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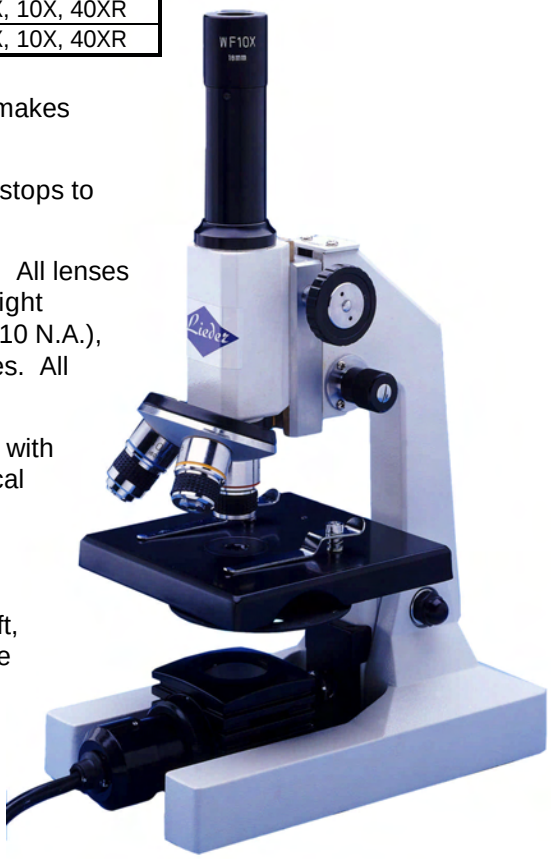
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MC-50L SERIES COMPOUND MICROSCOPES

The **MC-50 Series microscope** is a basic, vertical compound microscope that is an ideal choice for education or field use. Its classic design is easy to use and highly durable. The MC-50 is available with either a secure, screw-mounted incandescent illuminator or a fork-mounted mirror for economical cord free operation anywhere there is light. This scope features glass achromatic D.I.N. optics to ensure quality and compatibility.

MODEL	DESCRIPTION	OBJECTIVE
MC-50L	Monocular, Incandescent Illumination	4X, 10X, 40XR
MC-50M	Monocular, w. Fork Mounted Mirror	4X, 10X, 40XR

Features include:



- **Eyepiece**: 10X Widefield eyepiece with pointer that makes finding a specific slide section easy.
- **Nosepiece**: Triple objective nosepiece with positive stops to allow quick, easy objective rotation.
- **Objectives**: Standard achromatic D.I.N. objectives. All lenses are coated and color corrected to produce sharp, bright images. The microscopes are equipped with 4X (0.10 N.A.), 10X (0.25 N.A.), 40X (0.65 N.A. retractable) objectives. All objectives are parfocal and parcentered.
- **Stage**: Simple 110 x 120mm stage comes equipped with locked-on, spring mounted stage clips and a chemical resistant finish.
- **Focusing mechanism**: Smooth, durable rack and pinion mechanism with separate coarse and fine adjustment knobs, tension adjustment to prevent drift, and a safety rack stop and slip clutch to prevent slide damage.
- **Condenser**: In-stage 0.65 N.A. condenser and a calibrated 5 hole disc diaphragm.
- **Illumination**: The MC-50 series is available with a mirror or an incandescent lamp. Microscopes are shipped standard 120V, with a grounded CSA cord. 220V systems are available on request.
- **Finish**: Stain and chemical resistant baked-on enamel finish. Dustcover included.

PARTS & ACCESSORIES FOR MC-50 SERIES

Eyepieces

ED – 10XWF	*10X widefield eyepiece*
ED – 15XWF	*15X widefield eyepiece*
ED – 20XWF	*20X widefield eyepiece*

Bulb

BI-20	*Bulb, 20W, 120V*

Illuminator

IL-LB	*Illuminator, 20W, long base*
MF-45-6	*Mirror and fork, 6mm pin*

Objectives

OA – 04	*Objective, achromatic, 4X, 0.10NA*
OA – 10	*Objective, achromatic, 10X 0.25NA*
OA – 40	*Objective, achromatic, 40X, 0.65NA*

Stage

SC – 10	*Stage clips*

Mechanical stage

SP – MST	*Mechanical stage, top adjustment*

Dustcover

VC-20	*Vinyl dustcover, small*

MC-100 SERIES COMPOUND MICROSCOPES

MC-100 Series microscopes are simple inclined compound microscopes that are a good choice for general use and are ideal for education. Achromatic objectives are standard. The superior, all glass, D.I.N. optical system and precision mechanical components assure unsurpassed viewing.

MODEL	DESCRIPTION	OBJECTIVE
MC-100F	Monocular, Fluorescent Illumination	4X, 10X, 40XR
MC-100LED	Monocular, LED Rechargeable Illumination	4X, 10X, 40XR

Features include:



- **Eyepiece:** 10X D.I.N. locked-on widefield eyepiece with pointer that makes finding a specific slide section easy.
- **Head:** Rotates 360° and is inclined 45°.
- **Nosepiece:** The nosepiece has positive stops to allow quick easy objective rotation.
- **Objectives:** Standard achromatic D.I.N. objectives. All lenses are coated and color corrected to produce sharp, bright images. The microscopes are equipped with 4X (0.10 N.A.), 10X (0.25 N.A.) and 40X (0.65 N.A. retractable). All objectives are parfocal and parcentered.
- **Stage:** 110 x 115mm stage, with locked-on spring mounted stage clips, drilled and tapped to accept optional mechanical stage.
- **Focusing mechanism:** Smooth, durable rack and pinion mechanism with separate coarse and fine adjustment knobs, tension adjustment to prevent drift and a safety rack stop and slip clutch to prevent slide damage.
- **Condenser:** An in-stage 0.65 N.A. condenser to maximize light intensity and a calibrated 5 hole disc diaphragm to adjust the contrast of an image.
- **Illumination:** The MC-100 series is available with a long life fluorescent lamp (MC-100F) or with a cool LED rechargeable system (MC-100LED) for portability. Microscopes are shipped standard 120V, with a grounded CSA cord. 220V systems are available on request.
- **Finish:** Stain and chemical resistant baked-on enamel finish. Dustcover included.

MC-110 SERIES COMPOUND MICROSCOPES

MC-110 Series microscopes are simple yet capable compound microscopes that are a good choice for general use. They offer the same quality and simplicity as the MC-100 while providing many of the advanced features found on clinical microscopes. They work well for advanced education as well as light duty veterinary and microbiology work. Achromatic objectives are standard.

MODEL	DESCRIPTION	OBJECTIVE
MC-110F	Monocular, Fluorescent Illumination	4X, 10X, 40XR, 100XR
MC-110LED	Monocular, LED Rechargeable Illumination	4X, 10X, 40XR, 100XR
MC-112H	Binocular, Halogen Illumination	4X, 10X, 40XR, 100XR
MC-113H	Trinocular, Halogen Illumination	4X, 10X, 40XR, 100XR

Features include:



- **Eyepieces:** 10X D.I.N. Standard Widefield Eyepieces
- **Head:** Monocular head rotates 360° and is inclined 45°. Binocular and Trinocular models incline 30° and offer individual diopter adjustments and a 55-75mm interpupillary adjustment.
- **Nosepiece:** Quadruple nosepiece. The nosepiece has positive stops to allow quick, easy objective rotation.
- **Objectives:** Standard achromatic D.I.N. objectives. All lenses are coated and color corrected to produce sharp, bright images. The microscopes are equipped with 4X (0.10 N.A.), 10X (0.25 N.A.), 40X (0.65 N.A. retractable), 100X Oil (1.25 N.A. retractable) objectives. All objectives are parfocal and parcentered.
- **Stage:** Graduated mechanical stage (110 x 115mm) with low-position coaxial controls, a chemical resistant finish and removable spring clip slide holder.
- **Focusing mechanism:** Smooth, durable rack and pinion mechanism with separate coarse and fine adjustment knobs, tension adjustment to prevent drift, and a safety rack stop and slip clutch to prevent slide damage.
- **Condenser:** Abbe condenser and iris diaphragm. The Abbe condenser is mounted on a rack and pinion mechanism for optimal positioning.
- **Illumination:** The MC-110 is available with a long life fluorescent lamp (MC-110F) or with a cool LED rechargeable system (MC-110LED). MC-112H and MC-113H microscopes are equipped with high intensity variable quartz halogen illuminators, for optimal brightness and clarity. 120V grounded CSA cord standard. 220V systems are available on request.
- **Finish:** Stain and chemical resistant baked-on enamel finish. Dustcover included.

PARTS & ACCESSORIES FOR MC-100 SERIES

Eyepieces

ED – 10XWF	10X widefield eyepiece
ED – 15XWF	15X widefield eyepiece
ED – 20XWF	20X widefield eyepiece

MC-100F Bulb

BF-05	Bulb, fluorescent, 5W

MC-100 LED Replacement Parts

PC-AC	AC power cord
BT-1.2VNMH	Rechargeable battery 3ea

Objectives

OA – 04	Objective, achromatic, 4X, 0.10NA
OA – 10	Objective, achromatic, 10X 0.25NA
OA – 40	Objective, achromatic, 40X, 0.65NA

Stage clips

SC – 10	Stage clips

Mechanical stage

SP – MST	Mechanical stage, top adjustment

Dustcover

VC-20	Vinyl dustcover, small

PARTS & ACCESSORIES FOR MC-110 SERIES

Eyepieces

ED – 10XWF	10X widefield eyepiece
ED – 15XWF	15X widefield eyepiece
ED – 20XWF	20X widefield eyepiece

MC-110F Bulb

BF-05	Bulb, fluorescent, 5W

MC-110 LED Replacement Parts

PC-AC	Spare power cord, AC
BT-1.2VNMH	Rechargeable battery 3ea

MC-112H & 113H Bulbs

BH-20	Bulb, halogen 6V 20W

Condenser

CA-125	Condenser, Abbe, 1.25NA w/iris & filter holder

Objectives

OA – 04	Objective, achromatic, 4X, 0.10NA
OA – 10	Objective, achromatic, 10X 0.25NA
OA – 40	Objective, achromatic, 40X, 0.65NA
OA – 100	Objective, achromatic, 100X, 1.25NA

Dustcover

VC-20	Vinyl dustcover, small
VC-30	Vinyl dustcover, large

Filters

FB-315	Filter, blue, 31.5mm
FY-315	Filter, yellow, 31.5mm
FG-315	Filter, green, 31.5mm
FF-315	Filter, frosted, 31.5mm
FD-315	Simple darkfield annulus 31.5mm

MC-300 SERIES COMPOUND MICROSCOPES

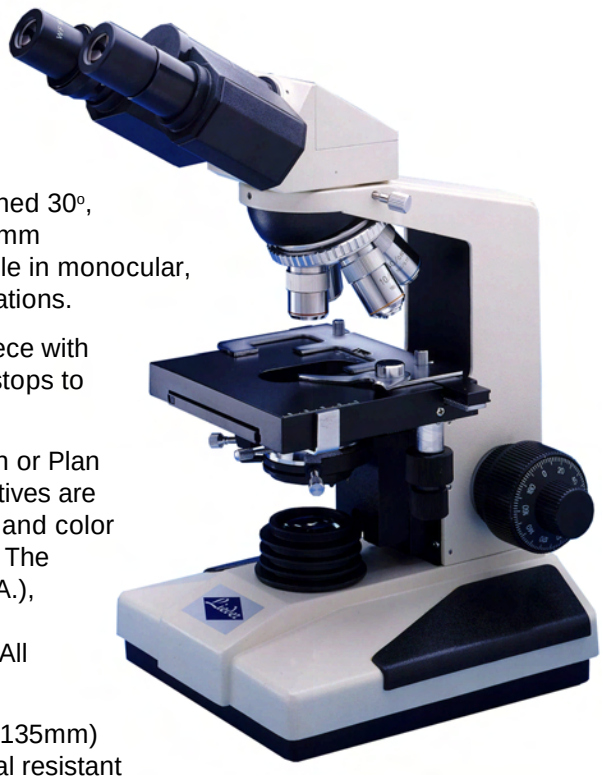
MODEL	DESCRIPTION	OBJECTIVE TYPE
MC-300	Monocular, brightfield	Achromatic
MC-300T	Monocular/dual view, brightfield	Achromatic
MC-303	Monocular, brightfield/phase contrast	Achromatic
MC-319	Binocular, brightfield	Achromatic
MC-320	Binocular, brightfield	Semi Plan
MC-321	Binocular, brightfield	Plan
MC-322	Binocular, brightfield/phase contrast	Achromatic
MC-329	Trinocular, brightfield	Achromatic
MC-330	Trinocular, brightfield	Semi Plan
MC-331	Trinocular, brightfield	Plan
MC-332	Trinocular, brightfield/phase contrast	Achromatic

*Note: halogen illumination is standard; for LED models specify **–LED** following the regular model number*

MC-300 SERIES COMPOUND MICROSCOPES

MC-300 Series microscopes are high quality clinical grade microscopes providing performance at an affordable price. They are an excellent choice for education, clinical and general laboratory needs, providing bright, clear images with widefield optics. An ergonomic design using durable components makes the microscopes easy to operate.
MC-300 Series microscopes are available in a variety of configurations including: monocular, binocular, trinocular and dual view. Objectives are offered in standard achromatic as well as semi-plan and plan achromatic types that provide flat fields and excellent color correction. Both brightfield and phase contrast configurations are available.

(See previous page for models and description)



Features include:

- **Eyepieces:** 10X D.I.N. Standard Widefield
- **Head:** Fully rotatable Seidentopf head inclined 30°, with –5 to +5 diopter adjustment and 55-75mm interpupillary adjustment. Heads are available in monocular, dual-view, binocular and trinocular configurations.
- **Nosepiece:** Quadruple ball-bearing nosepiece with reverse turret. The nosepiece has positive stops to allow quick, easy objective rotation.
- **Objectives:** Standard achromatic, semi-plan or Plan D.I.N. objectives. The phase contrast objectives are standard achromatic. All lenses are coated and color corrected to produce sharp, bright images. The microscopes are equipped with 4X (0.10 N.A.), 10X (0.25 N.A.), 40X (0.65 N.A. retractable), 100X Oil (1.25 N.A. retractable) objectives. All objectives are parfocal and parcentered.
- **Stage:** Graduated mechanical stage (125 x 135mm) with low-position coaxial controls, a chemical resistant finish and removable spring clip slide holder.
- **Focusing mechanism:** Smooth, durable rack and pinion mechanism with low-position coaxial coarse and fine adjustment knobs, tension adjustment to prevent drift, and a safety rack stop to prevent slide damage.
- **Condenser:** All brightfield models come with a fully centerable, rack and pinion mounted 1.25 N.A. Abbe condenser with iris diaphragm. The durable rack and pinion design allows users to achieve precise condenser positioning. All phase contrast models feature a centerable Zernike type condenser with phase annuli for 10X, 20/25X, 40X, 100X and brightfield settings. Both condensers come with swing in filter holders.
- **Illumination:** Variable halogen lamp, 6V, 20W. Variable LED versions are also available. Microscopes are shipped standard 120V, with a grounded CSA cord. 220V systems are available on request.
- **Finish:** Stain and chemical resistant baked-on enamel finish. Dustcover included.
- **Overall dimensions:** 7.25W x 8.5L x 15”H; 14lbs.

MC-400 SERIES COMPOUND MICROSCOPES

The MC-400 Series is a time proven solution for the demands of professional laboratories. All models come standard with plan achromatic objectives and Kohler illumination. Quality design and construction offer years of dependable service. Advanced features, and precision optics make these instruments an excellent value.

MODEL	DESCRIPTION	OBJECTIVE
MC-420	Binocular brightfield	Plan
MC-421	Binocular brightfield /phase contrast	Plan
MC-430	Trinocular brightfield	Plan
MC-431	Trinocular brightfield /phase contrast	Plan

Features include:

- Eyepieces: 10X D.I.N. Standard Widefield Eyepieces
- Head: Fully rotatable Seidentopf head inclined 30°, with –5 to +5 diopter adjustment and 55-75mm interpupillary adjustment. Heads are available binocular and trinocular configurations.
- Nosepiece: Quadruple ball-bearing nosepiece with reverse turret. An optional quintuple nosepiece is also available. The nosepiece has positive stops to allow quick, easy objective rotation.
- Objectives: Plan Achromat D.I.N. objectives, fully coated for flat sharp images. The microscopes are equipped with 4X (0.10 N.A.), 10X (0.25 N.A.), 40X (0.65 N.A. retractable), 100X Oil (1.25 N.A. retractable) objectives. All objectives are parfocal and parcentered.
- Stage: Large, graduated mechanical stage (140 x 160mm) with low-position coaxial controls, a chemical resistant finish and removable spring clip slide holder.
- Focusing mechanism: Smooth, durable rack and pinion mechanism with low-position coaxial coarse and fine adjustment knobs, tension adjustment to prevent drift and a safety rack stop to prevent slide damage.



- Condenser: All brightfield models come with a fully centerable, rack and pinion mounted 1.25 N.A. Abbe condenser with iris diaphragm. The durable rack and pinion design allows users to achieve precise condenser positioning. All phase contrast models feature a centerable Zernike type condenser with phase annuli for 10X, 20/25X, 40X, 100X and brightfield settings.
- Illumination: The illumination system features a 6-Volt, 20-Watt variable halogen lamp. Microscopes are shipped standard 120 Volt, with a grounded CSA cord. 220-Volt systems are available on request. Scopes include blue and frosted filters.
- Finish: Stain and chemical resistant baked-on enamel finish. Dustcover included.
- Overall dimensions: 8.5W x 10.5L x 17”H; 16lbs.

DIN Biological Objectives						
Mag.	**N.A.**	**Standard Achromatic**	**Semi Plan Achromatic**	**Plan Achromatic**	**Achromatic Phase**	**Plan Achromatic Phase**
4X	0.10	OA-04-300	OS-04	OP-04		
10X	0.25	OA-10-300	OS-10	OP-10	OA-10-PH	OP-10-PH
25X	0.40	OA-25-300	OS-25	OP-25	OA-25-PH	OP-25-PH
40X	0.65	OA-40-300	OS-40	OP-40	OA-40-PH	OP-40-PH
50X	0.95			OP-50 (oil)		
60X	0.85		OS-60			
100X	1.25 oil	OA-100-300	OS-100	OP-100	OA-100-PH	OP-100-PH

PARTS & ACCESSORIES FOR MC-300 AND MC-400 SERIES

Eyepieces

ED – 10XWF-18	*10X widefield eyepiece*
ED – 10XWF-20	*10X ultra wide eyepiece*
ED – 15XWF	*15X widefield eyepiece*
ED – 20XWF	*20X widefield eyepiece*
PK-PE	*2.5X photo eyepiece*

Power Cord

PC-AC	*AC power cord*

MC-300 & 400 LED Replacement Parts

PC-TDC300	*External transformer 9VDC*
BT-1.2VNMH	*Rechargeable battery 3ea*

Halogen Bulbs

BH-20	*Bulb, halogen 6V 20W*
BH-30	*Bulb, halogen 6V 30W*

Fuse

FS-05	*Fuse, GMA 250V 0.5A*

Dustcover

VC-30	*Vinyl dustcover, large*

Condensers and Related Items

CA-125	*Condenser, Abbe, 1.25NA w/iris*
CD-85	*Darkfield condenser, 0.85NA*
CD-125	*Darkfield condenser, 1.25NA (oil)*
CP-10	*Phase contrast condenser*
PT-23	*Phase centering telescope*
IL-KO	*Kohler iris assembly (300&400 ser. only)*

Filters

FB-315	*Filter, blue, 31.5mm*
FY-315	*Filter, yellow, 31.5mm*
FG-315	*Filter, green, 31.5mm*
FF-315	*Filter, frosted, 31.5mm*
FD-315	*Simple darkfield annulus 31.5mm*

Supplies

IO-0.25	*Low viscosity immersion oil 0.25 oz*
LT-01	*Lens tissue, 50 sheets/bk*
LC-01	*Lens Cleaner*

PHOTO / VIDEO ACCESSORIES FOR LIEDER COMPOUND MICROSCOPES *also see pg 25*

PK-23	Trinocular compound tube adapter (accepts standard oculars and 23mm accessories)
Video	
VZ-10	Simple video adapter (w.o. reducer) C-mount to 23mm, fits standard eyepiece tube*
VK-04	0.4X Video adapter for 1/3" CCD, C-mount, directly mounts on trinocular models
VC-540	540 Line color video camera *(microscope adapter not included)*
VK-540	Compound video kit includes camera (VC-540) adapter (VK-04) and cable
Digital	
PK-UDCA	Universal digital camera adapter, For use on most cameras equipped with a lens & tripod socket, Includes 10X photo eyepiece, 23mm mount* *(digital camera not included)*
PK-EPC	Digital eyepiece cam 1.3MP converts any microscope to digital PC output*
PK-DC-3	Dedicated digital microscope camera, 3MP with software, cable and adapter*
dSLR/film	*(requires compatible, removable lens camera body)*
PK-2.5-4X-T	Dual power camera adapter, direct trinocular mount (specify camera mount)
PK-FV-T	Focusing view finder/camera adapter, direct trinocular mount (specify camera mount)
Other photo/video accessories are also available for specific needs. Please inquire for details.	
***** *trinocular MC-300 and 400 microscopes require the PK-23 adapter for use with 23mm accessories*	

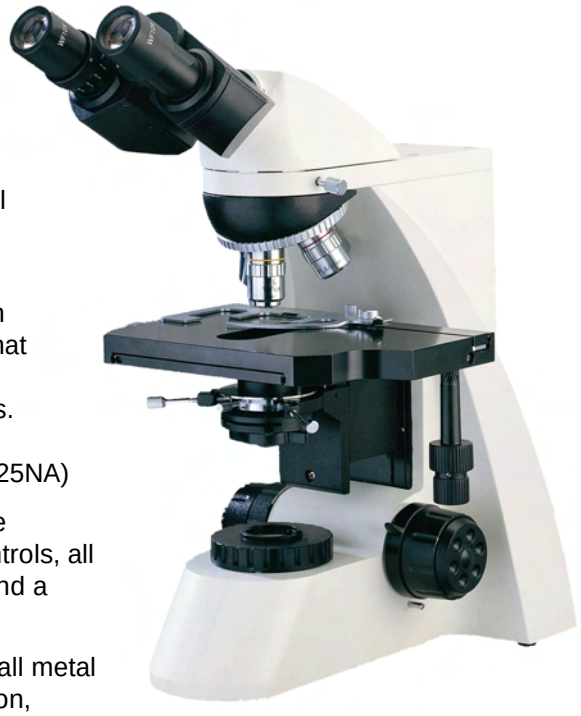
MC-440 SERIES COMPOUND MICROSCOPES

Lieder MC-440 Series biological microscopes offer premium features while remaining affordable. Advanced design includes Plan U.I.S. (infinity) optics, large 20mm high eye relief oculars and Kohler illumination. A substantial ergonomic frame, professional performance and quality make the MC-440 an excellent choice for serious clinical and laboratory use,

MODEL	BRIGHTFIELD	PHASE CONTRAST
Binocular	MC-445	MC-445-PH
Trinocular	MC-447	MC-447-PH

Features include:

- **Eyepieces:** Paired 10X WF(∅20mm)
- **Head:** Binocular Seidentopf, 360° rotatable, 30° incline, –5 to +5 diopter adjustment, 53 to 75mm interpupillary adjustment. *Trinocular models include vertical tube & simultaneous view prism.*



- **Nosepiece:** Reverse turret, quadruple, ball bearing nosepiece with positive stops. Q*uintuple nosepiece also available.*
- **Objectives:** All models come standard with U.I.S.(infinity) Plan achromatic objectives that feature quality, fully coated glass optics to produce sharp, bright images and flat fields. Standard objectives include: 4X(0.10NA), 10X(0.25NA), 40XR(0.65NA) and 100XR(1.25NA)
- **Stage:** Large, graduated mechanical stage (210x140mm) with low position coaxial controls, all metal gearing, a chemical resistant finish and a removable spring slide holder.
- **Focusing mechanism:** Smooth, durable, all metal rack and pinion mechanism with low position, coaxial coarse/fine controls, tension adjustment and focus stop (to prevent slide breakage).
- **Condenser:** All brightfield models are equipped with a fully centerable 1.25NA Abbe condenser with iris diaphragm and a rack and pinion focus. Phase contrast models include a centerable 1.25NA Zernike condenser with disk mounted 10, 25, 40 and 100X annuli, iris diaphragm and a phase centering telescope.
- **Illumination:** 6V 20W variable quartz halogen system with a field iris and filter holder. *A cool, ultra-long life, LED lighting system is available by special order* Grounded CSA cord, electrical system available in 110V AC or 220V AC configurations.
- *Antifungus treated, Durable enamel finish*

U.I.S. Objectives (MC-440 series)			
Mag.	**N.A.**	**Plan Achromatic**	**Plan Achromatic Phase**
4X	0.10	OP-04-UIS	
10X	0.25	OP-10-UIS	OP-10-PH-UIS
25X	0.40	OP-25-UIS	OP-25-PH-UIS
40X	0.65	OP-40-UIS	OP-40-PH-UIS
100X	1.25	OP-100-UIS	OP-100-PH-UIS

For other parts and accessories see page 10

MM-450 INVERTED METALLURGICAL MICROSCOPE

The MM-450 Inverted Metallurgical Microscope is valuable were reflected lighting is needed to analyze flat, opaque substrates including: metals, ceramics, and plastics. The MM-450 provides substantially higher magnification than stereo microscopes. And because it requires only one flat surface for analysis it remains flexible for observing a range of materials.

Features include:



- **Eyepieces**: Paired 10X D.I.N. Standard, Widefield Eyepieces
- **Head**: Seidentopf head inclined 30°, with –5 to +5 diopter adjustment and 55-75mm interpupillary adjustment. Trinocular heads are standard.
- **Nosepiece**: Quintuple ball-bearing nosepiece with positive stops to allow quick, easy objective rotation.
- **Objectives**: The Plan Achromatic D.I.N. objectives produce a uniformly flat field. All lenses are coated and color corrected. The microscopes are equipped with 5X (0.1 NA) 10X (0.25 N.A.), 20X (0.40 N.A.), 50XR (0.60 N.A.), 80XR (0.85 NA) objectives. All objectives are parfocal and parcentered.
- **Stage**: Large (180 x 150mm) mechanical stage with low-position coaxial controls, and a chemical resistant finish. The stage comes with two inserts to allow flexibility positioning objects.
- **Focusing mechanism**: Smooth, durable rack and pinion mechanism with low-position coaxial coarse and fine adjustment knobs, tension adjustment to prevent drift.
- **Illumination**: Reflected, through the objective illumination, allows optimal lighting at all magnifications. The system features two iris stops and removable filters. A 6-Volt, 20-Watt variable halogen lamp is standard. 120 Volt, with a grounded CSA cord. 220-Volt systems are available on request.
- **Finish**: Stain and chemical resistant baked-on enamel finish. Dustcover included.

Mag.	N.A.	Working Distance (mm)	Plan Achromatic Objectives
5X	0.1	17	OP-05-LM
10X	0.25	8.9	OP-10-LM
20X	0.40	4.8	OP-20-LM
50X	0.60	3.3	OP-40-LM
80X	0.85	0.32	OP-80-LM

MM-450 PARTS & ACCESSORIES

Filters

FBH-315	Blue filter w. holder
FYH-315	Yellow filter w. holder
FGH-315	Green filter w. holder

Dust Cover

VC-40	Vinyl cover, extra large

For other accessories please see page 10.

MM-460 METALLURGICAL MICROSCOPE

The MM-460 features both reflected and transmitted illumination. This allows users to view transparent, semi-clear, and opaque substrates. It is used in a variety of fields such as: electronics, silicon wafers, metals, material science and general applications involving thin flat materials. The reflected lighting system works through the objective for bright uniform illumination. It includes built-in colored filters and a simple polarization system.

Features include:



- **Eyepieces**: Paired 10X D.I.N. Standard Widefield Eyepieces
- **Head**: Trinocular Seidentopf head, inclined 30°, with –5 to +5 diopter adjustment and 55-75mm interpupillary adjustment.
- **Nosepiece**: Quintuple ball-bearing nosepiece with reverse turret.
- **Objectives**: Plan Achromat D.I.N. objectives. All lenses are coated and color corrected. The microscopes are equipped with 5X (0.10 N.A.), 10X (0.25 N.A.), 20X (0.40 N.A.), 50XR (0.60 N.A.) 80XR (0.80 N.A.) objectives. All objectives are parfocal and parcentered.
- **Stage**: Large, mechanical stage (142 x 187mm) with low-position coaxial controls, and large glass stage plate.
- **Focusing mechanism**: Smooth, durable rack and pinion mechanism with low-position coaxial coarse and fine adjustment, tension adjustment, and focus stop.
- **Illumination**: A dual mode variable lighting system features separate 6 Volt, 20-Watt halogen lamps for transmitted and reflected illumination. The upper illuminator includes a filter wheel and centerable iris. The variable polarizing system includes a slide-in polarizer and removable analyzer. A standard slide-in filter cube is also included. The lower illuminator features a field iris for Kohler illumination and a fully centerable, rack and pinion mounted 1.25 N.A. Abbe condenser with iris diaphragm. Standard electrical systems are120 Volt 60Hz, with grounded CSA cord. 220-240 Volt 50Hz systems available on request.
- **Finish**: Stain and chemical resistant baked- on enamel finish. Dustcover included

MM-460 PARTS & ACCESSORIES

Stage Glass	
SP-R460	Glass stage plate
Dust Cover	
VC-40	Vinyl cover, extra large

For other accessories please see page 10.

Mag.	N.A.	Working Distance (mm)	Plan Achromatic Objectives
5X	0.1	17	OP-05-LM
10X	0.25	8.9	OP-10-LM
20X	0.40	4.8	OP-20-LM
50X	0.60	3.3	OP-40-LM
80X	0.80	0.32	OP-80-LM

MI-500 SERIES INVERTED MICROSCOPES

MI-500 Series inverted microscopes are ideal for examining transparent living specimens in culture flasks, on slides or in other flat clear containers. This transmitted light microscope features long working distance objectives and condensers to allow optimal working space. Models are available in brightfield or brightfield/phase contrast configurations to serve a variety of applications in medicine and research.

Features include:



- **Eyepieces**: Paired 10X D.I.N. Standard Widefield Eyepieces
- **Head**: Seidentopf head inclined 30°, with –5 to +5 diopter adjustment and 55-75mm interpupillary adjustment. Comes standard with trinocular head.
- **Nosepiece**: Quintuple ball-bearing nosepiece with positive stops to allow quick, easy objective rotation.
- **Objectives**: These microscopes come with long working distance Plan Achromatic D.I.N. objectives. All lenses are coated and color corrected to produce sharp, bright images and a flat field. The microscopes are equipped with 10X (0.25 N.A.), 25X (0.40 N.A.), and 40X (0.65 N.A.) objectives. Parfocal and parcentered.
- **Stage**: Large (200 x 150mm) mechanical stage with low-position coaxial controls, a chemical resistant finish, and stage inserts.
- **Focusing mechanism**: Smooth, durable rack and pinion mechanism with low-position coaxial coarse and fine adjustment knobs and tension adjustment to prevent drift.
- **Condenser**: Centerable 0.40NA condenser with iris diaphragm and 30mm working distance. Phase contrast models include a centering telescope and separate slide-in phase annuli for each objective. The condenser is rack and pinion mounted.
- **Illumination**: The illumination system features a 6-Volt, 20-Watt variable halogen lamp, with field iris and focusing collector lens. Microscopes are shipped standard 120 Volt, with a grounded CSA cord. 220-Volt systems are available on request. Scopes included blue and neutral density filters.
- **Finish**: Stain and chemical resistant baked on enamel finish. Dustcover included.

MODEL	BRIGHTFIELD	BRIGHTFIELD/PHASE CONTRAST
Inverted Trinocular	MI-530	MI-535
Inverted Trinocular, Deluxe*		MI-535-2A

* See following page

MI-535-2A DELUXE INVERTED MICROSCOPE

The MI-535-2A inverted microscope has the same advanced features as the MI-535 but includes the ability to handle larger specimen containers. The stage is over 30% larger with a top mounted, removable carrier specialized for culture flasks and well plate containers. The illumination system is designed around a more intense 30W halogen lamp and the 0.40NA condenser has a 50mm working distance and a swing-away mount for maximum working room.

Enhanced Features:

- **Stage**: Mechanical stage size: 210mmx225mm, Right-hand coaxial dropdown X-Y control knobs, range of motion 115mmx83mm

  Stage inserts:

Well plate size 130mmx82mm	Slide holder 75mmx35mm
Well plate size 82mmx52mm	Slide holder 75mmx25mm

- **Condenser**: 50mm, 0.40NA long working distance condenser, Phase contrast slide-in annuli feature individual centering. Rack and pinion mount has pivoting arm

- **Illuminator**: 6V 30W variable halogen

Long Working Distance Objectives

Mag.	N.A.	Plan Achromatic	Plan Achromatic Phase
10X	0.25	OP-10LWD	OP-10-PHLWD
25X	0.40	OP-25LWD	OP-25-PHLWD
40X	0.65	OP-40LWD	OP-40-PHLWD

PARTS & ACCESSORIES FOR MI-500 SERIES

Eyepieces

ED – 10XWF-18	*10X widefield eyepiece*
ED – 10XWF-20	*10X ultra wide eyepiece*
ED – 15XWF	*15X widefield eyepiece*
ED – 20XWF	*20X widefield eyepiece*

Power Cord

PC-AC	*AC power cord*

Halogen Bulbs

BH-20	*Bulb, halogen 6V 20W*
BH-30	*Bulb, halogen 6V 30W*

Fuse

FS-05	*Fuse, GMA 250V 0.5A*

Dustcover

VC-40	*Vinyl dustcover, extra large*

Condensers and Related Items

CA-40	*Condenser LWD 0.40NA w/iris**
PA-10	*10X phase annulus**
PA-25	*25X phase annulus**
PA-40	*40X phase annulus**
PT-23	*Phase centering telescope**

*(*specify microscope model)*

Filters

FB-315	*Filter, blue, 31.5mm*
FY-315	*Filter, yellow, 31.5mm*
FG-315	*Filter, green, 31.5mm*
FF-315	*Filter, frosted, 31.5mm*

Supplies

LT-01	*Lens tissue, 50 sheets/bk*
LC-01	*Lens Cleaner*

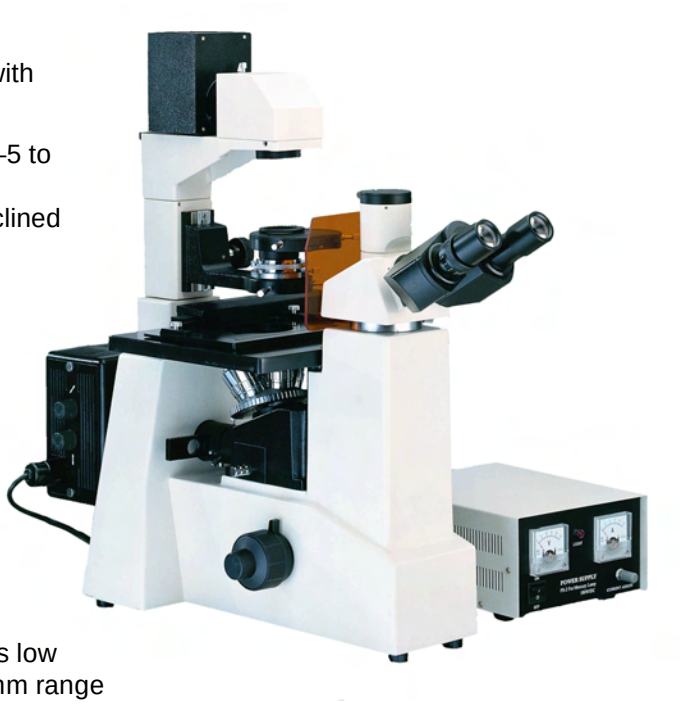
Mercury Vapor Bulbs for MI-537 & MF-653

BM-100C	*100W HBO bulb, standard*
BM-100	*100W HBO bulb, premium*

MI-537 EPI-FLUORESCENCE INVERTED MICROSCOPE

The *Lieder MI-537* inverted microscope combines a versatile Epi-fluorescence system with quality Plan phase contrast and brightfield optics. The inverted design accommodates larger specimens and specimen containers and allows better access to the stage. It is well suited for a range of research and clinical applications including cytology, immunology, hematology, genetics, microchemistry and environmental protection.

Features include:



- **Eyepieces:** Paired 10X WF(∅20mm), with retractable glare shields
- **Head:** Seidentopf trinocular head with –5 to +5 diopter adjustment and 53 to 75mm interpupillary adjustment. 30 degree inclined viewing angle.
- **Nosepiece:** Quintuple ball bearing nosepiece with positive stops.
- **Objectives:** Long working distance Plan Achromatic objectives. Brightfield: PL10X (0.25NA), PL 25X (0.40NA), PL 40X (0.60NA). Phase contrast:PL 10X(0.25NA)PHP, PL25X(0.40NA)PHP, PL40X (0.60NA)PHP
- **Stage:** Large 224x208mm surface, mechanical stage with removable inserts low position coaxial controls and a 75x112mm range of motion.
- **Focusing mechanism:** Coaxial coarse and fine focus with tension adjustment and focus stop.
- **Condenser:** 0.40NA, Long working distance condenser with rack and pinion focus, swing away mounting, turret mounted adjustable phase annuli and 50mm working distance.
- **Transmitted Illumination:** Brightfield/Phase contrast: 6V30W halogen with adjustable brightness.
- **Epi-fluorescence Illumination**: 100W/DC mercury lamp with external power supply.
- **Epi-fluorescence excitation system:**

UV(ultraviolet filter, 330-400nm)	**B** (blue filter, 420-485nm)
V (violet filter, 395-415nm)	**G** (green filter, 460-550nm)
Other filter configurations are available by special order	

- *Antifungus treated, Durable enamel finish*
- Grounded CSA cords, electrical system available in 110V AC or 220V AC configurations

(For parts and accessories see previous page)

ME-653 EPI-FLUORESCENCE MICROSCOPE

The **ME-600 Series** offers a versatile epi-fluorescence system with infinity brightfield and phase contrast optics. The system includes filters to work with a range of dyes and fluorophores suitable for the demands of industry or laboratory in such fields as cytology, immunology, hematology, genetics, geology, microchemistry and environmental protection.

Features include:

- **Eyepieces:** Paired 10X WF(∅20mm)Widefield Eyepieces.
- **Head:** Trinocular Seidentopf head inclined 30° with –5 to +5 diopter adjustment and 55-75mm interpupillary adjustment.
- **Nosepiece:** Quintuple ball bearing nosepiece with positive stops



- **Objectives:** These microscopes feature Plan Achromatic UIS objectives. All lenses are coated and color corrected to produce sharp, bright images and flat fields. All objectives are parfocal and parcentered.

U.I.S. Objectives (MC-440 series)			
Mag.	**N.A.**	**Plan Achromatic**	**Plan Achromatic Phase**
4X	0.10	OP-04-UIS	
10X	0.25	OP-10-UIS	OP-10-PH-UIS
40X	0.65	OP-40-UIS	OP-40-PH-UIS
100X	1.25	OP-100-UIS	OP-100-PH-UIS

- **Stage:** Large (210x140mm), graduated mechanical stage with low-position coaxial controls, a chemical resistant finish and removable spring clip slide holder.
- **Focusing mechanism:** Smooth, durable rack and pinion mechanism with low-position coaxial coarse and fine adjustment knobs, tension adjustment to prevent drift and a safety rack stop to prevent slide damage.
- **Condenser:** All brightfield models come with a fully centerable rack and pinion mounted 1.25 N.A. Abbe condenser with iris diaphragm. All phase contrast models feature a centerable Zernike type condenser with phase annuli for 10X, 20/25X, 40X, 100X and brightfield settings.
- **Illumination:** The lower illumination system features a 6-Volt, 20-Watt variable halogen lamp. The microscopes come with a field iris for Kohler illumination. Microscopes are shipped standard 120 Volt, with a grounded CSA cord. 220-Volt systems are available on request.
- **Epi-fluorescence Illumination**: 100W/DC mercury lamp with external power supply.

UV(ultraviolet filter, 330-400nm)	**B** (blue filter, 420-485nm)
V (violet filter, 395-415nm)	**G** (green filter, 460-550nm)
Other filter configurations are available by special order	
Mercury Bulb, Standard: BM-100C see pg 14	

Finish: Stain and chemical resistant baked-on enamel finish. Dustcover included.

MP-470 POLARIZATION MICROSCOPE

The MP-470 polarization microscope combines a versatile polarization system with quality infinity optics. Polarization microscopes are useful in applications involving the study of crystals and fibers in chemistry and medicine, as well as material stress analysis, and mineralogy.

The MP-470 features individually centerable objective mounts and a precision rotating stage. The system includes a slide-in analyzer, Bertrand lens, full wave and quarter wave plates, and quartz wedge compensator.



Features include:

- **Eyepieces:** Paired 10X WF(∅18mm)Widefield Eyepieces.
- **Head:** Trinocular Seidentopf head inclined 30° with –5 to +5 diopter adjustment and 55-75mm interpupillary adjustment.
- **Nosepiece:** Quadruple ball bearing nosepiece with positive stops and individual objective centering adjustment
- **Objectives:** Plan Achromatic UIS objectives. All lenses are coated and color corrected to produce sharp, bright images and flat fields.
- **Polarization System:**
  - Analyzer: slider mounted, 360° rotatable with vernier scale
  - Bertrand lens: slider mounted, with adjustable centering
  - λ Compensator
  - λ/4 Compensator
  - Quartz wedge
  - Polarizer: takedown style, 360° rotatable, 90° graduation
- **Stage:** 360° Revolving circular stage with 1° graduation. Vernier scale accurate to 6 arc minutes. 150mm diameter with adjustable centering and locking screw. Chemical resistant finish and removable stage clips.

U.I.S. Objectives (MC-440 series)		
Mag.	**N.A.**	**Plan Achromatic**
4X	0.10	OP-04-UIS
10X	0.25	OP-10-UIS
40X	0.65	OP-40-UIS
100X	1.25	OP-100-UIS

- **Focusing mechanism:** Smooth, durable rack and pinion mechanism with low-position coaxial coarse and fine adjustment knobs, tension adjustment to prevent drift and a safety rack stop to prevent slide damage.
- **Condenser:** Fully centerable rack and pinion mounted 1.25 N.A. Abbe condenser with iris diaphragm.
- **Illumination**: The illumination system features a 6-Volt, 20-Watt variable halogen lamp, collector and a field iris for Kohler illumination. Microscopes are shipped standard 120 Volt, with a grounded CSA cord. 220-Volt systems are available on request.
- **Finish**: Stain and chemical resistant baked-on enamel finish. Dustcover included.

MS-500X SERIES STEREO MICROSCOPES

MS-500X series stereomicroscopes provide a simple solution to observe small objects where depth perception and versatile lighting are required. They are useful for educational applications such as dissection and observing living organisms, as well as lab and industrial use such as identifying plants and insects, geological specimens and inspection or assembly of small parts.

MODEL	DESCRIPTION
MS-512X	10X & 20X Stereo Microscope
MS-513X	10X & 30X Stereo Microscope
MS-524X	20X & 40X Stereo Microscope
MS-514X	10X & 40X Stereo Microscope

These scopes offer dual magnification and come in a variety of configurations ranging from 10X to 40X total magnification. Optional eyepieces can increase the magnification to 80X. The built-in illumination system includes bright, variable halogen upper lighting and cool fluorescent substage illumination.



Features include:

- **Eyepieces**: Paired 10X Widefield.
- **Head**: Binocular, 45° inclined erect image prisms, 360° rotatable with diopter and interpupillary adjustment. Interpupillary adjustment is from 55-75mm. Nosepiece rotates a quarter turn to toggle between magnifications.
- **Body**: All metal construction, includes: illumination system, focuser and mount, stage clips, fuse protected. CSA power cord. 220-Volt systems are available on request.
- **Focusing mechanism**: Large, easy grip knobs with durable, rack and pinion gearing and a slip clutch to prevent damage.
- **Transmitted Illumination**: Cool fluorescent 5W with independent control. Removable diffuser, clear glass stage plate, optional black/white opaque plate.
- **Reflected Illumination**: Variable halogen with independent dimmer control, bright reflector type bulb,10W12V
- **Finish**: Chemical and stain resistant baked-on enamel finish. Dustcover included.

PARTS & ACCESSORIES FOR MS-500X SERIES			
		BHR-10	*Bulb 12V10W halogen reflector*
EZ-10XWF	*10X widefield eyepiece 30.5mm*	BF-5	*Bulb, 5W fluorescent*
EZ-15XWF	*15X widefield eyepiece 30.5mm*	FS-05	*Fuse, GMA 250V 0.5A*
EZ-20XWF	*20X widefield eyepiece 30.5mm*	VC-20	*Dustcover, medium*
EC-305	*Eye guards, rubber 30.5mm*	FF-40	*Frosted stage filter, 40mm*
PC-AC	*Spare power cord, AC*	SP-CP95	*Glass stageplate, clear 95mm*
		SP-BW95	*Stageplate, Black&White, 95mm*

MZ-600 STEREOZOOM MICROSCOPES

MZ-600 series stereo zoom microscopes offer the convenience of variable magnification from 7 to 34 times in a simple student microscope. A four-way dual lighting system with 15W variable halogen upper illumination and 5W fluorescent lower illumination provides bright yet cool lighting. The design of MZ-600 microscopes is compact and durable making these scopes an excellent choice for presentations and education.

MODEL	DESCRIPTION
MZ-620	7-34X Binocular Stereozoom Microscope
MZ-630	7-34X Trinocular Stereozoom Microscope

Features include:

- **Eyepieces:** Paired 10X widefield eyepieces that are locked-on.
- **Zoom range:** 7-34X (1:4.8 ratio)
- **Head:** Binocular or trinocular heads rotate 360° and have diopter and interpupillary adjustment. Interpupillary adjustment is from 55 - 75mm. Trinocular head has vertical tube for photography or video microscopy.
- **Body:** Upper illumination is a variable quartz halogen (6V, 15W) lamp. Lower illumination is a cool fluorescent lamp to prevent specimens from overheating. A four way switch allows the upper and lower illumination to be on simultaneously or separately.
- **Focusing mechanism:** Durable rack and pinion design with a slip clutch to prevent damage to the gears
- **Finish:** Chemical and stain resistant baked-on enamel finish. Dustcover included



PARTS & ACCESSORIES FOR MZ-600 SERIES			
ES-10XWF	*10X widefield eyepiece 30.5mm*	BHR-15-6	*Bulb 6V15W halogen reflector*
ES-15XWF	*15X widefield eyepiece 30.5mm*	BF-5	*Bulb, 5W fluorescent*
ES-20XWF	*20X widefield eyepiece 30.5mm*	FS-05	*Fuse, GMA 250V 0.5A*
EC-305	*Eye guards, rubber 30.5mm*	VC-20	*Dustcover, medium*
		SP-FP75	*Glass stageplate, frosted 75mm*
		SP-BW75	*Stageplate, Black&White, 75mm*

SMC-10 *Microscope Case*

Help protect your investment with our sturdy microscope carrying case. 12”x8”x18” size will accommodate many types of stereo and compound microscope.

Features include: nylon construction with heavy duty carrying strap, accessory pockets, easy open zippered closure, and internal tie down straps.



MZ-660 STEREOZOOM MICROSCOPES

MZ-660 series stereo zoom microscopes offer an expanded zoom range of 6.5 to 60X. This combined with long working distances and 3-D viewing makes these instruments versatile in a variety of fields ranging from education to industry. Built in 15W variable halogen upper illumination and 5W fluorescent lower illumination provides bright yet cool lighting. The design is durable and easy to use.

MODEL	DESCRIPTION
MZ-662	6.5-60X Binocular Stereozoom Microscope
MZ-663	6.5-60X Trinocular Stereozoom Microscope

Features include:

- **Eyepieces:** Paired 10X widefield eyepieces.
- **Zoom range:** 6.5 to 60X (1:9.2 ratio)
- **Head:** Inclined 45°. Binocular or trinocular heads rotate 360° and have diopter and interpupillary adjustment. Interpupillary adjustment is from 55 - 75mm. Trinocular head has vertical tube for photography or video microscopy.
- **Body:** Upper illumination is a variable quartz halogen (6V, 15W) lamp. Lower illumination is a cool fluorescent lamp to prevent specimens from overheating.
- **Focusing mechanism:** Durable rack and pinion design
- **Finish:** Chemical and stain resistant baked-on enamel finish.
- 11”Lx11”Wx16”H, 15Lbs,
- Dustcover included



PARTS & ACCESSORIES FOR MZ-660 SERIES			
ES-10XWF	*10X widefield eyepiece 30.5mm*	BHR-15-6	*Bulb 6V15W halogen reflector*
ES-15XWF	*15X widefield eyepiece 30.5mm*	BF-5	*Bulb, 5W fluorescent*
ES-20XWF	*20X widefield eyepiece 30.5mm*	FS-05	*Fuse, GMA 250V 0.5A*
EC-305	*Eye guards, rubber 30.5mm*		
		VC-30	*Dustcover, large*
AL-0.5-S	*Aux. Lens, 0.5X, for MZ-660*		
AL-1.5-S	*Aux. Lens, 1.5X, for MZ-660*	SP-FP75	*Glass stageplate, frosted 75mm*
AL-2.0-S	*Aux. Lens, 2.0X for MZ-660*	SP-BW75	*Stageplate, Black&White, 75mm*

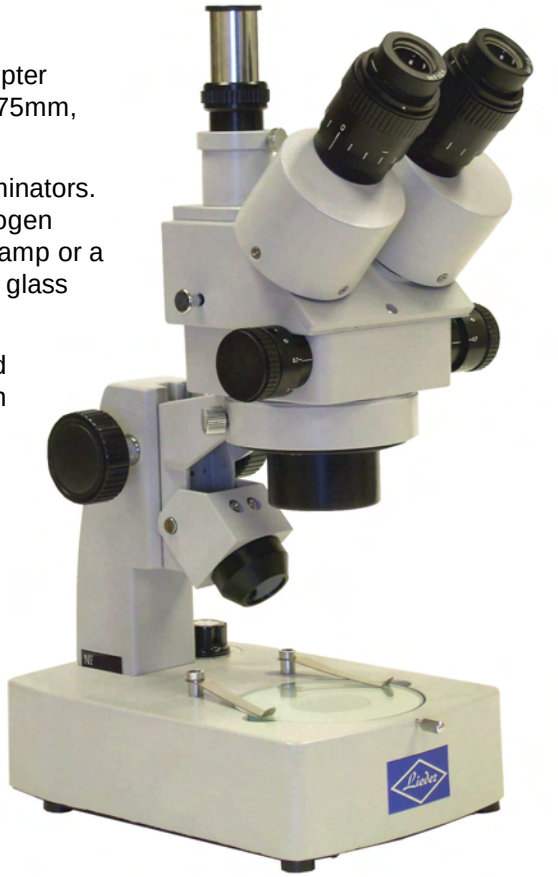
MZ-700X STEREOZOOM MICROSCOPES

The Lieder MZ-700X series represents our most popular stereozoom line. These instruments combine a versatile 7-45X zoom range and a large well lit stage. The optics provide sharp, three-dimensional images and good working distances. All models feature bright, variable halogen upper lighting. Sub stage lighting configurations are available in either cool, long lived fluorescent or bright variable halogen depending on model. Durable construction and ease of use make these zooms a good choice for education, lab or industry.

MODEL	DESCRIPTION
MZ-720X	7-45X Binocular, Halogen upper light, Fluorescent lower light
MZ-730X	7-45X Trinocular, Halogen upper light, Fluorescent lower light
MZ-750X	7-45X Binocular, Halogen upper light, Halogen lower light
MZ-760X	7-45X Trinocular, Halogen upper light, Halogen lower light

Features include:

- **Eyepieces:** Paired 10X Widefield eyepieces.
- **Zoom range:** 7-45X (1:6.4 ratio)
- **Head:** 45° inclined, 360° rotatable with dual diopter adjustments, interpupillary adjustment from 55-75mm, binocular or trinocular configurations available
- **Body:** The body includes upper and lower illuminators. Upper illumination on all models is a quartz halogen lamp. Lower illumination is a variable halogen lamp or a fluorescent lamp. All models come with a large glass stage plate and stage clips.
- **Focusing mechanism:** Durable, metal rack and pinion design, which features adjustable tension and a slip clutch to prevent gear damage.
- **Finish:** Chemical and stain resistant baked-on enamel finish. Dustcover included.
- **Height:** 16”, Base: 9”X6.5”
- Heavy duty 3-wire cord for safety
- Dustcover included



PARTS & ACCESSORIES FOR MZ-700X SERIES

		BHR-10	*Bulb 12V10W halogen reflector*
EZ-10XWF	*10X widefield eyepiece 30.5mm*	BF-5	*Bulb, 5W fluorescent*
EZ-15XWF	*15X widefield eyepiece 30.5mm*	FS-05	*Fuse, GMA 250V 0.5A*
EZ-20XWF	*20X widefield eyepiece 30.5mm*	FF-40	*Frosted stage filter, 40mm*
EC-305	*Eye guards, rubber 30.5mm*	FFB-40	*Blue frosted stage filter, 40mm*
PC-AC	*Spare power cord, AC*	SP-CP95	*Glass stageplate, clear 95mm*
VC-30	*Dustcover, large*	SP-BW95	*Stageplate, Black&White, 95mm*
BH-10-12	*Bulb 12V10W lower for 750&760*	SP-CD95	*Darkfield/gem stageplate, 95mm*

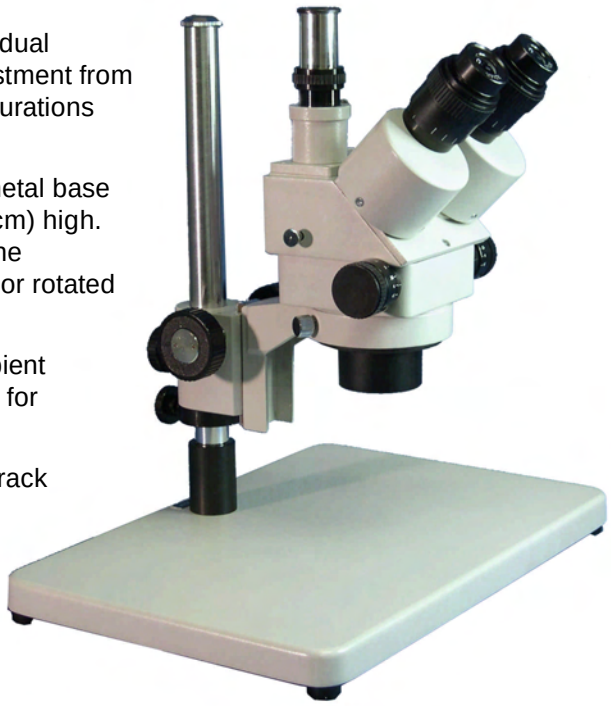
MZP-800X STEREOZOOM PLATFORM MICROSCOPE

MZ-800X series 7-45X stereozoom microscopes include a low-profile platform base with a sturdy vertical support rod. The large base and height adjustable mount allow easy accommodation of large or bulky specimens. This system is well suited for inspecting objects like circuit boards or large geological samples. The MZP-830 trinocular can accommodate a variety of cameras for easy presentation and documentation work.

MODEL	DESCRIPTION
MZP-810	7-45X Binocular Stereozoom Platform Microscope
MZP-830	7-45X Trinocular Stereozoom Platform Microscope

Feature include:

- **Eyepieces:** Paired 10X Widefield eyepieces.
- **Zoom range:** 7-45X (1:6.4 ratio)
- **Head:** 45° inclined, 360° rotatable with dual diopter adjustments, interpupillary adjustment from 55-75mm, binocular or trinocular configurations available
- **Stand:** The large 10”x15” (25x38cm) metal base features a sturdy support rod 13.5” (34cm) high. The adjustable focusing mount allows the microscope head to be raised, lowered or rotated on the support rod.
- **Lighting:** None built in. Use bright ambient lighting or customize accessory lighting for specific needs.
- **Focusing mechanism:** Durable, metal rack and pinion design, which features adjustable tension and a slip clutch to prevent gear damage.
- **Finish:** Chemical and stain resistant baked-on enamel finish. Dustcover included.



PARTS & ACCESSORIES FOR MZP-800X & MZB-900X SERIES			
EZ-10XWF	*10X widefield eyepiece 30.5mm*	AL-0.5	*Aux. Lens, 0.5X, for MZPX-800X & MZB-900X*
EZ-15XWF	*15X widefield eyepiece 30.5mm*	AL-1.5	*Aux. Lens, 1.5X, for MZPX-800X & MZB-900X*
EZ-20XWF	*20X widefield eyepiece 30.5mm*	AL-2.0	*Aux. Lens, 2.0X for MZPX-800X & MZB-900X*
EC-305	*Eye guards, rubber 30.5mm*	VC-30	*Dustcover, large*

IL-RF1-70 FLUORESCENT RINGLIGHT



The IL-RF1-70 is an excellent stereomicroscope accessory light. While providing 10 watts of cool white illumination, the fluorescent ring also eliminates shadows and directs light precisely where it’s needed. The IL-RF1-70 fits cones from 4.6 to 7 cm diameter and includes a spare bulb

Item #IL-RF1-70: Fluorescent ring light, 10W 70 mm
Accessory: BF-10R: spare fluorescent ring bulb 10W, 90mm

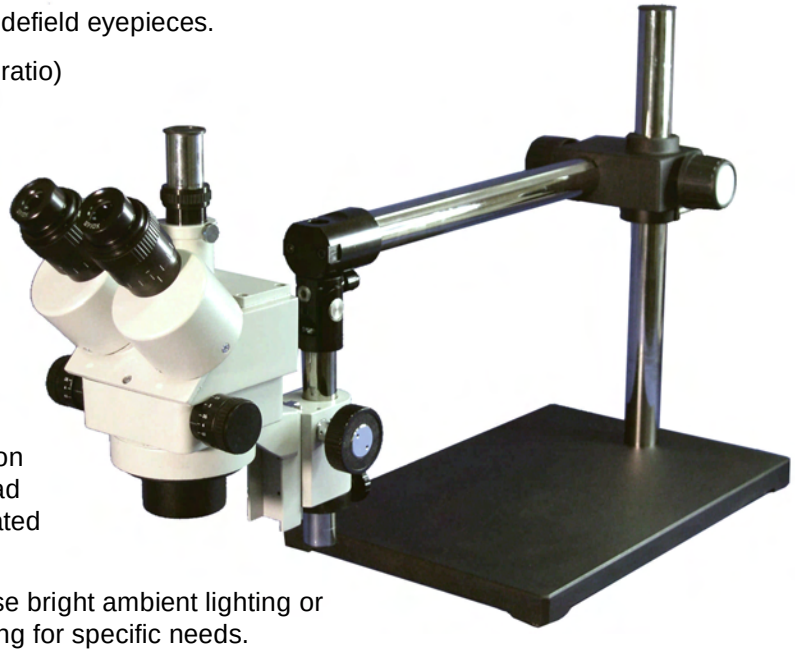
MZB-900X STEREOZOOM BOOMSTAND MICROSCOPE

MZ-900 series stereozoom microscopes utilize a versatile boomstand mount for flexibility when inspecting larger objects. The stand features a height and length adjustable, swing-type cross arm matched to an angle adjustable focusing mount. The 7-45X zoom viewing head provides crisp three-dimensional images and ample working distances. These units excel at a range of uses including inspection stations, assembly work, photo documentation, biology, mineralogy and many others.

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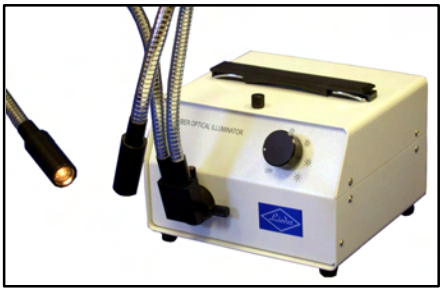
MODEL	DESCRIPTION
MZB-910	7-45X Binocular Stereozoom Boomstand Microscope
MZB-930	7-45X Trinocular Stereozoom Boomstand Microscope

Feature include:



- **Eyepieces:** Paired 10X Widefield eyepieces.
- **Zoom range:** 7-45X (1:6.4 ratio)
- **Head:** 45° inclined, 360° rotatable with dual diopter adjustments, interpupillary adjustment from 55-75mm, binocular or trinocular configurations available
- **Stand:** The stand features X and Y axis arms attached to a heavy cast iron base. The microscope head can be extended on or rotated around the X and Y axes.
- **Lighting:** None built in. Use bright ambient lighting or customize accessory lighting for specific needs.
- **Focusing mechanism:** Durable, metal rack and pinion design, which features adjustable tension and a slip clutch to prevent gear damage.
- **Finish:** Chemical and stain resistant baked-on enamel finish.

LF-150 FIBEROPTIC LIGHT



A perfect option for demanding stereo and inspection work, the LF-150 fiber optic lighting system directs, cool, variable intensity light where it's needed. The unit features a bright 150W halogen projector bulb and can be equipped with a variety of light guides, each sold separately.

MODEL	DESCRIPTION	ITEM	DESCRIPTION
LF-150	150W, Fiber optic light source	BT-EKE	Bulb, Halogen 150W, 21V
LG-B23	Bifurcated (dual) gooseneck light guide 23"	FS-3.0	Fuse, 3A Slow Blow
LR-360	36" Fiber optic ring lamp, for stereo zoom	PC-AC	Spare power cord, AC

PHOTO / VIDEO ACCESSORIES *for all 23mm compound and stereo trinocular microscopes*

Video

VZ-10	Simple video adapter (w.o. reducer) C-mount to standard 23mm tube
VZ-05	0.5X Video adapter for 1/3" CCD, C-mount, directly mounts to standard 23mm tube
VC-540	540 Line color video camera, w. 1/3" CCD, digital image processing, C-mount, 0.6 lux min. sensitivity, 110V AC input, NTSC video output, (PAL & 220V systems also available) *microscope adapters sold separately*
VZ-540	Universal video kit includes camera (VC-540) adapter (VZ-05) and cable
FC-1	The FC-1 VIDEO FLEXIBLE CAMERA is a simple, versatile solution for presentations, documentation and video monitoring. The system includes a weighted base with power supply, long gooseneck mount and integrated color camera with lens. Close focus capabilities allow the FC-1 to enlarge small details. Included adapters allow use on microscope. Power and video cables included.

Sensor format: 1/3" 500(H)x582(V)	Resolution: 420 TV lines
Camera lens: 8mm quick focus	Focal distance: 10mm (0.39") to ∞
Light sensitivity: 3 lux	Auto Control Shutter: 1/50 to 1/1000 sec
Video output: composite, NTSC (PAL available)	Power input: 110V AC (220V available)
White balance: Automatic	Flexible neck: 60 cm (23.6")
Base: 13.8Wx16.8Lx5.2H (cm)	Weight: 2.2Kg



Digital

PK-UDCA	Universal digital camera adapter. Allows most fixed & zoom lens consumer digital cameras to be mounted on microscope. Camera must be equipped with tripod socket. Includes 10X photo eyepiece to fit 23mm mount *(camera not included)*
PK-EPC	Digital eyepiece camera, 1.3MP converts any microscope for digital imaging with a computer. Good for schools and presentations. Includes basic software, USB cable and stereo adapter.



PK-DC-3	Dedicated digital microscope camera with high resolution 3 mega pixel detector. Provides quality images suitable for many applications. Includes basic imaging and capture software, USB cable and stereo adapter. (*Ultra high resolution 5 mega pixel version also avaible: PK-DC-5)

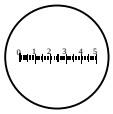


dSLR/film	*(requires compatible, removable lens SLR camera body, not included)*
PK-UA-T	Universal SLR adapter w. 23mm 2.5X photo eyepiece (specify camera mount)

Other photo/video accessories are also available for specific needs. Please inquire for details.

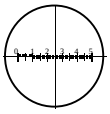
RETICLES

When ordering reticles use the following formula to generate the part number:
Cat. # = Reticle Type + Scale/Grid Length + Number of Divisions + Glass Diameter



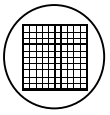
SCALE

Cat. #	Description	Distance	Divisions
AS239	SCALE	0.200"	50
AS2201	SCALE	0.300"	50
AS234	SCALE	0.400"	50
AS212	SCALE	0.500"	50
AS291	SCALE	4MM	50
AS222	SCALE	5MM	50
AS272	SCALE	9MM	50
AS229	SCALE	10MM	50
AS270	SCALE	12MM	50
AS211	SCALE	12.5MM	50
AS275	SCALE	15MM	50
AS266	SCALE	16MM	50
AS201	VERTICAL SCALE	0.100"	100
AS284	SCALE	0.100"	100
AS225	SCALE	0.120"	100
AS218	SCALE	0.150"	100
AS287	SCALE	0.160"	100
AS202	SCALE	0.200"	100
AS213	SCALE	0.250"	100
AS203	SCALE	0.300"	100
AS240	VERTICAL SCALE	0.300"	100
AS281	SCALE	0.350"	100
AS285	SCALE	0.375"	100
AS204	SCALE	0.400"	100
AS259	SCALE	0.450"	100
AS206	SCALE	0.500"	100
AS283	VERTICAL SCALE	0.500"	100
AS227	SCALE	0.600"	100
AS2202	SCALE	0.700"	100
AS277	SCALE	0.750"	100
AS294	SCALE	0.800"	100
AS289	SCALE	1.000"	100
AS226	SCALE	1MM	100
AS230	SCALE	2MM	100
AS247	SCALE	3MM	100
AS248	SCALE	4MM	100
AS249	SCALE	6MM	100
AS250	SCALE	7MM	100
AS246	SCALE	7.5MM	100
AS286	SCALE	8MM	100
AS258	SCALE	9MM	100
AS235	SCALE	10MM	100
AS244	SCALE	12MM	100
AS263	SCALE	12.5MM	100
AS233	SCALE	15MM	100
AS220	SCALE	20MM	100
AS298	SCALE	0.100"	200
AS241	SCALE	0.200"	200
AS2203	SCALE	0.300"	200
AS205	SCALE	0.400"	200
AS214	SCALE	0.500"	200
AS282	SCALE	0.700"	200
AS232	SCALE	0.800"	200
AS290	SCALE	1.00"	200
AS228	SCALE	2MM	200
AS268	SCALE	4MM	200
AS208	SCALE	5MM	200
AS262	SCALE	8MM	200
AS217	SCALE	10MM	200
AS295	SCALE	12MM	200
AS278	SCALE	15MM	200
AS215	SCALE	20MM	200



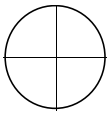
SCALE W/CROSSLINE

Cat. #	Description	Distance	Divisions
AS279	SCALE W/CROSSLINE	10MM	50
AS280	SCALE W/CROSSLINE	12MM	50
AS251	SCALE W/CROSSLINE	0.100"	100
AS284	SCALE W/CROSSLINE	0.100" Verticle	100
AS252	SCALE W/CROSSLINE	0.200"	100
AS253	SCALE W/CROSSLINE	0.300"	100
AS274	SCALE W/CROSSLINE	0.350"	100
AS285	SCALE W/CROSSLINE	0.375"	100
AS254	SCALE W/CROSSLINE	0.400"	100
AS256	SCALE W/CROSSLINE	0.500"	100
AS283	SCALE W/CROSSLINE	0.500" Verticle	100
AS260	SCALE W/CROSSLINE	0.600"	100
AS297	SCALE W/CROSSLINE	8MM	100
AS257	SCALE W/CROSSLINE	10MM	100
AS288	SCALE W/CROSSLINE	20MM	100
AS255	SCALE W/CROSSLINE	0.400"	200
AS273	SCALE W/CROSSLINE	0.600"	200
AS267	SCALE W/CROSSLINE	10MM	200



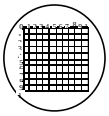
GRID

Cat. #	Description	Distance	Divisions
AS426	GRIDS	2.5MM	25 Sqr.
AS402	GRIDS	5MM	25 Sqr.
AS427	GRIDS	15MM	25 Sqr.
AS430	GRIDS	1MM	100 Sqr.
AS450	GRIDS	2MM	100 Sqr.
AS440	GRIDS	3MM	100 Sqr.
AS448	GRIDS	4MM	100 Sqr.
AS449	GRIDS	8MM	100 Sqr.
AS429	GRIDS	12.5MM	100 Sqr.
AS456	GRIDS	15MM	100 Sqr.
AS465	GRIDS	20MM	100 Sqr.
AS463	GRIDS	0.100"	100 Sqr.
AS460	GRIDS	0.200"	100 Sqr.
AS468	GRIDS	0.300"	100 Sqr.
AS469	GRIDS	0.400"	100 Sqr.
AS470	GRIDS	0.500"	100 Sqr.
AS442	GRIDS	1MM	400 Sqr.
AS471	GRIDS	2MM	400 Sqr.
AS472	GRIDS	4MM	400 Sqr.
AS459	GRIDS	5MM	400 Sqr.
AS424	GRIDS	12.5MM	400 Sqr.
AS428	GRIDS	20MM	400 Sqr.



CROSSLINE

Cat. #	Description	Distance
AS305	CROSSLINES	0.0003" Width Solid Line
AS301	CROSSLINES	0.0006" Width Solid Line
AS311	CROSSLINES	0.0010" Width Solid Line
AS325	CROSSLINES	0.0020" Width Solid Line
AS310	CROSSLINES	0.0030" Width Solid Line
AS302	CROSSLINES	0.0006 Width Dashed Line
AS309	CROSSLINES	0.0045" Space-Double Cross Hair
AS309-1	CROSSLINES	1MM Crosshair



WHIPPLE

Cat. #	Description	Distance
AS421	WHIPPLE	0.400" 64Squ. (1-25)
AS422	WHIPPLE	5MM 100Squ. (1-25)
AS413	WHIPPLE	7MM 100Squ. (1-25)
AS414	WHIPPLE	7.5MM 100Squ. (1-25)
AS439	WHIPPLE	8MM 100Squ. (1-16)
AS433	WHIPPLE	10MM 100Squ. (1-16)
AS435	WHIPPLE	10MM 100Squ. (1-25)
AS445	WHIPPLE HAUSER	10MMx10MM 100Squ. CEN-TER 25DIV.

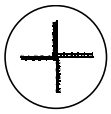


CIRCLES w/CROSSLINE

Cat. #	Description	Distance	Diameters
AS511	Circle/crossline	.010 - .100"	10
AS507	Circle/crossline	.020 - .200"	10
AS530	Circle/crossline	.030 -.300"	10
AS531	Circle/crossline	.040 - .400"	10
AS532	Circle/crossline	.050 - .500"	10
AS535	Circle/crossline	.100 - 1.00"	10
AS517	Circle/crossline	.10 - 1.0 mm	10
AS533	Circle/crossline	.20 - 2.0 mm	10
AS503	Circle/crossline	.25 - 2.5 mm	10
AS520	Circle/crossline	.30 - 3.0 mm	10
AS534	Circle/crossline	.40 - 4.0 mm	10
AS502	Circle/crossline	.50 - 5.0 mm	10
AS501	Circle/crossline	1.0 - 10 mm	10
AS505	Circle/crossline	2.0 - 20 mm	10
AS536	Circle/crossline	3.0 - 30 mm	10

SPECIAL SCALES

Cat. #	Description
AS806	1" STAGE MICROMETER (.001-.010-.100")
AS812	25MM STAGE MICROMETER (.02mm-.1mm-1.0MM)
AS814	1" AND 25MM STAGE MICROMETER
AS836	2.0"/2000 DIVISION (0.001") STAGE MICROMETER



PINWHEELS

Cat. #	Description	100 divs/axis
AS-601	PINWHEEL	.100"
AS-602	PINWHEEL	.200"
AS-605	PINWHEEL	.300"
AS-620	PINWHEEL	.400"
AS-607	PINWHEEL	.500"
AS-611	PINWHEEL	1.000"
AS-615	PINWHEEL	1 MM
AS-625	PINWHEEL	4 MM
AS-608	PINWHEEL	5 MM
AS-603	PINWHEEL	10 MM

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