

Using a Breaker With Care

There are five types of hammer classes : -Three kilogram scrappers , Five kilogram chippers (Makita HM0860C), Ten kilogram demolition hammers (Makita HM1202C), Fifteen kilogram demolition hammers (Makita HM1304) and Thirty kilogram paving breakers (Makita HM1801 and HM1810). The hire industry deals mostly with the demolition hammers and breakers. The breaker you choose is primarily defined by your work area and the available power sources on site. For example, if your demolition job involves rehabbing rooms in an existing building, the available power source and tight space confines would generally dictate an electric breaker. Electric breakers are great for remote indoor applications.

Application is important

Part of the application consideration is whether or not you should use a hand-held breaker at all. Here are some questions you should expect to answer before deciding on a hand-held breaker:

What is the thickness of the material you will be breaking up? As noted, certain breakers work better in different thicknesses of material.

Does the material contain any steel? If so, this would point you in the direction of a pneumatic or hydraulic breaker.

Will you be using it vertically or horizontally? If you're working on a wall, creating an area to run pipe through, you're going to want a chipping hammer that works horizontally. Some breakers can be positioned both ways.

How big are your operators? What size hammer you can expect them to lift and reposition will depend on their strength, which in turn relates directly to productivity. Bigger is not necessarily better when you're creating wear and tear on the operator. Weight factors more into horizontal applications, such as breaking up walls, since the operator is bearing the total weight of the tool.

Are you dealing with any noise issues? There may be special noise abatement requirements due to local codes.

A bit about bits

Your application also will direct the type of accessory (also called steel tools and bits) you use. For example, on cured concrete, you'll want a narrower chisel to get all of the force hitting in a certain area.

Inadequate or dull bits: You probably shouldn't use a hammer without coming away with three bits. Ask your rental dealer to inspect the bits they give you for sharpness. The energy required using a dull bit is so much greater and puts so much fatigue on the operator and so much more stress on the hammers, it just causes a great deal of grief. And remember to make sure you have the right bit for the type of material being removed.

Correct use: In addition, the longest you should hammer on a single spot is 15 seconds. If you put a bit on a piece of concrete, load the hammer, put your feed pressure on it and pull the trigger, if that material doesn't move in 15 seconds, stop and take another bite someplace else. Many bits come back from customers where the ends are melted over, which means they created enough heat to take the temper out of the steel.

Basic bits include:

Moil points: Sharp points for hard concrete.



Flat chisels: These come in different widths and configurations. Moil points or flat chisels make up the majority of the tools used.



10 Kilogram Class



15 Kilogram Class



30 Kilogram Class



Spades: The wider ones are used to break up softer materials such as asphalt. There are shovel blades for frozen or extremely hard soil.



There are three basic types of shanks: SDS-max (industry standard), hex collar or a spline. If you have spline bits and rent a hex breaker you won't be able to use the bits with the tool.

The hazards of the job

Hand-held breakers require you to pay attention to safety. The units create noise and vibration, and generate airborne dust.

Noise: This includes the sound generated by the steel hitting the surface. Ear plugs should be worn while operating all breakers.

Model	Noise Directive Limit Value	Makita product Guaranteed value
HM1801	110 dB(A)	106 dB(A)
HM1810	111 dB(A)	107 dB(A)

Here is an example to show how Makita models conform to the "European Noise Directive for Outdoor Equipment" which has been in effect since 2006.

Vibration: Most manufacturers build vibration-reduced handles to combat white-hand syndrome. The Makita HM1810 reduces vibration to 7m/s² (70% cut from its predecessor model) with its revolutionary Anti Vibration Technology.

Dust: Airborne silica particles are also a health concern, especially in indoor spaces. Use a face shield instead of just eye goggles. You're going to be busting up concrete and goggles leave a lot of areas of the face open.

Operator fatigue: All of this adds up to wear and tear on the operator. Anytime you're talking about a 27- to 40-kilogram tool, it's going to hit hard. So the amount of time the operator should stay on the tool should be monitored. A person is just not going to be able to operate it an entire eight-hour shift.

Other hammer abuses include:

- Using the breaker as a pry bar to heave material out of the way instead of breaking it up as the tool is intended.
- Beginning the job at the center of the slab instead of at the edge of the material being removed.
- Allowing the breaker to "face hit" against the work surface by powering up the unit without having the bit touching the material being removed.

Improperly lodging stuck bits: And if a moil point gets stuck, don't rock the hammer back and forth or back hammer. Instead, simply disconnect the bit from the hammer, get a second bit and go back in and break out your first bit.

Not paying attention to your power sources: When running an electric breaker, make sure your power source is located fairly close to the breaker. The longer the extension cord, the more power you lose.

Random Or Orbital Sanders?

Orbital finishing sanders are easy to control and they're inexpensive to operate, since they use standard sandpaper in one-sixth, one-quarter, one-third or half sheets. Orbital finishing sanders can leave small spiral swirls on wood if you're not meticulous, but by sanding down through the grit, you can avoid this. But random orbital sanders take things a step further.

The random orbital sander (left) works fast and can smooth joints like the one on this cabinet door without leaving cross-grain scratches. The finishing sander (right) is easier to control but not as effective at smoothing joints.

Random orbital sanders work far more aggressively and quickly. The action creates a truly random sanding pattern, which removes wood quickly and minimizes swirl marks. This speedy randomness also allows you to smooth joints where the rails and stiles of your cabinets meet at right angles. But beware, the aggressiveness of a random orbital sander can cut through a veneer or damage the edge of a board in a flash. It takes a few tries to learn how to control them.

Many woodworkers find they only need to go down to 100- to 120-grit paper with their random orbital sander for surfaces that will be painted or receive a clear finish. For a high gloss finish, sanding down through all grit sizes up to 400 grit will result in an unbelievable finish.



Makita BO5010
Random Orbital Sander

SPECIFICATIONS

Pad diameter	123mm
Abrasive disc diameter	125mm
Continuous rating input	220W
Orbits per minute	12,000
Overall length	150mm
Net weight	1.2kg
Power supply cord	2m



Realize The Full Potential Of Your Angle Grinder

Remember to always wear eye protection

Many people think that an angle grinder is only good for grinding metal. They soon realize that once you own an angle grinder, you find all kinds of uses for it. Cutting tile, mortar, stucco and pavers is easy with a diamond wheel. Wire brush attachments make quick work of rust and loose paint removal. Special abrasive wheels can cut or grind steel. This insert will show you how to use your angle grinder with special wheels to accomplish a number of common but difficult cutting, grinding and polishing tasks.

Metal Cleaning

Wire wheels remove rust and flaking paint quickly. Wire wheel and brush attachments are designed for different types of stripping, cleaning and deburring tasks. Wire cup brushes work best for stripping paint or rust from broad, flat areas. Wire wheels fit into crevices and corners more easily. Wheel and brush attachments come in a wide variety of styles. Read the packaging to find one that works for your application. Also make sure to match the threads to the spindle threads on your grinder.



1. Clean rust and caked-on cement and dirt from garden tools with a wire cup. Secure the work with clamps or a vise. Make sure the brush is spinning away from, not into, the edge. Otherwise, the brush can catch on the edge and cause the grinder to kick back at you.

2. Remove paint with a wire wheel. Again, be careful to work away from, not into, sharp edges. Wire wheels fit into crevices and tight areas.

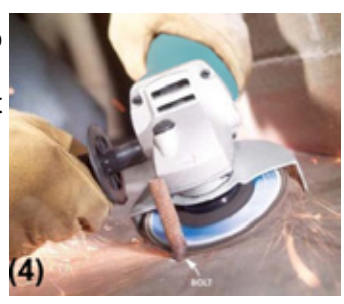


If you're patient, you can cut most metal with a hacksaw. But for quick, rough cuts, it's hard to beat a grinder. Angle grinders have been used to cut rebar (Photo 3), angle iron, rusted bolts (Photo 4) and welded wire fencing. Use a cutoff wheel for these and other metal-cutting tasks.



3. Mount a metal cutoff wheel in your angle grinder. Prop up the long side of the rebar and hold it securely. Drop the cutoff wheel through the metal, allowing the weight of the tool to do most of the work. Allow the short end to drop freely to avoid binding the blade.

4. Grind bolts flush to concrete. You can brush against the concrete, but don't try to cut into it with this wheel.



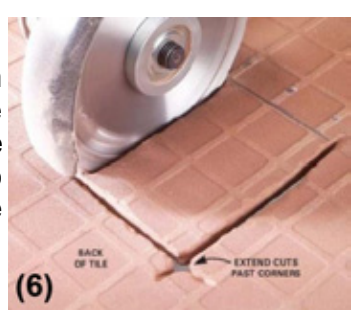
Cut Tile, Stone And Concrete

Notching and cutting ceramic or stone tile to fit around outlets and other obstructions is difficult if not impossible with standard tile cutters. But an angle grinder fitted with a dry-cut diamond wheel makes short work of these difficult cuts.



5. Mark the outline of the cut accurately on both the front and the back of the tile. Clamp the tile to your workbench and score the outline on the front with the diamond blade.

6. Flip the tile over and cut through the tile from the back. Extend the cuts slightly past the lines at the corners to make crisp, square corners.



Restore Cutting Edges

Outfitted with a grinding wheel, an angle grinder is a great tool for restoring edges on rough-and-tumble tools like hoes, shovels and ice scrapers or for the initial grinding of axes, hatchets and lawn mower blades.

Cutting Out Old Mortar

Grinding beats a chisel and hammer for removing old mortar.

GA9030K Angle Grinder

New Product

SPECIFICATIONS

Max. Capacities (dia.)	230mm
Depressed centre wheel	2,400W
Continuous rating input	6,600 r/min
No load speed	511mm
Overall length	5.1kg
Net weight	2.5m
Power supply cord	

Heavy duty motor with outstanding durability



2,400W

- **Large Rubber Tool Rest**
- **Machined Bevel Gear** - having durability higher than sintered gear.

- **Increased Heat Resistance** - superior to our predecessor models.
- **Torque Limiter**
- **Rotatable Rear Handle**
Can be positioned to suit most cutting and grinding operations. (90 degrees R/L).
- **Superior Anti-Dust Structure** - Protective zig-zag varnish on armature coil. Bearing-protective labyrinth construction. Vent slots designed to minimize dust entrance.

6722DW In-Line Cordless Screwdriver

80pc Accessory Kit



4.8V



- Single speed gear box with auto spindle lock.
- 80pcs accessories and bits.
- ON/OFF switch with reverse / forward control.
- Built-in LED illuminating light.
- Built-in battery: Ni-Cd 0.6Ah. Quick charger: 3-5 hours.

Editors Notes

We are particularly thrilled about what 2007 holds in store for Makita and Maktec power tools. This promises to be an exciting year filled with opportunities for us, as economic indicators predict further growth, and customers are continually demanding better quality and more efficient power tools.

We look forward to increasing the product range and distribution to meet the growing demand for the Makita brand in the industrial power tool market.

Best Regards
Makita SA Marketing Department

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