After adjusting image area and focus, reduce aperture until the range of high definition extends to the whole of the object and make your exposure with great care, using "cable release".

When using synchronized flash: All manual operations must be carried out before focusing on the object. First choose lens and extension according to the size of the object and stop down aperture accordingly. The flash reflector is best placed in front, next to the lens. Thus, in the case of full extension, the source of light is extremely close, and conversely, when the bellows are only slightly extended, the reflector is correspondingly further away from the object. Once established, the aperture always remains the same, for the closer the object is approached, the greater is the extension and the smaller is the amount of light on the negative. At the same time, however, this reduces the distance between flashlight and object thus compensating the loss of light by the greater proximity of the flashlight. When satisfied in respect of definition and position of the image on the focusing screen, the exposure should be made.

Bellows lens hood.

Our bellows unit is now provided for use with a universal extendible bellows lens hood (patent pending) which fits all lenses of 42 mm. diameter lens mounting. Adapter rings can be supplied for lenses of different diameter. The bellows lens shade offers the best protection against reflected light. Backlighted scenes can be taken efficiently. The bellows lens hood may be greatly extended, care should be taken, however, that the extension does not exceed the length of distance "lens carrier - film plane" in order to avoid vignetting of the picture frame. This can be obtained intentionally, however, inserting corresponding black cardboard cut-outs. Furthermore the bellows lens shade makes copying of transparencies very easy. (Please ask for leaflet on the NOVOFLEX slide copying device).

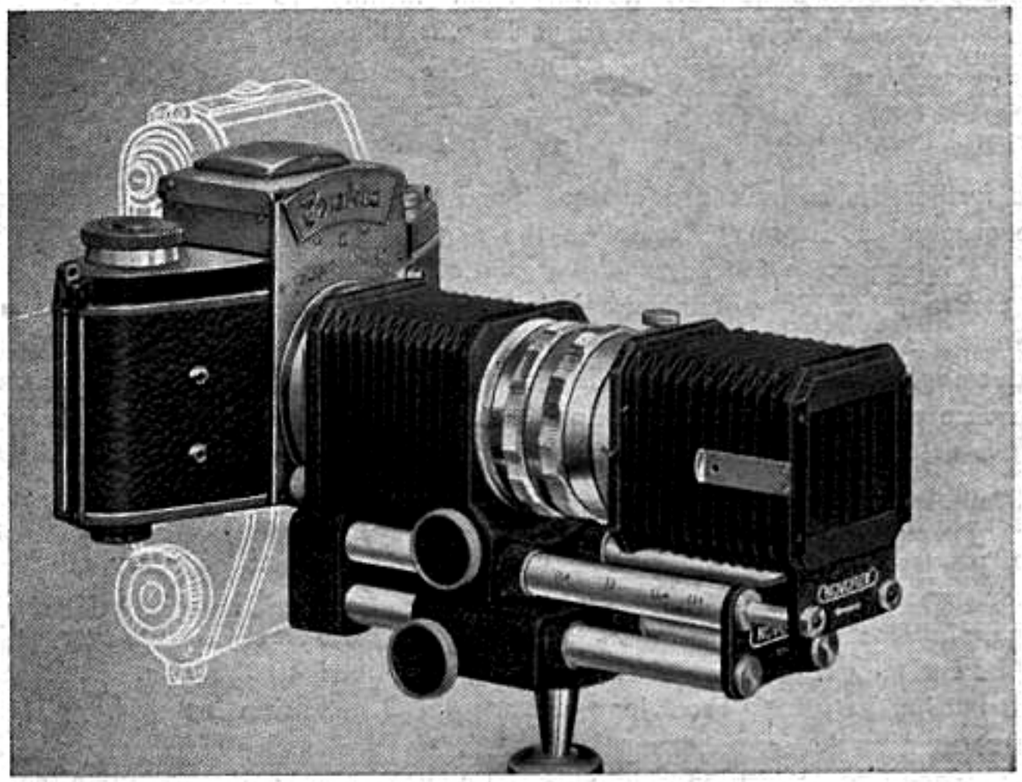
And now we hope you will enjoy your NOVOFLEX equipment: More than any other apparatus this equipment guarantees success. (Charts and specifications in respect of the individual models, including models which differ in certain points (6×6 - apparatus) are printed on the sticker at the bottom of the carton. — For distance exposures with NOVOFLEX equipment see our instructions for the use of the 400 mm and 640 mm lenses).

NOVOFLEX FOTOGERÄTEBAU · MEMMINGEN (GERMANY)

Printed in Germany

NOVOFLEX

Instructions for the use of NOVOFLEX bellows equipment



DBGM
US-Patent No. 2684020

NOVOFLEX

MEMMINGEN (GERMANY)

Instructions for the use of NOVOFLEX bellows equipment

Function of the bellows equipment

1. This equipment increases the photographer's range of close up exposures by lengthening the distance between lens and film plane.

2. However, this first function which, in a less perfect and practical way, could also be performed by extension tubes, is not the only purpose of this apparatus. With lenses in nonfocusing mounts of 105 mm. focal length (135 mm. for NOBAL, LEIBAL, KILBAL, PRABAL, PRABIG — 150 mm, for SIXBIG, MEIBIG, PRIBIG) or longer, a setting from "infinity" to extreme close-ups can be obtained. Used with long focal lengths, the bellows attachment makes possible to bring remote subjects close.

General Rules

The further the bellows are extended and the shorter the focal length used, the greater ist the image scale on the negative.
As the image scale increases, the depth of focus decreases. This must often be compensated by applying the following maxim: The smaller the aperture, the greater the depth of focus.
Reducing the aperture requires longer times; and the excessive extension in the case of close range photographs also means loss of light. If, for example, f/11 is used, this figure has a meaning only for calculating the depth of focus — it no longer gives information on the strength of illumination. So the exposure time must be further increased.
The greater the image scale, the greater the importance of every millimetre of movement in any direction — not only in depth but also in respect of containing the image within the limits of the filmframe. Thus a very slight movement may result in the object being displaced on the film.
When using very long focal lengths and at full extension it may happen that the corners of the frame are not exposed.
This vignetting, which normaly has no particularly disturbing effect, is inevitable in such cases, owing to the narrow aperture in the camera housing. **Each one of these photographic problems has been taken into account in the design of the NOVOFLEX bellows equipment.**

Inserting the NOVOFLEX equipment into the camera

The lens is removed from the camera and the equipment installed in its place e. g. in the case of the Exakta by means of a bayonet fitting. In cameras with lens screw fittings the thread does not always begin in exactly the same place. This may result in the equipment not being located perfectly horizontally on insertion. In order to ensure that the equipment is perfectly parallel to the base of the camera at all times, the threaded collar at the rear of the NOVOFLEX apparatus is adjustable; after having established the angle by which the equipment should be rectified, the apparatus should be unscrewed, and the three small screws on the connecting flange loosened. The inner adjusting collar can now be set. If it is desired to turn the equipment to the right (**front view**) the threaded collar, **as seen from behind,** should also be turned to the right, ie. at twice the degree of the angle. The three small screws should now be slightly tightened and the adjustment checked.

Locking the gear drive

After inserting the lens into the NOVOFLEX equipment, sharp focusing is effected by means of the lateral drive knobs of the bellows operating mechanism. In order to stabilize the apparatus after adjustment, hold on to the right-hand knob while fastening the left-hand one by turning it clockwise. To be able to move the gear drive again it is necessary, of course, to loosen the fixing knob, preferably by turning it in the opposite direction as far as it will go. The same procedure is adopted for the tripod racks when these are incorporated.

Close range exposures with NOVOFLEX bellows equipment

For close range photography the standard exposure times must be lengthened, the relevant multiples being indicated on the gear rack. The correct exposure factor can be read off where the sleeve of the front lens carrier stops; on the left-hand gear rack for the normal lens and on the right-hand one for a longer focal length. With a given extension, shorter focal lengths require correspondingly longer exposure times and vice versa. Moreover, in the case of close range exposures of objects with some depth it is always necessary to use smaller apertures.
Owing to the above-mentioned loss of light it will often be necessary to choose between the use of a tripod or a synchronized flash.

When using a tripod: The apparatus is screwed on to the tripod and placed at the requisite distance from the object. Should it be found that, after having achieved maximum definition by the movement of the bellows, the object does not fill the frame as required, then the tripod racks should be brought into use. This component is incorporated in Model II or can be obtained as an extra (Code CASTEL) for use with Model I and S.
It should also be decided whether an upright exposure would be preferable to a horizontal one. For this purpose all No. II and S models can be swivelled. The swivelling device is so designed that rotation occurs in a direction which is not obstructed by the shutter release knob. Rotation takes place around the optical axis until the camera automatically engages after a rotation of 90°.