

EXAKTA
Varex

*Assured Success
for everyman*



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He who forms a friendship with an EXAKTA Varex paves the way to photographic success, not only the beginner making his first snapshots, but true equally of the expert, whether using the instrument for recording personal occasions or indeed for any of the many difficult tasks confronting the professional photographer. It is with an ever increasing versatility that the EXAKTA Varex can be adapted to all requirements. It is a lifetime possession of he who buys it due primarily to this amazing versatility – an advantage of the "additive" principle of design which cannot be too highly valued.

When we are asked why the beginner and professional alike acclaim EXAKTA we may only answer that it is due to the extremely simple ground glass screen focusing. A glance at the reflex image, simple control setting, the advantage of actually seeing depth of field, and ability to compose the picture, ensure that technique and aesthetic approach are as one. It will be seen from the start that your first trial exposures will automatically improve compositionally, thus resulting in greater pleasure.

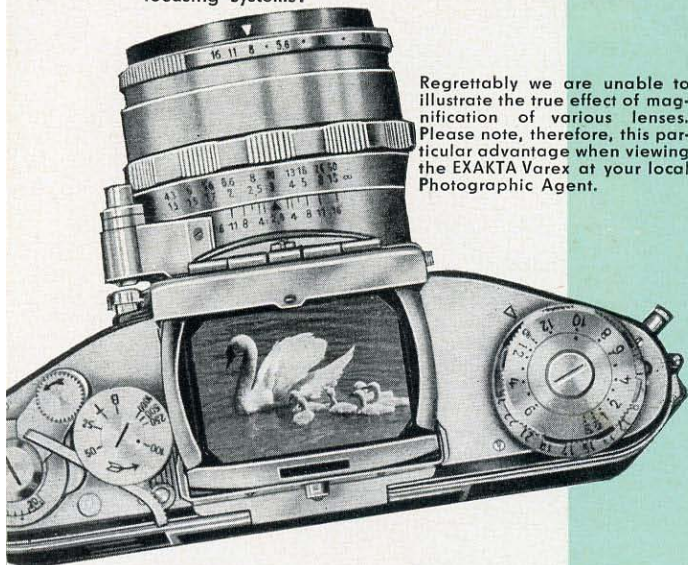
All this is achieved with the aid of EXAKTA Varex and one is virtually guaranteed success due to the construction which allows the single lens to provide both screen and actual picture image, thus there is no difference between the reflex screen image and the actual resulting picture. "Freedom from parallax" a technical term used by the professional, and an advantage of the single lens reflex camera which is of particular value for close-up work when using either special lenses or other accessories. Without expensive auxiliary optical equipment, focusing is at all times controlled by the accurate and decisive screen image. Therefore one should remember the great economy when working with EXAKTA Varex.



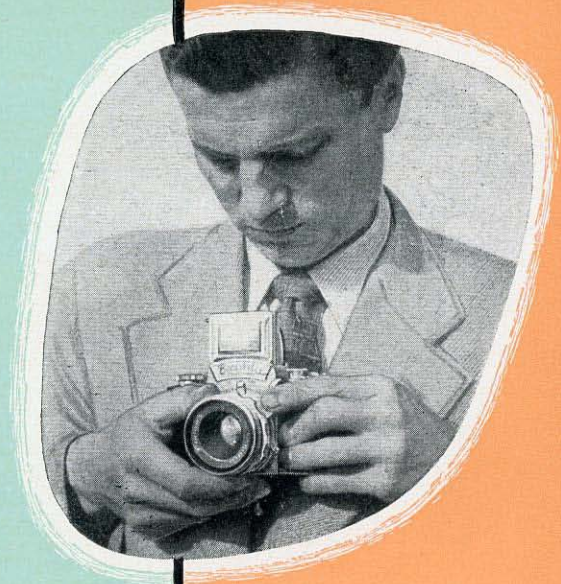
Simple in operation, versatile in application

Praise is duo to the reflex finder of the EXAKTA Varex, the basic incorporated design of this classic reflex camera. Considered individually it has many unique features and advantages:

- Automatic opening of the view finder.
- Ground glass focusing screen providing 1.4 times magnification of the reflex image, and supplementary magnifier with additional 4 times magnification, thus giving a total of six times magnification. This ensures fast accurate pin-point focusing and simplifies pictorial composition.
- Upright reflex screen image critically sharp and uniformly bright right to the corners, and of course in natural colour. The latter feature being of particular advantage when taking colour photographs.
- Reflex finder convertible into direct vision frame finder for certain sports pictures and candid shots.
- Screen image may be viewed comfortably (with both eyes) in any one of three positions: downward direction for normal waist level shooting position; directly up when shooting with camera held overhead, or sideways for vertical shots when taking "candid" shots at right angles; the reflex finder may be used for almost all subjects at eye level or where there is little subject movement, e. g. portraits, children, animals, plants, small objects (macro-photos), technical work at home or in the studio, or particularly when the camera is by necessity used in conjunction with a tripod as is the case when photographing still life, reproductions, micro-photographs, etc.
- The reflex finder is instantly interchangeable with other focusing systems!



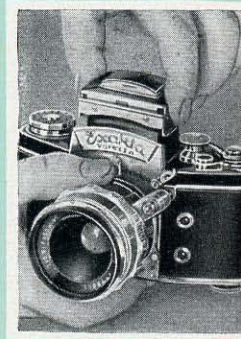
Regrettably we are unable to illustrate the true effect of magnification of various lenses. Please note, therefore, this particular advantage when viewing the EXAKTA Varex at your local Photographic Agent.



Normal holding position of the EXAKTA Varex with reflex finder at chest or eye level. Vertical or "unobserved" position at right angles to actual subject.



Reflex finder as direct vision frame finder.



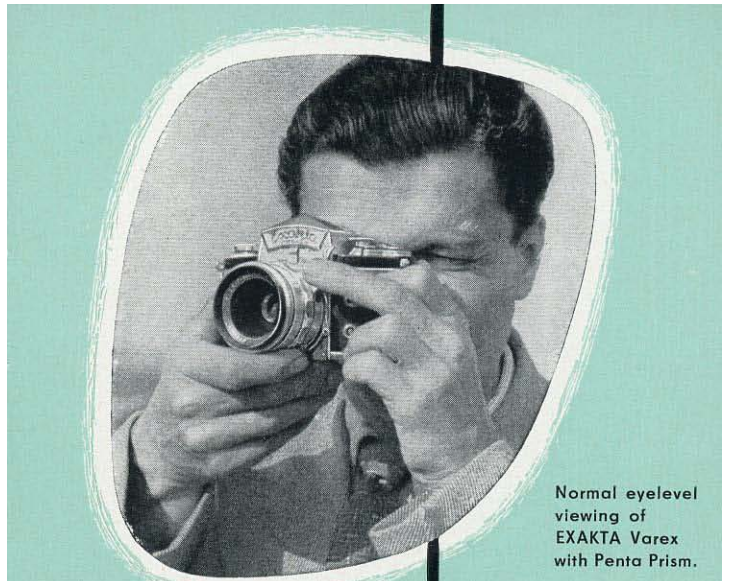
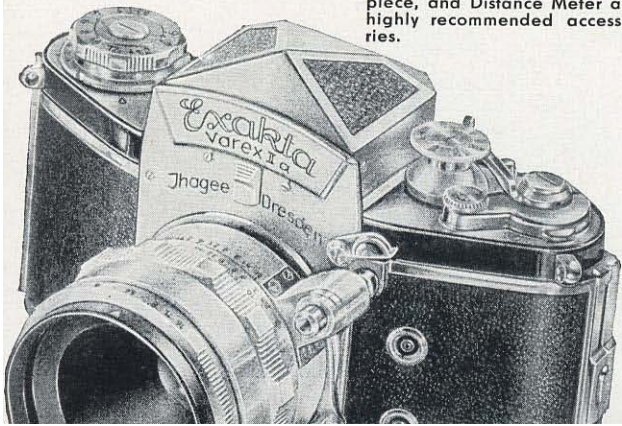
And now something most important. The reflex finder is interchangeable and can be replaced by a prismatic viewfinder or certain other focusing systems.

An ideal fast action camera

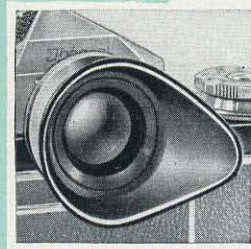
This is the EXAKTA Varex with the second chief focusing system "Penta Prism". It is true that in the reflex finder you see the reflex image upright, but laterally reversed. Generally, it is of little significance since it is only rapidly moving subjects which are more easily controlled with a laterally correct reflex screen image. For this purpose there is provided full interchangeability of the standard reflex finder with that of the prismatic view finder. Thus you will realise that the manner in which EXAKTA Varex can be adapted to suit your particular requirements is of primary importance.

- Horizontal and vertical photographs with the Penta Prism are shown upright and laterally correct on the ground glass screen, magnified more than four times, the direction of viewing being the same as the position occupied by the subject.
- As the reflex screen image moves in the same direction as the subject easy panning with the camera is possible when shooting fast moving subjects, i. e. motor cars, racing cyclists, speed boats, etc.
- Undoubtedly the Penta Prism is best suited for all speed photographs, whether snapshots, Press work, sports, theatre photography, technical motion studies, etc.
- A rubber rotating eye-piece for eliminating disturbing stray light with provision for inserting eyesight correcting lenses (important for persons with weak visual power).
- Distance Meter for Penta Prism focusing with pinpoint accuracy under poor lighting conditions, or as an aid for defective sight. Positioned in the centre of the focusing screen: incorrect focusing indicated with image out of alignment, images in exact co-incidence show correct focusing.
- And of course, at all times a complete freedom of parallax (screen image and final picture identical).

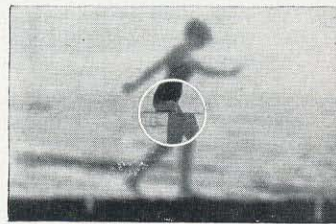
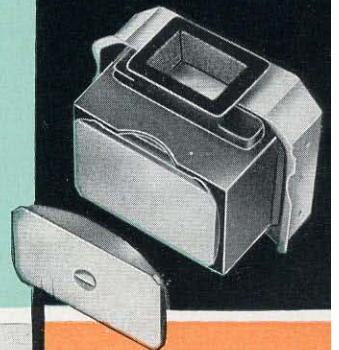
The EXAKTA Camera is delivered ex works with standard reflex finder. The Penta Prism, eye-piece, and Distance Meter are highly recommended accessories.



Normal eyelevel viewing of EXAKTA Varex with Penta Prism.



Eyepiece eliminating disturbing stray light.



Rangefinder in the reflex camera: Distance meter for the Penta Prism or Exposure Meter Insert (and Lens Magnifier, see page 23) operates on the split image range-finder principle.



The Exposure Meter Insert, too, possesses all the advantages of the Penta Prism. Moreover, it is provided with a photo-electric exposure-meter and an optical direct vision-finder.



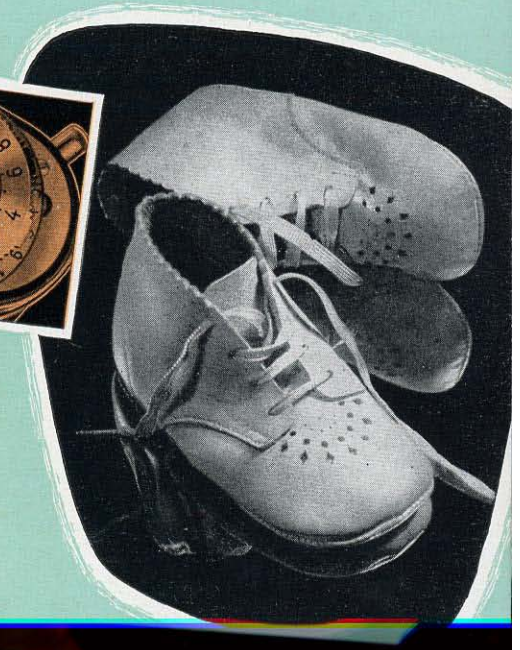
Focal plane shutter with extensive shutter speed range

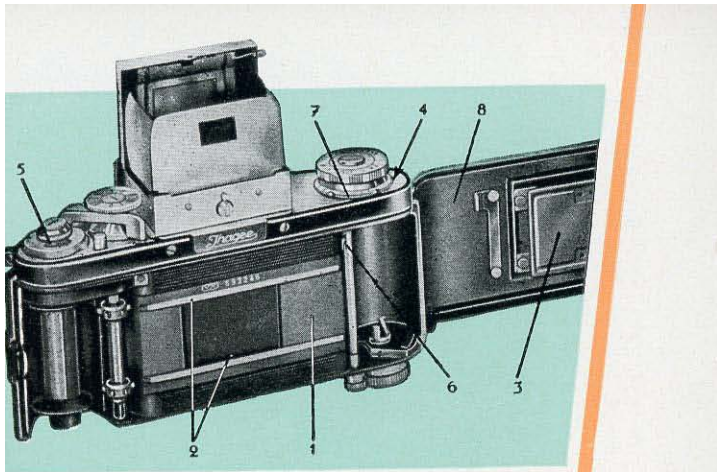
The success of a photograph depends to a large extent on the efficiency of the camera shutter. EXAKTA Varex, therefore, incorporates a focal plane shutter mechanism which is unequalled. The reliability and wide adjustable shutter speed range are the result of specialisation over decades.

- Two clearly marked speed control knobs adjustable to automatic exposures from $\frac{1}{1000}$ th sec. to 12 seconds. Provision for the briefest possible exposure or accurate timing running into many seconds.
- T. & B. settings for lang exposures.
- Silent running slow speed control mechanism with built-in self timer for exposures from $\frac{1}{1000}$ th sec. to 6 seconds.
- Shutter transport lever coupled with film transport eliminating accidental double exposures or non-exposed frames even when shooting in rapid succession.
- Ideally positioned shutter release button direct in camera body with provision for cable release and built-in safety catch.
- Shock resistant and proofed against normal temperature variations, so providing accurate exposure times.
- Threefold flash synchronisation (see also page 14).



The two speed setting knobs may be handled easily and quickly.





The film track is of great importance

It is absolutely essential that the film is correctly positioned, and lying perfectly flat along the film track, also that film transport is easily, but positively controlled. Please note below the features that EXAKTA Varex offers.

- Sensitive material perforated miniature cine film (black and white, or colour) negative size 24×36 mm.
- Aluminium camera body and film guides (1) die cast in one piece ensuring strength, with utmost accuracy.
- Highest possible finish to film track (2) and pressure plate (3) ensuring perfect positioning of film.
- Film loading from cassette to cassette or normal rewind after exposure by means of external control (4).
- Frame counter (5) up to 36 exposures.
- Film cutting device (6) operable with camera closed for removing any number of exposed frames when required.
- Film speed indicator (7) to assist your memory.
- Film transport coupled with shutter winding mechanism so eliminating unexposed or accidentally double exposed frames. Deliberate double exposure possible for trick effects if required.
- Hinged removable and interchangeable back (8) with securing pin.
- Extremely simple film loading without involved procedure.

General specification of the EXAKTA Varex in brief as follows: Convenient body shape. Leather covering. External metal parts enamelled or chrome plated. Sturdy tripod socket with broad base. Neck strap eyelets. Weight approximately 2 lbs. 1½ ozs., dimensions with finder hood closed approximately 6½ × 3¾ × 3 inches.

Constantly ready for action

The EXAKTA Varex progressing with time becomes ever faster in use, in keeping with modern photographic "taking" technique.

- Lens instantly ready for use.
- Clearly defined and critically sharp focusing image with the Penta Prism or Exposure Meter Insert even with really fast moving objects. Distance Meter may be employed under bad or adverse lighting conditions, or as a direct aid when eyesight is poor.
- Automatic film transport, coupled with shutter setting lever. One exposure possible every two seconds.
- Camera shutter release actuating in addition the Automatic preset diaphragm and frame counter device.
- There are also the following features all contributing to speed and accuracy of operation: Almost with all lenses of the EXAKTA Varex the actual taking aperture can be pre-set. However, for ease of viewing the subject and critical focusing, one employs the largest lens aperture so providing the brightest possible screen image. Only a moment prior to exposing is the diaphragm altered. When using the lenses incorporating the preset control mechanism, the control ring is turned to the pre-selected aperture in one operation. With the automatic lenses the control ring is actuated automatically on firing the shutter release. This accelerates the speed of working considerably and means that you never forget to stop down the lens.



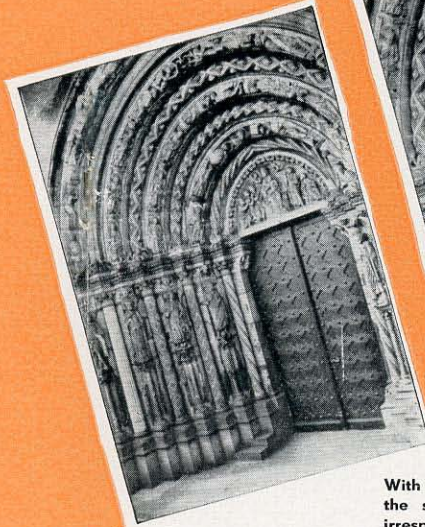
Short-coupled shutter of the EXAKTA Varex.

Lenses for the connoisseur

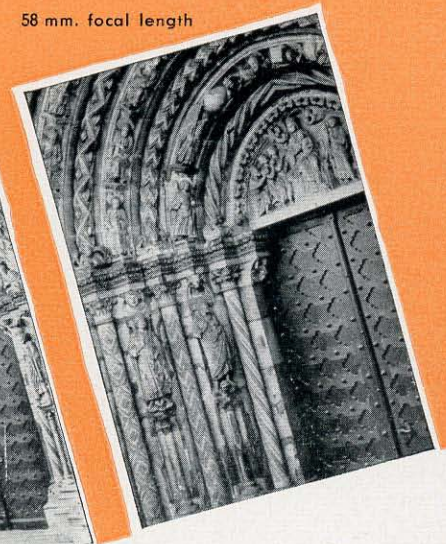
The EXAKTA Varex is fitted only with world renowned trade marked lenses. In response to modern demands they are not only optically perfect, but mechanically supreme, and will meet with the wishes of the most highly discerning photographer in definition, resolving power, colour correction, focal length, angle of field and working aperture.

- All lenses fully anastigmatic construction.
- Bayonet mounting: standard lens interchangeable by one simple operation, which may be replaced by special long or short focus lenses or of ultra high speed if required.
- Precision helical focusing mount, allowing near focusing (with standard lens down to well under two feet).
- Clearly engraved, easy to read depth of field scale.
- All lens surfaces hard coated.
- Many lenses with automatic diaphragm mechanism, see page 11.

35 mm. focal length



58 mm. focal length



With an EXAKTA Varex you can take pictures using the standard reflex screen image at all times, irrespective of the focal length of lens in use, or distance from camera to subject. At no time, it is necessary to resort to special finders, or supplementary focusing devices.

The EXAKTA Varex IIa is available with any of the following lenses

Lens	Diaphragm design*)	Focal length	Angle of field (Standard value)	Lens front mount \odot
Primotar f 3.5	AD	50 mm.	45°	42 mm.
Standard Lens Jena T f 2.8	AD	50 mm.	45°	51 mm.
Standard Lens Jena B f 2	AD	58 mm.	40°	51 mm.

Special lenses for the EXAKTA Varex

Lens	Diaphragm design*)	Focal length	Angle of field Standard value	Lens front mount \odot
Jena Flektogon f 2.8	AD	35 mm.	62°	51 mm.
Meyer Wide Angle f 4.5	PD	35 mm.	62°	51 mm.
Night-Lens Jena B f 1.5	PD	75 mm.	32°	60 mm.
Jena Bm f 2.8	PD	80 mm.	30°	51 mm.
Trioplan f 2.8	AD	100 mm.	24°	51 mm.
Primotar f 3.5	PD	135 mm.	18°	57 mm.
Jena S f 4	PD	135 mm.	18°	51 mm.
Jena S f 2.8	PD	180 mm.	14°	80 mm.
Tele-Megor f 5.5	PD	180 mm.	14°	51 mm.
Primotar f 3.5	PD	180 mm.	14°	70 mm.
Tele-Megor f 5.5	PD	250 mm.	10°	60 mm.
Jena S f 4	PD	300 mm.	8°	80 mm.
Tele-Megor f 4.5	PD	300 mm.	8°	85 mm.
Tele-Megor f 5.5	PD	400 mm.	6°	85 mm.
Tele-Lens f 8		500 mm.	5°	80 mm.

*) AD = Automatic Diaphragm
PD = Preset Diaphragm (see page 11)

Wide Angle Lenses: Short focal length, wide angle of field, large area covered with comparative small picture detail. Necessary for photographing architecture, interiors, etc.

Long Focus Lenses: Long focus, narrow angle of field, therefore smaller area covered, but larger picture detail. "Brings near distant objects in the same manner as does a telescope". Useful when photographing certain landscapes, architectural detail, animals, candid shots, sports, and on account of perspective particularly good for portraiture.

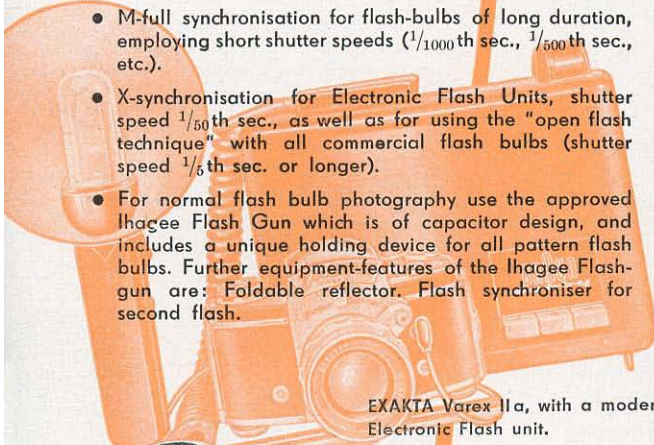
The Ultra High speed "Night lens" 75 mm. f 1.5: Extremely wide aperture makes it possible to take pictures with very brief exposures and the minimum amount of lighting, e. g. in the theatre, circus, cabaret, or general night scenes, and "available" light photography.



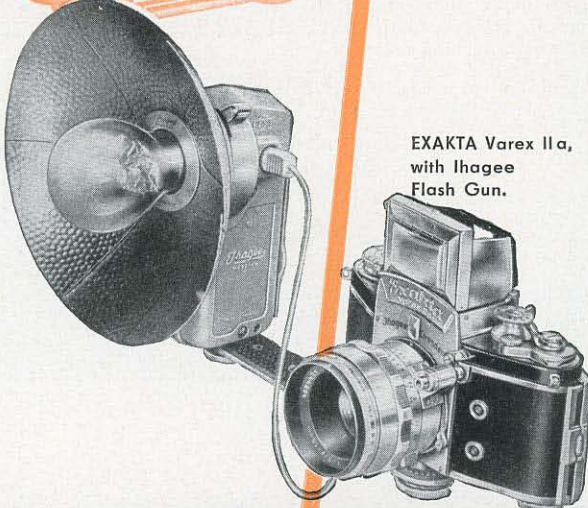
Some interesting details concerning flash and your EXAKTA

For a very long period EXAKTA Varex and earlier models have made possible the use of synchronised Flashlight as a most important additional or secondary source of illumination. Well balanced and correctly placed Flash bulbs can produce on monochrome or colour the same degree of quality as is associated with normal incandescent lighting. Moreover, the brief but intense light output is of great advantage for sports and action shots, snapshots of every description, and other work of more specialised nature. The EXAKTA Varex is fully synchronised for all forms of Flashlight.

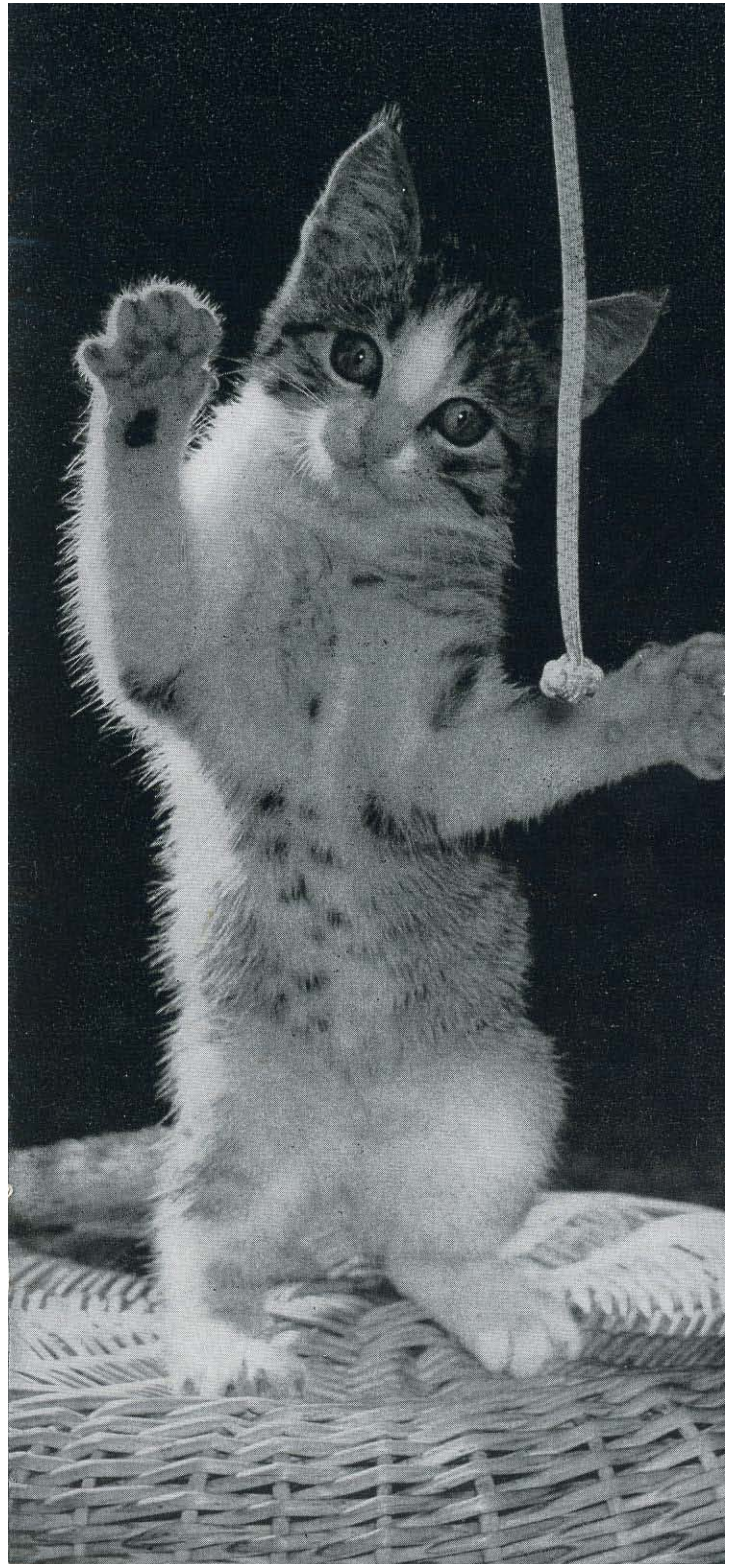
- Three synchronisations, F., M., & X. are coupled with the focal plane shutter.
- F-synchronisation for the small and inexpensive short duration Flash bulbs (e. g. RFT F 19, Osram XM 1, XM 5, Philips PF 1, PF 5). Shutter speed $\frac{1}{25}$ th second.
- M-full synchronisation for flash-bulbs of long duration, employing short shutter speeds ($\frac{1}{1000}$ th sec., $\frac{1}{500}$ th sec., etc.).
- X-synchronisation for Electronic Flash Units, shutter speed $\frac{1}{50}$ th sec., as well as for using the "open flash technique" with all commercial flash bulbs (shutter speed $\frac{1}{6}$ th sec. or longer).
- For normal flash bulb photography use the approved Ihagee Flash Gun which is of capacitor design, and includes a unique holding device for all pattern flash bulbs. Further equipment-features of the Ihagee Flash-gun are: Foldable reflector. Flash synchroniser for second flash.



EXAKTA Varex IIa, with a modern Electronic Flash unit.



EXAKTA Varex IIa, with Ihagee Flash Gun.



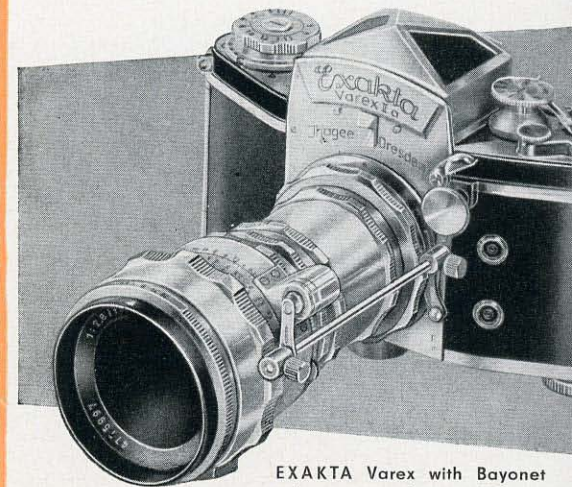
Focusing screen control for close-up work

With the EXAKTA Varex it is possible to photograph the exciting "field" of minute objects. The interchangeability of lenses allows the use of additional mechanical extensions and fortunately our camera, we know, does not have the complex problem of parallax. Just as with all other photographs the ground glass screen image is decisive, showing clearly the exact marginal area as well as sharpness and depth of field. Expensive optical close-up devices are, therefore, completely unnecessary. You will be surprised at the simplicity and yet thorough reliability in taking close-up photographs of very small detail using only the EXAKTA Varex in conjunction with.

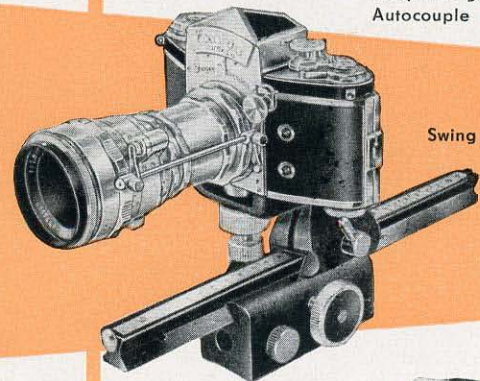
- Mechanical extension increase between lens and camera to extend the overall focusing distance.
- Simplest method: Bayonet adapter rings and tubes (see Illustration).
- By varying combinations all desired working distances may be covered to a point where actual magnification of the subject commences.
- Extension increases as follows: Two-in-one Ring 5 mm., Pair of adapter rings (screwed together) 10 mm., and to be employed between the two bayonet rings three tubes of 5, 15 and 30 mm. respectively.
- Ihagee Auto-couple extension release for utilising the Automatic Pre-set Iris Diaphragm control mechanism (see Illustration), especially important when taking close-ups.
- Reflex finder hood for small, low positioned objects, animals, "growing" plants and flowers, etc. Pentaprism or Exposure meter Insert for elevated subject matter, blossom on branches, etc.
- When employing a tripod, focusing is facilitated by use of the Swing angle attachment with its Focusing slide Camera may be instantly turned from horizontal to vertical position without removal from bracket.
- Used in conjunction with Bellows attachment the equipment is particularly suitable for close-ups. The bellows extension is constantly variable from 3,5 to 22 cm, allowing a fast and uninterrupted scale of reproduction. For focusing at infinity we recommend the special lens with sunk mount.

Bayonet adapter rings and tubes. One set comprises pair of adapter rings and tubes 5, 15, and 30 mm.

Two-in-one ring.



EXAKTA Varex with Bayonet adapter rings, tubes, and Ihagee Autocouple extension release.



Swing angle attachment.



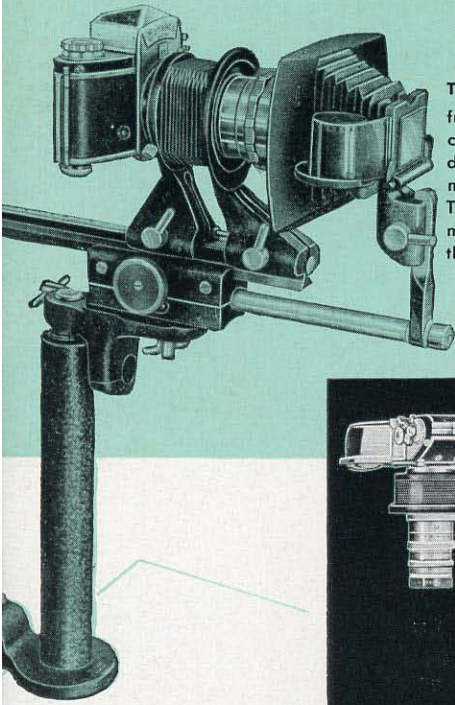
Bellows attachment.

Extended working range with specialised accessories

The demands of the photographer are ever increasing and the execution of his tasks is made ever simpler by the judicious use of approved Ihagee EXAKTA accessories. The Ihagee "Vielzweck" was constructed on the unit principle and you may complete this equipment section by section. Designed for use individually or combined. We have already shown you the Swing angle attachment and the Bellows attachment on preceding pages. Here you become acquainted with the Repro Attachments and the Transparency copy equipment, and on page 20 with the use of the Ihagee "VIELZWECK" for Photomicrography.

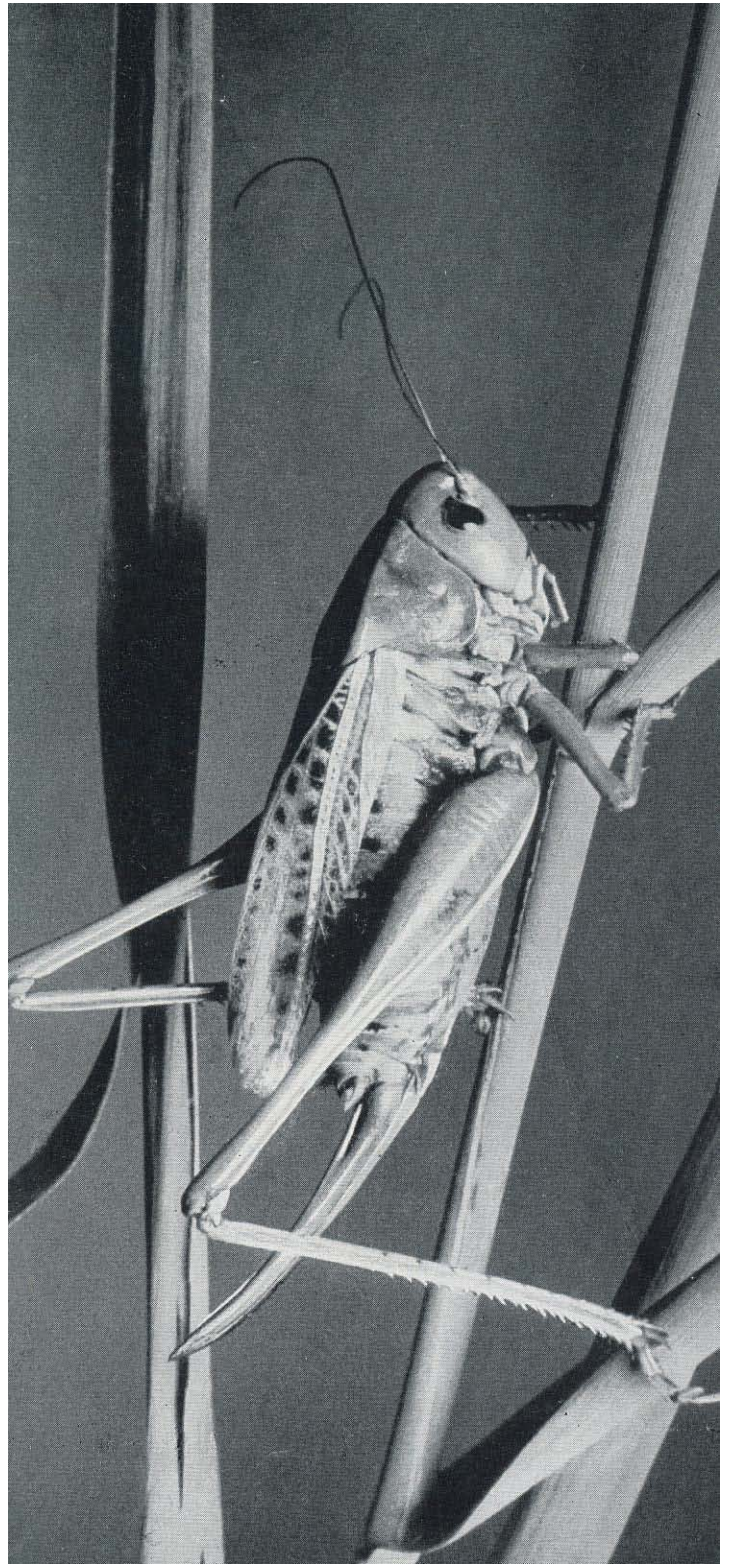
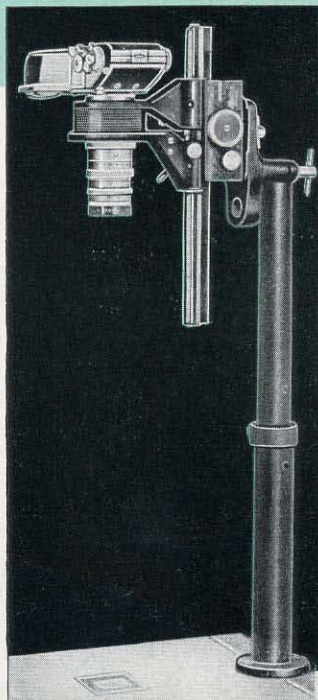
Transparencies

from monochrome and colour transparencies or duplicate negatives are made optically with the Transparency copy equipment in conjunction with the Bellows attachment.



Reproductions

are easily obtained with one of the two Repro attachments: Repro attachment 1 with Bellows attachment, Repro attachment 2 with Swing angle attachments, both of them complete with two section metal column and wooden baseboard, 30 x 30 cm. for objects up to DIN A 4.



Scientific photography

EXAKTA Varex is the complete answer in all fields of photography ranging from Photo-micrography to Astro work in the Observatory. This versatile camera remains always true to its principles – at all times focusing and observation of the screen image guarantee perfect results, completely free from parallax error.

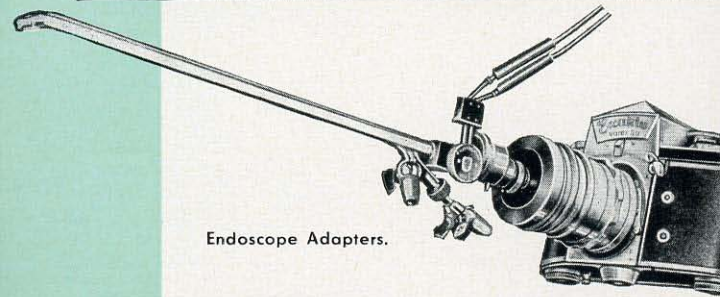
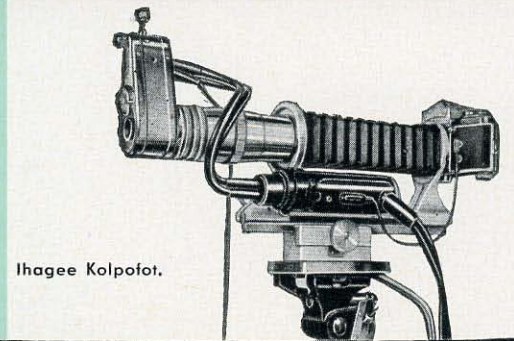
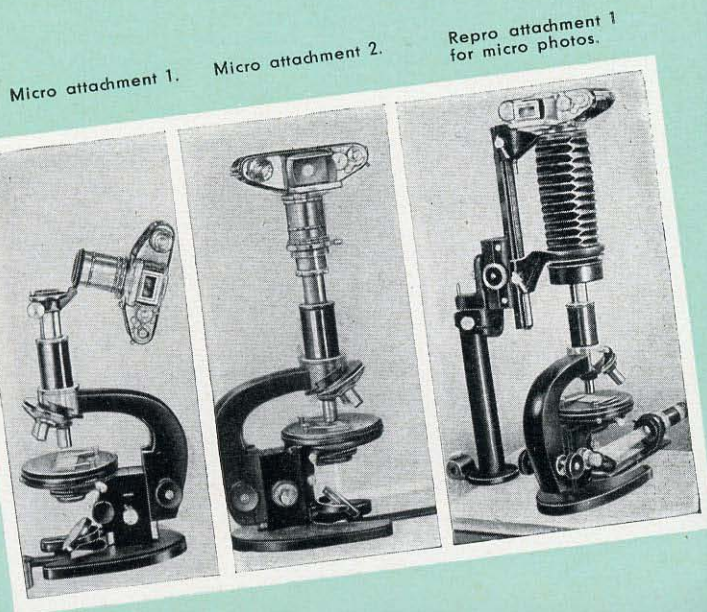
Micro Photographs

Three possibilities for connecting microscope to camera exist, all allow immediate suspension of photographic work for direct micro observations.

- Micro attachment type 1 (fitted with hinged clamp allowing lateral tilting of the camera).
- Micro attachment type 2 (with bayonet fitting, camera may be removed in one simple operation).
- Repro attachment 1: No mechanical connection between microscope and camera equipment. Scale of reproduction is adjusted by means of the bellows.

Medical photography

- For close-ups covering small areas of a patient's body, there is the Kolpofot. With the aid of Electronic flash needle sharp pictures of cavity areas (vagina, mouth, and pharyngeal gland) as well as eyes, ears, etc. Equipment: Bellows attachment and special lens, 135 mm. f 4 with diaphragm scaled to f 45. Central Flash Unit ZB 3.
- For interior Photos of human organs (e. g. bladder, etc.) Endoscope adapters for use in conjunction with camera and controlling instrument, the Endoscope.



Stereo photographs

With the EXAKTA Varex you can also take three dimensional pictures. For this purpose there are two stereo attachments, and the third focusing system, the Stereo Viewfinder, the "Stereoflex".

- The 65 mm. base stereo attachment for pictures at a distance from 2 m. to inf., the smaller for pictures at a distance from 2 to 0,15 m.
- Stereo Viewfinder "Stereoflex" shows the screen image in full three dimensions and can be employed separately for use as a simple Stereoscope viewing device for examining your EXAKTA stereo photos.

EXAKTA Varex with Stereo Attachments and Stereo Viewfinder "Stereoflex".



Important focusing aids

- For micro photos and close-ups, the fourth focusing system, the Lens Magnifier. One of the highly corrected EXAKTA Varex standard lenses or a special objective is used simply as a magnifying lens. This ensures a magnified reflex screen image, uniformly sharp and completely free from distortion.
- When shooting close-ups a well corrected supplementary top lens is available for the Lens Magnifier.
- Focusing on fine detail in photomicrography or macrophotography is sometimes difficult, due to grain of the reflex screen: therefore there are available ground glass screens with clear centre spot (3 or 10 mm.) or entirely clear overall. Focusing with hair-line cross is achieved in accordance with the clear aerial image. Special focusing screens can be interchanged in the Penta Prism, Exposure meter insert or Lens magnifier. When using the standard reflex finder we recommend the focusing unit to be ordered complete with the particular screen required. (Screens are also available with centimeter or millimeter divisions, and other engraved line systems).
- A reversal ring is recommended for macro photographs when the magnification is 1.5 times or greater, so allowing the ultimate in definition which for optical reasons can be achieved only by reversing the lens.

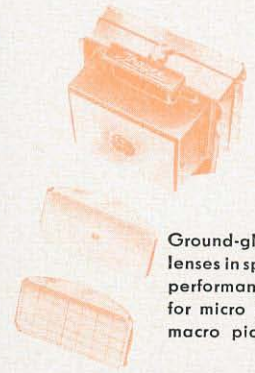
Essential Requirements are:

- Leather Ever Ready Case for protecting and holding the camera.
- Colour filters in order to improve tonal rendition and effects in Black and White photography. Available in the following colours: Light, Medium and Dark Yellow, light Yellow Green, Green, Orange, Red, and Blue. Additionally there is an Ultra Violet Filter primarily intended for excess U. V. absorption at high altitudes.
- Polarising filter for elimination of annoying or unwanted reflections from highly glazed non-metallic surface (water, glass, etc.).
- Soft focus attachments when diffusion of image is desired often effective for portraits and pictorial subjects.
- Lens Hood for protection against stray light as well as rain or snow.
- Giant Shutter Release Button enlarging the front area of the release knob as an aid when wearing gloves, or fingers numb with cold.
- Tripod plate for equalising weight distribution when using Extensions or long focus lenses on the tripod.

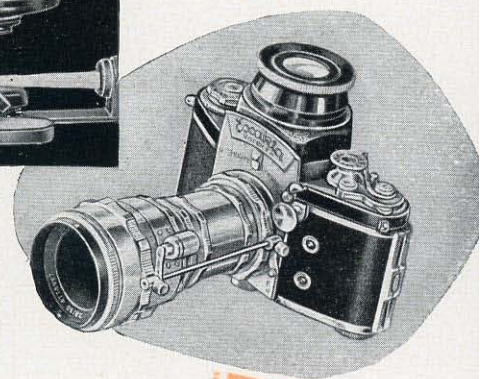


Lens Magnifier in the microphotography.

Close-ups with Lens Magnifier (with top lens).



Ground-glass lenses in special performance for micro and macro pictures.



Exact determination of exposure time

is an essential basis for good photos. The Exposure Meter Insert, therefore, mentioned on page 7. was provided with a photo-electric exposure-meter.

For micro and stationary macro photos as well as for optical copying, a measuring equipment can be used, in order to measure the light effective in the camera.

Special prospectuses as to these two supplements are with pleasure at your disposal without charges.

Special Literature

available in German only:

"EXAKTA Kleinbild-Fotografie" by Werner Wurst

"EXAKTA Makro- u. Mikro-Fotografie" by Georg Fiedler

available in English:

"Modern EXAKTA guide and reference book" by Charles Abel, A. R. P. S. and Dr. Kenneth S. Tydings, S-P. E.

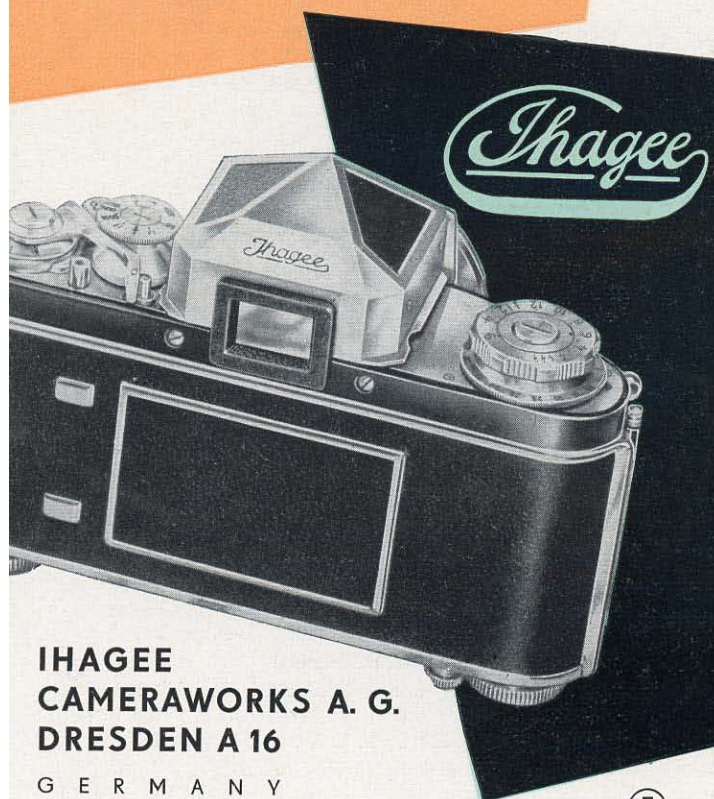
"EXAKTA Guide" by W. D. Emanuel

"35 mm Photography with an EXAKTA" by K. L. Allinson, A. R. P. S.

"EXAKTA Handbook" by K. L. Allinson, A. R. P. S.

"EXAKTA Equipment" by Jacob Deschin

We thank you for your kind interest in our EXAKTA Varex and beg you to let us have details, should you want any further particulars or special literature. Your local photographic Dealer will gladly demonstrate this versatile camera without obligation.



Ihagee

**IHAGEE
CAMERAWORKS A. G.
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G E R M A N Y



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