

## How we test

The 'boring' details behind our extensive drill tests

### The hole truth

When you combine the drilling, driving and battery tests, our testers drilled for more than 352 metres. That's like going all the way up and halfway back down London's tallest building, the Canary Wharf tower. For driving, we sink three different screws into wood and metal, then repeat four times. For battery tests, we drill and drive until the battery conks out. And with some of the new high-quality batteries, this is a far from enviable task.

### The final slog

Luckily, our endurance tests are easier – we delegate the work to a machine (see picture, above) which repeats drilling tasks for nearly 3,000 cycles to check the motor, plus, for hammer drills, 300 repeat impacts to check general build quality. This simulates ten years' typical use.



## Contacts

**Black & Decker** 0870 240 7219  
www.blackanddecker.co.uk

**Bosch** 01895 838791  
www.boschpowertools.co.uk

**Challenge** 0845 077 8888 (Homebase)  
www.homebase.co.uk; 0870 600 3030 (Argos); www.argos.co.uk

**DeWalt** 0870 240 7219; www.dewalt.co.uk

**Hitachi** 01908 660663  
www.hitachi-powertools.co.uk

**Makita** 01908 211678; www.makita.co.uk

**McKeller** 0800 436436 (Focus)  
www.focusdiy.co.uk

**Metabo** 023 8073 2000; www.metabo.co.uk

**Performance Power** 0845 300 2577 (B&Q)  
www.diy.com

**Ryobi** 01491 848700; www.ryobi.com

**Skil** 0844 7360107; www.skileurope.com

**Wickes** 0870 601 1216; www.wickes.co.uk

**Worx** 01423 320751; www.worxpowertools.com

# Know the drill

Whether you use a cordless drill for basic DIY or for tougher jobs, there's a decent machine available for all budgets

Cordless drills are a boon to the DIYer. Freed from a flex, they're great for screwdriving and everyday DIY tasks.

While you'll still need a mains drill if you want to bore through hard materials such as granite, higher turning speeds and longer-lasting batteries mean that good cordless hammer drills can now go through concrete and stone.

As to your choice, our advice is to be realistic about your needs. If you want a drill for basic home DIY, then check our under-£50 table. A common flaw with cheaper models is that most flunk our endurance tests. But if you use your drill only for jobs such as assembling flatpack

furniture, this is less important than if you've paid top dollar. For more substantial jobs there are solid but still cost-effective drills from Ryobi, Black & Decker, Worx and Bosch at £100 or less.

However, pay more than £100 and the quality ratchets up. These drills nearly always have two or more gears, which adjust to the best turning speed for the task. Battery quality is also often superior (for more see 'Insider information', below).

Therefore, we've split the table. For drills costing more than £50, we reduce the score if the drill has poor endurance. This constraint doesn't apply to the sub-£50 drills.

**Pay more than £100 and the quality ratchets up**

## What you should look for

### HAMMER DRILLING

Hammer settings provide the necessary strength to let you drill into harder stone, such as concrete

### TORQUE

For each gear, you can set the twisting force (torque) for screwdriving so the drill stops when the screw is in

### VOLTAGE

Generally, the higher the voltage, the faster you finish the job and the longer the drill runs without overheating



### GEARS

Better drills have two or more gears. The first is used for screwdriving, the second has a higher speed for harder drilling



## Insider information

**Battery quality is hugely important. Our expert Alison Eastwood explains why**

There are three types of battery available. Lithium-ion (Li-Ion) is best. It has the most energy and is the most environmentally friendly. The Metabo Best Buys have this type.

Nickel metal hydride (NiMH) comes next. It provides three times as much energy as nickel cadmium (NiCd), which is most common but environmentally damaging. The Makita Best Buy features an NiMH. Of all the test drills, only our three Best Buys more than £50 were non-NiCd.

The best batteries can last more than five times as long as the worst. For example, the McKeller (23) had enough juice to drill only 33 holes while the Metabo (2) managed 180.

Most batteries recharge in about an hour or less but the worst can take up to five hours. Finally, you can buy replacement batteries but these are often as expensive as a new drill.



1 OVER £50

## 82% Makita 8444 DWDE3 £120

This 18-volt Makita drill impresses across the board. Its hammer setting, three gears (unique in our test) and excellent battery life mean it's a great choice for tough jobs – drilling in exterior walls, for example. It's available from Screwfix and online.

WHICH?  
BEST BUY

WORTH KNOWING

The recharge unit fits most Makita batteries up to 18V.

Cheapest store Screwfix  
Second handle Yes Recharge time 1 hour Gears 3 Hammer setting Yes  
Torque settings 16 Battery type NiMH



2 OVER £50

## 81% Metabo BSZ 14.4V Impuls £119

Delivering first-rate screwdriving results and excelling in most drilling tasks, the Metabo's only flaw is drilling metal. It's easy to use – you can swap drill bits quickly and easily – and well balanced. It also

features a superior lithium-ion battery. Available from Screwfix. **WE LIKE** The 'extra impulse mode' helps remove screws with deformed heads.

WHICH?  
BEST BUY

Cheapest store Screwfix Second handle No Recharge time 1 hour Gears 2 Hammer setting No Torque settings 20 Battery type Li-Ion



3 OVER £50

## 80% Metabo BSZ 18V Impuls £165

Drilling is excellent on all materials with this Metabo – it copes far better with metal surfaces than its stablemate (2), and our testers rated it as one of the easiest drills to use overall. It's a little pricier than others on test but worth it. It's available online.

WHICH?  
BEST BUY

**WE LIKE** For an 18V drill, this model is relatively lightweight.

Available Online  
Second handle No  
Recharge time 1 hour  
Gears 2 Hammer setting No  
Torque settings 20 Battery type Li-Ion



16 UNDER £50

## 71% Worx WX14DD £45

Choose this cheerful orange drill and you'll have few complaints. It drills beautifully in stone and wood but struggles a little in metal. It's a great screwdriver, too. What's more, the battery

life is good and we had no problems with endurance. Available in Homebase and Argos. **WE LIKE** Switches and settings are clearly marked and easy to use.

Cheapest store Homebase Second handle No  
Recharge time 1 hour Gears 2 Hammer setting No  
Torque settings 23 Battery type NiCd



WHICH?  
BEST BUY

17 UNDER £50

## 56% Wickes SKU 167213 £26

This is a very canny buy if you need a round-the-home option at a bargain price. Its hammer drilling is nearly on a par with the dearest Best Buys' and there's little to fault its normal drilling. And it lasted well in our endurance tests. Available in Wickes.

**WORTH KNOWING**  
Comes with six drill and seven driver bits.

WHICH?  
BEST BUY

Cheapest store Wickes Second handle No  
Recharge time 1 hour  
Gears 2 Hammer setting Yes  
Torque settings 16  
Battery type NiCd



EXCEPTIONAL VALUE

## Facts & scores

Some extra info and insights into some selected cordless drills

### Torque it up

This drill gives you a mighty 30 torque settings to help you screwdrive to perfection.

### Driller chiller

This Wickes own brand is great at drilling but just can't keep it up. Its endurance is lower than any of our over-£50 drills.

### Free of charger

B&D has failed to provide recharge units. Instead, you plug directly into the battery, which gives no indication whether it's full.

## GET MORE ONLINE

### FREE website access

Even more info on cordless drills

Which? members have free access to our website where you can find out even more information about cordless drills and which model is best for your DIY needs, see [www.which.co.uk](http://www.which.co.uk).

If you haven't logged in before, see [www.which.co.uk/loginhelp](http://www.which.co.uk/loginhelp) for a step-by-step guide.

MODEL

OVER £50

- 1 MAKITA 8444 DWDE3
- 2 METABO BSZ 14.4V Impuls
- 3 METABO BSZ 18V Impuls
- 4 BOSCH PSB 24 VE-2
- 5 RYOBI CMI 1442
- 6 BLACK & DECKER HP 188 F3B
- 7 DEWALT DC757KA
- 8 WORX WX18HD
- 9 BOSCH PSR 18 VE-2
- 10 MAKITA 6280D
- 11 HITACHI DS14DVF3
- 12 BOSCH PSB 18 VE-2
- 13 SKIL F015 2497 AC
- 14 BLACK & DECKER CP 142KB
- 15 WICKES Pro SKU 167237

UNDER £50

- 16 WORX WX14DD
- 17 WICKES SKU 167213
- 18 PERFORMANCE POWER NLE 18VCHD
- 19 BLACK & DECKER CD 18CA
- 20 RYOBI CCD-1201
- 21 PERFORMANCE POWER NLE 144 VCDK
- 22 BLACK & DECKER CD12CA
- 23 MCKELLER 14.4V Cordless Drill Driver
- 24 CHALLENGE BD 5520
- 25 CHALLENGE CDT P19180

a Versions with two batteries available at a higher price

## Don't Buys

If you spend more than £50 on a drill, you expect it to give you several years' service. Sadly, the Black & Decker CP 142KB and Wickes Pro SKU 167237 conked out disappointingly early in our endurance tests. In the under-£50 category, Homebase



Challenge BD 5520 (left) and CDT P19180 (right)

and Argos' own-brand models – the Challenge BD5520 and CDT P19180 – were poor at drilling and driving. They're a bargain you may regret.

WHICH?  
DON'T BUY

SPECIFICATION					WHICH? TEST PERFORMANCE							SCORE %
PRICE (£)	VOLTAGE	SPEED/ GEARS (rpm)	POWER PACKS	WEIGHT (kg)	FEATURES	EASE OF USE	HAMMER DRILLING	DRILLING	SCREWDIVING	BATTERY	ENDURANCE	
120	18	300/600/1700	3	2.8	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	82
119	14.4	400/1400	2	2.0	★★★★★	★★★★★	n/a	★★★★★	★★★★★	★★★★★	★★★★★	81
165	18	450/1450	2	2.1	★★★★★	★★★★★	n/a	★★★★★	★★★★★	★★★★★	★★★★★	80
140	24	500/1800	1 <sup>a</sup>	2.8	★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	76
95	14	380/1300	2	2.3	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★★	74
100	18	450/1450	2	2.6	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	73
160	14.4	400/1400	2	2.2	★★★★★	★★★★★	n/a	★★★★★	★★★★★	★★★★	★★★★★	73
80	18	350/1300	2	2.5	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★★	72
80	18	850	1 <sup>a</sup>	1.9	★★★★★	★★★★★	n/a	★★★★★	★★★★★	★★★★	★★★★★	69
114	14.4	350/1200	3	1.6	★★★★★	★★★★★	n/a	★★★★★	★★★★★	★★★★	★★★★★	67
110	14.4	400/1200	3	1.8	★★★★★	★★★★★	n/a	★★★★	★★★★★	★★★★	★★★★★	63
115	18	450/1600	1 <sup>a</sup>	2.3	★★★★	★★★★★	★★	★★★★★	★★★★★	★★★★★	★★★★★	57
70	14.4	350/1300	2	2.0	★★★★★	★★★★★	★★	★★★★★	★★★★★	★★	★★★★★	49
67	14.4	400/1300	2	1.8	★★★★	★★	★★★★★	★★★★★	★★★★★	★★	★★	23
120	15.6	380/1400	2	2.3	★★★★	★★★★★	n/a	★★★★★	★★★★★	★★★★	★	19
45	14.4	350/1200	2	1.9	★★★★	★★★★★	n/a	★★★★★	★★★★★	★★★★★	★★★★★	71
26	18	400/1150	1	1.8	★★★★	★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★★	56
50	18	350/1250	1	1.9	★★★★	★★★★	★★	★★★★★	★★★★★	★★★★	★	48
46	18	850	1	1.9	★★★★	★★	n/a	★★★★	★★★★	★★	★★★★	41
35	12	400/1400	2	2.5	★★★★	★★★★★	n/a	★★	★★★★	★★	★★	39
20	14.4	700	1	1.6	★★★★	★★★★★	n/a	★★	★★★★	★★	★★	35
24	12	700	1	1.6	★★★★	★★	n/a	★★	★★★★	★	★★★★★	34
15	14.4	550	1	1.6	★★★★	★★★★	n/a	★★	★★★★	★	★★	33
25	14.4	700	2	1.7	★★★★	★★★★★	n/a	★★	★★	★★	★★★★	31
30	18	600	1	1.8	★★★★	★★	★	★★	★★	★★	★★★★★	21

**USING THE TABLE**

We've tested 12- to 24-volt drills from major brands, including a selection priced under £50. The more stars the better.

**Specification**

**Price** For Best Buys we give the cheapest widely available high-street price. Prices for other models are a guide. Online prices are

in *italics*. **Speed/gears** The maximum number of revs per minute in each gear.

**Power packs** The number of battery units provided.

**Test performance**

**Features** Whether there are helpful extra features.

**Ease of use** A panel of experienced DIYers assessed each model for weight, balance, controls,

drill bit change and battery.

**Hammer drilling** We test how long it takes to drill holes in concrete with the hammering function.

**Drilling** Based on time taken to bore into stone, metal and wood.

**Screwdriving** How long it takes to drive screws in and out of wood and metal and how easily we could control speed and torque.

**Battery** We test how many holes can be drilled and screws sunk on full and partially recharged batteries. **Endurance** Our tests simulate ten years' DIY use. For drills under £50, we don't reduce the score if endurance is poor.

**Score**

This ignores price and is based on:

Ease of use **30%**  
Endurance **20%**  
Battery life **8%**  
Features **5%**

**Models with hammer drill**

Hammer drilling **15%**  
Screwdriving **12%**  
Drilling **10%**

**Models without hammering**

Screwdriving **20%**  
Drilling **17%**