

KBM 38



Original Instructions



Read instructions before operating Magnetic Core Drilling Machine.



EIBENSTOCK
P O S I T R O N

... the company's most successfull product range



KBM 38

PRIOR TO USE :-

Please read these operating and safety instructions carefully and completely. For your own safety, before using this Magnetic Core Drill check that the voltage is correct and that all handles and parts are firmly secured. If you are uncertain about any aspect of using this Magnetic Core Drill, contact your Dealer.

**Appropriate Use**

This Magnetic Core Drill is designed specifically for drilling holes in steel using annular cutters. We recommend **EIBENSTOCK POSITORN** annular TCT cutters. Please consult your Dealer for a complete range of sizes.

DO NOT modify and / or use your **EIBENSTOCK POSITORN** magnetic core drill for any application other than for which is intended.

For additional safety instructions, read general safety rules from the book provided with this operational manual.

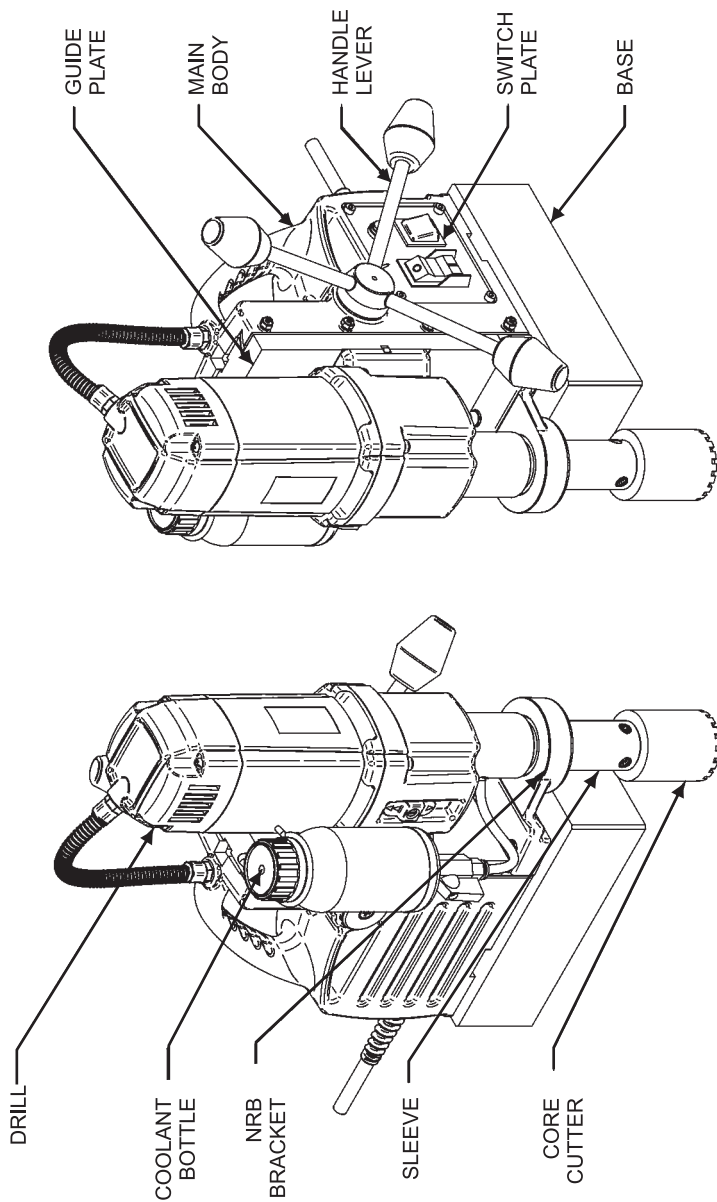
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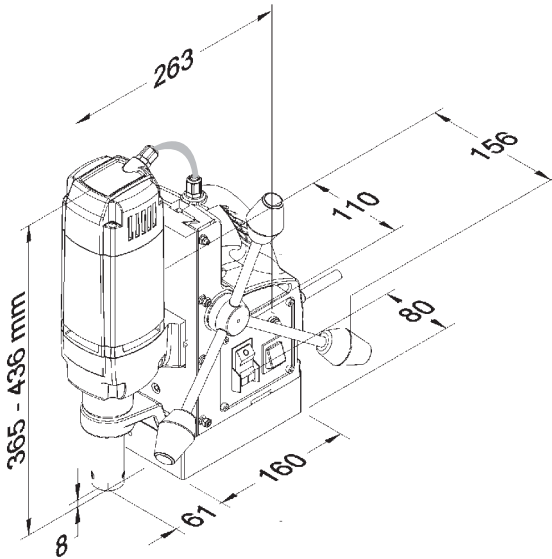
NOTE

- As our engineering is striving for the constant research and development to improve the quality, shape or specification of our product can be changed without prior notice.
- Available in 110V on special request.
- Core Bit is not a part of standard accessory.

1. MAGNETIC CORE DRILL PARTS INTRODUCTION



2. OVERALL DIMENSIONS



KBM 38

Technical Specification :

Parameters	KBM 38
Input supply voltage (V)	220-240
Motor Input (W)	1050
Core Cutting Capacity (mm)	12 to 38
Core Cutting Depth (mm)	50
Rated speed (rpm)	450
Weight (Kg)	11
Direct Arbor	19 mm Weldon

3. ASSEMBLY

Attaching Handle Levers SA :-

1. To align & tightening the handle lever Refer (Fig. 1) Tighten securely.
2. For repositioning of Handle Lever SA.
 - a) Loosen the opposite side all screw (Fig. 2)
 - b) Remove the spindle SA (Fig. 3)
 - c) Reposition through opposite side of body (Fig. 4) & tight the spindle SA with a allen screw.

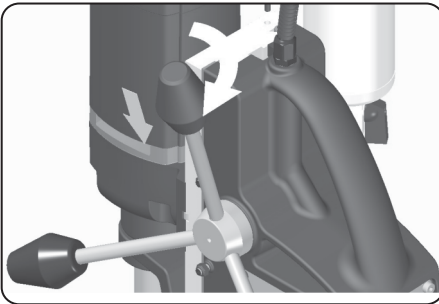


Fig. No. 1

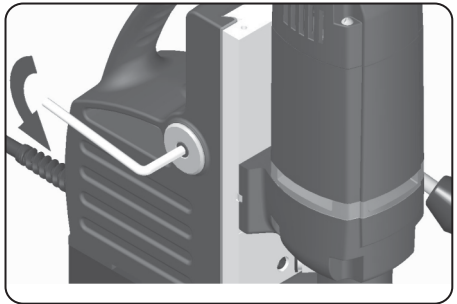


Fig. No. 2

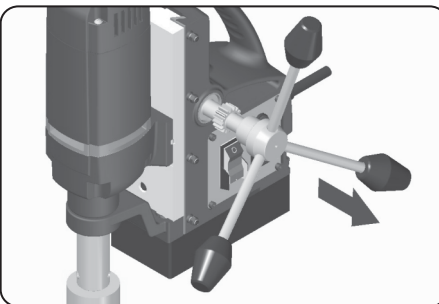


Fig. No. 3

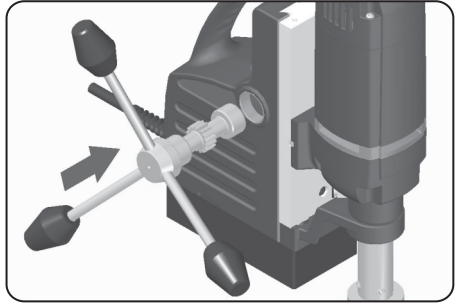
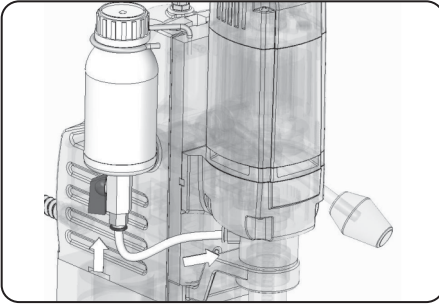
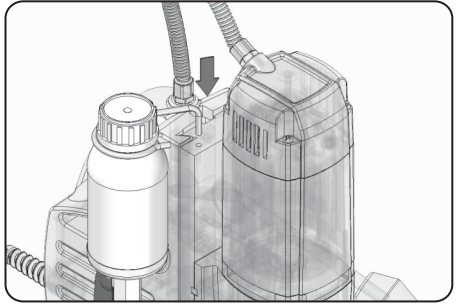


Fig. No. 4

Coolant Bottle SA :-

1. Use transparent flexible pipe to join coolant bottle SA & spindle sleeve. (Fig. 5)
2. Hang the coolant bottle SA to guide plate. (Fig. 6)

**Fig. No. 5****Fig. No. 6****Cutter Assembly**

1. The install / remove cutter.
 - A. Move up the drill motor to its highest position.
 - B. Insert cutter into drill spindle with the two (2) flats of the cutter aligned with grub screws (Fig No. 7 & 8). Make sure the center pin is inserted into the cutter.

NOTE : Cutter should be fully placed into drill spindle.

- C. Tighten set screws with M4 Allen key provided.
- D. Reverse procedure to remove cutter.

⚠ Do not remove cutter unless slug is removed. Slug may eject unexpectedly. Avoid contact with cutter tips. Periodically inspect the cutter tips for loose or damaged tips.

TCT Universal cutter : TCT cutter shank has one flat that must be aligned with any of the grub screw in sleeve holder, the screw must be tightened evenly.

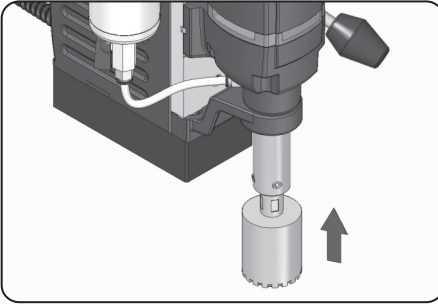


Fig. No. 7

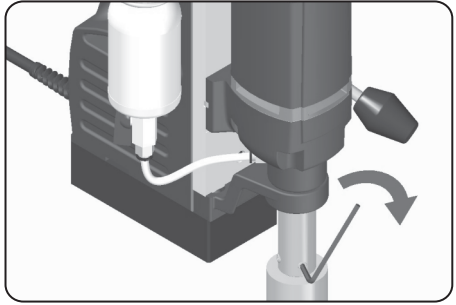


Fig. No. 8

GIB Assembly Setting

1. To adjust the GIB, Use M5 Allen Key & M6 spanner to loosen or tighten the Allen screws & Lock nut provided on side of the Main body.
2. Tightening the allen screws as per shown in (Fig. 9) increases friction on the slide & The lock nut as shown in (Fig. 10) prevents loosening of Allen screws from main body.

All adjustment allen screws should be set to provide smooth and even travel over the entire length of Guide plate movement.

Additional adjustment of the GIB may be required over time with extended use of the tool.

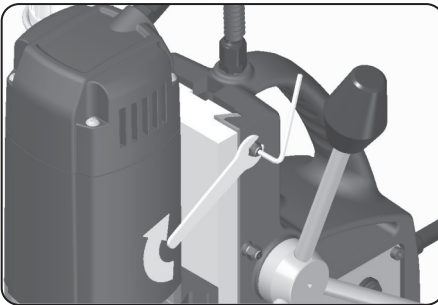


Fig. No. 9

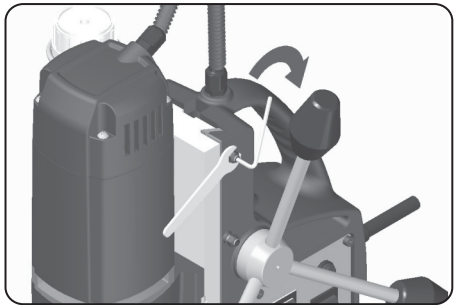
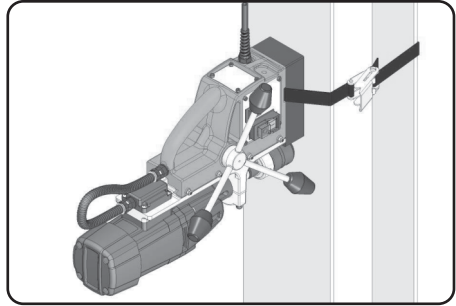


Fig. No. 10

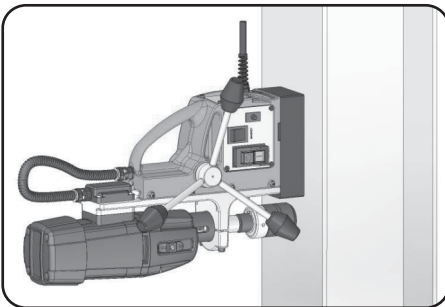
SAFE OPERATION FOR MAGNETIC CORE DRILLS

Safety Belt Assembly

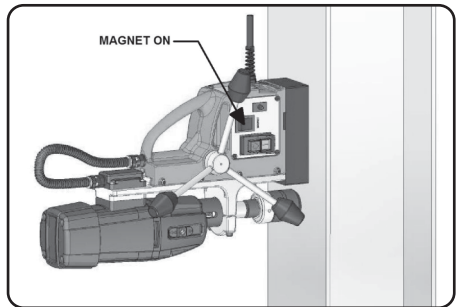


ALWAYS USE THE SAFETY BELT WHEN USING MAGNETIC CORE DRILL VERTICALLY OR UP-SIDE DOWN POSITION.

The safety belt prevents the drill unit from falling, in the event of a power failure or if the magnet breaks loose from the work surface. The safety belt attaches to the drill by running the safety belt through the gap provided between drill body & magnet of the unit and then continuing around the material and/or work surface. Adjust the belt so it is tight and secure.



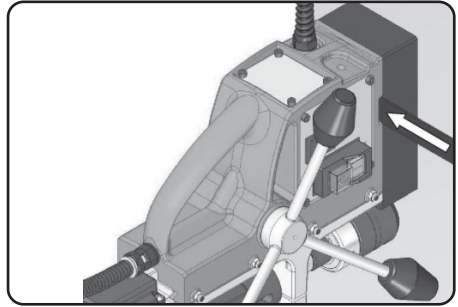
Keep the stand at proposed location.



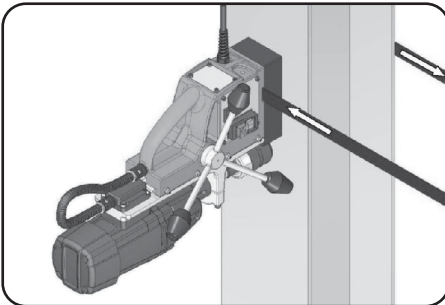
Switch on the magnet.



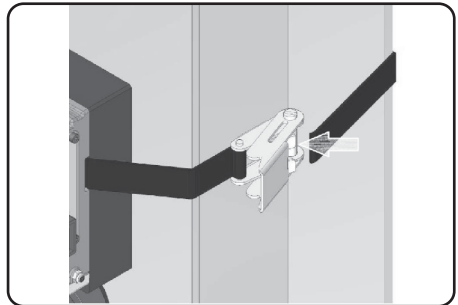
Hold the stand by hand.



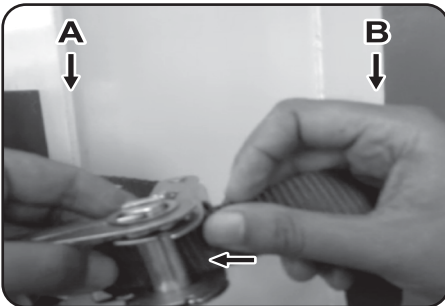
Pass the safety belt through the opening provided in the body.



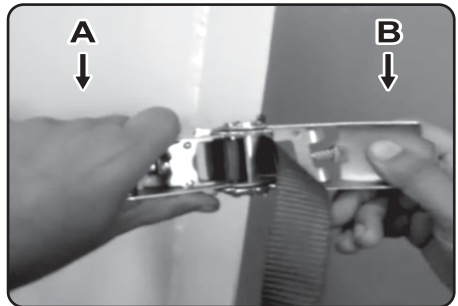
Wrap the safety belt around the work piece.



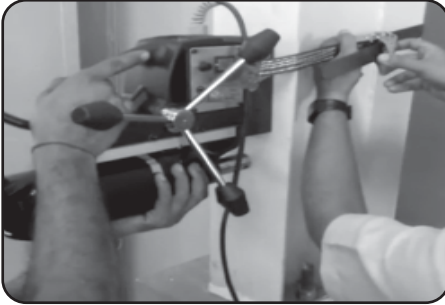
Insert the belt through clamping slot.



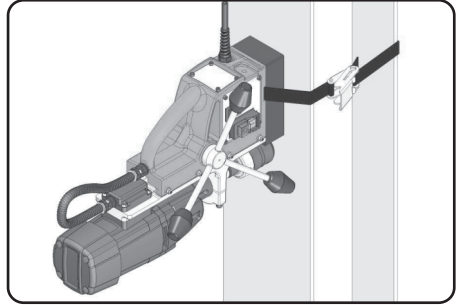
Hold clamp A by left hand insert the belt through slot provided on clamp shaft.



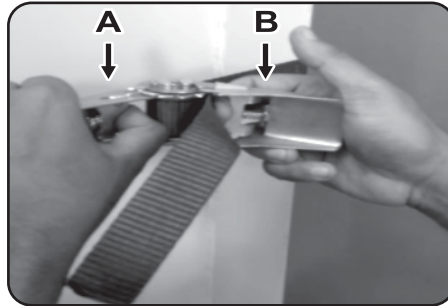
Hold clamp A & tighten the belt by adjusting clamp B.
Stop the locking when securely tighten the belt.



Lock the clamp.



Now magnetic core drill is ready for vertical / overhead drilling application.



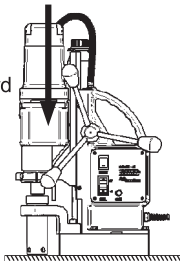
After completion of drilling. Hold the stand and disengaged the belt.
(Press the two A & B lock mechanism & remove the belt.)

OPERATING INSTRUCTIONS

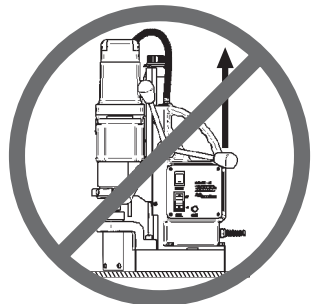


When drilling, especially in horizontal or overhead positions, always apply feed pressure toward the work surface. Never pull away from the work surface as this can weaken magnetic holding power.

Use handles to feed toward work surface



Never pull handles away from work surface



5. PRECAUTIONS OF USE :-

- a) Prior to all operations, mount coolant unit.
- b) The Place of installation for the base SA must be clean and rust free. Paint rust, scale or uneven surfaces decreases the holding strength of Magnet.
- c) Disconnect the plug from the power source before making any adjustment, changing accessories or storing the tool.
- d) Do not execute any electric welding on the work piece, on which the Magnetic Core Drilling Machine is used.
- e) The drill's magnetic adhesion depends on the thickness of the work-piece, as shown in fig. No. 1, 1/2" (12mm) is the minimum thickness for safe operation.
- f) If workpiece under drilling is thin. use an iron plate larger than base as shown in fig. No. 11, 12.

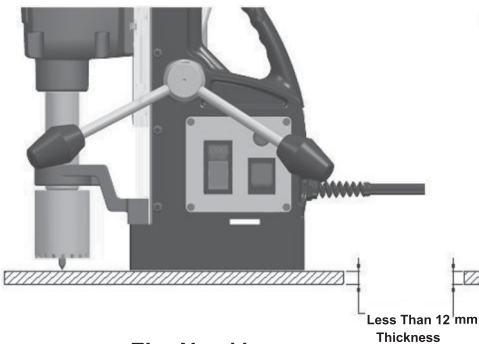


Fig. No. 11

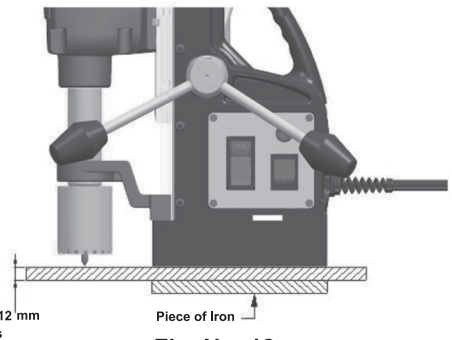


Fig. No. 12

- g) Do not attempt to drill a work-piece, which is thicker than the maximum cutting depth of the cutter being used. Never exceed the cutter diameter.
- h) Always provide a method of catching slug, where ejected slug may cause injury (slug ejects at end of cut).
- i) Do not force tool, Use correct tool for the application.
- j) If the cutter jam in the work-piece, stop the machine immediately. Isolate the machine at the main supply. Loosen the cutter rotating the Sleeve Holder. Do not attempt to free cutter by startig and stopping the motor.
- k) The slug ejects at the end of cut and is very hot. Dont touch with barehand.

6. OPERATING INSTRUCTIONS :

1. Position the center pin directly over the desired cutting location. (Fig. 13)
2. Cutting fluid must be used at all times to enhance the quality of cut and prolong the cutting tool life. Cutting fluid is applied through small holes located at the top / shank end of the Sleeve Holder and feeds via gravity. (Fig. 14)



Fig. No. 13

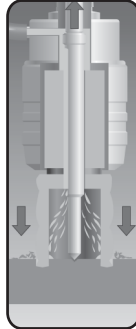


Fig. No. 14

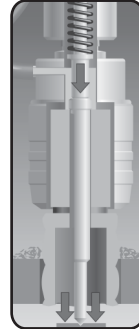


Fig. No. 15

3. Switch on the magnet (Fig. 16), in order to initiate the magnet and the magnetic adhesion is guaranteed, Switch on the DRILL to start the Motor (Fig. 17)

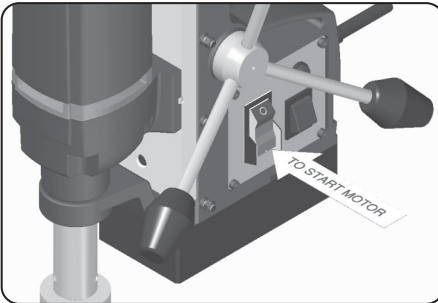


Fig. No. 16

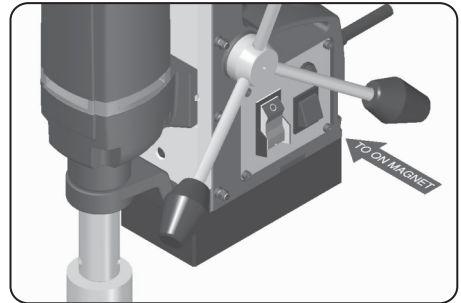


Fig. No. 17

4. Always proceed with caution at the start of drilling operations. When using annular cutter apply pressure gradually at first until the entire cut edge is formed as a circle / a depth of 1/8" (3.2mm) is reached.
5. When hole is complete the slug is automatically ejected from the cutter (Fig. 15)

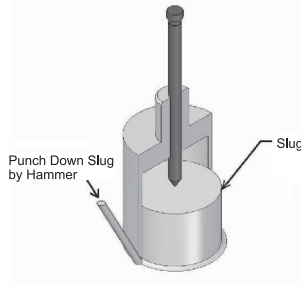


Fig. No. 20

However if the slug, remains inside the annular cutter, next drilling operation won't possible. Use Flat pin or punch to remove the slug as shown in (Fig. 20). Confirm slug is ejected from the annular cutter.

6. During the drilling process, do not stop the motor. After the process, cutter draw back with running motor.
7. Switch off the drill, then the magnet. Ensure the magnet base is clear of chips. Locate the next hole using the above procedures.

7. MAINTENANCE AND TROUBLE SHOOTING

Machine service must be performed only by qualified personnel. When servicing a tool, use only original replacement parts. Use of unauthorized parts will void the warranty. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

Machine service sheet is provided with this operation manual.

Pull out the plug prior to cleaning. Use dry compressed air to clean the motor (from the external).

In case of electrical or mechanical malfunction, immediately switch off the tool and disconnect the plug. Excessive sparking generally indicates the presence of dirt in the motor or worn out carbon brushes. Periodically check brushes for wear and replace when they reach (6mm)

Ordering replacement parts:

Please quote the following data when ordering replacement parts:

- Type of machine
- Article number of the machine
- Identification number of the machine
- For our latest products & information please go to our website

<http://www.ep-india.in>

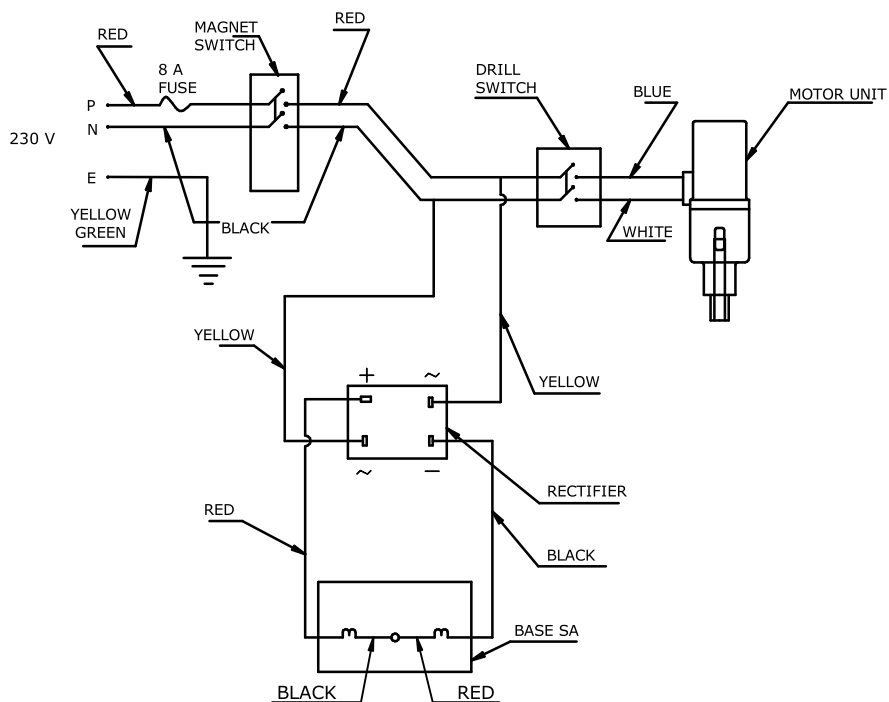
Disposal and recycling

The unit is supplied in packaging to prevent its being damaged in transit. This packaging is raw material and can therefore be reused or can be returned to the raw material system. The unit and its accessories are made of various types of material, such as metal and plastic. Defective components must be disposed of as special waste. Ask your dealer or your local council.

TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
Fuse blows	Wrong connection	Check the connection of bridge rectifier diode. (Ref. Electrical Wiring diagram)
	Rectifier short	Replace the bridge rectifier diode
	Magnet short	Check the resistance of coils separately. If it is zero or no resistance. Replace the magnetic base. (Ref. Electrical Wiring diagram) New magnet assembly.
Switch not glows	Supply is not available in the mains.	Confirm the supply socket O/P & fuse.
	Switch failed.	Replace the switch.
No Magnetism	Loose Connection	Do the proper connection (Ref. Electrical Wiring diagram)
	Coil open	Check the continuity & resistance of coil. If there is no resistance replace the magnet.
	No stoppage during break or no time to cool	Whenever no work, Switch off the magnet
	Switch failed.	Replace the switch
Drill M/C does not rotate	Switch failed.	Replace the switch
	Carbon brush over/ Armature failure / Field Open	Refer the Owners manual for Drill machine.
More play in machine	Gib & Brass strip wear out	Set Guide bed clearance by fine tuning grub screws on side face of main body with 2mm wrench. Use the wrench provided along with stand.
Drill slips during drilling	Unclean magnet base	Clean the magnetic face & magnet mounting area. Magnet mounting area should be rust free.
	Insufficient thickness of material under drilling	Under drilling plate thickness should be minimum 12 mm. If it is less use iron plate.
Slug blocks in the sleeve	insufficient coolant flow	Use proper & sufficient coolant to cool the cutting area. It will avoid excess heating & blocking of slug.
	Movement of spring	Spring operates in coolant & water after continuous application it becomes rusty & started to stuck in guide hole. To avoid this put some oil in sleeve after completion of work.
	Spring tension lost	Remove the circlip & replace spring SA.
Water leakage from sleeve housing	Rubber o ring worn out	After continuous application, o ring will wear out because of friction. Change the O ring.
Heavy noise during drilling	Blunt cutter used	Resharp or replace the cutter.
Cutter breakage	Improper alignment	See respected figure.

8. ELECTRICAL WIRING DIAGRAM



SYMBOLY

Before you start working, read the operating instructions of the machine.



Danger / Caution / Warning



Wear ear protectors



Wear goggles



Danger of being ripped or cut



Class II construction, tool in which protection against electric shock does not rely on basic insulation only, but in which additional safety precautions, such as double insulation or reinforced insulation, are provided. There being no provision for protective earthing or reliance upon installation conditions.



European Conformity Mark



**EC Declaration of Conformity
Certificate No. 01548/3/2019**

We declare under our sole responsibility that the product described under "Technical Data" is in conformity with following standards or standardization documents :

EN ISO 12100:2010
EN 60204-1:2006 + A1:2009
EN 61029-1:2009+A11:2010
DIN EN 60745-2-1:2010
DIN EN 61000-6-4:2007+A1 2011
DIN EN 55014-1-2006+A1 2009 +A2:2008

accordance to the provisions of the directives (2006/42/EC)

Technical File (2006/42/EC) at :
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Industrial Estate, Tardal, Tal-Hatkanangale,
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Sahil Kulkarni
Managing Director

18th April 2019