

Risk Rating**Risk Assessment & Method Statement****Task/ activity:** Use of magnetic drills**Task/ activity description:**

TASK DESCRIPTION: MACHINE TOOL EQUIPPED WITH A DRILLING TOOL USED FOR DRILLING HOLES IN METALS OF VARIOUS DIAMETERS AND DEPTHS FOR INATLATION AND MAINTENACE OF FIXED PLANT MAHCIENTRY FRAMES OR OTHER TASKS

**Likely to be effected:** Operatives, subcontractors, visitors**Risk Scoring = multiply severity by probability SxP=R**

Severity	Probability	Risk Category
5 Fatality or disaster	5 Highly likely	
4 Major injury, damage or loss	4 Very likely	High = 15-25
3 Reportable injury or occurrence	3 Likely	Medium = 9-14
2 Minor injury, less than 3 days lost time or minimal loss	2 Unlikely	Low = 1-8
1 Minor injury, no lost time or damage	1 Very unlikely	

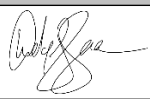
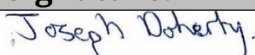
Hazard	Control measures to be taken to reduce risk	Scoring		Risk rating
		S	P	
Electricity - Electrocution - Death - Burns	• Inspect the condition of lead and plug before use. • Use battery tool wherever possible. • If 110V has the tool been fitted an RCD. • Check for hidden/buried cables before drilling etc. • Use a cable tracker if in doubt. • Do not work where water is present without throughout assessment of the task by a competent person.	5	1	5

	PAT testing is undertaken yearly by a third-party competent person.			
Fire - Fatality - Burns - Smoke inhalation	- Do not work near flammables, compressed gases, in explosive atmospheres or confined spaces without assessment of the task completed by a competent person. - Personnel are instructed in fire emergency procedures - Appropriate means of fire suppression are to be prepared and readily available in case of emergency. - Trained fire warden personnel assigned to each shift. - Ensure hot works permit is completed if there is potential for heat or sparks that may be a source of ignition. - Familiarize yourself with the specific work area, plan for an emergency, where is the fire exits, where is the fire call point, is the radio charged and working. - Fire watch is a minimum of 1 hr after completion of hot works.	5	2	10
Ergonomic - Minor injuries - Hand or head injuries	- Ensure there is adequate room to do the job. - Minimise the time individuals use heavy equipment (e.g. job rotation). - Ensure the tool is properly mounted and secured before use. - Do not attach magnetic base to non-magnetic grades of stainless steel. The magnetic base will not hold. - Do not overreach. Keep proper footing and balance at all times. - Use appropriate means of supporting the load as indicated by the size and shape of the workpiece and the task as assessed.	3	2	6
Slips, trips and falls Musculoskeletal disorders	- The operative is to inspect the work area and ensure work area is free, from slip and trip hazards. - Take care routing cables so as not to incur damage or leave a hazard. - All work should be from a suitable position that allows for the operative to maintain an appropriate stance and drill fixed to a stable	4	2	8

	work platform. Housekeeping must be maintained at all times by the operative.			
Tool jamming or binding Hand Injuries	- Check tool is appropriate for the job and used in accordance with manufacturer's instructions. - Trained operators only (or under strict supervision). - Ensure tools are maintained according to manufacturer's instructions. - Adequate drill bits must be used accordingly to the task.	4	2	8
Exposure to hazardous, fumes, vapours or dust - Breathing issues - Fatality	- Increase ventilation to work area (e.g. open windows, temporary extract etc.) - Stop working if visibility is noticeably reduced. - Wear suitable protective clothing (especially gloves). - Clean work area regularly (e.g. sweep, vacuum, wash down). - Wear close-fitting eye protection. - Wear appropriate FFP3 face mask or half face silicone mask with appropriate filters.	4	2	8
Inappropriate use Major injuries	- Only trained, competent personnel is authorised to use power tools. - Check tool is appropriate for the job and used in accordance with manufacturer's instructions. - Users shall be trained in the correct use of portable tools. - Inexperienced power tools users must plan and assess their work with a competent person and work under supervision. - Power tools should be securely stored or locked out when not in use.	5	2	10
Vibration - Hand vibration disorders - White fingers	- Minimise the time individuals use the equipment (e.g. job rotation). - Restrict use of vibration inducing tools to recommended times see manufacturer's information label on equipment. - Ensure tools are properly stored, maintained and used according to manufacturer's instructions. - Supervisors should inform users of risks from vibration.	4	2	8

	Tools maintenance must be performed at suitable intervals by competent personnel.			
Noise - Hear damage or loss - Tinnitus	- Hearing protection is provided and is enforceable. - Advise nearby persons of hazard. - Selection and purchasing of tools follow regulations. - Tools maintenance must be performed at suitable intervals by competent personnel to avoid an increase of noise level. - Noise levels are assessed at appreciate,	4	2	8
Moving parts - Major injuries - Hand injuries	- No loose clothing, or jewellery is authorised to be worn. - Long hair must be tied back. - Use guards where appropriate. - Keep clear of all rotating parts. - Make sure to remove the chuck key before engaging drill. - Always secure your work with proper means. - Never hold the material that is being worked with your hand.	4	2	8
Flying Debris - Eyes injuries - Major injuries	- Always wear suitable eye protection. - Ensure first aid and eye wash station is in close proximity and understand who to contact in the event of medical assistance. - Remove all unnecessary personnel from the work area.	4	2	8

Approval and review

Assessor:	Signature:	Position:	Date:
Wesley Jameson		Health & Safety Manager	Apr 2024
Approved by:	Signature:	Position:	Date:
Joseph Doherty		Chief Executive Officer	Apr 2024
Reviewed on:	Apr 2024	New version number:	2
Date of next review:	Apr 2025, or as an when required		

Method statement

PERSONAL PROTECTION EQUIPMENT



Safety glasses must be worn at all times.



Long and loose hair must be contained.



Hearing protection must be worn.



Sturdy footwear must be worn at all times.



Close fitting/protective clothing must be worn.



Rings and jewellery must not be worn.

PREPARATION:

Only Competent personnel are authorised to work with the magnetic drill.

Drilling operations will be planned and assessed by the operative to ensure they have the right tool for the job and that the necessary control measures are in place. If unsure consult with your line manager as part of the planning process.

VISUAL INSPECTION

Before using a magnetic drill, you should check the following for any defects or damage:

- operating controls.
- plug and supply cable.
- handles.
- casing.
- Drill Bits
- Guards

And;

- ensure that the magnet is working;
- ensure that the metal surface to which the drill is to be attached is clean and dry;
- ensure that the drill has a guard attached;
- ensure that the lubricant bottle is attached.

You should check that the drill has had a 'portable appliance test' (PAT) carried out and is marked clearly and in date on the machine.

Where possible, the drill should be fitted with Active Torque Control (ATC) — which stops the drill in a fraction of a second if the drill body begins to rotate. ATC operates in addition to the mechanical slip clutch, with sensors detecting the acceleration of the tool body. If it suddenly begins to rotate, the control unit will disengage a

magnetic clutch immediately and shut off the motor. If ATC is not fitted and the drill bit jams, the tool will twist with a jolt.

If you are uncertain about the condition of the drill, do not use the tool and notify your supervisor immediately.

Check the position of the hole:

Ensure that you know exactly where the hole is to be made and verify that the position has been correctly set out.

Use the correct PPE:

In addition to the site PPE requirements, goggles must be used when operating a magnetic drill; an assessment of the task may indicate the need for additional equipment such

as the following:

- respiratory protective equipment;
- hearing protection.

Work area and work position:

Make sure you have a safe work area that allows a safe working position and:

- is clear of debris and materials with no trip hazards;
- has clear and adequate access.

If using a magnetic drill above head height or at an angle, an appropriate safety strap must be used, where it is practical to do so.

Ensure the drill bit is correctly fitted:

Ensure it is straight and centred in the jaws.

Avoid over-tightening the chuck.

Do not exceed the chuck capacity.

Check by giving it a short run.

Never change settings unless the drill has come to a stop.

Before changing accessories, ensure the drill is disconnected from the supply.

Always ensure that the drill bit or chisel point is sharp and in good condition.

Ensure the guard is used at all times.

Do the job safely:

Hold the drill correctly using both handles supplied to support the drill as appropriate.

Stand correctly.

Do not use the trigger lock.

Drill in a straight line at a right angle to the surface, where possible.

Do not allow the drill to overheat.

Ensure that the air vents are kept clear.

Do not force the drill or chisel – let it do the work for which it was designed.

Ensure you can reach the magnet's off switch.

Ensure the surface to which the drill is being attached is clean and free of debris.

Specific drilling considerations:

For metal, mark the position of the hole with a metal punch.

Drill a pilot hole for larger-diameter holes.

For metal, use cutting oil to lubricate the hole during drilling.

Exert just enough pressure to achieve a steady rate of progress, allowing the drill to do the work.

Withdraw the bit from time to time (while keeping the drill running) to cool the bit and clear waste from the hole.

If the drill becomes jammed, do not apply more pressure as this may cause the drill to break.

Let the drill do the work and do not force the drill since this may cause the drill to lift and the magnet to become detached, thus allowing the drill to turn, with the risk of causing injury.

Finish the job:

Switch off magnet and turn off the power.

Disconnect the drill from the electricity supply.

Never touch bits that have just been used since they could be very hot and could cause burning; let them cool first.

Clean the drill and work area.

Returning the drill:

Do not leave or lend any tool, return it to the stores or stow it in a safe dry place. If there is any damage or defect, report it to your supervisor.