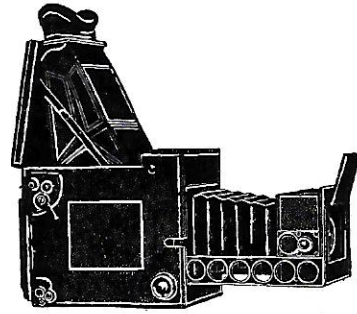


GRAFLEX HISTORIC QUARTERLY



VOLUME 7 ISSUE 4

FOURTH QUARTER 2002

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One Century to Another

By Jim Zeigler

It doesn't matter how fanatical you are about the products of Folmer and Schwing, though you are Weegee himself, and though you have three shelves of Graphic/Graflex cameras (as I have), there's still that first time for actually USING one. And when my little Century Graphic arrived in the mail, I figured this one to be about the right "speed" for a beginner, and prepared to Graflok an RH-10 rollholder on the back and take it for a run.

But I could see the grins of the old Graphic hands already: "A 2x3? and a ROLLBACK? C'mon, load some cut film holders and take the 4x5 Pace-maker Speed. What is the matter, you afraid of it or something?" Well, there's this: the big 4x5 Speed Graphic has to

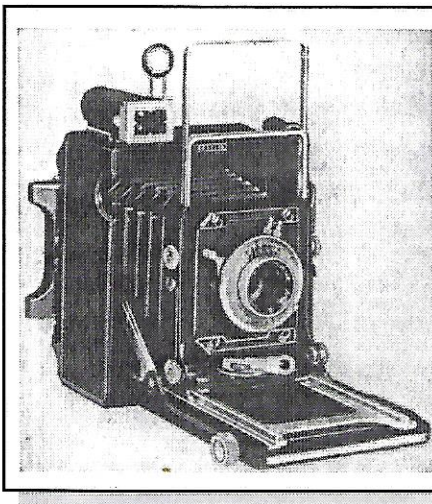
be one of the most formidable-looking cameras this side of a full-house monorail view camera. But also, haven't the big Speeds and Crowns had plenty of, um, exposure already? And what does the poor "Mahoganite" Century get? Next to nothing, right? Come on, everyone loves an underdog; and remember, the Century is only a few accessories short of being a lofty "23" Pacemaker Crown Graphic. Read the list of features... see!

CENTURY GRAPHIC

Sheet film, packs, or roll film. 2¼ x 3¼; coated 103-mm Graftar Anastigmat f4.5 lens; Century self-setting shutter with speeds from 1/10 to 1/200 sec., T & B; built-in XFM synchronization; collapsible wire frame finder; manual, scale, and ground glass focusing; film holder included; Graflok back; folding infinity stops; rising, tilting, and laterally shifting front. Custom model, gray covering, \$122.50. Complete line of accessories available.

Anyway, if I thought the Century was going to be an easy touch, I

soon realized I was mistaken. The thing hadn't been zeroed-in for years. Everything was out of focus, and the bed wobbled, requiring undoing the bellows in the back to get at the screws and tighten them. Then there was the matter of get-



The New Century GRAPHIC!

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COMPLETE WITH LENS AND SHUTTER

Make this Christmas—and many, many more—the most memorable and enjoyable with a new Century GRAPHIC. Here's an easy-to-use camera for picture taking pleasure by the makers of the famous Pacemaker GRAPHICS—AT A POPULAR PRICE! And it has many of the features that have long made the famous Speed GRAPHIC the favorite of the Press and Professional photographers—including double extension bellows, rising, shifting and tilting front standard, drop bed, telescoping action frame finder, parallax correcting optical view finder, interchangeable lens and ground glass focusing panel.

1949 Ad

LES 6642

ting a sharp image at infinity on the ground glass as a basis for collimating the rangefinder and scale. Here's where one learns about depth of field the hard way. On a 2x3, it is not generous. Reset a finger on the rails, and you lose focus. Don't even BREATHE hard.

Then there's the Kalart rangefinder... Friend, a hint: if you have to tangle with a Kalart for the first time, try to palm the job off on someone else. I spent two days patiently adjusting the little devil for four feet, fifteen feet and infinity with sore fingers and squinted eyes, and if you old-timers out there know a quicker way to do it, puh-leese let us all know.

Now that Kalart, scale and ground glass finally agree at any given distance, the Century is ready for a country mile or two. There's a couple in a car, beckoning ... probably have never seen a Graphic before, especially one with red bellows AND red frame. (Some frustrated artist must have had a hand in that.) Turns out they're Graphic/Graflex enthusiasts too -- they own several -- and a conversation ensues. (Darn, I should have asked if they were members of the GHQ). Later, there's a horse standing in a field, just what I want for my first-ever Graphic shot. Get a meter reading—f11 @ 1/200, zero in with the rangefinder, click the "Everset" shutter, and there's my first ever Graphic/ Graflex picture!

Or is it? No, I forgot to pull out the dark slide, the oldest mistake in the book! With face as red as the camera, I remove the offending slide, tuck it under my arm, re-shoot, replace slide, and NOW I've got my picture! Only the horse has come closer (wants a handout), and guess who forgot to re-focus? Whew! Did Joe Rosenthal start out like this? No, he began with a 4x5. Gad...

There's a shed with a very tall brick chimney, heaven knows what it's for. This time the Kalart's focused, the slide's out, the picture's taken. But down the road a horrible thought occurs: did I wind the film, or didn't I? No help for it now; wind anyway, and this time check the number on the dial. Further on, I reach under my arm for the dark slide. Not there. In the rollback? No, indeed. Oh, great. I walk all the way back and find it in the grass. From now on, it goes in my pocket.

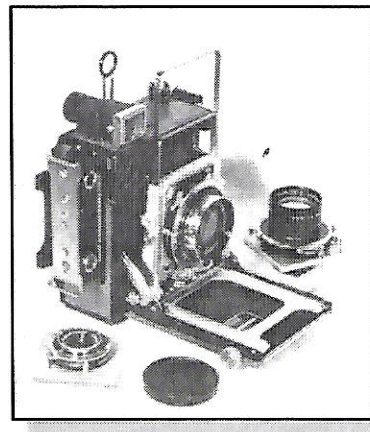
Someone wrote once that using a Graphic could provide a thorough photographic education. I'd have to agree. I'm getting a heck of an education here. That roll of TMX is going to look interesting tonight... Here's a posh new housing development! and a posh new sign? just right for a close-up. Only, it's in the

shade. Can an f4.5 Trioptar handle f5.6 @ 1/100 at five feet? We'll see. An older couple watches, interested, as I put away the meter, check the frame number, re-focus, remove slide, click the shutter, put the slide back in, wind to the next frame, and, as it turns out, get the sharpest picture of the day. "Takes a long time, huh?" grins the gentleman, and "Have you thought of buying a digital camera?" from the lady as they move on. "They're much faster."

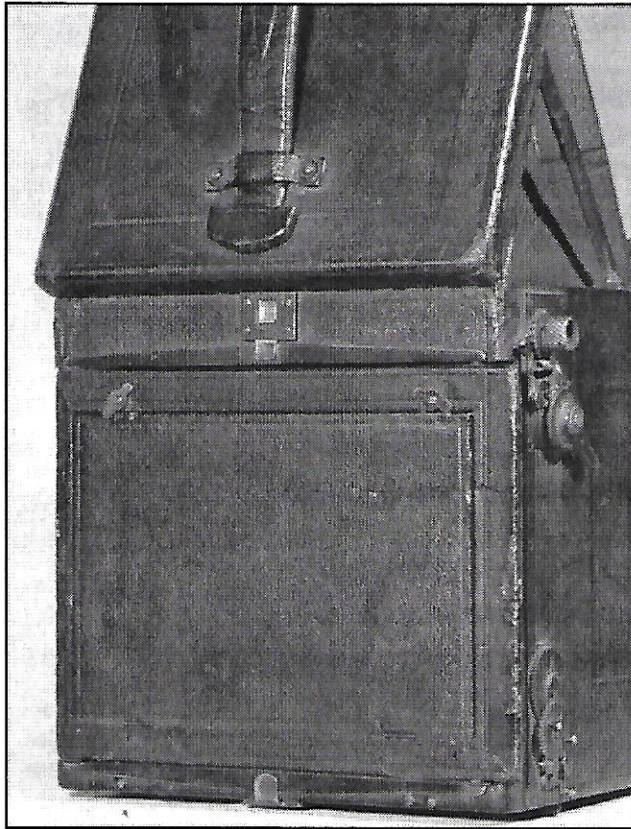
There's an aircraft overhead, a good infinity hack. I rack back the lens, lift the camera, aim, and -- just a minute: f5.6? In a bright sky? Put on f22 quick; but now the plane is a speck, and I'm left wondering how many mistakes one can make with a Graphic. (Something like a dozen; and I don't try to blame the camera.)

Now, a Century with rollback and film weighs around four pounds; yet I hardly notice the weight, either in hand or in a pouch. Must be having too much fun... After a few more howlers, like getting close without adjusting for parallax, I finish the roll and home we go. After a day like that, someone less enthused with Graflex, Inc. might have planted tomatoes in their Century; but I may put a Kodak Anastigmat Special on mine. (With all the joy of re-collimating the Kalart? Yeah, sure...)

The Century Graphic might have started on the low end of the totem pole in 1949, but in the late '60s it, too, was to have its day, remember? It grew f2.8 Xenotar and Planar lenses and was used by wedding photographers. It saw the end of one, um, Century, the beginning of another, and looks good for a third. How many digital whatever's will do that?



2 1/4 x 3 1/4 Century Graphic No. 530760 with 80mm f2.8 Schneider Xenotar, 65mm f6.8 Schneider Angulon and 8" f5.6 Tele-Optar. This deluxe gray-bodied version was known as the Century Professional. (Picture and text reprinted with the kind permission of Mr. Paine.)



It Wasn't Good Enough
Part 1- The Tourist Graflex
By Mike Hanemann

From the early days, Folmer & Schwing did not standardize the method of attaching backs to their cameras. With Eastman's purchase, this was changed, in large part, to the two backs, the Graflex and the Graphic. Their predecessors and variants of their early designs are the subject of this and future articles.

The familiar "sliding lock" Graflex-style method of attaching a focusing panel, holders and backs was first illustrated in two 1906 catalogs published by Folmer & Schwing Co., owned by Eastman Kodak. They used this system (either fixed or revolving) through the 3¼ x 4¼ Super D, which was not dropped from the line until 1964. This back could also be ordered for Graphic-style cameras.

The spring actuated ground glass focusing back was the earliest form of back and was used on early Graflex cameras and Graphic-style cameras until the Graflok back was introduced in 1949. Graphic cameras were designed to be compact, light and simple to operate and

dominated the company's catalog in 1904. When purchased by Eastman Kodak, the number of cameras initially offered was reduced, and the emphasis was placed on the reflex-style Graflex design. Even though the Graphic (unless equipped with a Graflex back, an awkward clip arrangement, or later, the Graflok back) was limited to film holders, it became the company's best-selling camera, primarily with the Anniversary and Pacemaker models.

Until William Folmer patented the sliding lock back, his company, Folmer & Schwing Mfg. (pre-Kodak), used various methods of attaching focusing devices and four types of backs. In 1904, of 18 cameras offered for sale, all but two had backs that "may be used" or "can be fitted" to Graflex or Graphic cameras, and there were at least three methods of attaching these backs. Due to few surviving cameras, fewer surviving attachments and unclear catalog terminology, it is difficult to determine what system was used on each type of camera, and which backs could be attached without being custom fitted by Graflex.

Part 1 of this series is devoted to the system used on the Tourist Graflex.

The Tourist Graflex is a fairly uncommon model. Possibly sold as early as 1902, and discontinued in 1905, it was sold in the 4x5 and 5x7 sizes and did not survive Eastman's purchase of the company. Advertised as a camera "lighter in weight," the 4x5 model weighed 4¾ pounds, which was 1¾ pounds lighter than the standard 4x5 Graflex Camera.

The Tourist could be "fitted" with four types of film holders and, when purchased, included a standard ground glass focusing "screen" back and a double plate holder.

The methods of attaching the ground glass and the 12-plate Graphic Magazine Plate Holder are different. One system has a vertical tab covering a small pin, which is centered on the face of the lower horizontal opening, and on the top horizontal opening, there is a square slide lock on the face and, directly below it, another small pin. The second system has two oblong holes on the top of the lower horizontal opening and two rectangular holes on the corresponding area of the top horizontal opening. See Illustration 1 on the following page for the square slide lock, with arrow pointing to pin. To install the ground glass, you first slip the slotted bottom spring behind the tab and onto the pin; then you fit the top spring over the pin just below the slide lock, and slide the lock over the top spring and pin.

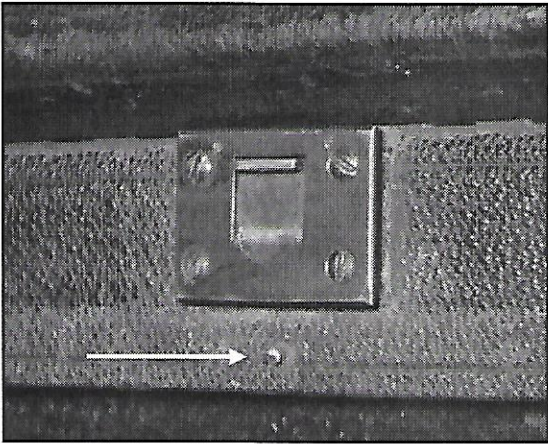


Illustration 1

To install the Graphic Magazine Plate Holder, you insert the two pins located on the lower side of the plate holder into the oblong holes in the lower horizontal opening. Next, you depress 2 leaf-type springs on the top of the holder, while lowering the magazine so that the springs catch in the two rectangular holes on the upper horizontal opening of the camera. To remove, just reverse the process. Illustration 2 shows the plate holder attached to the camera with a spring clip. The slide lock, which is not used to attach the magazine, is also shown.



Illustration 2

Subscriber Dick Loepp, who wrote about his 4x5 Tourist in the Third Quarter 2001 issue of the Quarterly, has a unique film pack adapter made by Premo and last patented in 1903 (the year Rochester Optical Company, the manufacturer of the Premo line, was purchased by Eastman Kodak). This accessory is attached at the bottom with the two-pin method of the magazine and at the top in a similar method as the ground glass back, except that a small tab was used instead of the long spring. See Illustration 3.

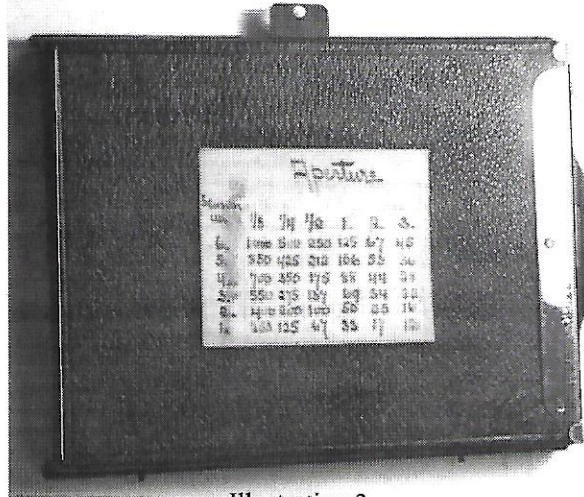


Illustration 3

The style of plate holder used on the Tourist is illustrated and explained in the *Letters to the Editor* section of the Third Quarter 2002 issue of the Quarterly.

Finally, Graflex listed a film pack adapter and a cartridge roll holder for this camera. Because examples cannot be located at this time, it is unclear if these were manufactured by Graflex, or if they were attachments without being custom fitted by the company.

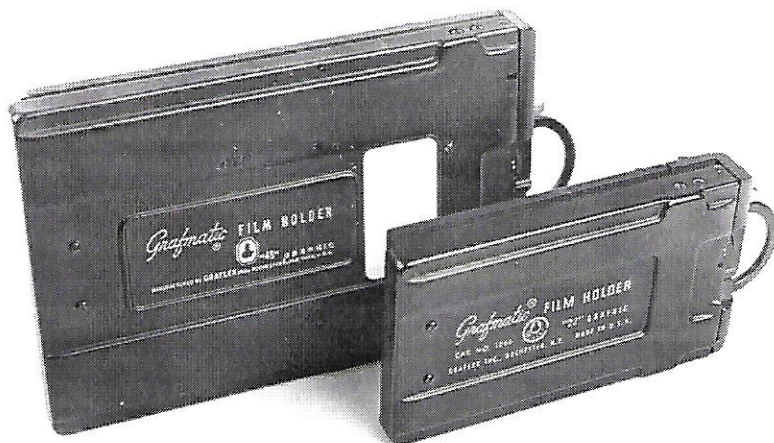
Even though non-standard backs were used on Kodak era cameras, it is obvious that this "system" was not good enough for William Folmer (and Kodak), who in 1906 introduced the sliding lock.

Readers are encouraged to submit information on any Tourist or other unusual back in their collection.

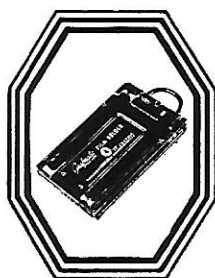


Correct!

According to Graflex author and Quarterly subscriber Richard Paine, the camera shown in the previous issue is a Revolving Back Auto Graflex. Mr. Paine believes that the camera was probably produced in 1932, or earlier, as the speed plate is shown on the hood, which was illustrated only in Graflex catalogs through 1932.



4x5 Graphic Grafmatic holder 1951-1973
 2 1/4 x 3 1/4 Graphic Grafmatic 1950-1973
 4x5 Graflex Grafmatic holder 1951-1954
 2 1/4 x 3 1/4 Graflex Grafmatic 1950-1956



The Graflex Grafmatic Multi-Sheet Film Holder

By William E. Inman Sr

“What’s a Grafmatic?” is a question that comes up when I talk about Graflex film accessories. Once I demonstrate the Grafmatic holder, the reaction is, “Wow, that’s great!”

The Grafmatic holder is a semi-automatic sheet film holder that holds six sheets of cut film. It is the finest, fastest sheet film holder ever designed. A photographer can shoot a sequence of exposures in 12 seconds!

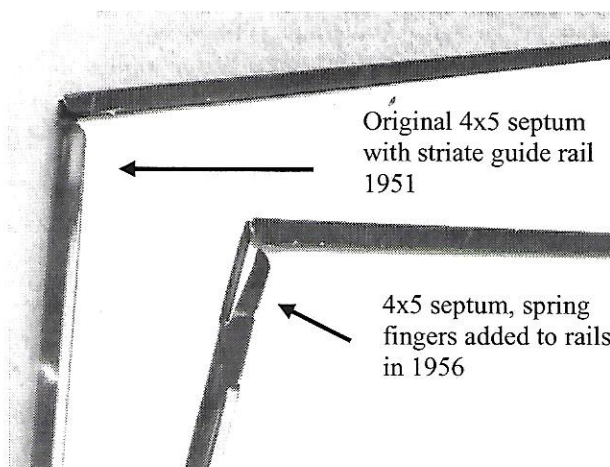
In 1950, Graflex introduced the first Grafmatic holder. It was a 2 1/4 x 3 1/4 holder for the Graphic and Graflex cameras. In 1951, the 4x5 Grafmatic was introduced for both the Graphic and Graflex cameras. I call it “model 1.”

Here are some additional features of the holder:

1. A white plastic memo tab on the back of the holder that serves as a note pad (not available on the “23” holder until 1956).
2. An automatic exposure counter dial, on the back, tells at a glance the number of exposures that have been made.
3. A “Ready Signal,” a bright red dot, which automatically appears when the film is uncovered and read for exposure.

4. A large ID notch in the film septum to make it easy to properly load the film while in the darkroom.
5. Exclusive negative numbering wheel which automatically numbers each exposed negative from 1 to 6.
6. Two recessed notches left and right of the number wheel for locating permanent ID tabs.
7. The Grafmatic is slightly thicker than two ordinary sheet film holders. May be used with a Graphic, Graflok or Graflex back. The Grafmatic originally came with a metal dark slide handle; however, in 1956 the handle was changed to Nylon, which was found to be more durable in all types of conditions, such as heat, impact, and shock.

1956 also saw a change in the 4x5 septum. Under certain conditions, depending on the thickness of some films, the film would slip out of the septum, causing jamming of the holder. To remedy this problem, Graflex added two “Spring Fingers” to the guide rails that would adjust to the different thicknesses of the film, holding the film firmly in place. Around the same time, Kodak changed their sheet film from an Acetate base to an Estar base, which was thinner.



The next improvement on the 4x5 Grafmatic holder came in 1958. I call it the "model 2," though Graflex never made the distinction. A new "Double Lock" feature was incorporated into the drawer assembly of the 4x5 Grafmatic. The "Double Lock" feature automatically locks the drawer when on "X" and the last exposure has been made. It eliminates any possibility of the accidental exposure of film after the final shot has been made, when the holder is being removed from the camera.

If you want to determine when a Grafmatic holder was made, the logo on the back of the holder will give you a clue. Holders with the "octagonal" logo with the Graflex camera in the middle were manufactured approximately between 1950 and 1954.

In 1954, the 4x5 Graflex Grafmatic was discontinued for the Graflex cameras. In 1956, the 2¼ x 3¼ Graflex Grafmatic was discontinued as well. The two Graphic models continued until 1973.

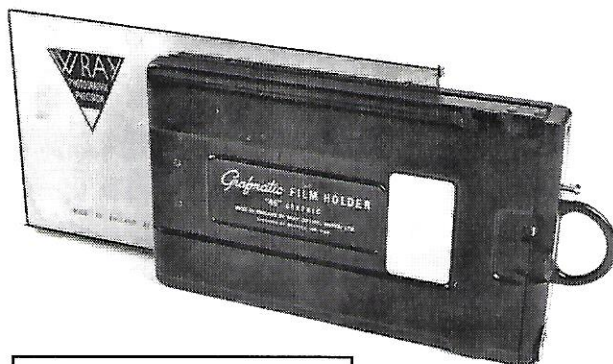
Grafmatic holders, manufactured between 1954 and 1956, carry the circle around the octagonal logo with the Graflex name inside the circle.

In September 1956, General Precision Equipment Corp. acquired Graflex. The circle logo was dropped in favor of "Graflex General Precision" in red letters.

After acquiring Graflex/GPE in 1966, Singer changed the logo on the back of the holder. The red lettering was retained, and the "Singer" name was added in a box, along with the Graflex name. This continued until 1973, when Graflex was dissolved, and the manufacture of photo products ceased.

In 1976, Lenzar Optical Corp. acquired the Graflex trademark and all the film holder accessories, including the 4x5 Graphic Grafmatic. These accessories were marketed by Graflex Inc. until 1982.

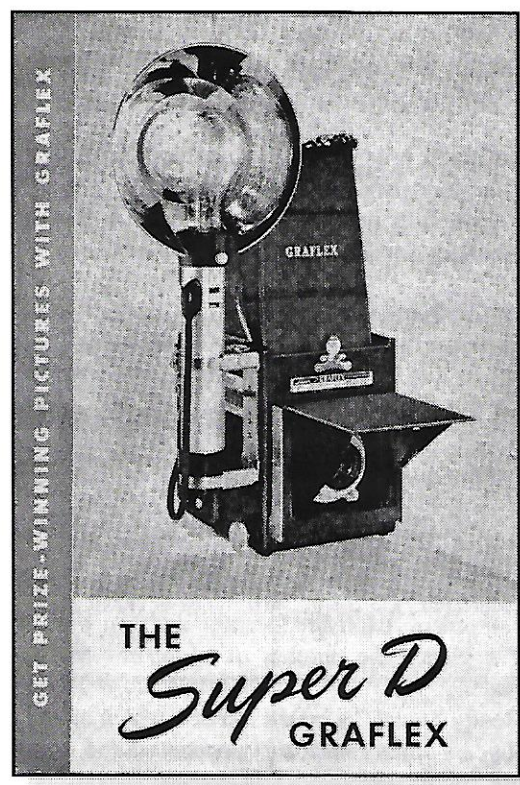
Interestingly, I recently discovered a Grafmatic made around 1958 in England by the Wray Optical Works Ltd., licensee of Graflex Inc. A careful examination of the new holder I acquired directly from the UK revealed that it is exactly like the one manufactured in the USA. As near as I can determine, the parts were manufactured in the USA, with the Wray Optical Works name on the holder, while the holder was assembled in the UK by the Wray Optical Works. The same was done with the Graflex Stereo Graphic around 1955.



Wray 4x5 Graphic Grafmatic holder 1958-?

Last but not least, last year I was told that Fuji in Japan had manufactured a copy of the 4x5 Graphic Grafmatic but had not exported it to the USA. It was very well made, I am told.

The 4x5 Grafmatic is, without a doubt, my favorite sheet film holder.



This chart is provided for use with the Kalart rangefinder article in Vol. 7, Issue 3, page 6, column 2, paragraph 2.

Date Introduced	Model	Description and Features
1936	G	<p>Original satin chrome model with a metal arm extending from the rangefinder housing, which is pivotally connected to another arm, and in turn connected to the extension bed of the camera.</p> <p>There were three adjustments, the first being a center screw on the upper plate, which was available in four calibrated lengths, each for one of two to four (depending on the format of the camera) specific lens focal lengths. Fine washers (.0008-in. thick), were supplied as spacers to reduce the inside length of the screw, thus compensating for "commercial tolerances" (variations in actual focal lengths). A second screw was used to adjust sharpness at the infinity setting. Third, a "double vertical" image could be corrected by removing a lower plate & adjusting four screws.</p> <p>It used a front-surfaced two-mirror focusing system, and focused to six feet. Three encircling brackets (rangefinder "guards") were sold to attach a battery case to the camera. An eyetube could be attached to the guard. Also, an "Everready" cable release clip was included. This was only available with the "pre-Anniversary" Speed Graphic. Serial numbers G-1 through G-7645.</p> <p>Kalart and Graflex charged \$27.50 to purchase, install and calibrate most sizes of this rangefinder, with the 5x7 costing \$32.50.</p>
1938	K	<p>Sold for use on non-Graflex film pack cameras, such as Ihagee, Kodak Reocomar, Ideal, etc., and except for the coupling arm, similar in appearance to Model G.</p> <p>The double vertical image correction was the same, while the other two adjustments were moved to the rear of the housing. Screws were installed or provided to make the finder available for four lens focal lengths: 10.5, 12, 13.5, and 15 cm.</p> <p>An amber filter (to increase the contrast between the direct and reflected images) was now available for this and the G model, either to screw onto the encircling bracket or as a snap-on filter. Serial numbers K-0001 through K-0704 (10 to 12.5 cm) & K-00001 through K-01313 (13.5 to 15.5 cm).</p> <p>Kalart charged \$20.50 to purchase, install and calibrate this rangefinder.</p>
1938-9	F	<p>This was the first model to use a shaft drilled through the camera body, and it had the ability to focus to 3½ feet, and this model could be used for any lens in the 10.5 to 30 cm. range.</p> <p>The three screws of the prior models were replaced with a set of external scales. (Based on a Kalart supplied chart, the scales were re-set for new lenses.); and an infinity adjustment hexagon screw was added, that used a special Kalart key tool. Vertical image correction was maintained, but moved from the bottom to the side, using a moveable disc. Serial numbers F-15000 through F-49999.</p> <p>Kalart still charged "complete with installation instructions" \$24, or \$27.50 with factory installation.</p>
1941	E	<p>This model had a single piece brushed aluminum housing with no external adjustment screws or scales.</p> <p>It extended the focusing range to 2 ½ feet for wide angle lenses, and it could accommodate lenses from 90 to 165 mm. In order to accommodate lenses other than the one set at the factory, the rangefinder housing had to be removed, and a procedure similar to the model F followed. Lateral adjustment was now done with a screw beneath the upper mirror. Infinity on Graflex cameras was now adjusted with an eccentric screw for the 3¼ x 4¼ and 4x5 Anniversary and with the Miniature Speed Graphic and earlier Graphics, by adjusting an "L stop" or knee joint screw.</p> <p>The model E could be rebuilt for \$11.50 and fitted with the E-1 DeLuxe housing, thus allowing the FOCUSPOT to be attached. In a 1941 catalog, Kalart boasted that "The public has paid more than a million dollars for Kalart Range Finders.", prior to the introduction of this model. Serial numbers E-50000 through E-68195.</p> <p>Priced in 1941 at \$28.75 (including factory installation).</p>
1942	E-1	<p>Called "De Luxe", this rangefinder had a single piece black painted die cast housing, which was directly and separately attached to the camera body. It continued to use two front-surface mirrors.</p> <p>Shorter distances and lateral adjustments were set in a manner similar to model E. Lateral adjustment was done both with the housing removed and for minor corrections, with a screw accessible from the outside back for the "Heavy Duty Model E-1". It was the first model with a plate to attach a flashgun (thus an encircling bracket was no longer recommended), an extension eyetube connected to the rangefinder and provision for the night-focusing Focuspot. Serial numbers E-70000 through E-90000.</p> <p>Priced in 1943 at \$32 "plus \$1.90 unabsorbed additional excise tax."</p>
1944 & 1945	E-2 & E-3	<p>The E-2 was the first model to replace the lower front-surface mirror with an optical prism, and use an external front adjusting lateral image screw. Though there were changes in construction, adjusting the rangefinder remained essentially the same. If the model E-3 rangefinder's serial number prefix was A, B, C or E, the lateral (or side image) adjustment was done with the housing removed, and with serial numbers starting with D, the adjustment was done externally. E-2 serial numbers E-96956 through E-99999.</p>
1949 - 1955	E-4, 5 & 6	<p>Minor changes, including removal of the external adjustment screw. A dichroic mirror was added in 1955.</p>

See Figure 2. for illustration of various models, from Kalart Service and Repair Manual.

Graflex Historic Quarterly

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WANT AD POLICY:

Any subscriber wishing to place a want ad or seeking Graflex-related items may send them to the GHQ for inclusion at no charge (at this time). The editors reserve final publication decisions.

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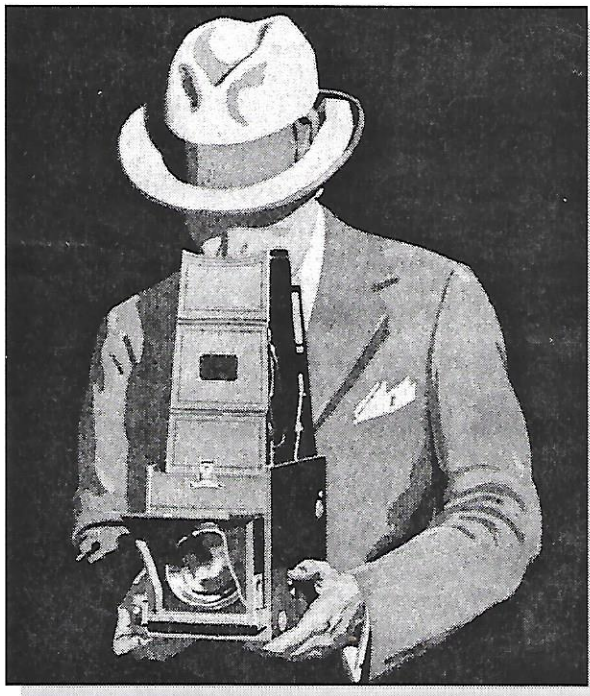
WANTED

Graflok back assembly and ground glass for 1940 2x3 Miniature Speed Graphic. This is NOT for the Pacemaker. It must have a flash socket on the back for the focal plane shutter. Or I will accept the Graflex back for this camera with slotted Graflex holders. Also need: F3.7 Ektar, 105mm. These are for a camera I am fixing up for my own working pro photography. Ed Romney, Box 806, Williamsburg, NM 87942. Phone: 505-894-4775 or 864-579-1882.

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Editor's Note:

Regarding Ken Metcalf's article on the Kalart range-finder, we recently received a copy of the 1938 Kalart Dealer Bulletin with the following interesting quote: "The first *lens-coupled* range finders were built into the imported miniature cameras and were constructed as an integral part of the camera, carefully matched with the optical picture-taking system. However, the larger size cameras were not included in this advance until the Kalart Synchronized Range Finder was made available for the Speed Graphic cameras in 1936."

