

Camera test



TECH SPEC

Model: Bronica RF645

Type: Interchangeable lens rangefinder, in-lens leaf shutters

Frame area: 56x41.5mm

Film: 120/220, 16 and 32 exposures

Lenses: Zenanon 45mm f4, 65mm f4 and 135mm f4.5

Focusing: Manual helical system

Exposure modes: Manual, programme AE and aperture priority AE

Metering: Centre-weighted, five-segment sensor

Shutter speeds:

Manual 1-1/500, second, 1EV steps
Aperture priority 8-1/500 second, 1/2 EV steps
Programme AE 8-1/50 second, 1/2 EV steps

Flash synchronisation: All speeds

Exposure compensation: +/- 2EV, 0.5EV steps

Features: Multiple exposures, 10s self-timer, automatic film shield

Flash: Dedicated RF20 flash gun, hotshoe and PC connectors

Power source: 2x CR2 lithium cells

Weight: 810g body only

List price: £1,499.95 including VAT, body and 65mm lens

Distributor: Introphoto, Tel: 01628 674411

WORLD EXCLUSIVE Battle cry

Steve Hynes tries out Bronica's brand new RF645, launched at photokina

Bronica has long had medium format photography pretty well covered, with single lens reflex cameras of 6x7, 6x6 and 6x4.5cm. There are few places left to go, so it was almost inevitable that the search for a new niche would lead to a rangefinder.

Until a few years ago this was a neglected and sparsely populated sector, but Fuji and Mamiya have plugged most of the gaps. Now Bronica has weighed in with its own contender, the interchangeable lens 6x4.5cm RF645, launched at photokina and due to become available in November.

It slots into a spot where there is no direct rival. Its nearest competitor is the Fujifilm GA645, an autofocus fixed lens model available in versions with 45mm, 65mm and 55-90mm lenses. The Bronica is more traditional, with manual focus and interchangeable lenses.

This is a very robust camera with a rugged and well-finished all-metal body, built to serve as a hard-working professional tool. Solidly built as it is, there's lit-

tle in the way of fancy gadgetry, so the end result is a camera that weighs less than most professional 35mm SLRs.

Some of the weight has been saved by using manual film wind, eliminating the need for a drive motor and heavy-duty battery. Construction materials have also been carefully selected to keep the weight down while retaining the structural rigidity that is essential in a rangefinder camera.

The base plate is made from brass and the main body and front facing from diecast alloy. The top section, housing the rangefinder mechanism and viewfinder, is made from lightweight injection-moulded magnesium alloy.

DESIGN

The 645 format places an unusual restriction on camera design, because the long dimension of the format runs across the film. If the film is run from side to side, this results in portrait framing when the camera is horizontal; it has to be turned on its side for landscape format.

Most 645 SLR designs overcome this by



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The optical performance of the 65mm lens we used was superb, giving pin-sharp images across the field, even at full aperture

affected by areas of the scene outside the picture area.

But it also results in different amounts of centre weighting with different lenses. With the 45mm lens, the centre-weighted area represents a small part of the image; with each longer lens the weighted area represents proportionally more of the picture.

The camera back is where most of the controls are located. It carries the on/off switch, two dial controls, buttons for self-timer, multiple exposures and exposure lock, a 120/220 indicator and a film label holder.

Exposure compensation is controlled by the upper of the two recessed dials, with compensation from -2 to +2 stops in half-stop increments.

Below this dial is the film speed selector, with ratings from 25 to 1,600. With the high-speed films available today, a 3,200 setting would have been a worthy addition, but you can effectively extend the range by using the exposure compensation dial.

A 120/220 selector inside the back adjusts the pressure plate and sets the window display. Using 120 produces 16 frames per roll; 220 gives 32 exposures.

The self-timer gives a ten-second delay, with the countdown starting when the button on the camera back is pressed – you don't have to press the shutter button as well. A flashing light on the front signals progress of the countdown, speeding up for the final couple of seconds.

Multiple exposures are achieved by taking the first exposure, then pressing the ME button before each subsequent exposure. Alternatively, repeated exposures can be made for as long as the ME button is held down. There is no mechanism for locking the ME button, which seems a bit of an oversight as this means it is not possible to take multiple exposures without touching the camera, increasing the risk of disturbing a critical composition.

The use of shutter lenses introduces the need for some method of covering the film during lens changes. Bronica gets around this by using a shutter blind which auto- →

running the film vertically, but this is not possible in a rangefinder without resorting to an overly complex and unwieldy design. It's a bit strange at first, but something you quickly get accustomed to.

Three Zenzanon lenses have been produced for the new camera. The 'standard' fitting is a 65mm f4, giving approximately the coverage of a 40mm lens on 35mm. There is also a 45mm f4 wide angle and a 135mm f4.5 telephoto. The 45mm is roughly equivalent to a 28mm lens on 35mm, while the 135mm equates to an 80mm. All lenses stop down to f32 in half-stop clicks.

The 65mm and 135mm lenses each have brightline framing in the viewfinder, while the 45mm requires an accessory finder which slots into the hotshoe.

The lenses have built-in electronically controlled leaf shutters, allowing flash synchronisation at all speeds.

The 45mm and 65mm lenses have a 58mm filter ring, while the 135mm uses 62mm. A uniform size would have made more sense.

For the test we had only the 65mm lens. Its optical performance was superb, giving pin-sharp images across the field, even at full aperture. There's no reason to think the 45mm and 135mm won't be equally good.

The rangefinder design gives lens engineers more freedom because they don't have to allow rear element clearance for a reflex mirror. Bronica's designers have taken advantage of this by using optically superior symmetrical designs for all the lenses.

AUTOMATION

Two auto exposure modes are this camera's only concession to automation. There is a programme mode (P) and aperture priority mode (A), selectable by a dial on the right of the top plate.

The same dial allows manual selection of shutter speeds from 1 second to $\frac{1}{500}$, plus B. A higher maximum speed of $\frac{1}{750}$ is available in programme AE mode, providing that the aperture is smaller than f8. This is possible because the shutter opening time is less for small apertures than for full aperture.

Auto exposure readings can be locked by pressing a button on the camera back, just below the film wind lever. Press the button and exposure remains locked until you press it again. I prefer this to the commonly used system that requires a button to be held down. Locking is cancelled when the camera is switched off or when it is unused for five minutes.

Metering is via a five-segment sensor, with one sector covering the centre of the frame and one in each corner. Extra weighting is given to the central sector. This is a considerable improvement on the simple, centre-weighted horizontal strip employed by many rangefinders. It has the advantage of working equally well regardless of whether the camera is horizontal or vertical, overcoming a major shortcoming of the central strip system.

The metering sensor is located beside the viewfinder and reads the entire field of view. This reading is then processed according to the angle of view of the lens fitted, so that readings with the longer lenses are not

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This is a very robust camera with a rugged and well-finished all-metal body, built to serve as a hard-working professional tool

matically covers the film when a lens is removed and retracts when the next one is fitted. No messing around with darkslides and the like – it's just like changing the lens on an SLR.

A fair bit of force is required when removing or replacing a lens, which I initially put down to an exceptionally close fitting lens interface. But it could equally be caused by the blind operating mechanism. Whatever the cause, you need a good grip to get the lens on and off.

Viewfinder information is displayed on a very clear backlit LCD down the left hand side of the viewfinder. The top two figures show the shutter speed/aperture settings in AE modes. In manual mode the aperture figure is replaced by the correction needed to achieve correct exposure, from +3 to -3 stops.

Below this is a P, A or M to indicate programme, aperture priority or manual mode.

There are further indicators for auto exposure lock activated, exposure compen-

sation activated, flash ready, battery condition, shutter open (a strange one, that), and finally, an 'interlock block' indicator which shows if there are conditions that won't allow the camera to fire, such as film not wound on.

In normal conditions, only the exposure information and mode are showing – just what you need, without clutter. A minor criticism is that the display stays lit for only five seconds, which is a little on the mean side. The designers obviously had battery conservation in mind – the display is permanently backlit, so it's going to suck a bit of power from the two CR2 lithium cells.

FLASH

A dedicated flash unit, the RF20, has been designed for the RF645 system. It has a guide number of 20 and two beam width settings, one to match the 45mm lens, the other for the 65mm.

Full manual control is available, as well as automatic modes to match the camera's AE modes.

Any shutter speed can be used, allowing for slow sync effects. In programme mode the shutter speed will not fall below $\frac{1}{500}$ with the 65mm or 45mm lens fitted, or $\frac{1}{1000}$ with the 135mm, minimising the chances of ambient light ghosting.

A PC connector is fitted, allowing use of additional flash systems.

IN USE

The RF645 is a very pleasing camera to use. It feels good in the hand – solid but compact, with the battery grip providing a substantial hand grip.

Using its vertical mode (for landscape pictures) requires a slightly restricted placement of the left hand for focusing to avoid obscuring the viewfinder. Alternatively, it could be used with the grip hand at the bottom, putting the viewfinder above the lens, but I find that more awkward. It's nothing serious – just a matter of slightly adapting your technique.

The control layout is excellent, with all knobs and dials well placed, easy to use and clearly engraved. They also pass the thick gloves test with ease. None of the controls are vulnerable to accidental resetting. Film



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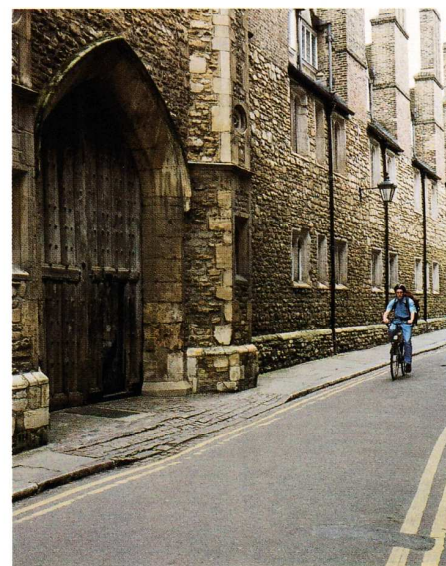
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the one with the 55-90mm zoom – lists at just over £1,600 including VAT.

While similar in price, they are aimed at different users. The Bronica is for the photographer who is able to take a slower, more considered approach to each shot, unconcerned by such things as autofocus and auto film wind. For me, the Bronica is far more appealing. I actually wouldn't mind owning one. Now that's something I never thought I'd say about a rangefinder. ■

We would like to thank Introphoto for pulling out all the stops to get this camera to us from Japan in double quick time especially for this review, the world's first.

Images shot on Fuji Provia 400F.



winding is smooth and easy, requiring just a single stroke. Film loading is easy.

Like most rangefinders, it's quieter than an SLR, but the auto-cocking shutter is noisier than the mere 'plink' that you get from some leaf shutters.

The rangefinder is very clear, with a well-defined central image that's easy to see under all conditions. This is partly due to the use of a real image for focusing, as opposed to the virtual image used in some rangefinders. Viewfinder framing with the 65mm lens is reasonable accurate, with the actual image including a little more than indicated by the brightlines.

Exposure accuracy is quite good, provided the usual precautions are taken to exclude very dark or bright areas when taking readings. If there are no such things to upset the reading, both AE modes are quite accurate.

All in all, this is a very easy camera to live with. It is practical, serviceable and has that little extra aesthetic appeal that comes with something well made.

CONCLUSION

A medium format rangefinder should be purchased in full awareness of its limitations and strengths. Their most appealing aspect is the simplicity, compactness and light weight. The main disadvantage is the limited range of lenses – if you can't live without those longer telephotos and extreme wide angles, they are not for you. They also lack the operating speed of an SLR with interchangeable film backs.

Where medium format rangefinders do come into their own is for travel and landscape photography, where they provide much better quality than 35mm, with little or no extra weight. If that's the sort of work you do, this camera is worth checking out.

The body with the 65mm lens lists at £1,499.95 including VAT. Individual prices are: body only £1149.95; 65mm lens £499.95; 45mm lens including accessory viewfinder £699.95; 135mm lens £649.95 and RF20 flash £299.95.

For comparison, the Fujifilm GA645 Zi –