



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.



Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised re-cycling agent. This will allow the recycling of raw materials and help protect the environment.

Sip
SIP INDUSTRIAL

machinery specialists since 1968

1200 Magnetic Drill



06181 & 06182

FOR HELP OR ADVICE ON THIS PRODUCT PLEASE CONTACT YOUR DISTRIBUTOR,
OR SIP DIRECTLY ON:
TEL: 01509500400
EMAIL: sales@sip-group.com or technical@sip-group.com
www.sip-group.com

Ref: 211216

Please read and fully understand the instructions in this manual before operation. Keep this manual safe for future reference.

DECLARATION OF CONFORMITY

Declaration of Conformity
We
SIP (Industrial Products) Ltd
Gelders Hall Road
Shepshed
Loughborough
Leicestershire
LE12 9NH
England

As the manufacturer's authorised representative within the EC
declare that the

SIP 1200 Magnetic Drill ^(110V) - SIP Part No. 06181
SIP 1200 Magnetic Drill ^(230V) - SIP Part No. 06182

Conforms to the requirements of the following directive(s), as indicated.

2014/35/EU	Low Voltage Directive
2006/42/EC	Machinery Directive
2014/30/EU	EMC Directive
2011/65/EU	RoHS Directive

And the following harmonised standard(s), including:

EN 61029-1:2009+A11:2010
EN ISO 12100:2010
EN 55014-1:2006+A1:2009+A2:2011
EN 55014-2:2015
EN 61000-3-2:2006+A1:2009+A2:2009
EN 61000-3-11:2000

Signed:



Mr P. Ippaso - Managing Director - SIP (Industrial Products) Ltd
Date: 08/12/2016.



<i>Page No.</i>	<i>Description</i>
4.	Safety Symbols Used Throughout This Manual
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SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL



Danger / Caution: Indicates risk of personal injury and/or the possibility of damage.



Warning: Risk of electrical injury or damage!



Note: Supplementary information.

SAFETY INSTRUCTIONS



IMPORTANT: Please read the following instructions carefully, *failure to do so could lead to serious personal injury and / or damage to the drill.*

When using the magnetic drill, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury.

Read all these instructions before operating the drill and save this user manual for future reference.

The magnetic drill should **not** be modified or used for any application other than that for which it was designed.

The magnetic drill is a portable tool used for the drilling of structural steel, or similar on site or in the workshop. It has a strong electromagnetic base enabling it to adhere to a carbon steel (magnetic) surface.

If you are unsure of its relative applications do not hesitate to contact us and we will be more than happy to advise you.

KNOW YOUR MAGNETIC DRILL: Read and understand the owner's manual and labels affixed to the drill. Learn its applications and limitations, as well as the potential hazards specific to it.

KEEP WORK AREA CLEAN AND WELL LIT: Cluttered work benches and dark areas invite accidents. Floors must not be slippery due to oil, water or sawdust etc.

DO NOT USE THE DRILL IN DANGEROUS ENVIRONMENTS: Do not use the magnetic drill in damp or wet locations, or expose it to rain. Provide adequate space surrounding the work area. Do not use in environments with a potentially explosive atmosphere.

KEEP CHILDREN AND UNTRAINED PERSONNEL AWAY FROM THE WORK AREA: All visitors should be kept at a safe distance from the work area.

NOTES

PARTS LIST....cont

Ref. No.	Description	SIP Part No.	Ref. No.	Description	SIP Part No.
63.	Rotor 110v	WK06-00199	77.	Oil Feed Mount	WK06-00214
63.	Rotor 230v	WK06-00200	78.	O Ring	WK06-00215
64.	Bearing 6009	WK06-00201	79.	Spring	WK06-00216
65.	Gear box End Cap	WK06-00202	80.	Spring Stop	WK06-00217
66.	Bearing 627	WK06-00203	81.	Circlip	WK06-00218
67.	Gear	WK06-00204	82.	5mm Hex Wrench	WK06-00219
68.	Bearing 627	WK06-00205	83.	4mm Hex Wrench	WK06-00220
69.	Gear Box Housing	WK06-00206	84.	Drill Chuck	WK06-00221
70.	Circlip	WK06-00207	85.	Chuck Key	WK06-00222
71.	Gear	WK06-00208	86.	Chuck Adaptor	WK06-00223
72.	Bearing 6003	WK06-00209	87.	Safety Chain	WK06-00224
73.	Bearing 6004	WK06-00210	N/A	Safety Guard	WK06-00226
74.	Spindle	WK06-00211	N/A	Safety Guard Retaining Screws	WK06-00227
75.	M8 x 8 Grub Screw	WK06-00212	N/A	Safety Guard Wing Nuts	WK06-00228
76.	Connector	WK06-00213			

SAFETY INSTRUCTIONS....cont

STORE THE MAGNETIC DRILL SAFELY WHEN NOT IN USE: The magnetic drill should be stored in a dry, locked cupboard wherever possible and out of the reach of children.

WEAR THE CORRECT CLOTHING: Do not wear loose clothing, neckties, rings, bracelets, or other jewellery, which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll long sleeves up above the elbow.

USE SAFETY CLOTHING / EQUIPMENT: Wear CE approved safety goggles at all times, normal spectacles only have impact resistant lenses, they are **NOT** safety glasses. A face or dust mask should be worn if the operation is dusty and ear protectors (plugs or muffs) should be worn, particularly during extended periods of operation.

PROTECT YOURSELF FROM ELECTRIC SHOCK: When working with the magnetic drill, avoid contact with any earthed items (e.g. pipes, radiators, hobs and refrigerators, etc.). It is advisable wherever possible to use an RCD (residual current device) at the mains socket.

STAY ALERT: Always watch what you are doing and use common sense. Do not operate the magnetic drill when you are tired or under the influence of alcohol or drugs.

DISCONNECT THE MAGNETIC DRILL FROM THE MAINS SUPPLY: When not in use, before servicing and when changing accessories such as cutters etc.

AVOID UNINTENTIONAL STARTING: Make sure the switch is in the **OFF** position before connecting the drill to the mains supply.

NEVER LEAVE THE DRILL RUNNING / CONNECTED WHILST UNATTENDED: Turn the drill off and disconnect it from the mains supply between jobs. Do not leave the drill until it comes to a complete stop.

DO NOT ABUSE THE MAINS LEAD: Never attempt to move the drill by the mains lead or pull it to remove the plug from the mains socket. Keep the mains lead away from heat, oil and sharp edges. If the mains lead is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid unwanted hazards.

CHECK FOR DAMAGED PARTS: Before every use of the drill, a guard or other part that is damaged should be carefully checked to determine that it will operate correctly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, and any other conditions that may affect its operation. A guard or other part that is damaged should be correctly repaired or replaced by an authorised service centre unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorised service agent. Do not use the drill if the switch does not turn it on and off.

KEEP ALL GUARDS IN PLACE: And in full working order.

MAINTAIN THE MAGNETIC DRILL WITH CARE: Keep bits sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories. All extension cables must be checked at regular intervals and replaced if damaged. Always keep the hand grip/s on the drill clean, dry and free of oil and grease.

USE ONLY RECOMMENDED ACCESSORIES: Consult this user manual, your distributor or SIP directly for recommended accessories. Follow the instructions that accompany the

SAFETY INSTRUCTIONS...cont

accessories. The use of improper accessories may cause hazards and will invalidate any warranty you may have.

REMOVE ADJUSTING KEYS AND WRENCHES: Form a habit of checking to see that keys and adjusting wrenches are removed from the drill before every use.

DO NOT OVERREACH: Keep proper footing and balance at all times.

USE THE RIGHT TOOL: Do not use the drill or attachment to do a job for which it was not designed.

DO NOT OPERATE THE MAGNETIC DRILL IN EXPLOSIVE ATMOSPHERES: Do not use the drill in the presence of flammable liquids, gases, dust or other combustible sources. Drilling operations may create sparks which can ignite the dust or fumes.

DO NOT EXPOSE THE MAGNETIC DRILL TO RAIN OR USE IT IN WET CONDITIONS: Water entering magnetic drill will greatly increase the risk of electric shock.

HAVE YOUR MAGNETIC DRILL REPAIRED BY A QUALIFIED PERSON: The tool is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

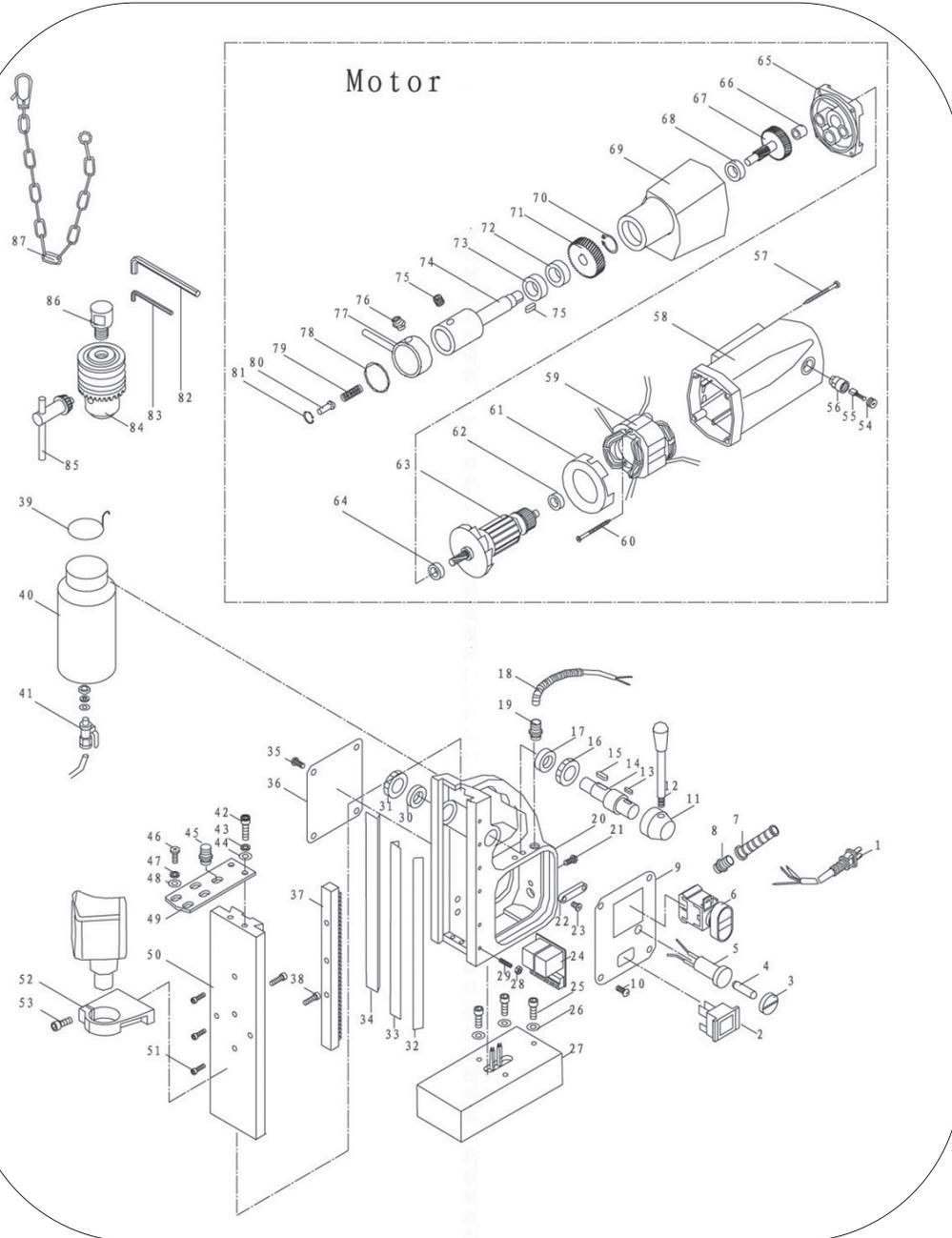
DO NOT dismantle, tamper with or use the drill without all guards fitted as this may be dangerous and will invalidate the warranty.

- Keep hands out of path of drill bit / cutter, never reach around drill bit.
- Make sure the drill bit / cutter is clear of the workpiece before the switch is turned on.
- Allow the drill bit / cutter to run up to full speed before drilling.
- Stop operation immediately if you notice anything abnormal.
- Wait for the drill bit to stop completely and remove the plug from mains supply before servicing or adjusting the drill or changing bits.
- Be alert at all times, especially during repetitive, monotonous operations. Don't be lulled into a false sense of security. Drill bits / cutters can be extremely unforgiving.
- Use of improper accessories may cause damage to the drill and surrounding area as well as increasing the risk of injury.
- Turn off the drill and wait for it to completely stop before moving or changing settings or bits etc.
- Do not modify the magnetic drill to do tasks other than those intended.
- Always attach the safety chain to an adequate point during operation.
- Remove key from chuck after adjustment.
- Use only the chuck key provided by the manufacturer or a duplicate of it.
- Appropriate personal protective equipment **MUST** be worn and **MUST** be designed to protect against all hazards created. Severe permanent injury can result from using inappropriate or insufficient protective equipment - Eyes in particular are at risk.
- Do not overload the tool. Allow the tool to operate at its optimum speed for

PARTS LIST

Ref. No.	Description	SIP Part No.	Ref. No.	Description	SIP Part No.
1.	Mains Lead 110v	WK06-00134	31.	Bearing	WK06-00167
1.	Mains Lead 230v	WK06-00135	32.	Slide Adjustment Plate	WK06-00168
2.	Magnet On / Off Switch	WK06-00136	33.	RH Slide Plate	WK06-00169
3.	Fuse Cap	WK06-00137	34.	LH Slide Plate	WK06-00170
4.	Fuse	WK06-00138	35.	M5×8 Screw	WK06-00171
5.	Fuse Holder	WK06-00139	36.	Plate	WK06-00172
6.	Motor On / Off Switch & Relay 230v/110v	WK06-00141	37.	Rack	WK06-00173
7.	Cable Strain Relief	WK06-00142	38.	M6×20 Screw	WK06-00174
8.	Cable Gland	WK06-00143	39.	Cutting Fluid Bottle Support	WK06-00175
9.	Switch Panel Plate	WK06-00144	40.	Cutting Fluid Bottle	WK06-00176
10.	M4×8 Screw	WK06-00145	41.	Valve	WK06-00177
11.	Handle Arbor	WK06-00146	42.	M6×10 Screw	WK06-00178
12.	Handle	WK06-00147	43.	Spring Washer	WK06-00179
13.	4×10 Woodruff Key	WK06-00148	44.	Washer	WK06-00180
14.	Axle	WK06-00149	45.	Cable Gland	WK06-00181
15.	5×15 Woodruff Key	WK06-00150	46.	M5×10 Screw	WK06-00182
16.	Pinion Gear	WK06-00151	47.	Spring Washer	WK06-00183
17.	Lock Ring	WK06-00152	48.	Washer	WK06-00184
18.	Cable Protective Conduit	WK06-00153	49.	Drill Support Plate	WK06-00185
19.	Cable Gland	WK06-00154	50.	Motor Slide Plate	WK06-00186
20.	Drill Body Casing	WK06-00155	51.	M6×12 Screw	WK06-00187
21.	M5×8 Screw	WK06-00156	52.	Drill Clamp Bracket	WK06-00188
22.	Cable Clamp	WK06-00157	53.	M6×30 Screw	WK06-00189
23.	M4×10 Screw	WK06-00158	54.	Brush Holder Cap	WK06-00190
24.	Controller 110v	WK06-00159	55.	Motor Brush	WK06-00191
24.	Controller 230v	WK06-00160	56.	Brush Holder	WK06-00192
25.	M6×16 Screw	WK06-00161	57.	M5×65 Screw	WK06-00193
26.	Washer	WK06-00162	58.	Motor Cover	WK06-00194
27.	Magnetic Base 110v	WK06-00163	59.	Field Windings 110v	WK06-00195
27.	Magnetic Base 230v	WK06-00140	59.	Field Windings 230v	WK06-00225
28.	M5 Lock Nut	WK06-00164	60.	M5×65 Screw	WK06-00196
29.	M5×16 Grub Screw	WK06-00165	61.	Cooling Duct Ring	WK06-00197
30.	Bearing	WK06-00166	62.	Bearing 6008	WK06-00198

EXPLODED DRAWING



SAFETY INSTRUCTIONS...cont

maximum efficiency.

- Always ensure that the accessories such as drill bits / cutters, as well as the drill are rated / designed for use with required application, and that the bits / cutters are correctly and securely fastened before connecting the tool to the power supply.
- **Understand the operating environment;** Before each use the operator should assess, understand and where possible reduce the specific risks and dangers associated with the operating environment. Bystanders should also be made aware of any risks associated with the operating environment.



When using the magnetic drill for certain operations, particularly during extended periods; ensure the operator as well as those in the area wear ear protection.



When using the magnetic drill always ensure the operator as well as those in the area wear eye protection.



Some materials have the potential to be highly toxic; always wear a face mask when operating the magnetic drill.



CAUTION: The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be applied.

TECHNICAL SPECIFICATIONS

Part number	01681	01682
Model	SIP 1200 Magnetic Drill (110V)	SIP 1200 Magnetic Drill (230V)
Input voltage	110V ~ 50hz	230V ~ 50hz
Power	1200W	1200W
No Load Speed	595 rpm	595 rpm
Cutter Ø (max.)	40 mm	40 mm
Cutting Depth (max.)	50 mm	50 mm
Standard Drill Bit Size	1.5 -13 mm	1.5 - 13 mm
Arbor	19mm Weldon Shank	19mm Weldon Shank
Base Size	50 x 80 x 160 mm	50 x 80 x 160 mm
Net Weight	13.5 Kg	13.5 Kg
Gross Weight	18 Kg	18 Kg

CONTENTS & ACCESSORIES

- 1200 Magnetic Drill.
- Blow Moulded Case.
- Safety Guard.
- Coolant Bottle inc. Pipe, Tap & Fitting.
- Safety Chain.
- Feed Handles (x3).
- Standard Chuck inc. Key & Adaptor.
- Hex. Keys (x3).



Note: If any of these items are missing contact your distributor immediately.

MAINTENANCE...cont

CHECKING / REPLACING THE MOTOR BRUSHES

Take a flat blade screwdriver (not supplied) and locate it in the slot on the motor brush cap.

Turn anti-clockwise until the cap can be removed, take care when removing the cap as there is a spring under compression holding the brush in place.

Remove the brush and check the length; If the brush needs changing fit the new brush and tighten the cap to retain it.

If the brush is not worn but is sticking inside the holder there may be a carbon build up that needs removing.

The best way to remove the carbon is by blowing dry air into the holder but a small stiff brush or pipe cleaner could be used to do the same job.

The brush will also need cleaning as some of the build up may be stuck to it.



Caution: When removing or cleaning the brushes eye protection and a dust mask should be worn; particularly if using dry air.



Caution: Clean or change the brushes in a well ventilated area and ensure everyone in that area also wear the appropriate protection.

MAINTENANCE



Danger: Maintenance operations should only be carried out by suitably qualified persons.



Warning: Always ensure that the drill is off and that the plug is removed from the power supply before performing any maintenance tasks or making any adjustments.

Cleaning and maintenance of this drill is mainly common sense some points for guidance are as follows:

Regularly check that all the fixing screws, nuts, bolts and screws are tight.

The mains lead of the drill and any extension cord used should be checked frequently for damage. If damaged, have the mains lead replaced by an authorised service facility. Replace the extension cord as necessary.

Regularly check and clean out any dust etc. that may have gathered in the housing of the motor.

After each use brush off any dust etc. with a soft brush.

Before every use, lubricate and adjust the gibs to ensure that the machines slide and the cutting head move as outlined below. When operating the feed handles, the cutting head and slide should have no 'free play', but no binding anywhere through its range of travel. The cutting head must not move downward under its own weight, but must have to be raised or lowered by the operator using the feed handles.

- All of the adjustment screws and associated lock nuts are located along the Right Hand edge of the machine's main slide.
- Use an appropriate wrench to loosen slightly the locknuts which lock the adjustment screws in place.
- Use a hex key, and starting with the lowest adjusting screw, work upwards turning the adjustment screws slightly so that to any free sideways movement of the slide is eliminated.
- Turn the feed handles to move the slide and cutting head up and down. There should be no free play, but no binding anywhere throughout the range of travel.
- If necessary, repeat the above procedure several times to ensure that any free play or movement has been eliminated.
- As the feed handles are operated, the machines cutting head and slide should move up or down freely without any binding and without any side to side movement
- When adjustment has been successfully completed, retighten the locknuts.
- Recheck the movement of the machines slide and cutting head.

ELECTRICAL CONNECTION

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage.

You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices; A residual current circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a residual current device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician.

Connecting to the power supply:

The 1200 Magnetic Drill (06182) is fitted with a standard UK 13 amp type 230v ~ plug, the 1200 Magnetic Drill (06181) is supplied with a standard UK 16 amp 110V ~ type plug. Before using the tool inspect the cable and plug to ensure that neither are damaged. If any damage is visible have the tool inspected / repaired by a suitably qualified person. If it is necessary to replace the plug a heavy duty impact resistant plug would be preferable.

The wires for the plug are coloured in the following way:

Yellow / green	Earth
Blue	Neutral
Brown	Live

As the colours of the wires may not correspond with the markings in your plug, proceed as follows: The wire which is coloured blue, must be connected to the terminal marked with N or coloured black. The wire which is coloured brown, must be connected to the terminal, which is marked L or coloured red. The wire which is coloured yellow / green should be connected to the terminal which is coloured the same or marked



Always secure the wires in the plug terminal carefully and tightly. Secure the cable in the cord grip carefully.



Warning: Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved plug with the correct rated fuse. If in doubt consult a qualified electrician.

ELECTRICAL CONNECTION...cont



Note: Always make sure the mains supply is of the correct voltage and the correct fuse protection is used. In the event of replacing the fuse always replace the fuse with the same value as the original.



Note: If an extension lead is required in order to reach the mains supply; ensure that this too is rated for the correct voltage and fuse rating.



Note: The cross section of the extension lead should be checked so that it is of sufficient size so as to reduce the chances of voltage drops.

GUARANTEE

Guarantee:

These SIP magnetic drills are covered by a 12 month parts and labour warranty covering failure due to manufacturers defects. This does not cover failure due to misuse or operating the magnetic drill outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges including, but not limited to parts, labour and carriage costs.

This guarantee does not cover consumables such as chucks, brushes & cutters etc.

In the unlikely event of warranty claims, contact your distributor as soon as possible.



Note: Proof of purchase will be required before any warranty can be honoured.

OPERATING INSTRUCTIONS

- Fill the coolant bottle with appropriate coolant.
- Position the magnetic drill, using the pilot pin as an aid to locate the centre of the cut.
- Switch on the magnet and check that cutter has maintained intended position and machine is securely held to the workpiece.
- Use the supplied safety chain to ensure that the drill is secured to the workpiece should the drill slip, or the magnet fail.
- Ensure that coolant feed tap is on and coolant feeds properly through the pin. (Adjust the tap to correct coolant flow speed).
- Using the feed handles set the cutter so that it is just above the workpiece, but not touching.
- Switch on the motor and allow it to come up to full speed.
- Using the feed handles, lower the motor head and begin cutting; Use light pressure at first to keep cutter from wandering, apply normal even pressure throughout the cut, allowing cutter to do the work.
- Once the operation is complete, use the feed handles to raise the motor head away from the workpiece.



Caution: The pilot pin is spring loaded and will push the removed metal out of the cutter when the work is complete.

ASSEMBLY INSTRUCTIONS....cont

- Push the end of the coolant pipe, not connected to the bottle outlet, to the coolant pipe fitting (Fig. 011).

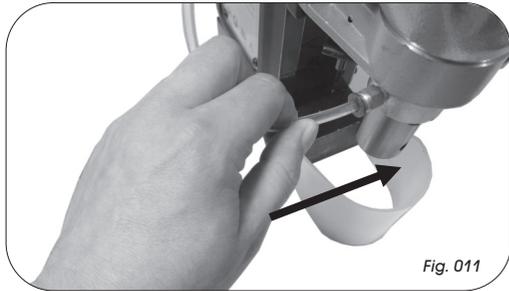


Fig. 011

FITTING A CUTTER (NOT SUPPLIED)

- Ensure that the magnetic drill is turned off and unplugged.
- Insert the pilot pin into the cutter.
- Slide the 19mm shank into the arbor.
- Adjust the cutter so that the 2 flats on the cutter shank align with the 2 locking screws of the arbor.
- Use supplied hex. wrench to secure the locking screws tightly against the 2 flats.

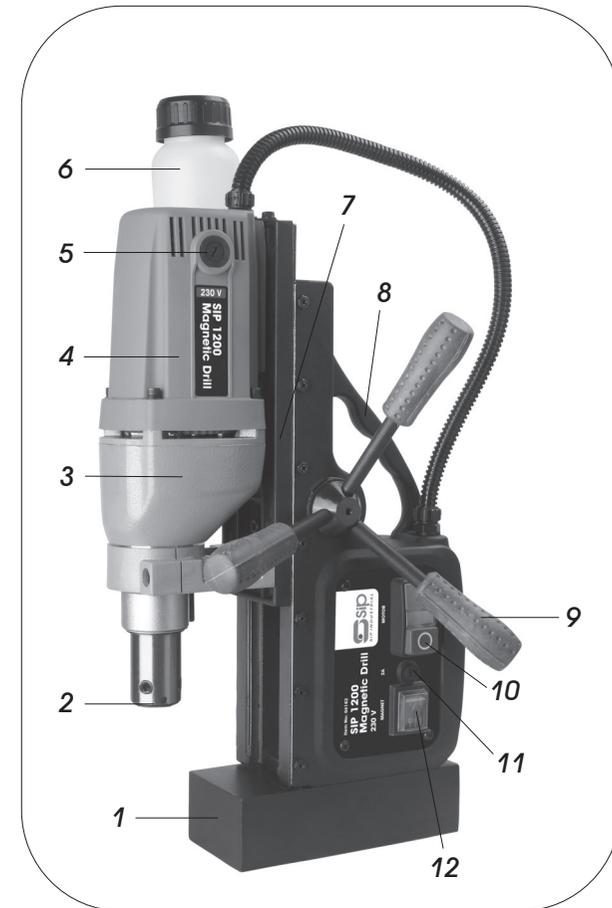


Note: Follow these instructions in reverse to remove the cutter.

USING A STANDARD CHUCK

- Remove the cutter.
- Slide the 19mm shank of the chuck adaptor into the arbor.
- Adjust the adaptor so that the 2 flats on the adaptor shank align with the 2 locking screws of the arbor.
- Use supplied hex. wrench to secure the locking screws tightly against the 2 flats.
- Screw the chuck onto the chuck adaptor.

GETTING TO KNOW YOUR MAGNETIC DRILL



Ref. No.	Description	Ref. No.	Description
1.	Magnetic Base	7.	Drill Slide
2.	Cutter Holder	8.	Carrying Handle
3.	Gearbox	9.	Feed Handle
4.	Motor	10.	Motor On/Off Switch
5.	Motor Brush	11.	Fuse
6.	Coolant Bottle	12.	Magnet On/Off Switch

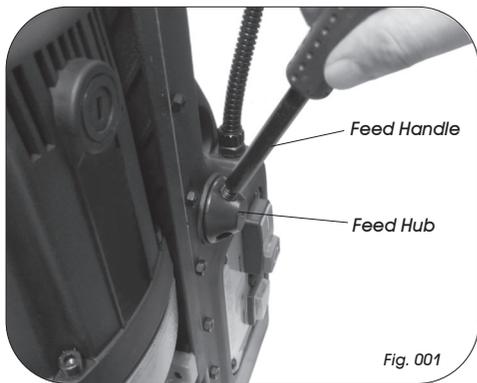
ASSEMBLY INSTRUCTIONS



Danger: Before making any changes or adjustments, ensure that the drill is turned off, and the mains lead is removed from the supply socket.

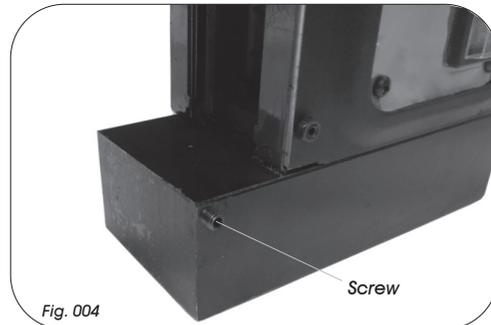
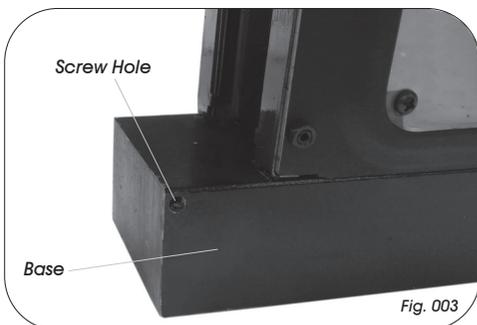
FITTING THE FEED HANDLES

- Line up a handle with one of the holes on the feed hub (Fig. 001).
- Turn the handle clockwise to secure in place.
- Follow these instructions for the other 2 handles (Fig. 002).

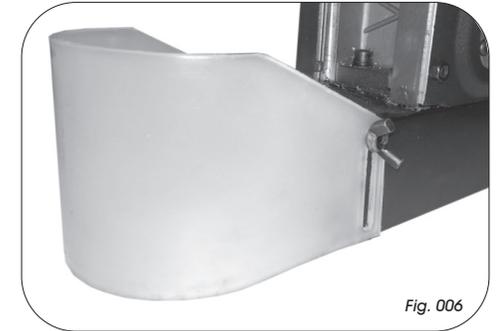


FITTING THE SAFETY GUARD

- Fit the 2 screws (1 either side) to the side of the base, tighten to secure (Fig. 004).
- Fit the guard over the screws (Fig. 005).
- Use the wing nuts over the screws to secure the guard in position (Fig. 006).



ASSEMBLY INSTRUCTIONS...cont



FITTING THE COOLANT ASSEMBLY

- Locate the coolant bottle retaining screws on the side of the magnetic drill (Fig. 007).
- Fit the wider section of the bottle bracket over the retaining screws and slide down (Fig. 008, 009 & 010).

