Projection Microscopes are versatile instruments of universal application, designed for all stages of demonstration, measurements, checking, counting & comparison in Science Labs, Textile Production, and Medical & Agricultural Fields. Our projection concept is modern & extremely flexible for Research & Quality Control in areas of Textile Production.

The adjustment of these WESWOX MP SERIES Microscope requires a very few operations so that the user is free to concentrate his efforts upon observation of the specimen. Their compact, dust proof construction, light weight, functional design & quality optical components make it a useful instrument in the respective fields.

Incorporates best quality optical components & Fresnel lens behind the screen for brilliant projection through the screen area.
PROJECTION MICROSCOPE

**MP-380**

**Key Features**
- Compact, Dust Proof Construction.
- Light Weight, Functional Design.
- Quality Optical Components.

**Technical Specifications**
- **Observation Screen**: 160mm dia. ground glass screen, easily removable to enable projection of specimens on the wall screen.
- **Nosepiece**: Triple/Quadruple nosepiece with positive click stop.
- **Objectives**: 10X, 20X, 40X (SL)
- **Object Stage**: Fitted with two phosphorus chrome plated stage clips to hold specimen slides.
- **Focussing System**: Focusing is done by vertical movement of stage, coarse adjustment by rack & pinion.
- **Illumination**: Having projection bulb 12V-100W with intensity control unit workable on 220 volts AC mains.
- **Packaging**: Complete in a cardboard box.
- **Standard Accessories**: The concomitant Accessories - a spare bulb, fuse, vinyl cover & power cord are housed in a drawer on the side wall of the microscope.

WESWDX OPTIK

CERTIFIED

ISO 9001:2008
PROJECTION MICROSCOPE

MP-385

Technical Specifications:

- **Observation Screen**: (As per ’Metronex’ Warsaw “POLLAND” Model MP-3) with 195mm dia, graduated screen 360° rotatable, built in Fresnel Lens and compensating eyepiece.

- **Nosepiece**: Triple/Quadruple nosepiece revolves on ball bearing with rubber grip and positive click stop.

- **Achromatic Objectives (KEOWA make)**: 4x, 10x, 40x (SL) & 60x (SL).

- **Mechanical Stage**: Coaxial built-in Mechanical stage for comfortable & convenient manipulation of specimen slides.

- **Focussing System**: Focusing is done by vertical movement of stage, coarse adjustment by rack & pinion and fine movement by screw lever mechanism, driven by graduated knob.

MP-385A

**Senior Model**

Having all specification as per Model MP-385, but providing higher magnification upto 1500x.

Supplied with solid state variable light control transformer and KEOWA Optics.

**Optical Combination**: ACHROMATIC OBJECTIVES: KEOWA 4x, 10x, 40x (SL) & 60x (SL).

Large graduated screen made from finest glass of size 195dia. 360° rotatable on ball bearings and has a Fresnel lens behind it for brilliant & uniform intensity of projection throughout the screen area.

Higher resolution KEOWA optics for true colour & contrast.

- **SubStage Condenser**: Bright fields, knob condenser NA 1.25 with iris Diaphragm and swing out filter holder is provided, which can be operated through a rack pinion knob.

- **Magnification**: Total magnification from 125x till 1000x.

- ** Illumination**: Having projection bulb 12V-100W with intensity control unit workable on 220 volts AC mains.

- **Packaging**: Complete in a cardboard box.

- **Standard Accessories**: The concomitance of accessories - a spare bulb, fuse, vinyl cover & power cord are housed in a drawer on the side wall of the microscope.

**With Halogen lamp & KEOWA Optics for Sharp image**
SENIOR PROJECTION MICROSCOPE

The whole microscope rests on ball bearings mounted platform for convenient movement during demonstration & group discussions. Incorporates best quality optical components and Fresnel lens behind the screen for brilliant projection throughout the screen area.

MP-386
With Pointer Arrangement and Wooden Mounted Platform

Technical Specifications:
- **Observation Screen**: Having 195mm dia graduated screen rotatable through 360° with pointer and built in compensating eyepiece to provide magnification range from 100x to 1500x.
- **Nosepiece**: Triple/Quadruple nosepiece revolves on ball bearing with rubber grip and positive click stop.
- **Achromatic Objectives**: KEOWA 4x, 10x, 20x, 40x or 60x (SL) (Any 4 Nos.)
- **Mechanical Stage**: Coaxial built in Mechanical stage is attached for comfortable & convenient manipulation of specimen slides.
- **Focussing System**: Focussing is done by vertical movement of stage, coarse adjustment by rack & pinion and fine movement by screw lever mechanism, driven by graduated knob.
- **Sub Stage Condenser**: Bright fields, knob condenser NA 1.25 with iris Diaphragm and swing out filter holder is provided, which can be operated through a rack pinion knob.
- **Magnification**: Total magnification from 125x till 1000x.
- **Illumination**: Equipped with Super Bright Halogen Lamp 12V-100W and built-in-solid state light control arrangement.
- **Packaging**: Complete in a cardboard box.
- **Standard Accessories**: The concomitant Accessories - a spare bulb, fuse, vinyl cover & power cord are housed in a drawer on the side wall of the microscope.

MP-386A
With Binocular Head Arrangement

Technical Specifications:
- Same as **Model MP-386** but incorporating Binocular Head arrangement with switch over system for projection of viewing through the Binocular Head when projection is not desired. The equipment is suitably modified for the purpose and provides better resolution and image quality.
- **Eyepieces**: HKW 10x (Pair)
- **Achromatic Objectives**: KEOWA 4x, 10x, 20x, 40x or 60x (Any 4 Nos.)

Optional Accessories:
- **Stage Micrometer**: ERMA MAKE : 1mm divided into 100 parts used for calibrating the exact magnification.
- **Projection Bulb**: 12V/100 Watts
With large field of view and increased depth of focus, precisely employed in measurements, photography or inspections of samples such as circuit boards, hairs and fibers, and organ and plant tissues.

WESWOX Zoom stereo microscopes offer users the most extended zoom range of any such instrument, along with modularity, comfort and ultra-high-performance microscope optics. The line covers a wide range of functionality, from sophisticated observation (STM-110) to the affordable and ergonomic (STM-20).

The compact design and the accessible, responsive controls make operation easier and less fatiguing than ever before.

STM & SZM series

System modularity and abundant accessories with WESWOX STEREO MICROSCOPES ensures quick and easy system adaptation for specimens of any type and size.
STM-20

Technical Specifications:
Most compact and light weight sturdy base fitted with fixed eyepiece 10x.

- Fine focusing by rack and pinion motion provided with a round interchangeable milky or transparent glass plate, having fixed objective 3x.
- Adjustable inter-pupillary distance from 50mm to 70mm
- Working distance: 50mm.
- Magnification: 30x.
- Complete in plywood cabinet.

STM-20B

The instrument is an improved version of model STM-20

Technical Specifications:
- Compact and light weight body fixed on hollow but sturdy stand with hand rests. Suitable for transmitted or artificial light with the help of reflecting mirror.
- Fine focusing by rack and pinion motion provided with a round interchangeable milky or transparent glass plate.
- Interchangeable one pair of 10x or 15x wide field eyepiece.
- Fixed objective 3x ensures large field stereoscopic image.
- Adjustable inter-pupillary distance from 50mm to 70mm
- Working distance: 150mm.
- Magnification: 30x or 45x.
- Spare wide field 15x pair eye piece for above.
- Complete in plywood cabinet.
STM-21 Wide Field Model

Technical Specifications:
- Compact and lightweight body fixed on hollow but sturdy stand with hand rests. Inclined Binocular head with diopter adjustment mechanism.
- Trans-Illumination base suitable for use in natural or artificial light.
- Fine focusing by rack and pinion motion provided with a round interchangeable milky or transparent glass plate of 100mm dia.
- Fitted with two pairs of eyepieces 10x and 15x and fixed objective 4x.
- Equipped with a standard plano concave reflector.
- Adjustable interpupillary distance from 50mm to 70mm.
- Working distance: 150mm.
- Magnification: 10x, 20x, 30x.
- Complete as above in plywood cabinet.

Note: This model can also be supplied with fixed objective 2x or 3x.

STM-22 Wide Field Model

Recommended for industrial and research purposes.
This microscope is an improved version to model STM-21

Technical Specifications:
- Supplied with a pole type stand and extension pillar to accommodate large size objects for examination.
- Inclined Binocular head with diopter adjustment mechanism.
- Supplied with low magnification (1x or 2x) objectives to provide longer working distance and more field coverage.
- Eyepieces: 10x & 15x (W.F.) (2 Pairs)
- Objectives: 1x or 2x (Fixed)
- Working Distance: 150mm
- Field of View: 15mm
- Fine focusing by rack and pinion motion provided with a round interchangeable milky or transparent glass plate 100mm dia.
- Magnification: 10x, 20x, 30x.
STM-64
Wide Field Model

Technical Specifications:
- Heavy base fitted with milky glass plate for placing the slides with clips.
- Inclined Binocular Head which permits three dimension image.
- Easy strain free vision eyepiece tube is provided with dioptr adjustment mechanism.
- Interchangeable eyepiece and changeable sliding objectives ensures wide field stereoscopic image.
- Supplied with low magnification (2x or 4x) objectives to provide longer working distance and more field coverage.
- Fine focusing by rack and pinion motion provided with a round interchangeable milky or transparent glass plate 100mm dia.

- Eye Pieces: 10x & 15x(W.F.) (2 Pairs)
- Objectives: 2x or 4x (Fixed)
- Inter-Pupillary Distance: 50-75mm
- Working Distance: 50mm
- Magnification: 20x, 30x, 40x or 60x.
- Complete in plywood cabinet

STM-66
Wide Field Model

Technical Specifications:
- Heavy base fitted with milky glass plate for placing the slides with clips.
- Inclined Binocular Head which permits three dimension image.
- Easy strain free vision eyepiece tube is provided with dioptr adjustment mechanism.
- Trans-Illumination base with hand rests suitable for use in natural or artificial light.
- Fine focusing by rack and pinion motion provided with a round interchangeable milky or transparent glass plate 100mm dia.
- Interchangeable eyepiece and changeable sliding objectives ensures wide field stereoscopic image.
- Supplied with low magnification (2x or 4x) objectives to provide longer working distance and more field coverage.
- Equipped with a standard plano concave reflector.

- Eye Pieces: 10x & 15x(W.F.) (2 Pairs)
- Objectives: 2x or 4x (Fixed)
- Inter-Pupillary Distance: 50mm to 75mm
- Working Distance: 150mm
- Magnification: 20x, 30x, 40x or 60x.
- Complete in plywood cabinet
WESWOX Stereoscopic microscope model STM-80 is ideally suitable for multipurpose application in the examinations of large embryological specimens, planktons, fungi, inspection of microprecision parts and clarified the structure of crystals helps in their positive identification in Geology, Mineralogy and Gemology.

- Inclined Binocular stereo head rotatable through 360°.
- Diopter System provided on left Eyepiece tube.
- Adjustable Inter Pupillary distance.
- Highly corrected achromatic objective 2x & 4x revolving on turret mount.
- Wide field eyepieces 10x and 15x (Paired) interchangeable.
- Robust stand with focusing knobs.
- Large base with locked on stage fixed ground glass or milky plate with built-in illumination system incident and transmitted both the lights can be used individually or simultaneously.
- Suitable transformer for 6V-15W lamp fitted in base.

**MAGNIFICATION TABLE**

<table>
<thead>
<tr>
<th>Eyepieces</th>
<th>Objectives</th>
<th>Magnification</th>
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<tr>
<td>10x</td>
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<tr>
<td>10x</td>
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<td>15x</td>
<td>2x</td>
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<tr>
<td>15x</td>
<td>4x</td>
<td>60x</td>
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**Technical Specifications**

- Interchangeability of highly corrected achromatic objectives provide wide magnification ranges.
- Inclined head for comfortable viewing fitted with highest quality prisms for good contrast & image.
- Dual light stand combining bright transmitted & incident illumination provides an even field of illumination.
- Suitable transformer for 6V-15W lamp fitted in base.

**PACKAGING** : Complete in plywood cabinet.
Outstanding Zoom Ratio: The class leading magnification range allows quick, comfortable observations of any given specimen at the most appropriate magnification.

3.5x to 180x in one easy motion!: With the largest seamless zoom ratio combined with the most comprehensive range of parafocal objectives, the SZM-90 can take you from a macro-view to a micro-view.

High speed imaging: With the SZM-90 being so versatile, you will want to document or show live digital views of your sample. By fitting the SZM-90 stereos with a trinocular head and moving the objective in the axial imaging pathway provides a perpendicular view of the sample. Attaching the digital camera produces a very flexible imaging station. This is designed for high resolution documentation as well as high-speed imaging for live views in both colour and monochrome. The advanced interface enables excellent colour reproduction and no visible colour shifts during sample movement.
**MECHANICAL BODY**

Single mold sturdy stand with anti-rust materials. Incorporates Clip for holding specimen and lateral zoom control movement.

**TRINOCULAR OBSERVATION HEAD**

Siedentopf Trinocular 45° inclined. Interpupillary distance adjustable between 55-75mm. Diopter adjustment ring on ocular provides correction for eye acuity.

**EYEPIECES**

Wide Field Eyepiece 10x (PAIRED) FOV 22mm

**OBJECTIVES**

Zoom 0.7X to 4.5X with magnification ratio of 6:1

**BASE SIZE**

260mm X 290mm

**MAGNIFICATION RANGE**

7X 45X

**WORKING DISTANCE**

98mm

**ILLUMINATION**

Incorporates Inclined and transmitted light system with 12V - 10W halogen tungsten lamp. The system regulated with transformer has intensity control knob. On/Off switch to provide flexibility to use either both light or any of them.

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**Technical Specifications**

- **MECHANICAL BODY**: Single mold sturdy stand with anti-rust materials. Incorporates Clip for holding specimen and lateral zoom control movement.
- **TRINOCULAR**: Siedentopf Trinocular 45° inclined. Interpupillary distance adjustable between 55-75mm. Diopter adjustment ring on ocular provides correction for eye acuity.
- **EYEPIECES**: Wide Field Eyepiece 10x (PAIRED) FOV 22mm
- **OBJECTIVES**: Zoom 0.7X to 4.5X with magnification ratio of 6:1
- **BASE SIZE**: 260mm X 290mm
- **MAGNIFICATION RANGE**: 7X 45X
- **WORKING DISTANCE**: 98mm
- **ILLUMINATION**: Incorporates Inclined and transmitted light system with 12V - 10W halogen tungsten lamp. The system regulated with transformer has intensity control knob. On/Off switch to provide flexibility to use either both light or any of them.
MECHANICAL BODY: Single mold sturdy stand with anti rust materials. Incorporates Clip for holding specimen and lateral zoom control movement.

TRINOCULAR: Siedentopf Trinocular 45° inclined. Interpupillary distance adjustable between 55-75mm. Diopter adjustment ring on ocular provides correction for eye acuity.

EYEPIECES: Wide Field Eyepiece 10x (PAIRED) FOV 22mm

OBJECTIVES: Zoom 0.62X to 5X Twin with magnification ratio of 7:1

MAGNIFICATION RANGE: 6.2X - 50X

WORKING DISTANCE: 115mm

ILLUMINATION: Incorporates Inclined and transmitted light system with 12V - 10W halogen tungsten lamp. The system regulated with transformer has intensity control knob. On/Off switch to provide flexibility to use either both light or any of them.
1. Built-in 3.1 MP camera for documentation purposes.
2. Common main objective optical system for continuous magnification.
3. Large focusing knobs & ball guide mechanism provides smooth focusing throughout the entire working range.
4. Dual-light system with ON/Off switch to provide flexibility to use either both light or any of them.

Technical Specifications:

Mechanical Body:
- Single mold sturdy stand with anti-rust materials. Incorporates clip for holding specimen and lateral zoom control movement.

Trinocular Observation Head:
- Siedentopf Trinocular 45° inclined, rotatable at 360°. Interpupillary distance adjustable between 55-75mm. Diopter adjustment ring on ocular provides correction for eye acuity.

Eye Pieces:
- Wide Field Eyepiece 10x (Paired) FOV 22mm

Objectives:
- Zoom 0.7X to 4.5X Twin with magnification ratio of 6:1

Base Size:
- 260mm x 290mm

Magnification Range:
- 7X 45X

Working Distance:
- 98mm

Illumination:
- Incorporates inclined and transmitted light system with 12V - 10W halogen tungsten lamp. The system regulated with transformer has intensity control knob. On/Off switch to provide flexibility to use either both light or any of them.
Technical Specifications:

- **Mechanical Body**: Single mold sturdy stand with anti-rust materials. Extended base for better stability.
- **Trinocular Observation Head**: Siedentopf Trinocular 30° inclined, 360° rotatable. Interpupillary distance adjustable between 55-75mm. Dioptr adjustment ring on ocular provides correction for eye acuity.
- **Eye Pieces**: EWF 10x FOV 18mm.
- **Nose Piece**: Reverse angle quadruple nosepiece revolves on ball bearing with positive indexing. Soft rubber knurled grip on nosepiece.
- **Intermediate Tube**: Built-in analyzer removable from optical path. Analyzer can be rotated by 90° with a vernier reading to 7°.
- **Objectives (Finite)**:
  - E-Plan Achromatic 4X
  - E-Plan Achromatic 10X
  - E-Plan Achromatic 40X (S L)
  - E-Plan Achromatic 100X (S L)
- **Circular Rotating Mechanical Stage**: Large 120mm diameter circular rotating (360°) stage utilize ball bearing i.e. graduated in 1° increment and include a vernier reading to 7°.
- **Condenser**: Sub stage abbe condenser NA 1.25 having a spherical lens, adjustable iris diaphragm and swing out filter holder. Flip type front lens condenser.
- **Focusing**: Co-axial focusing control with ball bearing guideways & large knobs, pre focusing lever & tension adjustment ring. The slow motion has 1DIV = 0.002mm.
- **Compensator**: Gyps 1° (dia. 18mm, 1° order red compensator plate, 550 nanometers) Mica ¼° (dia. 18mm, 147.3 nanometers) Quartz Wedge (12 X 28mm, I-IV)
- **Polarizer with Lock**: Can be rotated 360 and can be removed from optical path.
- **Illumination**: Incorporates 6v/20w halogen lamp with adjustable iris diaphragm. Power supply input from 90-240v ac with switch mode power supply. LED illumination 1/W also available.
- **Standard Accessories**: Blue filter & fuse in styro foam molded pack.
Designed for Superior Clarity !!

keOwa Optics

High Precision Microscope Optics

All Keowa Objectives are made from Japanese Technology perfected over the years.

- Anti-Reflection coated
- Anti-Fungus Treated
- Fully Parfocal
- Numerical Aperture ranging from 0.10 to 1.25
- Working Distance ranging from 16.00 mm to 0.14 mm
- Unique Feature-Individual adjustment through Parfocal
- Fully paired extra wide high Eyepoint Eyepieces

<table>
<thead>
<tr>
<th>Numerical Aperture</th>
<th>4x</th>
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<th>40x</th>
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<tr>
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<td>0.10</td>
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<td>Working Distance</td>
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