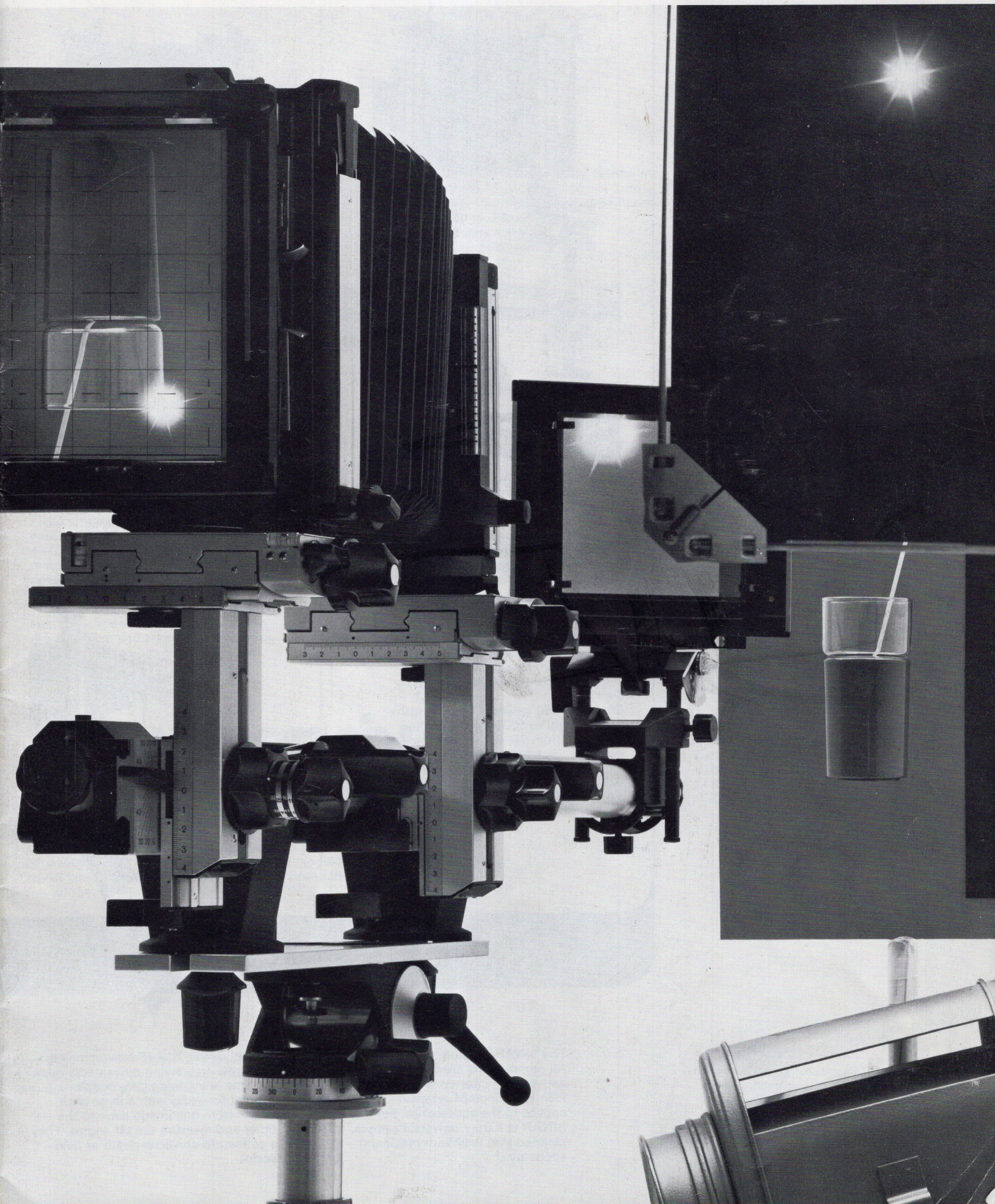


The systematic system



The systematic system

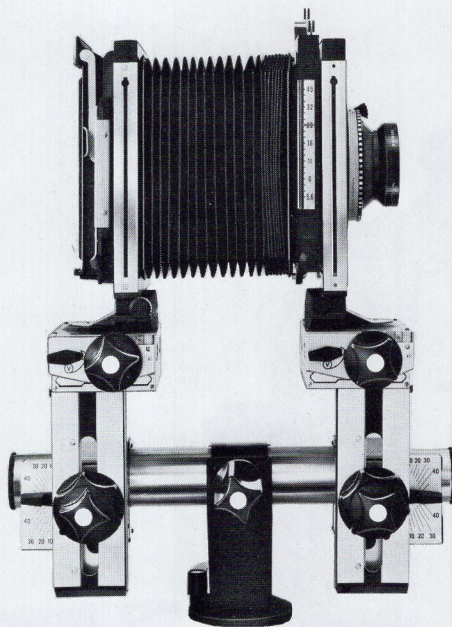
The modular SINAR camera is a construction unit system consisting of components like the camera support, rails, standards and bellows.

The camera is in turn a component of the system as a whole. However good a basic camera outfit, it falls down on the job if its extension scope is too limited for an assignment or when the system lacks required accessories. Here, too, the SINAR system is very adaptable and in fact extends the large-format camera to a universal photographic system including even your movie and miniature camera to cope with specialised jobs. We have planned the SINAR

as a comprehensive and economical concept. Nearly all components have multiple uses for completely different purposes. We have not economised in limiting its applications—for sooner or later that means acquiring expensive alternative equipment. With a professional tool a low price tag can in the long run cost you a lot of money.

You are unlikely to need all components listed in this catalogue. But what matters is that you know they are available when you do need them.

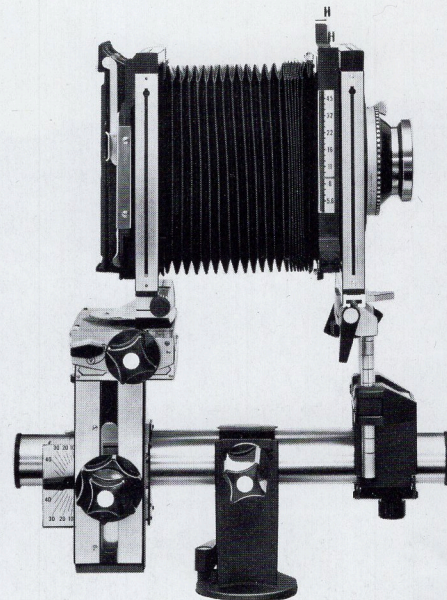
Choose your camera – Within a consistent system



sinar **p**

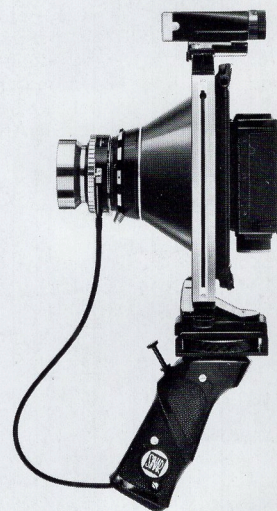
SINAR-p – Perfection in operation. Takes 10 image formats up to 8×10 inches. Patented asymmetrical swing-and-tilt system of great effective base length with swing-and-tilt axes in the film plane. Precision micrometer drive adjustment. Required tilt angle established while focusing. Depth of field indication with all lenses, determined at full aperture. Ten picture formats from 2¼×2¼ inches (6×6 cm) up to 8×10 inches with roll film, sheet film, film packs and 4×5 inch instant-picture material (including retrievable negatives).

Choice of 150 lenses in focal lengths from 47 mm to 1000 mm, including 27 lenses from 65 mm to 480 mm with automatic aperture control. This is the most advanced model of the SINAR system. For more information please ask for leaflet pE.



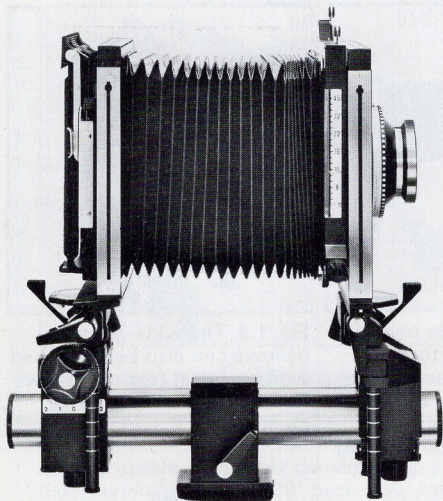
sinar **c**

SINAR-c – The combination model. Similar to the SINAR-p, but with multi-purpose standard for the lens standard. Please ask for leaflets pE and cE.



The SINAR range is a consistent system. All components are fully compatible and models inter-convertible; with identical scope of extension. The same applies to the accessories. For the SINAR is a truly universal camera, planned that way with maximum economy.

The adjustable SINAR view cameras have yaw-free swing movements even with the standards tilted, permit 2-point focusing with a large base length from one image edge to the other and measure the tilt angles. They also feature universal depth of field scales.



sinar **F**

SINAR-f – The field camera for five image formats up to 4×5 inches. It differs from the SINAR-p in using multi-purpose standards at the front and back. That makes it less expensive, smaller and lighter. Angle scale for sharpness control by tilting, depth of field indication for all lenses. Five picture sizes up to 4×5 inches with roll film, sheet film, film packs or 4×5 inch instant picture material (including retrievable negatives). Choice of more than 150 lenses from 47 to 1000 mm, including 27 lenses (65 mm to 480 mm) with automatic aperture control. Can be converted to the SINAR-p and takes all accessories of the world-famous SINAR system. Please ask for leaflet fE.

sinar-handy

SINAR-handy for five picture formats up to 4×5 inches. Handy to hold, takes six alternative wide-angle lenses in focusing mounts. Picture sizes from 2¼×2¼ inches (6×6 cm) to 4×5 inches, using roll films, film packs, sheet film or instant-picture material (including retrievable negatives). Can be converted to any other model in the world famous SINAR system. For further information please ask for the handy-E leaflet.

With the SINAR system, choosing a camera becomes straightforward. Select exactly the camera outfit you need when you buy it – and extend it when your requirements grow. The SINAR system remains the same: You only change components.

Identical

features of all SINAR outfits:

- The scope for combination and extension within the SINAR system. Convert from one model to another without superfluous components to discard.
- The accessories range
- Uniform high precision

Differences

between the cameras cover:

- Operational convenience
- The range of image formats
- Weight
- Bulk
- Price

Contents

Extending the camera scope

The wide-angle bellows
Extension rail units
The multi-purpose standard
The universal bellows
A second camera

Camera supports

The pan-and-tilt head
The universal camera holder
The base plate
The clamping stand
The hand grip

Accessories

The binocular magnifier and binocular reflex magnifier
Focusing screens, Fresnel field lenses, masks
Masks for the bellows lens hood
The two-way spirit level, finder shoe
Filter holders and filters
Bellows holders
Format dividing masks and the four-lens unit
The Rapid adapter
The reflex camera adapter – focusing bellows
Supports for still and movie cameras
The SINAR mirror
Accessories for macrophotography and photomicrography

Exposure

The SINARSIX
The SINAR Auto-aperture shutter

Lenses

Film holders

Literature

Photo Know-how course
Large-format photography – The SINAR system
Leaflets
SINAR Information

Even older SINAR models of more than twenty years ago can be combined with the SINAR-p, -c and -f.

This catalogue covers all the items which extend the scope of the camera and the accessories. Accessories specific to a camera model like cases, format changing sets etc. are listed in the appropriate camera leaflets where some overlap is inevitable.

Extending the scope

Just a few supplementary units greatly extend the scope of the SINAR cameras. This is because of the rational way in which these components have numerous alternative applications—a typical feature of the SINAR system. We show below the versatility of extension for SINAR cameras with different format changing adapters—the possibilities are the same in every case.

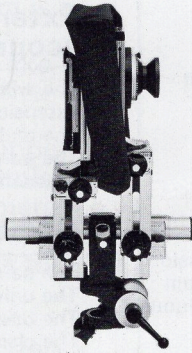


Fig. 1.1 For many photographers the wide-angle bellows is the most important first accessory. It is indispensable if you want to make the fullest use of the camera movements with short bellows extensions. A camera without interchangeable bellows would here be severely limited.

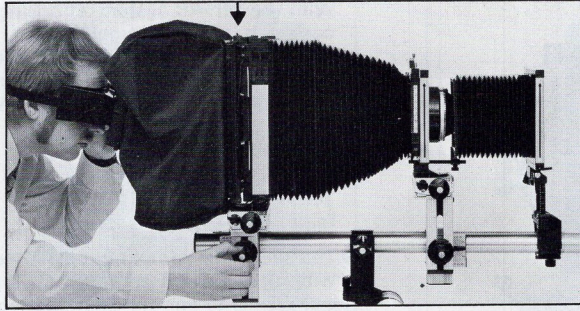


Fig. 1.2 The wide-angle bellows is also used as a hood to keep light off the ground glass screen when viewing with the SINAR binocular magnifier. Note the opening (see arrow) for inserting the film holder.

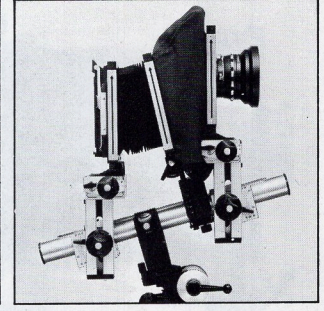


Fig. 1.3 The wide-angle bellows can also be combined with a normal folding bellows for extended camera movements.

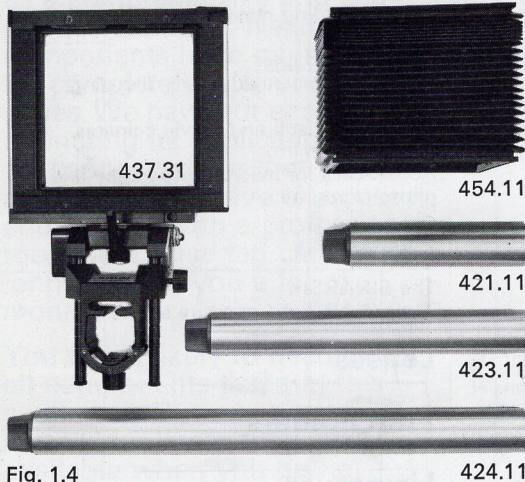


Fig. 1.4

Fig. 1.4 The three main items extend the camera:

- The extension rail units:
424.11
- The multi-purpose standard I*
No. 437.31
(also serves as the lens standard on the SINAR-c and -f)

The SINAR multi-purpose standard I has a hinged opening collar for rapid fitting on, and removal from, the rail.

- The universal square bellows
No. 454.11

They increase the versatility of the basic SINAR-p, -c and -f outfits, as shown in Figs. 1.5 to 1.7.

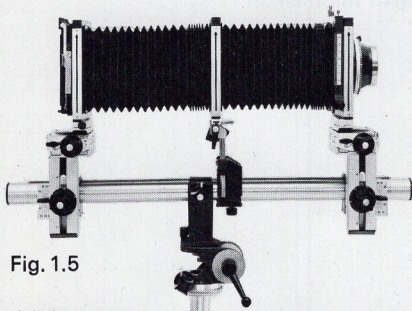


Fig. 1.5

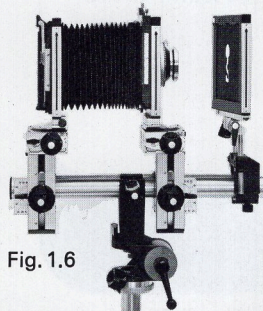


Fig. 1.6

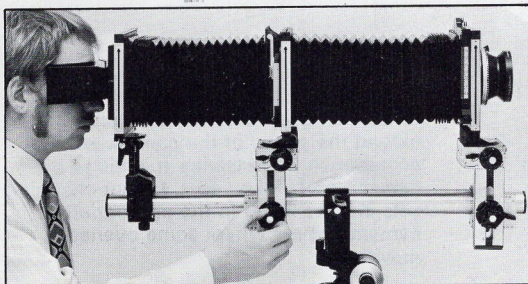


Fig. 1.7

* The multi-purpose standard II (No. 433.31) is similar to the model I but includes a fine focusing drive, depth of field scale and angle indicator. This does not have a opening rail collar. It also serves as the rear standard of the SINAR-f.

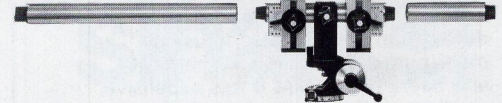


Fig. 1.8. The basic rail can be extended forward and back in steps of 6 inches (15 cm) to any length. The illustration shows the basic 12 inch rail with a 6 inch and an 18 inch unit added to give a total length of 3 feet. A combination of further rail units, multi-purpose standards and universal bellows provides unlimited camera extension.

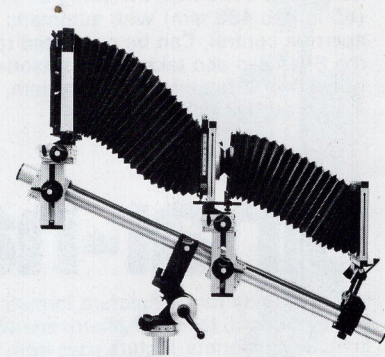


Fig. 1.9 The multi-purpose standard I, mounted on the rail as a bellows lens hood holder**. The multi-purpose standard also swings without yaw even with the camera inclined as shown. (Fig. 3.19 illustrates the attaching of the multipurpose bellows facing the lens.)

Fig. 3.22 shows the universal bellows in use as a simple lens hood. Other applications of the multi-purpose standards are illustrated in Figs. 2.6, 3.60, 3.63, 3.70, 3.77 etc. By combining the multi-purpose standards, extension rails and universal bellows, you can easily assemble even a second camera from the components of the outfit.

** As a result:
With the camera inclined, the bellows hood always remains lined up with the camera direction. Swinging or tilting the lens requires no adjustment of the bellows hood.
The lens standard does not have to carry unnecessary weight.

Camera supports



Fig. 2.1



The pan-and-tilt head

No. 516.41

This component of the SINAR camera system is equally usable with other cameras. Fig. 2.1. Extensive tilting range: 20° back, 180° forward; rotates through 360°. Half-locked it permits lateral adjustment to centre the image without inclining the camera.

Adjustable tilt locking lever. Guides ensure directional centering of the camera at exactly right angles to the horizontal tilt axis. Very rigid and compact design. Weight 30 ¾ oz (870 grams).

Spare parts:

Camera tripod screw with $\frac{3}{8}$ inch + $\frac{1}{4}$ inch thread No. 519.71

Reducing thread $\frac{3}{8}$ to $\frac{1}{4}$ inch No. 519.61

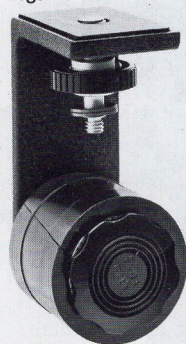
The universal camera holder

No. 519.11

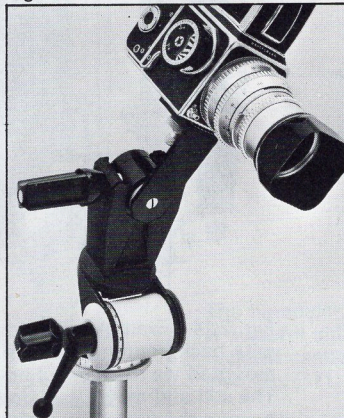
This component of the SINAR camera system is equally usable with other cameras. Fig. 2.2. The universal camera holder fits into the SINAR rail clamp and with the latter forms a highly stable double tilt head of extreme adjustability. Fig. 2.3. The quick-change mounting of the SINAR rail clamp permits rapid camera switching; a few turns of the locking knob release and relock the camera holder. When removed from the rail clamp, the universal camera holder can also serve as a hand grip for viewfinder cameras.

Fig. 2.2

Fig. 2.3



519.11



Spare part: Camera tripod screw with $\frac{3}{8}$ inch + $\frac{1}{4}$ inch thread No. 519.71 as for the SINAR pan-and-tilt head

519.71

The base plate

No. 418.11

This component of the SINAR camera system is equally usable with other cameras.

Recommended for long camera extensions. Fig. 2.4.

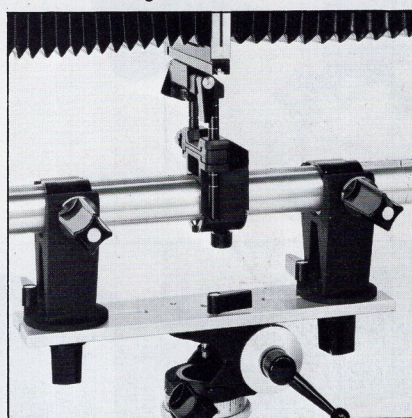
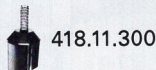


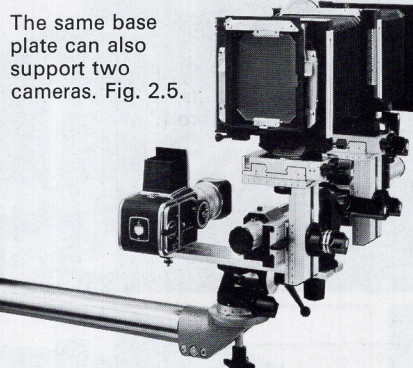
Fig. 2.4



Spare part: Mounting screw for rail clamp with $\frac{3}{8}$ inch thread

No. 418.11.300

Requires a second rail clamp No. 411.21 (for the SINAR-p and -c) or No. 411.31 (for the SINAR-f).



The same base plate can also support two cameras. Fig. 2.5.

Special applications

For special applications with extremely long extensions the camera is best mounted on a suitable base with the aid of several rail clamps.

The special bellows No. 453.18 is required to link the 8×10 inch/18×24 cm standard with the 5×7 inch/13×18 cm standard. Fig. 2.6.

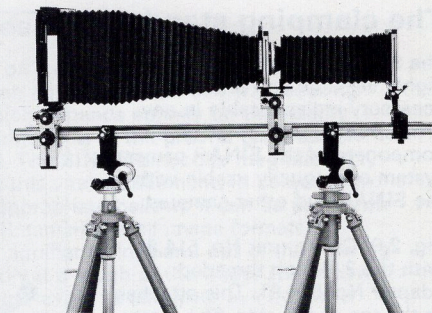
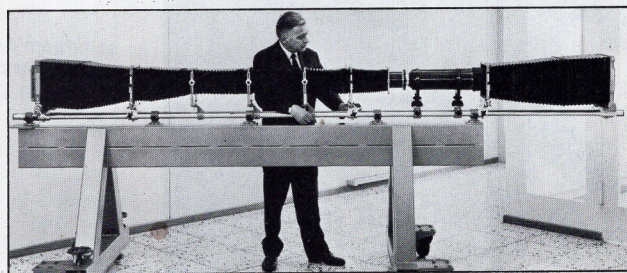


Fig. 2.7 When the camera is used at long extensions outdoors, for instance in telephotography, it is best supported on two normal tripods.

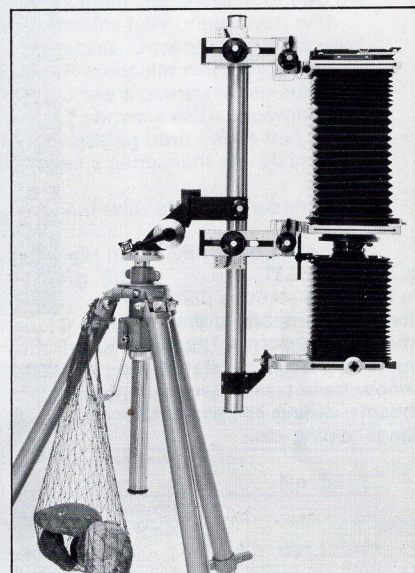


Fig. 2.8 A useful hint: A strong shopping bag weighed down with suitable ballast helps to stabilise an unbalanced camera set-up on windy days and generally out of doors.

Camera supports

The clamping stand

The SINAR clamping stand is a highly versatile and practical accessory indispensable in any professional outfit. It is again a component of the SINAR camera system and equally usable with the SINAR and other cameras.

Fig. 2.9 Clamp unit No. 514.81 with the 3/8 inch threaded adapter No. 514.91. This attaches to the top or the side. The clamp has a 2 3/4 inch (70 mm) jaw; a special groove on the inside permits secure clamping to pipes and tubes.

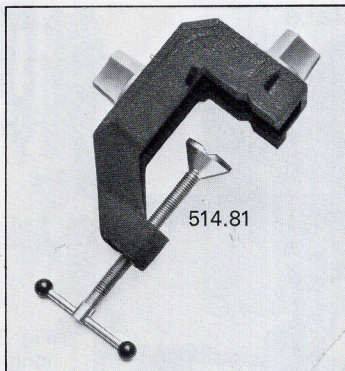


Fig. 2.9

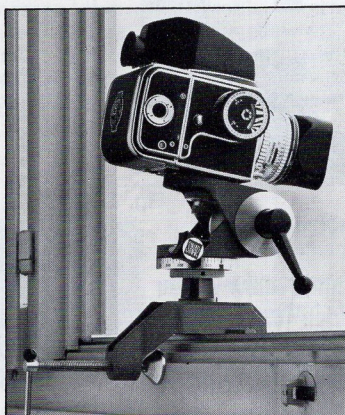


Fig. 2.10

Fig. 2.10 Fig. 2.11 The clamping stand is particularly suitable for supporting the camera where normal tripods cannot be used, for instance, on window frames, table legs, T-beams, ceiling beams, hoists, railings, piping etc.

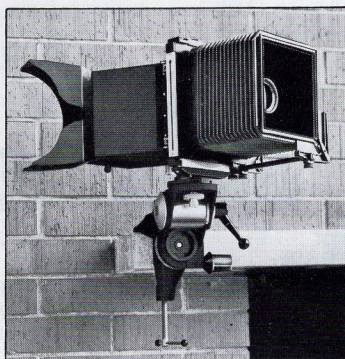


Fig. 2.11

Nor do you have to acquire expensive high-rise or ladder stands. With the SINAR clamping stand you can use any available ladder.



Fig. 2.12

514.91

Fig. 2.12 By combining the clamping stand with the standard extension rails of the SINAR and with the camera holder No. 514.71 the scope of this accessory becomes greater than ever.

Fig. 2.13 Order code of the complete clamping stand shown below (without extension rail): No. 514.21

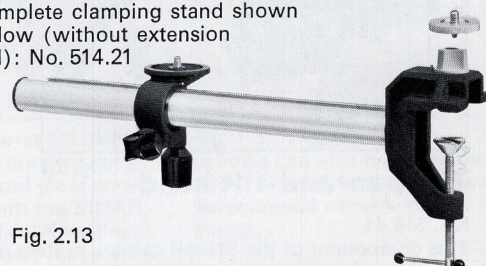


Fig. 2.13

The SINAR clamping stand crops up again and again in the SINAR camera system, as the illustrations quoted show. That way you save having to get copying stands and other expensive special gear. See illustrations of Figs. 3.60, 3.65, 3.74, 3.81 etc.

With a second rail clamp you can anchor the whole assembly absolutely rigidly to a wall. Note also the handy focusing and viewing provision with the SINAR binocular magnifier.

With the clamping stand and a lamphouse attachment the SINAR becomes an enlarger – with full movements and with automatically timed exposures via the SINAR shutter. See SINAR Information No. 4.

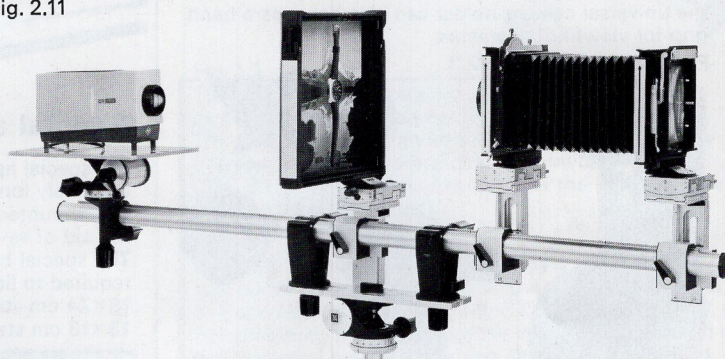


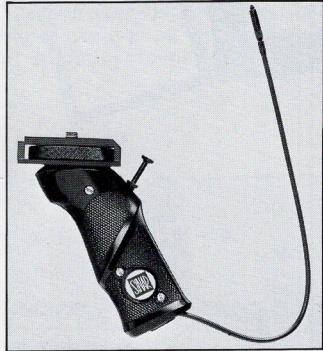
Fig. 2.14 Example of a close-up of a watch with background projection. The projector is mounted via the camera holder No. 514.71. The still and movie camera support No. 519.21 permits the use of an additional camera, as well.

A combination of the projector and the 8x10 inch format adapter on its own yields a large-format projector. (Use AV projection transparencies, for instance Pola-Coat.)

Accessories

The hand grip

This component of the SINAR camera system is equally usable with other cameras. Fig. 2.15



SINAR hand grip No. 513.21 with cable release for between-lens shutters.



Fig. 2.16 SINAR-handly with hand grip

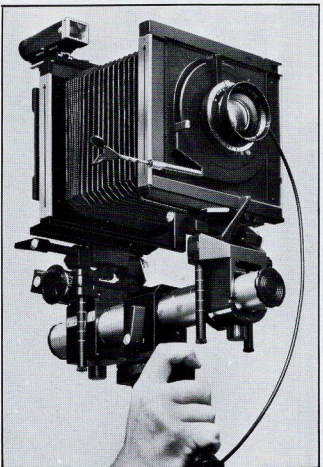


Fig. 2.17 SINAR-f with hand grip

SINAR hand grip No. 513.31 with cable release for the SINAR shutter.

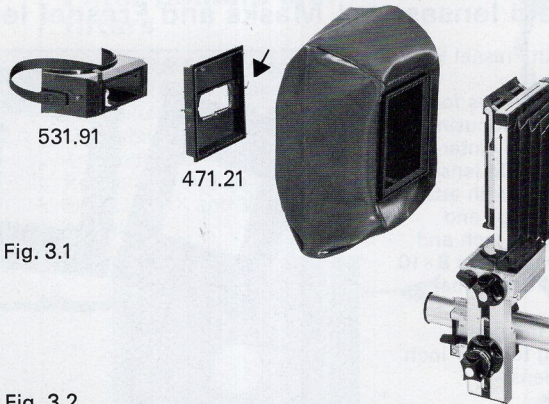


Fig. 3.1

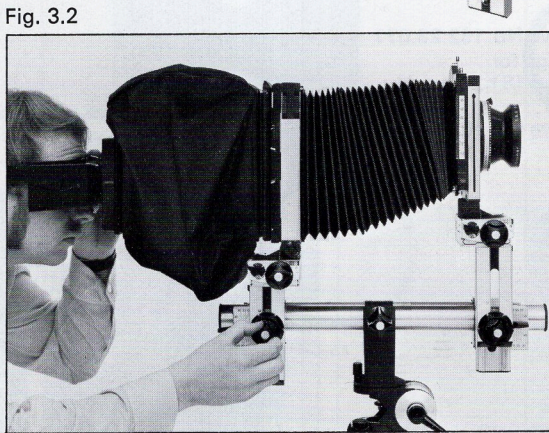


Fig. 3.2

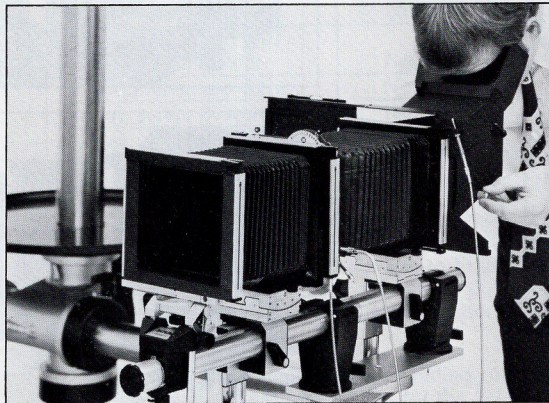


Fig. 3.3

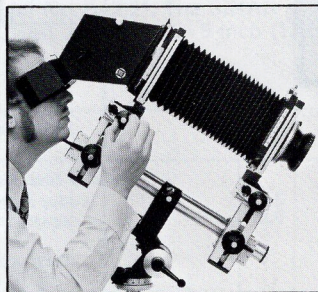


Fig. 3.4

Fig. 3.6

Screen viewing

Light on a dark area of large-format cameras. With an adjustable view camera, focusing precision depends entirely on the quality and brightness of the ground glass screen image. The SINAR binocular magnifier fully meets this vital requirement. In conjunction with appropriate bellows it can be used with SINAR cameras of all image formats. The magnifier swings and out of the viewing position at a touch of the finger (see arrow) without having to take your eye from the eyepiece. Hence the magnifier does not interfere with ocular adaptation. Magnification $2\frac{1}{2}\times$. Fig. 3.1

Two-eyed viewing and perfect screening off of all stray light (even if you wear spectacles) together with the Fresnel field lens ensures a superbly brilliant focusing screen image of maximum sharpness right into the corners. It remains fully bright even with wide-angle lenses. Once you have focused with a SINAR binocular magnifier you will never want to see a dim view camera image again. Fig. 1.7 shows a self-supporting arrangement leaving both hands free, for instance as a permanent set-up in the studio etc.

Magnifier board with binocular magnifier No. 471.21

Removable light hood with head strap No. 531.91. Fig. 3.2

The binocular reflex magnifier shows the image with the same brightness – and upright. With its patented tilting mirror you can scan the bright focusing screen image from corner to corner by simply turning a knob.

Binocular reflex magnifier with binocular magnifier No. 531.12

Interchangeable 4.25 dioptre binocular magnifier for long-sighted users No. 531.12.001

Light hood as for the binocular magnifier No. 531.91

The effect of these focusing aids is further enhanced by the use of the Fresnel lenses (Fig. 3.9). See leaflet BIE

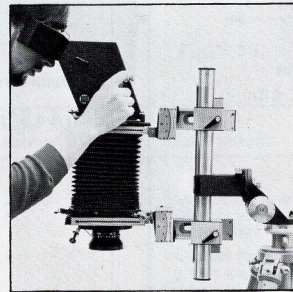
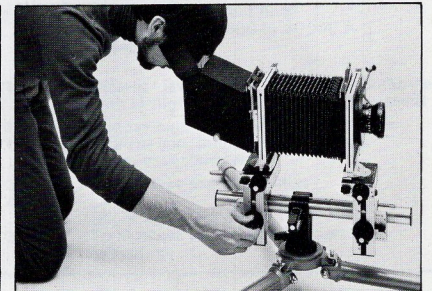
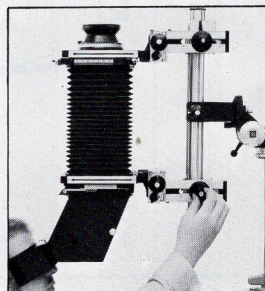


Fig. 3.5

Fig. 3.7



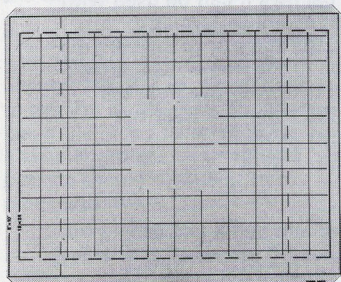
The binocular reflex magnifier is a useful aid with the trickiest camera set-ups. See also Fig. 2.11.

Accessories

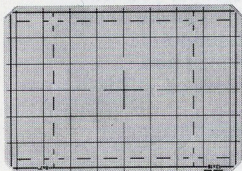
Focusing screens

Focusing screens with marked swing-and-tilt axes and square grids. Available in all sizes, also without square grid.

Fig. 3.8



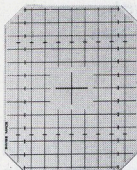
8×10 inches and 18×24 cm –
536.38
536.28 without square grid



5×7 inches and 13×18 cm –
536.37
536.27 without square grid



4×5 inches and 9×12 cm.
536.56



4×5 inches and 9×12 cm.
536.66

Fresnel field lenses

Fresnel lens with Fresnel lens holder

The Fresnel field lenses for the SINAR fit over the focusing screen and are easily interchangeable. The field lenses are supplied complete with attachable retaining springs and screws for the 5×7 inch and 13×18 cm as well as the 8×10 inch and 18×24 cm format frames.

Order codes of the parts:

Retaining spring for 5×7 inch and 13×18 cm lens

No. 461.27.470

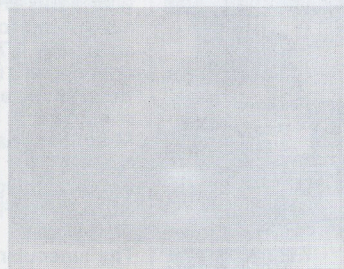
Screws for above No. 162.23.077

Retaining springs for

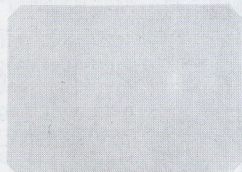
8×10 inches and 18×24 cm

No. 461.28.470

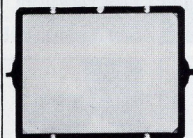
Screws for above No. 162.23.077



18×24 (8×10")
535.18



13×18 (5×7")
535.17



9×12 (4×5")
461.76

Masks and Fresnel lens holders

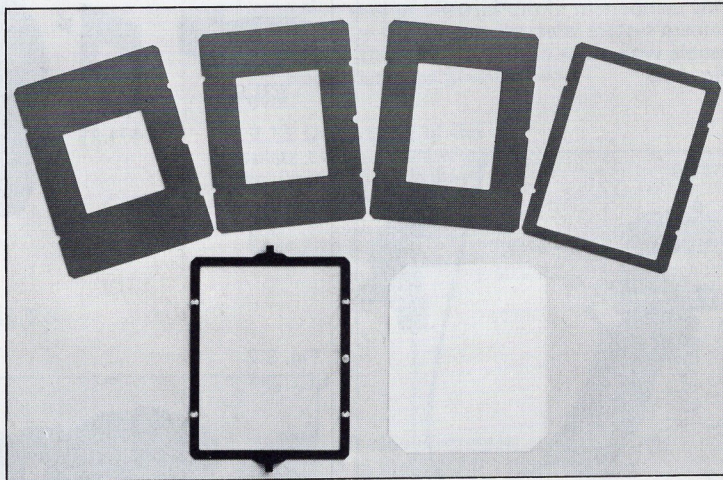


Fig. 3.10

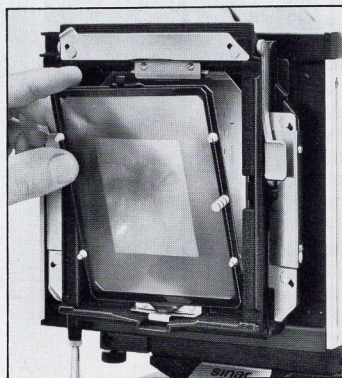
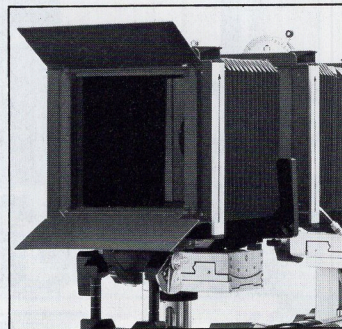


Fig. 3.11

For the main 4×5 inch camera back there is a handy interchangeable holder for the Fresnel lens and mask set.



Masks for the bellows lens hood

Fig. 3.12 The adjustable bellows hood mask No. 533.11 precisely screens off all unwanted light and makes a carrier for special masks. It can be used in the multi-purpose standard of the professional bellows hood, or attached directly to the bellows holder I. It is particularly recommended for use with wide-angle lenses (Fig. 3.21).

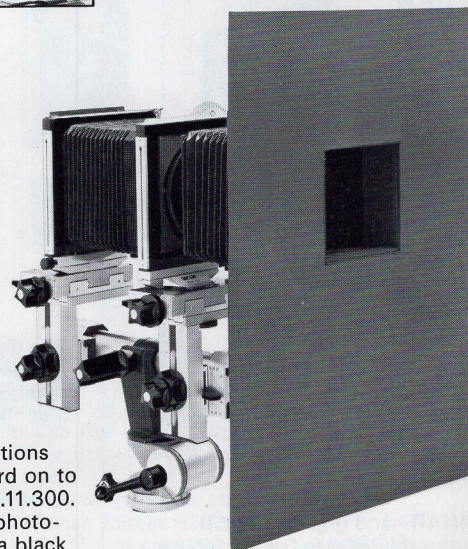


Fig. 3.13 To avoid reflections of the camera, stick a card on to a bellows frame No. 454.11.300. Use a white card when photographing white objects, a black card for dark objects etc.

Accessories

The two-way spirit level and finder shoe

The two-way spirit level No. 531.71 with 45° mirror fits into the slot of the 4×5 inch SINAR format frame and is fully adjustable for an optimum viewing position. Fig. 3.14. It can also serve as an additional spirit level for the lens standard. The two-way spirit level and finder shoes can also be mounted at the side of the format frame (see arrow).

Fig. 3.14

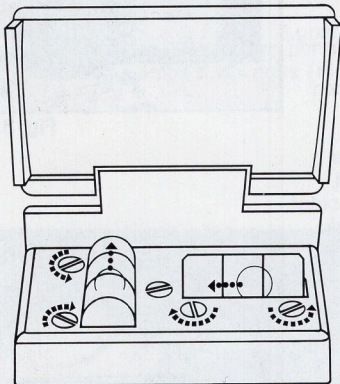
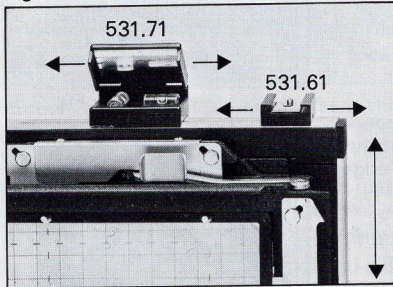


Fig. 3.15 You can yourself adjust the two-way spirit levels for any camera as shown in the sketch alongside. Spring-loaded washers prevent inadvertent movement.

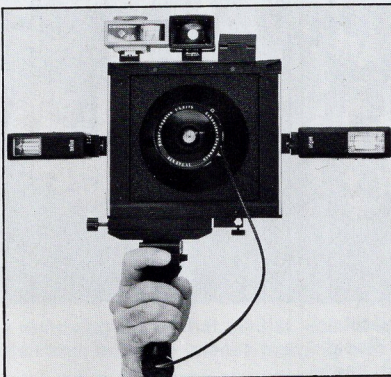


Fig. 3.16 The standard finder shoe No. 531.61 takes all usual optical finders, rangefinders and small flash units which can be mounted adjustably along three sides of the 4×5 inch SINAR format frame.

Filter holders and filters

The SINAR filter holder swings through 180° and takes 103 mm glass filters on both sides. It also takes the SINAR polarising filter or 4×4 inch (10×10 cm) gelatine filters. Reduction rings to take Kodak series IX and VIII are also available.

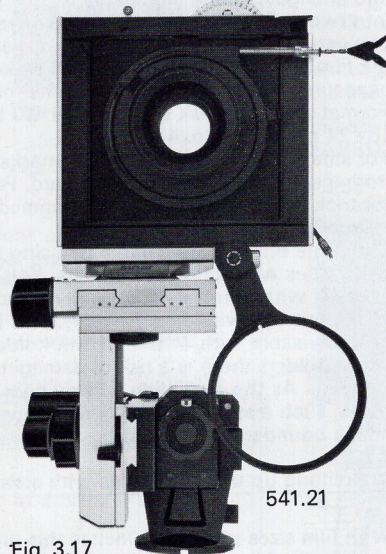


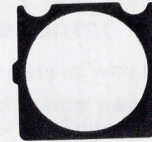
Fig. 3.17

Filter holder with one screw-in ring	No. 541.21
4×4 inch (10×10 cm) gelatine filter holder	No. 542.21
Additional screw-in ring	No. 541.91
Kodak series IX reduction ring	No. 543.11
Kodak series VIII reduction ring	No. 544.11

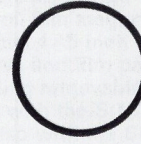
Filters

Glass filters: Outside diameter 103 mm, clear diameter 96 mm. Coated glass, coloured in the mass, to fit the SINAR filter holder No. 541.21 and—except for the polarising filter No. 546.21—also inside the SINAR shutter No. 521.31 or 521.11.

Gelatine filters are available from leading manufacturers. Use 4×4 inch (10×10 cm) filters for the SINAR gelatine filter holder No. 542.21. The SINAR shutter takes 4×4 inch (10×10 cm) as well as 5×5 inch (12.5×12.5 cm) filters.



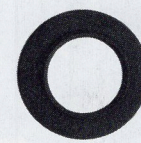
542.21



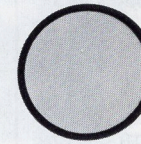
541.91



543.11



544.11



546.21

The filter holder is mounted on a filter holder rod and is adjustable along the length of the rod. The latter is available in three different lengths. The red dots on the camera and the filter holder must be lined up when the latter is mounted. Fig. 3.18.

11 cm n° 472.61

16 cm n° 472.71

25 cm n° 472.81

Bellows holders

Fig. 3.19 The lens side of the bellows holder I (No. 473.81) is mounted on the same rod as the filter holder. The bellows is attached with a spring-loaded catch in the corner of the holder. This way the bellows is movable along the rod for easy access to the lens. (At short camera extensions and with extreme tilts the bellows should however not be attached directly to the lens)

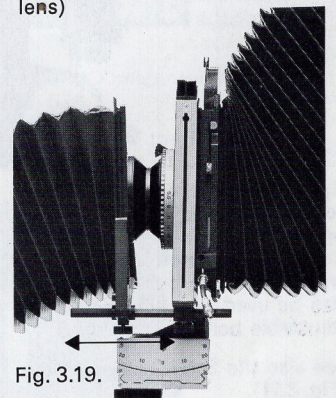


Fig. 3.19.

Order code	Type of filter	Filter factors			Applications
		Pan	Ortho	Colour	
Black-and-white					
546.01	Medium yellow	1.5	3		Landscapes, water, snow and distant views Distant views, increased contrast, effect filter
546.02	Light orange	2.5	6		
546.03	Yellow green	3	4		Correct tone reproduction, lightens green and red
546.04	Light red	4			Distant views, effect filter
546.05	Deep red	20			Distant views, effect filter
546.06	Infra-red				Transmits from 7500 to 30 000 Å. Reset focus.
Colour and black-and-white					
546.11	Ultra-violet	1	1	1	Distant views, water, mountains. Combine with skylight I or II if blue haze is present
546.12	Skylight I			1.2	Midday sun, blue skylight, slight haze
546.13	Skylight II			1.4	Brilliant sun, intense blue skylight, heavy cast shadows
546.14	Neutral density 2×	2	2	2	To increase exposure times
546.15	Neutral density 4×	4	4	4	
546.16	Soft focus attachment				Slight softening effect
546.21	Polarising filter, mounted	3	3	3	To increase contrast and suppress reflections

Accessories

The bellows holder I also takes masks.
The holder can equally carry a mask on its own, without bellows, for extreme wide-angle lenses.

Fig. 3.21

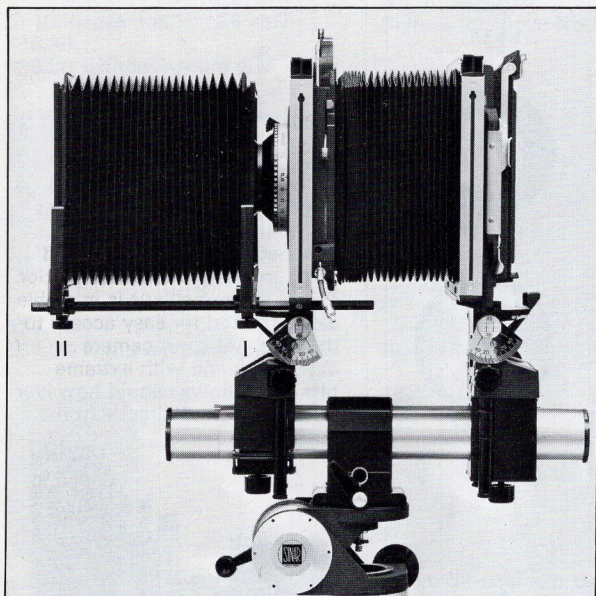
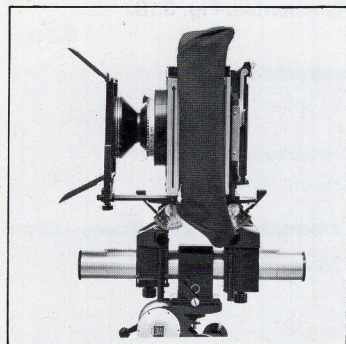


Fig. 3.22 With the bellows holder I fitted against the camera lens and the bellows holder II No. 473.91 at the front, the universal square bellows can also be used as a simple adjustable bellows lens hood.

See also the SINAR-handly (Fig. 2.11).

Splitting up the image

With the SINAR you can split up the image area into two or four parts without requiring different adapters such as step-and-repeat units.

1. Splitting up the image area with displaced framing, Fig. 3.50 and 3.51

Every SINAR camera takes format dividing masks between the bellows and the back. They are interchangeable and adjustable to split up the image into two or four areas. In the former case (Fig. 3.50) you can simply turn the back round – after closing the film holder – through 180° and make two exposures without moving the frame mask.

Format dividing mask set for the 8×10 inch or 18×24 cm back: No. 439.18.

For smaller sizes you can cut the masks yourself from a solid matt black sheet of card. Fancy masks for trick effects can also be used immediately in front of the image plane.

The same effect is obtainable by using film holder dark slides with different cut-outs. You can cut these yourself with a fretsaw. (Carefully smooth the edges of the cut-out with emery paper). This method is only advisable with 4×5 inch film holders; with larger holders there is a risk of damaging the light trapping. As the dark slide is fairly near the film plane, such a system yields comparatively sharp image boundaries.

2. Splitting up the image area with stationary framing, Fig. 3.52

With film sizes up to 4×5 inches this procedure can split up the film area into two or four parts and again requires no additional multi-exposure units. Preferably use the SINAR-p rear standard with its micrometer drives which permit easy one-handed adjustment of the image standard with the film holder. The image frame is here cut down by a large mask (Fig. 3.12) in the large bellows lens hood which in turn should be extended as far as possible to yield the sharpest mask outline.

- Hints:
- The (once-only) adjustment of the mask cut-out should be done at the working aperture
 - Use the lens at f/16 or smaller
 - Suitable focal lengths are 210 mm.

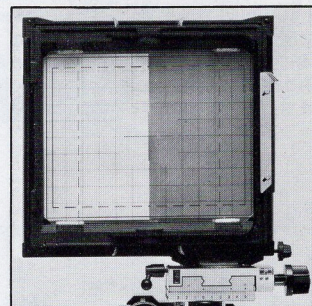


Fig. 3.50

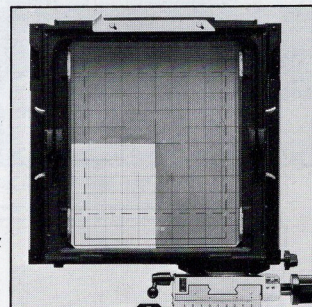


Fig. 3.51

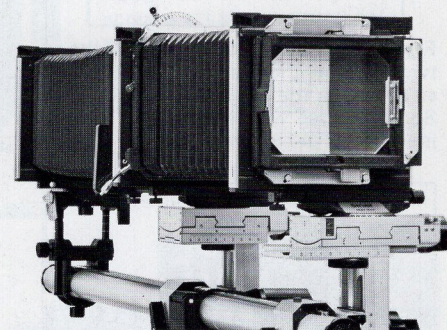


Fig. 3.52

The camera back with the film holder is now moved with the aid of the micrometer drives of the SINAR-p rear standard to shift the image frame on the film. Preferably mark the exposure positions clearly on the sliding scales*.

The automatic film holder coupling of the SINAR shutter permits easy checking of the ground glass screen image between exposures. The SINAR Rapid adapter (Fig. 3.56) appreciably speeds up such image checking.

* If the 4×5 inch format is to be halved, the centre point for the lateral adjustment is 1 cm to the right of the black 0 mark. (Fig. 3.52)

Accessories

The four-lens unit

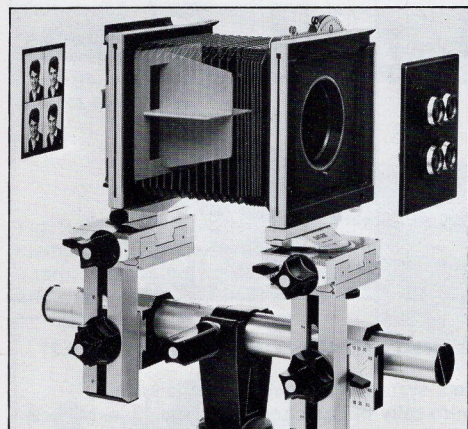


Fig. 3.53

Fig. 3.54

Another way to multiple exposures is the four-lens unit. In conjunction with the SINAR shutter and a format divider this yields four exposures 38×52 mm on a 4×5 inch or 9×12 cm film.

For identity pictures, instant-picture material can be used in a Polaroid No. 545 film holder. This also yields a retrievable negative for re-orders and possible retouching.

By covering up individual lenses you can also obtain four separate and different exposures of two different exposure pairs. The automatic film holder coupling with the SINAR shutter here again simplifies any intermediate checking.

The finder shoe No. 531.61 also permits the use of auxiliary finders, rangefinders and small flash units (Fig. 3.16).

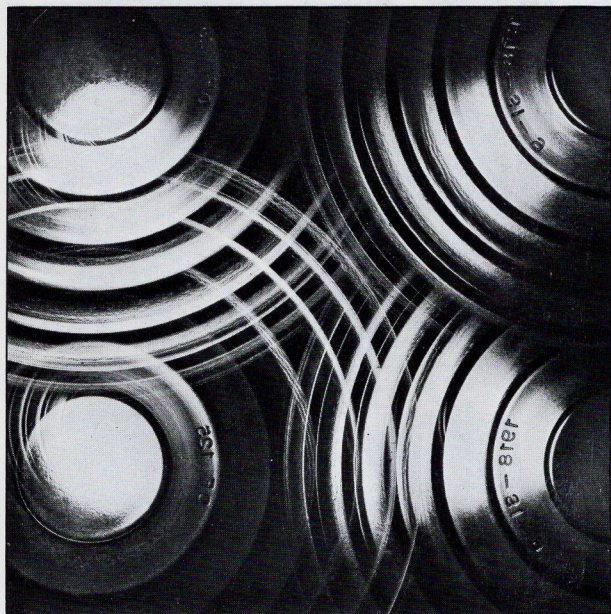


Fig. 3.55

By removing the format divider, kaleidoscopic special effects are obtainable with the images merging into each other.

Quadruple Schneider Radionar 125 mm f/8 lenses including f/11 stop set and four lens caps: No. 586.16

Format divider: No. 558.16

Please ask for the four-lens leaflet

The Rapid adapter

Increased shooting speed with the view camera!

The SINAR Rapid adapter permits quick working in conjunction with the SINAR shutter and lenses with SINAR spring-loaded diaphragm. There is no need to close and open the shutter or aperture, as these operations are coupled with the sliding stage movement of the Rapid adapter. Five picture sizes from 2¼×2¼ inches (6×6 cm) up to 4×5 inches with roll film magazines for No. 120, 220 and 70 mm films. Also takes all special 4×5 inch and 9×12 cm sheet film emulsions in sheet film holders and film pack adapters, and 4×5 inch Polaroid sheet films, including retrievable negatives. Can be combined with the SINAR binocular magnifier or binocular reflex magnifier, also with the SINARSIX cassette for exposure readings in the image plane.

Rapid adapter including mask and Fresnel lens holder, but without SINARSIX adapter: No. 551.16, Fig. 3.56.

Fig. 3.56

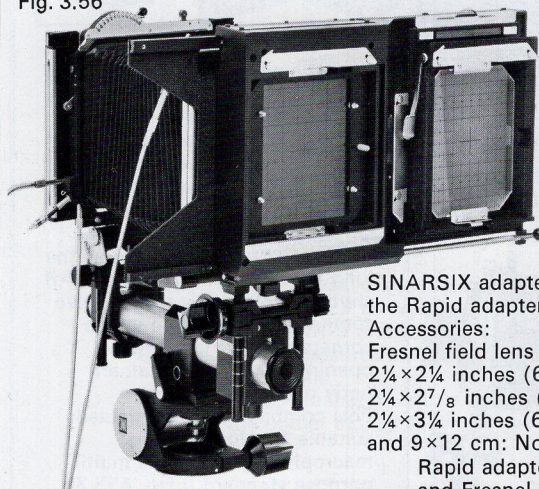


Fig. 3.56

SINARSIX adapter, separate for fitting in the Rapid adapter: No. 525.26

Accessories:

Fresnel field lens No. 535.26 Mask set

2¼×2¼ inches (6×6 cm),

2¼×27/8 inches (56×72 mm),

2¼×3¼ inches (6×9 cm)

and 9×12 cm: No. 534.16

Rapid adapter including mask and Fresnel lens holder with built-in SINARSIX adapter: No. 551.26

SINARSIX meter with probe: No. 524.11

Please ask for the Rapid adapter leaflet.

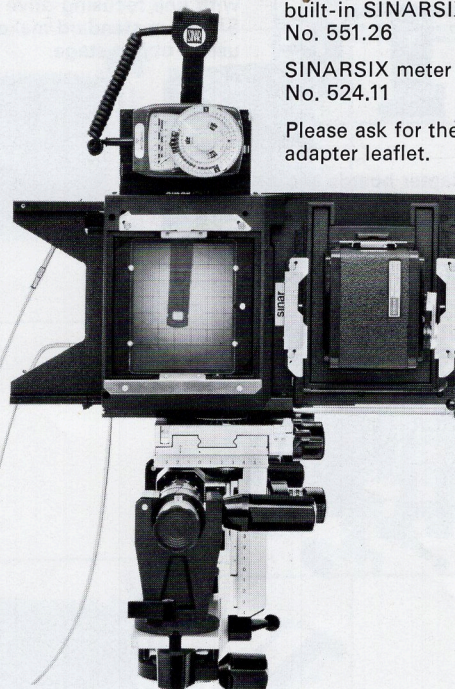


Fig. 3.57

Note:

SINAR-p: The Rapid adapter can be used with focal lengths from 90 mm. The standards should be set in their lowest position as shown. Use a rigid tripod.

SINAR-f: Rapid adapter usable with focal lengths of 135 mm and longer. Use the rear standard switched round through 180°. Again use the camera standards in their lowest position and mounted on a rigid tripod.

Accessories

The reflex camera adapter—focusing bellows

Here again the SINAR shows its versatility as a universal photographic system.

Fig. 3.58

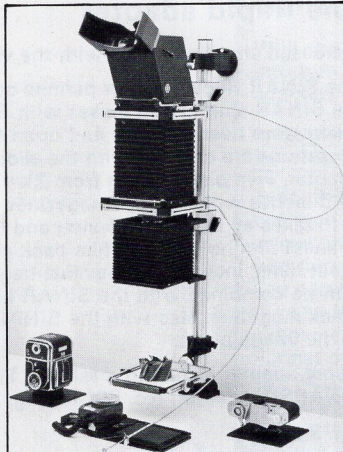


Fig. 3.60

With the adapter board as shown in Fig. 3.58, the SINAR becomes a close-up bellows unit for any single-lens reflex camera. The swing-and tilt movements of the camera standards permit sharpness control in depth — particularly important in close-ups. For special tasks you can use the long focus lenses and the SINAR shutter, though this may involve some vignetting of the image corners due to the restricted opening of the reflex camera body used. This combination is particularly suitable for close-ups and macrophotography. The multi-purpose standard II No. 433.31 with fine focusing drive or a SINAR-p standard makes a useful object stage.

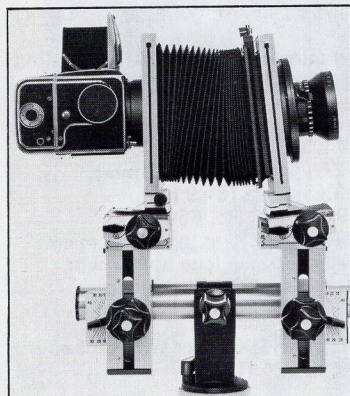


Fig. 3.59

The following adapter boards are available:

For coupling with the:

ALPA	No. 556.63
HASSELBLAD 500C	No. 556.64
EXAKTA	No. 556.73

For coupling with 35 mm reflexes using a 42 mm screw-in lens mount

ASAHI PENTAX, ICAREX 35 TM,	
MAMIYA, YASHICA	No. 556.83
NIKON	No. 556.93

676.50

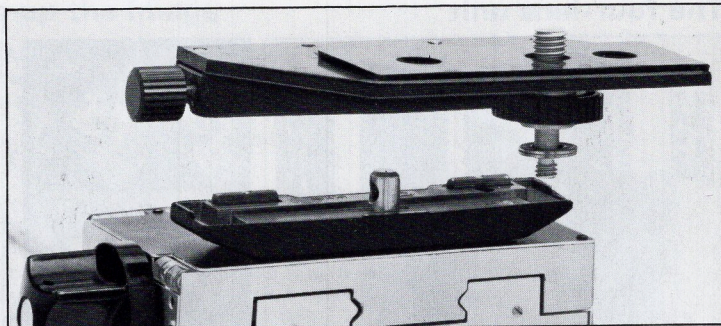


Fig. 3.61

Supports for still and movie cameras No. 519.21

The extensive SINAR camera system also covers various special equipment items and economically bridges frequent gaps.

The SINAR camera support No. 519.21 for instance can be mounted on the universal SINAR-p standard bearer in place of the format frame, retaining the full movement range. This provides a virtually continuous transition in applications between large format, medium and miniature cameras for photomicrography, macrophotography, close-up work and telephotography.

The SINAR-p outfit thus becomes a truly universal extension system for still and cine cameras.

The micrometer adjustments of the parallel displacements are ideal for accurate image centering. In conjunction with the swings and tilts they provide numerous special effects.

Fig. 3.62

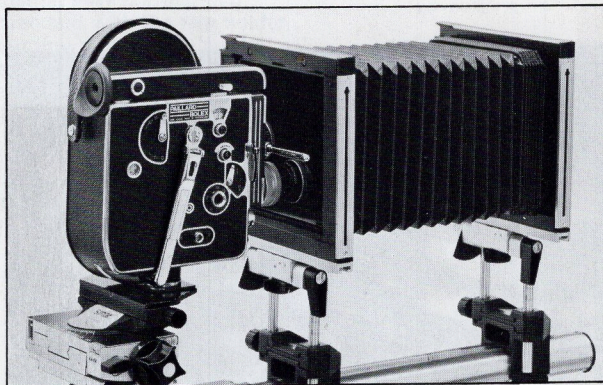
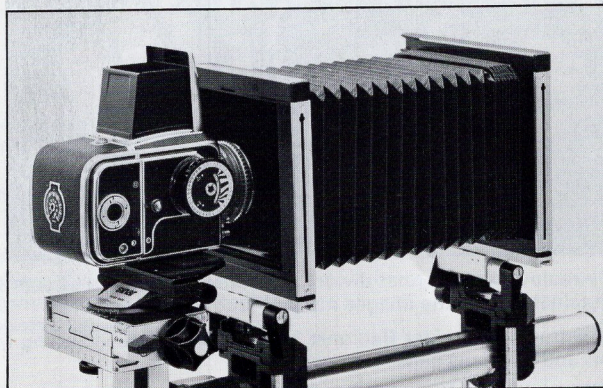


Fig. 3.63



Figs. 3.62 and 3.63 Professional matte box for cine and still cameras, also suitable for oscilloscope screen records, slide copying etc. In every case the bellows completely screens off all external light.

Accessories

Fig. 3.64 Close-up and macro-photography by reflected and transmitted light. The larger SINAR rear carries up to 8×10 inches can also serve as a subject stage.

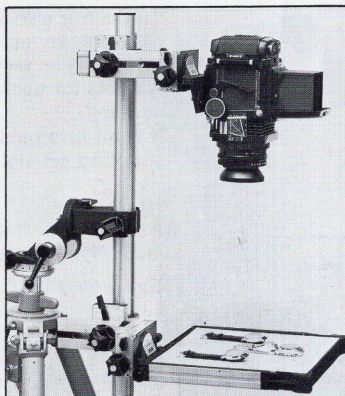


Fig. 3.65 With the SINAR clamping stand any table becomes a large baseboard for document and other copying jobs.



Fig. 3.66 Even such tricky close-ups pose no problems. The multi-purpose stand here outlines the subject area and acts as a distance gauge.

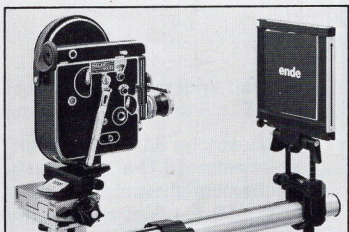
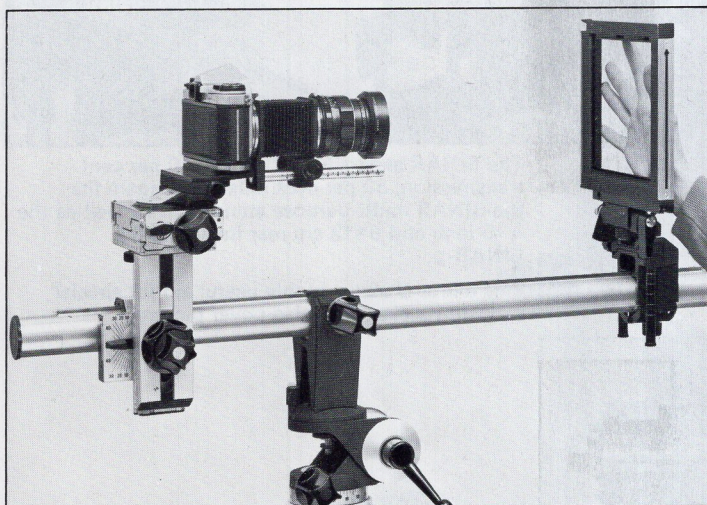


Fig. 3.67 The SINAR as a titler for a cine camera. These examples show only some of the scope of this system — there are many other applications. See also for instance the use of the mirror on this page.

The SINAR mirror

The SINAR mirrors provide innumerable new approaches for special pictures. With the still and cine camera support they can be used with almost any camera.

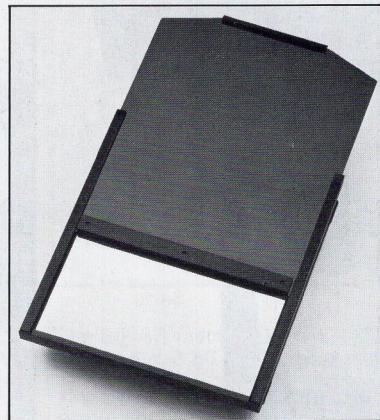


Fig. 3.68

SINAR surface-coated mirror in protective case No. 538.11

SINAR semi-reflecting mirror in protective case No. 539.11

The SINAR surface-coated mirrors fit the SINAR multi-purpose standard II as well as the 4×5 inch and 9×12 cm SINAR-p rear frames.

- It simplifies exposures and focusing in nearly inaccessible camera locations
- It permits unusual angle shots upwards and downwards, round the corner etc. as shown in the illustrations.

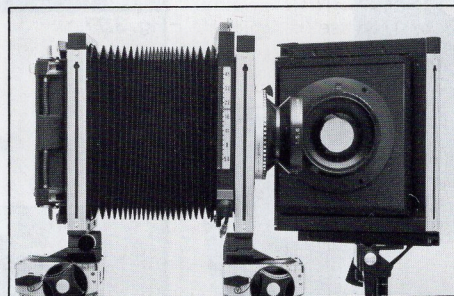


Fig. 3.70

Fig. 3.71

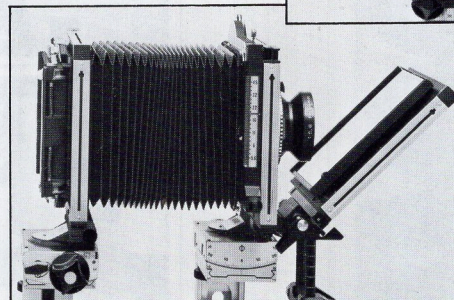
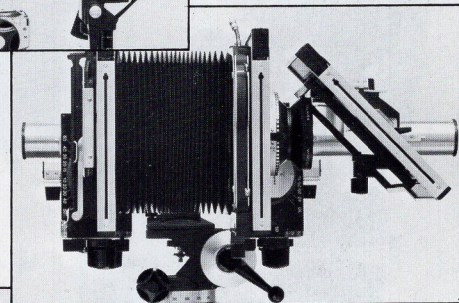


Fig. 3.72

Accessories

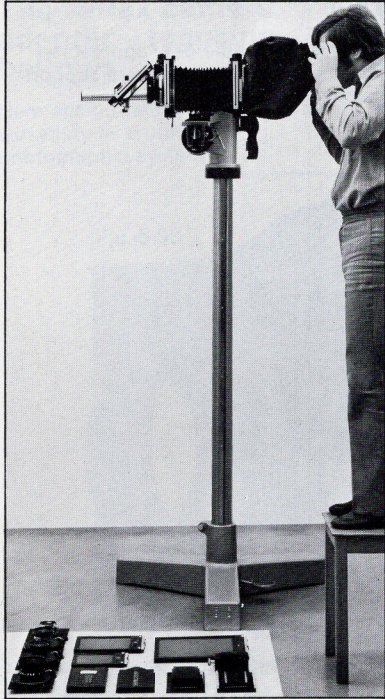


Fig. 3.73.

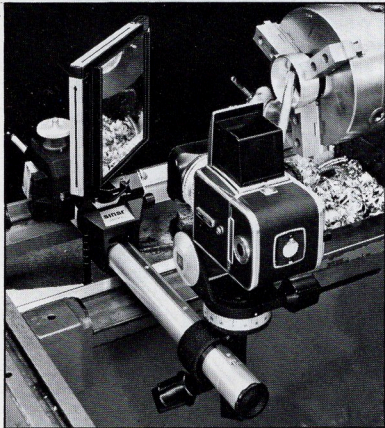


Fig. 3.74.

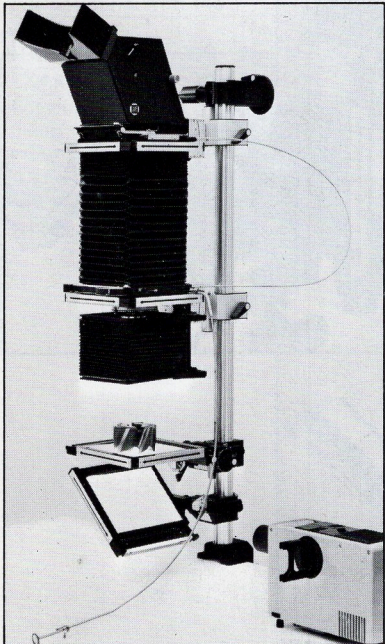
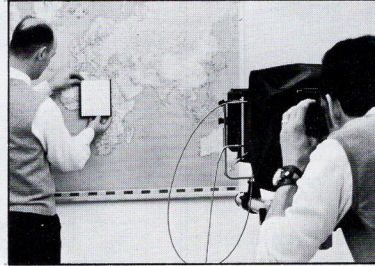


Fig. 3.75.

Fig. 3.76.



The mirror also solves lighting problems in photomicrography, macrophotography and close-ups as well as in slide copying. It is equally suitable for background projection with close-up shots.

It is an invaluable aid for every kind of special shooting set-up.

Note:

As the mirror laterally reverses the image, the films must also be laterally reversed during enlarging.

See also SINAR Information No. 4.

The mirror is further useful for checking that the camera is correctly squared up with the original in difficult copying situations.

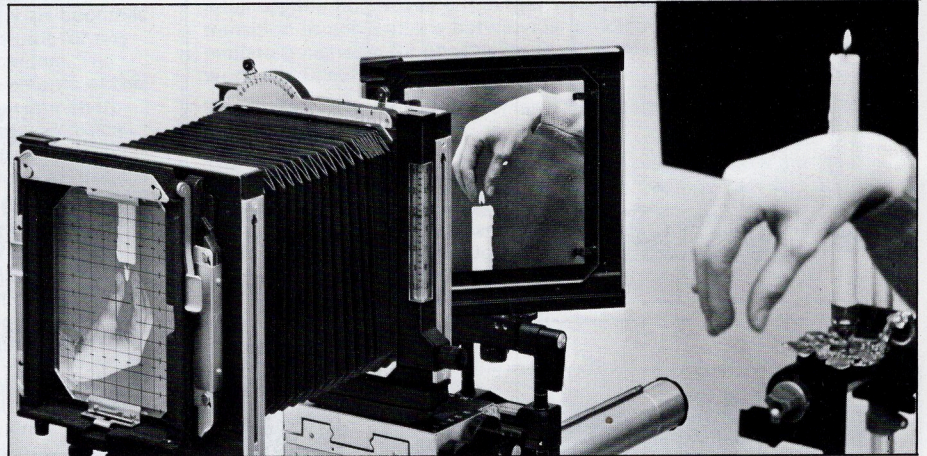


Fig. 3.77.

The SINAR semi-silvered mirror (50 per cent transmission, 50 per cent reflection) again fits the SINAR multi-purpose standard II as well as the 4×5 inch and 9×12 cm rear frames of the SINAR-p.

This mirror is also a highly useful aid for special exposure tricks. (See also cover picture.)

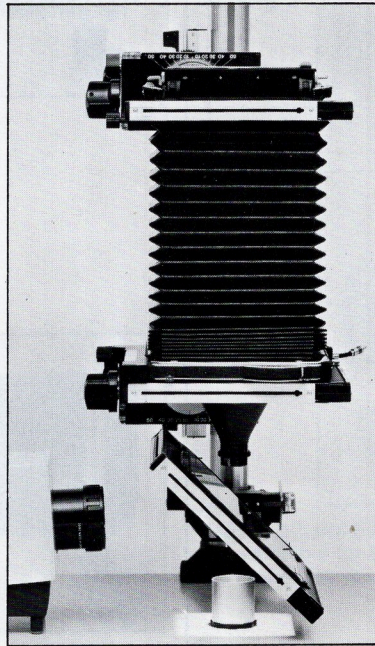


Fig. 3.78.

The semi-reflecting mirror solves difficult lighting problems, for instance for shadowless illumination of cavities and in close-up photography where front lighting is difficult to arrange.

The SINARSIX exposure meter yields accurate exposure settings also with the semi-reflecting mirror.

Accessories

Macrophotography and photo-micrography

The SINAR cameras require very little adaption for macro-photography and photo-micrography. So you save much expensive special equipment.

In addition the SINAR cameras provide control of sharpness distribution in depth — particularly important in macro-photography and close-ups. Fig. 3.79

Illumination can be by reflected and transmitted light*, or via the SINAR mirror (Figs. 3.75 and 3.78).

The SINARSIX ensures correct exposures with direct readings and eliminates calculations of exposure factors.

The SINAR binocular reflex magnifier permits convenient observation of the brilliant focusing screen image.

* Light sources which generate a lot of heat could affect image sharpness in close-ups due to convection currents of air of varying refractive index. For this type of subject, flash or daylight illumination is therefore preferable.

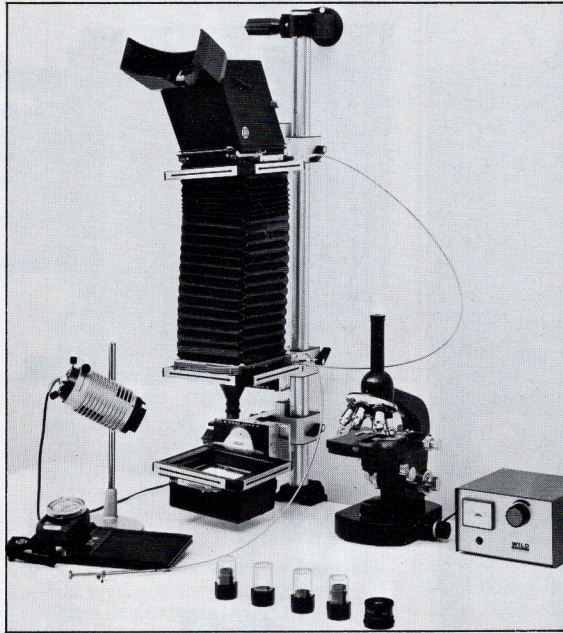


Fig. 3.79

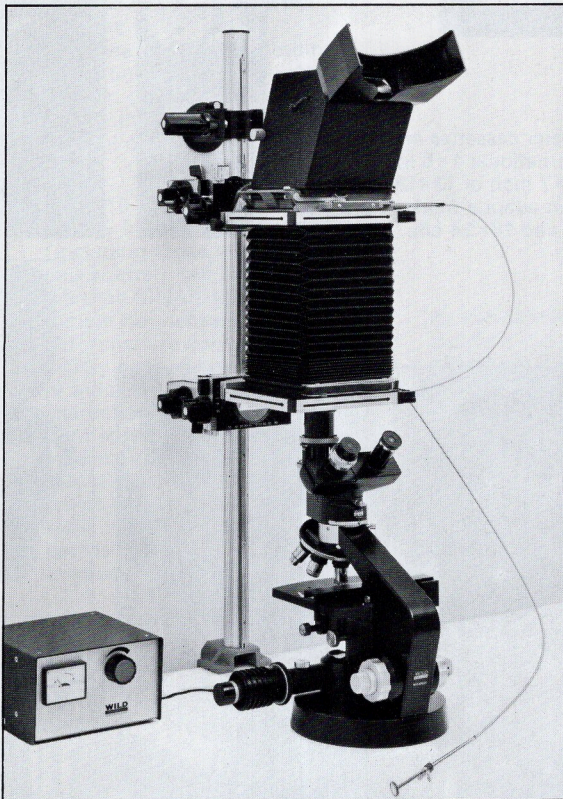


Fig. 3.81

For photomicrography use the set-up as shown in Fig. 3.81.

This involves the microscope adapter No. 441.61, consisting of the components marked with arrows in Fig. 3.82.

The SINARSIX, SINAR shutter and binocular reflex magnifier are again important accessories. In macrophotography and also photomicrography the SINAR back can be replaced by adapter boards for single-lens reflex cameras (Figs. 3.59 and 3.60).

Please ask for SINAR Information No. 6.

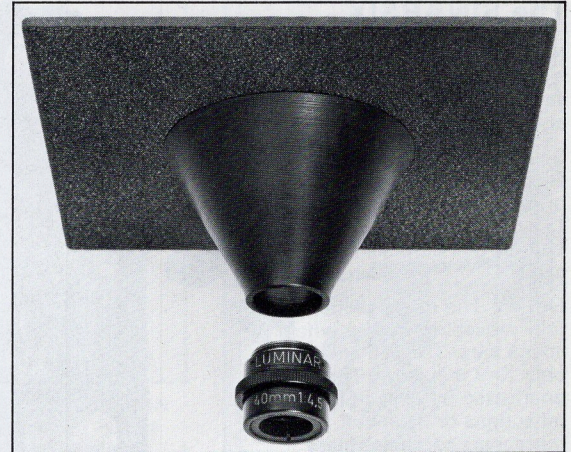


Fig. 3.80

The SINAR macro tube No. 441.71 takes special macro lenses. Fig. 3.80

High-quality enlarging lenses are also suitable for such macro shots. Special apochromatic process lenses are recommended for image scales around 1:1. Such special lenses are usually supplied without a shutter: No problem with the SINAR shutter.

Note: By using a SINAR-p standard bearer or the multi-purpose standard II (with fine focusing drive) as the subject stage you ensure precise focusing for such shots while maintaining exactly a set scale of reproduction (i.e. a given camera extension).

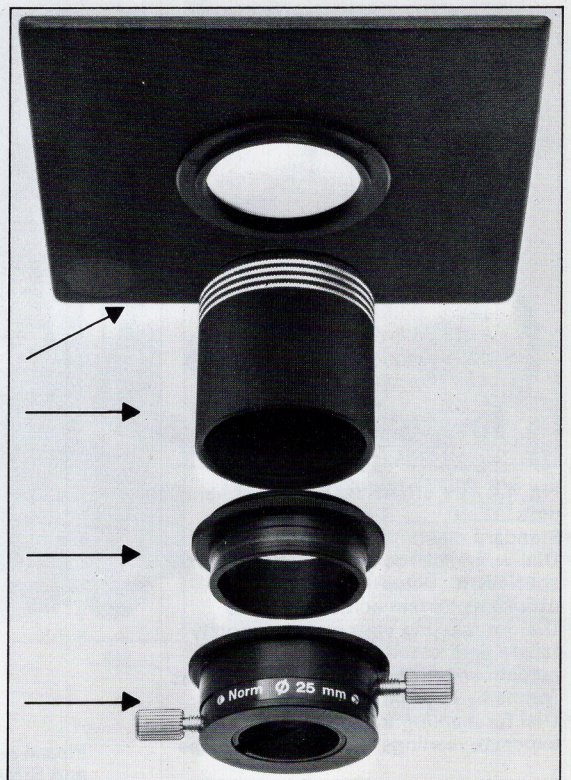


Fig. 3.82

Exposure

The SINARSIX

No picture can be better than its exposure. Correct exposure saves reshooting, time, annoyance and money.

Spot readings in the film plane are the most precise method of exposure readings known. The SINARSIX is the unique unit for this purpose in a view camera.

Fig. 4.1 The meter probe is fully movable over the whole image area. The cell area is only 7×9 mm large. The cell is unaffected by stray light, reflections or flare and measures exact brightness values. This system eliminates all calculation of exposure factors.

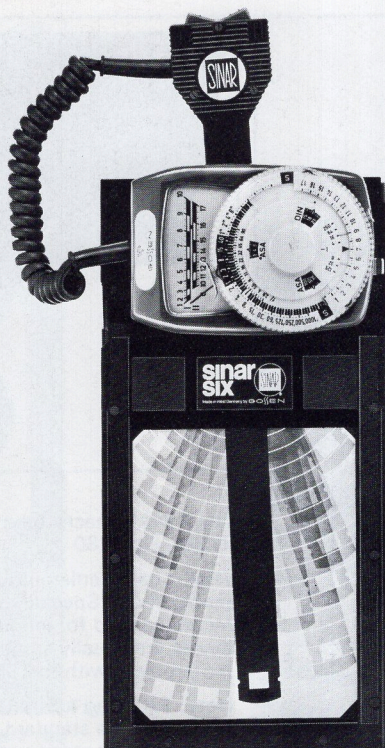


Fig. 4.1

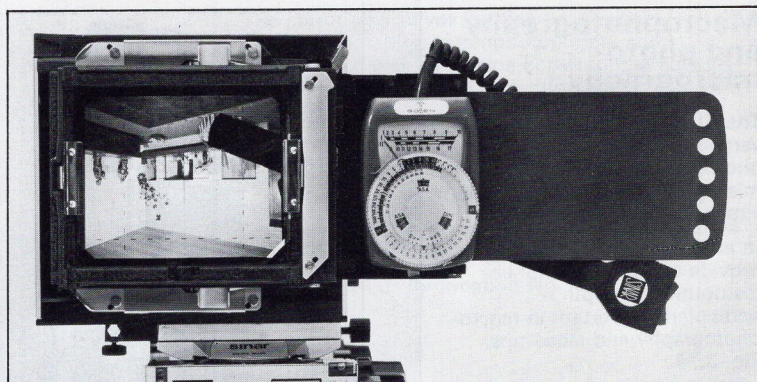


Fig. 4.2 The SINARSIX, inserted in the camera in place of the film holder, permits exact and visible location of the measuring probe on the focusing screen. With the dark slide you eliminate any stray light from the back which could affect the readings.

Fig. 4.3 Light meter cassettes are available for international 4×5 inch or 9×12 cm and 5×7 inch or 13×18 cm camera backs. An adapter frame is available for 8×10 inches and 18×24 cm.

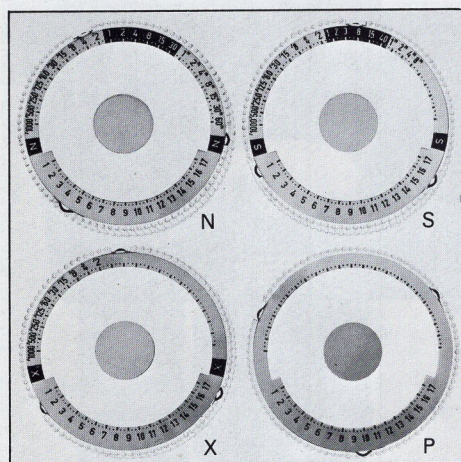
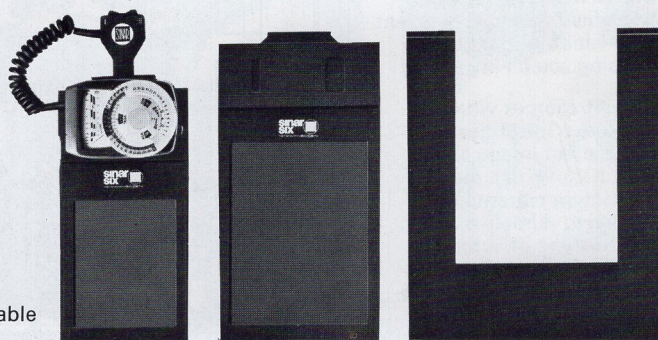


Fig. 4.4 The SINARSIX has interchangeable dials.

N=Standard dial
S=Dial with reciprocity failure compensation, specially for black-and-white shots as well as certain colour materials
X=Dial for marking your own reciprocity failure data based on individual recommendations of film manufacturers (primarily for colour reversal films)
P=Dial for marking a lamp index for flash exposure readings via modelling lamps

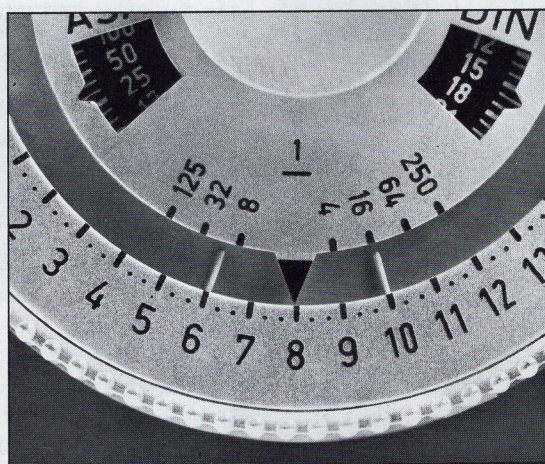


Fig. 4.5 The built-in brightness range scale permits exact assessment of the brightness range of a subject and of the correct amount of fill-in lighting required.

Please ask for the SINARSIX leaflet SE and SINAR Information Nos. 3 and 7.



Fig. 4.6 The SINARSIX carrying case. The SINARSIX meter with probe can also be used in the Rapid adapter Fig. 3.57)

SINARSIX with probe and three dials N, S and X plus instruction book: No. 524.11

Separate meter dials:

N =	No. 524.61
S =	No. 524.71
X =	No. 524.81
P =	No. 524.91
4×5 inch / 9×12 cm light meter cassette with dark slide	No. 525.16
5×7 inch / 13×18 cm light meter cassette with slide	No. 525.17
Adapter frame 5×7 to 8×10 inches (Used with No. 525.17)	No. 525.18
SINARSIX case	No. 573.11

Exposure

The SINAR Auto-aperture shutter

You can fit the SINAR Auto-aperture shutter in your SINAR camera yourself. It meets the following important practical requirements:

- Consistent exposures from 1/60 second to 8 seconds with all lenses of focal lengths from 65 to 600 mm
- Consistent operation with all lenses
- Uniform automation with all lenses
- Automatic shutter tensioning

The SINAR Auto-aperture shutter can be used with more than 150 lenses of the SINAR range. From every point of view it is thus a highly economical accessory item.

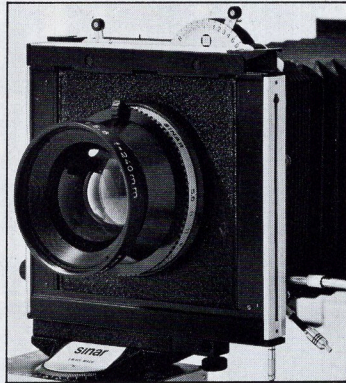


Fig. 4.7 shows the SINAR shutter mounted in the camera, with one of the 27 spring-loaded diaphragm lenses available in focal lengths from 65 mm to 480 mm, with automatic aperture control. It means:

- The lens is fully open for focusing and viewing on the screen. The lens stops down to its working aperture during the exposure.
 - Immediately after the exposure the lens opens again to full aperture.
- All these features are automatically controlled by the SINAR shutter. (Naturally you can also switch the aperture control to manual operation on the lens itself.)

Fig. 4.10 Most of the lenses already in your possession (including those with between-lens shutter) can be combined with the SINAR shutter – though not necessarily with the auto-aperture control. The lenses merely have to be correctly fitted as indicated in the SINAR instructions. Further nearly all lenses on the market can be fitted with the SINAR aperture control (B) which shows aperture settings from behind the camera. Further details from the SINAR agency in your country.

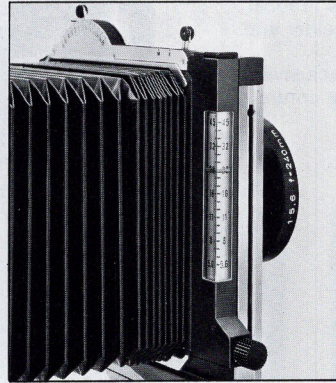
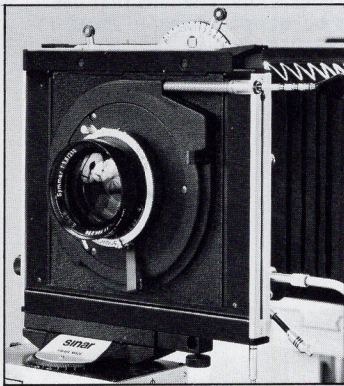


Fig. 4.8 shows the uniform clear aperture scale for the 27 lenses available with spring-loaded diaphragm. The scale has extended aperture intervals and is operated by a knob at the side. With the release partly depressed the diaphragm closes down to working aperture, while the shutter remains open.

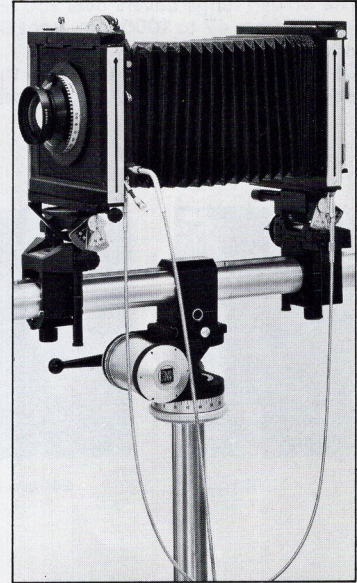


Fig. 4.9 Here the SINAR Auto-aperture shutter is mounted on the SINAR-f and linked with the camera by the automatic cable for control through the film holder.

- Film holder in position: The shutter closes and the lens is stopped down
- Film holder removed: The shutter and aperture are open

In combination with the Rapid adapter (Figs. 3.56 and 3.57) this offers astonishing shooting speed for a large-format camera, with automatically correct operation.

As the SINAR shutter is independent of the lens and camera, it can also be used in other equipment – for instance enlargers and process cameras. 4.12 shows the use in conjunction with slide projectors for observation tests. Here the automatic time range up to 8 seconds is ideal, as is the independent shutter opening provision.

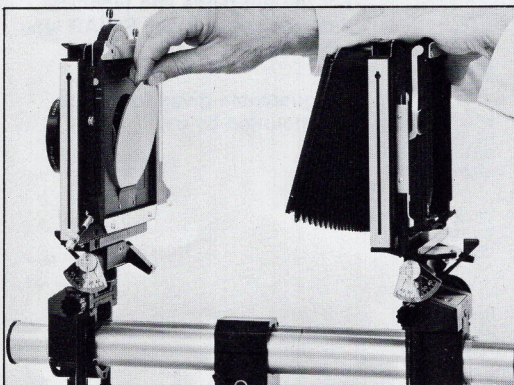


Fig. 4.11 The SINAR shutter further takes 103 mm diameter glass filters, or 4x4 inch (10x10 cm) or 5x5 inch (12.5x12.5 cm) gelatine filters. The filter range is listed under «Filters».

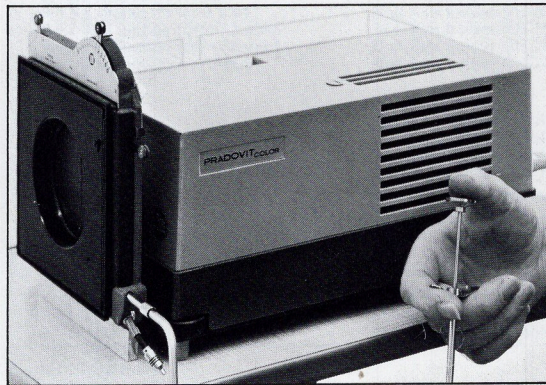


Fig. 4.12

The SINAR shutter is highly universal in application. See also Figs. 3.52, 3.53, 3.56, 3.57, 3.59, 3.79, 3.81 etc. SINAR Auto-aperture shutter with cable release No. 521.31
Spare cable release No. 521.61
Spare automatic cable No. 521.51
Coupling piece for linking two automatic cables No. 521.81
Bayonet fitting for rapid switching of the automatic cable when using different-size backs No. 521.91

Please ask for the SINAR Auto-aperture shutter leaflet VE and the lens list SINAR Information No. 2

Lenses

The SINAR range covers over 150 lenses in focal lengths from 47 to 1000 mm, from Schneider and Rodenstock
Of these, 27 lenses are fitted with the exclusive SINAR automatic spring-loaded aperture control (DB).

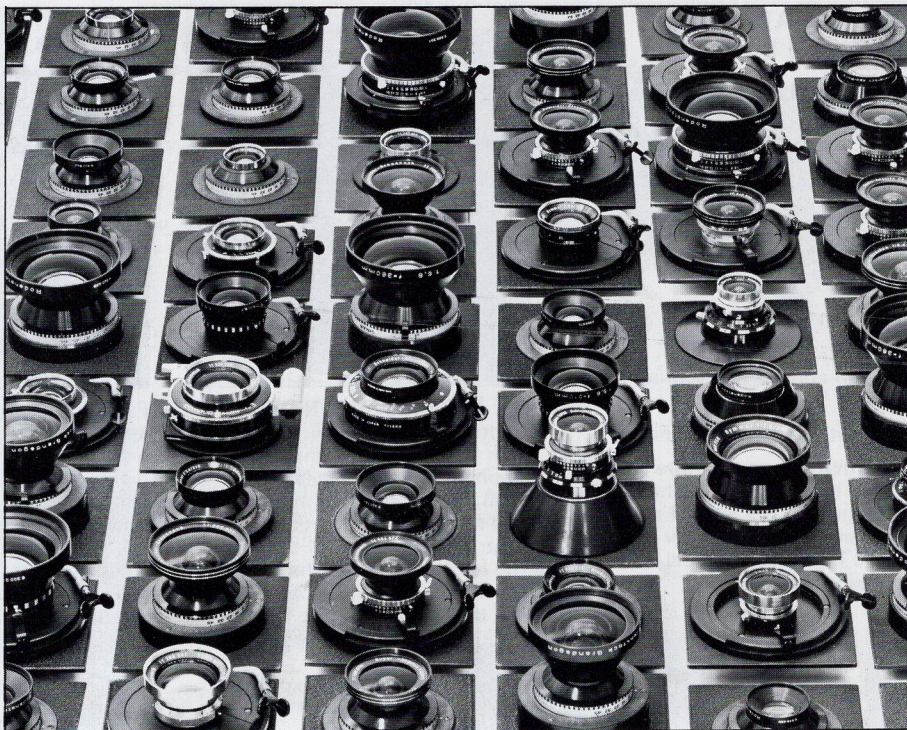


Fig. 5.1

Fig. 5.2 The 47 mm Schneider Super Angulon f/5.6 in focusing mount for the SINAR-Handy.

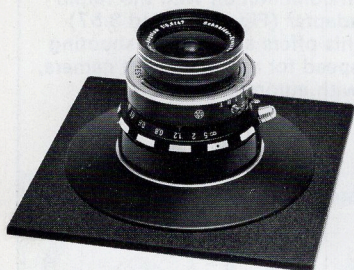


Fig. 5.3 The 135 mm Rodenstock Sironar f/5.6 in Compur shutter equipped with SINAR aperture control for observation from behind the camera. This folds over for compact stowing in the camera case.

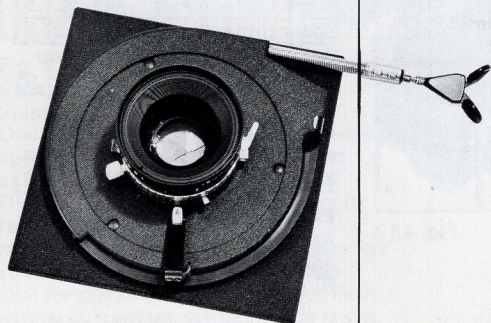


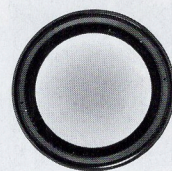
Fig. 5.4 The 240 mm Schneider Symmar-S f/5.6 in Compur Electronic 3 shutter with remote aperture control.



Fig. 5.5 The 360 mm Rodenstock Sironar f/6.8 fitted with the exclusive SINAR automatic spring-loaded aperture control (DB).



Fig. 5.6 The centrally graduated filter for the Schneider Super Angulon wide-angle lenses ensures uniform illumination over the whole image area in colour shots. The lens first has to be stopped down to at least f/16.



For the full range and technical data see the separate SINAR lens list.

No guarantee given for lenses not mounted by us.

Film Holders

The SINAR cameras take the following film holders:

- Double sheet film holders for 4×5 inch, 9×12 cm, 4¾×6½ inch (12×16.5 cm – half-plate), 5×7 inch, 13×18 cm, 8×10 inch and 18×24 cm films.

Sheet films provide the widest range of different emulsion types.

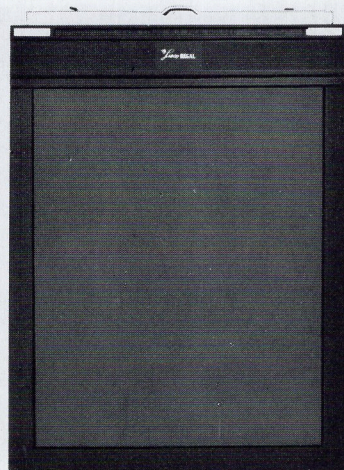
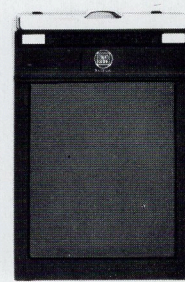
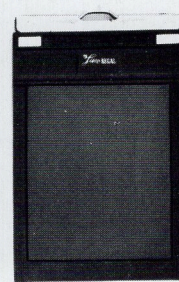
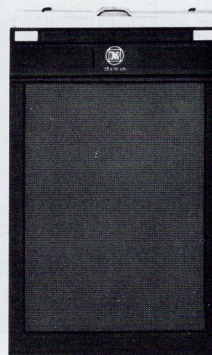


Fig. 6.1



8×10 inches and 18×24 cm

5×7 inches,
13×18 cm and
4¾×6½ inches
(12×16.5 cm)

4×5 inches

9×12 cm

- Grafmatic sheet film holders for six films 4×5 inches

- 4×5 inch film pack adapters
The 4×5 inch Polaroid Land sheet film holder (P.545)

- Roll film holders for 2¼×2¼ and 2¼×3¼ inch (6×6 and 6×9 cm) exposures on No. 120 film

- Roll film holders for 2¼×2¾ inch (56×72 cm) exposures on No. 120, 220 and 70 mm film

- Push-in roll film holder for 2¼×2¾ inch (57×70 mm) exposures on No. 120 or 220 film.

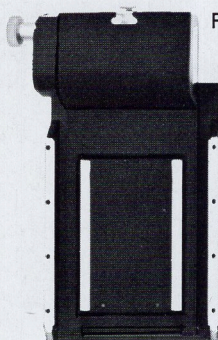
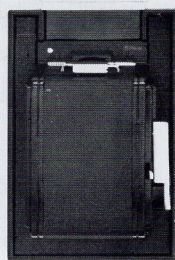


Fig. 6.2



Push-in
2¼×2¾ inch
(57×70 mm)
roll film holder

2¼×2¼ to
2¼×3¼ inch
(6×6 to
6×9 cm) roll
film holders

Polaroid P.545
4×5 inch sheet
film holder

4×5 inch film
pack adapter

Grafmatic
4×5 inch sheet
film holder

Film holders

Order code	Image size	Type of film holder	Remarks
For the international 4×5 inch / 9×12 cm back (No. 461.26) and the Rapid adapter (No. 551.16 and No. 551.26)			
765.56	4×5 inches	Film pack holder	G 1234
767.44	2¼×2¼ inches (6×6 cm)	Film holder RH 12 '45'	G 1296
767.45	2¼×3¼ inches (6.5×9 cm)	Roll film holder RH 8 '45'	G 1294
767.64	2¼×2 7/8 inches (56×72 mm)	Roll film holder RH 10 '45'	G 1295
767.74	2¼×2 7/8 inches (56×72 mm)	Roll film holder RH 20 '45'	G 1297
767.84	2¼×2¾ inches (57×70 mm)	Roll film holder C-220	CS-2
566.56	4×5 inches	Double sheet film holder	RLO
566.46	9×12 cm	Double sheet film holder	RLO
766.56	4×5 inches	Double sheet film holder	G 1288
766.66	4×5 inches	Grafmatic sheet film holder	G 1268 For 6 films
For the international 5×7 inch / 13×18 cm back (No. 461.27)			
566.57	5×7 inches	Double sheet film holder	RLO
566.47	13×18 cm	Double sheet film holder	RLO
566.67	4¾×6½ inches (12×16.5 cm)	Double sheet film holder (half-plate)	RLO
For the international 8×10 inch / 18×24 cm back (No. 461.28)			
566.58	8×10 inches	Double sheet film holder	RLO
566.48	18×24 cm	Double sheet film holder	RLO

G = original Graflex holders

CS = Calumet holders modified by SINAR

The systematic system

Camera set up
as per Fig. 3.77.



We reserve the right to change,
without notice,
designs or items in the range.

For leaflets and demonstration,
please contact:

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