

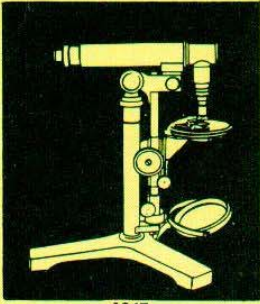


SERIES 10

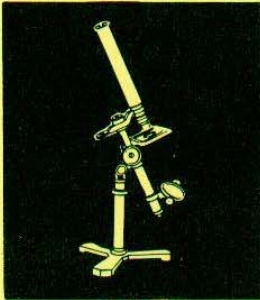


SPENCER

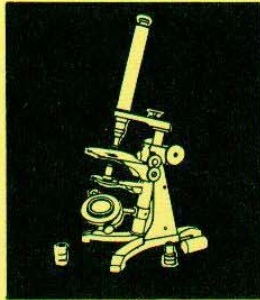
MICRO *Star*



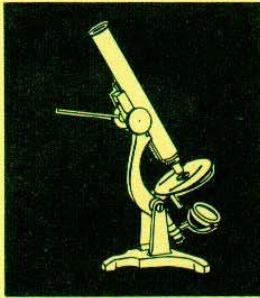
1847



1850



1855



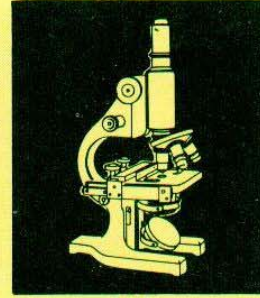
1876



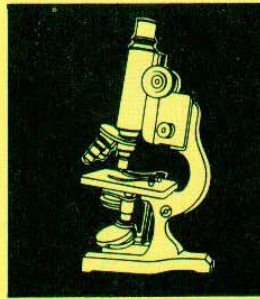
1900



1906



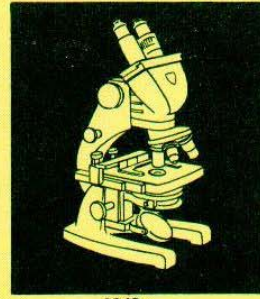
1915



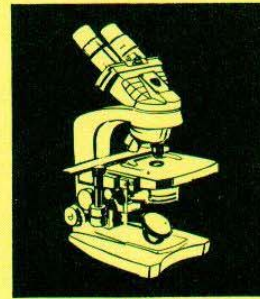
1920



1933

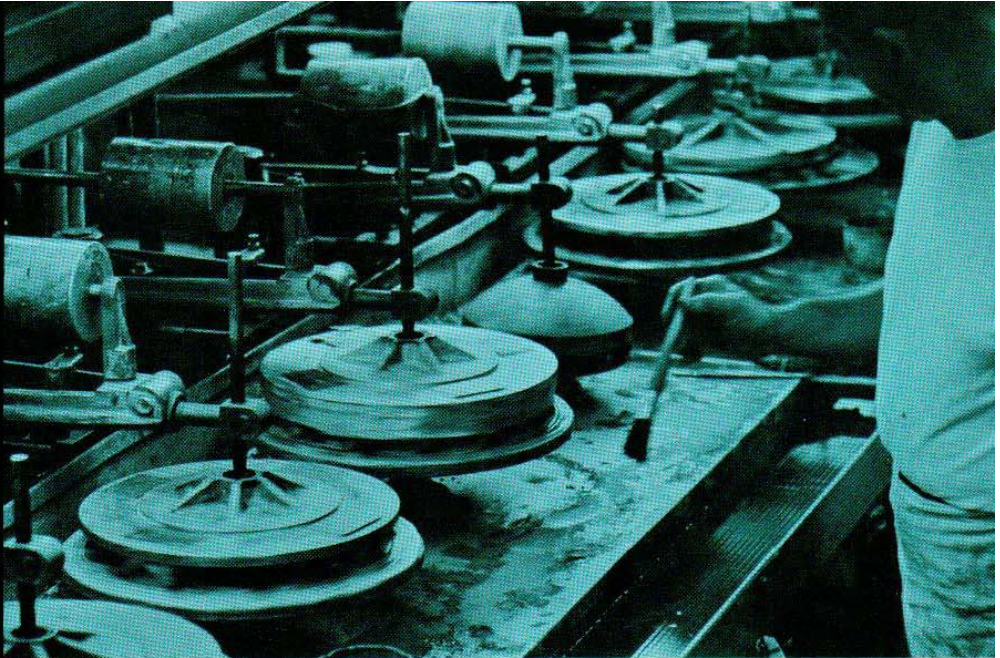
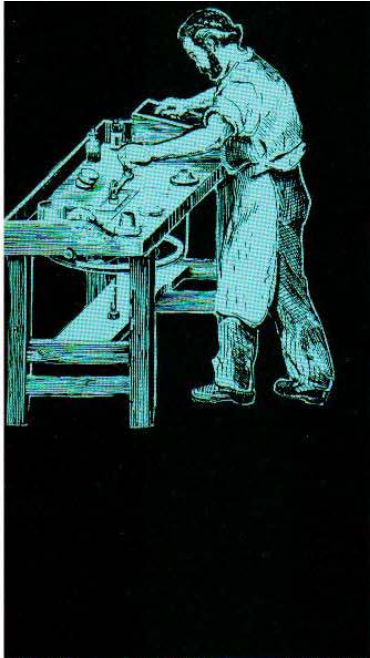


1949



1956

BACKED BY OVER



125

YEARS

OF LEADERSHIP IN OPTICS

... and 115 years of progressive achievement in microscope development. This is the heritage of the AO Instrument Company.

Its history dates back to 1846 when Charles Spencer made the first American microscope. Since that time, product development, production and service has been continuous and outstanding. With each successive instrument, new high standards of performance and reputation were established.

The Microstar Microscope is no exception. You will find this hallmark of the highest quality and craftsmanship in microscopes affixed to each instrument.



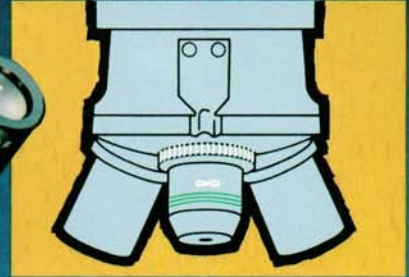
SPENCER

The Completely *NEW*

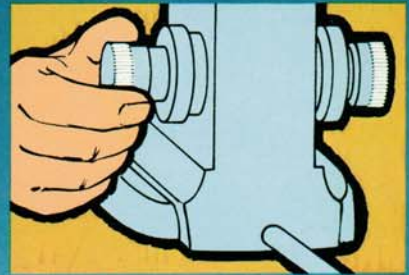


SPENCER

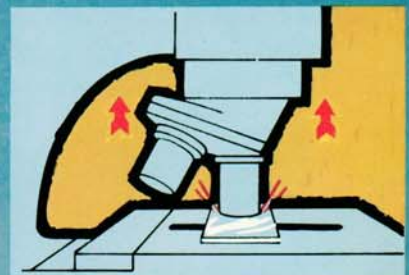
MICRO*Star*



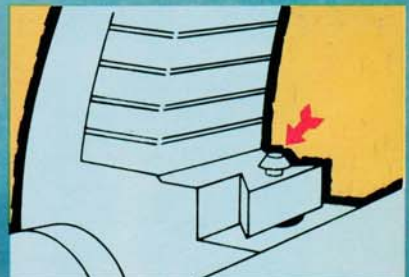
Exclusive . . . infinity corrected optical system . . . true flatness of field . . . you can see the difference.



Dual, coaxial, coarse and fine focusing . . . low positioned . . . comfortable and convenient to use.

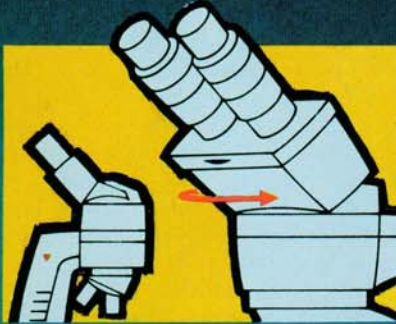


Exclusive . . . focusable, gravity-loaded nose-piece . . . eliminates specimen slide and objective damage.

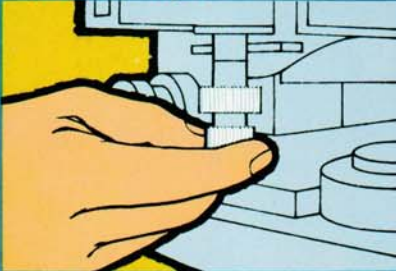


Variable auto-focus stop . . . a real time-saver!

These are a few of the many advances that set new high standards in microscope performance



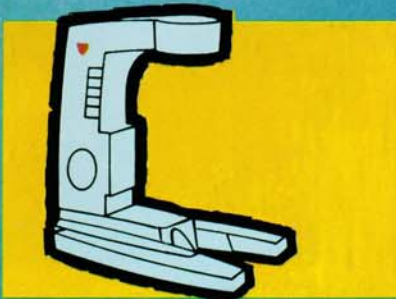
Constant tube length binocular and trinocular bodies . . . improves parfocality and simplifies photography, calibrations and measurements. Rotatable through 360°.



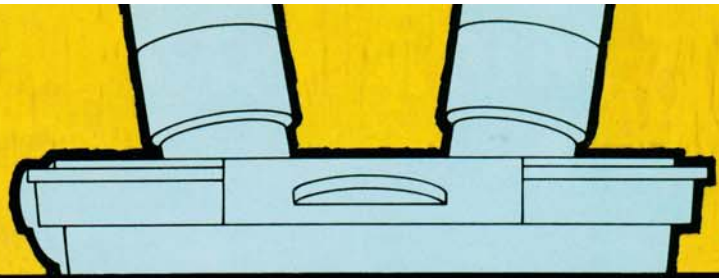
Exclusive . . . new fixed stage stability . . . including graduated or ungraduated mechanical with choice of either right or left hand, below stage coaxial controls.



Selection of illuminators . . . or mirror to suit your preference.



Unitized construction for increased stability. Durable, attractive EPOXY finish.



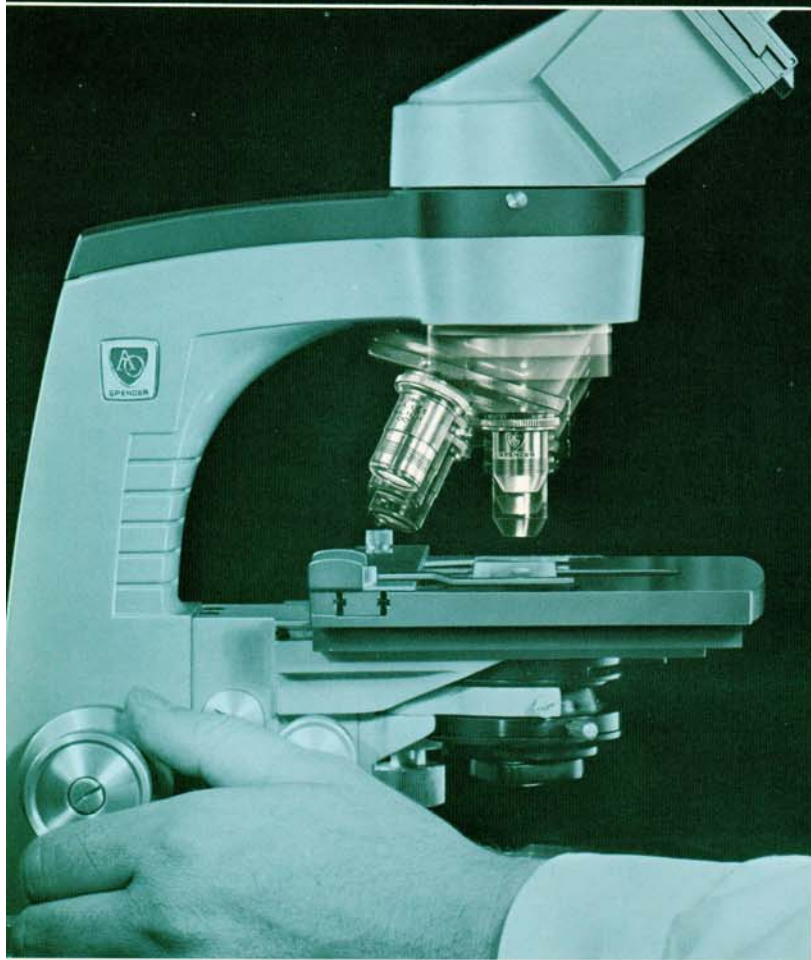
Superior Image Quality with AO's New Infinity Corrected System

Without question, the most important part of a microscope is optical performance. In the Microstar, AO has developed a unique infinity corrected system which will give you the very best visual and photomicrographic image quality obtainable in this class of instrument. It gives a larger field of view in sharp, crisp focus. It provides better correction for flatness of field, astigmatism and lateral color as well as the traditional microscope objective corrections.

This is performance you can see . . . performance that defies comparison, model for model, with that of any other microscope on the market.



MICROStar



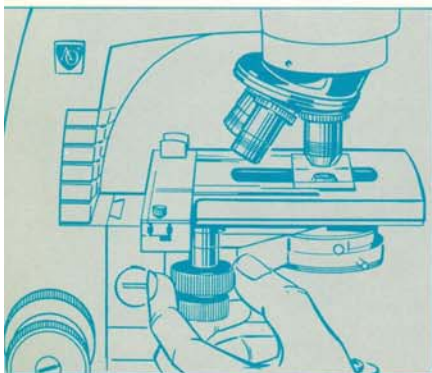
NEW EXCLUSIVE FOCUSING CONCEPT

AO Spencer offers you this exclusive outstanding advancement in microscope design. Only the nosepiece assembly moves to focus the objective to the specimen. This is the smallest, lightest, most easily moved part of the microscope. There's no rack and pinion . . . no heavy bearing surfaces to wear and bind. The entire focusing mechanism is enclosed in arm, sealed against dirt and dust and requiring no periodic maintenance, cleaning or relubrication. Nosepiece is focused by dual, coaxial, coarse and fine adjustment knobs . . . rides smoothly on ball-bearing slideways. Virtually frictionless action assures years of trouble-free service.

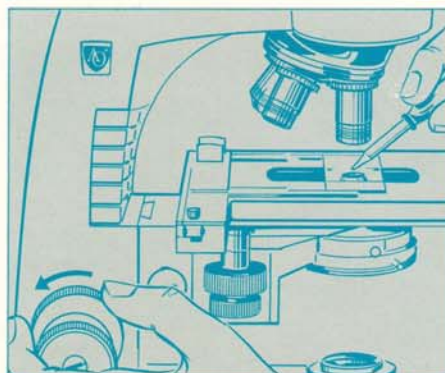
... PROTECTS SLIDES and OBJECTIVES

Nosepiece focusing mechanism is gravity-loaded . . . there is no positive downward pressure. If you focus down onto slide accidentally with either coarse or fine adjustment the nosepiece "gives" . . . and force exerted on the slide is insignificant . . . thus, it is impossible to damage objectives or break costly slides with the AO MICROSTAR. A fine adjustment safety clutch and coarse adjustment positive stops protect the focusing mechanisms against damage.

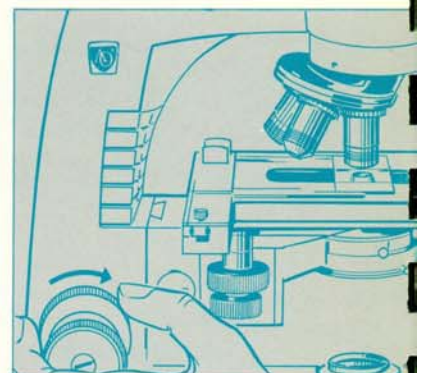
NEW FOCUSING CONVENIENCE AO's unique Autofocus stop eliminates lost time in searching for correct focus with coarse adjustment.



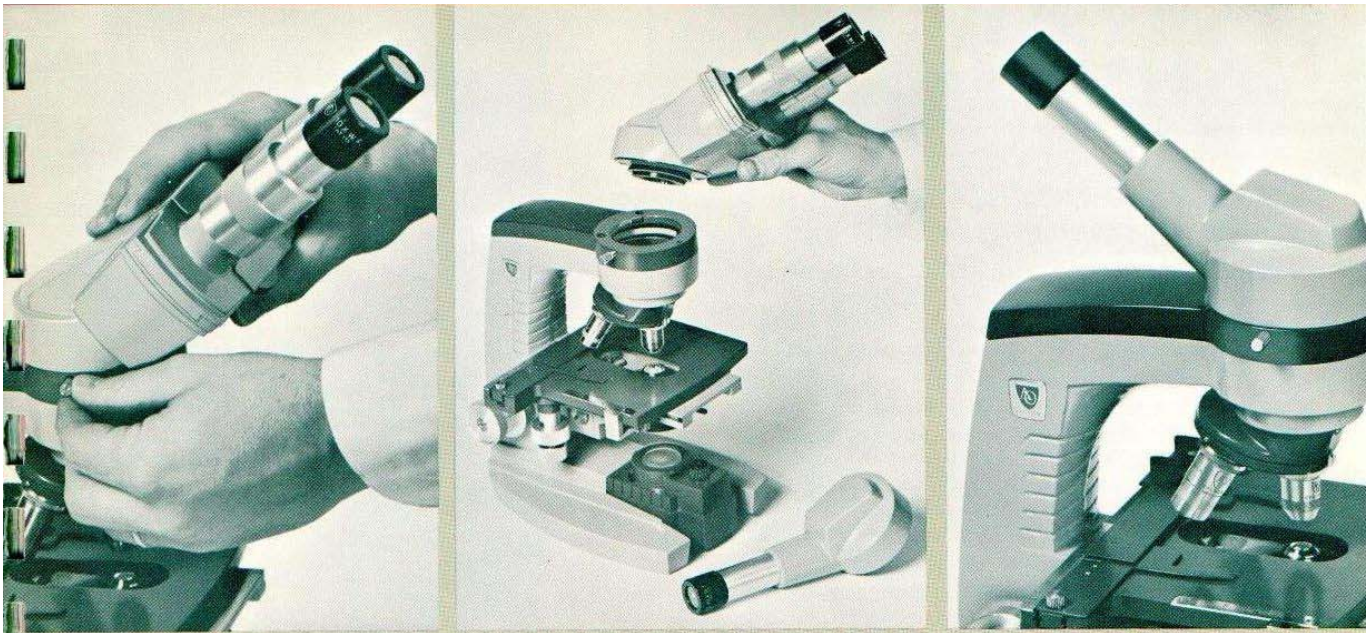
Search and locate field with low power objective.



Raise coarse adjustment . . . swing to oil immersion objective . . . apply oil.



Lower coarse adjustment to positive Autofocus stop. You will be in focus with a touch of the fine adjustment.



WIDE SELECTION OF INTERCHANGEABLE AND ROTATABLE BODIES

Monocular, binocular, trinocular and vertical monocular bodies are available for Series 10 MICROSTAR. ALL ARE ROTATABLE 360° . . . ALLOWING ALL MODELS TO BE USED IN CONVENTIONAL OR REVERSE POSITIONS.

All air-glass surfaces have low-reflection coating, AMERICOTE, to decrease internal reflection, increase light transmission and improve image contrast.

Converging binocular and trinocular bodies are supplied as standard. They are graduated for interpupillary and eye-refraction differences. Resultant magnification, field coverage, parfocality and calibrated values of eyepiece micrometer scale remain constant regardless of changes in interpupillary settings. Con-

stant tube length is maintained by internal optical focusing. Accidental pressure on eyepieces cannot change interpupillary distance. Body inclination (50°) and tube convergence (54mm - 74mm) assure maximum comfort to the user.

Inclined parallel eyetubes in both the binocular and trinocular models are available and may be substituted for converging eyetubes at no extra cost. (see Price List.)

A wide selection of moderate-cost photomicrographic cameras can be mounted on the trinocular body in place of vertical photomicrographic tube. (See page 6.)

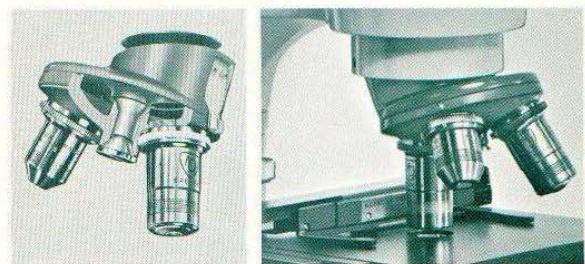
Unique swing-out prism of trinocular body directs all the illumination to either eyepieces or camera.

NEW ARM/BASE STABILITY



tion allows greater interchangeability of illuminators and mirror assembly.

The arm and base are cast as a single unit . . . rigid, sturdy and designed to take hard usage. All mechanical parts are enclosed within . . . protected from dust and dirt. Horizontal clearance between the optical axis and the arm is 112mm . . . visual access to the specimen is unobstructed. Base construction



NOSEPIECE SELECTION

Double, triple, quadruple or quintuple nosepieces are fully rotatable. Dual cone construction assures easy movement and long-life rotating action. Hardened steel ball and clip indexing provides precise centration of each objective on optical axis. Entire nosepiece is secured in place with a single screw to allow quick, easy change.



MICROStar

SPENCER

CAMERA WORK EASIER THAN EVER BEFORE

The single tube of the trinocular body accepts three popular photomicrographic camera backs: 35mm, 3 $\frac{1}{4}$ " x 4 $\frac{1}{4}$ " film pack Polaroid and 4" x 5" Camera Back Adapter for cut film or Polaroid # 500 accepting individual 4" x 5" Polaroid film packets.

Since visual and photographic systems are parfocal, no additional telescope is needed. As you focus through the microscope, the specimen is simultaneously brought into the same critical focus at the film plane. Just flip the lever to direct light path to camera and click shutter for crisp, sharp photomicrographs in black and white or color.

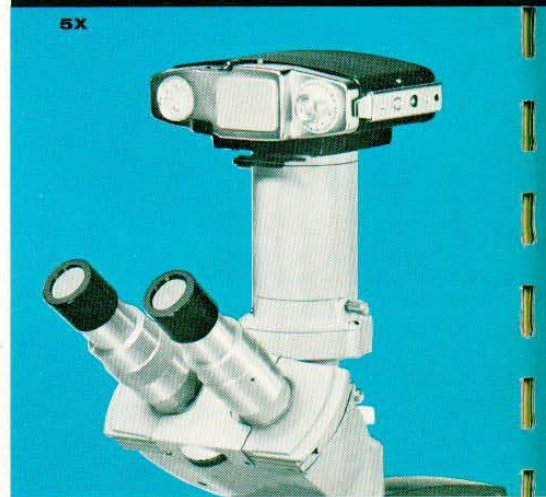
A special field of view eyepiece (10X W.F. with focusable eyelens and reticle) shows fields subtended on the film. This makes composition of field being photographed easy . . . no ground glass or guess work.

Highly corrected optical system permits compact design. Cameras set low and within easy reach. It is not necessary to purchase three complete cameras. The 35mm camera back, Polaroid Camera Back and 4" x 5" Camera Back Adapter are interchangeable using a single lens and shutter assembly.

Camera Back Adapter

The 4" x 5" Camera Back Adapter adds greater versatility since it accepts both cut film holders as well as the # 500 Polaroid Film Holder.* The latter offers the benefits of both black and white prints (plus negative) or color prints.

* # 500 not sold through American Optical

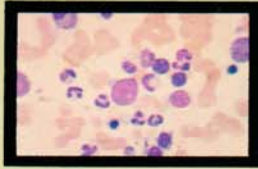


35mm CAMERA

AO offers the first inexpensive 35mm camera with two different magnifications. 2.8X covers essentially the field that is seen through the 10X wide field eyepiece. 5X covers approximately $\frac{1}{2}$ that diameter. The availability of 5X magnification is a decided advantage for hematology, bacteriology and other applications. Single adapter allows instant change-over from 2.8X to 5X using same camera back. Resultant magnification at film plane equals objective magnification times camera magnification of 2.8X or 5X.

OTHER CAMERAS

Microstar can also be used with AO Models 1070, 682 or equivalent separate cameras. Versatility is achieved in the number of camera backs and film available for the 682.



BLOOD CELLS — BONE MARROW

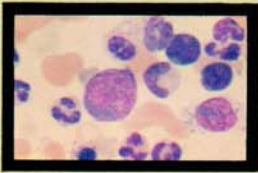
Film: 35mm Kodachrome II

Objective: 100X

Filter: 80B

Exposure: 3/25 sec.

Magnification: 280X (2.8X x 100 = 280X)



BLOOD CELLS — BONE MARROW

Film: 35mm Kodachrome II

Objective: 100X

Filter: 80B

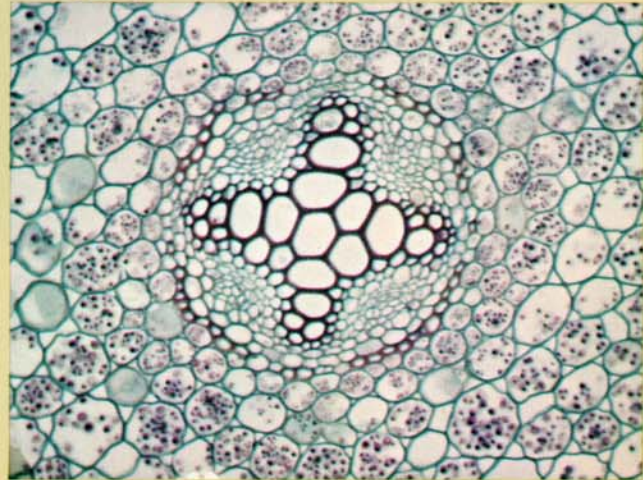
Exposure: 1/2 sec.

Magnification: 500X (5 x 100 = 500X)

**POLAROID®
CAMERA**

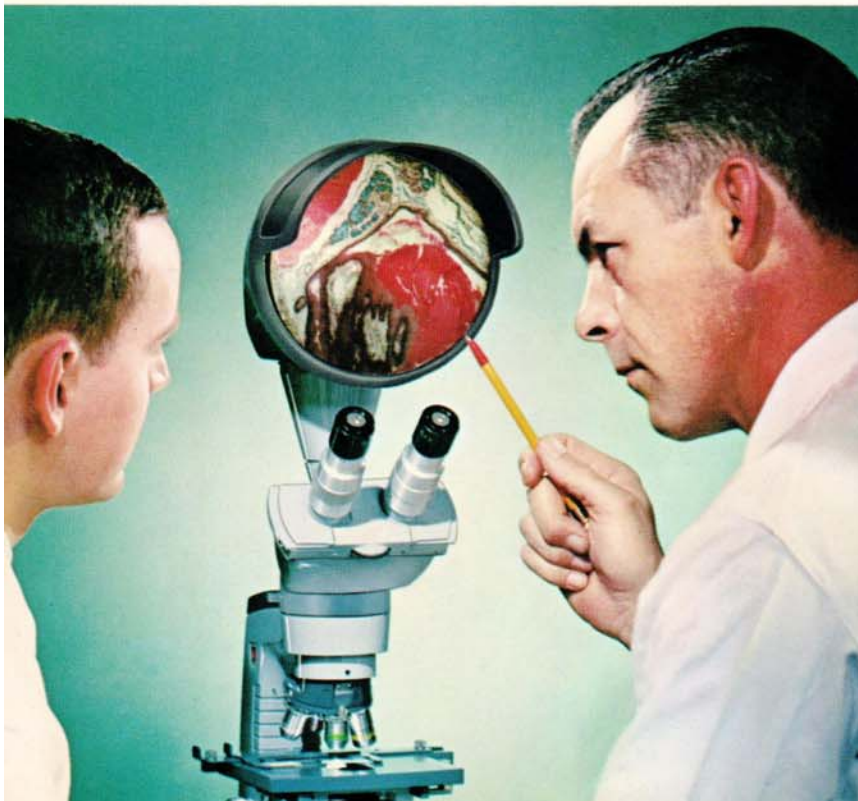


Easy to attach and easy to use. Focus through the microscope with regular eyepieces. Resultant magnification is 7.5x times initial magnification of objective. Size 3 1/4" x 4 1/4" printed in seconds on Polaroid black and white or color film.



*Film: POLARCOLOR
Objective: 10X*

*Filter: 619
Exposure: 1/5 sec.*



VIEWING SCREEN

Ideal for the small group discussion, consultation or teaching situation. Designed for use with the trinocular body . . . is readily interchangeable with cameras.

Resultant magnification at screen plane is 7.5 times the initial magnification of the objective. The field of view is the same as through 10X wide field eyepiece.

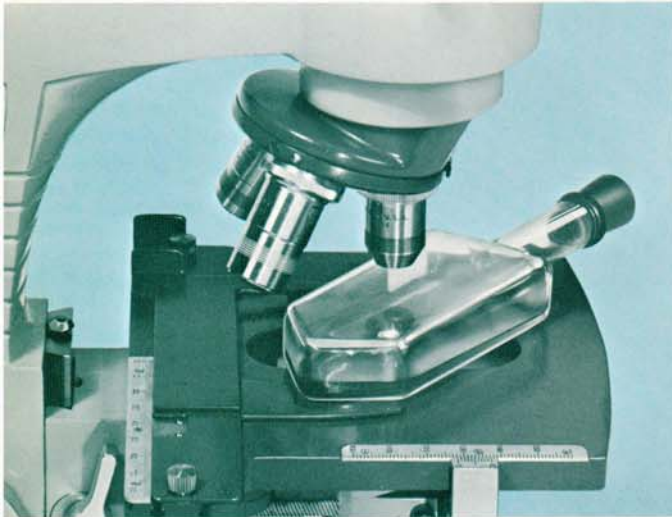
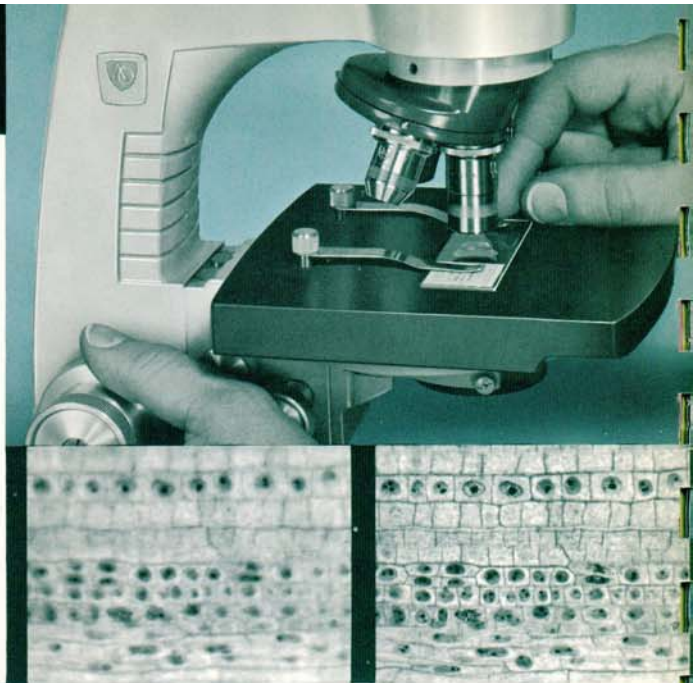
Six inch diameter screen is backed by a Fresnel lens which directs all of the light to the viewer.



MICROStar

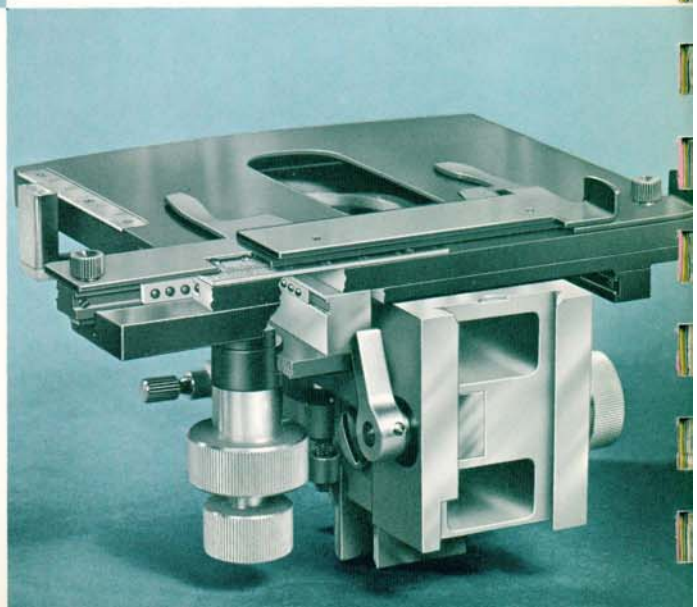
MAXIMUM STAGE STABILITY AND VERSATILITY

The stage becomes an integral part of the stand . . . solid . . . sturdy . . . fixed. You cannot disturb it even if you try. Make this simple test with any other microscope: Look into the eyepiece . . . lay your hand on the stage to move the specimen slide . . . even the slightest pressure will throw your field out of focus. Do the same with the new MICROSTAR . . . the image remains in sharp critical focus.



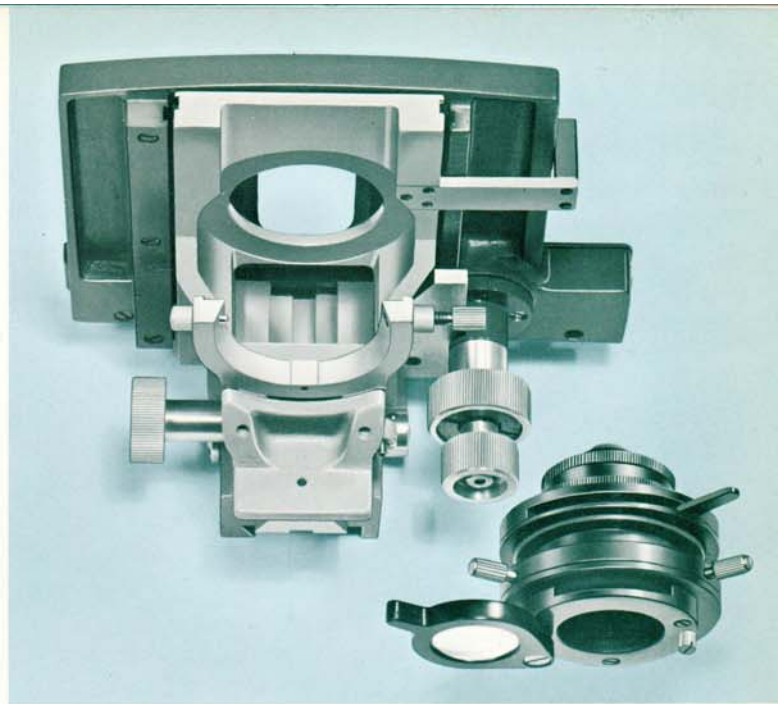
For petri dish or tissue culture bottles, release lever to disengage stage and re-position to the necessary working distance. A full $1\frac{1}{8}$ " clearance from position of focus to top of stage is provided.

A complete selection of stages is available for the new MICROSTAR: Plain, mechanical and Micro-Glide. Mechanical stages are research type . . . graduated and ungraduated . . . allow complete coverage of a 2" x 3" slide. Ball bearing slideways are completely enclosed . . . require no routine cleaning or lubrication. Movement is smooth and effortless, controls are low and handy. Available for either left or right hand operation! This flexibility permits facing microscope either way with choice of right or left hand mechanical stage operation. Spring-loaded pinch-type stage fingers retain slides securely and safely . . . you will never risk breaking or chipping slide corners.

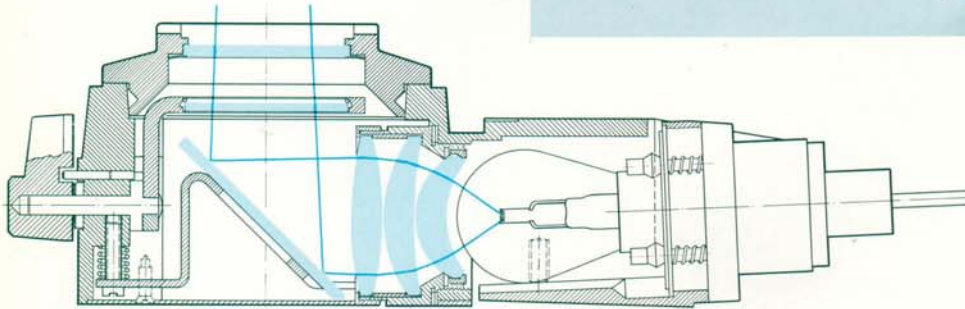


SUBSTAGE CONDENSER MOUNTS

The Microstar 10 is supplied with fork type, rack and pinion focusable condenser mount, iris diaphragm and appropriate condenser. Fork type mount allows instant interchange of condensers without disturbing optical alignment, and affords easy condenser removal for routine cleaning. Includes convenient swing-in auxiliary lens for full field illumination of 4X scanning objective (Not required with illuminators # 1034 and # 1037; and N.A. 0.66 condensers).



ILLUMINATORS AND MIRROR



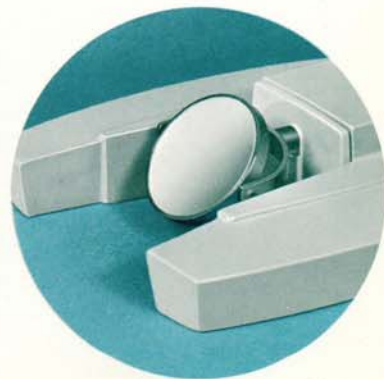
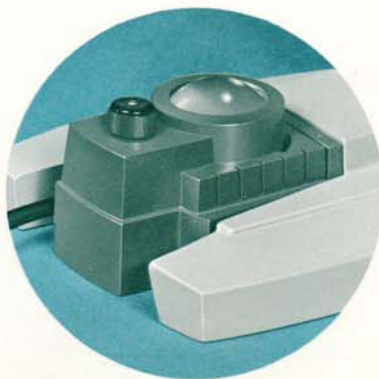
MICROSTAR offers illumination to fit your specific requirement with a choice of three built-in illuminators. High Intensity Illuminator #1036 for advanced laboratory work, photomicrography and viewing screen use. Convenient external lever controls built-in neutral density filter . . . easy to swing in or out of position as required.

Single neutral density filter combined with five step transformer, assures correct intensity level of 6.5V 2.75A lamp (GE 1460) illumination for all situations. Loose density filters are unnecessary. Well corrected optical system provides essentially Koehler illumina-

tion. You have excellent uniformity and full numerical aperture at all magnifications.

Two models of the inexpensive On-Base illuminator are also available . . . "N" # 1037 for the binocular MICROSTAR and "U" # 1034 for the monocular. Both fill field of all objectives including the 4X scanning. Day-light filter, condensing lens and reflector are built in. Provides adequate intensity for all bright-field observation. Conveniently located "on-off" switch controls 110V, 15 Watt lamp, (GE # 15 S11/102)

#1038 Plano-Concave Mirror and Fork assembly . . . readily interchangeable with above illuminators.





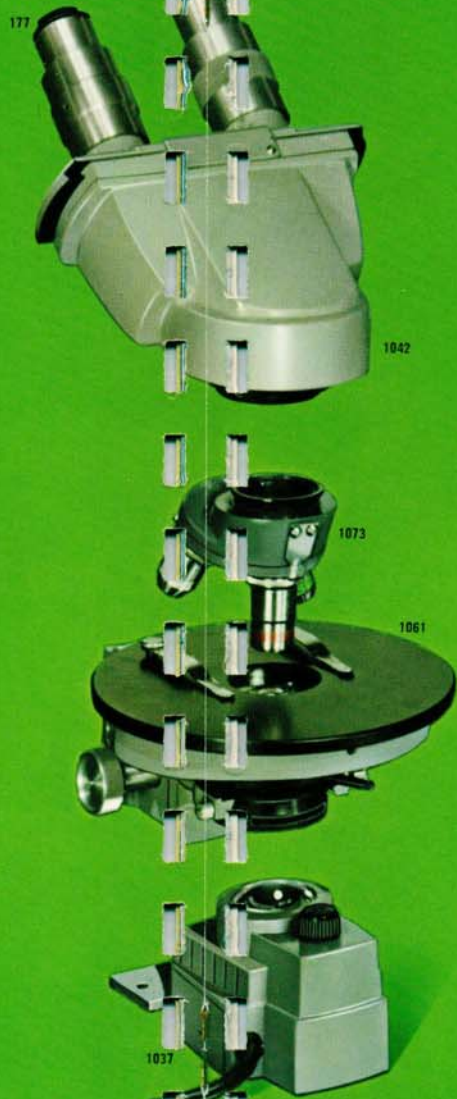
MICROStar

SPENCER

A BROAD SELECTION OF FULLY INT



ON OF FULLY INTERCHANGEABLE UNITS



CAMERAS

- 1052A—Polaroid® Camera
- 1053A—35mm Camera with shutter, cable and lens assembly

EYEPIECES

- 176—10X Wide Field
- 177—10X Huygenian

BODIES

- 1043—Trinocular
- 1042—Binocular
- 1041—Monocular
- 1040—Vertical Monocular, Fixed Eyetube

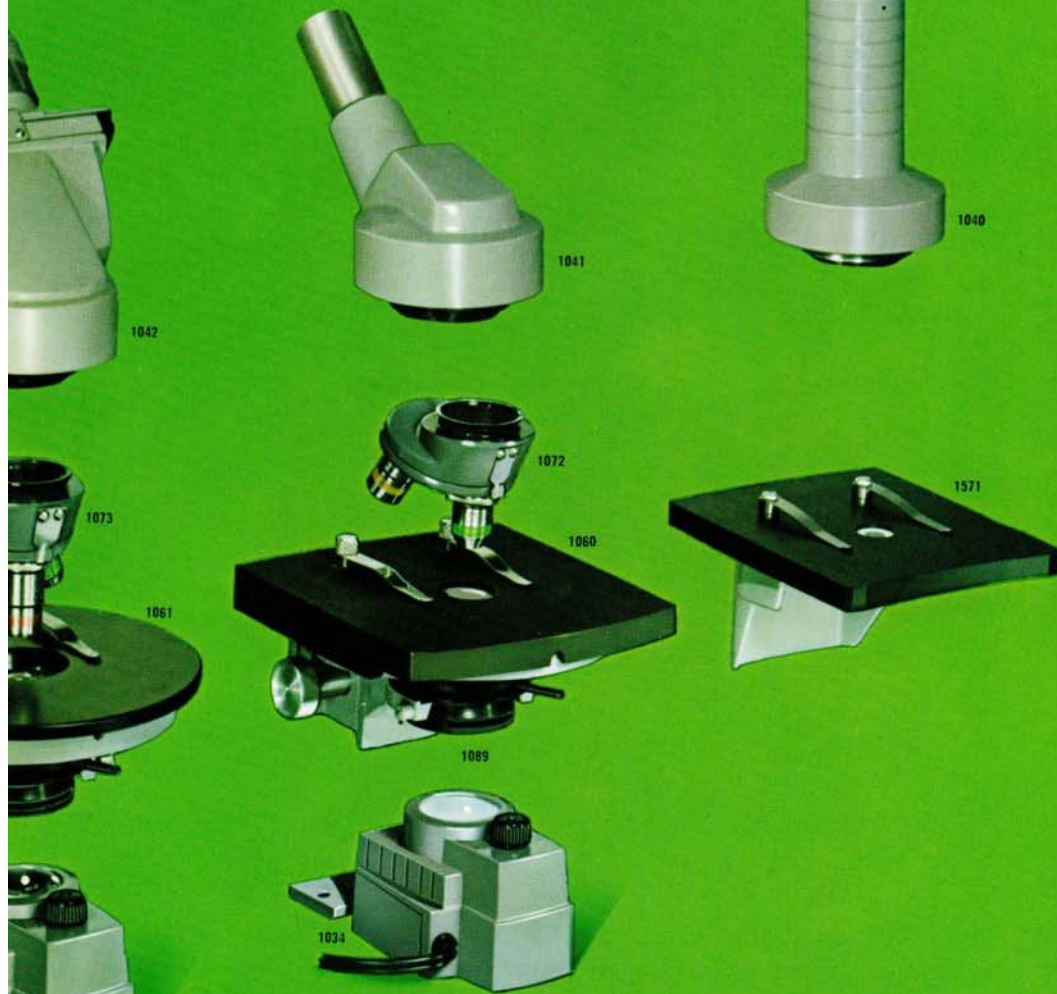
NOSEPIECE

- 1074—Quadruple
- 1073—Triple
- 1072—Double
- All shown with selected objectives

STAGE

- 1065—Left Hand Graduated Mechanical
- 1062—Right Hand Ungraduated Mechanical
- 1061—Micro-Glide
- 1060—Simple Stage
- 1571—Simple Stage with 227 stage condenser for Series 11 only

CHANGEABLE UNITS



CAMERAS

- 1052A—Polaroid® Camera
- 1053A—35mm Camera with shutter, cable and lens assembly

EYEPIECES

- 176—10X Wide Field
- 177—10X Huygenian

BODIES

- 1043—Trinocular
- 1042—Binocular
- 1041—Monocular
- 1040—Vertical Monocular, Fixed Eyetube

NOSEPIECE

- 1074—Quadruple
 - 1073—Triple
 - 1072—Double
- All shown with selected objectives

STAGE

- 1065—Left Hand Graduated Mechanical
- 1062—Right Hand Ungraduated Mechanical
- 1061—Micro-Glide
- 1060—Simple Stage
- 1571—Simple Stage with 227 in-stage condenser for Series 11 only

CONDENSERS

- 1088—N.A. 1.25 Abbe Condenser
- 1089—N.A. 0.66 Abbe Condenser
- 1090—Auxiliary Swing-in Condenser

CONDENSER MOUNTS

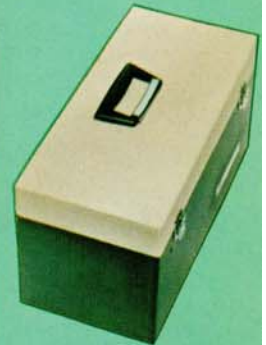
- 1093—Fixed, Fork Type
- 1095—Centerable, Fork Type

ILLUMINATORS AND MIRROR ASSEMBLY

- 1038—Plane-Concave Mirror Assembly
- 1036—In-Base, High Intensity with Transformer
- 1037—On-Base for Binocular Series 10
- 1034—On-Base for Monocular Series 10 and 11



Viewing Screen #1050 fits trinocular body. Magnification is 7.5X on six inch diameter screen.



Standard Cabinet #1610 for all models plus standard accessories. Stores horizontally or vertically.



Deluxe Cabinet #1611 for all models plus standard accessories. Vacuum formed Dura-flex . . . compact and lightweight. The ultimate in utility and beauty.



Variable Transformer #1051 — From 4.5 to 7.5 volts in five steps.



MICROStar^{*}
SPENCER



U10MU-HW



Supplied with inclined monocular tube, rotatable and interchangeable with other body types; gravity-loaded focusable nosepiece actuated by low-positioned coaxial coarse and fine controls on each side of stand; micrometer screw fine adjustment graduated in 1 micron increments; bearing surfaces of completely enclosed focusing mechanism ride on ball-bearing slideways; fixed stage adjustable on dovetail slideway for accommodating tissue culture cells or tubes; available with graduated or ungraduated mechanical stage . . . right or left side controls; also Micro-Glide or plain. Choice of infinity-corrected objectives and Wide Field or Huygenian eyepieces. Abbe condenser and iris diaphragm in fork-type mount focusable by rack and pinion.

A wide selection of Microstar Series 10M models are available to suit your specific requirements. Some are listed below . . . additional models are in the price list. Whatever your choice . . . you can be sure it is the finest microscope on the market today.

U10MU-HH

AO MICROSTAR SERIES 10

MONOCULAR MODELS 10M

CATALOG NUMBER	STAGE	INFINITY CORRECTED OBJECTIVES	EYEPIECE	CONDENSER	ILLUMINATION
U10MU-QW	Ungraduated Mechanical	4X, 10X, 45X, 100X Quadruple Nosepiece	10X Wide Field	Abbe N.A. 1.25	On-Base Illuminator
U10MU-HW	Same	10X, 45X, 100X Triple Nosepiece	Same	Same	Same
U10MU-HH	Same	Same	10X Huygenian	Same	Same
U10MU-TW	Same	4X, 10X, 45X Triple Nosepiece	10X Wide Field	N.A. 0.66	Same
XM10MU-QW	Same	4X, 10X, 45X, 100X Quadruple Nosepiece	Same	Abbe N.A. 1.25 with Auxiliary Condenser	Plano-Concave Mirror
M10MU-HW	Same	10X, 45X, 100X Triple Nosepiece	Same	Abbe N.A. 1.25	Same
M10MU-TW	Same	4X, 10X, 45X Triple Nosepiece	Same	N.A. 0.66	Same
U10MF-QW	Micro-Glide	4X, 10X, 45X, 100X Quadruple Nosepiece	Same	Abbe N.A. 1.25	On-Base Illuminator
U10MS-TW	Simple with slide clips	4X, 10X, 45X Triple Nosepiece	Same	N.A. 0.66	Same

If #177 10X Huygenian eyepiece is desired instead of #176 10X Wide Field eyepiece simply substitute last suffix "H" for "W" in above catalog outfits and see price list. Microscope cabinets are not included; if desired see #1610, #1611.

All essential optical surfaces of MICROSTAR Series 10 are AMERICOTE . . . to decrease internal reflection, increase light transmission and improve image contrast.



SPENCER

MICROStar



L10BU-HW



Supplied with inclined binocular bodies, rotatable and interchangeable with other body types; gravity-loaded focusable nosepiece actuated by low-positioned coaxial coarse and fine controls on each side of stand; constant tube length at any interpupillary settings; micrometer screw fine adjustment graduated in 1 micron increments; bearing surfaces of completely enclosed focusing mechanism ride on ball bearing slideway; fixed stage adjustable on dovetail slideway for accommodating tissue culture cells or tubes; available with graduated or ungraduated mechanical stage . . . right or left side controls; also Micro-Glide or plain; choice of infinity-corrected objectives and Wide Field or Huygenian eyepieces. Abbe condenser and iris diaphragm in fork-type mount focusable by rack and pinion.

A wide selection of Microstar Series 10B models are available to suit your specific requirements. Some are listed below . . . additional models are in the price list. Whatever your choice . . . you can be sure it is the finest microscope on the market today.

L10BU-HH

AO MICROSTAR SERIES 10

BINOCULAR MODELS 10B

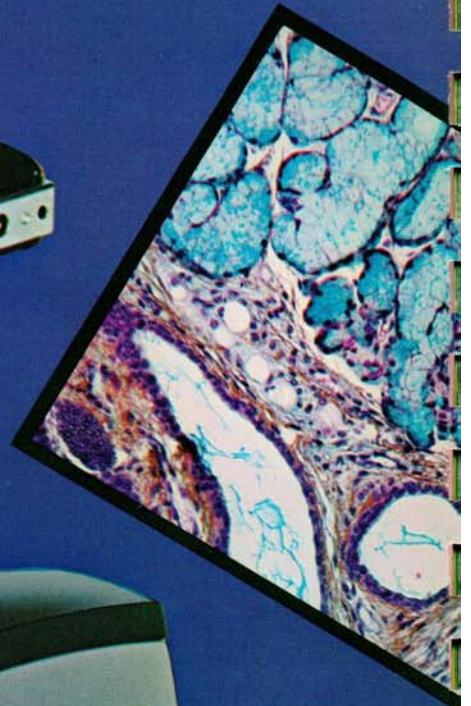
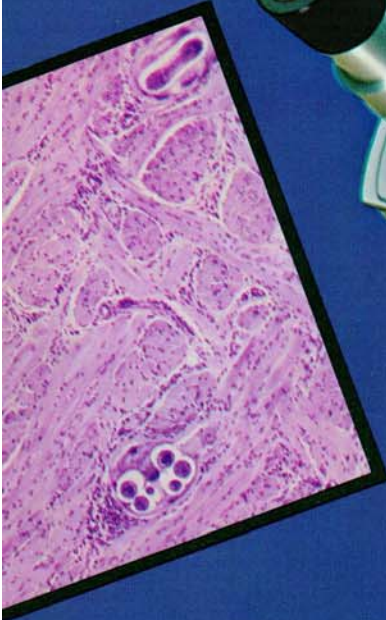
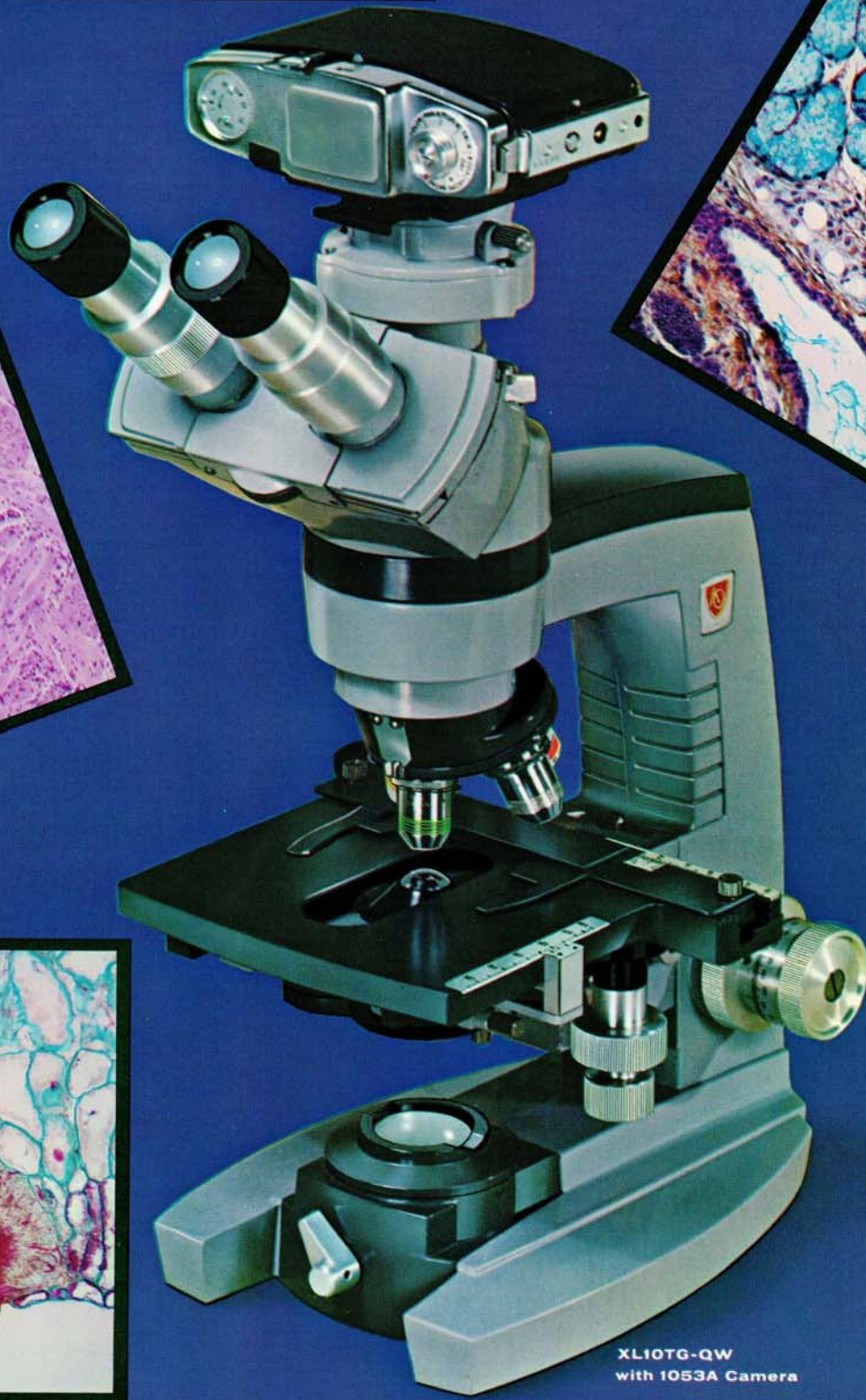
CATALOG NUMBER	STAGE	INFINITY CORRECTED OBJECTIVES	EYEPIECES	CONDENSER	ILLUMINATION
XL10BU-QW	Ungraduated Mechanical	4X, 10X, 45X, 100X Quadruple Nosepiece	Pair 10X Wide Field	Abbe N.A. 1.25 with Auxiliary Condenser	In-Base Illuminator with Transformer
L10BU-HW	Same	10X, 45X, 100X Triple Nosepiece	Same	Abbe N.A. 1.25	Same
XL10BG-QW	Graduated Mechanical	4X, 10X, 45X, 100X Quadruple Nosepiece	Same	Abbe N.A. 1.25 with Auxiliary Condenser	Same
XM10BU-QW	Ungraduated Mechanical	Same	Same	Same	Plano-Concave Mirror
M10BU-HW	Same	10X, 45X, 100X Triple Nosepiece	Same	Abbe N.A. 1.25	Same
XM10BG-QW	Graduated Mechanical	4X, 10X, 45X, 100X Quadruple Nosepiece	Same	Abbe N.A. 1.25 with Auxiliary Condenser	Same
N10BU-QW	Ungraduated Mechanical	Same	Same	Abbe N.A. 1.25	On-Base Illuminator
N10BU-HW	Same	10X, 45X, 100X Triple Nosepiece	Same	Abbe N.A. 1.25	Same
N10BU-HH	Same	Same	Pair 10X Huygenian	Same	Same

If #1177 10X Huygenian eyepieces are desired instead of #1176 10X Wide Field eyepieces simply substitute last suffix "H" for "W" in above catalog outfits and see price list. Microscope cabinets are not included; if desired see #1610, #1611.

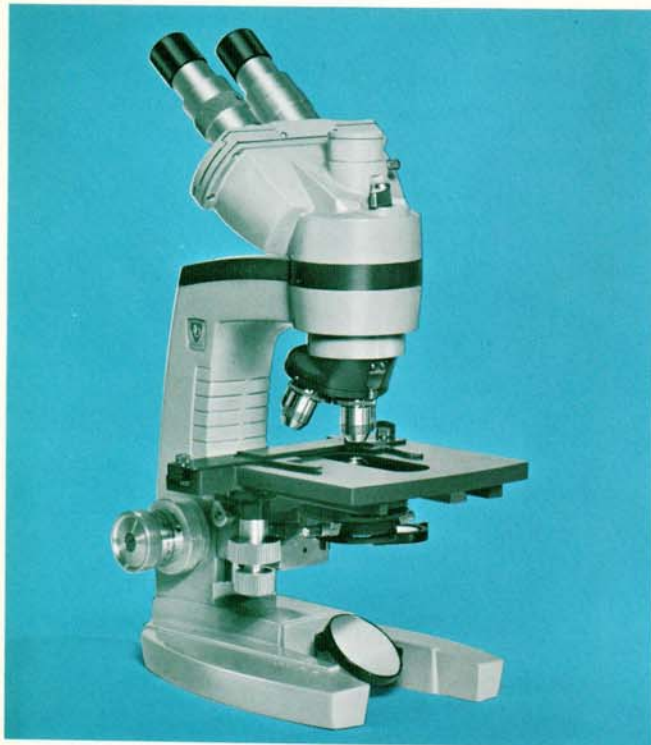
All essential optical surfaces of MICROSTAR Series 10 are AMERICOTE . . . to decrease internal reflection, increase light transmission and improve image contrast.



MICROStar



XL10TG-QW
with 1053A Camera



XM10TU-QW

AO MICROSTAR SERIES 10

TRINOCULAR MODELS 10T

Supplied with inclined trinocular bodies, rotatable and interchangeable with other body types; constant tube length for any interpupillary settings; gravity-loaded focusable nosepiece actuated by low-positioned coaxial coarse and fine controls on each side of stand; micrometer screw fine adjustment graduated in 1 micron increments; bearing surfaces of completely enclosed focusing mechanisms ride on ball-bearing slideways; fixed stage adjustable on dovetail slideways for accommodating special tissue culture cells or tubes; available with graduated or ungraduated mechanical stage . . . right or left side controls; also Micro-Glide or plain. Choice of infinity-corrected objectives and Wide Field or Huygenian eyepieces.

Accepts wide choice of photographic equipment: Polaroid,[®] 35mm (in two different magnifications) and AO 682. External lever removes reflecting prism from light path for photography or projection. Abbe condenser and iris diaphragm in fork-type mount focusable by rack and pinion.

A wide selection of Microstar Series 10T models are available to suit your specific requirements. Some are listed below . . . additional models are in the price list. Whatever your choice . . . you can be sure it is the finest microscope on the market today.

CATALOG NUMBER	STAGE	INFINITY CORRECTED OBJECTIVES	EYEPIECES	CONDENSER	ILLUMINATION
XL10TU-QW	Ungraduated Mechanical	4X, 10X, 45X, 100X Quadruple Nosepiece	Pair 10X Wide Field	Abbe N.A. 1.25 with Auxiliary Swing-In	In-Base Illuminator with Transformer
L10TU-HW	Same	10X, 45X, 100X Triple Nosepiece	Same	Abbe N.A. 1.25	Same
XL10TG-QW	Graduated Mechanical	4X, 10X, 45X, 100X Quadruple Nosepiece	Same	Abbe N.A. 1.25 with Auxiliary Swing-In	Same
L10TG-HW	Same	10X, 45X, 100X Triple Nosepiece	Same	Abbe N.A. 1.25	Same
XM10TU-QW	Ungraduated Mechanical	Same	Same	Same	Plano-Concave Mirror
M10TU-HW	Same	10X, 45X, 100X Triple Nosepiece	Same	Abbe N.A. 1.25	Same
XM10TG-QW	Graduated Mechanical	4X, 10X, 45X, 100X Quadruple Nosepiece	Same	Abbe N.A. 1.25 with Auxiliary Swing-In	Same
M10TG-HW	Same	10X, 45X, 100X Triple Nosepiece	Same	Abbe N.A. 1.25	Same

If #1177 10X Huygenian eyepieces are desired instead of #1176 10X Wide Field eyepieces simply substitute last suffix "H" for "W" in above catalog outfits and see price list. Microscope cabinets are not included; if desired see #1610, #1611.

All essential optical surfaces of MICROSTAR Series 10 are AMERICOTE . . . to decrease internal reflection, increase light transmission and improve image contrast.

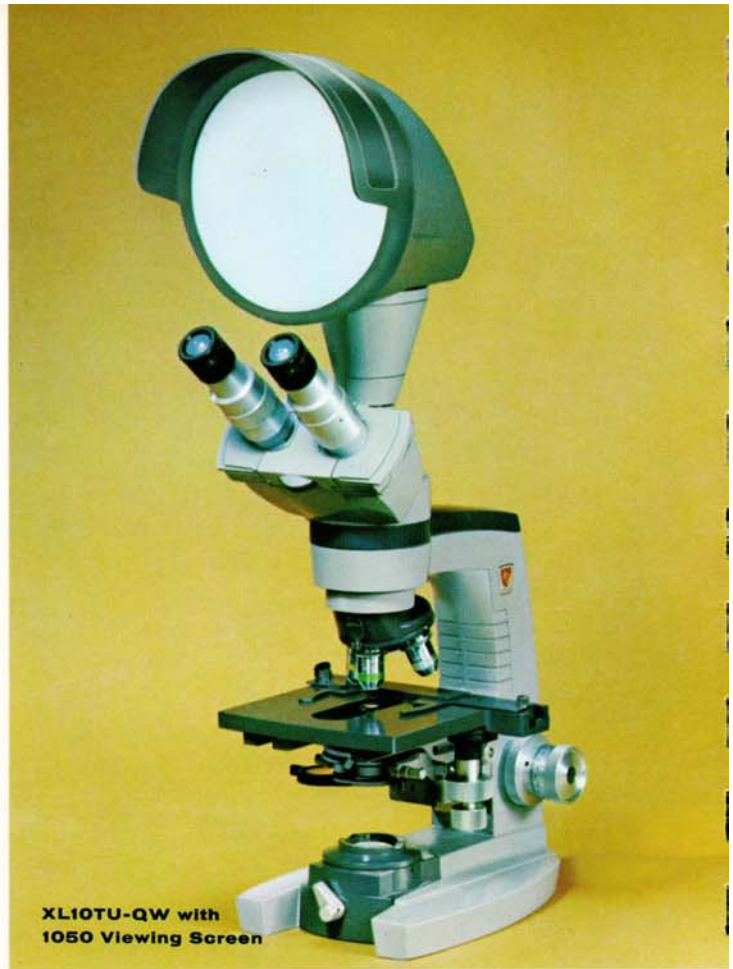
PATHOSTAR

Outstanding mechanical and optical performance designed for the specific requirements of the Pathologist. Supplied with rotatable and interchangeable binocular or trinocular body, gravity-loaded focusable nosepiece, actuated by low-positioned coaxial coarse and fine controls on each side of stand; micrometer screw fine adjustment graduated in 1 micron increments; bearing surfaces of completely enclosed focusing mechanism ride on ball-bearing slideways; choice of infinity-corrected objectives and Wide Field or Huygenian eyepieces; available with graduated or ungraduated mechanical stage . . . right or left side controls . . . also Micro-Glide or plain stages. Abbe condenser and iris diaphragm in fork-type mount focusable by rack and pinion. Viewing screen and photo-micrographic cameras available for trinocular models.

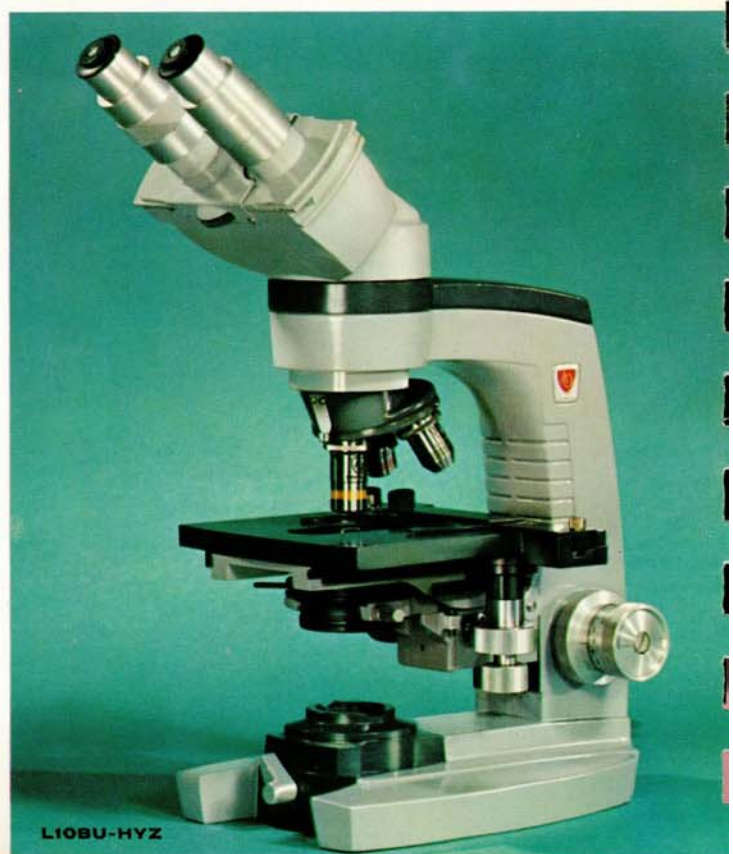
A wide selection of Microstar Series 10 models are available to suit your specific requirements. Some are listed on page 19 . . . additional models are in the price list. Whatever your choice . . . you can be sure it is the finest microscope on the market today.

BACTISTAR

The following AO Spencer MICROSTAR models are specifically outfitted to meet strict, standard methods governing the identification and count of bacteria and mold in milk, cream, butter, tomatoes and other related products encountered in dairy bacteriology and food technology. They are factory calibrated in round values for accuracy and convenience. The interpupillary distance of the user need no longer be supplied when ordering calibrated MICROSTAR Series 10 because these instruments are now equipped with constant tube length bodies.



XL10TU-QW with
1050 Viewing Screen



L10BU-HYZ

TRINOCULAR 10T — PATHOSTAR SERIES 10

CATALOG NUMBER	STAGE	INFINITY CORRECTED OBJECTIVES	EYEPIECES	CONDENSER	ILLUMINATION
XL10TU-QW	Ungraduated Mechanical	4X, 10X, 45X, 100X Quadruple Nosepiece	Pair 10X Wide Field	Abbe N.A. 1.25 with Auxiliary Condenser	In-Base Illuminator with Transformer
XM10TU-QW	Same	Same	Same	Same	Plano-Concave Mirror
XL10TG-QW	Graduated Mechanical	Same	Same	Same	In-Base Illuminator with Transformer
XM10TG-QW	Same	Same	Same	Same	Plano-Concave Mirror
XM10TC-QW	Rotatable Micro-Glide	Same	Same	Same	Same

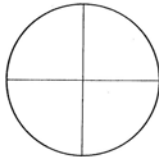
BINOCULAR 10B — PATHOSTAR SERIES 10

CATALOG NUMBER	STAGE	INFINITY CORRECTED OBJECTIVES	EYEPIECES	CONDENSER	ILLUMINATION
XL10BU-QW	Ungraduated Mechanical	4X, 10X, 45X, 100X Quadruple Nosepiece	Pair 10X Wide Field	Abbe N.A. 1.25 with Auxiliary Condenser	In-Base Illuminator with Transformer
XM10BU-QW	Same	Same	Same	Same	Plano-Concave Mirror
XL10BG-QW	Graduated Mechanical	Same	Same	Same	In-Base Illuminator with Transformer
N10BU-QW	Ungraduated Mechanical	Same	Same	Abbe N.A. 1.25	On-Base Illuminator

Microscope cabinets are not included; if desired see #1610, #1611.

If #1177 10X Huygenian eyepieces are desired instead of #1176 10X Wide Field eyepieces simply substitute last suffix "H" for "W" in above catalog outfits and see price list. All essential optical surfaces of MICROSTAR Series 10 are AMERICOTE . . . to decrease internal reflection, increase light transmission and improve image contrast.

BACTERIA COUNT — BACTISTAR SERIES 10 MICROSTAR



5X Huygenian eyepiece with crosshair disc is factory calibrated to provide a field diameter of 0.206mm for 300,000 factor; and 10X Huygenian 0.146mm for 600,000 factor when used with the oil immersion objective. Other factors supplied on request.

CATALOG NUMBER	BODY	STAGE	INFINITY CORRECTED OBJECTIVES	EYEPIECES	CONDENSER	ILLUMINATION
U10MU-HYZ	Monocular	Ungraduated Mechanical	10X, 45X, 100X oil immersion Triple Nosepiece	5X Huygenian Calibration Factor 300,000; 10X Huygenian Calibrated 600,000	Abbe N.A. 1.25	On-Base Illuminator
M10MU-HYZ	Same	Same	Same	Same	Same	Plano-Concave Mirror
N10BU-HYZ	Binocular	Same	Same	Same	Same	On-Base Illuminator
L10BU-HYZ	Same	Same	Same	Same	Same	In-Base Illuminator
M10BU-HYZ	Same	Same	Same	Same	Same	Plano-Concave Mirror

MOLD COUNT — BACTISTAR SERIES 10 MICROSTAR



10X Huygenian eyepiece with Howard Mold disc is factory calibrated to provide a field diameter of 1.382mm when used with the 10X objective. A #417 Howard Mold Counting Chamber with two cover glasses are included.

CATALOG NUMBER	BODY	STAGE	INFINITY CORRECTED OBJECTIVES	EYEPIECES	CONDENSER	ILLUMINATION
U10MU-MC2	Monocular	Ungraduated Mechanical	10X, 20X Double Nosepiece	10X Huygenian Calibrated Field 1.382mm	N.A. 0.66	On-Base Illuminator
M10MU-MC2	Same	Same	Same	Same	Same	Plano-Concave Mirror
N10BU-MC3	Binocular	Same	10X, 20X, 45X, 100X Quadruple Nosepiece	Same	Abbe N.A. 1.25	On-Base Illuminator
L10BU-MC3	Same	Same	Same	Same	Same	In-Base Illuminator with Transformer
M10BU-MC3	Same	Same	Same	Same	Same	Plano-Concave Mirror

Microscope cabinets are not included; if desired see #1610, #1611.

All essential optical surfaces of MICROSTAR Series 10 are AMERICOTE . . . to decrease internal reflection, increase light transmission and improve image contrast.

AO MICROSTAR SERIES 11

Model 11M

Supplied with inclined monocular tube, rotatable and interchangeable with other body types; gravity-loaded focusable nosepiece actuated by low-positioned coaxial coarse and fine controls on each side of stand; micrometer screw fine adjustment graduated in 1 micron increments; bearing surfaces of completely enclosed focusing mechanism ride on ball-bearing slideways. Stage is fixed. Choice of types includes plain stage with In-Stage Condenser and iris diaphragm; simple, Micro-Glide or ungraduated mechanical stage with Abbe N.A. 1.25 or 0.66 condenser in spiral focusable mount and iris diaphragm. Choice of infinity corrected objectives and Wide Field or Huygenian eyepieces.

A wide selection of Microstar Series 11 models are available to suit your specific requirements. Some are listed below . . . additional models are in the price list. Whatever your choice . . . you can be sure it is the finest microscope on the market today.



U11MPE-DH

CATALOG NUMBER	INFINITY CORRECTED OBJECTIVES	EYEPIECE	STAGE AND CONDENSER	ILLUMINATION
U11MPE-TH	4X, 10X, 45X Triple Nosepiece	10X Huygenian	Plain Stage with clips; and, In-Stage Condenser with Iris Diaphragm	On-Base Illuminator
U11MPE-TW	Same	10X Wide Field	Same	Same
U11MSA-TH	Same	10X Huygenian	Simple Stage with clips; and attached Abbe Condenser N.A. 0.66 with Iris Diaphragm in Spiral Focusing Mount	Same
M11MSA-TH	Same	Same	Same	Plano-Concave Mirror
M11MSA-DH	10X, 45X Double Nosepiece	Same	Same	Same
U11MFA-HH	10X, 45X, 100X Triple-Nosepiece	Same	Micro-Glide Stage with clips; and attached Abbe N.A. 1.25 with Iris Diaphragm in Spiral Focusing Mount	On-Base Illuminator
U11MUA-HH	Same	Same	Ungraduated Mechanical Stage; and attached Abbe N.A. 1.25 with Iris Diaphragm in Spiral Focusing Mount	Same
U11MUA-HW	Same	10X Wide Field	Same	Same
M11MUA-HH	Same	10X Huygenian	Same	Plano-Concave Mirror

Microscope cabinets are not included; if desired see #1610, #1611.

All essential optical surfaces of MICROSTAR Series 11 are AMERICOTE . . . to decrease internal reflection, increase light transmission and improve image contrast.

Series 10 MICROSTAR has been adapted to both Phase and Fluorescence applications. Polarizing accessories are also available (see Price List).



Series 10 PHASESTAR

is a major line of instrumentation for the critical study of living organisms. There is a wide range of phase objectives in Bright, Dark and B-minus contrasts which allow you to see materials too transparent to be seen with conventional microscopy. For complete information, write for SB10 Phase brochure.

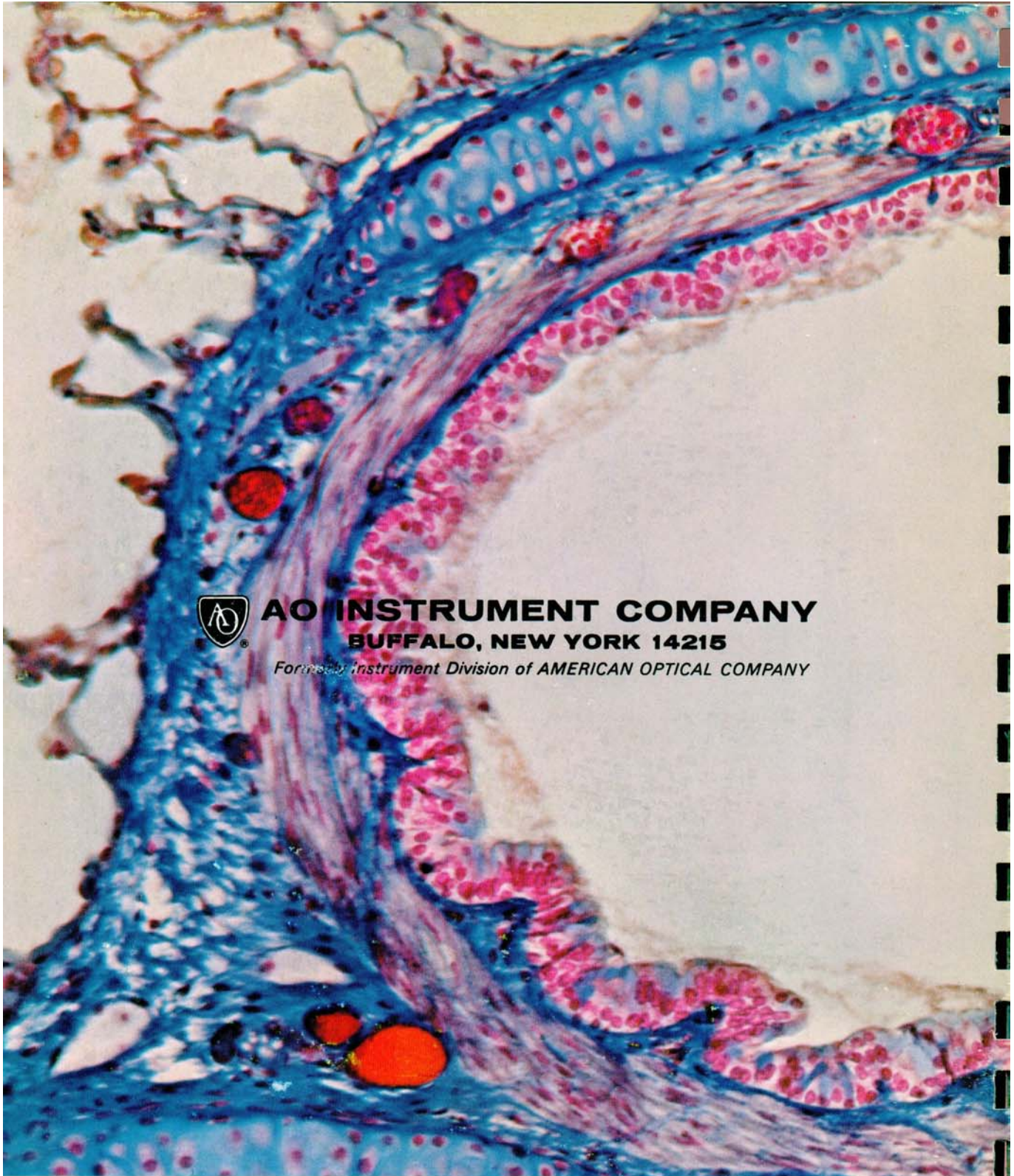


Series 10 FLUORESTAR

provides an efficient combination of microscope and mercury arc illuminator, containing all essential instrumentation for successful fluorescence microscopy. Write for SB10 Fluo.

The DUAL VIEWING MICROSTAR offers the many advantages of simultaneous observation—without *any* compromise of superb image quality. It has unlimited applications in teaching situations. Write for SB10DV.





AO INSTRUMENT COMPANY
BUFFALO, NEW YORK 14215

Formerly Instrument Division of AMERICAN OPTICAL COMPANY