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HMT

OverReach



Operating & Safety Instructions.

OverReach Fixed System
OverReach Swivel System



Congratulations on your purchase of the Holemaker Technology **OverReach** Transportable Electro-Magnetic Reach System.

Your OverReach model is designed to help you produce superior holes quickly and efficiently in hard to reach and previously inaccessible places with a conventional Magnetic Drilling Machine. Through years of experience, constant innovation and development, HMT is committed to providing you with metal cutting tools and products to help you be more productive.

Before operating your new OverReach System, please read all instructions first. These include the Operators Manual and Warning Labels on the unit itself. With proper use, care and maintenance your model will provide you with years of effective hole drilling performance.

TO REDUCE THE RISK OF INJURY USER MUST READ AND UNDERSTAND ALL INSTRUCTIONS:

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Introduction:

The HMT OverReach system is a range of Electro-Magnetic base units that are designed to reach over obstructions such as plates or rivet heads to position a drilling unit where it would have not been previously possible.

The OverReach Fixed 110v Magnet Clamp is a versatile clamping and positioning tool. Designed for applications where a magnet drill cannot be positioned directly above the required hole location. The powerful electromagnet can be positioned further away from the hole and a magnet drill can be placed on the fixed projecting steel plate or the swivel plate to give more positioning options.

Additionally, the OverReach Fixed 110v Magnet Clamp can be used as a double system with 2 clamps being used to support a Swivel plate. This allows for wider working area to position a magnetic drill above an obstruction.

A range of Weldon extensions are available to extend the Carbidemax broach cutters to a longer working length when in use with the Overreach system.

Technical Specifications:

OverReach Fixed System



Voltage – 110V AC Only

Power – 60W

Cutter Capacity – 30mm

Fixed Plate Thickness – 10mm

Plate Area – 212 x 115mm

Magnet Footprint – 115 x 115mm

MIN Height – 70mm (With Fixed Plate)

Magnet Power – 1100 Kgs

MAX Supported Weight – 12 Kgs

MIN Required Steel Thickness – 10mm

Recommended Magnetic Drills – **HMT V35, MAX 30, MAX 40** Magnetic Drills

- **Ensure surface is the required thickness, clean, flat, paint & rust free.**
- **DO NOT Overload the OverReach with Larger Magnetic Drill Machines.**
- **DO NOT Exceed Stated Cutting Capacity of OverReach System.**

- **Always secure both OverReach System & Magnetic Drill with a Supplied Safety Strap.**

Technical Specifications:

OverReach Swivel System



Voltage – 110V AC Only

Power – 60W

Cutter Capacity – 30mm

Swivel Plate Thickness – 20mm

Plate Area – 475 x 140mm

Magnet Footprint – 115 x 115mm

MIN Height – 70mm (With Fixed Plate)

MAX Height – 90mm (With Swivel Plate)

Magnet Power – 1100 Kgs

MAX Supported Weight – 12 Kgs

MIN Required Steel Thickness – 10mm

Recommended Magnetic Drills – **HMT V35, MAX 30, MAX 40** Magnetic Drills

- **Ensure surface is the required thickness, clean, flat, paint & rust free.**
- **DO NOT Overload the OverReach with Larger Magnetic Drill Machines.**
- **DO NOT Exceed Stated Cutting Capacity of OverReach System.**

- **Always secure both OverReach System & Magnetic Drill with a Supplied Safety Strap.**

- **The OverReach Swivel System Can be used with the Swivel Plate removed as per the specs and capacity of the Fixed System on Page 4.**

- **Using Your OverReach System:**

- **Ensure surface is the required thickness, clean, flat, paint & rust free.**
 - Mount the OverReach system in a suitable and safe location.
 - Take care to ensure there is no debris or swarf under the magnet.
 - Once mounted safely, Plug in to 110v AC supply.
 - Turn Magnet Switch to 'ON' and the OverReach will now be active and magnetised.
 - Secondary secure the magnet in position with the supplied safety strap.
 - The safety strap is supplied to prevent the magnet coming loose or falling from height if any power interruption occurs. It **MUST** always be used.
 - Once magnetised, your Magnetic Drill can then be mounted on the OverReach plate.
 - Align the Magnetic Drill to cut the hole required.
 - Secure Magnetic Drill with its own supplied safety strap.
 - You are now ready to use your Magneti Drill as normal.
 - **DO NOT** Exceed Cutting Capacity
 - **DO NOT** Use a Magnetic Drill larger or heavier than recommended.
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- The closer to the OverReach Magnet your Magnetic Drill is mounted will provide Maximum Stability.
 - The Electro-Magnet of the Magnetic Drill used should always be mounted fully within the OverReach plate area, not off the edge.

Notes for OverReach Swivel System:

- Once magnetised as above, the Swivel Plate can then be adjusted and tightened using the supplied Hex Key to
 - Mount your Magnetic Drill as above, align to cut the hole required.
 - Secure Magnetic Drill with its own Supplied safety strap.
 - Take care to avoid using the Swivel Plate at the extremes of adjustment.
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- **The closer to the OverReach Magnet your Magnetic Drill is mounted will provide Maximum Stability.**
 - **The Electro-Magnet of the Magnetic Drill used should always be mounted fully within the OverReach plate area, not off the edge.**

Safety Instructions:

General Safety Instructions:

Do not use this power tool before you have thoroughly read and completely understood this Instruction Manual and the “General Safety Instructions”, including the figures, specifications, safety regulations and the signs indicating DANGER, WARNING and CAUTION.

WARNING: When using electrical tools basic safety precautions should always be followed to reduce the risk of fire, electrical shock and personal injury including following.

Please also observe the relevant national industrial safety regulations. Non-observance of the safety instructions in the said documentation can lead to an electric shock, burns and/or severe injuries.

This Operator’s Manual including the “General Safety Instructions” should be kept for later use and enclosed with the power tool, should it be passed on or sold.

Work Area

1. Keep your work area clean and well lit.
2. Do not operate magnetic drilling machine in explosive atmospheres, such as in the presence of flammable liquids, gas or dust.
3. Keep bystanders, children, and visitors away while operating a magnetic drilling machine.

Electrical Safety

1. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.
2. Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.
3. Do not expose magnetic drilling machines to rain or wet conditions.
4. Do not abuse the cord. Never use the cord to carry the magnetic drilling machine or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.
5. When operating a magnetic drilling machine, use an extension cord suitable for outdoor use.
6. If operating a magnetic drilling machine in a damp location is unavoidable, use a residual current device (RCD) protected supply.

Personal Safety

1. Stay alert, watch what you are doing and use common sense when using a magnetic drilling machine. Do not use machine while tired or under the influence of drugs, alcohol, or medication.
2. Use personal protective equipment. Always wear eye protection.
3. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.
4. Remove any adjusting key or wrench before turning the power tool on.
5. Do not over-reach. Keep proper footing and balance at all times.
6. Dress properly. Do not wear loose clothing or jewellery. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.
7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.
8. Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.

Machine Use and Care

1. Do not force the power tool. Use the correct power tool for your application.
2. Do not use the power tool if the switch does not turn it on and off.
3. Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.
4. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.
5. Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged,
6. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the machine operation. If damaged, have the tool serviced before using by an HMT Authorized Technician. Many accidents are caused by poorly maintained tools.
7. Keep cutting tools sharp and clean.
8. Use the power tool, accessories, and tool bits etc. that are recommended by HMT for your model, in accordance with these instructions, considering the working conditions and the work to be performed.
9. Keep handles and grasping surfaces dry, clean, and free from oil and grease.

Service

- Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.

Magnetic Drill Specific Safety Information:

- Keep your fingers well out of the drill/cutter area.
- Avoid touching the drilled core that is automatically ejected by the centring pin when the working procedure is finished. Contact with the core when it is hot, or if it falls, can cause personal injuries.
- Always use the drill guard. Before switching on machine ensure the guard is closed securely.
- Always use the safety strap.
- The magnetic drilling machine is suitable for use on steel with a minimum thickness of 10mm, with zero air gap between the magnet core surface and the mounting surface. Curvature, coats of paint and surface irregularities will create an air gap. Keep the air gap to a minimum.
- Always place the machine on a flat surface.
- Do not clamp the magnetic drilling machine on small or irregularly shaped objects.
- Always place the machine on a surface that is clear of shavings, chips, swarf and surface dirt.
- Keep the magnet clean and free of debris and swarf.
- Do not switch on the machine until it has been securely mounted and installed according to these instructions.
- Do not switch on the machine before having checked that the magnetic stand has been tightened firmly and securely to the mounting surface.
- Adjust the table so cutter does not extend into the work piece before drilling. Do not perform any design, assembly or construction activities on the work piece while the machine is switched on.
- Before switching on the machine, make sure all accessories have been mounted correctly.
- Always use the recommended speed for the accessories and the material.
- Do not use the machine on the same work piece on which electric welders are being used.
- Use only an appropriate cutting fluid. We offer a range of premium cutting oils and lubricants which are specially developed and selected for optimum performance and maximum tool life.
- Do not use liquid cutting fluids while drilling vertically or overhead. Dip the cutter in cutting paste or apply an appropriate spray for these applications.
- Do not pour cutting fluid into the reservoir while it is mounted in the bracket. Do not allow cutting fluid to enter the drill motor.
- Before use, ensure adjustable cutter guard is fitted correctly and operates properly.
- Ensure that metal chips or resinous residue cannot lead to blockage of the function.
- In case of jammed cutter disconnect the machine from the power supply, remove the reason for the jam before turning on the machine again.

RESIDUAL RISKS

In following the relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided.

These are:

- Impairment of hearing
- Risk of personal injury from flying particles
- Risk of burns due to accessories becoming hot during operation
- Risk of personal injury due to prolonged use.

Always try to reduce these risks further by the use safe working practices and the use of appropriate PPE as much as possible.

Intended use:

This Electro- magnetic OverReach system is intended for commercial/industrial use as a magnetic base drilling machine extension / Reach System for Magnetic Drilling Machines, to allow drilling materials with a magnetizable surface using annular cutters and twist drills.

The magnetic drilling machine can be used horizontally, vertically or overhead using the supplied safety strap provided, taking the precautions identified in this manual.

This magnetic drilling machine is IP20 and is intended to be used in a weather-protected environment.

Ambient operating temperatures of <-10 and >45°C should be avoided.

- Use only HMT approved tools and accessories with this OverReach system & Magdrill Machine.
- The OverReach System & Magdrill Machine should not be used beyond its stated capacities.
- The OverReach System & Magdrill Machine should not be used for any purpose other than stated.
- The OverReach System & Magdrill Machine should NEVER be used without a protective earth or ground connection.
- The OverReach System & Magdrill Machine SHOULD NOT be used in a potentially explosive environment.
- The OverReach System & Magdrill Machine should not be used as a lifting device, the magnetic base is for clamping only.

Prior to use:

Please make sure that the contacting surface for the OverReach magnet is level, clean and rust-free. Remove any varnish or primer. When working on materials that are not magnetizable, suitable fixation devices are obtainable as accessories from HMT, e. g. suction plate, vacuum plate or pipe-drilling clamp must be used.

When working on steel materials with a material thickness of less than 5 mm, the work piece must be reinforced with an additional steel plate to guarantee the magnetic holding power.

Check the machine for possible damage before using the machine, you must carefully check protective devices or slightly damaged components to ensure they are operating perfectly and as intended.

Check that moving are in perfect working order and do not jam and check whether parts are damaged. All parts must be correctly installed and all conditions necessary to ensure perfect operation of the machine.

Damaged protective devices and parts must be repaired or replaced according to specifications by HMT or any authorized HMT dealer.

DO NOT use under wet conditions or in presence of flammable liquids or gases. This magnetic drilling machine & OverReach System is a professional power tool.

DO NOT let children near the machine. Supervision is required when inexperienced operators use this machine.

ELECTRICAL SAFETY:

The Electro-Magnet on the OverReach System has been designed for 110V AC voltage only.

Always check that the power supply corresponds to the voltage on the rating plate.

Your HMT MAGNETIC DRILLING MACHINE & OverReach is designed in Class I (grounded) according to **BS EN 62841-1**. Earthing connection is required.

If the supply cord is damaged, it must be replaced by a specially prepared cord available through the HMT service organization.

EXTENSION CABLE:

If an extension cable is required, use an approved 3-core earthed extension cable suitable for the power input of this tool (see technical data). Minimum conductor size is 1.5 mm²; the maximum length is 30 metres. When using a cable reel, always unwind the cable completely.

TRY A FEW SIMPLE PROJECTS USING SCRAP MATERIAL UNTIL YOU DEVELOP A “FEEL” FOR THE OVER REACH SYSTEM.

KEEP THE OVER REACH SYSTYEM AND MAGNETIC DRILLING MACHINE CLEAR FROM MOISTURE AT ALL TIMES TO PROTECT THE MACHINE, YOURSELF AND OTHERS.