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# MODERN PHOTOGRAPHY

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TEST  
REPORT



THE HASSELBLAD  
2000 FC

*"... must be regarded as a  
paragon of non-obsolescence ..."*

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# modern tests

newest cameras, lenses & important accessories

## HASSELBLAD 2000FC: EXTENDING THE SYSTEM

**MANUFACTURER'S SPECIFICATIONS:** Hasselblad 2000FC 2 $\frac{1}{4}$ x2 $\frac{1}{4}$  in. (6x6cm) single-lens reflex camera. Body No. UUF 500976. LENS: 80mm f/2.8 Zeiss Planar T\* in interchangeable bayonet mount, apertures to f/22, focusing to 2 ft. (0.6 m), accepts Hasselblad 57mm bayonet-mount accessories. SHUTTER: Electronically-controlled, corrugated titanium, horizontal focal-plane with speeds from 1-1/2000 sec. plus B, C setting for use with 500-series Hasselblad lenses with interlens Compur leaf shutters, X sync at 1/90 sec. and at slower speeds. VIEWING: Interchangeable waist-level finder with light-excluding hood, built-in magnifier, user-interchangeable viewing screens; standard screen is full-focusing with fine Fresnel pattern, horizontal and vertical orientation lines. OTHER FEATURES: Accepts shutterless "F-type" Hasselblad lenses and "C-type" lenses for Hasselblad 500-series cameras with built-in Compur shutters; interchangeable film magazines for 12 and 16 exposures (1 $\frac{1}{2}$  x 1 $\frac{1}{2}$  or 1 $\frac{1}{2}$  x 2 $\frac{1}{4}$  in.) on 120 film, 24 exposures on 220 film; standard and bulk magazines for 70mm film; accepts Polaroid pack adapter and uncoupled meter prism. Instant-return mirror has non-return and lock-up settings; film-advance and shutter-cocking indicator windows; button for cross-coupling shutter and aperture settings; compartment for PX28 6-volt shutter circuit battery has contacts for use with Shutter Speed Multiplier 60X, intervalometer and future accessories; depth-of-field preview control, focal-plane shutter-speed lock. PRICE: With 80mm f/2.8 Planar lens and magazine, \$3,570 in chrome finish; \$3,600 in black, at press time.

If any camera company serves as the embodiment of the ancient French proverb, "The more things change, the more they remain the same," it

is Hasselblad of Göteborg, Sweden. To begin with, every Hasselblad SLR ever produced bears a striking physical resemblance to all other models. But more significant than this obvious external lineage is the underlying design concepts upon which all Hasselblads have been based. From the



Official Hasselblad left-handed grip "leaves your right hand free for other operations such as film winding," but we preferred to focus with our left hand, fire with our right as per 35mm SLR practice.

beginning the goal has been the same—to produce a rugged, professional, medium-format SLR that's equally at home in the studio and in the field. To that noble end, the late Victor Hasselblad—working with an inspired crew of dedicated design engineers—conceived of a compact, modular, camera body of near-cubical dimensions to which lenses could be mounted on the front, viewing systems slid in on top, and interchangeable film magazines swiftly exchanged at the rear. To ensure the utmost in ruggedness and reliability, the Hasselblad body was constructed on the "box within a box" principle, with the inner box supporting the gear trains and various control mechanisms and the tough alloy casting of the outer box effectively serving as a protective shell. Not surprisingly, every single one of these proven engineering concepts has been brilliantly carried forth in the latest Hasselblad 2000FC. And despite the radical departures

(for Hasselblad) of an electronically-controlled titanium focal-plane shutter and an instant-return mirror, the 2000FC looks, feels, and handles almost identically to its leaf-shutter sister camera, the 500C/M, which, we must quickly point out, continues in production as the mainstay of the line.

Before we get into the specifics of the 2000FC, let us dispel a few historical myths and misconceptions. Many long-time Hasselblad fans greeted the official introduction of the

1000F, with its lower top shutter speed and improved reliability, was introduced. Also, incredible as it may seem to the 35mm SLR generation, both the 1600F and the 1000F lacked lens diaphragm automation of any kind—their Kodak Ektars and Zeiss Tessars were pre-set lenses, and the cameras themselves had no diaphragm stop-down mechanisms built into them. The 2000FC not only features auto diaphragm lenses, its electronically timed, .015mm-thick titanium focal-plane shut-

## What's New At A Glance: Hasselblad 2000FC

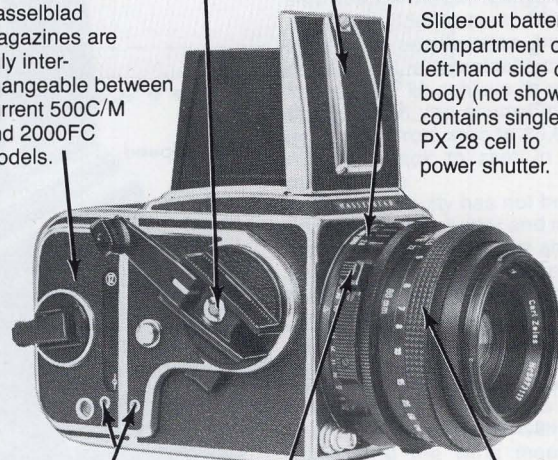
Top-mounted accessories such as finders and screens are fully interchangeable between current models.

Three-position, coin-operated, mirror-mode control offers instant-return, return after wind, and lock-up options.

Hasselblad magazines are fully interchangeable between current 500C/M and 2000FC models.

Shutter-speed ring controlling metal focal-plane shutter's electronically-timed speeds has settings of 1-1/2000 sec. plus B, X at 1/90 sec., "C" position for use with Compur shutter lenses.

Slide-out battery compartment on left-hand side of body (not shown) contains single PX 28 cell to power shutter.



Hasselblad's traditional film-wind- and shutter-cocking-indicator windows remain unchanged.

Aperture control sets f/stops without changing shutter speeds unless you press in ridged button to lock in EV value.

Wide, rubberized focusing ring is lots easier on fingers than knurled metal rings on Compur-shutter lenses. F-series 80mm f/2.8 Planar focuses to below 2 ft., or about 1 ft. closer than before

2000FC (in 1978) with knowing smiles. The shutter curtain, it seems, had come full turn—the corrugated metal focal-plane shutter first introduced on the Hasselblad 1600F of 1948, continued on the Hasselblad 1000F in 1952, and abandoned on the 500C in 1957, had miraculously reappeared. Wasn't this a tacit admission that the original Hasselblad design team had been right all along and that the Compur-shuttered interlopers had been mistaken?

Not really. First of all, it must be remembered that the 1600F's stainless steel, focal-plane shutter, for all its cleverness, was no paragon of reliability, which is precisely why the

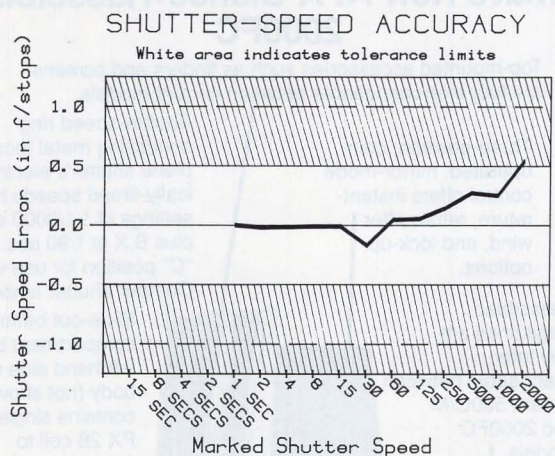
ter traverses the film plane in only 10.5 millise. (permitting a flash sync speed of 1/90 sec.) and it provides a reasonably accurate, reliable, 1/2000 sec. top speed. In short, Hasselblad's latest focal-plane shutter is as thoroughly up-to-date as any to be found in a medium-format camera.

Of course, these facts in themselves hardly explain the logic of returning to the focal-plane fold, so let's, for a moment, consider the current 500C/M. When Hasselblad first brought forth the nearly identical 500C back in 1957, everyone commended the camera's auto-diaphragm operation and extolled the full flash sync ad-



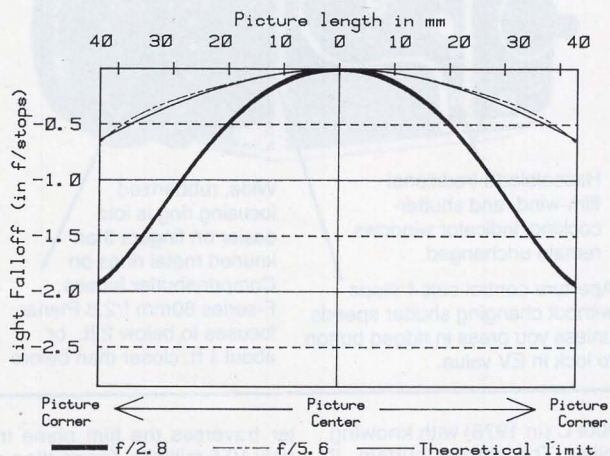


It's more than just a family resemblance. Body contours of new Hasselblad 2000 FC (left) and proven 500 C/M (right) are almost identical. Control array of FC's shutterless normal lens differs from that of C/M's Compur-shuttered optics, but amazingly same lenses, finders, screens and film magazines fit both models.



#### LIGHT FALLOFF (Zeiss 80mm f/2.8)

Standard: At f/5.6, within 1 stop of theoretical limit



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vantages of having a Compur leaf shutter in each lens. Some pros even praised the virtue of toting extra shutters with the lenses "in case one went on the fritz." On the debit side of the ledger, almost everyone wailed and moaned about the extra expense entailed in buying all those "extra" expensive German shutters.

With the 2000FC's suggested price (with lens) now precipitously close to four grand and the cost of the camera's shutterless normal lens, the 80mm f/2.8 Planar, having blasted through the \$1000 mark (at \$1,050), the economic argument in favor of a focal-plane shutter camera has been effectively torpedoed. So the question remains, why did they bother to do it?

Part of the answer to the question is optical in nature—to put it succinctly, interlens leaf shutters put a distinct crimp in the lens designer's style by adding a host of mechanical restrictions to the inevitable optical hurdles. For example, having the shutter-blade-actuating mechanism and blade pivot points at the periphery of the lens barrel restricts the width of the light path, limiting the effective aperture. Space for the focusing helicoid is likewise restricted, and since the shutter moves forward as the lens is focused closer, coupling the lens to the body's, shutter-release mechanism becomes problematical at close focusing distances. Both these latter dif-



To remove lens, push lens-release lock button in as you turn lens barrel about 1/8 turn counterclockwise. As with 500 C/M you can't remove lens until you wind film-advance knob to align diaphragm-actuation controls.

ficulties prevented Hasselblad from offering leaf-shutter lenses with really close focusing. By switching to the focal-plane shutter in the 2000FC, Hasselblad freed the Zeiss optical wizards to provide faster lenses (such as the 110mm f/2 Planar) as well as closer-focusing ones. (The 2000FC's normal lens now focuses down to 2 ft. instead of 3 ft., and the 150mm Sonnar is both faster—f/2.8 instead of f/4—and closer focusing—4 ft. instead of 4 1/2 ft.)

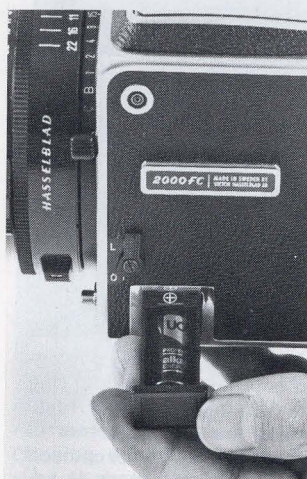
Nor is optical freedom the sole reason behind Hasselblad's return to the focal-plane shutter. Mechanical leaf shutters, for all their manifest flash sync advantages, are not terribly accurate at high speeds. Indeed, large leaf shutters fitted to medium-format cameras are

#### GENERAL PERFORMANCE

Checkpoints	Our Standard	As Tested
<b>FINDER:</b>		
Apparent viewing distance (finder loupe)	Between infinity and 20 in. (0.5m)	26 in. (0.67m)
View area compared to film area	Vertically and horizontally more than 90%, less than 100%	Vertical: 96% Horizontal: 98%
Parallax error compared to film	Vertical: 1.11mm Horizontal: 0.55mm	Vertical: 0.10mm (up) Horizontal: 0.30mm (left)
Focusing accuracy at maximum aperture	Within depth of focus	No discrepancy
<b>PICTURE SIZE:</b>	56 ± 1.4mm x 56 ± 1.4mm	55.0 x 55.3mm
<b>SHUTTER:</b>		
Curtain travel evenness	± 0.33 stop	-0.23 stops
Camera insulation from sync	More than 7 megohms	infinity
Sync contact efficiency	More than 60%	91%
Synchronizer delay time	X: within full opening	Okay
Shutter curtain bounce	Not allowed	None
<b>LENS:</b>		
Focal length	80 mm ± 5%	80.44mm
Maximum aperture	f/2.8 ± 5%	f/2.90
Distortion	± 2%	less than 1%
<b>CAMERA SIZE:</b>	Body: 4 5/16 in. wide; 4 1/8 in. high; 5 1/8 in. deep (110 x 105 x 130mm). Lens: 1 13/16 in. long; 3 1/8 in. dia (46 x 79mm)	
<b>WEIGHT:</b>	Body: 2 lb. 6 oz. (1077g) (with back and battery) Lens: 14 1/2 oz. (422g)	



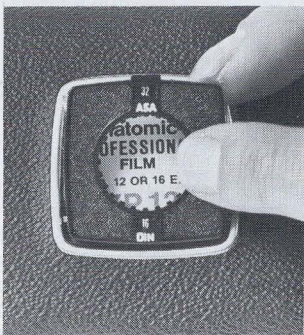
# modern tests



Drawer on camera's left side contains 6-v alkaline battery to power electronically-timed shutter. Note standard PC outlet above nameplate.

usually barely within tolerances at 1/500 sec., and since the blades move radially with respect to the optical axis, they're even less accurate (*i.e.*, slow) at smaller apertures. So, in terms of overall accuracy, additional top speeds of 1/1000 and 1/2000 sec., and in particular high speed performance, the 2000FC's shutter is definitely more in keeping with the critical demands of professional photographers in the field. Not only is action-stopping ability enhanced, the higher speeds allow hand-held shooting with longer and larger lenses without fear of blur due to camera shake—a vital consideration when using today's high-speed films which permit the hand-held use of these very fast speeds even under adverse lighting conditions.

It is likewise no accident that Hasselblad's latest sojourn into the land of the focal plane coincides with the first instant-re-



Hinged film-box-end clip serves as reminder of what's in film mag. No film box or cardboard handy? Then just rotate ASA/DIN reminder dial (ASA 20-6400) to required digits.

turn mirror built into a Hasselblad SLR. Yes, there have been instant-return mirrors built into leaf-shutter SLRs, but the mechanical complexities and precise timing sequences required pose formidable problems. The Bronica ETR is one example and it's significant that its format is  $1\frac{1}{2} \times 2\frac{1}{4}$  in.—the larger  $2\frac{1}{4} \times 2\frac{1}{4}$  in. Bronicas all use focal-plane shutters in conjunction with their instant-return mirrors.

As long as we've brought the subject up, we may as well debunk a final flight of fancy concerning the 2000FC's mirror. Since the 500C/M's mirror does tend to vignette the finder image (but not the on-film image!) slightly when very long lenses (such as the 500mm Tele-Tessar) are fitted, several recently published reports allude to the 2000FC's "larger" or "full-sized" mirror. Poppycock!

Incidentally, the total time required to complete the cycle from viewing position and back to viewing position in instant-return mode is a mere 1/30 sec.—quite an achievement with a mirror that measures  $11\frac{5}{16} \times 2\frac{1}{2}$  in. (50 x 61mm). To minimize camera shake caused by such a large mirror running at high speed, the 2000FC incorporates a centrifugal damper located in the upper right-hand side of the camera body. This device is more complex, but also more reliable than the piston-type dampers in the mirror mechanisms of other SLRs. It performs its function admirably—the 2000FC exhibits only slightly more mirror-induced jar than the non-instant-return 500C/M, and noticeably less than other focal-plane shutter  $2\frac{1}{4}$  square SLRs.

Before we discuss our actual



Evolutionary approach is evident in 2000FC's overall design. Most changes—multi-mode mirror, closer-focusing optics with more convenient controls—are for the better, but C/M's self-timer and T lock on shutter button got lost in the shuffle.

As it happens, the 2000's mirror is actually 9 percent smaller in area, yet it does not cause any finder vignetting even with the longest lenses. Why? Because the mirror now sits much closer to the rear of the lens when it's in viewing position, so virtually every light ray passing through the lens is reflected onto the focusing screen. In order to achieve this commendable result the mirror pivots on a pair of parallel arms placed roughly midway along each of its sides, instead of at the rear like the 500C/M's mirror. When the shutter-release is pressed, the mirror first moves backward to clear the rear of the lens, then upwards, then forward into position just below the focusing screen, in kind of an S-shaped motion.

field impressions let's attempt to answer the final nagging question, namely what exotica lurks within the beautifully finished contours of this machine that can possibly justify its incredibly high price? Well, if it's super-sophisticated high tech you're looking for, there's plenty of that. Although the 2000FC body is precisely the same size as the 500C/M, it contains 50 percent more parts—580 to be exact. We've already mentioned some of the extraordinary mirror accoutrements and shutter data but there's more. Each shutter curtain drum runs on two tiny sets of caged ball bearings, one on the top and one on the bottom, and both shutter curtains are electromagnetically-timed (the usual procedure is to actuate



Snap-on film magazines, fully compatible with 500C/M's, remain one of Hasselblad's most attractive features. Lock-out prevents mag from being removed until stainless steel dark slide is inserted.

the first curtain mechanically and time the second electronically with a capacitor circuit). Furthermore, the first shutter curtain drum incorporates a centrifugal clutch which eliminates slit width fluctuation during the shutter's travel—as the slit traverses the film aperture, it becomes wider to compensate for curtain acceleration, but it does so at a precisely controlled rate. To achieve its very rapid motion, the shutter must accelerate from zero to 15,000 rpm and back to zero in 12 milliseconds.

Such ingenuity has not been confined to the shutter and mirror, of course. The large shutter-speed ring directly in front of the 2000FC's 70mm-diameter lens mount has its bearing mounted on a Teflon pipe for reduced friction, and, to top things off, the camera's inner body shell (which contains the actual lens mount as well as supporting the wind mechanism, etc.) is connected to the outer body shell by means of a hefty spring above the tripod socket plate. So, when a heavy lens is hung off the front of the camera, the inner body actually "floats," relieving some of the stress on the lens mount.

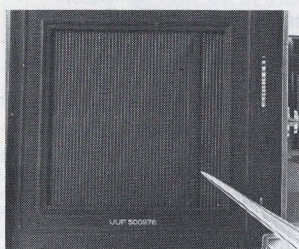
Perhaps the real reason the 2000FC's cost is justifiable has more to do with how it fits into the Hasselblad system rather than its constituent components. In what must be regarded as a paragon of non-obsolescence, the 2000FC accepts every single one of Hasselblad's 500-series Compur-shutter lenses, all of its film magazines and holders (with the sole exception of the model 80 Polaroid back—the 2000 uses its own model 100 Polaroid back), and the complete array of top-mounted accessories. When one considers the price of a professional photographer's Hasselblad equipment, which typically includes two or three bodies, half a dozen lenses, a dozen magazines and numerous viewing and focusing accessories, the cost of adding a



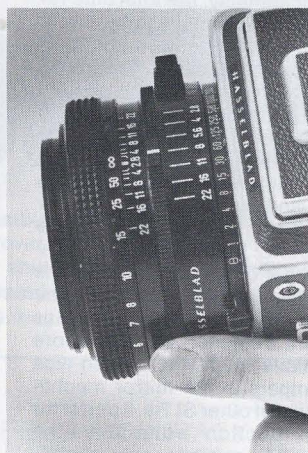
fully compatible 2000FC body hardly seems exorbitant.

Now that we've put the machine in its proper perspective, let's examine it more closely. Place the 2000FC (2000 denotes the top shutter speed; FC indicates the camera will accept shutterless focal-plane lenses as well as Compur-shuttered optics) next to a 500C/M, remove the lenses from both cameras, and you've got to be pretty knowledgeable to tell the two models apart. The flip-up, chest-level finders and film magazines are identical, and the remaining physical differences (with the exception of the FC's shutter-speed ring on the lens mount rather than on the lens) appear to be trivial. While we already know that the differences are anything but trivial, there is some truth conveyed by the visual impression. Both cameras operate in nearly the same manner—even those distinctive little film-advance and shutter-cocking verification windows have been retained—so that any Hasselblad user switching from one camera to the other will feel as comfortable as possible.

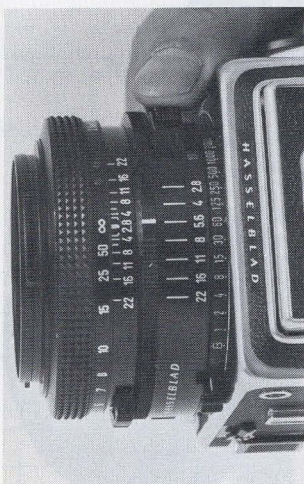
On the right-hand side of the camera, the 500C/M's removable metal-and-plastic film-wind crank has been replaced with a black-finished nylon crank that can be turned like a knob if you grab its ridged, protruding middle section with the crank in folded position. Unfold the 360° turn-per-frame crank and you can see a little orange button surrounded by a slotted, chrome collar. Insert a coin or stout thumbnail into the slot and you'll automatically press the little button, which enables you to turn the slotted collar until the left-hand part of the slot points to "2," "1" or "0." This is the mirror-mode selector—set it for "2" and the mirror will automatically return to viewing position once the exposure has been made; set "1" and the mirror will return only when you wind the crank to



**Super thin and light corrugated titanium shutter permits super-fast curtain travel time (for a 2 1/4 camera) of 10.5 millisc., so top 1/2000 sec. speed is possible. Electronic control, sophisticated mechanical design assure good accuracy, but shutter's location is vulnerable and it's easily damaged by misuse.**



**To set huge focal-plane shutter-speed ring at front of body, grab ridged tab (under thumb) and turn it to desired setting opposite red dot. Intermediate speed settings are possible at click-stops in between numerals except between C and B and 1 sec.—a total of 23 timed speeds!**



**Raised, ridged button adjacent to striated grip on aperture ring couples f/stop and shutter-speed rings when pushed in and held. Red-on-black EV scale begins (at 19) where white aperture numerals stop.**

cock the shutter and position the next frame; set "0" and the mirror will remain locked up but the shutter will still fire and the film will advance normally. Obviously, the last setting is used when mirror-induced vibration must be kept to an absolute minimum, such as when shooting detailed, stationary subjects with very long teles or for photomicroscopy at high magnifications. Although some experts have pooh-poohed the advantages of instant-return mirrors as purely psychological, most photographers—even hard-bitten pros who have little use for frills or window dressing—will surely greet the FC's multi-mode mirror as one of its most important and worthwhile advances.

Comparing the 2000FC's left-hand side with the 500C/M's, we note a few additional "small" changes which also turn out to be mighty significant. Aside from the obvious name-plate change, the FC sports a regular PC outlet (at the top, front corner) in place of the 500's non-standard sync terminal for the two-bladed light baffle at the rear of the mirror box (which can be used as a single-speed "shutter" when shooting with shutterless lenses). At the bottom, front section there's a slide-out plastic compartment for the PX28 6-volt battery. It's clearly marked with a plus sign, the battery is held firmly in position by a spring, and the compartment itself slides in and locks firmly in place without any special locking device. However, you'll need a stout pair of fingernails to pull it out.

As long as we've done so, let's examine the compartment's innermost surface—a small raised section with six female contacts. As you slide the battery in, these contacts mate with an equal number of prongs inside the battery compartment cavity. These prongs afford direct access to the camera's shutter-control circuitry, opening up a host of fascinating possibilities. At present, the standard battery compartment can be replaced with a Shutter Speed Multiplier 60X, which, as its name implies, multiplies any shutter speed you set by a factor of 60 (i.e., 1 sec. becomes 1 min., 1/2 sec. becomes 30 sec., etc.) and a plug-in intervalometer is scheduled to appear before too long. According to Hasselblad's technicians, one of the chief virtues of having such direct access to the camera's electronics is that it enables all shutter-control circuits to be tested without disassembling the camera.

From the photographer's point of view, those six little prongs imply something quite different—the future possibility of match-diode or even fully automatic exposure control. However, and this is one of the most controversial aspects of the 2000FC's design, any future, coupled through-lens metering prism (as distinct from Hasselblad's current uncoupled, transfer-the-setting meter prism) would have to plug into the aforementioned cavity with its six contacts. Thus the elegant Hasselblad 2000FC can only acquire a truly up-to-date metering system in the future by dangling some kind of cord unceremoniously down its left side. Pity.

Does this mean that we'll soon be seeing an all-electronic Hasselblad, and that the 2000FC, for all its technical wizardry, is only a stopgap? Not by a long shot. In fact, accord-



**Poised for fast action, photographer grasps focusing ring with left hand as right hand cradles lower right corner of camera. Note thumb poised over wind crank, ready to advance film quickly.**

ing to reliable sources thoroughly familiar with the 2000FC's innards, providing a "wireless" means to tap into the shutter-control circuits (with contacts at the back edge of the screen housing, for example) would be a relatively simple modification that could be accomplished on the present production line and possibly even retrofitted to current FCs. We mention this not to express our dissatisfaction with the present camera, but because it's a point that has been continually raised by others who have evaluated it. Since Hasselblad proceeds so slowly and deliberately in making changes, it's nice to know that the basic electronics package was designed with such future possibilities in mind.

The last "minor" item on the camera's left side is a little lever that points to the "0" setting when it's in vertical position and to "L" when it's horizontal. The latter setting locks the huge shutter-speed dial at its set value. Since it's highly unlikely that anyone would snag something on the dial's shutter-speed-setting tab (which winds



**What's wrong with this picture? If you insert dark slide with its rolled edge pointing to back of camera like this you'll pull slide partway out when unloading magazine, a minor annoyance.**



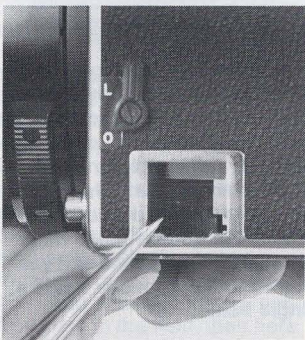
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Once film is loaded into magazine and arrows on paper backing are properly aligned, turn crank until it stops and first frame is automatically positioned, counter reads "1."

up on the left-hand side of the camera at the most-often-used settings), why have a lock? The answer is that when you mount a Compur-shuttered lens and set the focal-plane-shutter dial to the "C" setting, the tab winds up in front of the Hasselblad nameplate where you might accidentally touch it while focusing. As we'll soon see, it's important that the dial be locked at "C" when leaf-shutter lenses are being used with their leaf shutters (as they would be to obtain flash sync at high speeds, for example).

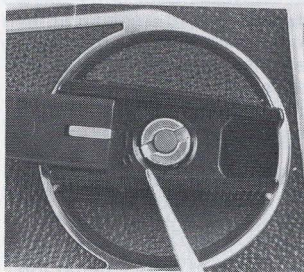
All right, let's set the focal-plane shutter to the red "C" mark and fire the camera. The shutter opens and stays open as long as we maintain finger pressure on the release. Now we'll switch to the adjacent "B" set-



Six prongs, at bottom and top edges of plate inside battery compartment (middle black dots are holes) provide direct access to FC's electronic circuitry. For now, Shutter Speed Multiplier 60X is sole plug-in accessory with intervalometer in the works, but through-lens coupled metering system may be in the offing.

ting and fire. Same thing. So why have the separate "C" setting? Because, as we discovered when we asked Hasselblad the same question, the "C" setting provides an "early release" of the first shutter curtain to make absolutely certain that the back shutter is completely open before the leaf shutter fires. We compared the timing at both settings and can confirm that the "C" setting does indeed provide an "early" release compared to the "B."

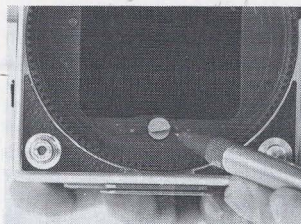
This raises an interesting point. Isn't it possible to mistakenly terminate the exposure too soon, when leaf-shutter lenses are used on the 2000FC? Yes, and moreover there are two ways to do it! If you mount a leaf-shutter lens, decide to use the leaf-shutter at a slow speed and set the focal-plane shutter to "C," you can get less exposure than you bargained for if you relax finger pressure on the shutter release before the leaf shutter has had a chance to



Three-mode mirror control at pointer includes instant-return option with F-type lenses at "2" setting, mirror return when film is wound at "1" setting with F- and C-type lenses, mirror lock-up at "0" setting. Tooth-shaped "S" release below crank pivot provides alternate means of flipping up mirror and stopping lens down so shutter release will fire shutter only, minimizing shake.

open and close. In other words, relaxing your finger pressure too soon will cause the focal-plane shutter's second curtain to close before the leaf shutter's leaves do. Conversely, a similar thing can happen if you set the leaf-shutter lens to "B" and use the focal-plane shutter to make a long exposure. In this case, relaxing your finger pressure on the release will cause the leaf shutter to close before the focal-plane shutter has had a chance to complete the exposure. The "cure" for both these problems is the same—make sure to keep the shutter release pressed in until the exposure is completed. Incidentally, experienced Hasselbladers are unlikely to make either of these errors since the 500C/M, with its rear "baffle shutter," had precisely the same characteristics and requirements.

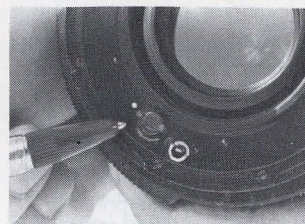
Before we begin our field



Key at bottom of mirror box mates with slot on back of F-type lenses for auto-diaphragm actuation, and with slot on C-type lenses for diaphragm stop-down and shutter firing. Tang on end of key prevents lenses from mounting if lens or camera isn't cocked.

impressions, let's turn to the 2000FC's new normal lens. The 80mm f/2.8 Planar is 1/2 in. longer than its leaf-shuttered counterpart, and it looks fatter as well since the focusing ring at the front is 3 1/2 in. in diameter or roughly the same size as the previous 80's. As with all late-model Hasselblads, the lens must be cocked and the mirror in viewing position before the lens can either be mounted or removed. This is to assure that the diaphragm and/or shutter-actuating key at the bottom of the mirror box slides into the proper slot on the lens.

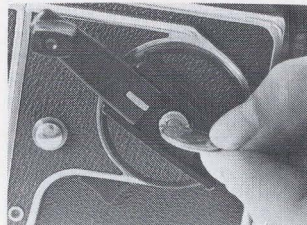
Once the lens is mounted with a smooth 1/4 turn and a reassuring click, its numerous convenience features become apparent. Firstly, the new 80's 5/16-in.-wide, textured rubber focusing ring is much more convenient and comfortable than ever before. Users of the 2000FC will not have to resort to add-on focusing handles to focus this lens (or any of the F-series lenses, for that matter). The focusing ring gets you down to 2 ft. in a smooth, backlash-free turn of about 315°. The second noteworthy improvement concerns the f/stops and shutter speeds. Unlike 500-series Hasselblads, the FC's aperture and shutter-speed settings are uncoupled—shutter speeds are set by grabbing the aforementioned tab and turning the shutter dial at the rear of the lens, and apertures are switched by gripping the aperture ring just in front of it by ridged sections at its top and bottom (when the lens is set for maximum aperture). Should you want to interlock the shutter and aperture controls at a given EV value (EV values are easily read off the red-on-black scale on the right-hand side of the lens barrel), simply press a small button located in a little raised tab atop the aperture ring as you turn it. The red delta on the shutter-speed ring's right side will then be locked in at a single EV value and both aperture and shutter dials will turn simultaneously, maintaining equivalent-exposure



Keyway on back of F-type lens must be turned clockwise to align with red dot (at pointer) before lens can be mounted. Spring-loaded pin and collar at right mate with stationary pin in camera as lens is mounted, freeing diaphragm-actuating shaft to turn.

settings (i.e., f/2.8 at 1/60, f/4 at 1/30, etc.) This press-to-engage EV system is a great improvement over the press-the-aperture-ring-in-to-disengage EV-setting system used on leaf-shutter Hasselblad lenses, and photographers who cursed the former system will surely cheer about the change.

A smaller but nevertheless worthwhile change concerns the FC's depth-of-field preview



Coin of the realm is easiest tool with which to set mirror mode. Note that instant-return setting "2" offers no advantage when Compur-shutter lenses are used—you still have to wind film to open shutter and diaphragm for viewing.



Wide, diamond-pattern rubberized focusing ring on new F-type 80mm Planar is great improvement over knurled metal ring on C-series Planars. It'll also get you down to 2-ft., 1 ft. closer than before.



tab on the left-hand side of the lens barrel, right behind the focusing ring. To stop the lens down to working aperture you press it downwards until it clicks; to return the lens to maximum aperture for viewing, you press it upwards until it clicks. This seems pretty ordinary until you remember that "C-type" lenses feature a tiny, spring-loaded tab on their lower right to stop the lens down, and to get the lens back to maximum aperture you have to turn the aperture ring to that setting and then reset your shooting aperture. Again, the new system is an improvement.

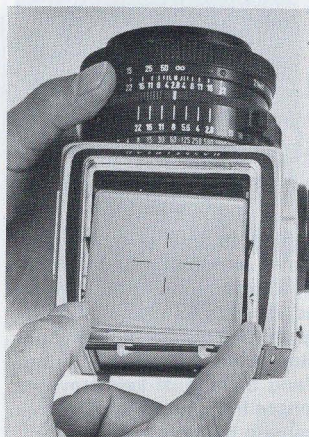
With so many changes for the better, perhaps you're beginning to wonder whether there's anything about the 500C/M that qualifies as a redeeming virtue. Well, there are several things. It's quieter than the FC (72 dB vs. 78 dB at 1/125 sec.), irrespective of which type of lens is being used on the latter and, as mentioned, its non-instant-return mirror induces a bit less camera shake. Also not to be overlooked is the substantial price differential between the



**In folded position, crank becomes a convenient film-advance knob with ridged gripping surfaces. These provide a more secure grip for rapid winding even when crank is unfolded and used.**

two machines—the 500 costs \$1110 less than the FC. The 500C/M may not be the best way to utilize the FC's glorious lens line (in effect it reduces the camera to three shutter speeds, "B", "T" via the shutter-release lock, and 1/30 sec. via the light baffle shutter), but its own "C-type" Zeiss lens line is superb and many pros don't require super-close focusing without accessories, or low-light apertures for that matter. Moreover, many Hasselblad users will find the leaf shutter's unmatched flash sync flexibility to be of paramount importance and its high speed limitations to be relatively insignificant. And, of course, Compur shutters require no batteries.

Finally, there is the human element, known as the "fumble-factor," to contend with. And while the 2000FC's focal-plane shutter shows every sign of being reliable and durable in use, there is no denying that it's intolerant of abuse. Not only is it



**Screen switching on FC follows identical procedure as on C/M—push side tabs in and lift screen out. Since same screens fit both cameras, this is hardly surprising.**

tissue-paper thin, it's also located in a vulnerable position once the film mag is removed. Grab the naked camera body clumsily and you may poke a dent in the shutter curtain. Mount a magazine carelessly and you may ding in a corner of one of the curtains (this last is a fairly commonplace error, according to Hasselblad's repair department). When we accidentally dropped our test camera from a height of 2½ ft. (onto a carpeted floor, thank goodness), the second shutter curtain exhibited a small "dent" as part of its top edge jumped "out of the track." Repairing it was simple and comparatively inexpensive (\$25), but such an incident might prove costly (in terms of finishing an assignment plus down time) to a pro who didn't have his trusty 500C/M to back him up. Having survived our most treacherous ministrations with nary a dent and with its lens-to-film-plane alignment still "on the nose," we would hardly label the 2000FC a delicate camera.



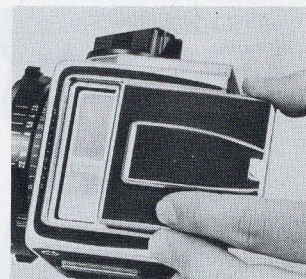
**In the middle of the FC's quick-release tripod-mounting plate lurks standard European tripod socket adaptable to American 1/4-in. size with cheap screw-in converter. Directly above this plate, inside the camera, is large spring connecting inner chassis to outer camera body. "Floating" system relieves strain when large, heavy lenses are attached to tripod-mounted camera.**

However, if we were going on the type of assignment where the camera might have to be treated more like a football than a precision instrument, we'd opt for the super-rugged 500C/M with its "choice" of "extra" shutters.

At last, the time has come to load up, take our 2000FC into the field and run it through its picture-taking paces. Since we've already covered the camera's elaborate system of film magazine interlocks and the operation of the film wind and shutter cocking indicator windows in our June, 1977 report on the Hasselblad 500C/M (to get a copy, please send a self-addressed stamped envelope to Modern Photography Readers' Service, 825 Seventh Ave., New York, NY 10019) we won't go into the step-by-step loading procedure here. Suffice it to say that standard Hasselblad magazines can be loaded on camera, but when speedy film changing is required, you'd best carry extra magazines and remember to store the dark slide in an unforgettable place where it won't get bent (we're devotees of the shirt pocket). Also, nitpicking Hasselbladniks assure us that it's best to wind the loaded magazine to the first frame *after* you mount it to assure film flatness (though our observations indicate that the Hasselblad film mag does a better job than most in this vital area, probably because it combines reverse-curl loading, large-diameter rollers on both ends of the pressure plate, and a film-guide bar on the film's right edge).

Once the film is loaded, pull out the dark slide, erect the viewing hood (do this in two distinct steps—if you're sloppy, one of the side flaps may hang up), pull the film-wind crank into operating position and you're ready to go. The view through the FC is bright, courtesy of a moderately coarse, spiral Fresnel pattern focusing screen, but even more impressive than its brightness is its excellent contrast. Details really do snap into focus very nicely, irrespective of where on the focusing screen you choose to focus. Pincushion distortion in the finder is noticeable, particularly toward the edges of the viewing area, but this was a minor annoyance soon forgotten with most subjects.

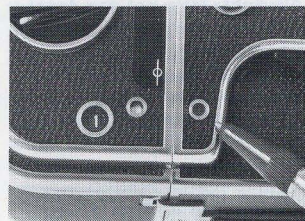
With the left thumb and forefinger perched on the focusing ring and the right thumb resting on the rotatable end of the film-wind crank, the 2000FC assumes a most natural shooting position, and we're pleased to report that this, combined with the camera's well centered weight distribution, makes for an exceedingly comfortable,



**Top-mounted viewing and focusing accessories slide into groove atop focusing screen once film mag has been removed. Entire range fits 2000 FC and 500C/M bodies.**



**Set shutter-speed lock to "0" as shown and focal-plane shutter dial turns freely. Rotate lever 90° to "L" setting and dial locks in at value set. Lock is used primarily at "C" setting with Compur-shutter lenses (see text).**



**Those two little portholes still adorn 2000FC's right side. Window at pointer shows red when shutter's not cocked; window adjacent to frame counter shows red when film isn't advanced. Make sure both windows are same color when you mount a magazine and you won't double expose or waste a single frame.**

fine-handling package. If anything, the FC's fatter crank-handle shaft and the wide, textured "platform" on the "knob section" of the crank assembly make it handier than the C/M's crank (though you still have to grab the rotatable tip of the handle when advancing the film rapidly). For reasons already mentioned, the FC's shutter-speed, aperture, and



# modern tests

EV-interlock controls are much more convenient than the C/M's and they certainly enhance the camera's field performance, especially when shooting fast action. In the same vein, the FC's faster shutter speeds prove invaluable, especially when shooting with the longer lenses, and mounting the 110mm f/2 Planar enabled us to indulge our low-light fantasies in almost the same manner as a 35mm SLR. (Among medium-format SLRs, only the defunct Norita 66 and the current Mamiya M645 1000S offered f/2 and f/1.9 lenses.) And the shutter release, while not the lightest we've used, impressed us with its smooth, predictable action.

Of course, no report on the Hasselblad 2000FC would be complete without mentioning the camera's superlative fit and finish. The lenses mount with consummate smoothness, but without even a touch of the "bayonet wobbles." Ditto for film magazines and top-mounted accessories, which click and slide in with commendable precision. Then, of course, there's the polished aluminum (or black finished) body, complemented by a perfectly fitting, genuine leather covering. Few cameras, regardless of format, are as exquisitely crafted as the 2000FC, which is only to be expected of a camera that costs as much as a new "economy" car! (Yes, one of our staff members grumbled that the numerals appearing on the FC's lens are not engraved even though the ones on the shutter-speed dial are, but these are finer nits than we'd care to pick.)

In the final analysis, the 2000FC's *raison d'être* is not to be found in any technological wizardry contained within its finely chiseled body contours, but in the way it extends the Hasselblad system while hewing closely to its original and unchanging precepts. If one needs a Hasselblad with its priorities and optics weighted toward improved (especially high-speed) shutter-speed performance and extended low-light and close-focusing performance in the field, then here it is. The excellent (and expensive) parts of the system in which you may have already invested attach to the three sides of this miraculous "cube" as before. As you can see, making haste slowly offers some unique advantages. Perhaps the greatest of these is the ability to enhance something—in this case one of the world's great camera systems—without



**F-type 80mm Planar is larger than its Compur-shuttered counterpart, but looks are deceiving—maximum diameter is nearly the same and new lens weighs but ½ oz. more.**

relinquishing its many timeless virtues.

We've already detailed the improved controls and closer focusing of the FC's 80mm f/2.8 Planar lens. In practical field shooting, this lens balances extremely well on camera, and legibility of all numerical scales is very good (though you usually do have to tilt the camera to glance at the right side of the lens barrel when reading EV settings opposite the red delta mark on the shutter-speed ring behind the lens).

**Optical bench analysis:** On axis, in the center of the picture field, we observed slight undercorrected spherical aberration at maximum aperture, but it was gone by f/4—a very good performance. Axial color aberrations were absent and the lens was very well centered, a sign of careful construction. Off axis, we detected weak high-order coma and a touch of skew-ray flare (white), but even at 27° off axis there was no astigmatism. A touch of lateral color observable at wider apertures vanishes by f/8. Overall, we'd rate the 80mm Planar's performance as excellent for a lens designed to cover the 6x6cm format. We would expect it to provide very sharp, clean on-film imaging.

**Field test slides:** Our test transparencies revealed that this lens produced very sharp images in the center of the picture field at f/2.8, but with a slight softening of edge details. Sharpness in the corners of the format is also very good, but with a slight loss of contrast compared to the center. No evidence of distortion or color

aberrations was observed. At medium apertures (f/5.6-f/8) sharpness and contrast improve to excellent at both center and edges of the picture field, and image quality is crisp and well defined. Flare was very well controlled throughout. Overall, we'd rate this lens' field performance as very good to excellent.

## RESOLUTION

Carl Zeiss 80mm f/2.8 Planar T* No. 5873117 at 1:24 magnification			
f/no.	Center Lines/mm	Corner Lines/mm	
2.8	Excellent	60	Excellent 33
4	Excellent	67	Excellent 42
5.6	Excellent	75	Excellent 47
8	Excellent	67	Excellent 53
11	Excellent	67	Excellent 60
16	Excellent	67	Excellent 60
22	Excellent	60	Excellent 47

## CONTRAST

Carl Zeiss 80mm f/2.8 Planar T* No. 5873117 at 30 lines/mm			
f/no.	Center %	Corner %	
2.8	Medium	32	Medium 21
4	High	47	Low 22
5.6	High	51	Low 29
8	High	52	High 39
11	High	52	High 41
16	High	47	High 37
22	High	44	High 34

## 50mm f/2.8 DISTAGON T\* FOR HASSELBLAD

**Lens:** 50mm f/2.8 Carl Zeiss Distagon T\*

**Mount:** For Hasselblad 2000FC and 500C/M

**Filter size:** 85mm screw-in

**Apertures:** f/2.8 to f/22, click-stops at half-stop intervals

**Min. foc. dist:** 0.32m (12.6 in.)

**Features:** Inverted-telephoto design, built-in depth-of-field preview control, button on aperture ring permits coupled f/stop and shutter speed (EV) settings, multicoating

**Serial No.** 5901232

**Size:** 3 9/16 in. diam., 3 7/8 in. long (90 by 98mm)

**Weight:** 2 lb. 12 oz. (1247 g)

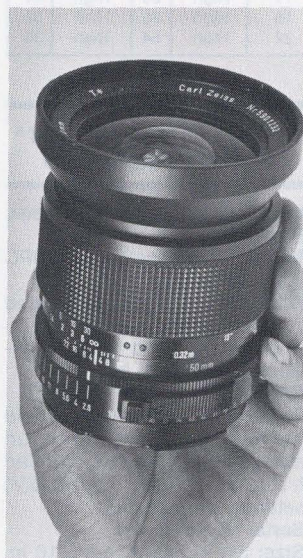
**Price:** \$2,200 with leather case, at press time.

In gaining a full f/stop in speed over the C-type 50mm f/4 Distagon designed for the Hasselblad 500C/M, Zeiss has understandably produced a much longer, noticeably wider (in maximum diameter) and noticeably heavier lens than before. You might think that such a ponderous optic would make the 2000FC front-heavy, but the new Distagon balances quite nicely on camera when supported under its huge, 1 1/2-in wide, textured rubberized focusing ring, which gets you down to a very close minimum focusing distance in a smooth, approximately 320° turn. From the focusing ring backwards,

this lens closely resembles the 80mm Planar and the similarity of its logical control array and large, legible scales enables lenses to be switched with a minimum of mental reorientation on the part of the photographer. Incidentally, this is one of the few wide-angle optics for any format which simply would not exhibit flare in the finder even under the most adverse test conditions (sun in or just outside one of the picture corners). This is partially attributable to efficient multicoating.

**Optical bench analysis:** On axis, this lens exhibited slight overcorrected spherical aberration and red flare at f/2.8, but these were gone by f/4 and the lens can be described as diffraction limited (showing a perfect point image on the bench) at f/5.6. No axial chromatic aberration was observed, and the lens was very well centered. Off axis, at the corners of the format field, we noticed a weak skew-ray flare (white), but even at 37° off axis no lateral color was evident. There was slight astigmatism (less than .5mm), but this represents an excellent performance. Overall, we'd rate this lens as excellent in the center, very good to excellent in the corners.

**Field test slides:** This lens' central on-film image quality was crisp and well defined throughout at all apertures.



**New 50mm f/2.8 Distagon is longer, wider, and heavier than C-type 50mm f/4, but sharp flare-free performance is exceptional.**

Color aberrations were virtually absent, and flare control was remarkably good. Corner image quality was good at maximum aperture, though the slides exhibited a slight loss of crispness. However, corner sharpness improved to very good at smaller apertures. We observed very slight linear distortion in rectilinear subjects



shot with the Distagon, but less than we expected with a wide-angle lens.

## PERFORMANCE

Our Standard	Tested
<b>Focal length:</b> $\pm 5\%$ (47.50 to 55.00mm)	51.98mm
<b>Max. aperture:</b> $\pm 5\%$ (f/2.66 to f/2.94)	f/2.92
<b>Distortion:</b> $\pm 3\%$	less than 1.0%
<b>Light falloff:</b> at f/5.6, + 1 stop from theoretical limit (0-1.39 stops)	0.80 stops

## RESOLUTION

Carl Zeiss 50mm f/2.8 Distagon T* No. 5901232 at 1:19 magnification				
f/no.	Center Lines/mm	Corner Lines/mm		
2.8	Excellent	47	Good	21
4	Excellent	47	Excellent	27
5.6	Excellent	54	Excellent	30
8	Excellent	65	Excellent	33
11	Excellent	60	Excellent	33
16	Excellent	47	Excellent	33
22	Excellent	47	Excellent	33

## CONTRAST

Carl Zeiss 50mm f/2.8 Distagon T* No. 5901232 at 30 lines/mm				
f/no.	Center %	Corner %		
2.8	Medium	36	Medium	19
4	High	50	High	28
5.6	High	57	High	37
8	High	59	High	39
11	High	60	High	44
16	High	60	High	39
22	High	54	High	36

## 110mm f/2 PLANAR T\* FOR HASSELBLAD

**Lens:** 110mm f/2 Carl Zeiss Planar T\*

**Mount:** For Hasselblad 2000FC and 500C/M

**Filter size:** Special Hasselblad 70mm bayonet

**Apertures:** f/2 to f/16, click-stops at half-stop intervals

**Min. foc. dist.:** 0.8m (2.75 ft.)

**Features:** Built-in depth-of-field preview control, button on aperture ring permits coupled f/stop and shutter speed (EV) settings, multicoating

**Serial No.:** 5881468

**Size:** 3 1/8 in. diam., 2 15/16 in. long (79 by 75mm)

**Weight:** 1 lb. 10 oz. (737 g)

**Price:** \$2,175 with leather case, at press time.

It came as no surprise that this fast, close-focusing "portrait" lens was introduced along with the Hasselblad 2000FC since the camera's focal-plane shutter makes such useful designs mechanically possible. But although this high-speed optic is fairly large in diameter, it's also reasonably short and amazingly light, balancing on camera with almost the same "feel" as the 80mm

normal lens. As expected, this lens provides a somewhat brighter focusing image than the f/2.8 optics, and its contrast characteristics enable it to snap decisively into focus in the finder. The f/2 Planar focuses smoothly to its minimum distance in an approximately 320° turn of its comfortably wide (1 1/8 in. or 29mm), textured, rubberized focusing collar and at that distance frame-filling head shots are possible. It goes without saying that this ultrafast (for a 2 1/4 camera) lens offers extended low-light shooting possibilities while its somewhat longer-than-normal focal length tends to minimize apparent perspective distortion, an important consideration in portraiture.

**Optical bench analysis:** On axis, in the center of the image field, at f/2 this lens exhibited a moderate amount of flare due to overcorrected spherical aberration, slight red color fringing, and a bit of green zonal flare. However, by f/4 the point image was nearly diffraction limited, color aberrations virtually disappeared, and image quality was excellent. Off axis, we detected weak skew-ray flare at f/2, but it was gone by f/4. At 19° off axis, we observed slight higher order coma and very slight red-green lateral color, but the overall image quality was excellent at f/5.6. On the basis of bench performance we'd rate this lens as very good to excellent.

**Field test slides:** At maximum aperture our test transparencies exhibited very good definition in the center of the



**Fastest optic for 2000FC, 110mm f/2 Planar is quite light, fairly compact for its aperture and focal length. Performance very good.**

picture field, but with a slight softness in edge details. At the corners at f/2, contrast and sharpness were a bit lower, but still qualify as good. We also noticed very slight purplish color fringing of low intensity. At medium apertures (f/5.6-f/8) central definition improves to very good to excellent across the picture field—a fine performance. Flare was very well controlled throughout—a result we partially attribute to efficient multicoating.

## PERFORMANCE

Our Standard	Tested
<b>Focal length:</b> $\pm 5\%$ (104.5 to 115.5mm)	109.62mm
<b>Max. aperture:</b> $\pm 5\%$ (f/1.90 to f/2.10)	f/2.06
<b>Distortion:</b> $\pm 2.5\%$	less than 1.0%
<b>Light falloff:</b> at f/5.6, + 1 stop from theoretical limit (0-1.79 stops)	0.63 stops

## RESOLUTION

Carl Zeiss 110mm f/2 Planar T* No. 5881468 at 1:19 magnification				
f/no.	Center Lines/mm	Corner Lines/mm		
2	Excellent	35	Accept.	19
2.8	Excellent	62	V. Good	24
4	Excellent	67	Good	24
5.6	Excellent	67	Excellent	31
8	Excellent	78	Excellent	39
11	Excellent	67	Excellent	35
16	Excellent	55	Excellent	35

## CONTRAST

Carl Zeiss 110mm f/2 Planar T* No. 5881468 at 30 lines/mm				
f/no.	Center %	Corner %		
2	Medium	30	Low	15
2.8	High	46	Low	16
4	High	48	Low	18
5.6	High	48	Low	22
8	High	48	Medium	24
11	High	49	Low	24
16	High	43	Low	23

## 150mm f/2.8 SONNAR T\* FOR HASSELBLAD

**Lens:** 150mm f/2.8 Carl Zeiss Sonnar T\*

**Mount:** For Hasselblad 2000FC and 500C/M

**Filter size:** Special Hasselblad 70mm bayonet

**Apertures:** f/2.8-f/22, click-stops at half-stop intervals

**Min. foc. dist.:** 1.4m (4.5 ft.)

**Features:** Built-in depth-of-field preview control, button on aperture ring permits coupled f/stop and shutter speed (EV) settings, multicoating

**Serial No.:** 5882251

**Size:** 3 5/16 in. diam., 2 15/16 in. long (84 by 74mm)

**Weight:** 1 lb. 8 oz. (680g)

**Price:** \$2,145 with leather case, at press time.

Again, the Zeiss optical designers took the intelligent step of providing a faster, closer-focusing 150mm lens designed specifically for the focal-plane-shuttered Hasselblad 2000FC, and it's a superb optic that's much lighter and handier than you'd expect for a lens of its speed and focal length.

The new 150 balances beautifully on camera and its massive 1 1/8-in.-wide textured rubberized focusing collar gets you down to minimum distance in a silky smooth, approximately 320° turn. Incidentally, this close-focusing capabilities lets



**The 150mm f/2.8 Sonnar's one stop gain in speed over C-type 150, has been achieved without any compromise in optical performance.**

you fill the frame with head-and-shoulders portraits. As with the entire Zeiss F-series Hasselblad lens line, the 150mm features the same logical control array as the 80, 50 and 110mm optics and its numerical scales are large and legible. With its shallow depth of field at maximum aperture, the 150mm snaps into precise focus with alacrity. As you might expect of such an expensive optic, it is extremely well finished and all controls operate flawlessly—comments that apply equally to the other three lenses covered herein.

**Optical bench analysis:** In the center of the image field at maximum aperture this lens exhibits slight overcorrected spherical aberration, but no color defects whatsoever—an excellent performance. At f/4 central image quality is excellent—also with no color aberrations evident.

At 14° off axis at f/2.8 we noticed a moderate amount of astigmatism in the corners (astigmatic angle is 11°), but no skew-ray flare whatsoever. Image quality was excellent at f/8. Overall we'd rate this lens's bench performance as very good to excellent.

**Field test slides:** In the center of the picture field at maximum aperture our test transparencies showed very good sharpness with slight yellow-orange fringing. In the corners at f/2.8 very little falloff in sharpness was noticeable, but contrast was slightly lower. At medium apertures (f/5.6-f/8) central definition was excellent

## PERFORMANCE

Our Standard	Tested
<b>Focal length:</b> $\pm 5\%$ (142.5 to 157.5mm)	151.44mm
<b>Max. aperture:</b> $\pm 5\%$ (f/2.66 to f/2.94)	f/2.91
<b>Distortion:</b> $\pm 2.5\%$	less than 1.0%
<b>Light falloff:</b> at f/5.6, + 1 stop from theoretical limit (0-1.88 stops)	0.25 stops



## MODERN TESTS

as was contrast. In the corners, sharpness and contrast held up amazingly well, and overall performance was superb. Flare was very well controlled throughout, a result we partially attribute to very efficient multi-coating.

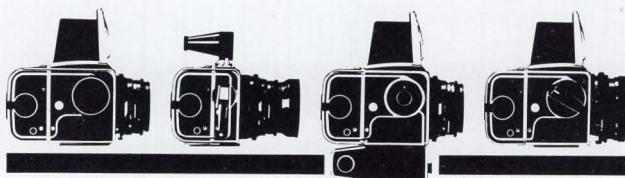
### RESOLUTION

Carl Zeiss 150mm f/2.8 Sonnar T* No. 5882251 at 1:19 magnification				
f/no.	Center Lines/mm		Corner Lines/mm	
2.8	Excellent	43	V. Good	24
4	Excellent	49	Excellent	31
5.6	Excellent	49	Excellent	39
8	Excellent	49	Excellent	43
11	Excellent	55	Excellent	43
16	Excellent	55	Excellent	49
22	Excellent	43	Excellent	34

### CONTRAST

Carl Zeiss 150mm f/2.8 Sonnar T* No. 5882251 at 30 lines/mm				
f/no.	Center %		Corner %	
2.8	High	42	Low	16
4	High	45	Low	18
5.6	High	45	Low	22
8	High	44	Medium	27
11	High	42	Medium	28
16	High	38	Medium	27
22	High	36	Medium	24

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# H A S S E L B L A D<sup>®</sup>

Victor Hasselblad Inc.  
10 Madison Road, Fairfield, N.J. 07006



# The Hasselblad four

A Hasselblad is not one camera, but many.

It was designed around the concept of interchangeability of many parts, in order to give maximum flexibility to you, the photographer.

The Hasselblad System places at your disposal the most comprehensive collection of interchangeable components and accessories of any 2 1/4" x 2 1/4" camera. Whatever your photographic needs, you can assemble a Hasselblad to handle the job brilliantly.

The cornerstones of the Hasselblad System are four camera models.

The Hasselblad 500C/M can be considered as the "basic" Hasselblad. It has a Carl Zeiss 80mm f/2.8 lens, a 12-exposure magazine, a focusing hood, and a film advance knob, all of which are interchangeable. The 500 C/M is completely manual in operation and very compact in design for a camera that gives you a full 2 1/4" x 2 1/4" negative.

The Hasselblad 500EL/M is the motor-driven version of the 500C/M. After each shot the electric motor automatically advances the film and cocks the shutter, immediately readying the camera for the next shot and

freeing you to concentrate on your subject. The 500EL/M can also be operated with one hand, should the need ever arise, as well as by remote control.

The Hasselblad SWC/M is a super wide angle camera with a fixed Zeiss 38mm f/4.5 lens that provides a full 90° angle of view. At f/22 the depth of field is an extraordinary 26" to infinity.

The Hasselblad 2000FC incorporates a focal plane shutter permitting speeds of up to 1/2000 second. The 2000FC can also be used with Hasselblad lenses that have built-in leaf shutters. This dual shutter capability is one of the features that makes the 2000FC totally unique in the camera world.

If you're a serious photographer, you'll want to own at least one of these Hasselblads. Or put together a Hasselblad of your own by interchanging the parts to suit your purpose.

Give us your name and address and indicate the camera you are interested in. We will send you a 24 page product catalog and our luxurious Hasselblad camera brochures.



**H A S S E L B L A D**

Victor Hasselblad Inc.  
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