

amateur  
photographer

# TEST REPORT

## Biometer 120 lens

BY NEVILLE MAUDE



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## Biometer 120 lens

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The Pentacon Six lens range runs from the 50mm f/4 Zeiss Flektogon (reviewed 20.3.68) to the 500mm f/5.6 Meyer Telemegor (and there is also a 1000mm mirror lens). The Zeiss Sonnar 180mm f/2.8 (which can be used for 35mm as well as 6 x 6mm negatives) was reviewed 20.3.68, and is an extremely useful lens, but can sometimes be just a trifle too long, especially in small studios. The 120mm Biometer, with an angle of 39.5°, proves in practice to be a remarkably useful lens which can be used as a standard lens by those photographers who like something longer than the usual 80mm. Since most people think in terms of lenses for 35mm cameras when considering angles it may help to point out that a 120mm lens on a 6 x 6mm negative gives (mathematically) much the same angle as a 58mm lens on a 36 x 24mm negative. If using two cameras, one roll-film and one 35mm, during the same session, then having roughly equivalent focal lengths avoids a great deal of dashing backwards and forwards to get the same shot on colour and monochrome.

### Lens Details

The 120mm Biometer is a 5-element lens, coated blue and amber, focusing down to 3ft 9in., with click-stops down to f/22. It has the usual depth-of-field scale, infrared focusing mark, and a filter thread of 67 x 0.75mm (all the Pentacon Six lenses appear to have different filter sizes save for the 50mm and 65mm Flektogons which both use 86mm filters with an unusual thread). The diaphragm is fully automatic. Scales are clearly engraved in orange and

white and there is the little "pre-view" lever for stopping down if required. Aperture and focusing scales are indented and easy to grip—although both scales have the same feel they are sufficiently far apart for the user not to mistake the aperture ring for the focusing one while the camera is held to the eye.

### Lens Performance

All Zeiss lenses work well and it was no surprise to find that this one gave a good performance. Even at full aperture excellent

sharpness was produced at the centre of a 20 inch print. Stopping down to f/4 gave an improvement in clarity and at f/5.6 results reached a very high level indeed.

### Conclusion

While it is an undoubted fact that FP4 has done much towards closing the gap in quality between 35mm and roll-film results, nevertheless it is worth stressing the ease with which impeccable 20 x 16 inch prints can be produced from a 6 x 6 negative exposed with a good lens. Choice of focal length is an individual matter. When a lens is not interchangeable there is much to be said in favour of having a fairly wide angle, but when a short-focus lens can be used for those subjects which require it, then a longer focal length has some advantages for general work. It may be that some Pentacon Six users will find this lens replaces their 80mm Biometer for many applications though obviously requiring more care in focusing. Certainly this 120mm lens is a valuable member of the Zeiss lens range, especially for head-and-shoulder portrait work.



The figures on the lens are clearly engraved in white and orange against a black background. The little lever on the side, below the aperture ring, stops down the lens viewing depth-of-field on the screen.



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### Data Panel

120mm f/2.8 Biometer, 5 elements, for Pentacon Six and Praktis cameras.

Price £99 2s 0d.

Dimensions, 3.15 inches greatest diameter, 3.06 inches length to back of bayonet.

Weight, approx 1lb 2oz.

Manufactured by Carl Zeiss, Jena, D.D.R.

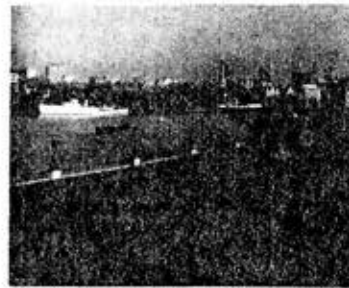
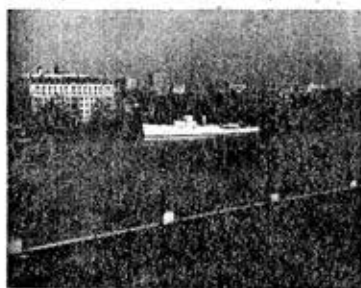
Distributed by C.Z. Scientific Instruments Ltd, Zeiss England House, 93/97 New Cavendish Street, London, W.1.

This scene makes an excellent test for what a lens will do in practice, as distinct from theory. In the original every upright on the hand-rail of the bridge is clearly defined and the low-contrast detail (where the mist has softened the gradation) is excellently retained. High contrast sharpness (as shown in the rails by the riverside) is expected, but not all lenses keep their definition as contrast is reduced. Pentacon Six 120 Biometer, FP4, 1/250 sec at f/5.6.



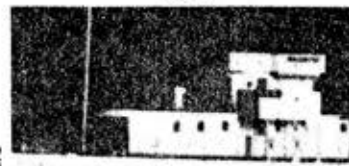
#### LENS PERFORMANCE

The first two pictures show the entire field of view, with the ship at centre and edge according to the finder. The other photos are same-size reproductions of parts of 20 inch prints made at various apertures as indicated. FP4 film was used.

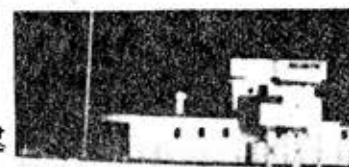


Centre

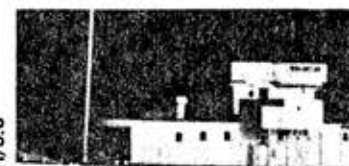
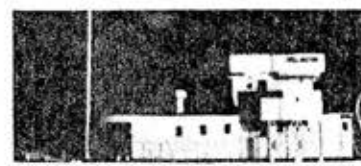
Edge



f/2.8



f/4



f/5.6



Some photographers prefer to use the 120mm Biometer as a standard lens instead of the 80mm. This photograph, by the well-known freelance Louis Peek, is an excellent example of what can be achieved with the 120mm.