The true cost of printing

Inkjet printers are so incredibly low-cost these days that it seems foolish not to snap one up, especially if you need a cheap way to print your digital photos. But there's far more money involved in buying a printer than the purchase price, warns Rosemary Haworth

So Santa brought you that lovely PC or digital camera you'd been hankering after all year, did he? You must have behaved impeccably in 2002, in that case. So what you need now is another treat, right? The obvious thing is to dash out and see if you can't scoop up a bargain printer in the January sales.

But will it really be the good deal it appears to be? As our Reviews team so regularly explains, the cost of printer ownership extends far beyond a low price tag. For a start, to get full-colour printouts like those on display in the shop, you'll need to invest in some expensive glossy paper.

And no sooner have you forked out on these than the ink supply dries up and you need to put your hand back in your pocket to buy more of the surprisingly costly cartridges your so-called bargain printer requires.

Cover charges

This is all an unpleasant surprise, especially as the information supplied with your inkjet assured you that a cartridge should last for 300 pages. Check the fine print, though, and you may well discover that the manufacturer's definition of how much ink is required for a page varies considerably from yours.

Some manufacturers calculate their figures based on just five percent coverage – enough for a corporate logo or a small graph on a page. Some will calculate on 15 percent; still nothing like the A4 full-colour poster you had in mind.

There's no agreed standard for describing paper coverage and print life, so discovering whether that £60 inkjet will work out cheaper over the years than the model costing twice requires some complex mathematics. The OFT (Office of Fair Trading) in its report into Consumer IT goods and services, published in December, made particular recommendations that manufacturers address the problem and agree on an industry-standard measurement.

The report recommends, "that a test standard for inkjet printer cartridges be developed and published within 12 months, with the results made available to consumers at the point of sale".

Recommendations are one thing, enforcing them is quite another. *PC Advisor* editor Andrew Charlesworth is dismissive of the OFT's ability to affect the marketing policies of manufacturers in the contradictory consumer electronics market.

"An industry that can't even agree on a basic measurement of processor speed is hardly likely to agree on a standard way of determining how many pages can be printed and what the standard ink coverage should be," says Andrew.

The OFT's report goes on to warn: "If the recommendation is not taken forward, we will consider carefully whether further action is appropriate to resolve the problem." But this seems a fairly idle threat as the report also stated it found "no need to propose changes to laws and regulations". We can assume the printer manufacturers aren't exactly quaking in their boots. No, they're too busy telling us just how fantastic our pictures will look if we print them on extra special photo papers, as long as we use their high-priced brand, naturally.

Costly choices

Another area of contention is that of replacement inks. According to the OFT, we spend around £315m on inkjet cartridges per year. And over the lifetime of a printer we're likely to spend twice the machine's original price on ink. You could shop around and either refill your empty cartridges yourself (messy, but it works) or buy non-branded but compatible ones.

ILLUSTRATIONS: AILEEN O'DONNELL

Compatible or complacent?

Unless you're a multinational consumer electronics manufacturer, it's not that easy to perform a lifetime test on a printer to verify claims that 'hooky' toner cartridges and inks degrade the quality of the hardware. Here we have divided the price of the ink cartridges by their print lives in pages, using the same figure for the third-party cartridges. Given the comparative low cost of the printers themselves and the amount you could save on ink costs by shopping around, the figures might just make it worth your while.

Printer	Approx print life (pages)		Manufacturers' ink prices		Cost per page		Third-party ink prices		Cost per page	
Epson Stylus C62	**B 600**	**C 300**	**B £22.72**	**C £18.91**	**B 3.79p**	**C 6.3p**	**B £8.95**	**C £9.95**	**B 1.49p**	**C 3.3p**
HP PhotoSmart 7350	**B 400**	**C 400**	**B £24.99**	**C £29.99**	**B 6.24p**	**C 7.49p**	**B £15.99**	**C £25.99**	**B 3.99p**	**C 6.49p**
HP DeskJet 3820	**B 495**	**C 450**	**B £16.45**	**C £30.55**	**B 3.34p**	**C 6.79p**	**B £11.25**	**C £20.95**	**B 2.27p**	**C 4.66p**
Epson Stylus Photo 925	**B 540**	**C 220**	**B £18.65**	**C £15.11**	**B 3.45p**	**C 6.87p**	**B £8.95**	**C £9.95**	**B 1.66p**	**C 4.53p**

Epson-compatible cartridges sourced from www.inkjets-r-us.co.uk, HP PhotoSmart cartridge from www.inkjet-printer-cartridge.co.uk, HP DeskJet cartridge from www.inkraider.co.uk. Note: print life figures are approximate as these vary from manufacturer to manufacturer.

But most of us don't for the simple reason that the manufacturers tell us not to.

When we baulk at the cost of a branded cartridge and cannily find an alternative from the likes of InkyFingers or The Inkspot, the printer's manufacturer tries to tell us we're making a big mistake. The literature provided with your printer will inevitably warn you that to guarantee the longevity of your hardware it's imperative that you use only an approved brand of consumables.

The fact is, the profit margin on a £60 inkjet printer is non-existent, so the manufacturers put a huge mark-up on consumables – cartridges and paper – to compensate. And they are prepared to go to considerable lengths to protect this income. Having planted the idea that you may be damaging your printer by trying to keep costs down, you're then hit by warnings that you may be invalidating your warranty by trying to save a few pounds.

For example, Epson states in its warranty terms and conditions: "We will not provide warranty repair or replacement if in our opinion the problem resulted from externally caused damage or use outside the product's specification or from the use of options, parts or consumables which are not Epson-branded or approved."

Similarly, when asked about the use of non-HP cartridges and ink refills in the company's printers, spokesman Andy Barnes told *PC Advisor* that HP recommends consumers don't buy from external sources.

He claimed the quality of the cartridge cannot be of the same standard and therefore will not be "as specified" to the HP products. The 'golden triangle' of HP products – printer, paper and cartridges – means that for the best quality all 'corners' should be HP. If non-HP paper or cartridges are used, the unit will not be covered by the warranty if the fault is found to be caused by the paper or cartridge.

Lexmark is slightly less proscriptive. Although its website directs customers to its authorised parts distributors, its line on consumables is less dictatorial: "Using quality manufactured and tested parts with your printers not only prolongs the life of your investment but also ensures you achieve optimum performance."

This is just as well, since one of the OFT's chief recommendations is that manufacturers be forced to make clear in their warranties "that they will not disclaim liability under warranties simply because a printer is used with compatible products of other manufacturers (such as print cartridges produced by, recycled by or refilled using the products of another manufacturer)."

Clearer pictures

Perhaps we're being too cynical, but with all these variables it's hard for customers to get a clear comparison of printer performance, output quality and real costs. When the OFT report was first published, we ran a news story on our website outlining its findings and asked visitors to tell us what they thought. Without exception, the response was 'yes, we want better information before we buy'.

PC Advisor will continue to monitor the printer market and to push for consumers to be given more accurate and transparent information on the real cost of printer ownership. You can tell us about your experiences either in our online ConsumerWatch forum at www.pcadvisor.co.uk/consumerwatch or by emailing us at pcadvisor_letters@idg.com.

You can also include your comments in our Brand Awareness 2003 Survey which invites feedback on the IT companies you've bought from. The survey is on this month's cover disc and can also be completed online at www.pcadvisor.co.uk/ba2003. The results, together with our ongoing research, will be published in *PC Advisor* later this year.

You can also complete our customer satisfaction survey at www.pcadvisor.co.uk/survey. In subsequent issues of *PC Advisor* we'll be reporting on whether any significant progress is being made.

Conclusion

So before you buy your next printer, take a look at the comparative running costs of prospective purchases included in our Personal printers chart. The cost of a replacement cartridge (and remember, colour is usually created using a combination of four or six inks) divided by the number of pages it's designed to last provides a simple reckoner.

While this will give an approximation of the cost per page, don't forget that paper prices must also be factored in. High-gloss, photographic papers can be as much as £1 per sheet. ■