ALLCUT

Operating Instructions for ALLCUT 40

PLEASE ENSURE THAT YOU READ THIS INSTRUCTION MANUAL CAREFULLY BEFORE USING THE MACHINE.



THANKS FOR PURCHASING ALLCUT MAGNETIC DRILL MACHINE

TABLE OF CONTENT

General instructions..... 2
Machine overview..... 3
Safety measures..... 4
Before using for the first time..... 5
Preparing..... 6
Starting on the machine 8
Using the machine.....9
Removing blockages..... 10
Cleaning..... 10
Maintenance.....11
Storage.....12
Technical data.....12
Wiring drawing..... 13
Troubleshooting..... 14

INTENDED USE

The ALLCUT 40 magnetic drilling machine is uniquely designed to be used for drilling operations using annular cutters on magnetic metals within the limits specified in the technical data.

Any other use of the machine except stated above is inappropriate.

⚠ WARNING

Danger resulting from improper use
If the machine is not used as stated above, and if used in any other way, the machine may become a source of danger.

- Use the machine as described in the operating manual.

Important Operating Manual Information

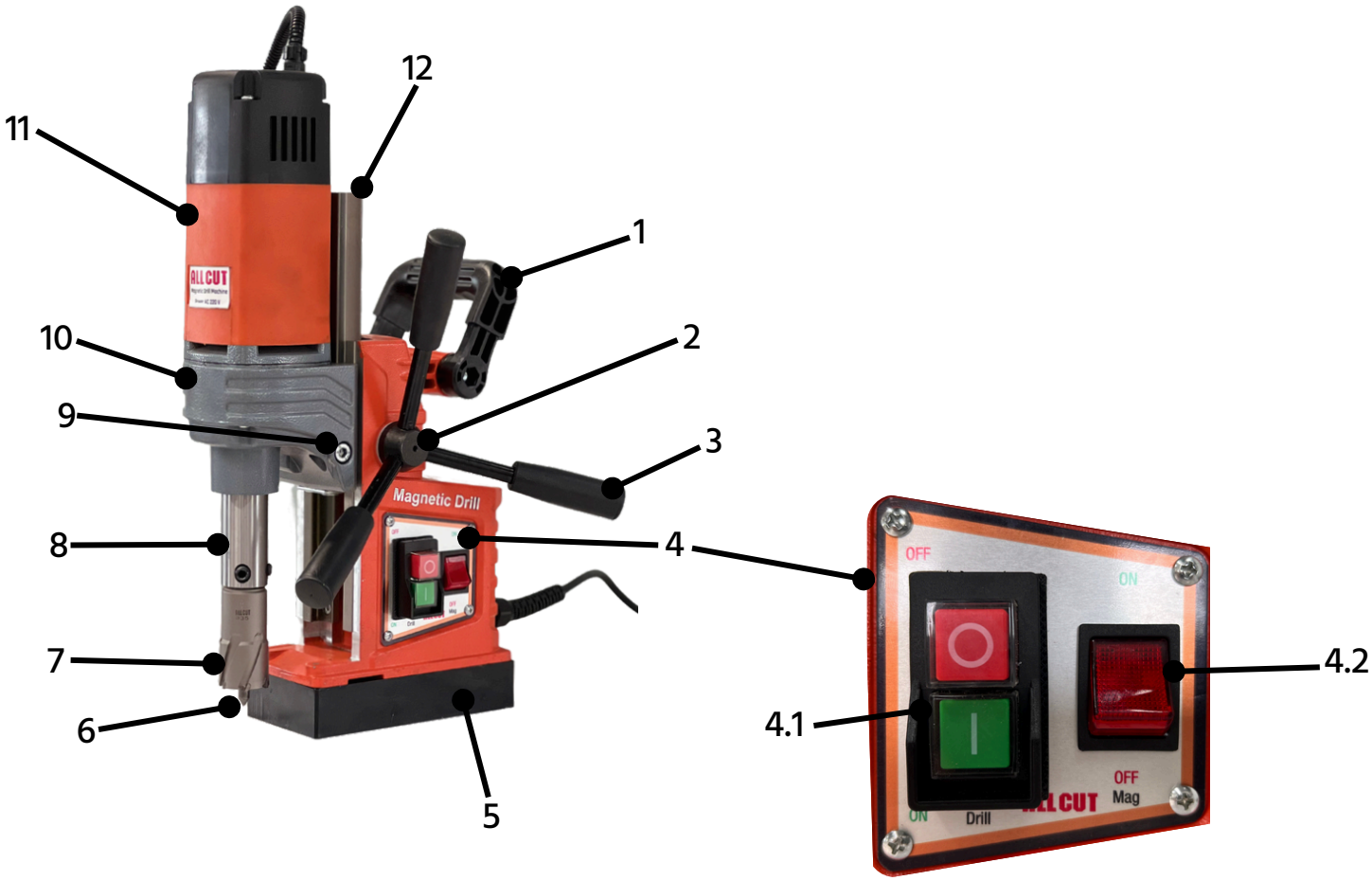
Dear Customer,
We kindly ask you to thoroughly review the instructions related to startup, safety, cleaning, and other pertinent details provided in this operating manual. Neglecting these guidelines may lead to serious injury to both the operator and the machine.

Please keep this instruction manual for future reference.

The manufacturer will not be liable for any damage to the machine or accidents resulting from:

- Failure to read this instruction manual carefully
- Using the machine for purposes other than its intended use
- Third-party repairs
- Modifications made without our approva
- Utilization of unauthorized spare parts, tools, and accessories

MACHINE OVERVIEW



SR. NO.	MACHINE PART
1	MAIN BODY
2	PINION
3	HANDLE
4	PANEL
5	ELECTROMAGNET
6	PILOT PIN FOR CUTTER
7	ANNULAR CUTTER (TCT)
8	SPINDLE WITH 19MM WELDON SHANK
9	DRILL ADJUSTMENT BOLT
10	GEAR BOX
11	DRILL MOTOR
12	SLIDE

SR. NO.	PANEL
4.1	MOTOR ON/OFF SWITCH
4.2	MAGNET ON/OFF SWITCH

NOTE

When using electrical tools, please read and follow the following precautions to prevent any type of injury, fire or electric shock.

BASIC SAFETY MEASURES

- Avoid using the machine in or near flammable environments.
- Individuals with heart conditions or other medical issues should operate the machine only under supervision or refrain from using it altogether.
- Anyone unable to safely operate the machine must do so under the guidance of a responsible person.
- Children are prohibited from using the machine.
- Before operating, inspect the machine for any visible damage; do not use a damaged machine.
- Prior to starting work, check the condition of the safety chain and ensure the switches on the machine are functioning properly.
- Repairs to the connecting cables should be conducted by a qualified electrician.
- Machine repairs must be performed by an authorized specialist workshop or the manufacturer. Unauthorized repairs may cause significant harm to the operator.
- Repairs during the warranty period can only be carried out by the manufacturer; otherwise, the warranty will be void.
- Replace damaged parts with original spare parts to maintain the machine's safety.
- Monitor the machine closely while it is in operation.
- Store the machine in a dry environment.
- Ensure the machine is cleaned and free of metal chips after each use.
- Do not expose the machine to moist conditions.
- Do not exceed the machine's capacity; refer to the technical specifications for guidance.
- Keep the machine clean, dry, and free from oil and grease.

⚠ WARNING

Risk of accident due to starting of the motor unintentionally!

Pay attention to the following measures to avoid injuries due to starting of the motor unintentionally.

- Press the red button (O) of the motor switch(4.1) after every operation.
- Switch off the machine with magnet switch (4.3) so the motor doesn't start.

DANGER

Danger from electric current!
Contact with live wires or components may lead to serious injury to the operator.

Read the following safety precaution to avoid any electric shock.

- Make sure the machine and main plug is beyond the reach of water or any other liquid.
- Do not operate the machine with panel or motor housing opened.
- If using extension cable, make sure the extended wire is of 1.5 mm^2.
- Check the condition of the extension wire regularly and replace it if damaged.

⚠ WARNING

Risk of injury due to improper handling of the machine!

Pay attention to these instructions in order to avoid any type of injury.

- Operate the machine with the protective equipment mentioned below.
- Do not wear protective gloves when the machine is on. The rotating part may catch the glove and torn off the hand.

ATTENTION

Potential damage to the machine due to improper use.

Read these instructions to avoid damage to the machine.

- Always carry the machine with the handle.
- Before plugging on the machine, check whether the voltage supply is proper (refer to the technical data sheet).
- Do not pull the main cable to remove the plug from the main socket.

REMEMBER THIS SYMBOLS



MEANING OF THE SYMBOLS:

1. Wear protective googles.
2. Wear proper hearing protection equipment.
3. Do not put your hand near cutting area
4. Beware of electric shock.
5. Beware of rotating parts machine parts.



ALWAYS READ THIS MANUAL BEFORE OPERATING THE MACHINE.

⚠ WARNING

- Always switch off the machine when changing tool, conducting maintenance or cleaning. Wait till the machine has completely stopped to avoid unintentional stating of the machine.
- Do put your hand into the machine while the machine is in operation. Remove the metal chips only when the machine is standstill. Wear the protective gloves when removing metal chips.
- When using a temporary plate for drilling, make sure the supplied voltage is stable. For more safety, use a safety belt so the machine holds the plate securely.
- Secure the machine with a safety chain when working in an inclined or vertical position and during overhead operation. The machine could fall down if the magnet is loosened or the power drops.
- Check that the tool is securely tightened before using.
- Do not allow the connecting cable to hang over the edges.

ATTENTION

- Do not crush the power cord.
- Do not put the main power cord near heated objects or chemical liquids.
- Do not drag the power cord across sharp edges or hot surfaces.
- Put the power cord in such a way that it cannot be caught by rotating parts of the machine.
- The machine stops automatically when the magnet switch (4.2) is switched off.

! NOTE

Check for any visible signs of damage or missing items on delivery. Report an incomplete or damaged delivery to your dealer/supplier/manufacturer.

Preparation

Read the following instructions carefully and take the safety precautions before starting the machine.

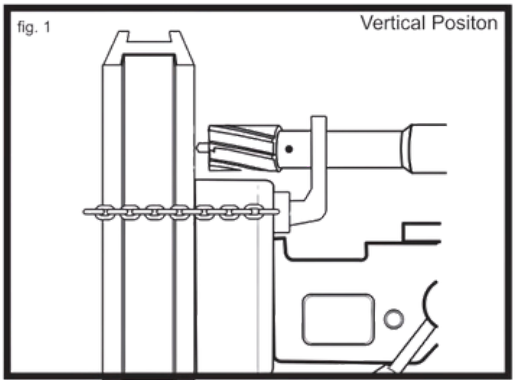
Additional safety measures for special jobs.

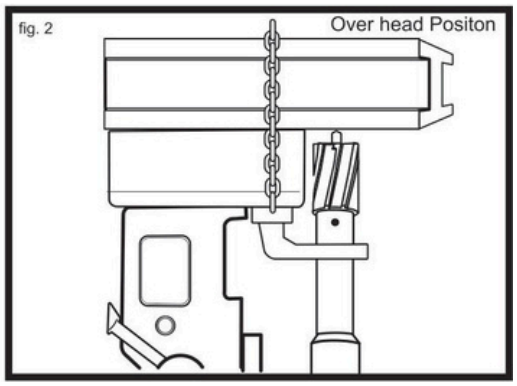
Drilling Vertically

⚠ WARNING

Risk of injury due to machine falling down.

- When working on inclined or vertical position or overhead position, the machine should be secured with a safety chain to prevent it from falling.
- Tighten the safety chain as much as possible around the handle of the machine.
- Check the secure fitting of the safety of the safety chain before starting the work.
- Use proper protection equipment as mentioned on the machine.





Drilling using temporary plate

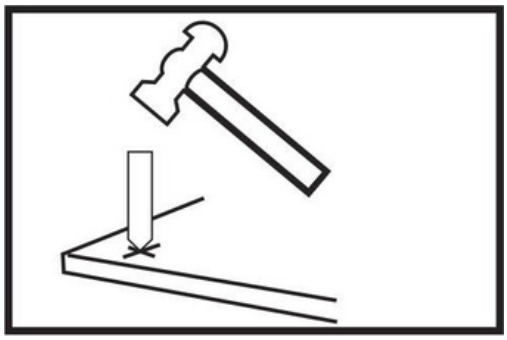
⚠ WARNING

When operating a machine on scaffolding, sudden vibrations can occur, potentially leading to the machine slipping off the plate and creating hazards. To prevent these risks, consider the following precautions:

- Secure the machine to the plate using a safety chain.
- Clamp the plate securely against the surface that is being drilled.
- Always wear appropriate safety equipment.

! NOTE

- Make sure to make a pilot punch before drilling.
- Always use cutting oil or coolant when drilling.



Making a pilot punch on plate before drilling

Check the condition of the surface

The magnetic force is dependent on the condition of the surface/plate to be drilled. If the surface/plate is painted, coated, uneven or rusted, the magnetic force will be reduced.

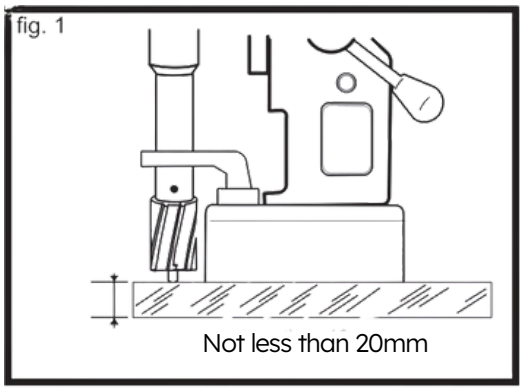
To increase the magnetic force of the electromagnet, the surface/plate should be:

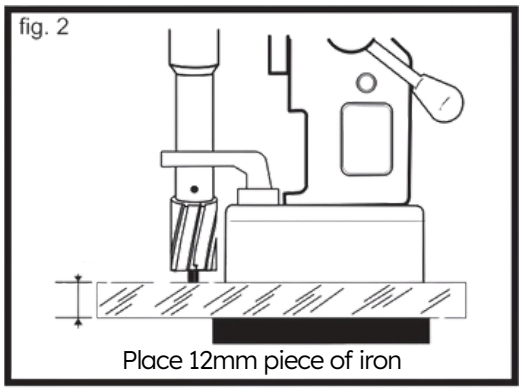
- The plate should be magnetic.
- The electromagnet (5) should be free from grease, oil, metal chips, or any other dirt.
- The plate should be smooth and levelled.

The electromagnet best works with low-carbon steel surface with a thickness of at least 20mm.

Plate with low thickness

When drilling into low thickness steel plate, we recommend to use an additional steel plate with 200X200X20 mm dimensions. Secure the additional plate tightly with the surface to prevent it from falling.





Inserting the tool

The machine is equipped with a 19mm Weldon shank. The cutter can be directly mounted to the shank.

⚠ WARNING

Risk of injury!

- Do not use damaged, spoiled or worn out cutters.
- Change the cutter only when the machine is switched off and at standstill.
- After inserting, make sure the cutter is engaged tightly.
- Only use the cutter that are compactible with the machine.

INSERTING THE CUTTER

- The cutter is mounted to the Weldon shank at the bottom of the spindle (8).
- First clean the Weldon shank of the cutter and the shank of the spindle.
- Untighten the grub screws on the spindle with an Allen key.
- Insert the cutter into the spindle along with the pilot pin.
- Tighten the grub screws on the spindle with the Allen key provided.

REMOVING THE CUTTER

- Untighten both the grub screws with the Allen key provided and remove the cutter from below.

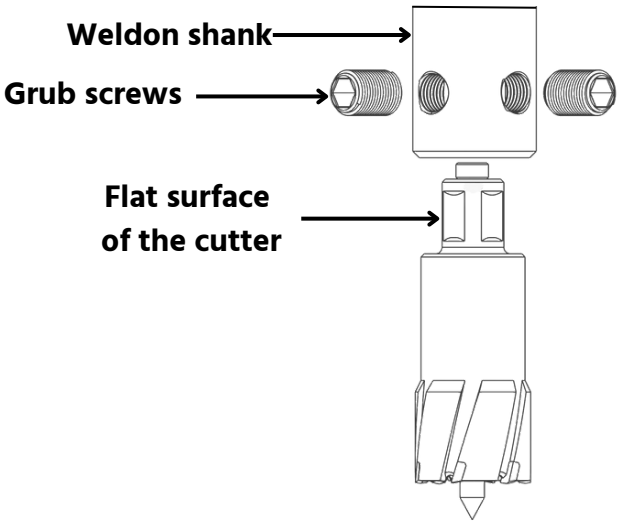
ATTENTION

- Make sure to align the grub screws of the Weldon shank with the flat surface of the cutter properly.
- Assure the grub screws are tightened and aligned properly.
- Refer to the figure below.

⚠ WARNING

Risk of injury!

- If the cutter is not aligned properly, the cutter will come out of the shank during the operation, causing injury to the operator.
- Starting on the machine with unaligned cutter will break the cutter in between the operation.



Switching the machine ON/OFF

- First turn on the magnet switch (4.2).
- Then turn ON the machine with the green button (I) on the drill switch (4.1).

NOTE

- The machine can only be turned on when the electromagnet is active or turned on.

Adjusting the drill head

NOTE

The ALLCUT 40 is uniquely designed with adjusting drill head, so you can adjust the drilling depth.

To adjust the drill head proceed as follows:

- Untighten the adjusting bolt (9) on gear box using the Allen key.
- Move the drill head up or down as per your requirement.
- Tighten the adjusting bolt (9) using the Allen key.

ATTENTION

Make sure that the adjusting bolt is tightened properly.

WARNING

Risk of injury!

- If the drill head is not tightened properly the drill head will slip in between the operation causing injury to the operator and damage to the machine.

Drilling with the machine

NOTE

The ALLCUT 40 is designed to be used with annular cutters. Read these instructions to proceed for your purposes of using of the machine.

Turning on coolant system

The ALLCUT 40 has internal cooling system to cool down the annular cutter while drilling. Always cool down the cutter while drilling to increase the cutter life. To do so, proceed as follow:

- Attach the coolant bottle provided on the machine.
- Connect the tube of the coolant bottle to the brass nipple, which is attached to the gear box (10), by pushing in the tube into the nipple.
- Fill the bottle with the coolant or lubricating oil and screw on the bottle cap.
- Turn on the cock on the coolant bottle and let the coolant pass through the tube.

NOTE

- If the coolant doesn't pass the tube easily, loosen the bottle cap a little bit. Let the air in the bottle escape.
- Assure that the coolant or oil you are using is free of metal chips or any dirt, to prevent the wearing out of the tube.
- The coolant will come out from the bottom of the spindle (8), cooling the cutter directly.
- The cooling system will only work when you use the cutter with proper pilot pin (6).
- Use the pilot pin for every operation. It assure proper rotation of the cutter and enables the cooling system.
- The cooling system will not work when drilling in overhead position.

Drilling with Annular cutter

When drilling with core drills, proceed as follows:

- Insert the appropriate pilot pin (6) into the annular cutter (7) and insert the cutter into the spindle from below (8).
- Align the cutter and tighten the grub screws of the Weldon shank.
- Put the machine on the surface to be drilled on.
- Switch ON (4.2) the magnet switch to enable the electromagnet. Check that the machine sticks to the plate properly.
- Switch ON the machine by pressing the green button (I) on the drill switch (4.1).
- Select the desired speed using the electronic speed controller (12).
- Slowly feed the handle (3) without exerting much pressure, directing the cutter to the material to be drilled on.

ATTENTION

Observe the following instructions when drilling with annular cutter:

- Drilling with annular cutters does not require much pressure.
- Do not apply too much pressure on the cutter. Doing so will reduce the cutter life, or even break the cutter. And also the machine will be overloaded.
- Always use high performance coolant for better drilling.
- Make sure to remove the metal chips regularly, so that the metal chips do not come in the way of the cutter while cutting.

Removing blockages

⚠ WARNING

Risk of injury due to broken tool or metal chips.
- Always use protective gloves when using the machine.

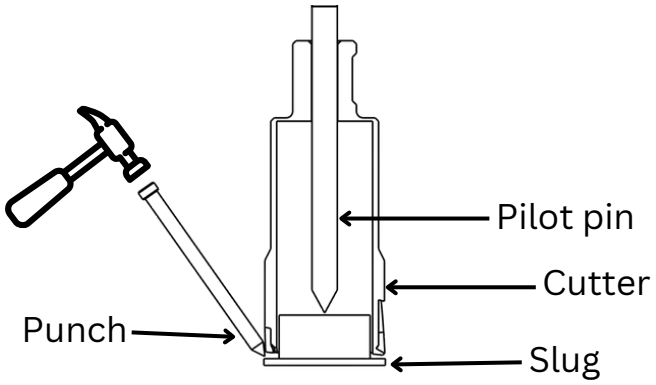
Blockages caused by broken tool:
- Switch OFF (4.1) the machine and remove the plug from the main socket.
- Move the machine slide up with the help of the handle (3).
- Remove the metal chips and replace the broken tools.

Other blockages:
- Switch OFF the drill motor (4.1). Let the electromagnet be on.
- Move the machine slide up with the help of the handle (3).
- Remove the metal chips and check for the tool damage.

! NOTE
- Always use good quality annular cutters for better performance.
- Do not use damaged or worn out annular cutters.
- Do not exert more pressure on the handle (3), if the cutter is worn out or damaged. Doing so will damage the machine.

⚠ WARNING

Always remove the slug from the cutter after every operation.
- The pilot pin attached to the cutter removes the slug from the cutter automatically.
- But always make sure that the slug is always removed from the cutter.
- DO NOT hammer the cutter if the slug is not ejected.
- If the slug is stuck, take a punch and slightly hammer that punch, to remove the slug without damaging the cutter (Refer to the figure below).



Cleaning the machine

⚠ WARNING
- Make sure to switch OFF (4.2) completely and remove the main cord from the main socket.
- When using compressed air for cleaning or removing metal chips, wear the protective goggles and gloves for safety. Protect other persons in the working area too.

ATTENTION
- Never use water to clean the electric panel or electric components.
- Prevent the machine from water or other liquids.

After each use:
- Remove the inserted cutter.
- Remove the metal chips and coolant residues.
- Clean the cutter, spindle (8) and Weldon shank on the machine.
- Clean the machine slide (12) with clean cloth.
- Clean the electromagnet (5) base and let it be free of oil, metal chips or dirt.
- Clean the whole machine and remove all the dirt and grease.

MAINTENANCE CHECKLIST			
MAINTENANCE TASK	**FREQUENCY**	**NOTES/PRECAUTION**	**BENEFIT**
Clean magnetic base and slide	After every use	Remove debris, dust, and oil	Ensure strong magnetic hold and precise drilling
Wipe down exterior surfaces	Daily	Prevent build-up of grime	Prevent corrosion, maintains appearance
Inspect power cables/connectors	Daily	Replace if frayed or cut	Avoids electrical hazards, reduces risk of failure
Check drill bit / annular cutter sharpness	Before each use	Replace worn/dull bits or cutters	Promotes efficient, accurate drilling and protects motor
Lubricate moving parts	Weekly	Do not over -lubricate	Reduces friction and wear, extends lifespan
Test electromagnetic base	Before each shift	Ensure strong magnetic hold	Confirms machine stability and safety during use
Inspect and clean cooling system	Weekly	Check coolant flow, clean blocked brass nipple and coolant bottle	Prevents overheating of cutter, allows continuous operation
Check carbon brushes	Monthly	Replace if worn to less than ⅔ length	Maintains consistent motor power and prevents breakdown
Tighten visible bolts/screws	Monthly	Prevent loosening due to vibration	Prevents mechanical failures and misalignment
Inspect field coil/armature	Quarterly	Assess for scoring, replace if damaged	Prevents unexpected electrical failures
Replace gear box grease/oil	Quarterly	Clean old grease before refilling	Maintains smooth power transmission and reduces wear
Store machine in dry, dust-free area	After each use	Avoid moisture	Prevents corrosion and extends machine life

NOTE

Regular maintenance not only improves safety and performance but also extends the life of your Allcut magnetic drilling machine.

WARNING

Danger Caused by unqualified repairs !

Unqualified or third-party repairs leads to serious damage for the operator and the machine too.

- Repairs of electrical components should only be carried out by the manufacturer or by skilled person.

Customer service/service

If the machine is too damaged or cannot be repaired by you, please contact ALLCUT team/dealer/supplier. We will be happy to provide you with best service.

Storage

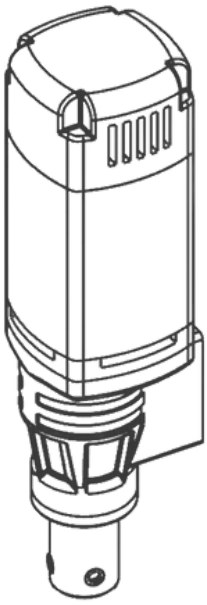
If you are not planning to use for a long time, clean the machine as described in the CLEANING SECTION. Store the machine and all its accessories in a dry, clean and non-moisture environment, to prevent it from rusting.

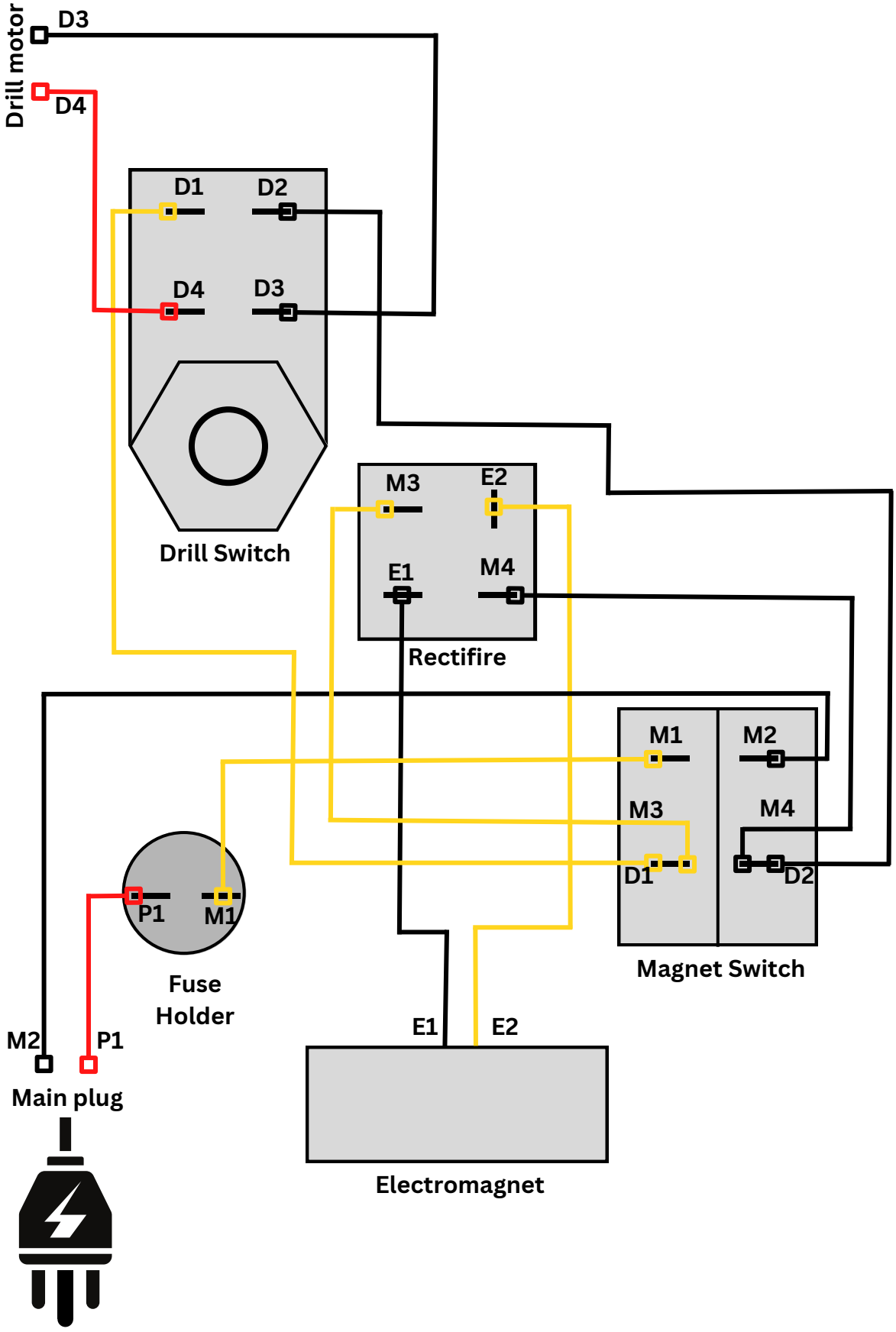
Technical data		
Model	**ALLCUT 40**	
Dimensions (L X W X H)	**240 X 115 X370**	**mm**
Electromagnet (L X W X H)	**175 X 85 X 35**	**mm**
Weight	**10.5**	**Kg**
Power supply	**220 V single phase**	
Motor W	**1400**	**W**
Noise emission	**90**	**db**
Drilling Depth	**50/75**	**mm**
Drilling Capacity **Annular cutter (⌀):**	**40**	**mm**
Tapping Capacity	**NO**	
Reaming Capacity	**NO**	**mm**
Speed	**600**	**rpm**
Reverse/forward	**NO**	
Spindle Taper	**NO**	
Main cord length	**2**	**m**

! **NOTE**

The speed range described in technical data is NO-LOAD speed. the speed may vary at the time drilling by 20%.






Drill motor
D3
D4
D1
D2
D4
D3
Drill Switch
M3
E2
E1
M4
Rectifire
M1
M2
M3
M4
D1
D2
Magnet Switch
P1
M1
Fuse
Holder
M2
P1
Main plug
E1
E2
Electromagnet

TROUBLESHOOTING		
ISSUES	**POSSIBLE CAUSES**	**SUGGESTED SOLUTIONS**
Motor won't start even after ON/OFF switch is pressed.	- Magnet switch is not ON	Turn ON the magnet switch
	- Faulty power cord	Replace or check for power cord
	- Damaged switch	Replace the switch
	- Direction of rotation not selected	Select the direction of drill R/F
	- Power supply issue	Check power source and connections
Electromagnet not holding firmly	- Dirty or uneven surface	Clean the surface
	- Electromagnet base wear out	Inspect and repair electromagnet
	- Insufficient power supply	Ensure proper voltage supply
	- The surface is not magnetic	Use a suitable surface
Motor running but drill not spinning	- Worn out armature teeths	Check and replace armature
	- Internal gears worn out	Replace the worn out gears
Drill bit stuck in material or poor drilling performance	- Insufficient lubrication or coolant	Apply proper lubrication or coolant
	- Incorrect speed or feed rate	Adjust speed/feed rate according to drill size
	- Dull drill bit	Sharpen or replace the drill bit
Overheating	- Continuous operation without breaks	Allow cooling breaks
	- Poor ventilation	Improve ventilation
	- Motor issues	Inspect and repair/replace motor
Coolant not flowing	- Blocked coolant pipe	Clear any blockages
	- Faulty or clogged coolant nipple/cock	Inspect and repair or replace clogged item
	- Empty coolant bottle	Refill the coolant bottle
Machine making unusual noises	- Worn out gears or bearings	Inspect and replace worn gears or bearings
	- Loose parts or bolts	Tighten any loose parts or bolts
	- Misaligned components	Realign components as needed
Drill bit walking or wandering	- Improper centering	Properly center the drill bit
	- Worn out or dull drill bit	Sharpen or replace the drill bit
	- Excessive pressure on drill	Slowly feed the handle while drilling
	- Loose slide or slide bolts	Check and tighten slide bolts or replace the slide if needed

NOTE

If you're unable to resolve the issue using the steps outlined above, please reach out to customer service for assistance.

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EXPERIENCE HAPPY AND SAFE DRILLING WITH ALLCUT MAG DRILLS