety devices are modified in any way.
- In exceptional working conditions the safety devices provided with the machine may be insufficient. It is your responsibility to make and fit the necessary additional safety devices.
- All work on electrical components must be carried out by a qualified electrician.
- All maintenance work must be carried out with the machine switched off, padlocked, the compressed air tube disconnected from the fast Snap-on fitting.
- Use only cutting tools in good condition. In any case avoid using a hammer. Screws, nuts and bolts must be tightened with a proportional strength, neither too slack nor too tight. Use only the tools given just as they are without altering their strength.

1.4 Machine Safety

- Turn off the machine, unplug the power cord, and wait until the working process stops, before performing any maintenance or adjustments to the machine.
- Do not put your hand into the machine while it is running
- Do not carry out quality checks while the machine is running.
- Do not put your hands into the machine while it is running, reach behind cladding or into places obscure from view.
- Do not reach the drill unit operating area while production is in progress. Suitable aids must be used to push small parts against stops. Risk of getting crushed!
- Processing forces Adapt Material feed and cutting volume to the retention force for the material concerned.
- If the retention problems are encountered, use additional stops, templates or power-operated clamping devices.
- Fire Hazard! Only perform grinding and welding work when the machine is clean.
- The machine is not explosion protected. do not set it up in the vicinity of painting shops.
- Do not overload the Machine, it will perform the job better and safer if used as indicated.
- Do not force the machine by performing a job for which it was not intended for.
- Inspect the machine. Keep it in a clean and neat condition for optimal performance.
- Follow the instructions on lubricating and changing accessories.
- Check the alignment of moving parts and for any damaged parts, before continuing to use the machine. A part that is damaged should be carefully examined to determine, if it is functioning properly and if it will affect the machines.
- Do not use the machine if any the switches do not work properly.
- Never leave the machine running unattended.
- Turn off the main power switch when not in use to prevent any accidents.
- Protect the power supply circuit with at least a fuse or circuit breaker. Do not attempt to operate the machine at any voltage other than the designated voltage.
- Do not use abrasives. Excessive heat generated by abrasive particles will damage the components.
- Do not move the workpiece or open the cover until the initiated job has stopped.
- ATTENTION: Any powder created by sanding, cutting, grinding, drilling, and other activities contains chemicals that can cause cancer, birth and other reproductive harm. Some examples of these products are: in lead; crystal silica brick, cement and other masonry products; and arsenic and chromium from chemically treated wood.
- CAUTION: Do not connect the machine to the power outlet until this manual is read and understood
- Never perform operations hands-free. Think, "How can I avoid accidents?".
- Always wear safety goggles. Turn off the power and wait for the machine to stop and cool before starting to service or making adjustments.

**WARNING**

- Keep guards in place and in working order.
- Remove adjusting keys and wrenches. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- Keep children away.
- All visitors should be kept safe distance from work area.
- Use right tool. Don't force tool or attachment to do a job for which it was not designed.
- Secure work. Use clamps or a vise to hold work when practical. It's safer than using your
- Hand and it frees both hands to operate tool. Don't overreach. Keep proper footing and balance at all times.
- Maintain tools with care.
- Keep tools sharp and clean for best and safest performance.
- Follow instructions for lubricating and changing accessories.
- Use recommended speed for drill accessory and workpiece material.
- Do not expose to rain or use in damp locations

Extension Cords

Use proper extension cord. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table below shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Recommended Gouges (AWG) of Extension Cord

Amp Rating		Volts	total lenght of cord in feet			
More	Not	120	25	50	100	150
Than	More	240	50	100	200	300
AWG						
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

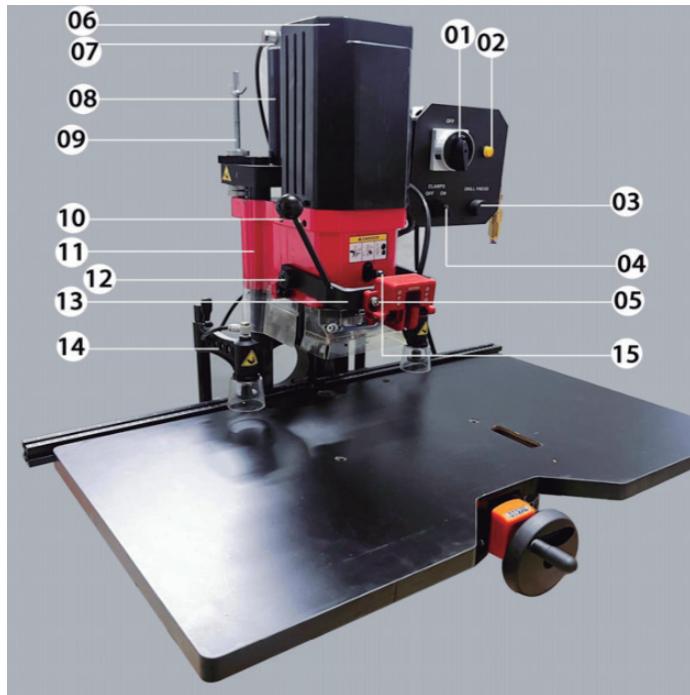
2 Description

This boring machine is a quality product with diverse applications.

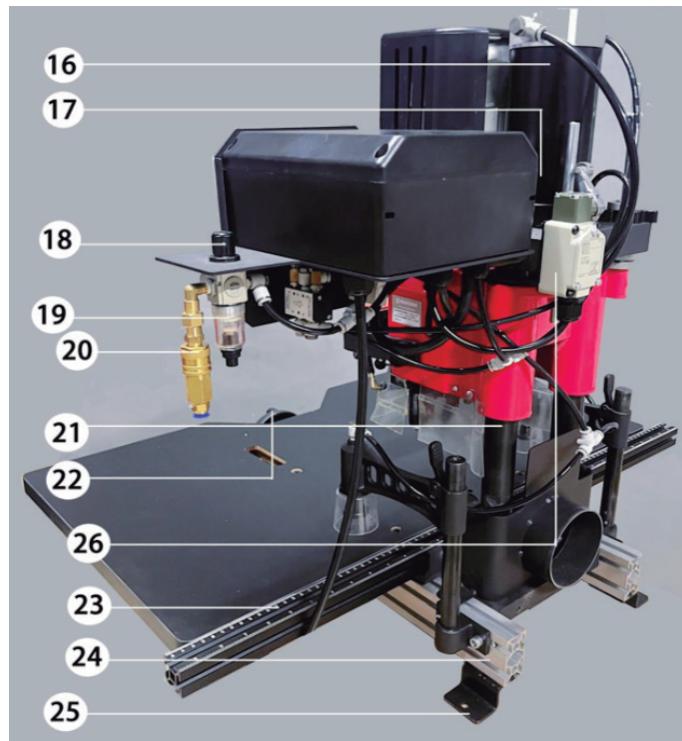
Hinge systems and connecting fittings can be inserted with the item. With a wide range of accessories it can be practical equipped as an all-around machine.

The solid and compact design with only a few moving parts guarantees a long service life. The machine can be used as a stationary machine as well as for installation work on construction sites in an environment protected from the elements.

3.2 Components



1. Power switch / main disconnect
2. Operational status indicator light
3. Drill/press stroke button
4. Mitre Clamp button
5. Mounting screw
6. Motor
7. Air cylinder
8. Stroke brake adjustment
9. Boring depth adjustmnet wheel
10. Motor screw
11. Boring unit
12. Swing arm adjustmnet screw
13. Swing arm
14. Hold down clamp
15. Boring head securing knob



16. Air cylinder
17. Stroke speed adjustment
18. Pressure adjusting knob
19. Air filter unit
20. System vent valve
21. Columns
22. Handwheel
23. Base ruler
24. Base rail
25. Mounting foot
26. Stroke switch

3.3 Designation of operating elements



1. Power switch / main disconnect
2. Drill press stroke button
3. Clamp button
4. Operational status indicator light

- Drill/Press Stroke Button (02)

ATTENTION: When pressing the drill/press stroke button, ensure hands are kept clear of the machine's work area.

Pressing the drill/press stroke button will initiate the currently selected work process.

Setup: Set the power switch to OFF and press the drill/press stroke button.

Drill: Set the power switch to ON and press the drill/press stroke button.

Insert Hardware: Swivel the swing arm into position and press the drill/press stroke button. Clamp Button (02) (Optional)

- Note: Clamps(03) are optional and not standard equipment.

ATTENTION: Keep hands clear of the clamping area.

AUTO - Clamps Engaged: Pressing the drill/press button (02) automatically engages the clamps.

Pressing the clamp button (03) briefly will disengage the clamps.

OFF - Clamps Disengaged: Turning the clamp button to the OFF position will deactivate the clamps.

When the drill/press button (02) is pressed, the clamps will remain in the raised position.

- Operational status indicator (04)

ATTENTION: The power switch does not disconnect the boring machine from the air pressure system.

OFF: Operational status indicator (04) is not illuminated. The machine is in setup mode. The motor cannot be started.

Stroke movement is possible.

ON: Operational status indicator (04) is illuminated. The machine is in operational mode.

Boring and hardware insertion can be performed.

The power switch can be secured to prevent unauthorized operation of the boring machine using a standard padlock.

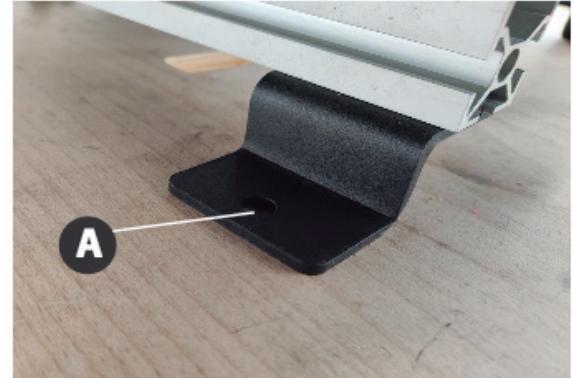
4. Assembly

4.1 Unpacking the Machine and Mounting on a Suitable Table

1. Open the box carefully.
2. Use two people to lift the machine onto the work table, ensuring the use of the appropriate screws/bolts for attachment.

ATTENTION:

1. The machine weighs approximately 101 lbs.
2. The table or stand must be sufficiently stable to support the machine's weight.
3. The machine should not be set up in a wet environment. Ensure the area is dry.
4. Pre-drill the necessary holes and securely attach the machine (A) using the appropriate screws/bolts.



4.2 Positioning the Base Ruler (B)

1. Place the ruler onto the mounting bracket.
2. Align the "0" mark on the center ruler with the "0" mark on the machine base.
3. Secure the ruler in place by clamping it.

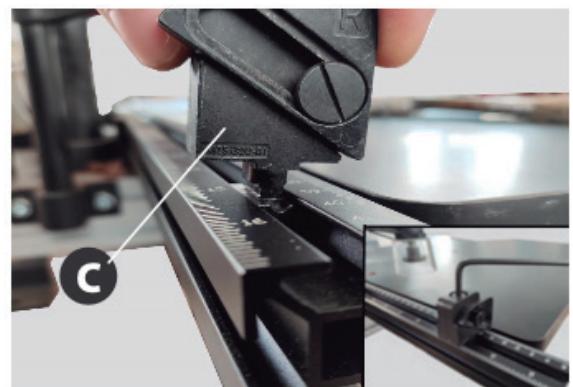


4.3 Attaching Ruler Stops (C)

1. Loosen the clamping screw until the locating plate extends approximately 10 mm.
2. Attach the ruler stop to the ruler at an angle, then position it upright.
3. Tighten the clamping screw securely..

IMPORTANT:

This procedure can also be used to position a stop between two pre-installed stops.

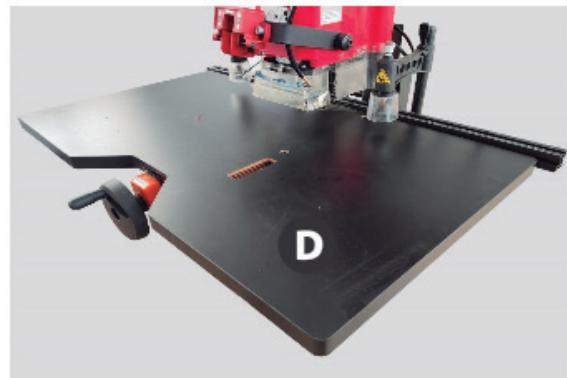


4.4 Attaching the Work Table(D)

1. Place the work table onto the runner plate.
2. Secure the work table to the runner plate.

IMPORTANT:

1. When plastic spacers are installed, the distance between the top of the ruler and the top of the work table is 6.6 mm.
2. Without the spacers, this distance increases to 13.6 mm, which accommodates workpieces with a profile edge.



4.5 Connecting the Air Supply

ATTENTION:

During the following procedure, The boring unit will move upward.

1. Connect the air supply to the system vent valve (F) located on the air filter assembly (E). This valve is designed to vent air pressure from the air control system.

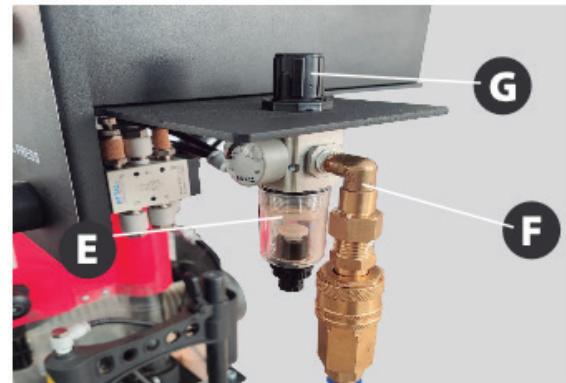
Note: Air pressure remains in the cylinder when the system vent valve (F) is in the vent position. Refer to section 7.4 for instructions on venting the cylinder.

2. Slide a 3/8" rubber ID hose onto the provided barbed connector.

3. If needed, an optional adapter for 3/8" NPT male threads is available.

4. Open the system vent valve.

5. The system vent valve is used to release air pressure from the air control system.



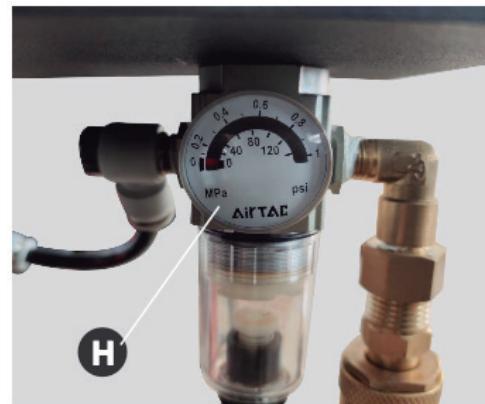
4.6 Setting Operating Pressure(H)

ATTENTION:

A quick disconnect must be installed in the air supply line no more than 6 feet (1.8 meters) from the machine.

Set the operating pressure to 90 psi using the pressure adjustment knob (G).

- Minimum pressure (P_{min}): 80 psi
- Maximum pressure (P_{max}): 100 psi



ATTENTION:

Do not set the regulated air pressure above 100 psi. Exceeding this limit may cause equipment damage, personal injury, or both.

4.7 Electrical Connection(I)

ATTENTION:

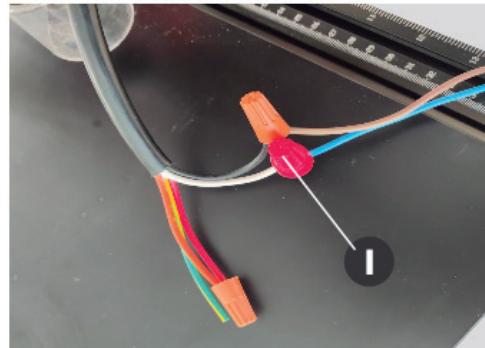
Electrical connections must be performed by a qualified electrician.

ATTENTION:

Ensure the machine is connected to the voltage specified on the label of the connection cable.

Using incorrect voltage can cause equipment damage, personal injury, or both.

1. Set the power switch to the OFF position.
2. Attach a plug that complies with DIN, VDE, IEC, or UL standards, or directly hardwire the machine to the supply circuit.
3. Install a 15 A circuit breaker for the connection.



4.8 Checking Motor Rotation

ATTENTION:

Keep hands away from the machine's work area during this procedure.

1. Set the power switch (J) to the ON position.
2. Briefly press the drill/press stroke switch (K)
3. Verify that the motor fan (L) rotates in the direction indicated by the arrow.

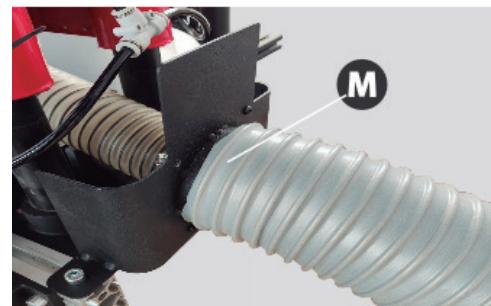


4.9 Connecting the Extraction System to the Machine

ATTENTION:

To minimize the risk of fire, the machine must be connected to a dust extraction system.

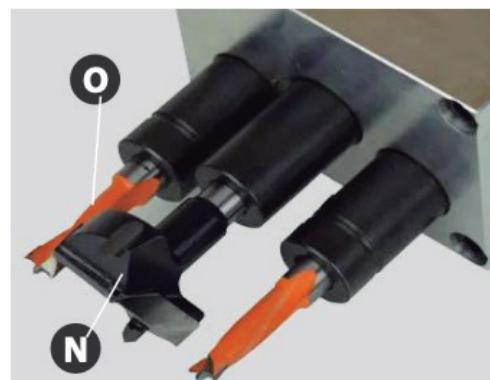
1. Ensure the average air velocity of the extraction system is at least 66 ft/sec.
2. Insert the spiral hose with an inner diameter of approximately 3.75 inches into the receiving tube and secure it in place.



4.10 Checking Motor Rotation

Required Parts:

1. Bits: 1x \varnothing 35 mm clockwise (N), marked in black 2x \varnothing 8 mm counterclockwise (O), marked in orange
2. Cover Caps
3. Insertion Ram: MZM.00XX
4. Dowelled Hinge: (Press-in type)

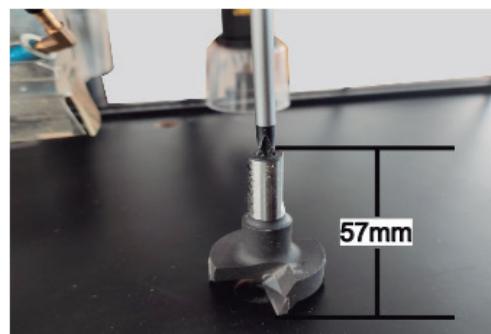


4.11 Setting Drill Bit Length

1. Ensure the total length of each drill bit (from the bit tip to the adjustment screw) is 57 mm.
2. If the drill bit length requires adjustment, use a screwdriver to modify the adjustment screw as needed.

IMPORTANT:

All drill bits must be set to the same length.



4.12 Setting the Boring Pattern

1. Pull out the boring head securing knob (P).
2. While holding the knob, move the lever (Q) to align with the "Concealed Hinge" symbol.
3. Release the boring head securing knob (P).

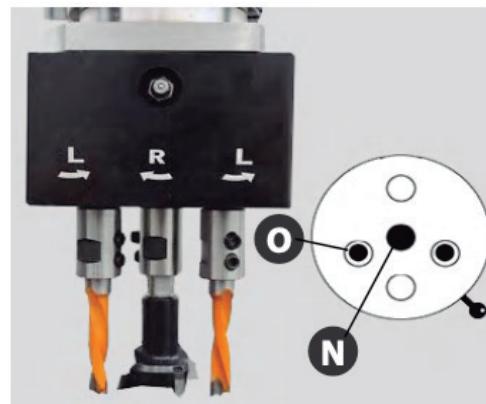


4.13 Inserting Drill Bits

ATTENTION:

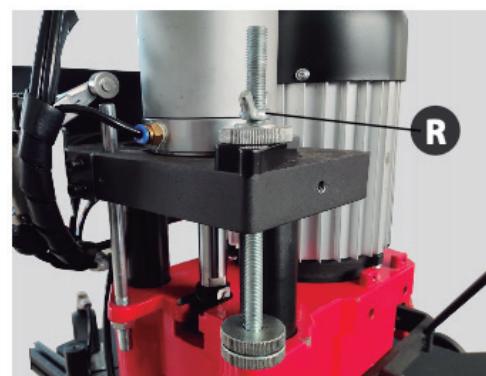
Disconnect the machine from the power supply. Ensure the drill power switch (J) is set to OFF.

1. Fully insert the drill bits into the chuck. Ensure the flat section on the drill bit shank aligns with the set screw.
2. Use a hex wrench to tighten the set screws securely.
3. Insert cover caps into any unused chucks to keep them clean and prevent the set screws from loosening due to vibration.



4.14 Setting the Boring Depth(R)

1. Adjust the boring depth using the bottom knurled handwheel (R). (One full turn corresponds to 1.5 mm)
2. Secure the bottom knurled handwheel (R) by locking it in place.

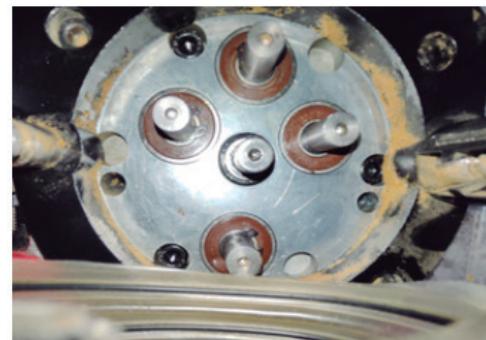


4.15 Boring Depth Stop

An alternative method to maintain a constant boring depth is to install the boring depth stop. When installed, the boring depth will remain fixed at 13 mm, regardless of the workpiece thickness.

Installing the Boring Depth Stop:

1. Set the drill power switch to OFF.
2. Remove the drill bit.
3. Insert the boring depth stop into the locking holes of the retainer ring until it engages. Turn the stop 90 degrees with force to secure it.
4. Reattach the drill bit.



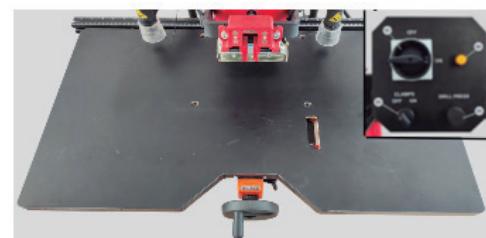
IMPORTANT:

The drill bit length must be set to 57 mm. Adjust the knurled handwheel so that it does not restrict the boring depth.

4.16 Checking the Stroke Brake

The stroke brake reduces the descent speed just before the drill bit contacts the wood. This helps extend the drill bit's lifespan and ensures clean edges.

1. Set the drill power switch (J) to OFF.
2. Ensure the machine's work area (D) is clear.
3. Press the drill/press stroke button (K) and observe the movement of the head.

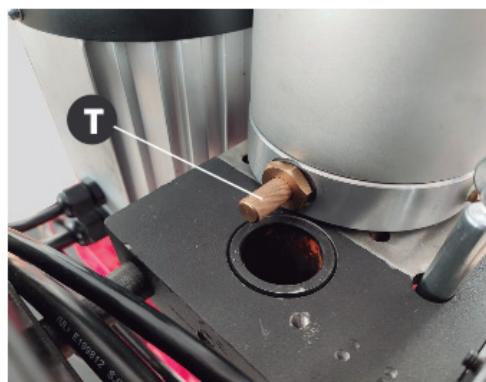


4.17 Setting the Stroke Brake(T)

The stroke brake can be adjusted by turning the brass knurled knob (T) located on the side of the cylinder.

For Hardwood: Turn the knurled knob (T) clockwise to increase the braking force.

For Softwood: Turn the knurled knob (T) counterclockwise to decrease the braking force



4.18 Setting the Boring Distance

1. Adjust the desired dimension using the handwheel.
2. Example: Centerline Position (CLP) - 23.5 mm.

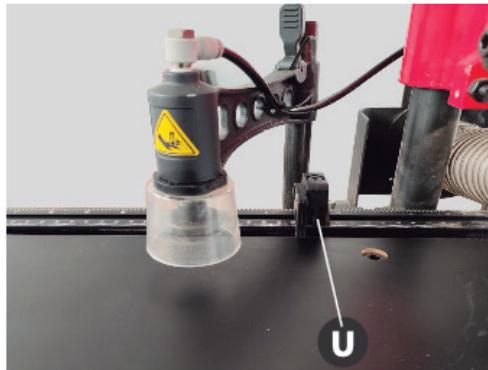


4.19 Setting Ruler Stops (U)

Adjust the ruler stops (U) to the desired dimension and secure them in place.

IMPORTANT:

The indicator edge is located on the inside of the sliding part.



4.20 Placing the Door on the Work Table

Position the door on the work table and push it firmly against the stop.



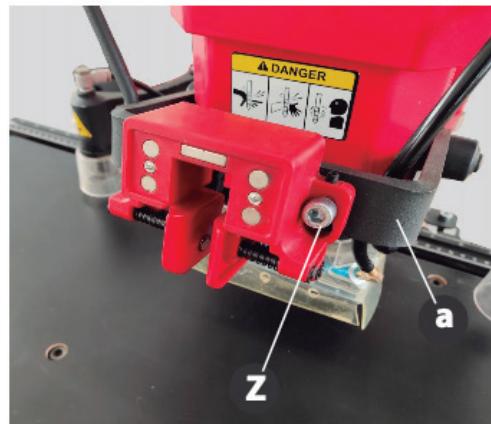
4.21 Setting Clamps (Optional) (W) to the Material Thickness

1. Loosen the clamping pedal (V).
2. Adjust the clamps (W) so that the distance between the door and the clamp guard (X) is a maximum of $x = 1/8"$ (3 mm).
3. Hand-tighten the clamping pedal (V).



4.22 Attaching the Insertion Ram to the Swing Arm (a)

1. Position the insertion ram onto the two mounting screws (Z) on the swing arm (a).
2. Tighten the screws to securely fasten the insertion ram.
3. Clipping the Concealed Hinge onto the Insertion Ram



4.23 Boring

ATTENTION:

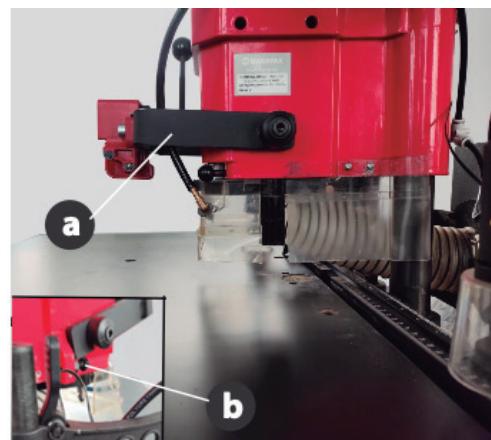
Remove all items from the work area of the machine, except for the workpiece. Keep hands clear of the work area (D).

1. Set the drill power switch (J) to ON.
2. Set the clamp button to the "Auto" position.
3. Ensure the swing arm (a) is swiveled up.
4. Position the door outside the danger area (D) and press it against the ruler stop.
5. Press the drill/press stroke button (K) until the desired boring depth is reached.
6. Release the drill/press stroke button (K).



4.24 Checking the Tilt Adjustment of the Swing Arm(a)

1. Swivel the swing arm (a) downward to its stop position.
2. Verify whether the concealed hinge aligns with the bored holes.
3. If misalignment occurs, it may be caused by one of the following:
 - (1) Swing arm (a) is not set vertically:
Adjust the vertical position using the screw
 - (2) Insertion ram is off-center:
Use the adjustment screws (b) on the insertion ram to correct the alignment.



IMPORTANT:

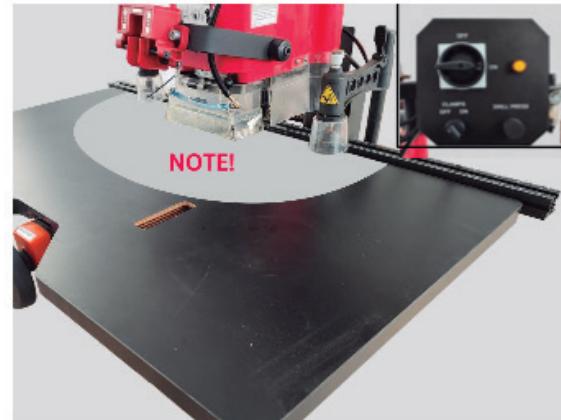
When the drill/press stroke button (K) is pressed lightly for a few millimeters, the boring unit moves downward at creep speed.

4.25 Inserting the Concealed Hinge

IMPORTANT:

Before starting, ensure that all items, except the workpiece, are removed from the machine's work area. Keep hands clear of the work area (D) at all times.

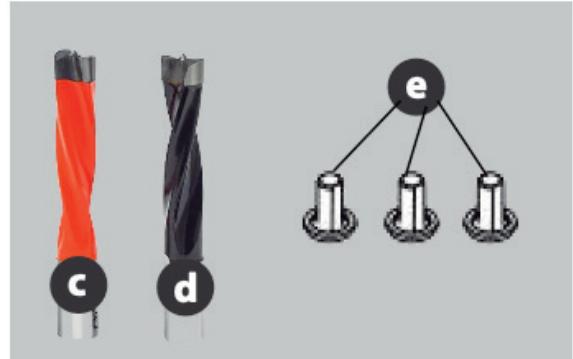
1. Press the drill/press stroke button (K) to fully insert the concealed hinge.
2. Release the drill/press stroke button (K) once the hinge is fully inserted.
3. Raise the swing arm (a).
4. Release the clamps by pressing the clamp button.
5. Remove the door from the work table or push it to the next stop position.



5 Instructions

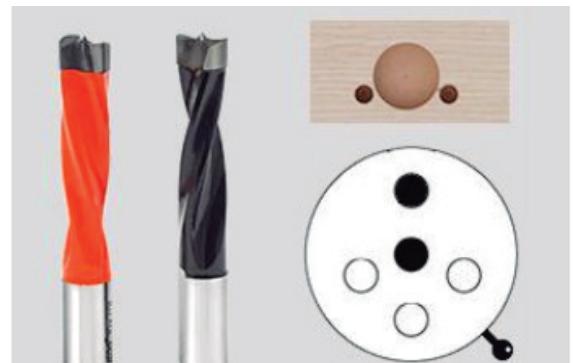
5.1 Required Parts

1. Drill Bits:
1 x Ø5 mm clockwise marked in black(d)
1 x Ø5 mm counterclockwise (c), marked in orange
2. Cover Caps (e)
3. Cabinet Side Panel
4. Wing Mounting Plate with System Screws



5.2 Setting the Boring Pattern

1. Pull out the spring-loaded boring head securing knob.
2. While holding the knob, move the lever to align with the "Hole Group" symbol.
3. Release the spring-loaded boring head securing knob to lock the setting in place.



5.3 Setting the Boring Distance

1. Adjust the desired dimension using the hand wheel.
2. Example: SYS-37 mm.



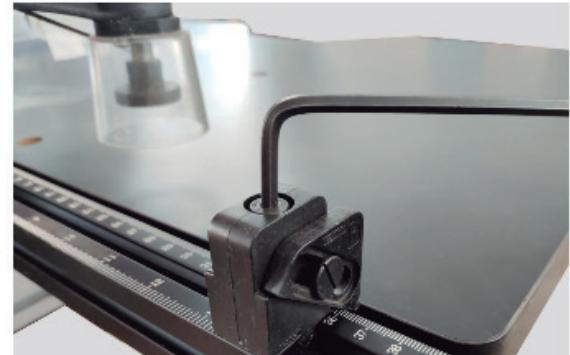
5.4 Setting Ruler Stops (U)

Set the ruler stops (U) to the desired dimension and secure them by tightening the clamp.

IMPORTANT:

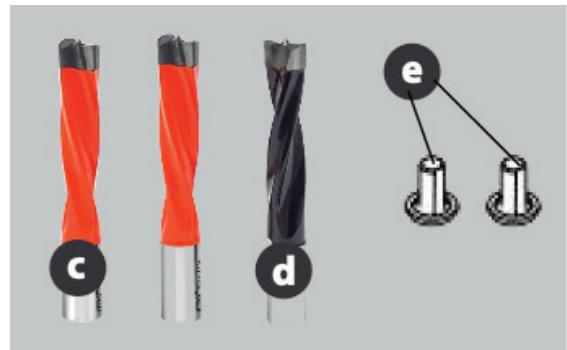
The indicator edge should be positioned on the inside of the sliding part.

1. Position the cabinet side on the work table, ensuring it is pushed up against the stop.
2. Adjust the clamps to match the material thickness, if required.
3. Proceed with the boring process.
4. Release the clamps once the process is complete, if they were used.



5.5 Required Parts

1. Drill Bits:
 - 1 x Ø5 mm clockwise marked in black (d)
 - 2 x Ø5 mm counterclockwise (c), marked in orange
2. Cover Caps (e)
3. Cabinet Side Panel



Adjusting Drill Bit Length

5.6 Setting the Boring Pattern

1. Pull out the boring head securing knob.
2. While holding the knob, move the lever to align with the specified symbol.
3. Release the boring head securing knob to lock the setting.



5.7 Setting the Boring Distance

1. Adjust the desired dimension using the hand wheel.
2. Example: SYS-37 mm.



5.8 Setting Ruler Stops (U)

Set the ruler stops (U) to the desired dimension and secure them by tightening the clamp.

IMPORTANT:

The indicator edge should be positioned on the inside of the sliding part.

ATTENTION:

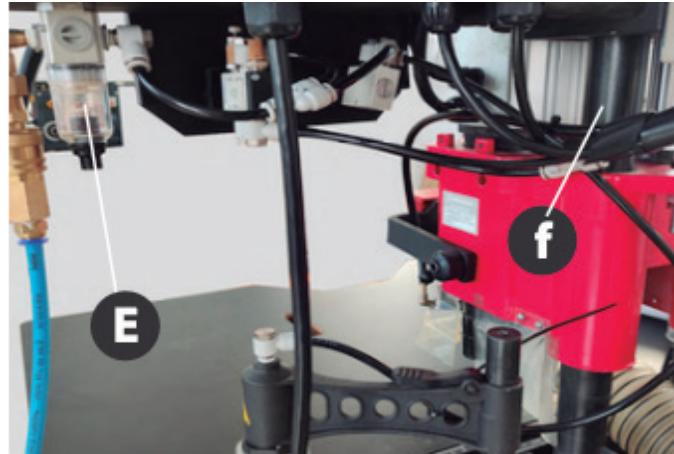
Before beginning, remove all items from the machine's work area except for the workpiece. Ensure your hands remain outside the designated work area (A) at all times.

Procedure:

1. Place the cabinet side on the work table, ensuring it is positioned firmly against the stop.
2. (Optional) Adjust the clamps to match the material thickness and secure the workpiece.
3. Perform the boring operation.
4. (Optional) Release the clamps once the operation is complete.



6 Maintenance



ATTENTION:

Disconnect both electrical and pneumatic power from the machine before performing any maintenance operations.

The cylinder remains pressurized even after pneumatic power is disconnected from the machine. To safely release pressure from the cylinder, refer to Section 7.1.4 for depressurization instructions.

6.1 Routine Maintenance Guidelines:

1. Regularly remove dust and chips from the machine to ensure optimal performance.
2. Before using the machine, always inspect the air filter unit (7.1) for any accumulated water. Empty the unit if necessary.
3. Prior to each use, check all pneumatic and electrical lines for signs of damage.
4. The columns (7.2) are maintenance-free and do not require lubrication.
5. Clean the columns (7.2) regularly using a dry cloth to remove dust.
6. Do not use cleaners or solvents.

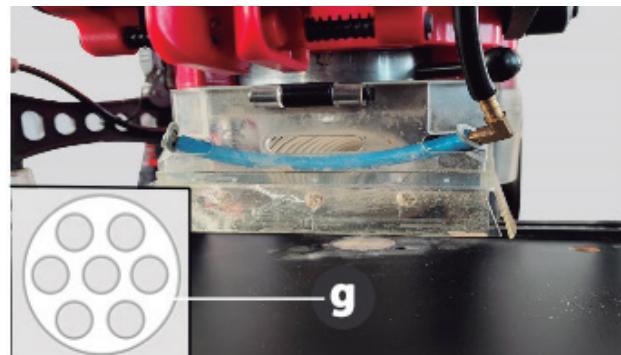
6.2 Damaged Clutch

ATTENTION:

Always disconnect electrical and pneumatic power from the machine before performing any maintenance operations.

Clutch Replacement Procedure:

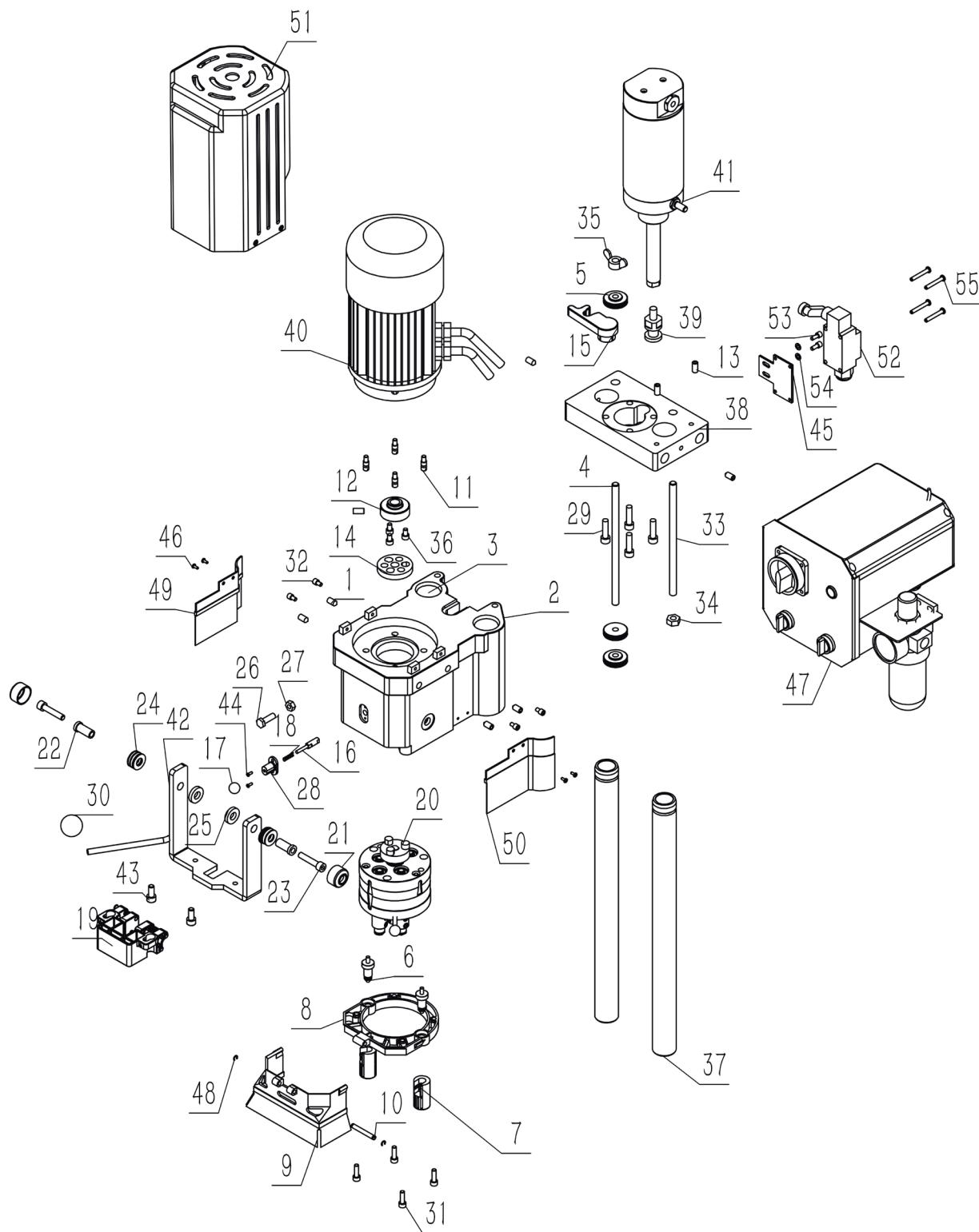
1. Set the power switch to the OFF position.
2. Disconnect both electrical and pneumatic connections to the machine.
3. Remove the drill bit.
4. Unscrew the 4 bolts securing the safety shield to the gearbox housing.
5. Move the safety shield aside. While holding the internal gearbox, pull out the boring head securing knob. This will allow the internal gearbox to be lowered and removed.
6. Remove the dampening ring (g).
7. Remove the damaged clutch.
8. Install the replacement clutch onto the spindle, ensuring correct alignment and positioning.
9. Reinsert the dampening ring (g).
10. Preposition the clutch base for proper alignment with the motor.
11. Slide the gearbox back into the housing.
12. Ensure the clutch is properly re-engaged.
13. Reinstall the safety shield.



6.3 Replacing the Light Bulb

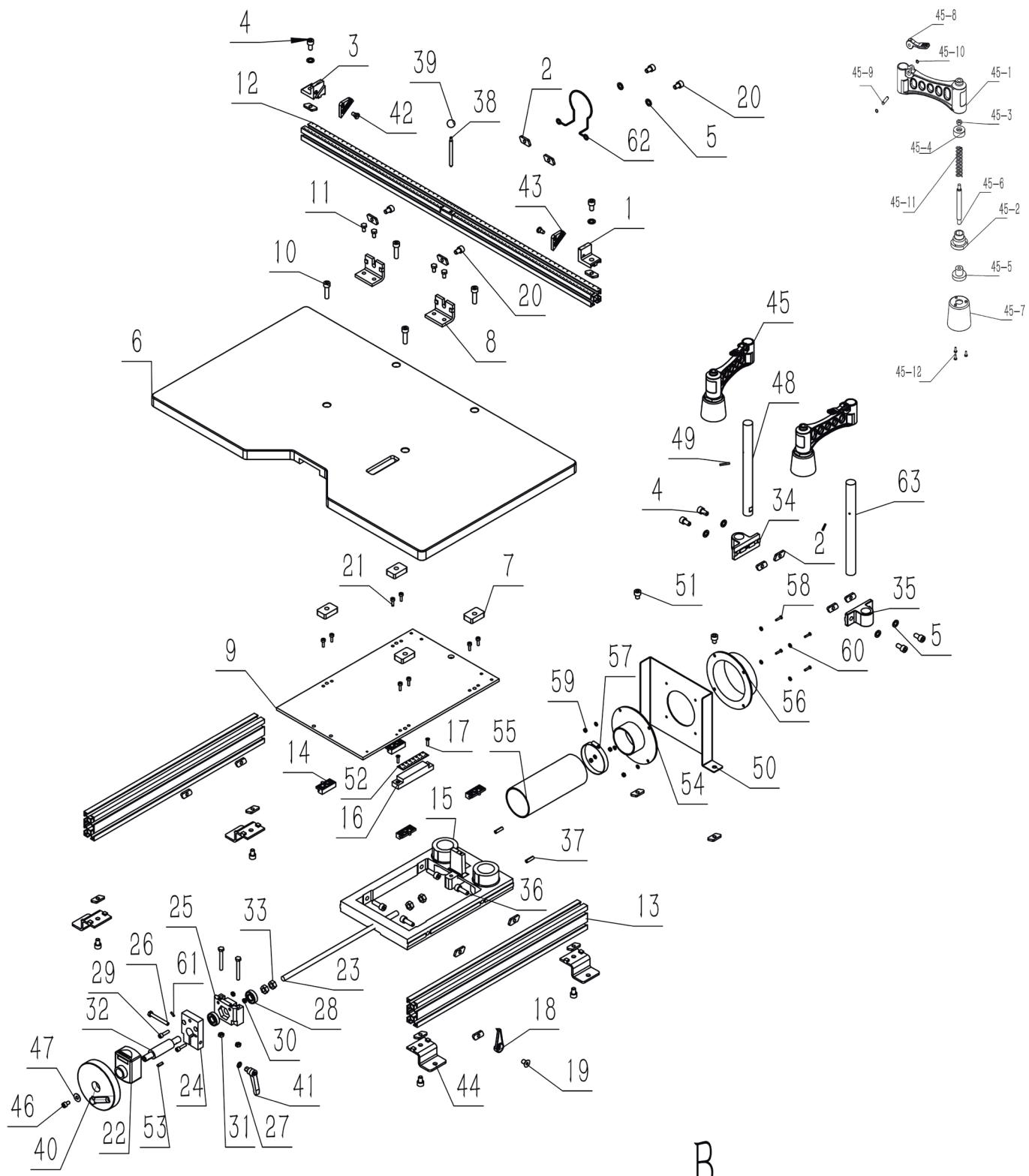
1. Set the power switch to the OFF position. Remove the light bulb cover (h) by unscrewing it.
2. Remove the defective light bulb by pressing and turning counterclockwise.
3. Install the new light bulb by pressing and turning clockwise.
4. Reattach the light bulb cover (h).
5. Use the cylinder vent valve to safely release air pressure from the cylinder.





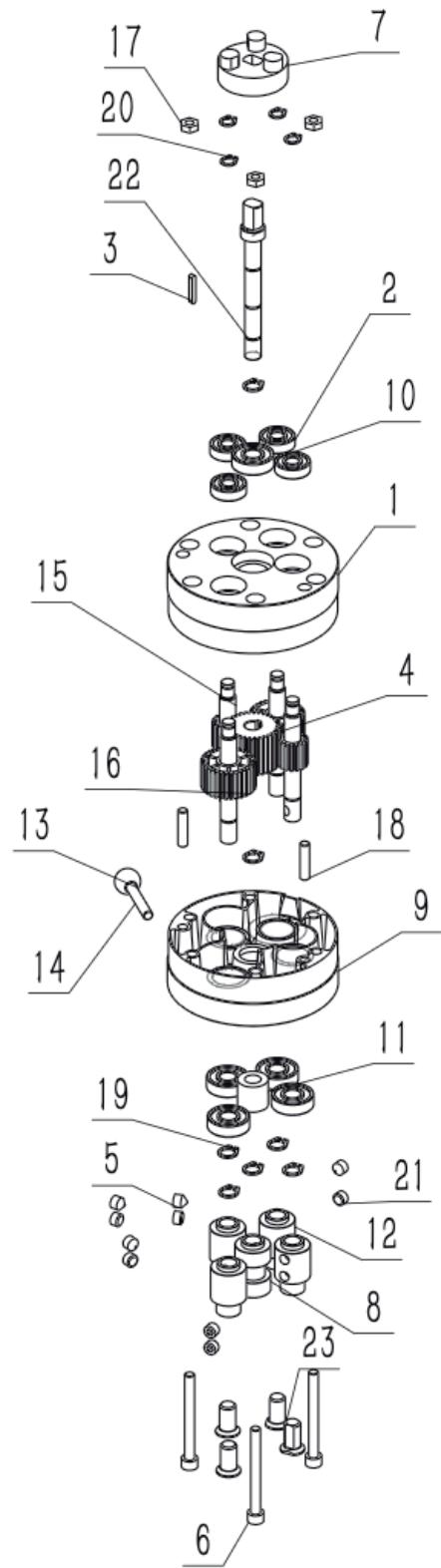
Item	Part #	Parts Name	QTY.
1	SPMAK-HMA-01	HEX.SOCKET TAPER END SET SCREW M8X16	6
2	SPMAK-HMA-02	GEAR BOX HOUSING	1
3	SPMAK-HMA-03	SLIDING COOPER SLEEVE 39X35X24	4
4	SPMAK-HMA-04	LOCATING ROD	1
5	SPMAK-HMA-05	ADJUSTING NUT	3
6	SPMAK-HMA-06	STOPPING SHAFT	2
7	SPMAK-HMA-07	DRILLING DEPTH STOP	2
8	SPMAK-HMA-08	PROTECTIVE SAFTY SHIELD FOR THE DRILL BITS	1
9	SPMAK-HMA-09	PROTECTIVE SAFTY SHIELD(PLASTIC)	1
10	SPMAK-HMA-10	CONNECTING SHAFT,PROTECTIVE SAFETY SHIELD	1
11	SPMAK-HMA-11	CONNECTING SHAFT,MOTOR	4
12	SPMAK-HMA-12	MOTOR CLUTCH	1
13	SPMAK-HMA-13	HEX.SET SCREW M8X16	2
14	SPMAK-HMA-14	COUPLER RING	1
15	SPMAK-HMA-15	DEPTH GAUGE	1
16	SPMAK-HMA-16	PUNCHING POSITION CONVERSION POSITIONING SHAFT	1
17	SPMAK-HMA-17	POSITIONING BALL	1
18	SPMAK-HMA-18	POSITIONING SPRING	1
19	SPMAK-HMA-19	SWING ARM ASSEMBLY	1
20	SPMAK-HMA-20	GEAR BOX ASSEMBLY	1
21	SPMAK-HMA-21	SLEEVE	2
22	SPMAK-HMA-22	SHAFT SPACER	2
23	SPMAK-HMA-23	HEX.SOCKET CAP HEAD BOLT M8X40	2
24	SPMAK-HMA-24	DISH SPRING PLATE 12	8
25	SPMAK-HMA-25	WASHER	2
26	SPMAK-HMA-26	HEX.BOLT M8X25	1
27	SPMAK-HMA-27	HEX.THIN NUT M8	1
28	SPMAK-HMA-28	FIXING PIN FOR DRILLING HEAD	1
29	SPMAK-HMA-29	HEX.SOCKET CAP HEAD BOLT M8X30	4
30	SPMAK-HMA-30	HANDLE BALL	1
31	SPMAK-HMA-31	HEX.SOCKET CAP HEAD BOLT M6X20	4
32	SPMAK-HMA-32	HEX.SOCKET CAP HEAD BOLT M5X8	4
33	SPMAK-HMA-33	POSITION DETECTION LEVER	1
34	SPMAK-HMA-34	HEX.NUT M10	1
35	SPMAK-HMA-35	BUTTERFLY SCREW M10	1
36	SPMAK-HMA-36	HEX.SOCKET CAP HEAD BOLT M6X10	3
37	SPMAK-HMA-37	COLUMN	2
38	SPMAK-HMA-38	CYLINDER MOUNTING BASE	1
39	SPMAK-HMA-39	CYLINDER JOINT	1
40	SPMAK-HMA-40	MOTOR	1
41	SPMAK-HMA-41	CYLINDER	1

Item	Part #	Parts Name	QTY.
42	SPMAK-HMA-42	U BRACKET	1
43	SPMAK-HMA-43	HEX.SOCKET CAP HEAD BOLT M8X16	2
44	SPMAK-HMA-44	CROSS PAN HEAD SCREW M3X8	2
45	SPMAK-HMA-45	POSITION DETECTOR SEAT	1
46	SPMAK-HMA-46	CROSS PAN HEAD SCREW M4X10	4
47	SPMAK-HMA-47	CONTROL BOX ASSEMBLY	1
48	SPMAK-HMA-48	SPLIT WASHER 6	2
49	SPMAK-HMA-49	LEFT COVER GUARD	1
50	SPMAK-HMA-50	RIGHT COVER GUARD	1
51	SPMAK-HMA-51	MOTOR COVER GUARD	1
52	SPMAK-HMA-52	LIMITED SWITCH	1
53	SPMAK-HMA-53	HEX.SOCKET CAP HEAD BOLT M5X12	2
54	SPMAK-HMA-54	WASHER 5	2
55	SPMAK-HMA-55	CROSS PAN HEAD SCREW M5X35	4



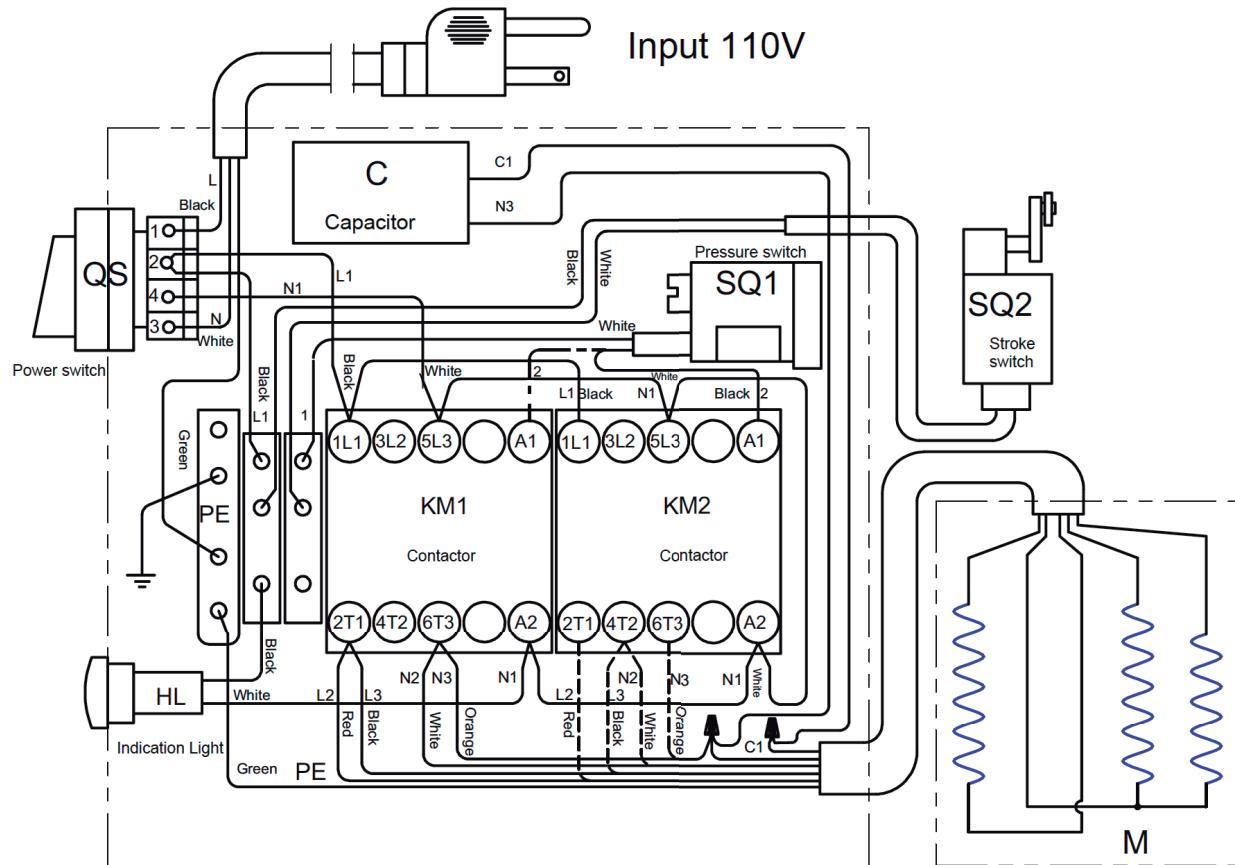
Item	Part #	Parts Name	QTY.
1	SPMAK-HMA-56	RIGHT RULER STOP BRACKET	1
2	SPMAK-HMA-57	DIAMOND NUT	21
3	SPMAK-HMA-58	LEFT RULER STOP BRACKET	1
4	SPMAK-HMA-59	HEX.SOCKET CAP HEAD BOLT M8X16	6
5	SPMAK-HMA-60	WASHER 8	8
6	SPMAK-HMA-61	WORKTABLE	1
7	SPMAK-HMA-62	SUPPORTING BLOCK	4
8	SPMAK-HMA-63	FIXING BRACKET,FENCE	2
9	SPMAK-HMA-64	SUPPORTING BOARD,WORKTABLE	1
10	SPMAK-HMA-65	HEX.SOCKET CAP HEAD BOLT M8X30	4
11	SPMAK-HMA-66	HEX.BOLT M6X12	4
12	SPMAK-HMA-67	FENCE RULER	1
13	SPMAK-HMA-68	SLIDING RAIL,WORKTABLE	2
14	SPMAK-HMA-69	SLIDING BLOCK	4
15	SPMAK-HMA-70	WORKTABLE BASE	1
16	SPMAK-HMA-71	SCALE SEAT	1
17	SPMAK-HMA-72	HEX. SOCKET COUNTERSUNK HEAD SCREW M4X16	2
18	SPMAK-HMA-73	POINTER	1
19	SPMAK-HMA-74	HEX. SOCKET COUNTERSUNK HEAD SCREW M8X12	1
20	SPMAK-HMA-75	HEX.SOCKET CAP HEAD BOLT M8X12	6
21	SPMAK-HMA-76	SELF TAPPING SCREW M4X14	8
22	SPMAK-HMA-77	READOUT	1
23	SPMAK-HMA-78	GUIDE SCREW	1
24	SPMAK-HMA-79	READOUT SEAT	1
25	SPMAK-HMA-80	BEARING SEAT	1
26	SPMAK-HMA-81	HEX.BOLT M6X50	3
27	SPMAK-HMA-82	WASHER 6	1
28	SPMAK-HMA-83	BEARING 6001	2
29	SPMAK-HMA-84	HEX.SOCKET CAP HEAD BOLT M5X20	2
30	SPMAK-HMA-85	HEX.NUT M5	2
31	SPMAK-HMA-86	HEX.NUT M6	2
32	SPMAK-HMA-87	HANDWHEEL SHAFT	1
33	SPMAK-HMA-88	HEX.NUT M6	4
34	SPMAK-HMA-89	CONNECTING BASE	2
35	SPMAK-HMA-90	HEX.SET SCREW M8X16	2
36	SPMAK-HMA-91	HEX.SOCKET CAP HEAD BOLT M8X25	4
37	SPMAK-HMA-92	SPRING PIN 6X60	2
38	SPMAK-HMA-93	ZERO POSITIONING SHAFT	1

Item	Part #	Parts Name	QTY.
39	SPMAK-HMA-94	BALL SLEEVE	1
40	SPMAK-HMA-95	HANDWHEEL	1
41	SPMAK-HMA-96	RATCHET LEVER M6	1
42	SPMAK-HMA-97	STEP BOLT	2
43	SPMAK-HMA-98	RULER STOP	2
44	SPMAK-HMA-99	FIXING FOOT	4
45	SPMAK-HMA-100	HOLD CLAMP ASSEMBLY	2
45-1	SPMAK-HMA-101	HOLD CLAMP BRACKET	1
45-2	SPMAK-HMA-102	SPRING SUPPORT	1
45-3	SPMAK-HMA-103	HEX.NUT M6	1
45-4	SPMAK-HMA-104	PISTON AIR SEAL	1
45-5	SPMAK-HMA-105	PRESSOR FOOT	1
45-6	SPMAK-HMA-106	PISTON ROD	1
45-7	SPMAK-HMA-107	PROTECTIVE GUARD	1
45-8	SPMAK-HMA-108	LOCKING KNOB	1
45-9	SPMAK-HMA-109	LOCKING ROD	1
45-10	SPMAK-HMA-110	SPLIT WASHER 5	2
45-11	SPMAK-HMA-111	SPRING	1
45-12	SPMAK-HMA-112	PAN HEAD FLAT TAIL TAPPING SCREW ST3.5X8	3
46	SPMAK-HMA-113	HEX.SOCKET CAP HEAD BOLT M6X10	1
47	SPMAK-HMA-114	WASHER 6	1
48	SPMAK-HMA-115	HOLD DOWN CLAMP SUPPORT	1
49	SPMAK-HMA-116	SPRING PIN 3X20	2
50	SPMAK-HMA-117	DUST OUTLET	1
51	SPMAK-HMA-118	HEX.SOCKET CAP HEAD BOLT M8X10	2
52	SPMAK-HMA-119	WORKTABLE SCALE	1
53	SPMAK-HMA-120	KEY 4X4X15	1
54	SPMAK-HMA-121	JOINT A,DUST OUTLET	1
55	SPMAK-HMA-122	DUST COLLECT PIPE	1
56	SPMAK-HMA-123	JOINT B,DUST OUTLET	1
57	SPMAK-HMA-124	HOSE CLAMPS 51-70	1
58	SPMAK-HMA-125	CROSS PAN HEAD SCREW M4X15	4
59	SPMAK-HMA-126	HEX.NUT M4	4
60	SPMAK-HMA-127	WASHER 4	8
61	SPMAK-HMA-128	SPRING PIN	1
62	SPMAK-HMA-129	FIXED RING	1
63	SPMAK-HMA-130	HOLD DOWN CLAMP SUPPORT	1



Item	Part #	Parts Name	QTY.
1	SPMAK-HMA-131	TOP HOUSING, GEAR BOX	1
2	SPMAK-HMA-132	BEARING 608	4
3	SPMAK-HMA-133	A KEY 3X20	1
4	SPMAK-HMA-134	GEAR SPINDLE LARGE	1
5	SPMAK-HMA-135	HEX.SOCKET TAPER END SET SCREW M8X8	5
6	SPMAK-HMA-136	HEX.SOCKET CAP HEAD BOLT M6X60	3
7	SPMAK-HMA-137	CLUTCH	1
8	SPMAK-HMA-138	RIGHT HAND CHUCK	1
9	SPMAK-HMA-139	BOTTOM HOUSING, GEAR BOX	1
10	SPMAK-HMA-140	BEARING 6000	5
11	SPMAK-HMA-141	COMBI BEARING NX10-Z-XL	1
12	SPMAK-HMA-142	LEFT HAND CHUCK	4
13	SPMAK-HMA-143	BALL SLEEVE, FIXING PIN FOR DRILL HEAD	1
14	SPMAK-HMA-144	FIXING PIN FOR DRILL HEAD	1
15	SPMAK-HMA-145	GEAR SPINDLE B SMALL	2
16	SPMAK-HMA-146	GEAR SPINDLE A SMALL	2
17	SPMAK-HMA-147	HEX.NUT M6	3
18	SPMAK-HMA-148	CYLINDRICAL PIN 6X15	2
19	SPMAK-HMA-149	CIRCLIP FOR SHAFT 10	7
20	SPMAK-HMA-150	CIRCLIP FOR SHAFT 8	4
21	SPMAK-HMA-151	HEX.SOCKET FLAT END SET SCREW M8X15	5
22	SPMAK-HMA-152	CENTRE SPINDLE	1
23	SPMAK-HMA-153	COVER CAP FOR CHUCK	4

Note: Connect to a supply circuit protected by a circuit breaker or time-delay fuse



Code	Description	Specification	QTY.
XP	110V Plug	14AWG	1
QS	Power Switch	LW26GS-20	1
SQ1	Pressure Switch	SS-5GL	1
SQ2	Stroke Switch	WLCA2-2	1
KM1	AC Contactor	3RT6025-1AG20/110V	1
KM2	AC Contactor	3RT6017-1AN21/220V	1
M	Motor	1.5HP/110V/220V	1
HL	Indicator Light	AD16-16C	1

9 Grounding Instructions

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

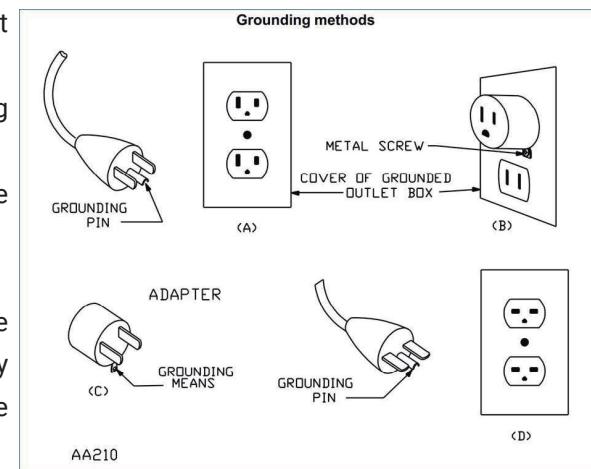
- Do not modify the plug provided – if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
- Improper connection of the equipment-grounding conductor can result in a risk of electric shock.
- The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment grounding conductor.
- If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
- Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
- Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.
- Repair or replace damaged or worn cord immediately.

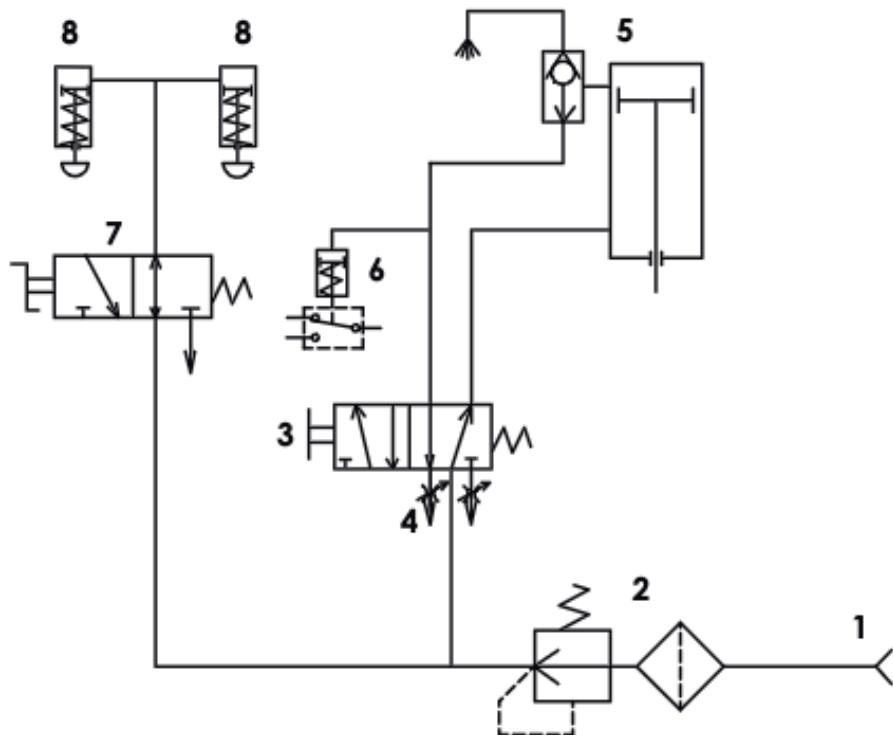
For 110 V Connection:

- This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A in Figure.
- The tool has a grounding plug that looks like the plug illustrated in Sketch A in Figure.
- A temporary adapter, which looks like the adapter illustrated in Sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in Sketch B if a properly grounded outlet is not available.
- The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician.
- The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

For 220 V Connection:

- This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch D in Figure.
- The tool has a grounding plug that looks like the plug illustrated in Sketch D in Figure.
- Make sure the tool is connected to an outlet having the same configuration as the plug.
- No adapter is available or should be used with this tool.
- If the tool must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances.





Code	Description	Specification	QTY.
1	HAND-SLIDING QUICK PLUG CONNECTOR	HSV06	2
2	AIR SOURCE PROCESSING ELEMENT	GAFR100-06SJ	1
3	MANUAL TWO-WAY FIVE-POSITION VALVE	M5PF110-06B	1
4	THROTTLE MUFFLER	BESL01	3
5	CYLINDER	ACQ80x110	1
6	PRESSURE SWITCH	SQ1	1
7	TORSION TWO-WAY FIVE-POSITION VALVE	M3PL11006B	1
8	CLAMPING CYLINDER	3RT6017-1AN22/220V	2

11 Terms of Warranty

MAKSIWA assures the owner that their equipment, identified by the Serial number issued on the Warranty Terms.

The equipment under warranty, for two (2) years, is as followed:

1. The warranty period begins on the date of the Warranty Terms below.
2. Within the warranty period, the manual labor and the components replaced by manufacturing defect will be provided for free if duly proved by Maksiwa Service.
3. Third-party manufacturing equipment that makes up the MAKSIWA equipment (such as motors, electrical equipment, belts etc.) are subject to the terms and conditions of warranty of their respective manufacturers.
4. In case an exchange of machine is needed, please return the defective part or machine to MAKSIWA.
5. All workplace adaptations for the equipment are under the responsibility of the machine owner.
6. If you notice any defect or malfunction when receiving the equipment, get in touch immediately with the manufacturer or Dealer. Do not turn it on.
7. Not included in this warranty is any technical visits aimed at cleaning or adjustments caused by wear, resulting from normal use of the equipment.
8. The warranty does not cover problems caused by mistreatment, carelessness, misuse or inappropriate use of the functions designed for this equipment in this manual, as well as poorly executed operations by untrained operators to operate it.
9. MAKSIWA is not responsible for lost productivity, direct or indirect damages caused to the owner of the equipment or to third parties, or any other expense, including lost profits.
10. This equipment requires the use of a dust collection system with a minimum of 2 hp.
11. Even under warranty, you may lose its validity as follows:
 - a) Application of non-original components;
 - b) Alteration of its original features;
 - c) Lack of proper maintenance;
 - d) Improper use of the equipment;
 - e) Change in equipment or electronic connections;
 - f) Damage caused by mechanical shock or exposure to unsuitable conditions (humidity, salt spray, corrosive agents, etc.);
 - g) Damage caused by bad weather (floods, flooding, lightning, power outages etc.);
 - h) Maksiwa is not responsible for damages to electrical components caused by power variation in your area.
 - i) Removable of safety equipment will void your warranty. (Riving Blade, Blade Cover, etc.).

For your added security, have the repairs, maintenance and adjustments (including inspection and replacement) be performed by a Maksiwa technician, assisted over the phone by a Maksiwa technician or by a Maksiwa recommended third-party, which will always use OEM spare parts and Genuine accessories, reassembling your machine identically to the original.

For your safety, trust the repairs, maintenance and adjustments (including inspection and replacement) for technical assistance recommended by MAKSIWA, always use genuine spare parts and accessories, reassembling to its original machine the same way.

MODEL: SERIAL NUMBER: DATE: LOT NUMBER:

Imported by:
Maksiwa International Inc.
990 S Rogers Circle, suite 11
Boca Raton, Florida
ZIP Code: 33487
Telephone: +1 (844) 319-6594
E-mail: tech@maksiwa.com
www.maksiwa.com