











## TOP 10 PERSONAL PRINTERS

		Colour inkjet printers	Paper support	Maximum resolution	Quoted print speed	Dimensions (wxdxh)	Interface types	
					Actual print speed	Weight		
1		<b>Canon Bubble Jet i850</b> 0870 514 3723 www.canon.co.uk LAST MONTH 1	• £140 ex VAT • 1-year warranty • First review Apr 03	A4, banner, label, card, transparency	4,800x1,200dpi	B=22ppm C=14ppm B=9ppm C=7ppm	418x274x159mm 4.8kg	USB 2.0, parallel
2		<b>Epson Stylus C62</b> 0800 220 546 www.epson.co.uk LAST MONTH 2	• £65 ex VAT • 1-year warranty • First review Nov 02	A4, banner, label, card, transparency	1,440x720dpi	B=14ppm C=13.9ppm B=7ppm C=5ppm	480x260x181mm 3.32kg	USB, parallel
3		<b>Canon Bubble Jet i70</b> 0870 514 3723 www.canon.co.uk NEW	• £189 ex VAT • 1-year warranty • First review Jun 03	A4, label, transparency	4,800x1,200dpi	B=13ppm C=9ppm B=5ppm C=3ppm	310x174x52mm 1.8kg	USB 2.0
4		<b>Epson Stylus C82</b> 0800 220 546 www.epson.co.uk NEW	• £101 ex VAT • 1-year warranty • First review Jun 03	A4, banner, label, card, transparency	5,760x1,440dpi	B=22ppm C=11ppm B=9ppm C=5ppm	470x301x237mm 5.2kg	USB 2.0, parallel
5		<b>HP DeskJet 6122</b> 0870 547 4747 www.hp.com NEW	• £123 ex VAT • 1-year warranty • First review Jun 03	A4, banner, label, card	1,200x1,200dpi	B=20ppm C=13ppm B=9ppm C=6ppm	454x378x184mm 5.53kg	USB 2.0, parallel

		Mono laser printers	Installed memory	Hardware resolution Software enhanced (dots per inch)	Quoted A4 print speed Actual print speed (pages per minute)	Dimensions (wxdxh) Weight	
			Maximum				
1		<b>Brother HL-5050</b> 0870 830 4000 www.brother.co.uk NEW	• £206 ex VAT • 1-year warranty • First review Jun 03	16MB 144MB	600x600dpi 2,400x600dpi	16ppm 14ppm	382x383x252mm 11.5kg
2		<b>HP LaserJet 1150</b> 0870 547 4747 www.hp.com NEW	• £189 ex VAT • 1-year warranty • First review Jun 03	8MB 8MB	600x600dpi 1,200x1,200dpi	17ppm 16ppm	415x486x241mm 8.5kg
3		<b>Canon LaserShot LBP-1210</b> 08705 143 723 www.canon.co.uk NEW	• £206 ex VAT • 1-year warranty • First review Jun 03	2MB 2MB	600x600dpi 2,400x600dpi	14ppm 13ppm	388x254x259mm 7.8kg
4		<b>Oki OkiPage 14ex</b> 01753 819 819 www.oki.co.uk LAST MONTH 1	• £272 ex VAT • 1-year warranty • First review Sep 02	4MB 36MB	600x1,200dpi no	14ppm 13ppm	345x395x215mm 10kg
5		<b>Lexmark T420dn</b> 0870 444 0044 www.lexmark.co.uk NEW	• £537 ex VAT • 1-year warranty • First review Jun 03	32MB 288MB	600x600dpi 1,200x1,200dpi	22ppm 20ppm	406x425x258mm 13.75kg

## TOP 10 COLOUR INKJET PRINTERS

### 1 Canon Bubble Jet i850



The i850 might be more costly than most printers in our chart, but you get what you pay for. This inkjet delivers great print jobs with style, meaning that it remains our Best Buy. The Bubble Jet may be boxy but the brushed aluminium styling gives the device a sharp

finish. It's loaded with a generous software bundle and supports USB as well as parallel so anyone with an older PC is catered for.

Canon takes advantage of its own MicroFine Droplet Technology and the i850 is capable of a maximum print resolution of 4,800x1,200dpi (dots per inch). The ink is contained in four cartridges and this is a



	Ink costs	Print life (pages)	Input tray capacity	Photocartridge	Software
		Pence per page	Output tray capacity	No of cartridges No of ink colours	
	B=£10 C=£8 x 3	B=330 C=460	150	no	ZoomBrowser EX, PhotoRecord, PhotoStitch Image Browser
		B=3 C=5.3	100	4	
				4	
	B=£23 C=£19	B=640 C=300	100	no	Star Wars Creative Studio
		B=3.5 C=6.3	65	2	
				4	
	B=£13 C=£20	B=390 C=100	30	no	Easy PhotoPrint
		B=1.6 C=9.9	1	2	
				4	
	B=£26 C=£12 x 3	B=1,240 C=420	150	no	PhotoQuicker
		B=2 C=8.2	50	4	
				4	
	B=£28 C=£31	B=833 C=450	150	no	HP utility
		B=3.3 C=6.8	50	2	
				4	



## 2 Epson Stylus C62



Despite the slew of new entries this ex-Best Buy stays in second place, keeping its Recommended award in the process. If you're thinking of purchasing your first printer then look no further. The Stylus C62 offers a great combination of low price, good quality output and cheap running costs.

The Epson connects to your PC via a USB or parallel connection. It comes with a quick-start guide and setup is simple thanks to onscreen prompts. The onboard print interface offers a choice of resolutions for draft, text, photo and best photo.

The maximum resolution for printing on plain paper is 1,440x720dpi (dots per inch), while for photo printing the C62 offers an impressive 5,760x720dpi. In draft mode, though, the resolution drops considerably. The ink is thinly spread and you won't get great results.

While this resolution is okay for text it suffered banding problems on coloured graphics. That said, it saves on printing costs. All our outputs above draft mode gave great results and in fairly speedy times too, even for photo printing.

While the C62 doesn't live up to its quoted print speeds it's still above average, pulling in 7ppm (pages per minute) for mono and 5ppm for colour.

## 3 Canon Bubble Jet i70

The i70 may be the most expensive model in our chart but it offers something other inkjets don't: portability. This is the best portable printer we've seen so far in the Test Centre, offering a similar performance to a device twice its size.

The Bubble Jet is beautifully designed – its titanium silver finish makes it look more like a chic subnotebook than a printer – and weighs only 1.8kg. But this device is built on more than looks alone and its compact dimensions belie its capabilities. It has a maximum resolution of 4,800x1,200dpi and Canon claims

	Interface types	Full network as standard	Toner price	Print life	Main paper tray capacity	Monthly duty cycle	Noise
				Pence per page	Max paper handling		
	USB 2.0, parallel	no	£52	6,500 pages	250 sheets	40,000 pages	50dB
				0.8p	300 sheets		
	USB 2.0, parallel	no	£65	2,500 pages	250 sheets	10,000 pages	49dB
				2.5p	250 sheets		
	USB 2.0, parallel	no	£66	2,500 pages	250 sheets	10,000 pages	48dB
				2.6p	250 sheets		
	USB, parallel	no	£26	4,000 pages	250 sheets	15,000 pages	53dB
				0.7p	800 sheets		
	USB 2.0, parallel	10/100 Base Tx ethernet	£69	5,000 pages	350 sheets	50,000 pages	51dB
				1.4p	850 sheets		

more economical option than having to replace tri-colour cartridges when only one colour has run out.

Although we couldn't match Canon's quoted print speeds, we achieved 9ppm (pages per minute) for mono and 7ppm for colour. The i850's high-resolution photo printing speed was also fast; it outputted a full-colour photo on the highest setting in just three minutes. We also noticed that

the i850 is virtually noiseless across all print jobs. Draft printing for text and graphics had some banding and the colour scheme was dull but these problems were eradicated by upping the quality setting one notch.

Overall, though, it was the photo printing that caught our eye. Vivacious natural colours and great detail, are the i850's greatest strengths.



13ppm (pages per minute) mono printing in draft mode. Though we could only get 5ppm on this setting it's still a fast time for a portable printer. Text looked great on all print jobs and the slight banding we found on draft mode colour jobs could be eradicated by bumping up the resolution. Photo quality was also good.

If you need a printer that will cope with heavy-duty output we wouldn't recommend the i70 as the input tray only holds 30 pages. However, if you are regularly on the road and need, say, to print out good-quality presentations then this is the perfect travelling companion.

#### 4 Epson Stylus C82

The C82 may be the next model up in Epson's range of Stylus printers but it doesn't quite offer the C62's excellent combination of price and performance.

The beige-and-brown C82 has a U-bend paperfeed and a detachable input tray so it won't take up too much desk space. It sports an optimised resolution of 5,760x1,440dpi but end users don't have control over settings – you choose the paper type, select the print mode and the C82 decides on a resolution.

Draft mode results are disappointing – the ink is light and there's banding. We would have liked speedier print times and photo prints could have been more vibrant.

On the plus side, the separate ink system will save you money as you'll only need to replace the ink that's run out rather than throwing away sealed tri-colour cartridges. This is just as



well because, at 8.2 pence per page for colour printing, the Stylus C82 is already costly to run.

#### 5 HP DeskJet 6122

Built for the small and home office market, the DeskJet 6122 is a business inkjet with plenty of features that can cope with heavy-duty output. This HP offering is also sturdy thanks to its built-in paper trays, however our review model did experience paperjams.

The HP offers a maximum resolution of 1,200x1,200dpi (dots per inch) and claimed print speeds of 20ppm (pages per minute) mono and 13ppm colour. We achieved 9ppm mono and 7ppm colour.

Given the DeskJet's targeted market, there's nothing here for users wanting photo-configuration controls and it copes badly with photo-quality output. Print jobs are okay across the board as long as you stay away from draft mode.

## TOP 10 MONO LASER PRINTERS

#### 1 Brother HL-5050



Though designed for heavy-duty use in a small workgroup, Brother's HL-5050 has a price tag that puts smaller home-based printers to shame and has generous running costs to boot. It might not offer the best print quality, and won't be suitable for home use due to its size, but when it comes to performance and value for money the HL-5050 wins hands down.

The Brother comes with parallel and USB 2.0 connections and is fairly easy to set up. We say fairly easy because it's not true plug and play – you have to locate

the correct driver from a list – but the install procedure leads you through it.

This Best Buy sports a true maximum resolution of 600x600dpi (dots per inch) and the print engine can manage 16ppm (pages per minute). We achieved 14ppm in draft mode – a speed which is beaten by some of the smaller printers in our chart – but there was little slow down when printing complicated graphics at higher resolutions.

The HL-5050 is a weighty model but it's designed for heavy-duty use so needs to be sturdy. It has a monthly duty cycle of 40,000 pages and, should you need to increase productivity, there's a wealth of upgrade options. Text looks crisp at a resolution of 600x600dpi and we didn't experience any paperjams. We wouldn't recommend printing using the toner-save option as it's far too light. However, at only 0.8 pence per page, you don't need to use this cost-saving setting as it's already cheap to run.

#### 2 HP LaserJet 1150



HP's low-end mono laser is in direct competition with Canon's LaserShot LBP-1210. The LaserJet 1150 managed to beat its rival on price and running costs while having slightly faster print speeds.

The 1150 connects via parallel or USB 2.0 and has been designed with ease of use in mind. Installation is simple and the model lacks any case-mounted hardware features – all your printing preferences are controlled through a software utility. Despite being HP's home entry-level



model, the 1150 gives more expensive printers a run for their money. It has a 600x600dpi (dots per inch) resolution that can be bumped up to 1,200x1,200dpi using interpolation technology. We were sceptical about HP's claimed print speed of 17ppm (pages per minute) but our test results speak for themselves: a 16ppm print speed and attractive-looking prints.

The lack of memory or paper tray upgrades and monthly duty cycle of 10,000 pages points to the 1150's small output capability. That said, you can increase productivity with an optional Bluetooth connector and network it between three users via HP's Jet Direct Print server.

With 2.5 pence per page printing costs, the entry-level HP is pricier to run than some larger devices but this is usually the case with home-use models – and it's not a price that'll break the bank.



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### 3 Canon LaserShot LBP-1210

Despite losing out to HP's LaserJet 1150, if you want a home printer that produces sharp black text then the LBP-1210 is a worthy purchase. Everything from installation to selecting printing options is easily done.

This model has a maximum resolution of 600x600dpi and is capable of outputting clear text and graphics. If you're printing with a lot of dark colours you'll find that the 1210's default setting obscures some image detail. The toner density slider tool lets you lighten the image, however.

While we couldn't reach the LaserShot's claimed print speed of 14ppm (pages per minute), the model remains fast when printing at higher resolutions. The first page took just under 10 seconds to print and, if you're planning to network the LBP-1210, this is an important factor.



## Buying advice

- **Price** There's no point in paying over £150 if you only want to print text but if you're after photo-quality output then you'll need to spend more. A good all-purpose low- to mid-range inkjet printer will cost around £100. Mono laser prices vary more than those of inkjets so you need to know exactly what type you're after. Pay around £200 for an entry-level model and £500 for mid-range networkable device.
- **Interface** A lot of printers still come with a parallel connection but it's being phased out in favour of USB as it's easier and quicker to install.
- **Resolution** If you're only printing text or graphics then 600x600dpi (dots per inch) will suffice for most print jobs. If you decide on a high-end mono laser model then look for a device that offers 1,200x1,200 resolution. If you invest in an inkjet printer and wish to use the photo printing option then you'll require a minimum resolution of 1,200x1,200dpi. Some resolutions are interpolated and employ software to achieve the finished print, so stick with the hardware resolution.
- **Speed** Print speed depends on the resolution. Remember that manufacturers quote speeds far in excess of the hardware's capabilities. On average, printing 8ppm or higher in monochrome and 5ppm or higher in colour is good. If you're purchasing a £500-plus mono laser then expect a 17-22ppm print speed.
- **Running costs** Always check the page coverage and predicted print life before you buy because a cheap replacement cartridge isn't necessarily a good buy. If you have a mid-range inkjet you shouldn't pay more than 4p per page for black printing or 7p per page for colour printing. On a dedicated photo printer the costs go up. Much cheaper than inkjets, mono laser running costs should be about 2p per page on an entry-level model and half that still on expensive devices.

### 4 Oki OkiPage 14ex

The OkiPage's basic design works in its favour. Printouts are uncreased and the paperfeed mechanism is strong enough to withstand wear and tear. In contrast to most sub-£300 lasers, the 14ex has a built-in control panel so you can adjust settings (paper size, quality and so on) without touching the PC.

Its fine text definition and detailed graphics reproduction are up there with the best mono lasers. The 13ppm (pages per minute) print speed is reasonable, but home-use mono lasers such as the LaserJet 1150 are now churning out these speeds.

The Oki is one of the cheapest mono lasers to run. Although a new drum will set you back over £100, the replacement toner cartridges cost just £26 and can churn out 4,000 pages.



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making the T420dn a good, if somewhat expensive, buy.

The network-ready T420dn is built to print black-text documents very quickly and it does the job well. We achieved 20ppm (pages per minute) but couldn't quite reach the claimed 22ppm speed.

Text jobs printed at the maximum resolution are adequate, although its specification may seem limited: when paying over £500 for a mono laser we'd prefer to see a resolution of at least 1,200x1,200dpi (dots per inch).

Small offices will love the heavy-duty output of the T420dn and it's robust enough to cope with users' demands. The Lexmark has built-in duplex capabilities, cheap running costs, a fairly longlife toner cartridge and a monthly duty cycle of 50,000 pages so it should cope with anything you throw at it. ■

### 5 Lexmark T420dn

Lexmark's mid-range mono laser solution isn't cheap but it crams in pretty much everything