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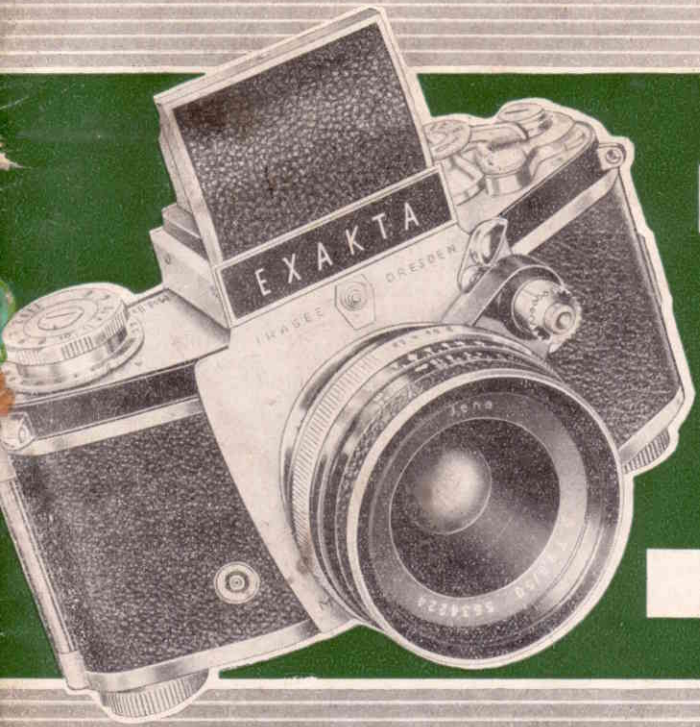


EXAKTA

VX IIa

35mm

1961

NEW FEATURES

Finder Hood

Open the Finder Hood by pressing the button. Shut it by pressing back the Finder Hood front, which snaps into position.

When opening the Finder Hood, the hinged-on magnifying glass moves in operating position. At its metallic mount the glass can be pressed downwards. It snaps in when in rest position at the back wall of the Finder Hood. Shutting and opening the Finder Hood in rapid succession leads the glass back again in operating position at once.

Pulling out and inserting the Finder Hood, as described in the instruction of use.

The new Finder Hood calls for no changes in photographic technique, but it can no longer be used as a direct vision frame finder. As an alternative to the frame finder, however, the Penta Prism can be recommended, which is much more versatile and fully free from parallax.

The ground glass screen of the Finder Hood is interchangeable. Before removing it, one presses the hinged-on magnifying lens of the opened Finder Hood downwards as described and shuts it. Then, when exchanging the ground glass, the hinged-on focusing magnifier lens lies at the Finder Hood front. One grasps the ground glass at the longitudinal sides and lifts it out of the insert. Instead of it the Distance Meter is applicable which operates on the split image principle. This is of particular usefulness in unfavourable lighting conditions or where eyesight is a little weak. (Partial images in the round measuring field, if focused correctly, must merge precisely in vertical or longitudinal direction. Do not employ for focusing an aperture smaller than 5.6.) All the other special glasses too, which are used for extreme close-ups and micro-photos in the Penta Prism or the Lens Magnifier of the EXAKTA Varex, are applicable in the new Finder Hood.

New Lenses

Domiron 2/50 with Fully Automatic Diaphragm

For critical focusing, rotate the broad and bright distance focusing ring. After the usual ground glass focusing the subject distance is shown at the red index mark on the lens.

When using infra-red film, first focus according to the ground glass too. Then adjust the subject distance indicated (infinity sign, numbers of metres or feet) from the red index dot to the red point (infra-red point) to the left. Thus the image produced by the invisible infra-red rays, which is in a slightly different plane from the visible image, is put in the film plane of the camera and appears sharp on the negative.

Set diaphragm mechanism either to fully automatic or normal diaphragm. Red point above on the switch ring (right in front) = fully automatic diaphragm, white point above = normal diaphragm, thus setting the lens opening by turning the diaphragm setting ring close before the camera body. Then the diaphragm remains closed, corresponding to the amount the ring has been turned as is necessary for long exposure times. The diaphragm setting ring engages at all the values, including intermediate values between two numbers. The value required must be opposite to the red mark dot.

When using the fully automatic diaphragm (on the switch ring the red point is above), the diaphragm is fully opened for sharp focusing and controlling the reflex image. It is only shut by the release pressure as far as the pre-selected smaller opening (working diaphragm). This working diaphragm, with which the picture is to be taken is set at the diaphragm setting ring. Pressure on the release button closes the diaphragm only as far as the pre-selected

opening and then operates the camera shutter. When the release button pressure is relaxed the diaphragm opens again to the greatest value automatically. The release button must be relaxed only when the shutter has operated, an important point when the slower instantaneous speeds are used. For time exposures with long exposure times, we recommend the lens be set (as described) to normal diaphragm (on the switch ring the white point must be above). A flexible release can be screwed into the release button. If a trial setting is required (e. g. for checking depth of field) without releasing the shutter, partial pressure on the release button enables the diaphragm to close to the pre-selected aperture.

Jena T 2.8/50 and Jena Pancolar 2/50 with Fully Automatic Diaphragm

For critical focusing rotate the front ring (distance focusing ring). After the usual ground glass focusing the subject distance is shown at the red index mark of the objective. When using infra-red film, first focus according to the ground glass too. Then adjust the subject distance indicated (infinity sign, numbers of metres or feet) from the red mark to the red point (infra-red point). Thus the image produced by the invisible infra-red rays which is in a slightly different plane from the visible image, is put in the film plane of the camera and appears sharp on the negative.

Set diaphragm mechanism either on fully automatic diaphragm or normal diaphragm. For

using the fully automatic diaphragm the shutter release knob with the mount surrounding it must project about one centimetre over the black body. If necessary, the mount with the release knob is gently pressed in direction of the camera, in this way turning to the right (viewing camera from front). Then the mount and release knob automatically snap into position, but the mechanism is switched over if release knob and its mount are pressed in direction of the camera and turned to the left (viewing camera from front). If release knob and mount is so pressed into the release body and held, normal stopping down of diaphragm is possible by turning the diaphragm setting ring (near the camera body).

Corresponding to the turn of the ring the diaphragm remains closed, as is necessary for long exposure times. The diaphragm setting ring will stay on all the values including intermediate values between two numbers. The required value must be opposite the red mark dot.

So that the release knob may be always sufficiently depressed, on the lower side of the lens release there is a set screw which is to be set to the necessary length by a screwdriver.

When using the fully automatic diaphragm presetting device the diaphragm is fully opened for critical focusing and controlling the reflex image.

It is only shut by the release pressure as far as the pre-selected smaller aperture (working diaphragm). This working diaphragm with which the picture is to be taken, is set at the diaphragm setting ring. Pressure on the release button closes first the diaphragm as far as the pre-selected opening and then the camera shutter operates.

When the release button pressure is relaxed the diaphragm automatically opens again at the greatest value, but the release knob must be set free only when the shutter has shut. This is especially the case for longer instantaneous times. For time shots with long exposure times we recommend to set the lens – as described – on normal diaphragm. Into the lens release knob a flexible cable release can be screwed.

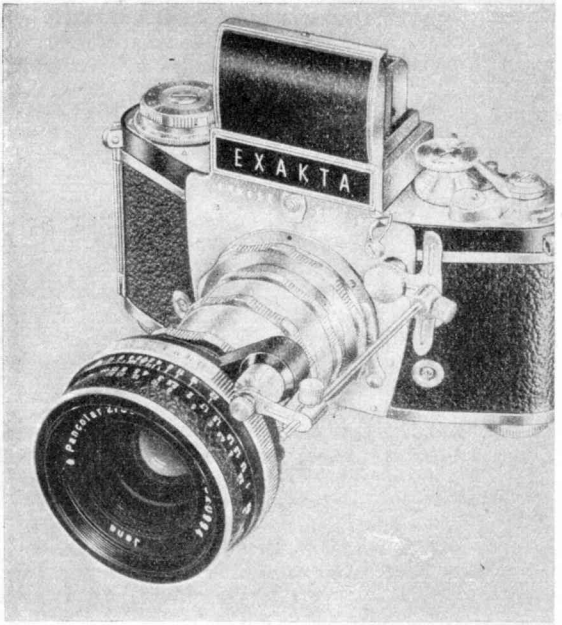
If a trial setting is required (e. g. for checking depth of field) without releasing the shutter, partial pressure on the release button enables the diaphragm to close to the pre-selected aperture.

Autocouple Extension Release

In order to employ the fully automatic diaphragm of modern lenses, also when using Bayonet adapter rings and tubes or the miniature bellows focusing attachment for close-ups, the Autocouple Extension Release is inserted between objective and camera. The arrangement of the Autocouple Extension Release delivered up to the present was only applicable to the Jena lenses with spring tension mechanism. The new Autocouple Extension Release with finger grip, therefore, is suitable as well for the fully automatic diaphragm as for the lens constructions mentioned previously.

If you use the two-in-one ring only for extension increase, it is sufficient to screw the small screwing knob of the Autocouple Extension Release into the shutter release knob of the camera. Then the pressure on the release knob or the release lever of the lens is transferred to the camera.

With all the extension increases of more than 5 mm one uses the complete Autocouple Extension Release (up to 60 mm extension increase with the short coupling rod, with longer increases up to about 125 mm with the long one).



Finger grip and connecting part must be pushed on at the coupling rod. The finger grip is screwed firmly at the end of the rod. With the big screwing knob one attaches the finger grip to the releasing knob of the camera, with the small one the connecting part to the releasing knob or the release lever of the lens. Now the connecting part must be firmly screwed on the coupling rod, the finger grip must lie close directly on the head of the big screwing knob and the connecting part at the release knob or release lever of the lens. When pressing the finger grip, the diaphragm must shut as far as the preselected aperture, and with a further pressure only the shutter is allowed to be released.

The coupling rod must always run parallel to the optical axis. Therefore, the release knob of the camera as well as the releasing knob or the release lever of the objective must lie exactly behind one another. To enable the lens to be turned, the back bayonet ring (near the camera) possesses a clamping ring; turn grip ring of the back bayonet ring to the left (looking at front of the camera), adjust extension increases and lens according to requirements, turn grip ring to the right and the extension increases are firmly held with the lens.

Miniature Bellows Focusing Attachment

Put camera to the camera carrier and lens to the lens carrier (note that the red points must be opposite). Loosen locking knob at lens carrier and set required extension increase between 35 and 125 mm; shift lens carrier forward and hold it with the locking knob. The distance between every two division strokes at the right guide shaft amounts to 10 mm. The extension is always read before the bulging of the lens carrier. When transporting and preserving the miniature bellows focusing attachment, camera carrier and lens carrier shall directly stand together for protecting the bellows (hold lens carrier!).

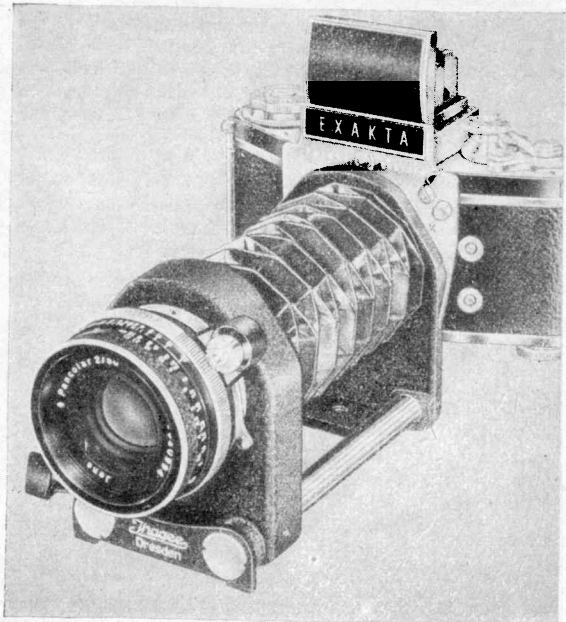
For photography from the hand the whole taking apparatus can be kept up and transverse without difficulty; for using the miniature bellows attachment on a tripod with a durable tilt top there are threads at the camera and lens carrier ($^1/_4$" thread). With tripods and tilt tops with thread of $^3/_8$" an adapter must be used. Whether you employ the thread at the camera or the lens carrier, that depends on the centre of gravity of the whole apparatus and you will want the

thread of the lens carrier especially when using heavy long focus lenses. With the copying stand 61 with one-piece column the miniature bellows attachment can be used, but in this case the camera is screwed on with its own tripod thread.

For using the fully automatic diaphragm of the new lenses, we recommend to insert the new Autocouple Extension Release (with finger grip) with the long coupling rod between release knob of camera and releasing knob or lever of lens.

When photographing from the hand, exact focusing is done by moving the whole apparatus. The same working method is possible with the copying stand 61 with its rack-and-pinion mechanism, but when working with a tripod only, focusing is done by moving the lens carrier. In this case, the scale of reproduction changes with the varying object distance.

With normal f/50 mm lenses all measuring scales from 0.7 (extension 35 mm) up to 2.5 (extension increase 125 mm) can be reached and objects with dimensions from 34 x 51 mm down to 10 x 14 mm are fully shown on the negative.



Larger objects need less extension increase. For overbridging the extension from infinity to 35 mm we recommend the use of the special lens Jena T 2.8/50 with sunk mount for the miniature bellows focusing attachment. With this lens you can reach extension increases from 0 to 90 mm.

For wide angle lenses of 35 mm and shorter focal length, the miniature bellows attachment is not applicable, but all long focus lenses can be used, if they are not too heavy.

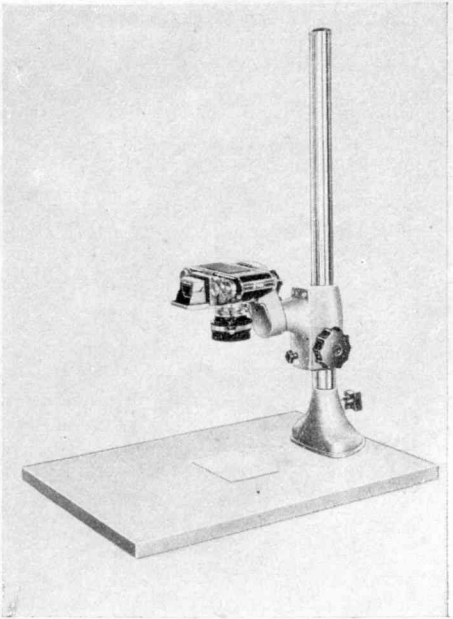
The two EXA models can also be combined with the miniature bellows attachment (the EXA I, of course, with the well known exceptions of cut-off at the longitudinal sides of the negative). Special information about close-ups and especially about the longer exposure times when extension increases are used, are to be found in the instructions of use for the EXAKTA Varex, in the special leaflet "Instructions for Macrophotography and Photomicrography" and in the "Close-up Tables".

Copying Stand 61 and Repro Attachment 61

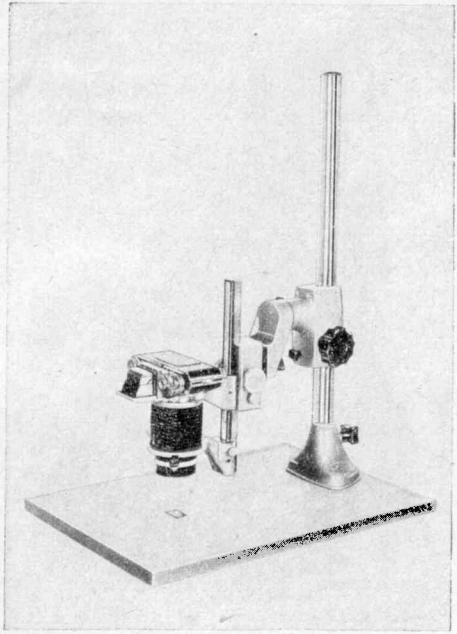
The copying stand 61 and the repro attachment 61 are both fitted with one-piece column with rack-and-pinion mechanism. The camera is fixed directly at the copying stand and extension increase is obtained by inserting bayonet adapter rings and tubes or the miniature bellows focusing attachment. Against that the repro attachment works with the well known and unchanged great bellows attachment.

The metal column of copying stand 61 and repro attachment 61 has to be pushed into the column foot, firmly screwed at the baseboard and must be secured by a fixing screw. When loosening this fixing screw, the column can be turned in every direction, e. g. 180^0 backwards, if objects in large distance shall be photographed from the edge of a table down to the floor. In case of need, the baseboard must be weighted.

The big black rack-and-pinion knob moves the column head quickly and without effort, whilst



Copying stand 61: vertical fitting, extension by means of bayonet rings and tubes



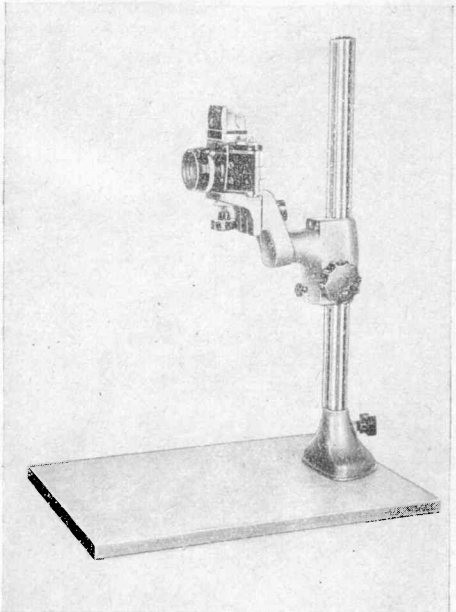
the little fixing screw (at the lower end of the column head) secures it. After loosening the big screw (opposite the black rack-and-pinion knob), the front part of the column head can be turned, and when fastened again, fixed in every desirable position.

The copying stand 61 accepts directly the camera with bayonet adapter rings and tubes or with the miniature bellows attachment by means of the turnable front part of the column head. With the repro attachment 61, the great bellows focusing attachment with camera and lens on it, has to be fixed at the column head's front part. For this purpose the attachment is equipped with 2 fixing screws (one with thread $^3/_8$", the other with $^1/_4$"). The front part of the column head is put upwards or downwards, the oblong hole pointing in vertical direction. With the proper fixing screw, camera or bellows focusing attachments are screwed on the black protection strips. At first the counter nut of the fixing screw must lie closely on the black knob and is later screwed against in direction of the camera.

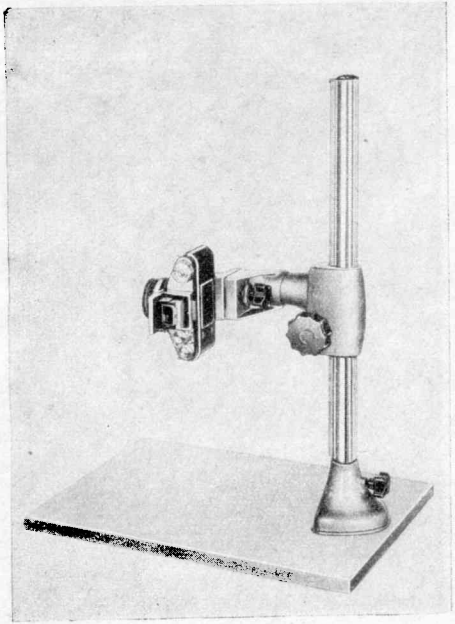
Repro attachment 61 : vertical fitting, extension by bellows focusing attachment

The desired scale of reproduction is obtained by the length of the extension release (bayonet adapter rings and tubes or bellows attachment) and correct focusing is maintained by moving the column head up and downwards. It goes without saying that correct focusing with the repro attachment 61 can also be done with the rack-and-pinion knob of the focusing slide, if the slide has the necessary distance from the baseboard. The baseboard is suited for objects up to DIN A 4 (21 x 29,7 cm).

If copying stand 61 or repro attachment 61 shall serve for working in horizontal direction, the little angle-piece is screwed in such a manner at the turnable front part of the column head, that its black protection strips lie horizontally upwards (the angle-piece has to be fixed with the second fixing screw). Camera or great bellows focusing attachment are put on the black protection strips of the angle-piece, the fixing screw is placed through the oblong hole of the angle-piece and then screwed on camera or bellows attachment as described before. The position



Copying stand 61 (or repro attachment without bellows focusing attachment): horizontal fitting, view picture



of the apparatus can be changed by turning the front part of the column head, if desired.

For photomicrography the repro attachment 61 is used in vertical arrangement, the column head being in the height of the microscope. In the event of the photographic work being interrupted, the column head must be moved upwards by turning the big black knob. Then loosen the fixing screw at the column's foot and push aside the apparatus. When microphotography is continued, the apparatus must be swung back. The column head is moved downwards sufficiently for the light protection tubes of Vielzweck and microscope to slip into each other without, however, coming into close touch. Then the fixing screw at the column foot has to be secured. Details about photomicrography and about the further use of the copying stand 61 and the repro attachment 61 are described in the "Instructions for use of the IHAGEE Vielzweck".

Copying stand 61 (or repro attachment without bellows focusing attachment): horizontal fitting, upright picture