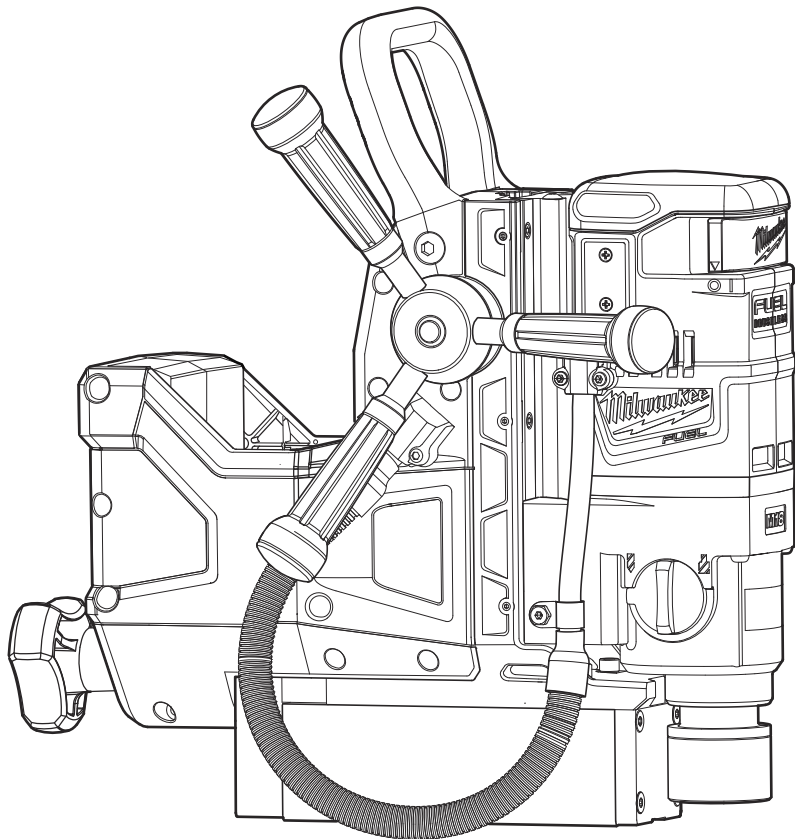




OPERATOR'S MANUAL



Cat. No.
M18 FMDP

M18™ FUEL™ 38mm MAGNETIC DRILLS

 **WARNING**

To reduce the risk of injury, user must read and understand operator's manual.



GENERAL POWER TOOL SAFETY WARNINGS

⚠WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. **Save all warnings and instructions for future reference.** The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

WORK AREA SAFETY

- **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

- **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.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of an GFCI reduces the risk of electric shock.

PERSONAL SAFETY

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- **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.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

- **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- **Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
- **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

POWER TOOL USE AND CARE

- **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
 - **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
 - **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.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
 - **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.** Power tools are dangerous in the hands of untrained users.
 - **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, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
 - **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
 - **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
 - **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
- ### BATTERY TOOL USE AND CARE
- **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
 - **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.

- When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130°C (265°F) may cause explosion.
- Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

SERVICE

- Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.
- Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorised service providers.

SPECIFIC SAFETY RULES FOR MAGNETIC DRILLS

- Always use safety chain. Mounting can release.
- ▲DANGER** To reduce the risk of injury, always keep hands, gloves, rags, clothing, etc. away from moving parts and chips. Do not try to remove chips while the cutter is rotating. Chips are sharp and can pull objects into moving parts.
- Clean the surface before attaching the drill stand to the work surface. Paint, rust, scale, or uneven surfaces decrease the holding strength of the magnet. Chips, burrs, dirt and other foreign matter on the surface of the magnet base will also decrease holding power.
- Do not attach magnetic base to nonmagnetic grades of stainless steel. The magnet base WILL NOT hold. The permanent magnetic drill attaches magnetically to 6mm (1/4") or thicker ferrous stock. Do not use on stock less than 6mm (1/4").
- Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Safety Strap
 - Do not use near acids or bleaching agents.
 - Do not use for overhead lifting.
 - Do not use strap if webbing is cut.
 - Webbing must be protected from sharp edges.
 - All hardware must be in line with direction of pull for rated capacity.

•Always use common sense and be cautious when using tools. It is not possible to anticipate every situation that could result in a dangerous outcome. Do not use this tool if you do not understand these operating instructions or you feel the work is beyond your capability; contact MILWAUKEE® Tool or a trained professional for additional information or training.

•Maintain labels and nameplates. These carry important information. If unreadable or missing, contact a MILWAUKEE® service facility for a replacement.

•**▲WARNING** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paint
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

SYMBOLGY



Volts



Direct Current

n₀ XXXX min⁻¹ No Load Revolutions per Minute (RPM)

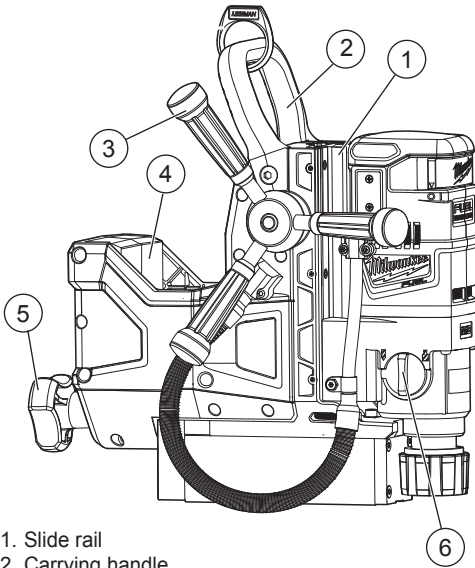


•**▲DANGER** To reduce the risk of injury, always keep hands, gloves, rags, clothing, etc. away from moving parts and chips. Do not try to remove chips while the cutter is rotating. Chips are sharp and can pull objects into moving parts.

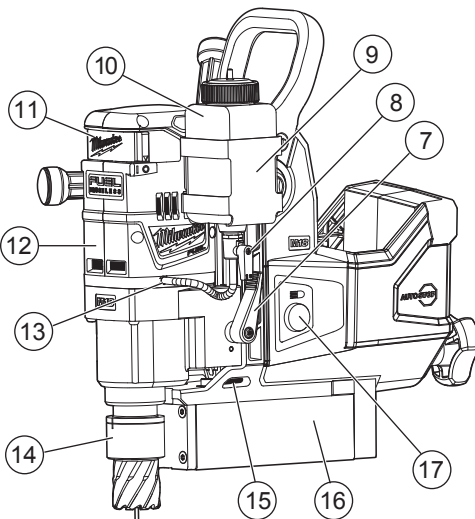
SPECIFICATIONS

Cat. No.	M18 FMDP
Volts.	18V DC
Battery Type	M18™
Charger Type	M18™
No Load RPM	High 690 / Low 400
Twist Drill*	13mm (1/2")
HSS Cutter	38mm (1-1/2")
Recommended Ambient Operating Temperature.....	-17°C to 51°C
*Requires use of 13mm (1/2") drill chuck adapter.	

FUNCTIONAL DESCRIPTION



1. Slide rail
2. Carrying handle
3. Feed handle
4. Battery bay
5. Magnet activation knob
6. Speed selector
7. Motor adjustment lever
8. Cutting fluid valve
9. Cutting fluid bracket
10. Cutting fluid bottle
11. ON(I) / OFF(O) switch
12. Drill motor
13. Cutting fluid fitting
14. Quick-change arbor
15. Safety strap bracket (strap not shown)
16. Magnetic base
17. LED button



ASSEMBLY

⚠ WARNING Recharge only with the charger specified for the battery. For specific charging instructions, read the operator's manual supplied with your charger and battery.

Removing/Inserting the Battery

To **remove** the battery, push in the release buttons and pull the battery pack away from the tool.

⚠ WARNING Always remove battery pack before changing or removing accessories.

To **insert** the battery, slide the pack into the body of the tool. Make sure it latches securely into place.

⚠ WARNING Only use accessories specifically recommended for this tool. Others may be hazardous.

Attaching Feed Handle

1. Line up the anvil and slide the handle into place on the desired side of the tool.
2. To remove, press the centre button and pull the handle away from the tool.

Do not use a wrench, pipe, or any other lever in place of the feed handle.

Motor adjustment lever

The motor adjustment lever is used to raise and lower the motor on the slide rail. Always hold the motor securely before loosening the adjustment lever.

Installing the Cutting Fluid Bottle

1. Ensure the valve is in the off (sideways) position.
2. Fill the bottle with HAWG WASH® cutting fluid.
3. Attach the bottle bracket to the drill.
4. Attach the hose to the fitting on the side of the drill.

OPERATION

⚠ WARNING Always remove battery pack before changing or removing accessories. Only use accessories specifically recommended for this tool. Others may be hazardous. To reduce the risk of injury, always wear safety goggles or glasses with side shields.

Typical Operation

1. Check the work surface to make sure it is clean and free of foreign materials.

Paint, rust, scale or uneven surfaces decrease the holding strength of the magnet. Chips, burrs, dirt and other foreign materials on the surface of the magnetic base will also decrease holding power. Use a smooth, flat file to keep the magnet clean and free of nicks.




The drill attaches magnetically to 6mm (1/4") or thicker ferrous stock. Do not use on stock less than 6mm (1/4"). The magnetic base WILL NOT hold on nonmagnetic grades of stainless steel.

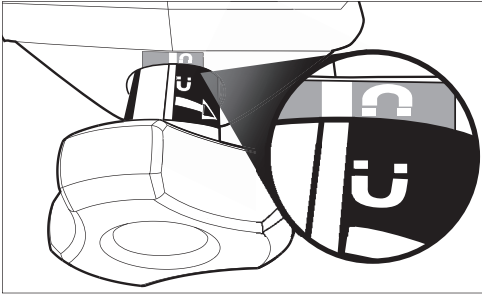
2. To install/remove cutter:
 - A. Remove battery pack.
 - B. Raise the drill motor to its highest position on the slide rail.
 - C. Twist the quick-change arbor. Insert the cutter into the arbor and release collar. Tug on cutter to ensure it is secure. Cutter should be fully seated into spindle.
 - D. Reverse procedure to remove cutter.

NOTE: 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.

NOTE: If the cutter does not release from the arbor when the collar is turned, use a locking pliers to grasp the cutter above the cutter flutes. Holding the collar securely in one hand, rotate the pliers clockwise to release the cutter from the arbor.

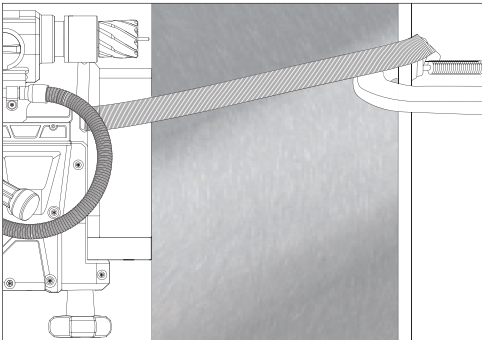
WARNING To reduce the risk of injury, do not hold workpiece by hand.

3. Select High Speed  or Low Speed , depending on your application.
4. Position the tool so the centre pin is directly over the desired cutting location. Rotate the magnet knob to engage the magnet. The magnet icons will align . The drill motor will not start if the magnet is not engaged with the work surface.



WARNING To reduce the risk of injury, always use a safety strap on vertical, overhead, and pipe applications. Mounting can release.

5. Use a safety strap on vertical, overhead, and pipe applications.
 - A. Route the safety strap, through the lower slots, and wrap it tightly around a solid, rigid structure. Make sure the strap is not twisted.
 - B. Snap the safety strap snaphooks together. Eliminate any slack in the strap.
 - C. When using on a vertical surface, secure the safety strap with a c-clamp or similar device. This will hold the strap in place and prevent the tool from sliding down the vertical surface. Do not clamp to the strap. This may damage the strap and cause it to break.



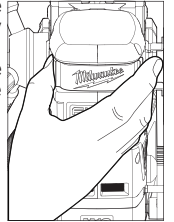
WARNING Do not use cutting fluid in an overhead or any other position that allows cutting fluid to enter motor or switch enclosure.

6. Insert battery pack.
7. With the ON(I) / OFF(O) switch in the OFF(O) position, turn the cutting fluid bottle valve to the ON (downward) position. Cutting fluid will be released as the centre pin contacts the work surface. Failure to lubricate properly will cause cutter damage. The use of HAWG WASH® cutting fluid is recommended for long life of these cutters. The operator is responsible for the application of lubricants other than HAWG WASH® cutting fluid. In overhead or vertical cutting applications, do not use cutting fluids. Use only lubricant pastes or sprays recommended for high speed cutting. Do not allow lubricant pastes and sprays to enter tool.

WARNING To reduce the risk of injury, always keep hands, gloves, rags, clothing, etc. away from moving parts and chips. Do not try to remove chips while the cutter is rotating. Chips are sharp and can pull objects into moving parts.



8. Start the drill motor by pulling the ON(I) / OFF(O) switch out, by both sides, to the on(I) position. The drill motor will not start if the magnet is not engaged with the work surface.



WARNING Excessive force on the feed handle will break magnet free.

9. Even large bits only require a small amount of pressure on the feed handle. When feeding the cutter into the material, apply only enough force to produce a curled chip. Applying too little force will result in small broken chips and increased cutting time. Applying too much force will cause overheating of the cutter resulting in short cutter life. Overheating of the cutter can be noticed when cutter and chips turn brown or blue. Excessive force can cause the cutter to slow down to a point where cutting time will increase. The use of cutting lubricants will reduce cutting heat and increase cutter life. Use less feed pressure when slotting or notching because there is less support for the cutting edges in these situations.
10. Keep constant pressure throughout the entire operation to prevent chips and burrs from falling under the cutting edges. Cutting debris under the cutter can make cutting difficult or impossible.
11. When the cut is complete, withdraw the cutter while the spindle is still rotating.
12. Stop the drill motor by pushing in the ON(I) / OFF(O) switch.
13. When the spindle has stopped rotating, use a pliers to remove cutting debris and chips from the cutter and spindle. Use care to avoid damaging the cutter teeth.

14. The centre pin is spring loaded. Provide protection from ejected slug for people and property below cutting area.
15. Firmly grip the tool and rotate the magnet knob to disengaging the magnet.

MAINTENANCE

⚠WARNING To reduce the risk of injury, always unplug the charger and remove the battery pack from the charger or tool before performing any maintenance. Never disassemble the tool, battery pack or charger. Contact a MILWAUKEE® service facility for ALL repairs.

Maintaining Tool

Keep your tool, battery pack and charger in good repair by adopting a regular maintenance program. Inspect your tool for issues such as undue noise, misalignment or binding of moving parts, breakage of parts, or any other condition that may affect the tool operation. Return the tool, battery pack, and charger to a MILWAUKEE® service facility for repair. After six months to one year, depending on use, return the tool, battery pack and charger to a MILWAUKEE® service facility for inspection.

If the tool does not start or operate at full power with a fully charged battery pack, clean the contacts on the battery pack. If the tool still does not work properly, return the tool, charger and battery pack, to a MILWAUKEE® service facility for repairs.

⚠WARNING To reduce the risk of personal injury and damage, never immerse your tool, battery pack or charger in liquid or allow a liquid to flow inside them.

Cleaning

Clean dust and debris from vents. Keep handles clean, dry and free of oil or grease. Use only mild soap and a damp cloth to clean, since certain cleaning agents and solvents are harmful to plastics and other insulated parts. Some of these include gasoline, turpentine, lacquer thinner, paint thinner, chlorinated cleaning solvents, ammonia and household detergents containing ammonia. Never use flammable or combustible solvents around tools.

Repairs

For repairs, return the tool, battery pack and charger to the nearest service centre.

ACCESSORIES

⚠WARNING Use only recommended accessories. Others may be hazardous.

For a complete listing of accessories, go online to www.milwaukeetools.com.au/ www.milwaukeetools.co.nz or contact a distributor.

WARRANTY - AUSTRALIA and NEW ZEALAND

Please refer to Australian and New Zealand warranty supplied with tool. This warranty applies only to product sold in Australia and New Zealand.

AUSTRALIA AND NEW ZEALAND MILWAUKEE® Service

MILWAUKEE® prides itself in producing a premium quality product that is Nothing But Heavy Duty®. Your satisfaction with our products is very important to us! If you encounter any problems with the operation of this tool, please contact your authorised MILWAUKEE® dealer.

For a list of MILWAUKEE® dealers, guarantee or service agents please contact MILWAUKEE® Customer Service or visit our website.

(Australia Toll Free Telephone Number 1300 361 505)

(New Zealand Toll Free Telephone Number 0800 279 624) or visit www.milwaukeetools.com.au / www.milwaukeetools.co.nz.

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Professionally made in China for Milwaukee Electric Tool Corporation