

How pros drill through masonry

When it comes to drilling holes in concrete, concrete blocks, stone and other masonry, using a standard drill can be a real exercise in futility. The rotary motion of the drill bit -- even a carbide-tipped masonry bit -- is simply not sufficient to power through tough masonry surfaces.

Instead, you need a drill that combines rotation with an in-and-out hammering motion. This combined action helps to break down the masonry as the bit advances, making for much faster drilling without burning the bit. There are two basic types of drills that offer this rotational and hammering combination: The hammer drill and the rotary hammer. The two tools are often confused, but there is a definite difference between them.

Hammer drills

A hammer drill looks very much like a standard drill, and is available in both corded and cordless versions. Hammer drills have a heavy-duty keyed or keyless chuck, and will accept standard drill bits and screwdriver bits in addition to carbide-tipped masonry bits. They tend to be a little less powerful than a dedicated rotary hammer, but since they can be used for both hammer drilling and conventional drilling and driving, they are more versatile.

Like everything else in the tool world, you get what you pay for. Some lower-end hammer drills, especially cordless ones, are frustratingly short on hammering power, and their inexpensive construction makes for a short life span. So if you're considering investing in a hammer-drill/drill/driver combination, look for one with the quality, durability, and features that will allow it to do all three tasks well.

One example of a high-end cordless hammer drill/drill/driver is the DeWalt DC927KL (\$349). DeWalt is well known for high-quality tools that are designed with the needs of professional contractors in mind, so this is definitely a drill that will meet and exceed everything that the home handyman is looking for.

The DeWalt Hammer Drill uses their new 18-volt nanophosphate lithium ion batteries for more durability and longer life. To handle the stress of the hammering action it's a little heavier and more ruggedly built than a conventional cordless drill, but DeWalt has added a rubberized, non-slip grip for comfort.

The DC927 also has an all-metal, three-speed transmission that lets you match the speed of the drill to the type of work you're doing. By turning a simple mode selector collar, you can choose the appropriate speed for hammer-drilling, conventional drilling or driving fasteners.

The heavy-duty all-metal chuck is 1/2 inch, and when you combine that with the auxiliary side handle you have a tool that will easily handle larger wood-boring bits and hole saws in addition to hammer-drilling concrete. The drill's variable speed is controlled by the trigger, and there's an adjustable clutch as well.

The complete kit includes a one-hour charger, two batteries, an adjustable and removable side handle, and a case.

Rotary hammers

Rotary hammers are more powerful than hammer drills, and while they'll also do some standard drilling, their real purpose is drilling in masonry. Rotary hammers deliver heavier hammering action than the typical hammer drill, and some models also have a hammer-only setting, which allows them to be used with a chisel bit for light- to medium-duty chipping.

True rotary hammers also use a different type of chuck and drill bits, known as SDS (slotted drive shaft). This type of keyless chuck slides back and forth to install the bits, rather than rotating. SDS chucks provide a non-slip grip on the bits that better withstands the hammering motion, but they will not work with conventional drill bits.

If you have or anticipate a fairly regular need for drilling in concrete and masonry surfaces, a rotary hammer is probably a better choice than a combination hammer drill. An excellent example of a professional-quality corded rotary hammer that would also be suitable for homeowners is the 11258VSR from Bosch (\$159), another company that manufactures excellent tools.

Faster than a conventional hammer drill, the Bosch Rotary Hammer is also very comfortable to use, and the SDS chuck is easy to operate and grabs the bits securely. Bosch has designed this drill to be quieter and produce less vibration than comparable rotary hammers, so you can use it for longer periods without fatigue. And because this tool is built specifically with hammer-drilling in mind, you can count on durability and long life.

The drill can be operated in hammer-drill or drill-only modes, and is switched with a simple dial on the side of the tool. The handle is comfortably padded, and the variable speed is trigger-controlled and reversible. Bosch also offers an optional snap-in three-jaw chuck adapter, which allows you to use the tool with conventional drill bits.

The 11258VSR comes with a comfortable and adjustable side handle, an adjustable depth gauge to help you drill holes to specific depths, a selection of three different SDS carbide-tipped masonry bits, and a carrying case.

Note: All product reviews are based on the author's actual testing of free review samples provided by the manufacturers.

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