

Application

The LEITZ MAKAM and MIKAS camera attachments can be used for both black and white and colour work. They are fitted to the microscope like a normal eyepiece, are automatically centred and therefore ready for immediate use. Their convenient operation is a great advantage.

All the details of the microscopic image are clearly visible through the focusing telescope. It can be focused accurately with high magnification or with dark objects. The section of the microscopic field covered by the negative is indicated by rectangular markings.

The focusing arrangement is fitted with a beam-splitting swing-out prism which can be used to observe the specimen through the focusing telescope during the exposure. No difficulties are therefore experienced in photographing living or changing specimens. With instantaneous exposures it is easy to decide the right moment for taking the photograph and time exposures can be interrupted immediately if any movement in the specimen is apparent.



Micro camera attachments

The 9 x 12 cm. camera attachment is usually selected where only occasional photomicrographs are required.

The MIKAS micro attachment for the LEICA® on the other hand, offers the various technical facilities and economic advantages of miniature photography. It is therefore chiefly suitable for sequences of photographs or for recording changes in a specimen in growth processes, crystallization etc. Photomicrographic tasks calling for a large number of pictures are often economical only through the LEICA time-saving system of photography with its inexpensive film materials. A further advantage is that exposure times for 35mm photomicrographs are much shorter than those for the 9 x 12cm size.

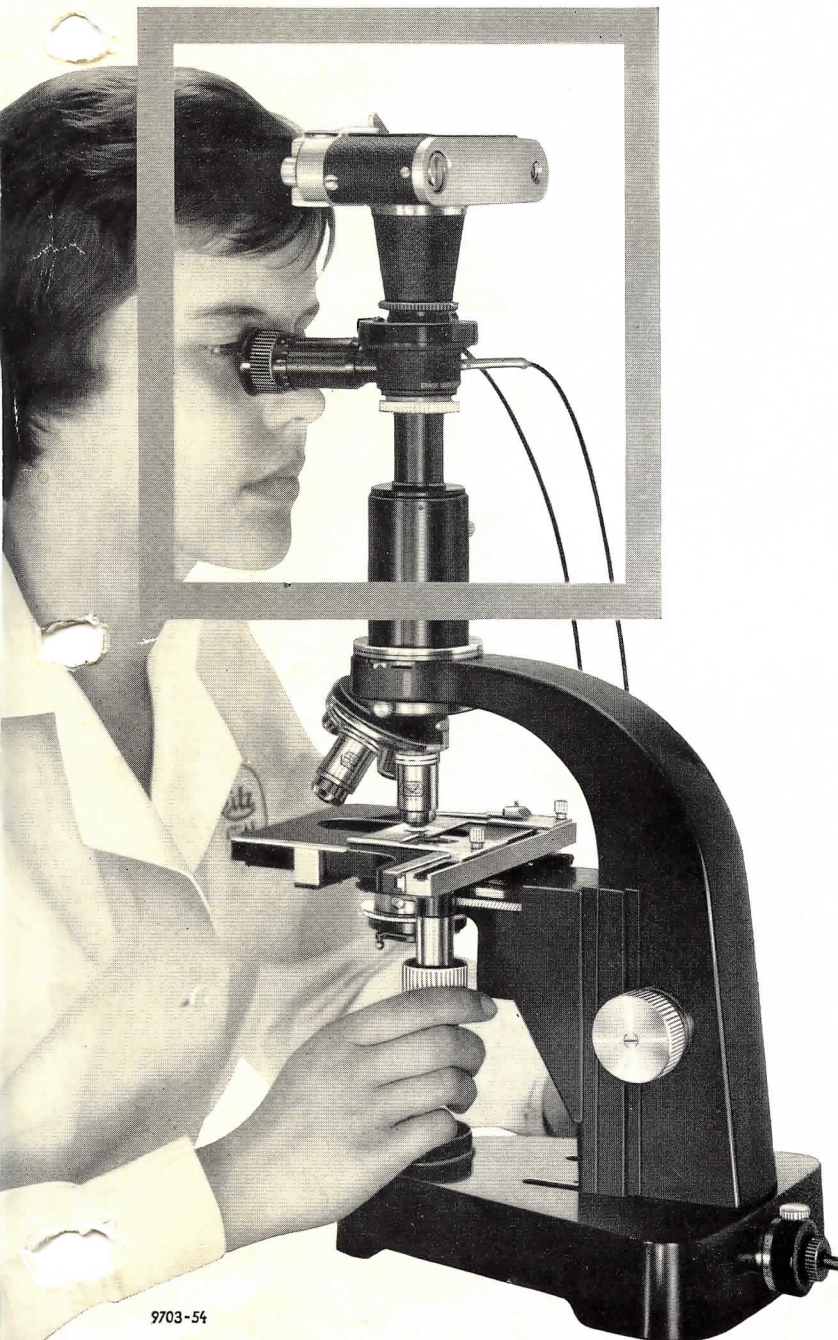
Contact prints for archives and reports can be made from miniature negatives just as easily as enlargements in any desired size. Transparencies from miniature film in the standard 2" x 2" slide size are very satisfactory for teaching purposes; their definition is practically equal to that of larger lantern slides, whilst the cost of the projection equipment and the space it occupies are considerably less. A miniature projector with slides can easily be carried in a brief case.

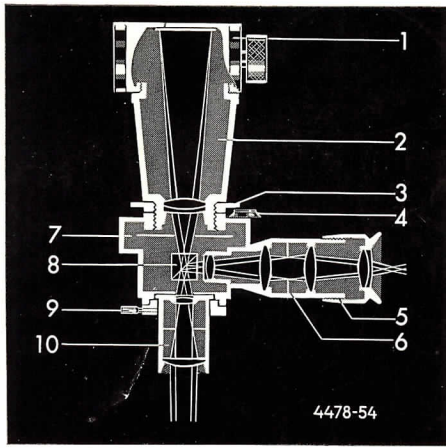
The MAKAM camera attachment and the MIKAS micro attachment use the same focusing arrangement with telescope, central shutter, swing-out prism and eyepiece. Hence either the 9 x 12cm attachment or the conical intermediate adapter for a LEICA housing can be attached to this focusing arrangement.

For micro, macro and general survey photographs the universal ARISTOPHOT photomicrographic apparatus is available. This can be supplied for the 4" x 5", the 9 x 12 cm, and for the 24 x 36 mm miniature size.

List 54 - 8/Engl. contains full details.

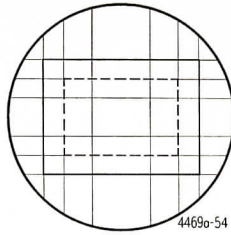
54 - 3 b / Engl.





Sub-division of the focusing telescope

The heavy line indicates the picture area for the 9x12cm size or for the 1/3 x conical adapter of the MIKAS micro attachment, the broken line marks the area for the 1/2 x conical adapter supplied for the micro attachment; the inner line shows the image area for the 1 x adapter previously supplied.



MIKAS micro attachment: 1 LEICA miniature camera 2 1/3 x conical intermediate adapter with intermediate lens 3 Clamping ring for aligning the focusing arrangement 4 Shutter speed dial 5 Rotating eyepiece mount 6 Graduation and fixed aperture of the focusing telescope 7 Synchronized central shutter 8 Deflecting prism 9 Knurled screw for clamping the micro attachment 10 Eyepiece



2902-54

Technical Description

MAKAM camera attachment

Focusing telescope with sub-division of picture area. The delineated area can be focused by turning the eyepiece mount. The frame formed by the outside demarcating line indicates the picture area for the 9x12cm size or for the 1/3 x conical adapter of the MIKAS micro attachment.

The prism deflects the image rays to the focusing telescope. It transmits 75% of the light and can be moved out of position when required.

The self winding instantaneous shutter is provided with 1 - 1/125 sec. speeds, T and B, and is fully synchronized.

Shutter and prism are actuated by 2 cable releases which can be coupled by a release coupler.

The 10x periplanatic eyepiece is included in the basic outfit. In special cases the Huygens 6x eyepiece can also be used.

Camera housing for the 9x12cm size, is screwed to the focusing arrangement, can be turned and arrested in any position by a knurled ring.

1/3 x conical adapter, interchangeable. It reduces the microscopic, "subjective" image to 1/3 the size. A subsequent 3 times enlargement of the negative gives approximately the print size of 7.5x10.5cm and thus corresponds to the scale of the final microscope magnification.

The 1/2 x conical adapter is only used in special cases to emphasize certain portions of the negative.

Any LEICA housing with screw thread or bayonet mount can be used for photomicrography.

® = registered trade mark

We reserve the right to change design and construction of our instruments.

Complete outfits:

MAKAM 9x12cm camera attachment

Camera housing with screw thread; focusing arrangement with telescope; synchronized time and instantaneous shutter; two darkslides; one ground-glass screen; two cable releases; locking ring for the eyepiece with tube clamping screw*); 10 x periplanatic eyepiece

MAKAM

MIKAS Micro attachment

Interchangeable 1/3 x conical adapter; focusing arrangement with telescope; synchronized time and instantaneous shutter; two cable releases; locking ring for the eyepiece with tube clamping screw*); 10 x periplanatic eyepiece

for LEICA with screw thread

MIKAS

for LEICA with bayonet mount

MIKAS-M

Release coupler

for shutter and prism, suitable for the MAKAM camera attachment and for the MIKAS micro attachment

CALOS

*) For the normal eyepiece diameter of 23.2mm.

Separate parts:

9 x 12cm camera housing

suitable for the focusing arrangement

CAFAM

Darkslide for 9 x 12cm plates

GIIFL

Insert for 3 1/4" x 4 1/4" plates

MECET

Insert for 6 1/2 x 9cm plates

GSDII

Insert for cut film (9 x 12cm size)

GZIIO

Insert for cut film (6 1/2 x 9cm size)

GXOII

1/3 x conical adapter;

interchangeable

for LEICA with screw thread

GIIEF

for LEICA with bayonet mount

GIIEF-M

1/2 x conical adapter

interchangeable

for LEICA with screw thread

GIIMW

for LEICA with bayonet mount

GIIMW-M

Adapter ring for using the camera and micro attachments on LEITZ polarizing microscopes with a wide tube (30mm diameter)

GDIK

Cable release with fixing screw (for prism), replacement

GIIBR

Cable release without fixing screw (for shutter), replacement

GIIFT

Huygens 10 x eyepiece

HYVIR

MONLA microscope lamp,

6v, 30w

BEECH

Regulating transformer with ammeter, 110-240v, 50-60c/s

REDYX

Spare bulb, 6v 30w

LINID

Filter stand

IFSTA

Conversion filter

(CF 0.5) NAVOG

Spectral filter F

(SF 486) IFOEF

Green filter (530 mμ)

(GF 530) DTEEO

Spectral filter e

(SF 546) IFDEP

Spectral filter D

(SF 589) IFADA

Red filter (λ_{HW} = 656 mμ, with visual observation

spectral filter C)

(RF 656) IFACE