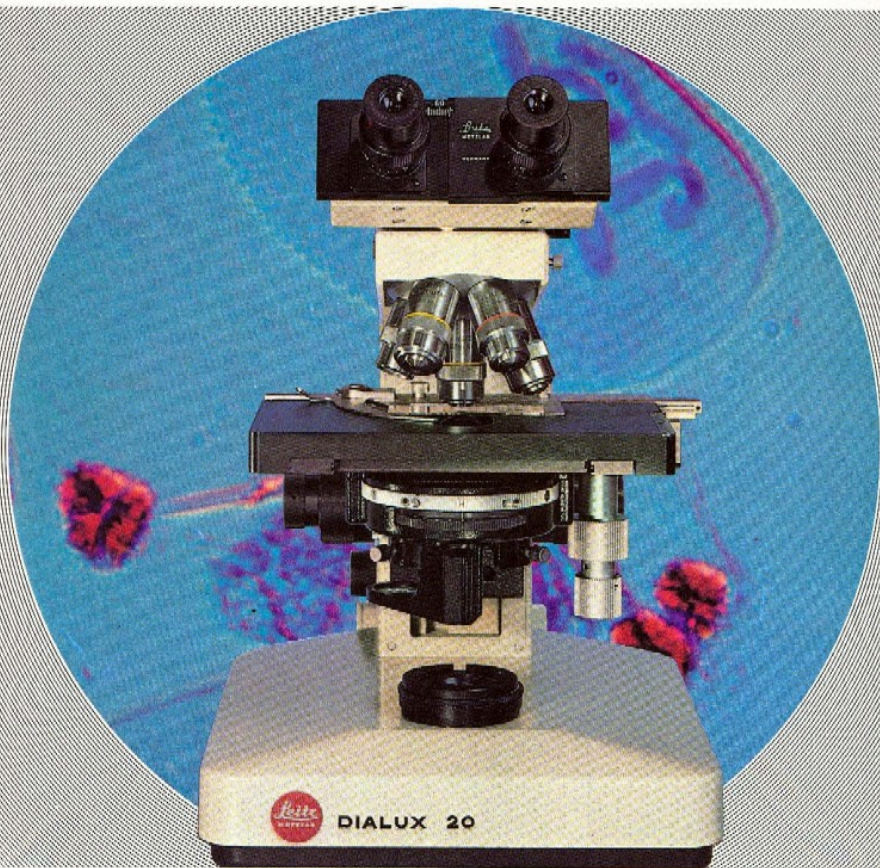


LEITZ DIALUX® 20



Laboratory and Research Microscope





Brightfield



Darkground



Phase contrast



Interference contrast



Fluorescence with transmitted-light excitation



Fluorescence with incident-light excitation



Discussion device



Micro-projection



Photomicrography, 35mm and other formats



Television microscopy



Heating-stage microscopy



Observation in polarized light (qualitative)

Best possible optical and mechanical precision combined with considerable resistance to external influences

Effortless adaptation to any microscopic problem arising in the biological and medical laboratory

Great operating convenience at maximum setting accuracy of all functions.

These are the demands that from the outset have determined the joint considerations of Wild Heerbrugg and Leitz Wetzlar when they developed this laboratory and research microscope.

LEITZ DIALUX 20

The outcome is the

Which means:

Combination and further development of all the advantages of the LEITZ DIALUX and Wild M 20 transmitted-light microscopes of proven reliability the world over.

A basic instrument for all optical microscopic routine investigations of transparent objects, with great performance reserve for biological research.

Novel, considerably improved arrangement of the optical illumination system.

Enlargement of the microscopic field of view, at critical sharpness to the very edge of the picture, by more than 23% compared with conventional microscopes by means of the excellently corrected FLUOTAR objective series.

Reliable tool of microscopic diagnostics, at optimum cost efficiency. A comprehensively constructive concept based on the LEITZ modular principle, ready to accept also future tasks in laboratory microscopy.



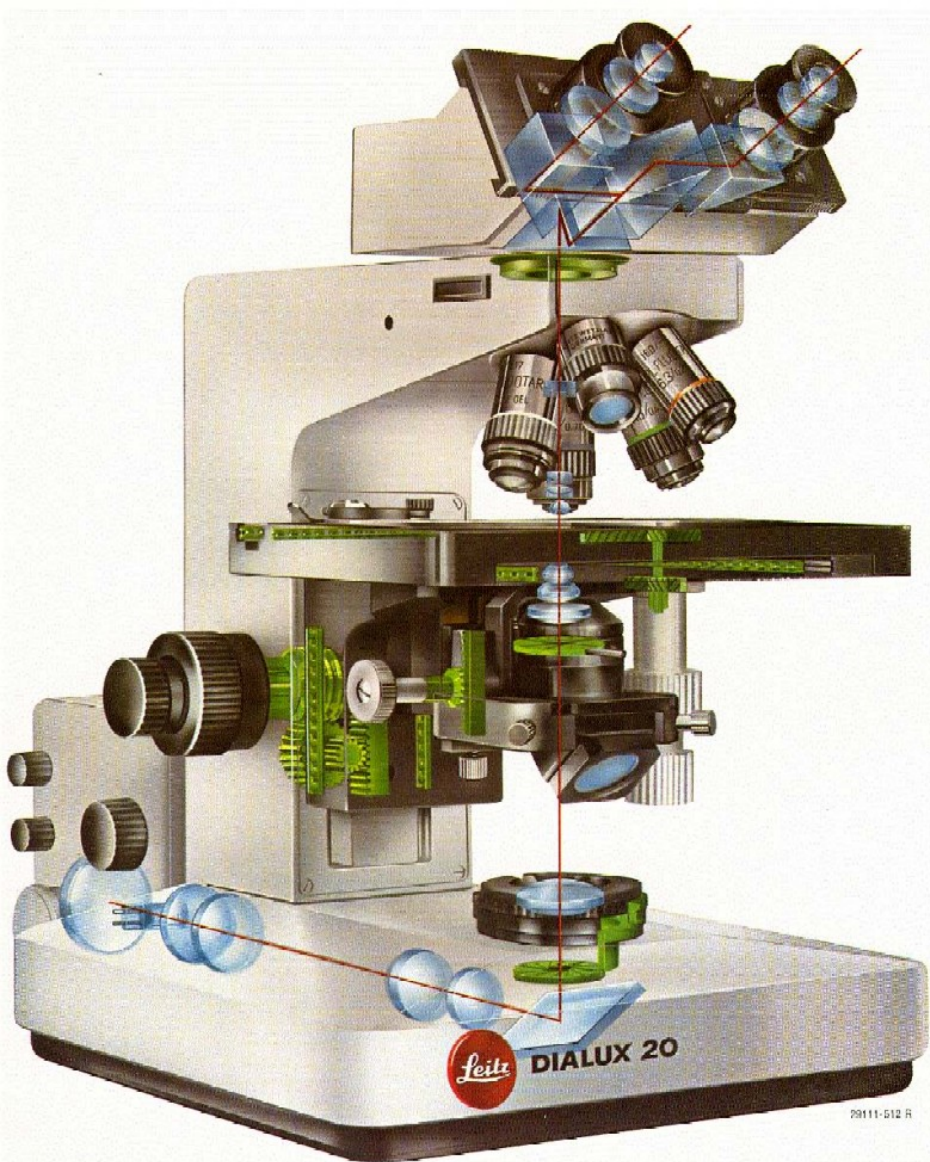
**Urinary sediment,
crystal in phase contrast.
NPL FLUOTAR 16/0.45 PHACO
microscope magnification 100x**



**Plg, liver.
Glisson's triads; 7 μ m. Trichome staining after
Goldner. Neutral formol fixation.
NPL FLUOTAR 25/0.55
microscope magnification 150x
Preparation: Prof. Dr. Th. Peters,
Zentr. f. Anatomie u. Cytophysiologie, Gießen.**



**Tradescantia.
Interference contrast.
NPL FLUOTAR 40/0.70 IC T
microscope magnification 140x**



29111-512 R

The foot, measuring 26 x 25 cm of the LEITZ DIALUX 20 stand offers a particularly broad base to the microscope and therefore extraordinary rigidity. It is enclosed both top and bottom, protecting the illuminating elements incorporated in it against dust. External shocks are practically eliminated by means of 4 vibration damping feet.

The very robust microscope carrier is important to the steadiness of all settings, and it supports the weight of attachment cameras and other accessories far more effectively than one would ordinarily expect of a microscope in this class.

Coarse and fine adjustment actuate the object stage through two coaxial knurled knobs arranged on both sides of the stand. Their position immediately above the broad hand-rests on the foot of the stand allows effortless operation with completely relaxed posture of the user.

The fine adjustment acts on the entire 35 mm focusing travel of the object stage through a maintenance free recirculating ball gear. It has a graduation, scale unit 0.002 mm.

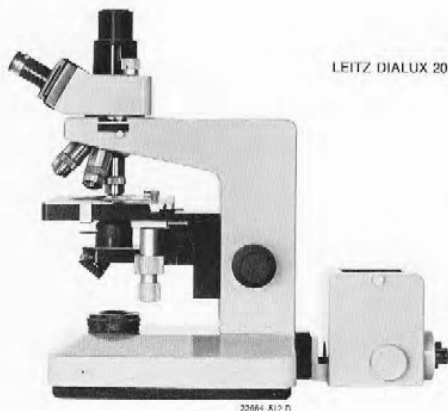
Two versions of stand

Two versions of stand are available to adapt already the basic outfit of the LEITZ DIALUX 20 to the requirements of its practical use as closely as possible: For routine investigations of transmitted-light specimens in brightfield, dark-ground, phase and interference contrast a tungsten halogen lamp of sufficient intensity is basically adequate.

Here the stand with built-in illuminating unit is recommended.

In the DIALUX 20 EB illuminating system, filament lamp, and transformer are built into the foot of the stand. This results in a particularly space-saving installation of the microscope.

The DIALUX 20 with attachable lamp housing 102 Z is suitable for all investigations of specimens produced with very different methods of preparation and staining and whose microscopic, photomicrographic, and cinemicrographic representation requires the use of different light sources. In this version of the stand the lamp housing for filament and gas discharge lamps of up to 100 W is locked to the foot of the microscope by means of a bayonet mount and can be detached at any time (see also p. 12).



The observation tubes

All observation tubes for the LEITZ DIALUX 20 microscope can be mounted on the hard-chromium-plated rapid changing device of the stand and rotated through 360°.

Binocular tube S

This serves for the convenient binocular observation of the microscopic image. Both eyepiece tubes can be independently adjusted and are graduated so that changes of the mechanical tube length at different interpupillary distances of the observer can be immediately compensated and these settings reproduced at any time. Adjustment range of the interpupillary distance from 55 to 75 mm.

Binocular phototube FSA

In this tube the functions of a binocular observation tube and of a phototube are combined. With the adjustment of the observation eyepieces to the individual interpupillary distance the mechanical tube length is automatically compensated. As a result, the images both in the observation and in the film plane are equally in focus and the control of the photographic setting with the LEITZ system camera attachment, COMBIPHOT-AUTOMATIC and ORTHOMAT is carried out exclusively on the binocular tube without any separate focusing telescope. When the FSA tube is used it is therefore possible to adapt a photomicrographic device at any time.

The beam splitting system built into the FSA permits 3 different settings of the guidance of the image-forming ray:

- 100 % of the light coming from the objective is available for binocular observation.
- 90 % of the light coming from the objective passes through the phototube, 10 % serves for binocular observation.
- 50 % of the light coming from the objective is directed to the binocular tube, 50 % to the phototube.

The beam guidance a) serves exclusively for binocular observation in extremely unfavourable lighting conditions: example: very weak fluorescences can be evaluated at great accuracy, because no light is being lost. Dependent on the quantities of light available through the density of the specimen or the nature of the optical method (phase contrast, interference contrast, fluorescence, darkground) the

settings b) and c) serve for simultaneous observation and photomicrography or microphotometry.

Inclined binocular tube SA

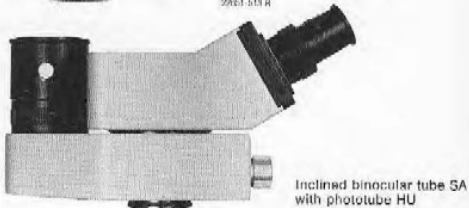
This tube ensures strainfree binocular observation with convenient posture of the head. The interpupillary distance can be adjusted within the range of 55-75 mm. The change in the mechanical tube length caused by different interpupillary distances is automatically compensated by an optical system. The SA tube is therefore especially well suited for the combination with a phototube HU, also possible at any time. The cyclople with graticule necessary for focusing and checking the image field photographed is inserted in the right-hand fixed eyepiece tube. The left-hand eyepiece tube can in addition be adjusted for the correction of differential visual defects in both eyes.



binocular tube S

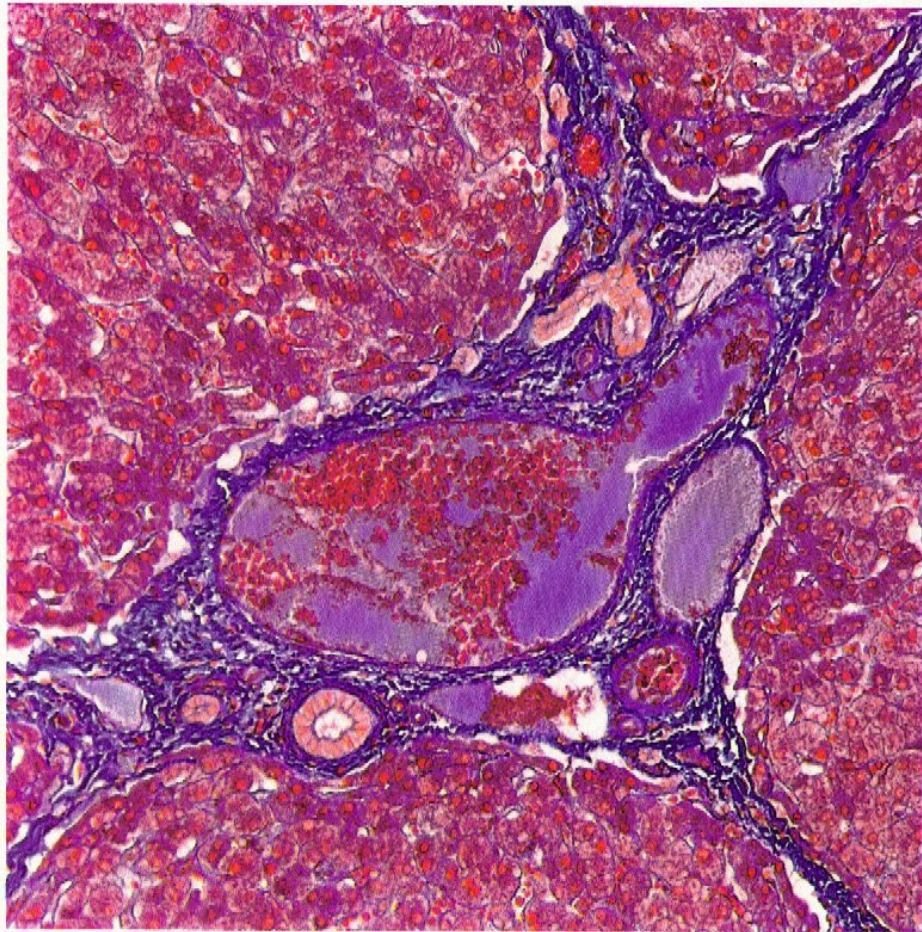


binocular phototube FSA



Inclined binocular tube SA with phototube HU

Plg, liver; 10 μ m
Gileson's trias; Susa fixation, Azan staining.
NPL FLUOTAR 10/0.45; microscope magnification 160x.
Preparation: Prof. Dr. Th. Peters,
Zentrum f. Anatomie u. Cytobiologie, Gießen.



Phototube HU

This tube is used for the tri-ocular arrangement with vertical camera position for photomicrography, cinemicrography, and micro television. The phototube HU has 3 beam splitting positions, with either 100%, 20%, or no light available for observation.

With the HU tube, any DIALUX 20 fitted with the SA tube can be adapted for photomicrography at any time.

Discussion and demonstration tube

This binocular special tube is particularly well suited for the discussion of pathological findings, microscopic diagnostics, and the training of technical staff. It permits the simultaneous observation of the microscopic image by two persons. For this purpose it is combined with a binocular tube which may already be part of an existing DIALUX 20 outfit (see illustration).

A knurled knob on the vertical exit of the discussion tube serves for the setting of a tube lens for the compensation of different visual acuities and the individual focusing facility of both observers.

The revolving nosepiece

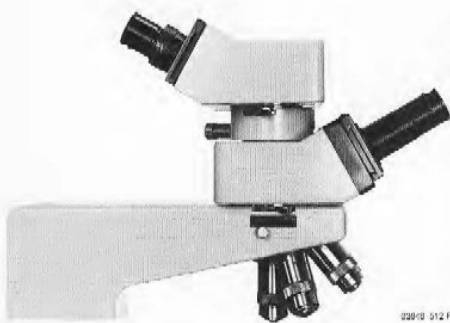
The revolving nosepiece accepts 5 objectives. It runs on ball bearings and has internal clickstops. Once set, the centre of the image remains in position when another objective is turned in.

Revolving nosepieces are interchanged with others equipped with different objectives (for instance phase contrast or interference contrast objectives) on a horizontal dovetail fitting below the observation tube. This does not require lowering the object stage, and object portions lined up with the previous method are found again rapidly and without effort.

Objectives and eyepieces

The image-forming and illuminating optical system — have been newly developed for the LEITZ DIALUX 20 and adjusted for the 160 mm tube length. The NPL FLUOTAR objectives permit the observation of fields of view* of up to 20 mm diameter and fully flattened, i.e. in critical focus throughout.

* Field of view = intermediate image presented by the eyepiece



NPL FLUOTAR objectives For brightfield, darkground and fluorescence (black engraving)

Tube length 160 mm
Image distance 150 mm
Adjustment length 45 mm



Designation	Free working distance in mm	Cover-glass correction	Colour code for magnification/immersion	Code No.	
PL	1.80/06	7.00	G	grey	810 628
NPL FLUOTAR 6.30/30	2.30	DO	orange	518 485	
NPL FLUOTAR 10/30	0.78	DO	yellow	810 498	
NPL FLUOTAR 18/0.45	0.50	D	light green	519 500	
NPL FLUOTAR 25/0.55	0.38	D	dark green	519 501	
NPL FLUOTAR 40/0.70	0.24	H	light blue	518 502	
NPL FLUOTAR 63/0.80 KORR	0.11	D	dark blue	518 520	
NPL FLUOTAR 80/0.90	0.11	G	dark blue	818 603	
NPL FLUOTAR 100/1.30 OII	0.15	D	white/black	510 504	
NPL FLUOTAR 100/1.32-0.80 OII	0.15	D	white/black	818 686	

229/0 512 H

NPL FLUOTAR objectives
For phase contrast (green engraving)Tube length 160 mm
Image distance 150 mm
Adjustment length 45 mm

Designation	Free working distance in mm	Cover-glass correction	Colour code for magnification/immersion	Code No.
NPL FLUOTAR 13/0.30 PHACO 1	0.75	DO	yellow	519 487
NPL FLUOTAR 16/0.45 PHACO 1	0.58	D	light green	519 505
NPL FLUOTAR 25/0.55 PHACO 2	0.38	D	dark green	519 508
NPL FLUOTAR 40/0.70 PHACO 2	0.24	D	light blue	519 507
NPL FLUOTAR 63/0.90 PHACO 4 KORR	0.11	D	dark blue	519 559
NPL FLUOTAR 100/1.32 Oil PHACO 3	0.15	D	white/black	519 508

NPL FLUOTAR objectives
Strainfree (red engraving)Tube length 160 mm
Image distance 150 mm
Adjustment length 45 mm

Designation	Free working distance in mm	Cover-glass correction	Colour code for magnification/immersion	Code No.
NPL FLUOTAR 6.3/0.20 P	2.35	DO	orange	559 131
NPL FLUOTAR 16/0.45 P	0.75	D	light green	559 134
NPL FLUOTAR 25/0.55 P	0.38	D	dark green	559 135
NPL FLUOTAR 40/0.70 F	0.24	D	light blue	559 136
NPL FLUOTAR 100/1.32 Oil P	0.15	D	white/black	559 138

For the objective with correction mount (Korr) coverglass thicknesses from 0.11 to 0.23 mm can be used.

In the NPL FLUOTAR objectives and in the PL 1.8/0.05 and PL 2.5/0.08 objectives available as supplements, the knurled screw on fitting has been moved downwards towards the front lens to increase operational reliability when objectives are changed on the nosepiece and when this is rotated. The rotary outer sleeve constitutes an additional mechanical improvement of these objectives. It facilitates the reading of the objective data engraved on it in any position of the nosepiece. To differentiate the various objective series, the engraving is in different colours: brightfield/darkground black, phase contrast green, polarized light red. In addition, the primary magnifications of these objectives are indicated by means of coloured rings. The details of the colour markings are listed in the objective tables on pp. 8/9 of this brochure.

Eyepieces of 6.3x to 12.5x magnification are provided for the observation tubes of the LEITZ DIALUX 20. Paired 10x eyepieces are available for spectacle wearers. Here the GF 10x eyepiece must be specially mentioned; its field-of-view index is 20, which represents an improvement of the field performance of the objective/eyepiece combination of 23.5% compared with a conventional optical outfit. This eyepiece can be used with and without spectacles. For the objective with correction mount (Korr) coverglass thickness from 0.11 to 0.23mm can be used.

The object stages
Large Mechanical Stage No. 78

The Large Mechanical Stage No. 78, measuring 200 x 140 mm, is part of the standard equipment of the LEITZ DIALUX 20. Its coaxial controls for object movement are conveniently arranged above the right-hand handrest of the microscope foot. Guide tracks running on ball bearings facilitate the exact lining up of the most minute object details at maximum magnification and the smooth adjustment of the stage during the examination of living organisms.

The scanning area is 76 x 50 mm. Graduations and verniers in both directions permit the reading of the object position to an accuracy of 0.1 mm. Smear preparations on the usual microscope slides can be scanned throughout their full extent.

Circular rotating and centring mechanical stage

As an alternative to the stage No. 78 the LEITZ DIALUX 20 can be equipped with the circular rotating and centring mechanical stage. Its diameter is 150 mm, the scanning area 76 x 26 mm, graduations and verniers permit the reading of the object position to 0.1 mm. Rotation and y movement can be clamped in any position. The object guide can be removed for the investigation of large specimen plates. The rotating and centring object stage is particularly well suited for lining up the objects in photomicrography, cinemicrography, and when for line-investigation, for instance, of linear structures in interference contrast or in polarized light. Both stages are permanently fixed to the microscope stand in the factory, this should be borne in mind when the stage is ordered.

The condensers

So that the performance of the NPL FLUOTAR objectives can be utilized to the full, the standard condenser SK and the universal condenser UK have been designed; both optically and mechanically they offer considerable advantages over the conventional versions. Both types of condenser have the following properties in common:

1. "Köhler's illumination", once set, is perfectly maintained during magnification change for all objectives (including the PL 1.6:1) without vertical adjustment of the condenser. For objectives of reproduction ratios smaller than 10:1 it is merely necessary to swing out the front lens of the condenser. This movement actuates the simultaneous turning-in of a field lens, which automatically restores exact illumination of the object field and "Köhler's illumination".
2. For investigations in darkground, only the brightfield condenser top is exchanged this obviates the need for a special darkground condenser.
3. The centring device for alignment with the optical axis of the microscope is built into the dovetail fork of the condenser fitting. This makes the centring mechanism hitherto necessary on each interchangeable condenser redundant for the LEITZ DIALUX 20.
4. The field diaphragm is built into the foot of the stand and can be moved in all directions to ensure rapid

and highly precise fine correction of its position relative to the condenser. Its diameter can be adjusted with the same manipulation by rotation of the sliding mount.

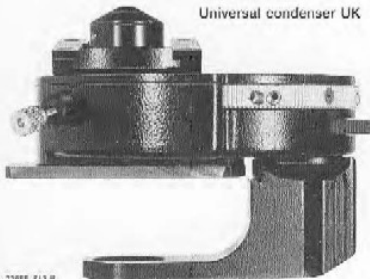
The achromatic condenser top for brightfield illumination has a numerical aperture of 0.90. It allows the unrestricted utilization of the resolving power of the NPL FLUOTAR dry objectives and is also completely adequate for all routine investigations with the 100/1.32 Oil immersion objective. For investigations of very fine structures and for photomicrography in which the highest demands of the resolving power of the optical systems are made the immersion condenser top, N.A. 1.32 is available.

Darkground condenser tops of numerical apertures 0.80 to 0.95 or 1.19 to 1.44 are used for darkground investigations and fluorescence observations with transmitted light excitation. The various condenser tops are rapidly and easily interchanged on the changing thread of the swing-out front part of the condenser. For observation of objects immersed in liquids which must be illuminated through the bottom of laboratory vessels (Petri dishes) or counting chambers, condenser top of long intercept distances are available.

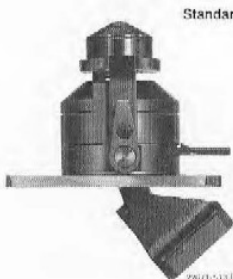
In addition, these condensers can be used in conjunction with the polarizing device for the location of birefringent components of specimens.

The universal condenser UK for the LEITZ DIALUX 20 is designed mainly for work in which a change of the optical

Universal condenser UK



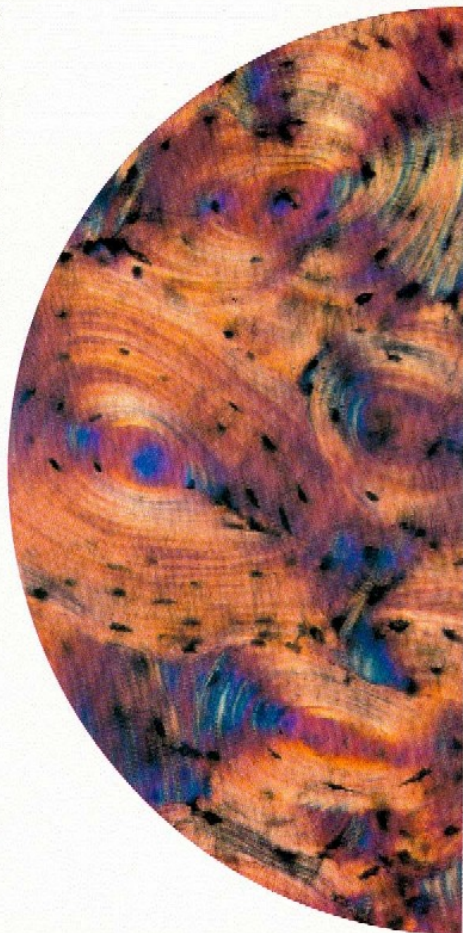
Standard condenser SK



Illuminating and contrasting methods is required to utilize as fully as possible the information contained in the specimen.

The condenser UK has all the properties of the SK standard version. But it has additional facilities for a light-ring turret for phase contrast illumination or a prism turret for interference contrast. These revolving turrets can be interchanged by the user at any time. The light rings for phase contrast illumination can likewise be used individually. This permits, for instance, the combination of conventional brightfield objectives with phase contrast optical systems in the same optical version and the instant changeover between various methods of observation.

The Wollaston prisms necessary for interference contrast observation are inserted in the revolving turret in the factory and permanently aligned to ensure precision adjustment with the prisms on the objective side and therefore perfect interference contrast images.



Thin section of Havers' Lamellar system within the compacta of a tubular bone; cattle, 15 μ m.
Polarized light. Formal fixation, thionine-picric acid.
NPL FLUOTAU 16/0.45,
microscope magnification 160x.
Preparation: Prof. Dr. Th. Peters,
Zentr. f. Anatomie u. Cytophysiologie, Gießen.

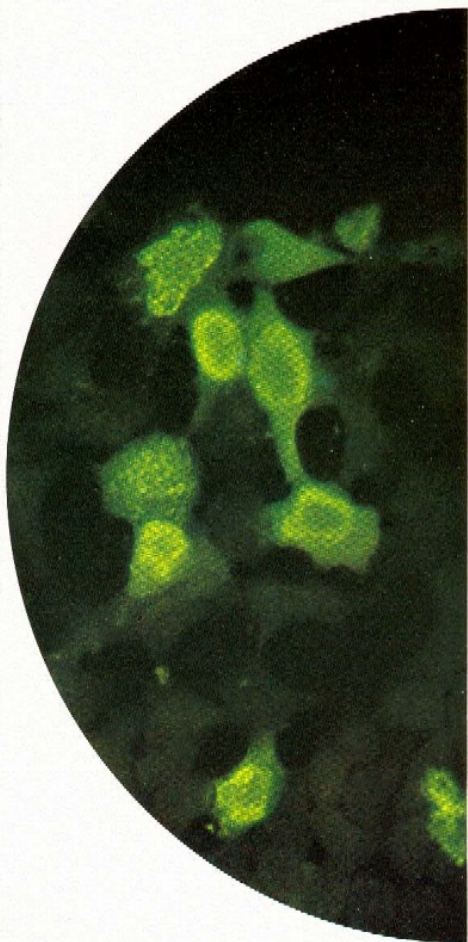
The light sources

In the DIALUX 20 EB microscope the illuminating optical system, 6 V 20 W tungsten halogen lamp, regulating transformer and voltmeter are built into the foot of the stand. The knurled knob for setting the illuminating intensity is on the right-hand handrest. The lighting intensity set can be conveniently checked by the user on the reading instrument built into the foot of the stand. It lights up as soon as the switch for the mains supply of the microscope illuminator is actuated. This makes its operational state immediately apparent also in the darkened room.

The lamp housing 102 Z for the LEITZ DIALUX 20 is locked in the bayonet mount on the back of the foot of the stand. In addition to the illuminating optical systems it contains a 12 V 100 W tungsten halogen lamp as standard light source. This can be replaced by gas discharge or spectrum lamps of up to 100 W at any time.

A sufficient number of powerful light sources are thus available for fluorescence investigations, photomicrography and cinemicrography, microscope photometry, and the projection attachment.

Lamp and illuminating mirror can be precision centred in the microscopic beam. The focusing lamp condenser system makes fully homogeneous illumination of the object field possible at all stages of magnification. With a special centring disc to be placed on the dust glass in the foot of the microscope the adjustments can be carried out conveniently and reliably with the control knobs on the outside of the lamp housing and allow optimum utilization of the light source in use.



Adeno virus, type 7
FITC fluorescence
FL 40/0.85
microscope magnification 100x

The LEITZ DIALUX 20 fluorescence microscope



Outfit for fluorescence investigations in transmitted-light excitation*

For the investigation of fluorochromed specimens the DIALUX 20 with Lamp Housing 102 Z can be equipped for **transmitted-light excitation** of fluorescence with little technical and financial outlay. For routine investigations which do not call for very high luminous density of the exciting radiation and for the excitation in blue (e. g. FITC fluorescence) and in the green (e. g. TRITC fluorescence) region of the spectrum the 100 W tungsten halogen lamp of the standard outfit is often already adequate. For only weakly fluorescing specimens and especially for fluorescence excitation in the UV region the Lamp Housing 102 Z should, however, always be fitted with a 50 W ultra-high-pressure mercury lamp.

It is best to replace the brightfield condenser top with a condenser top for darkground to obtain a dark background and thereby optimum contrast of the fluorescent image. Such a fluorescence outfit also includes, depending on the fluorochroming of the specimens, at least one filter set consisting of exciting and suppression filters for UV, blue, or green excitation.



Outfits for fluorescence investigations with incident-light excitation*

To extend the special advantages of this method also to the LEITZ DIALUX 20, the PLOEMOPAK 2.4 fluorescence vertical illuminator has been designed. It can be used equally well on the DIALUX 20 EB (with built-in illuminator) and on the stand with attachable Lamp Housing 102 Z and is inserted in the rapid changing mount between the top part of the stand and the observation tube.

The 50 W ultra-high-pressure mercury lamp in the Lamp Housing 102 Z serves as the exciting light source; the lamp housing is attached to the light-conducting tube of the fluorescence illuminator.

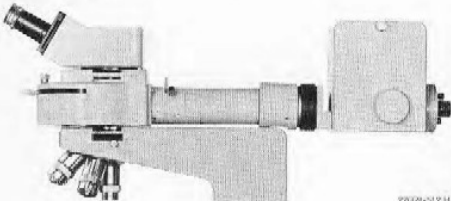
A changing device for 3 filter blocks is built into the PLOEMOPAK 2.4. It permits the instant change of the spectral region of excitation. In addition, each filter block can be conveniently interchanged in the changing device and can therefore be freely chosen. It consists of the exciting filter, the dichroic beam splitter and the suppression filter on a common filter support. Interchange takes less than a minute, and the new filter block will be automatically adjusted in the optical path of the microscope.

A special clamping device of the filter changer allows the changeover between two neighbouring filter blocks at will. This possibility is useful particularly when the specimen under investigation had been treated with two fluorochromes which have to be excited with different light wave lengths.

Filter polarizing device

This serves for the location of birefringent components of the specimen and consists of polarizer for mounting on the dust glass in the foot of the stand, analyser in slide, for insertion in the filter slot of the stand of the microscope,

Incident light fluorescence illuminator
PLOEMOPAK 2.4

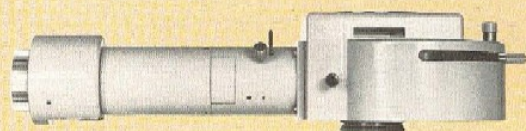


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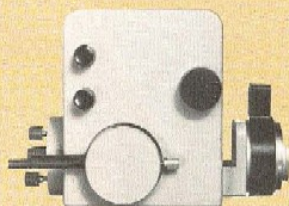
* Detailed explanations of fluorescence microscopy with LEITZ microscopes is contained in the List No. 512-125 a. The possibilities and outfits described there basically also apply to the LEITZ DIALUX 20.



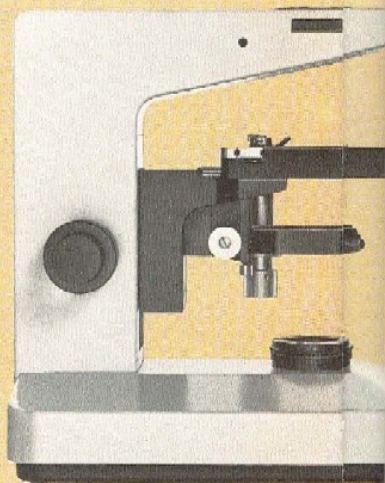
Projecting head



PLOEMOPAK 2.4



Lamp housing



Stand DIALUX 20



LEICA

adapt
(for L)

binocular tube S



LEICA MDA



LEICAFLEX SL 2



film transport housing



adapter 0.32
for LEICA M



adapter 0.32
(for LEICAFLEX)



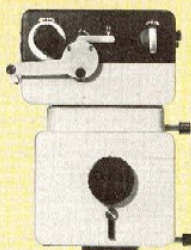
adapter 0.32
(for film transport
housing)



electrical
shutter unit



clamping collar



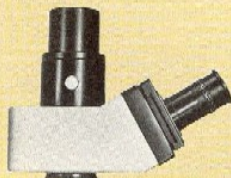
WILD automatic
photomicrographic system
MPS 50



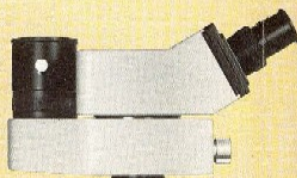
6.5 x 9cm camera
attachment



tube S



binocular phototube FSA



inclined binocular tube SA
with phototube HU



quintuple revolving nosepiece



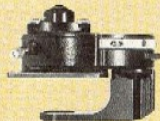
centring, rotating
mechanical stage



Condenser SK



dark field
condenser
head



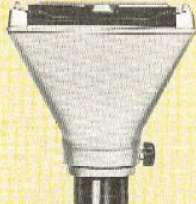
Condenser UK



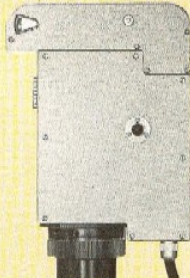
6.5 x 8cm camera attachment



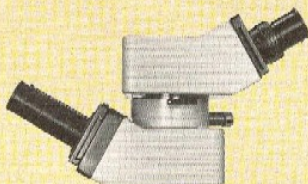
POLAROID CD 101 camera attachment



9 x 12 (4 x 5") camera attachment



ORTHOMAT W



discussion and demonstration body

LEITZ DIALUX 20

All attachment cameras by Wild Hoerbrug and LEITZ Wetzlar for photomicrography can be used on the LEITZ DIALUX 20 laboratory and research microscope. Technical details of the various photomicrographic outfits can be obtained from the relevant special brochures.

The automatic photographic attachments must be specially mentioned here. They appreciably facilitate work whenever a microscopic finding is to be recorded reliably, rapidly and effortlessly by means of black-and-white or colour photography.

LEITZ COMPIPHOT[®]-AUTOMATIC is a universal system camera with automatic exposure control for shutter speeds from 1/125 sec to 5 min at 50 ASA.

Camera bodies for the 35 mm, 6.5 x 9 cm, 9 x 12 cm (4 x 5") formats and 3 1/4 x 4 1/4" Polaroid can be quickly and conveniently interchanged on the shutter part with automatic, vibration-damped central shutter.

The fully transistorized control unit allows setting for film speeds from 8-37 DIN (3-4000 ASA) at 1 DIN (1.25 x ASA) increments. Warning lights indicate the correct function of the exposure control within the set range (film format, film speed) and when this is exceeded. Faulty exposures, for instance owing to excessive brightness of object illumination, is thereby prevented.

Picture area and focusing are controlled in the binocular phototubes FSA (LEITZ) or SA/HU (WIL D).

The WILD MPS 50 automatic photography system

In this attachment camera for formats from 35 mm to 9 x 12 cm (4 x 5") shutter speed and film transport are electronically controlled. A pointer instrument indicates the shutter speed and — especially for long-time exposures — the exposure process in 1/10 time.

A special automatic mechanism to correct the so-called reciprocity law failure is built in and adjusted to the most frequently used colour films. It can be disengaged for films for which it is not required. A blank exposure key permits multiple exposures, manually operated exposures or exposures at constant shutter speed.

Automatic light metering from 1/100 sec to more than 2 hours is integrating and centre weighted. Film speed can be ad-

justed between 5 and 43 DIN (2 1/2 and 16,000 ASA) at 1 DIN (1.25 x ASA) increments. Referred to the basic calibration of the instrument such a correction can be carried out within the range between 4x shorter and 4x longer exposure times. Picture area and focusing are controlled on the binocular phototubes SA/HU (WILD), FSA (LEITZ) or through a focusing telescope.

The WILD MPS 50 automatic photography system with the camera attachments for the various film formats of the LEITZ COMPIPHOT AUTOMATIC: for the 35 mm format, a special motor-driven film transport housing is also available.

LEITZ ORTHOMAT-W

This fully automatic microscope camera, well tried for years, for the 35 mm format can naturally also be used on the binocular tubes FSA and SA/HU for the LEITZ DIALUX 20.

In the ORTHOMAT-W the automatic exposure measurement can be carried out via a photomultiplier either integrating the entire image area or as spot measurement of a picture portion (darkground, fluorescence) essential to the record. Exposures from 1/200 sec to the longest exposure time occurring in photomicrography are possible. The ORTHOMAT-W can be adjusted to film speeds from 3 to 38 DIN (1 1/2 to 5000 ASA) at 1 DIN (1.25 x ASA) increments.

The eyepiece magnification in the photographic beam can be set continuously between the factors 2-2.5-3.2. This ensures optimum utilization of the film format. Picture area and focusing are controlled with the binocular tube.

Detailed brochure: List No. 540-39.

Projection attachment

This accessory for the rapid and convenient scanning of microscopic specimens or their demonstration to a small number of observers permits the projection of the image on a groundglass screen of 155 mm diameter. The projection attachment is eminently suitable for use on the LEITZ DIALUX 20 with Lamp Housing 102 Z and 100 W tungsten halogen lamp.



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VJ76/FY/SD

Thin section through the occiput of alpine newt.

Bouin fixation; 7 μ m.

Carmalaun-Fickronigrosine.

PL 1,6/0,05

microscope magnification 16x

Preparation: Prof. Dr. Th. Peters

Zentr. f. Anatomie u. Cytobiologie, Gießen.

