

Medium format digital is unshackled

PHASE ONE P25

John Henshall looks at Phase One's completely self-contained 22 megapixel medium format digital back and considers how well its images compare with large format film.

With a market share of over two thirds, Danish company Phase One are the world leaders in medium format digital camera backs.

Almost six years ago I looked at the Phase One LightPhase 6 megapixel back (*Chip Shop* February 1999) and described the images it produced as 'exquisite'. Somewhat cheekily – forever asking for more – I also commented, 'If Phase One ... make LightPhase completely portable, its versatility will increase even more.'

That was asking the impossible back then, when digital backs for medium format digital cameras had to be shackled to computers.

The first untethered medium format digital backs in fact came from Kodak but the 16 megapixel CCDs used were far from full-frame. The products were discontinued when Kodak introduced its 13.5 megapixel full-frame 35mm-type DSLRs which have almost the same pixel count.

In January 2004, just in time for PMA Las Vegas in February, Phase One really set the cat among the medium format pigeons by announcing its totally untethered, and thus completely portable, P25 and P20 backs.

Other manufacturers followed with similar announcements of intentions to produce untethered medium format digital backs but, to date, that's what they remain – intentions for 2005.

Phase One's product, on the other hand, is here. Now. At the moment it's the only one in the world.

The P20 has a 36.9 x 36.9 (1.4 x 1.4 inch) square format 16 megapixel sensor. The P25 has a 48.9 x 36.7mm

(1.9 x 1.4 inch) 22 megapixel sensor which virtually fills the imaging aperture of a 6 x 4.5 camera body.

This sizzling slice of silicon accounts for most of the cost of the P25 and is made by the world's largest photographic company.

Yes, be it film of silver or sliver of silicon in the back of your medium format SLR, the recording of the image is still down to Kodak.

When Eric Joakim brought the P25 out to me in Oxfordshire, my first impressions were of a digital back which was a marvel of simplicity of design and perfection of construction.

The outer casing of the MFB-1 film back for my Contax 645 seems to be polycarbonate but the P25, which is only a little larger, is strong machined-from-the-solid alloy.

Eric Joakim proved the point by standing on the back, with his full weight applied. That's on a par with standing on the bonnet of a Rolls Royce to show how strong it is.

The rear panel has a colour LCD screen – which serves all the menu functions as well as review of images – and just five buttons. One of these is the power on/off control, the other four silver-coloured rectangular buttons address all the camera menu functions in a way which I can only describe as pure genius.

Yes, it needs genius to design a menu system which is immediately intuitive to navigate. Compare this with any DSLR, with its multitude of buttons, switches and control wheels.

The P25 is probably the highest quality untethered digital camera ever – and yet I didn't even need the manual



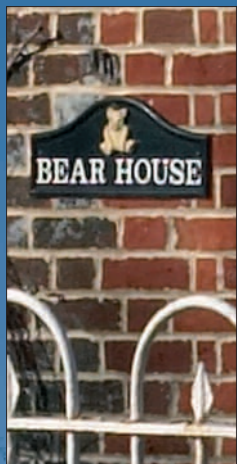
after the first few minutes.

Also on the rear of the P25 is a recessed IEEE1394/FireWire socket, enabling the back to be used in tethered mode if desired. On the right hand side, a Lithium-Ion battery sits neatly into a recess. On the left is one further button for removing the back from the camera body and two sockets for use with mechanical bodies, such as Hasselblad V series. There's also a large flap, behind which is the slot for the CF-card and a button for ejecting it.

How do you review a camera such as this? Pages full of menu screens? Diagrams of what controls are where?

The decision was made as soon as I'd viewed my first exposure using the P25 – of my 'standard' house. I've used this subject instead of test charts for some years, searching for a camera which would resolve the name on the house's nameplate.

I was so astounded by the incredible amount of detail in that first shot that I decided to put the P25 to the ultimate test: a comparative shoot between the P25, 5x4 and 10x8 film.

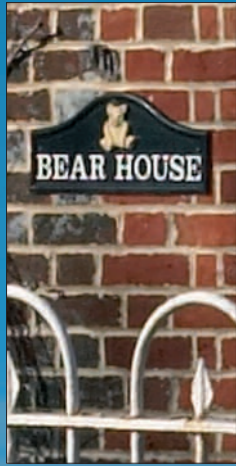


Phase One P25

80mm lens on Mamiya 645AFD

1/60 f16 ISO100

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5 x 4 Film

210mm lens on Sinar P2
1/60 @ f28 +1/3 stop

CHIP SHOP at www.epi-centre.com December 2004



10 x 8 Film

300mm lens on Sinar P2

1/60 @ f28 +2/3 stop

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First I enlisted the help of an eminent photographer who uses 10x8: Jay Myrdal. You can see some of his superb work at www.myrdal.com

Jay is an enthusiastic user of the 6 megapixel Phase One LightPhase, so he was keen to bring inquisitiveness and experience to our comparative shoot.

I had not realised just how critical the set-up of a 10x8 camera is.

Using a shutter speed of 1/60 second – the slowest Jay felt was safe to use to avoid camera-shake – and push-processing by 2/3 stop gave us an aperture half a stop closed on *f*22. This still did not give Jay quite enough depth-of-field for his liking. He would have preferred *f*/64 or *f*/96. Focus therefore had to be tilted carefully between the railings, front of the house and chimney and across from right to left, to compensate for the oblique shooting angle.

Setting up and adjusting 10x8 or 5x4 takes a considerable amount of skill. Jay later remarked that I had said 'I'm done' before he had even put the Sinar camera together.

The P25 is very easy to set up and operate. Mount the camera on the tripod, select the lens, make a test exposure, check on the LCD using the histogram or flashing highlight burn-out warning, make the exposure and check you've got it. The raw image file is then processed using Phase One's highly acclaimed Capture One Pro software – which will also process raw files from your Canon, Fuji and Nikon DSLRs. That's it.

With large format, first you have to buy the film (over £5 per sheet) load the dark slides, set up the camera, expose a Polaroid, expose the film, send it for processing (another £5 per sheet) then scan it – £55 for an 81–150MB Crosfield RGB drum scan.

The quality of the 10x8 is staggering

LEFT TOP TO BOTTOM: Squaring up for the comparative shoot. Jay Myrdal with the Sinar 5x4 alongside John Henshall with the Phase One P25 on Mamiya 645AF. Note the relative sizes of the cameras and equipment. Photograph by Faisal Khan, who helped with the shoot.

Jay Myrdal sets up the 10x8 back on his Sinar P2.

Fujifilm Provia 100F 5x4 and 10x8 sheet film – the state-of-the-art film we chose for the comparison – together with dark slides.

Jay insisted on using his regular laboratory – Metro Imaging – for the E6 processing and Crosfield Drum Scanning. Great Marlborough Street, London, Branch Manager Mike Yiangou is seen with one of the 10x8s.

of course. Look at the insets of the Bear House sign and gate sections.

The Pentel lettering on the gates is only half an inch high yet at sixty feet away it can be read quite clearly. These sections are not taken from the drum scans, however.

They were obtained by cutting up two of the transparencies and scanning sections of them at 4000 pixels per inch in my Nikon Super CoolScan 8000. Had I been able to scan the whole 10x8 in this way, the resulting file would have been 1.2 gigabytes – an impossibly large file to have to handle.

That's a phenomenal amount of redundant – wasted – information in the 10x8 film. In fact the Crosfield drum scan of the 10x8 came in at 7376 x 5871 pixels (737 ppi) giving a filesize of 124MB. The scan of the 5x4 was 7292 x 5808 pixels (1458 ppi) giving a filesize of 121.2MB.

An A3 page with bleeds requires 5030 x 3580 pixels – a RGB filesize of 51.5MB. All three far exceed this.

Jay Myrdal sums it up: "Once you can go to a good A3 you can go to a 48 sheet poster. The P25 would enlarge to any size with no problem. I could use it for all my work, even on the Sinar for the movements when necessary."

I say that the image quality from the P25 is not just excellent but quite simply the best I have ever seen from an instant capture digital camera.

WIN A PHASE ONE P20 DIGITAL BACK

This kind of state-of-the-art quality does not come cheaply. As the Rolls Royce salesman is said to have remarked, "If you have to ask the price you probably can't afford it anyway."

You would never buy a product such as this without having a demonstration in your studio, followed by a day or two's use at your own speed.

By arrangement with Phase One's UK Regional Sales Manager, Eric Joakim, a quantity of P20 backs is being made available for the use of BIPP members from January 2005.

The best shot you take can be entered into a free competition to win a P20 back with Contax 645AF camera. This prize is worth just under £16,000. Contact your Regional Chairman for more details.

Special thanks to Jay Myrdal for so generously sharing his advice and experience, to Faisal Khan for his enthusiastic assistance, to Mike Yiangou (+44 (0)20 7014 5160) Manager Metro Imaging Soho Branch for perfect E6 processing and scanning, and to Jenny Hodge of Fujifilm for help with sheet film.

For further information about the Phase One P20 and P25 digital camera backs contact Eric Joakim on +44 (0)1903 741821 or +44 (0)7970 746755

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