

# EXAKTA

Original  
**EXAKTA**  
Dresden

# RTL 1000

## with Internal Metering



# EXAKTA

24 mm x 36 mm

makes  
versatile photography  
simple

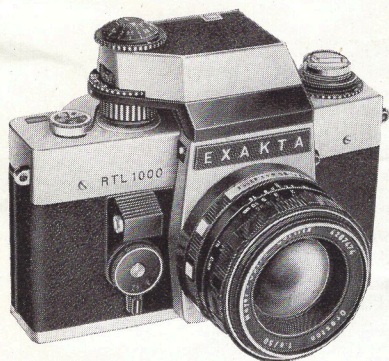
For more than three decades, the EXAKTA has been characterized as the prototype of the versatile 35 mm reflex camera, as the camera of the serious amateur, of the professional, of the scientist. The EXAKTA RTL 1000, too, is marked by these qualities. Its range of applicability is even wider still, owing to notable innovations in design and a greater variety of accessories offered for selection. However – and now comes the decisive factor in this altogether newly developed reflex camera – considering all its versatility it is, far more than its predecessors, the camera for everyone, extremely reliable, and simple to operate. With automatic exposure control, automatic film loading, the newly designed automatic diaphragm, and other refinements for action shooting, it is fashioned for the photographer of our time. The EXAKTA RTL 1000 meets his exacting demands, it helps him to avoid making mistakes in operation, yet it requires but a minimum of attention. As a genuine EXAKTA it has, of course, remained true to its system: The unchanged, original quick-change bayonet fitting permits using the well-known accessories and all the previous lens models, and single-lens reflex focusing ensures at all times parallax-free conformity of finder image and final picture.

The most significant features of the EXAKTA RTL 1000 are:

- Genuine single-lens reflex camera  
24 x 36 mm
- Three interchangeable viewfinders:  
Finder hood, prism viewfinder, and  
TTL prism attachment coupled to  
speed-setting knob for automatic  
exposure control, permitting internal  
metering with the lens stopped down  
or at full aperture.
- Metal-bladed focal-plane shutter for  
a continuous range of speeds from  
8 secs. to  $\frac{1}{1000}$  sec. and B. Self-timer  
from 1 sec. to  $\frac{1}{1000}$  sec.
- Rapid wind lever with 15 degree  
advance stroke for serial shots. Right-  
hand release. Connecting point on  
left side of camera for lenses with  
automatic diaphragm and external  
release, connection for cable release.  
Instant return mirror.
- Synchronization for flash exposures:  
electronic flash at approximately  
 $\frac{1}{125}$  sec., bulbs for short flash  
duration at  $\frac{1}{30}$  sec.
- Accessory shoe for flash units with  
direct contact.
- Automatic film loading system with  
free selection of film. Self-zeroing  
frame counter. Click-in rewind release  
knob. Rewind crank.
- Interchangeable lenses with original  
EXAKTA quick-change bayonet  
mount and internally operating  
automatic, also disconnectable,  
pressure diaphragm which, by means  
of a control mechanism in the  
EXAKTA RTL 1000, is converted into  
the higher grade automatic spring  
diaphragm.
- Automatic diaphragm of previous  
EXAKTA lenses may be used.
- Special-purpose lenses with focal  
lengths from 20 mm to 1000 mm.

# RTL 1000

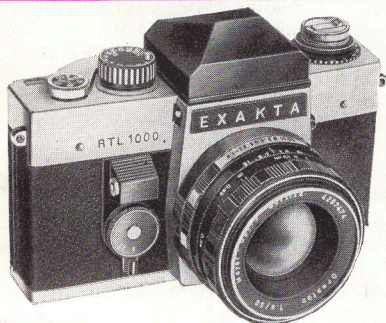
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in 3 different grades  
of performance and price

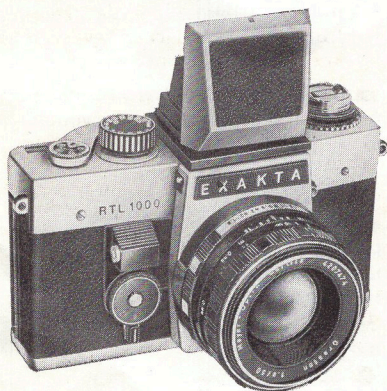
The camera for extreme demands  
with internal metering and  
TTL prism attachment

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The dynamic reflex camera  
with prism viewfinder

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The more simple equipment  
with finder hood

You may wish to start with one  
of the lower grades: The inter-  
changeability of the viewfinder  
systems makes it possible at any  
time to convert your EXAKTA  
RTL 1000 into a peak model!

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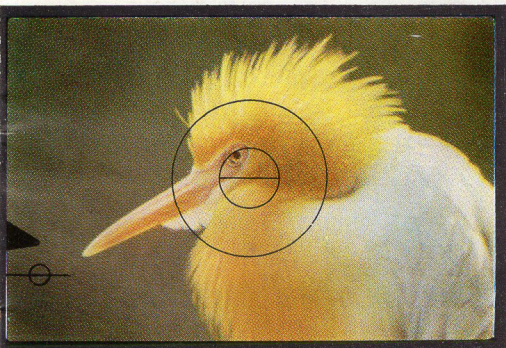
## TTL metering always gives correct exposure results

The highly developed EXAKTA RTL 1000 guides you into photographic territories that you have perhaps never entered before. But how reassuring it is to know that you will always get correctly exposed pictures if you take advantage of the automatic exposure control system in this way: Direct the EXAKTA RTL 1000, equipped with the coupled TTL prism attachment, towards your subject, rotate either the diaphragm setting ring of the camera or the speed setting dial of the TTL prism attachment until the meter needle visible in the viewfinder image centres on the index circle, then actuate the shutter release. Extremely simple, and yet absolutely reliable, since the TTL prism attachment works in accordance with the principle of internal metering through the lens. Only the light used in composing the picture is measured. The resulting values are accurate, even in connection with special-purpose lenses

(image angle = metering angle), and with extension equipment and filters (automatic compensation for exposure factors). Beside the luminous density of the subject, film speed and pre-set diaphragm, or shutter speed, are, of course, taken into account. You may take the reading with the lens closed down or at full aperture.

Technical features of the TTL Prism Attachment: Integrating system of light metering. Thus ensuring correct valuation of subject brightness. No decrease in brightness of finder image. Sensitivity range comprises 13 exposure values. Luminous density measurable from 4 apostilbs at  $f/2$  up to the highest values. Bridge circuit guards against effects caused by voltage fluctuation. Mercury oxide battery (Mallory PX 13 or similar type with 1.35 V nominal voltage).

Finder image in the TTL Prism Attachment, with meter needle and circular marking point



Exchangeable units:

TTL prism attachment

Focusing screen

Prism viewfinder

Finder hood



## Three viewfinder systems ensure maximum image sharpness

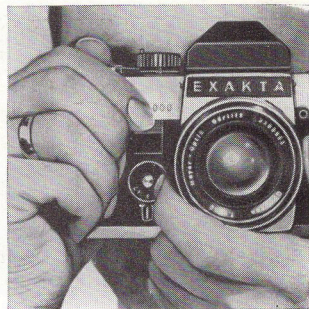
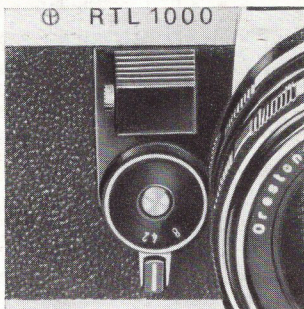
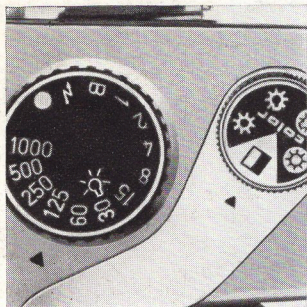
The extreme adaptability of the EXAKTA RTL 1000 results from the possibility of exchanging the finder systems. For modern, expressive photography, you will certainly prefer using the prism viewfinder or, better still, the TTL prism attachment, both revealing an upright, laterally correct finder image. However, when working with tripod, copying stand, microscope, or similar means of fixing the camera, in exposing below or above eye level, also in candid photography, you will appreciate the remarkable qualities of the finder hood.

The viewfinders can be exchanged in an instant. Normally, you will use each one of the viewfinders with the approved focusing system — a brilliant Fresnel lens with microprism screen and groundglass circle —. You will be delighted, when viewing and selecting your picture area, to observe the bright, powerfully magnified finder image. But to achieve utmost definition, you have, above all, the groundglass field, and the microprism screen with its striking effects of unsharpness and fuzziness. The focusing system itself is interchangeable, too, so that, for instance in extreme close-up work or in photomicrography, special focusing screens may be inserted. These are available in clear glass with hairline cross, with clear centre spot and hairline cross, or with auxiliary lines, thus greatly facilitating accurate composition in specialized fields of photography.

Exposure speeds from 1 sec. to 1/1000 sec. on one setting dial

Self-timer (with special release knob) and slow-speed mechanism

Shutter release in convenient finger-tip position



## Shutter speed settings from 1/1000 sec. to 8 sec.

At either one of these speeds, even allowing for extreme demands, approximately 98 % of your pictures will be correctly exposed. This figure includes every subject from the exciting sports shot up to night and indoor exposures. And for the last 2 %, the longer time exposures, you employ the B setting of your EXAKTA RTL 1000. You have at your disposal the newly developed, vertically running metal-bladed focal-plane shutter. Its outstanding feature is extreme dependability, while it is perfectly easy and ready to operate. The most frequently used shutter speeds, from 1/1000 sec. to 1 sec. are continuously arranged around a setting dial with click stops. An extra slow-speed mechanism makes it possible, in unfavourable lighting conditions, to work at settings of 2 sec., 4 sec., or 8 sec.

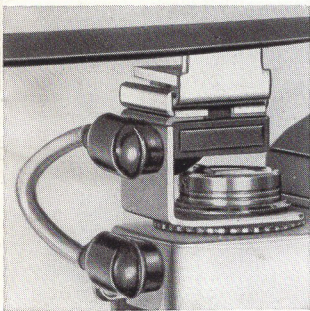
The shutter release is on the right-hand side of the camera in convenient finger-tip position and can be locked against inadvertent tripping. A cable-release connection is on the left-hand side of the camera. Also, the EXAKTA RTL 1000 has a built-in self-timer with a release knob of its own: Every one of the shutter speeds from 1/1000 sec. to 1 sec. may be used with the delayed-action device running for about 10 secs.

The shutter is immediately recoiled by means of the rapid wind lever. For ultra rapid sequence in serial shots, you will save time by setting the cocking lever to a 15° advance stroke. Owing to the instant return mirror in the EXAKTA RTL 1000, the viewfinder image is continuously visible except for the moment of the exposure. Having released your shutter, you can immediately check the effect of your exposure and decide if it seems advisable to take a second shot. A signal in the viewfinder image reminds you if the shutter has to be cocked.

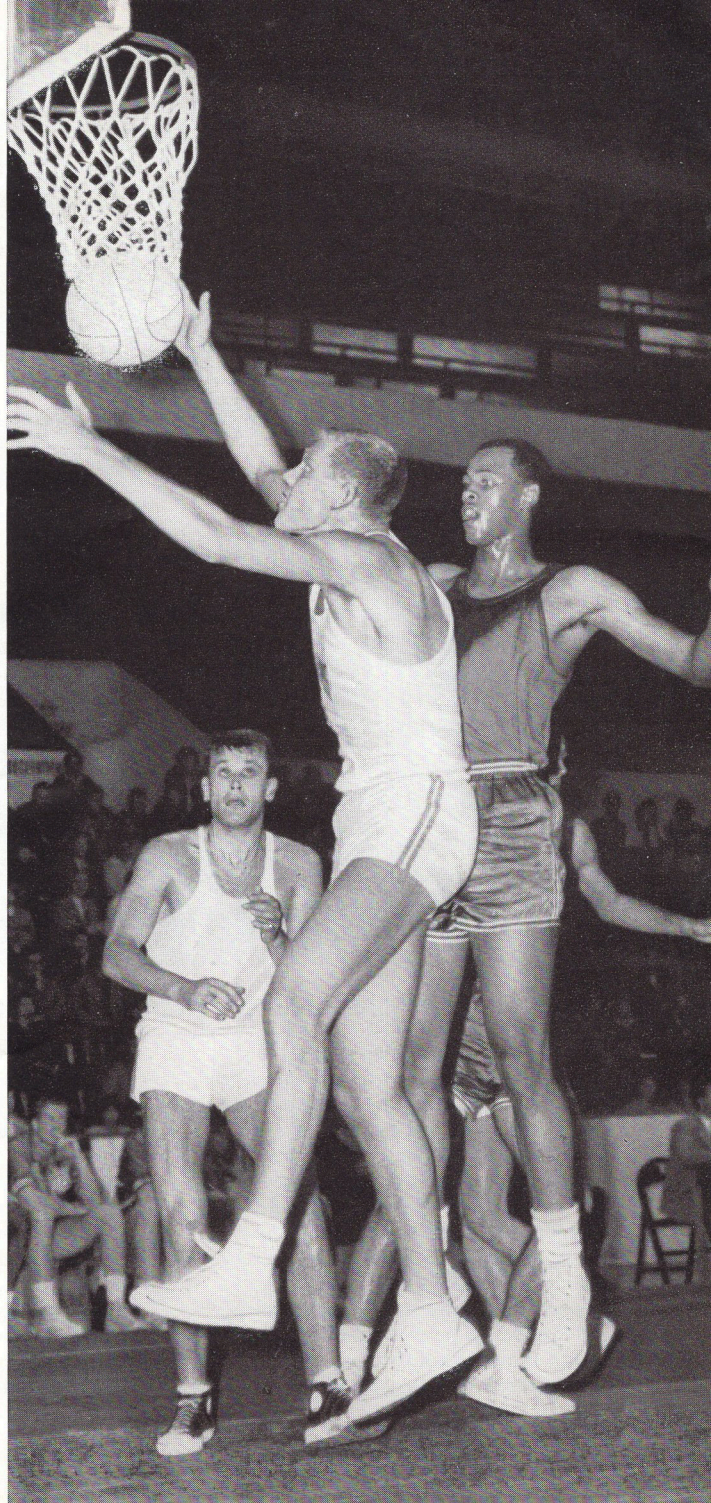
## Synchronization of electronic flash at 1/125 sec.

In the EXAKTA RTL 1000, the shutter speed to be set for the use of electronic flash units is 1/125 sec. The applicability of this most important light source has thus been increased to a very great extent. Blurred double images, due to motion, will no longer appear, even under relatively bright general lighting conditions, and flash can be used in addition to daylight more frequently. — Owing to the high speed of the shutter blades the EXAKTA RTL 1000 has been equipped with only one synchro switch.

Additional accessory shoe  
(also for flash units with  
centre contact)



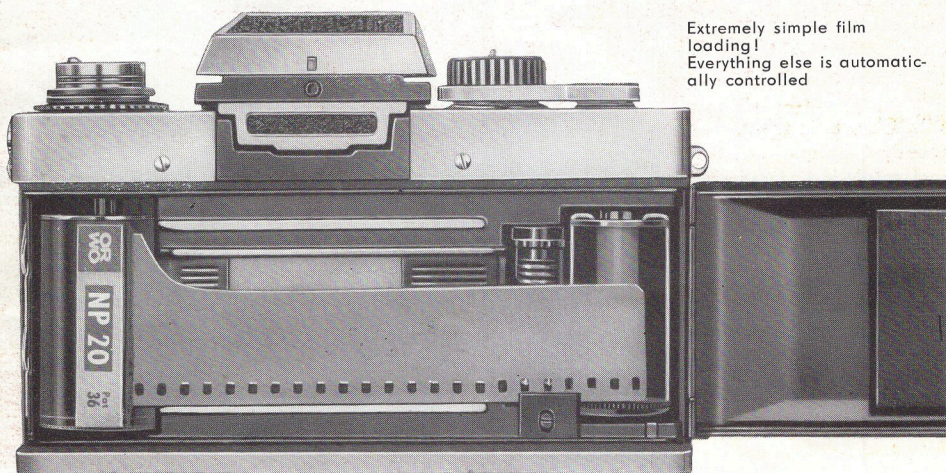
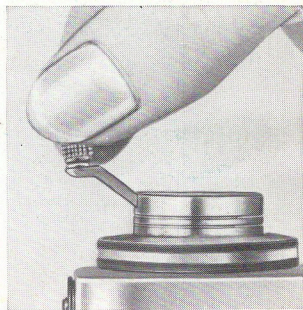
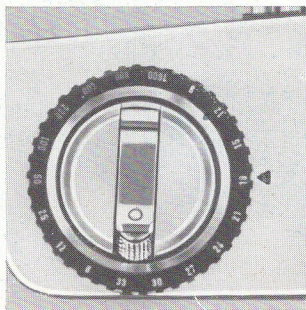
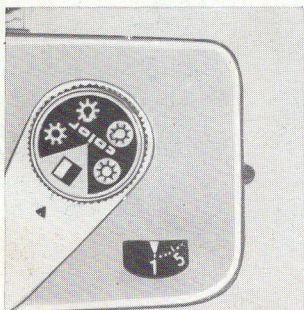
Thus, there is only one flash socket, and the necessary adjustment of the shutter speed setting knob is made according to two symbols. Electronic flash, as already mentioned, at approximately  $\frac{1}{125}$  sec. (symbol  $\lesssim$ ), bulbs for short flash duration  $\frac{1}{30}$  sec. (symbol  $\text{Q}$ ). The flash units can be attached directly to the camera by means of an accessory shoe also equipped to accept the centre contact.



Film type reminder dial and exposure counter

Film speed indicator, and rewind crank folded down

Easy rewinding



Extremely simple film loading!  
Everything else is automatically controlled

## Film loading presents no problem whatever

The comprehensive assortment of 35 mm film in standard commercial cartridges may be used unrestrictedly in the EXAKTA RTL 1000. The decisive factor, however, is that all these films provide the conveniences of automatic film loading. All that is left for the camera user to do, is quick and easy work: Opening the camera back (simple unlocking device), inserting the cartridge, moving the film across to the marking point and under the supporting plate, closing the camera back, cocking the shutter and

releasing it until the exposure counter, which jumps to zero when the camera back is opened, stands on "1". Thus, the EXAKTA RTL 1000 is ready for action. When the whole of your film is exposed, you just depress the rewind release, which clicks in, and wind the film back into the cartridge by means of the sturdy rewind crank. That is really all that camera and film require of you. Film type indicator and film speed indicator may be set to remind you which negative material you have loaded.





When regarding the illustrations of the EXAKTA RTL 1000, please note the handsome, convenient styling of the small light-metal body, also the neatly designed, simple arrangement of all control parts. This is a camera that you can be proud of!

The EXAKTA RTL 1000 without lens, with finder hood, weighs 645 grams (23 oz.), dimensions without lens, with finder hood:

142 mm x 96 mm x 49 mm  
(5<sup>3</sup>/<sub>4</sub> x 3<sup>7</sup>/<sub>8</sub> x 2 in.)

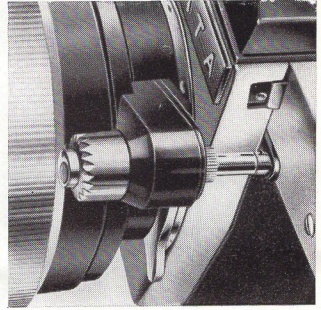
The EXAKTA RTL 1000 with the popular long-focus lens Orestegor 200 mm f/4



## Every refinement in optical equipment



Original EXAKTA quick-change bayonet mount



Automatic diaphragm in previous lens models to be operated from the coupling point

A high-class camera, high-class lenses — how could it be otherwise? That is why none but carefully selected, branded lenses are offered to go with the EXAKTA RTL 1000. They are exchangeable in an instant, and meet every requirement, optically and mechanically. Their highly valued qualities will mean much to you in practical work, so, for instance, utmost definition and good contrast effect, colour fidelity, helical focusing, depth-of-field scale, the original EXAKTA quick-change bayonet mount, and automatic diaphragm control. Especially worth mentioning is the fact that the EXAKTA RTL 1000 utilizes newly developed lens models with internally operating automatic, but also disconnectable, pressure diaphragm which, by

means of a control mechanism in the camera, is converted into the higher grade spring diaphragm. This makes picture taking far simpler and more accurate. The range of hitherto familiar EXAKTA lens is, of course, still applicable. With the aid of an extension piece, the automatic diaphragm with external release mechanism can be actuated without limitation from the coupling point on the left-hand side of the camera. Special-purpose lenses with focal lengths from 20 mm to 1000 mm are available, up to 300 mm with automatic diaphragm. Extreme telephoto objectives may be fitted to the outer bayonet rim of the EXAKTA RTL 1000 and they give full coverage of the image field without any vignetting effect.

## Accessories for the EXAKTA RTL 1000

### Lenses for the EXAKTA RTL 1000

Name of lens, aperture and focal length (mm)	Type of diaphragm <sup>1</sup>	Image angle (horiz.)	Screw-in thread and push-on mount	
PENTACON auto 2.8/29 with internal release	APD	73°	M 55x0.75	57 mm ∅
Standard lens PENTACON auto 1.8/50 with internal release	APD	47°	M 49x0.75	51 mm ∅
PENTACON auto 2.8/100 with internal release	APD	24°	M 49x0.75	51 mm ∅
Flektogon 4/20	ASD	93°	M 77x0.75	80 mm ∅
PENTACON 2.8/135	PD	18°	M 55x0.75	57 mm ∅
S 2.8/180 from Jena	ASD	14°	M 86x1	90 mm ∅
PENTACON 4/200	PD	12°	M 58x0.75	60 mm ∅
PENTACON 4/300	PD	8°	M 95x1	100 mm ∅
PENTACON 5.6/500	PD	5°	M 118x1	125 mm ∅
Catoptric lens 5.6/1000 from Jena	no diaphragm	2.5°	built-in filter turret	

<sup>1</sup>APD = automatic pressure diaphragm with internal release (in conjunction with the EXAKTA RTL 1000 the automatic pressure diaphragm is converted into the higher grade automatic spring diaphragm) – ASD = automatic spring diaphragm with external release – PD = pre-set diaphragm –

Finder Hood  
 Prism Viewfinder  
 TTL Prism Attachment for the automatic exposure control with internal metering  
 Focusing system  
 (Fresnel screen with circular ground-glass field, microprism screen and split image rangefinder)  
 Plain Ground-glass screen  
 Eye Cup for the prism viewfinders  
 Everready Case  
 Lens Hood with screw-in thread  
 M 49 x 0.75  
 Accessory Shoe (accepts also flash units with direct contact)  
 Angle Finder for prism viewfinders  
 Focusing Telescope for prism viewfinders  
 Bayonet Rings and Extension Tubes, also Two-in-One Ring for close-up work  
 Intermediate Rings with Plunger, 12.5 mm and 25 mm, for lenses with internal release (for close-up work)  
 Miniature Bellows Attachment  
 Focusing Slide  
 Close-up Bellows Attachment  
 Transparency Copying Device for Bellows Attachment  
 Copying Stand  
 Repro Arm for attaching the EXAKTA RTL 1000 to the Copying Stand  
 Lighting Equipment for Copying Stand  
 Special Lens 2.8/50 from Jena with sunk mount for close-up bellows attachments  
 Special Intermediate Ring with cable release connection  
 Double Cable Release  
 Universal Tripod  
 Lens Reversal Rings  
 Adapter Rings for photomicrographic lenses  
 Front bayonet ring with outer bayonet  
 Special Focusing Screens  
 EXAKTA Macro-Micro Photometer  
 EXAKTA Ring-Flash Unit RB 1  
 EXAKTA Kolpofot  
 EXAKTA Microscope Attachment  
 EXAKTA Endoscope Adapter  
 EXAKTA Spectroscope Connecting Ring and Connecting Shell  
 EXAKTA Telescope Adapter for astro-photography

## Accessories for every purpose

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The quick-change bayonet mount of the EXAKTA RTL 1000 is also the connecting point for the long approved supplementary attachments of the EXAKTA system. These attachments help immensely to enhance the versatility inherent in the camera itself. We therefore ask you to consider our large-scale offer in accessory equipment and to appreciate this factor accordingly when forming your opinion of the EXAKTA RTL 1000. You, too, are sure to become more fastidious in photographic matters as time goes on, and how fortunate it will be for you if your camera can always keep pace.

Beside the Everready Case, two of the indispensable extras are: the Lens Hood (available with screw-in thread M 49 x 0.75) and the flexible Eye Cup for the prism viewfinders. Both accessories serve as a protection against extraneous light. If necessary, your optician may insert a suitable eyesight correction lens into the mount of the eye cup, thus enabling you to focus without your spectacles on. We also recommend two further focusing aids to fit the prism viewfinders: For exposures near ground level, for copying, in photomicrography, and similar tasks, the Angle Finder (with variable dioptré range for adjustment to faulty eyesight) permits viewing the finder image at right angles to the taking direction. The Focusing Telescope (also adaptable to faulty eyesight) gives an extra 2.7-fold magnification of a section of the finder image, thus increasing accuracy in focusing — most important in subjects with very fine detail, particularly for close-ups, photomicrography, copying work, etc. And should you be looking for a tripod to match all the varied possibilities of employing the EXAKTA RTL 1000, there is only one, and that is the Universal Tripod. It keeps the camera absolutely

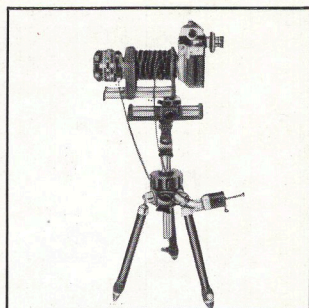
steady and permits all-direction adjustment from near ground level up to a height of 75 cm (2 ft. 6 in.), with the tripod extension piece attached, even up to 135 cm (4 ft. 6 in.). The extreme rigidity of the tripod guarantees exposures of maximum sharpness.

### Shooting small objects offers great chances

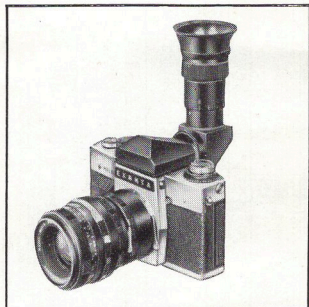
Chances of achieving extraordinary success, for you have all the accessories required in this instructive and interesting activity at your disposal. For focusing, to begin with, you need extension equipment which is inserted between camera and lens: The Intermediate Rings with Plunger (12.5 mm and 25 mm extension increase) enable you to stop down automatically in lenses with internal diaphragm release, the simple Bayonet Rings and Extension Tubes, and the Two-in-One Ring (extension increase from 5 mm to 65 mm in 5 mm stages) have no transmitting mechanism of this kind, but the external diaphragm release can be actuated by means of the Double Cable Release. Should you, in your close-up work, require continuous adjustability of the camera extension or any other focusing data, you have a choice of two bellows attachments, the Miniature Bellows Attachment (extension from 35 mm to 125 mm) and the Large Bellows Attachment (extension from 35 mm to 220 mm). The first-named model is easily portable and even suitable for hand-held exposures—while the second one is designed for stationary use with a firm support. Valuable accessories are: the Special Lens

EXAKTA RTL 1000 with TTL Prism Attachment, Focusing Telescope, Miniature Bellows Attachment,

Special Intermediate Ring with Double Cable Release, Focusing Slide, and Universal Tripod



EXAKTA RTL 1000 with Prism Viewfinder, Angle Finder, and Intermediate Rings with Plunger

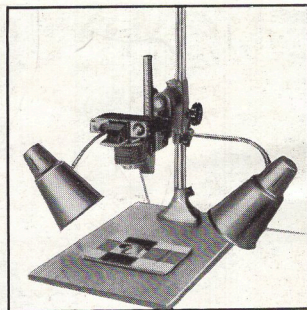
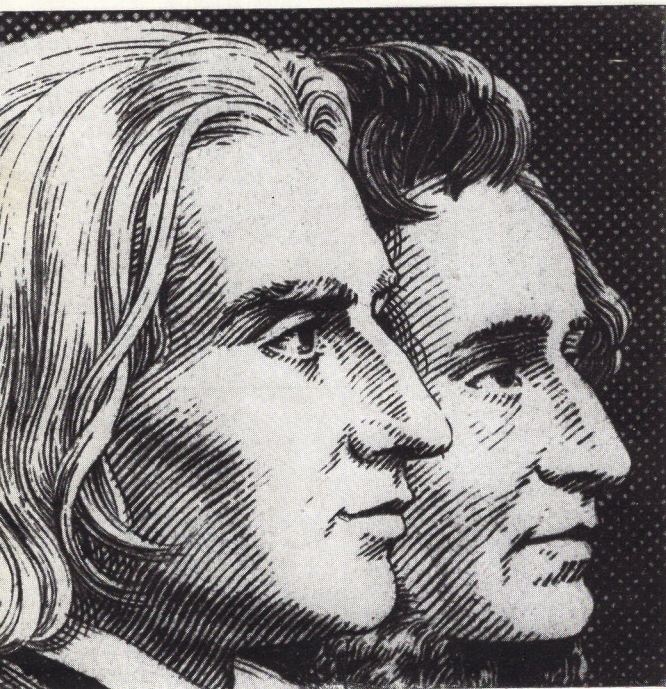


T 2.8/50 mm from Jena with sunk mount (focusing possible from infinity downwards with both bellows attachments), and the Special Intermediate Ring for Double Cable Release for automatic stopping down of lenses with internal diaphragm release (the automatic diaphragm with external release is actuated by means of the double cable release only).

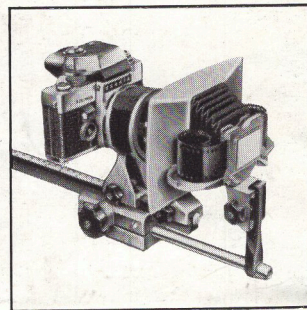
For all the extension increasing equipment (except the large bellows attachment) it is advisable, when working with a tripod, to use the Focusing Slide. Without having to modify the preselected picture ratio, you are able to focus precisely by adjusting the camera-to-object distance instead of moving the tripod to and fro. In ultra-close-up work, with the picture

ratio exceeding 1.5 times, the lens should, for maximum definition, be used with its rear element facing the subject. Lens Reversal Rings are available for this purpose. Special close-up objectives with short focal lengths (e. g. the "M" from Jena), used in conjunction with Adapter Ring for photomicrographic lenses, will produce picture ratios of more than 5 times. For efficient lighting in close-up photography, an EXAKTA Ring-Flash Unit, RB 1, can be supplied. It alone provides a truly effective frontal illumination, giving shadowless lighting of small areas, and being suitable even for photographing the interiors of hollow vessels, such as jugs, vases, tubes, etc., as well as of human and animal body cavities.

EXAKTA RTL 1000 on the Copying Stand, with Lighting Equipment, Close-up Bellows Attachment, and Special Lens T 2.8/50 with sunk mount



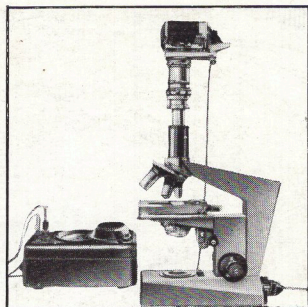
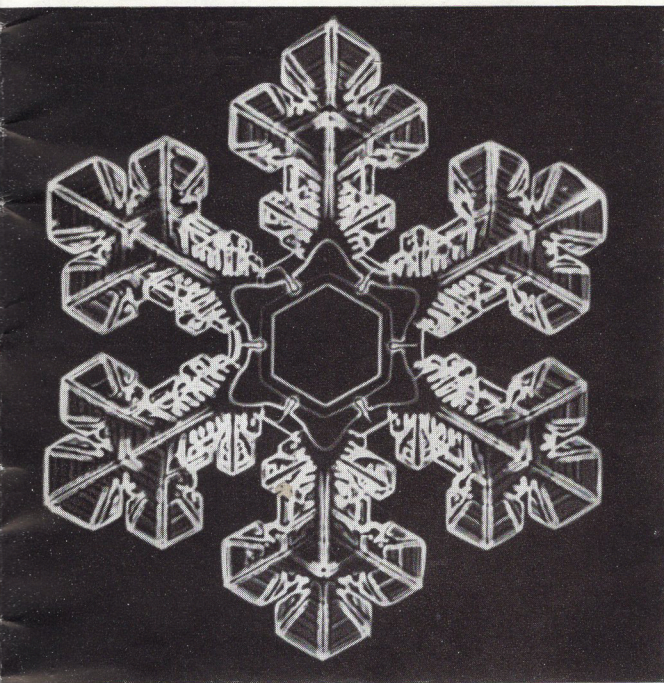
Item with TTL Prism Attachment, Eye Cup, and Bellows Attachm. with Transparency Copying Attachm.



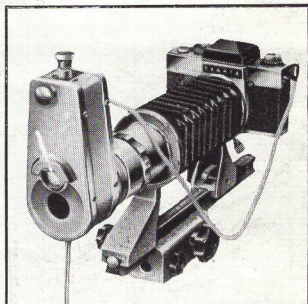
## Reproduktion work and transparency copying

The Copying Stand is designed for providing reproductions of all kinds on an economical basis. It is applicable also as a sturdy table tripod in the entire field of close-up photography. The EXAKTA RTL 1000 is fixed to the Copying Stand directly by means of the Repro Arm, and extension increase is achieved by inserting Bayonet Rings and Tubes, Intermediate Rings with plunger pins, or the Miniature Bellows Attachment. But the camera can also be employed on the Copying Stand in connection with the Bellows Attachment described earlier. Remarkable adjustability helps to solve the most complicated problems. The Copying Stand can, for instance, also be used in

photomicrography, where there is no mechanical connection between the microscope and the camera. The Copying Stand has a metal column with its own rack-and-pinion drive, also a wooden baseboard 35 cm x 50 cm (14 x 20 in.) in size to take originals up to DIN A 4 (approx.  $8\frac{1}{4} \times 11\frac{3}{4}$  in.). A special Lighting Equipment is also available. The Bellows Attachment, to be highly valued because of its long extension and its rigid focusing slide, when connected to the Transparency Copying Device, will prove useful in yet another field. It can be used for optically copying transparencies or making intermediate negatives.



EXAKTA RTL 1000 with EXAKTA  
Kolpofot (Ring-Flash Unit RB 1)



## Connecting link to the world of science

The EXAKTA RTL 1000 is the camera qualified for scientific work. This becomes most evident when the versatile reflex camera is employed in connection with viewing, testing and measuring instruments. Here, too, as always, the parallax-free finder image is the base for determining picture composition and sharpness. It is this perfectly uncomplicated working method that reveals the superiority of the single-lens reflex! To attach the EXAKTA RTL 1000 to the microscope, the telescope, the spectro-scope, and the endoscope, simple Adapters have been designed. They establish a practicable, and yet easily detachable, connection between the optical instrument and the camera. In

medical photography, the EXAKTA Kolpofot has given most satisfactory results. It comprises the Bellows Attachment, a Special Lens S 4/135 mm from Jena, which can be stopped down to f/45, and the EXAKTA Ring-Flash Unit RB 1. The equipment is being employed very successfully in photographing the interior of body cavities accessible from the outside (mouth, vagina, pharynx, etc.). Scientific photography can also utilize the TTL Prism Attachment of the EXAKTA RTL 1000 as a basic element for judging correct exposure if the picture in the camera covers the entire viewfinder area. In case no TTL Prism Attachment is available, the EXAKTA Macro-Micro Photometer may be used under the same condition for close-up and macro work and for optical copying of transparencies.

The illustrations may differ slightly in some detail from the current design of the camera and its accessories.

Original  
**EXAKTA**  
Dresden

Deutsche Demokratische  
Republik

Printed in Germany (east)

