






MONOCHROME LASER PRINTERS		Last month's position	First reviewed	Price (ex VAT)	Warranty	Installed/maximum memory	Hardware resolution	Software enhanced	Quoted A4 print speed (pages per minute)	Actual print speed	Dimensions (width x depth x height)		Weight	Interface type(s)	Full network connection as standard	Toner price	Print life (pages)	Printing costs	Main paper tray capacity	Maximum paper handling (with optional trays)	Monthly duty cycle	Noise (decibels)
	1 Oki OkiPage 14ex 01753 819 819 www.oki.co.uk	NEW	Sep 02	£272	1-year	4MB/36MB	600x1,200dpi	no	14ppm	13ppm	345x395x215mm		10kg	USB, parallel	no	£25.50	4,000	0.0064	250	800	15,000 pages	53dB
	2 Lexmark E320 0870 444 0044 www.lexmark.co.uk	NEW	Sep 02	£239	1-year	4MB/68MB	600dpi	no	16ppm	13ppm	380x362x221mm		10kg	USB, parallel	no	£70.71	3,000	0.024	150	400	10,000 pages	49dB
	3 Brother HL-1850 0870 830 4000 www.brother.co.uk	NEW	Sep 02	£468	1-year	16MB/144MB	600dpi	1,200dpi	18ppm	14ppm	425x424x275mm		14.5kg	USB, parallel	no	£51	6,500	0.008	250	600	40,000 pages	50dB
	4 Minolta-QMS PagePro 1200W 01784 442 255 www.minolta-qms.co.uk	NEW	Sep 02	£169	1-year	8MB/8MB	1,200dpi	no	12ppm	10.2ppm	515x362x381mm		8.5kg	USB, parallel	no	£70	6,000	0.012	150	650	15,000 pages	62dB
	5 Minolta-QMS PagePro 1250E 01784 442 255 www.minolta-qms.co.uk	NEW	Sep 02	£295	3-year	16MB/144MB	1,200dpi	no	16ppm	12.6ppm	389x441x259mm		12.4kg	USB, parallel	no	£70	6,000	0.012	250	750	15,000 pages	62dB
	6 Kyocera Mita FS-1010 0118 931 1500 www.kyocera.co.uk	NEW	Sep 02	£319	2-year	16MB/144MB	600dpi	1,200dpi	14ppm	11.7ppm	378x375x244mm		12.3kg	USB, parallel	no	£54	6,000	0.009	250	550	10,000 pages	50dB
	7 Epson EPL-6100 0800 220 546 www.epson.co.uk	NEW	Sep 02	£299	1-year	8MB/136MB	1,200dpi	no	16ppm	12.9ppm	399x435x265mm		8.4kg	USB, parallel	no	£44	3,000	0.015	250	750	15,000 pages	54dB
	8 Xerox Phaser 3400B 0870 241 3245 www.xerox.com/officeprinting	NEW	Sep 02	£575	1-year	16/80MB	1,200dpi	no	17ppm	12.8ppm	362x409x299mm		16.1kg	USB, parallel	no	£77	4,000	0.019	550	1,200	40,000 pages	50dB
	9 Brother HL-1650 0870 830 4000 www.brother.co.uk	1	Sep 01	£519	1-year	8MB/136MB	600dpi	1,200dpi	16ppm	13ppm	406x424x275mm		14.5kg	USB, parallel	no	£51	6,500	0.008	250	600	30,000 pages	53dB
	10 HP LaserJet 1200 0870 547 4747 www.hp.com/uk	NEW	Sep 02	£266	1-year	8MB/72MB	1,200dpi	no	14ppm	12.5ppm	415x487x252mm		8.3kg	USB, parallel	no	£56.29	2,500	0.023	250	250	10,000 pages	56dB

1 Oki OkiPage 14ex

 As several of this month's models reveal, the best laser printer isn't necessarily the most modern looking one. The Best Buy OkiPage looks basic, but its design works in its favour. The paperfeed system, for instance, is simple but flawless. Paper goes in the 250-sheet tray at the bottom of the unit and finished prints end up in the tray at the top. The results are always smooth and uncreased and, unlike many printers in this price range, the mechanism is strong enough to withstand plenty of wear and tear.

The Oki has many areas where flair is sacrificed for functionality. In contrast to most sub-£300 lasers, for example, it has a comprehensive control panel built in, so you can adjust the important settings (paper size, quality and so on) without needing to touch the PC. Driver support is straightforward and, like all of this month's Top 10 printers, both USB and parallel options are provided as standard.

On the down side 4MB of memory (though upgradable to 36MB) is miserly while the top resolution of 600x1,200dpi

↓ The well built OkiPage 14ex produces high-quality printing and has a fast work rate




(dots per inch) has been bettered by several competitors. However, this is very much a performance printer, and its fine text definition and detailed graphics reproduction is improved upon only by the expensive Xerox Phaser. Speed is similarly impressive, with 13ppm (pages per minute) – a fantastic achievement at 300dpi. Even at 600x1,200dpi, A4 text is output at 12ppm (pages per minute).

The OkiPage is one of the cheapest printers to run. Although a new drum will set you back over £100, this is more than compensated for with the replacement toner cartridges costing just £25.50 and runs to 4,000 pages.

Whether you want a well-priced inkjet replacement for your home office, or a heavy-duty page churner for your place of work, the OkiPage 14ex will stand up well to the task.

2 Lexmark E320

 Proving once again that it knows how to keep performance high and the price low, Lexmark has delivered exceptional speed and image quality for a mere £239. It's obvious where the corners have been cut in the E320, although the limited 600dpi (dots per inch) maximum resolution and 4MB



↑ The Lexmark can be awkward to use, often feeling more like an inkjet than a laser printer

of onboard memory haven't made as much difference as you might think.

In practice, the Recommended E320 operates more like an inkjet than a laser printer. The paperfeed system, for example, throws out the standard cassette tray (the plastic box into which the media is stored) in favour of a rear-mounted inkjet-style paperfeed. Although this system saves on production costs, it doesn't allow a great many pages to be fed into the printer at one time. Indeed, only the HP LaserJet 1200 is less versatile. Another bugbear is the rocky installation routine, although hopefully the proper Windows XP drivers should be available by the time you read this.

It's in performance, however, that the E320 shows what it's made of. Graphics and text reproduction is clean and precise at 600dpi, and the print speeds remain close to 13ppm (pages per minute). The Lexmark can easily keep up with many of the £300 and £400 models. One caveat, however: the limited paperfeed facilities and high running costs could penalise frequent users, and if you have heavy workloads you might want to consider spending a little more.

3 Brother HL-1850

 Brother's HL-1650 has held a commanding position at the top of our charts since September 2001 and this new model from Brother is a worthy successor. Printers rarely generate the output their manufacturers say they do, and even though the HL-1850 falls far short of its stated 18ppm (pages per minute) it's still fairly impressive.

The HL-1850 has a clean and uncluttered design. The robust paper tray can hold up to 250 pages, and the printer can be expanded to 600 pages. We experienced no problems with page curling




↑ High print quality and low running costs make the Brother HL-1850 an impressive contender

or jamming, and the intuitive installation routine and helpful Windows video clips mean you should have no problems operating this Recommended Brother.

Features include watermarking and manual duplex, although the depth of facilities means that it can take some time to get the highest-quality prints. If you're prepared to experiment, however, you'll find the Brother HL-1850 an impressive performer. The printer offers a resolution of 600dpi (dots per inch) which can be upgraded to 1,200dpi using the software drivers. Graphics are wonderfully shaded while the sparkling text is top quality.

Undoubtedly this isn't the cheapest printer, but the low running costs will compensate frequent users. And we guarantee that you will want to use this printer a lot, thanks to its high print quality and unparalleled speed.

4 Minolta-QMS PagePro 1200W

 Costing a mere £169, the budget Minolta-QMS 1200W's maximum 1,200dpi (dots per inch) resolution is superior to the 600dpi Brother HL-1650, which is three times the price.



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↑ The PagePro 1200W is a great bargain, although it is not a particularly hardy model

Inevitably, though, there are flaws. The paper handling is poor, and the 1200W uses a plastic paper support instead of a proper tray. This is acceptable for small print jobs, but isn't going to stand up to the strain of heavy use. A £90 paper tray adds an extra 250 pages but, since this is over half the cost of the printer itself, it's unlikely to be a popular option.

The PagePro's onboard memory, although greater than the 4MB OkiPage 14ex, won't guarantee high speed. However, if you're used to inkjet technology then 10ppm won't seem much of a drop. The 1200W is not impressive on graphics output, but at 600dpi and above the text is extremely clean and well defined. And when you can print text at a rate of 10ppm, the Recommended Minolta-QMS might just make the perfect complement to your home office.

5 Minolta-QMS PagePro 1250E

The mid-priced PagePro 1250E is a good choice for the home or the office, however its fragile casing may not last particularly well in a large, busy business environment. Upgrade options are extensive, ranging from an extra 500-page paper tray to a digital copier/scanner, and the software driver is brimming with features, including watermarks and extensive duplex options that allow you to print on both sides of the paper.

The Minolta-QMS handles text and graphics with equal aplomb and, although it doesn't match the image quality of the Xerox Phaser 3400B, it gives most of the similarly priced printers a run for their money. Again, speed was relatively good, but the 1250E did drop to more average rates at the highest resolution.

For those after a value good all-round performer, the Minolta-QMS PagePro is likely to be on the short list.



↑ A good all-round performer, the Minolta-QMS PagePro 1250E is also pretty good value



NEW

↑ The Kyocera's output is high quality, though in operation the unit is quite slow

6 Kyocera Mita FS-1010

For no-thrills, no-frills laser printing the Kyocera is just the machine to sit quietly in the background. There's a very good reason for the stolid case design, however, because its substantial lid is extremely adept at catching the finished pages and keeping them clean and free of creases.

If the Kyocera does have a failing it concerns speed. When a handful of printers are comfortably hitting 12ppm (pages per minute) or more, the Mita's performance average of 11ppm is disappointing. When it came to printing graphics, the FS-1010 was the slowest of the lot.

In terms of quality of output, though, the crisp graphics reproduction and reasonably clean text definition place the Kyocera near the top half of the table. In fact, had the price tag been £30-£50 less, we would have given it much higher marks.

Colour laser printers: affordable at last?

Only a couple of years ago, the colour laser printer was almost the exclusive preserve of large companies and printing specialists. But just as mono lasers have tumbled in price, colour laser technology is now almost an affordable proposition, with value-for-money models like the Minolta-QMS Magicolor 2200 available for £1,000.

Running costs tend to be pretty steep as most models are equipped with individual toner cartridges for each of the four colours – cyan, magenta, yellow and black. And with cartridge costs between £100 and £180, you can see how it soon mounts up.

Colour toner tends to last longer with the average 10,000 pages nearly twice the 5,000-6,000 pages offered as standard on mono lasers. And with the exception of the black cartridge, you're likely to be spreading the workload fairly evenly across the three colours, so overall toner life will be higher. Worse

than this, however, is the glut of extra consumables required to keep the laser ticking over. Fuser unit and oil, waste toner bottles and an OPC (organic photo conductor) drum are some of the extra costs you'll need to take into account.

Another problem is the low print speed – four or five pages of colour a minute is fairly standard, although a number of interesting ideas – for example, LED arrays – are being developed with a view to bringing colour print speeds up to the levels of monochrome. Aside from the issues of print speeds and running costs, colour laser printers are extremely good at what they do and the durability of toner means results will generally outshine those of an inkjet.

The entry price of a colour laser may still be a little high for some, but there's no doubt that these printers are due to become extremely popular in the not too distant future.



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As it is, the FS-1010 ranks as a solid workhorse looking slightly plodding next to the sleeker and faster models ahead of it.

7 Epson EPL-6100

The 6100 looks rugged and compact, although the paper tray consumes a large amount of desk space. Otherwise this printer is well thought out. An optional 500-page tray adds versatility, and the spacious output tray conveniently folds out of the top of the printer. Finished pages can also be directed to the back of the Epson with the press of a switch. The software drivers are intuitive but fairly detailed, and the watermarking feature is a nice touch.

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↑ Pitched between the budget and high-performance printers, the Epson produces an impressive turn of speed

Epson claims a 16ppm (pages per minute) print rate, although in our tests 12.9ppm was the more modest outcome. The drop-off at higher resolutions is minor, and at 1,200dpi (dots per inch) the EPL-6100 was close to the top of the performance levels. The Epson prints clean focused text, although graphics prints lacked accurate shading, particularly at a resolution of 600dpi.

This printer is in an awkward position, straddling the line between the value-for-money sub-£275 category and the raft of high performance £300-plus printers. As such it makes a reasonable job of things, and will prove especially effective at printing quality text pages in a hurry.

8 Xerox Phaser 3400B

With so many top-quality laser printers available for under £300, the Xerox Phaser 3400B seems steep at £575. What you're paying for is the extra power and versatility needed to connect the printer to a network.



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↑ It may be pricey, but for your money you get the best print quality from the Xerox Phaser

The paper handling facilities are great. The cassette tray will take 550 sheets and, with the help of the 100-sheet multipurpose tray and another optional 550-sheet tray, the printer can handle 1,200 pages in total.

The driver software is basic, which is disappointing in such an expensive printer, but in most respects it hits its marks beautifully. Text and graphics quality are both superb, beating the other laser printers in the Top 10 with the exception of the Brother HL-1850. We would have preferred more speed, but 12.8ppm (pages per minute) of text is quite respectable, and the Xerox retains plenty of performance at the higher resolutions.

This isn't the most economical of printers, and its price is too steep for the majority of users. But for the best image quality and strong paper and network facilities, it may be worth the money.

9 Brother HL-1650

The raft of sub-£300 laser printers sees the longtime champion, Brother's HL-1650, sliding down the rankings this month. That's not to say there isn't plenty on the HL-1650 to recommend, however,



↑ This ex-Best Buy from Brother takes quite a fall in the face of cheaper, faster competition

and its substantial build quality and extras go some way towards justifying the added expense. There's a wealth of network management software although the network card itself is optional. A more worthwhile inclusion is the built-in duplex unit, allowing for simple double-sided prints.

In terms of performance, the HL-1650 doesn't do enough to justify its high price. The 13ppm (pages per minute) is good, although Lexmark's and Oki's printers offer similar functionality for almost half the price. Images and text are crisp, but not enough to make you forget the resolution support of 600dpi (dots per inch).

In the long term, the Brother's low toner costs will allow you to recoup the extra expense of the HL-1650. But there's better value for money elsewhere.

10 HP LaserJet 1200

More a glorified inkjet than a heavy-duty office printer, the LaserJet 1200 is better suited to the home than the demanding



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↑ The LaserJet 1200 is a cumbersome and pricey printer that can't keep up with our other entries.

business environment. Its footprint is fairly significant – the bulbous casing requires almost as much desk space as the sizeable Xerox Phaser 3400B.

Despite this the HP has limited paper facilities, with the 250-page tray being the only option. The top of the printer doubles up as the output tray although, thanks to the skimpy paper holder, large print jobs will generate curled pages. Capable of printing at the rate of 12.5ppm (pages per minute), it competes well with the other models at 300dpi (dots per inch), although it drops at higher resolutions. Despite its high-performance print speed, there are more enticing printers placed much nearer to the top of the chart.

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