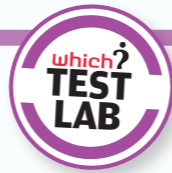


# TEST LAB PRINTERS



THE LATEST WHICH? BEST BUY PRINTERS, PLUS HOW TO SAVE ON REPLACEMENT PRINTER CARTRIDGES



Picking the right printer at the right price with the features you really need can be a challenge. We've taken away the hassle with our latest lab tests, which see new Best Buys from Lexmark and Dell. We don't test many Dell printers as they're not widely available on the high street, but they can be ordered directly from Dell online or by phone. Dell print quality – especially for photos – is excellent, but this comes at a price.

Dell ink running costs proved expensive in our tests and the fact that Dell inks aren't as widely available as many other brands doesn't help – with fewer retailers to choose from, it's harder to find cheaper suppliers.

## Getting the best deal

When buying manufacturers' own-brand ink cartridges, it's well worth shopping around. We've found that prices for the same ink

cartridge can differ by as much as £20 for an inkjet cartridge and £64 for laser toner. Prices change frequently, too, so the cheapest store right now might not be the cheapest option in a few weeks' time. See 'Getting a good price on ink' (p52) for our findings on retailer ink pricing.

If you want to print cheap text documents, the new Best Buy Lexmark Prestige Pro805 is a great choice. The Pro805, like the Pro905, is compatible with Lexmark's low-cost 105XL black cartridge. Usually priced at around £5, we managed to find it for £3.80. At that bargain price, we were able to print over 140 pages for a mere penny's worth of ink.

## Starter cartridges

Some printers are sold with partly filled cartridges, so you'll need to buy a full set of ink, too. It's worth trying to haggle a good price if you're buying face to face.

## High-capacity cartridges

Many printers will work with high-capacity ink cartridges – these cost more, but provide better value for money as they produce far more prints in the long run.

## Sub £100 printers

You can still get a good printer for less than £100. The HP C4680 in our table, p53, isn't quite a Best Buy, but it produces great text prints although ink isn't the cheapest.



### HP PHOTOSMART PREMIUM (C309G)

WHICH? TEST SCORE 74%

**PROS** Text, spreadsheets and photo prints all come out looking great on this printer, with text printed at a good rate of seven pages a minute. This is one of the better all-in-one printers for scanning photos and has a good copier function for colour and mono pages.

**CONS** Text scans and photo printers are rather slow and it can take two and a half minutes for an A4 photo to print out.

**CONNECTIVITY** Bluetooth, Ethernet, memory card slots, PictBridge, USB, wi-fi

**AUTO DUPLEXING** Yes

**WHICH.CO.UK TARGET ONLINE PRICE** £156

**CHEAPEST HIGH STREET STORES** Argos, Comet, Currys, John Lewis, PC World



### DELL P713W

WHICH? TEST SCORE 72%

**PROS** Photos printed using a computer are sharper than from a camera or memory card, but quality is still excellent. Print speeds are good, too – an A4 photo prints in less than 90 seconds. Colour copies are good and pretty quick. The display is like a touchscreen, but only certain areas are touch-sensitive.

**CONS** Not compatible with Macs, energy use in standby is high and ink costs and photo scan quality could be better.

**CONNECTIVITY** Ethernet, memory card slots, PictBridge, USB, wi-fi

**AUTO DUPLEXING** Yes

**WHICH.CO.UK TARGET ONLINE PRICE** £145

**EXCLUSIVE TO** Dell (you can order directly from Dell online or by phone)



### HP PHOTOSMART PLUS (B209A)

WHICH? TEST SCORE 70%

**PROS** This printer produces great-quality letters and spreadsheets. Text print speeds are good, printing at a rate of eight pages a minute. The copier function produces sharp mono and colour copies. It has a main tray and a separate 4x6-inch photo tray. A small touchscreen can be used to preview prints.

**CONS** Photo printing is slow and photos look better printed using the computer rather than using the camera or memory card.

**CONNECTIVITY** Memory card slots, PictBridge, USB, wi-fi

**AUTO DUPLEXING** No

**WHICH.CO.UK TARGET ONLINE PRICE** £118

**CHEAPEST HIGH STREET STORES** Argos, Comet, Currys, John Lewis, PC World

## HOW MUCH DO YOU PRINT?

Which? asked three families to estimate their monthly printing volumes. We've used their estimates and our running cost data to see how much they might spend on ink in three years using three Best Buy printers with different running costs.

COST OF INK OVER 3 YEARS (£)	Estimated monthly printing: Text: 20 Colour graphic: 5 Photo: 2
HP (C309G)	£286
KODAK ESP 7250	£219
LEXMARK PRO805	£240



### The Hutchings

have a Lexmark printer, but they don't use it very often and rarely print photos. Rachel Hutchings mostly uses it to print out maps and directions, letters, or her children's homework.

Estimated monthly printing:  
Text: 20 Colour graphic: 5 Photo: 2

HP (C309G)	£286
KODAK ESP 7250	£219
LEXMARK PRO805	£240



### The Chawkes

are higher-volume printers. Their HP printer is mostly used by Steve Chawke for office-based tasks such as printing presentations, expense submissions and flight details.

Estimated monthly printing:  
Text: 80 Colour graphic: 15 Photo: 5

HP (C309G)	£872
KODAK ESP 7250	£714
LEXMARK PRO805	£666



### The Larkmans

print high volumes of paperwork, but never photos. Their Lexmark Prestige Pro905 printer, like the Pro805 featured in our table (p53), is compatible with Lexmark's cheap 105XL black cartridges.

Estimated monthly printing:  
Text: 300 Colour graphic: 20 Photo: 0

HP (C309G)	£1,473
KODAK ESP 7250	£1,606
LEXMARK PRO805	£596



**BEST BUY PRINTERS** We have test results online for more than 100 printers, including more Best Buys and Dell and Brother models that are less widely available on the high street. Visit [go.which.co.uk/printers01](http://go.which.co.uk/printers01) – or call 01992 822800 to talk to a member of our help team.

# TEST LAB PRINTERS

LAB ANALYSIS REVEALS MORE BEST BUYS THAT ARE GREAT ALL-ROUNDERS



## KODAK ESP 7250

**WHICH? TEST SCORE** 68%

**PROS** Photo prints look good from this Kodak printer, particularly if you print using the computer. There are options to print from a camera or memory card directly – the tilting colour screen is handy for previewing your prints. Mono text documents look good for an inkjet printer. The additional small photo paper tray means you don't have to swap paper in and out when going from printing text to small photos.

**CONS** It's slow when printing more than one text page (just four pages a minute). Spreadsheet documents looked a little dull.

**CONNECTIVITY** Ethernet, memory card slots, PictBridge, USB, wi-fi

**AUTO DUPLEXING** Yes

**WHICH.CO.UK TARGET ONLINE PRICE** £170

**AVAILABLE** This printer had just launched in the UK when we went to press. It will be available from Argos and PC World in August.



## LEXMARK INTERPRET S405

**WHICH? TEST SCORE** 68%

**PROS** The S405 produces sharp, great-quality photo prints quickly – an A4 photo takes one minute and 20 seconds to print. For the best quality, print using the computer. It's better suited to photos than office documents, however mono text prints look good for an inkjet and colour graphs and graphics are reasonable, too. It has a built-in fax machine and the auto feeder means you can fax and copy more than one page at a time.

**CONS** It only has a mono display, so you can't preview photos on the printer when printing from a camera or memory card. It can't be set to automatically print on both sides of paper.

**CONNECTIVITY** Memory card slot, PictBridge, USB, wi-fi

**AUTO DUPLEXING** No

**WHICH.CO.UK TARGET ONLINE PRICE** £66

**CHEAPEST HIGH STREET STORE** Comet

**ALSO AVAILABLE** Currys, PC World



## LEXMARK PRESTIGE PRO805

**WHICH? TEST SCORE** 68%

**PROS** This is a good all-rounder, whether you're printing text, graphics or photos. Print speeds are reasonable – mono text prints at a rate of seven pages a minute and an A4 photo prints in under 90 seconds. Prints can be previewed on the colour touchscreen, although the best-quality photo prints come from using the computer. The big bonus is the extremely low mono print cost, thanks to its compatibility with Lexmark's 105XL black cartridges.

**CONS** The copier function is competent, but copies aren't of the highest quality – mono prints may look a bit soft – colour copies are marginally better.

**CONNECTIVITY** Ethernet, memory card slots, PictBridge, USB, wi-fi

**AUTO DUPLEXING** Yes

**WHICH.CO.UK TARGET ONLINE PRICE** £123

**CHEAPEST HIGH STREET STORE**

Currys, PC World

## Which font is cheapest?

We printed letters using eight popular fonts and found that Times New Roman was the least ink-draining. In a direct comparison, at 12pt font size, it used 25% less ink than Arial.

## Print in draft

Our results found that using draft mode to print a page showing a colour spreadsheet saved around 5p to 20p. For 30 pages of mono text, savings were between 60p and £1.

## Auto duplexing

This handy function is available on many printers, but not all. It allows you to set the printer up to print on both sides of a page, so it will save you paper and money.

SPECIFICATION	WHICH? TEST PERFORMANCE															
	PRICE (£)	COLOUR	1 PAGE COLOUR GRAPHIC	10 PAGES BLACK TEXT	WI-FI	THREE-YEAR COST (£)	1 A4 PHOTO (£)	TEXT QUALITY	TEXT SPEED	PHOTO QUALITY	PHOTO SPEED	PHOTO SCAN QUALITY	COLOUR COPY QUALITY	EASE OF USE	SCORE (%)	
<b>ALL-IN-ONE INKJET PRINTERS</b>																
1 HP Photosmart Premium (C309G)	200	✓	✓	✓		0.24	0.11	0.40	108	★★★★	★★★★	★★★★★	★★★★	★★★★★	★★★★★	★★★★
2 DELL P713W	145	✓	✓	✓		0.49	0.21	0.67	193	★★★★	★★★★	★★★★★	★★★★	★★★★	★★★★★	★★★★
3 HP Photosmart Plus (B209A)	150	✓	✓	✓		0.21	0.11	0.43	109	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★★	★★★★
4 KODAK ESP 7250	170	✓	✓	✓		0.29	0.08	0.21	72	★★★★	★★★★	★★★★★	★★★★	★★★★	★★★★★	★★★★
5 LEXMARK Interpret S405	130	✓	✓	✓		0.30	0.14	0.56	143	★★★★	★★★★	★★★★★	★★★★	★★★★	★★★★★	★★★★
6 LEXMARK Prestige Pro805	300	✓	✓	✓		0.07	0.09	0.49	106	★★★★	★★★★	★★★★★	★★★★	★★	★★★★	★★★★
7 HP Photosmart C4680	80	✓				0.34	0.16	0.57	154	★★★★★	★★★★	★★★★★	★★	★★★★	★★★★★	★★★★
8 EPSON Stylus Photo PX650	130	✓		✓		0.21	0.12	0.63	147	★★★	★★★	★★★★	★★★	★★★★★	★★★	★★★
9 EPSON Stylus Photo PX810FW	310	✓	✓	✓		0.28	0.12	0.64	151	★★★	★★★★	★★★	★★★	★★★★	★★★	★★★★
10 CANON Pixma MP250	35	✓				0.40	0.18	0.47	147	★★★★	★★★★	★★★★★	★★★	★★	★★★★	★★★★
11 CANON Pixma MP270	70	✓		✓		0.41	0.17	0.47	143	★★★★	★★★★	★★★★★	★★★	★★★	★★★★	★★★★
12 EPSON Stylus SX610FW	150	✓	✓	✓		0.17	0.10	0.34	94	★★★★★	★★★★★	★★	★★	★★★★	★★★★	★★★
<b>STANDARD INKJET PRINTERS</b>																
1 CANON Pixma iP4700	76	✓		✓		0.31	0.12	0.44	119	★★★★	★★★★	★★★★★	★★★★	n/a	n/a	★★★
2 HP Deskjet D1660	30	✓				0.33	0.15	0.52	143	★★★★★	★★★★	★★★	★★	n/a	n/a	★★★★
<b>LASER PRINTERS</b>																
1 HP LaserJet CP1215	130	✓				0.20	0.18	0.49	140	★★★★★	★★★★	★★★	★★★★★	n/a	n/a	★★★★
2 SAMSUNG ML-2525W	130		✓			0.22	n/a	n/a	n/a	★★★★★	★★★★★	n/a	n/a	n/a	n/a	★★
3 SAMSUNG CLP-315	150	✓				0.21	0.11	0.62	142	★★★★★	★★★★★	★★	★★★★★	n/a	n/a	★★★★

## GETTING A GOOD PRICE ON INK

Shopping around for ink is a savvy way to help keep running costs down when using branded inks. We've been monitoring the prices of OEM (original equipment manufacturer) ink at four high street retailers, seven online retailers and the manufacturers' own websites since January.

With the exception of Argos, whose catalogue prices remain the same for six months, high street stores and online prices

for any given cartridge change frequently – sometimes only by a pound, but in other cases by as much as £5. Buying cartridges when they're more expensive will have a large impact on the cost of your prints, so it's wise to do some research.

During the early part of the year, we were surprised to find some Canon cartridges were cheapest direct from the manufacturer. However, our latest price check shows this

is no longer the case – prices for those cartridges had increased by more than 85%.

Ink is usually cheaper online: CartridgePoint, Play and Amazon hold the cheapest prices of the sites we checked, but not always for the same cartridges. At times, Epson's Owl inks were cheapest online from PC World, but not in-store, although both PC World and Currys have sometimes proved to be competitive for Kodak cartridges.

## Using the table

The more stars the better.

### Specification

**Price** The cost of the printer.

**Colour** Whether the printer can print in colour.

**Wi-Fi** Whether the printer has wi-fi connectivity.

**Print from camera** Whether the printer has PictBridge, which allows you to print directly from a compatible camera.

**Black text/Colour graphic/Photo** A guide to the cost of ink for 10 A4 pages of text and one A4 page each of a colour graphic

document and a photo. Our calculations take into account the number of pages we were able to print before the ink cartridge(s) ran out. Where models have specific photo ink cartridges, this was used for photo costs. Our ink costs are based on the cheapest cartridge price found from a search of 12 online and high-street stores.

**Three-year cost** A guide to the amount of money spent on buying ink cartridges over three years, based on printing three text documents, two colour graphics documents and one photo per week.

### Test performance

**Text quality** Ratings for printing one page of black and white text.

**Text speed** Five A4 text pages must print in under 30 seconds to achieve ★★★★★.

**Photo quality** Quality of printing an A4 photo. Where models have an optional photo ink cartridge, this was used.

**Photo speed** An A4 photo must print in less than a minute to achieve ★★★★★.

**Photo scan quality** Quality of an A4 scanned photo.

**Colour copy quality** Quality of an A4 colour copy.

**Ease of use** Includes ease of setting up and uninstalling, printing different types of documents and copying, scanning and faxing where applicable to the printer.

**Score** Ignores price and is based on:

**All-in-one/standard printer**

Printing	35% / 65%
Scan and copying	30% / 0%
Ease of use	20%
Power consumption	5%
Versatility	5%
Direct photo printing	3%
Networking	2%