

MICROSCOPES

'Supertek' Microscopes are a class by themselves. Manufactured under an ISO 9001 standardized system, each operation is carefully carried out and monitored. Due consideration is given to the parameters involved. The components and the final products are subjected to various tests commensurate with the quality of the microscope. While each microscope is inspected, the advanced microscopes are subjected to a whole series of tests such as freedom from optical aberrations, resolving power etc.

These microscopes are designed to require minimum maintenance and incorporate devices to guard against over-enthusiastic use by students. For the safety of the object slide, objective lens and the mechanism, it is recommended that observing from the side, the objective lens should be brought close to the object and then looking down the microscope, focussing should be done by racking the objective away from the object.

MICROSCOPE, ELEMENTARY **A**

Low cost basic equipment for use by school children to study natural science. Its light weight makes it suitable for field work as well. Focussing is by rack and pinion movement. A 84 x 76 mm stage with disc diaphragm and slide holding clips is provided. Illumination is by plano concave mirror reflector fitted under the stage. One Huygenian eye-piece x10 and one achromatic objective x10 are provided to give a sharp image of x100 magnification.

B10010

MICROSCOPE, JUNIOR **B**

Economy model for beginners. Monocular body is inclinable upto 90° for ease of working. Mechanical tube length is standard 160 mm. Focussing is through rack & pinion arrangement. A fixed stage 110 x 100 mm is provided with stage clips, illumination is by plano concave mirror reflector. With x10 Huygenian eye-piece and x10 achromatic objective, giving x100 magnification.

B10015

MICROSCOPE, JUNIOR **C**

As above, but with triple revolving nose-piece and three achromatic objectives x4, x10 and x20 giving magnification x40 to x200.

B10017



STUDENT MICROSCOPES

General Features

- Pressure die-cast parts to ensure strength and uniformity.
- Well proportioned stable, rigid and vertical body inclinable through 90°.
- Mechanical tube length 160 mm.
- Separate knobs for coarse and fine focussing. Coarse knobs are with tension adjustment arrangement.
- Triple revolving nose-piece with international standard threads, with click stops ensuring correct centering.
- High grade achromatic objectives and Huygenian eye-pieces for sharp and aberration free image
- Safety stopper to prevent damage to slides and objectives.
- Fixed square stage of 110x110 mm with two non-removable stage clips.
- Sub-stage plano concave daylight mirror reflector in metal mount, replaceable by an electrical illuminator.
- Smooth black or scratch resistant grey epoxy finish.
- Dust cover and cleaning cloth.
- Packed in moulded styrofoam box or wooden cabinet with lock and key.

OPTICS

Eye-pieces : Huygenian x10 and x15
 Objectives : Achromatic x10, and x40 (SL)
 Magnification : x100 to x600

Student Microscope Model 20200 **A**

Description as above, stage fitted with disc diaphragm having six different apertures.

B10065

STUDENT MICROSCOPE MODEL 20202 **B**

As above, but stage fitted with iris diaphragm with a sub-stage two-lens Abbe condenser N.A. 1.2, having helical motion.

B10070

STUDENT MICROSCOPE MODEL 20204 **C**

As above, but stage fitted with iris diaphragm, Abbe condenser N.A 1.2, with rack and pinion movement.

B10075

PATHOLOGICAL MICROSCOPE MODEL 20208 D

This is a standardised microscope for medical institutions and pathological laboratories.

In addition to general specifications for student microscopes:

- Fine motion knob is graduated to read to 0.002 mm.
- Fitted with detachable graduated mechanical stage.
- A sub-stage iris diaphragm with Abbe condenser N.A.1.2 which moves up and down with rack and pinion motion.

OPTICS

Eye Pieces : Huygenian x5, x10, x15 (any two)
Objectives : Achromatic x10, x40 (spring loaded) and x100 (spring loaded) oil immersion

B10080



STUDENT MICROSCOPE, INCLINED E

- Well proportioned stable, rigid and vertical body inclinable through 90°.
- Eye tube is inclined at 45°.
- Separate knobs for coarse and fine focussing. Coarse knobs are with tension adjustment arrangement.
- Triple revolving nose-piece with international standard threads, with click stop ensuring correct centering.
- Safety stopper to prevent damage to slides and objectives.
- Fixed square stage of 110x110 mm with two non-removable stage clips.
- Sub-stage plano concave daylight mirror reflector in metal mount, replaceable by an electrical illuminator.
- Smooth black or scratch resistant grey epoxy finish.
- Dust cover and cleaning cloth.
- Packed in moulded styrofoam box or wooden cabinet with lock and key.

OPTICS

Eye-pieces : Wide Field x10 and x15
Objectives : Achromatic x4, x10 and x40 (SL)
Magnification : x40 to x400

B10090



LABORATORY MICROSCOPES

Standard laboratory microscopes for routine laboratory work and educational purposes.

General Features :

- Monocular body with tube inclined at 45°, rotatable 360°, allowing convenient viewing and enabling more than one person to view image without disturbing microscope setting.
- Quadruple nose-piece.
- Coarse and fine focussing adjustment with tension control mechanism.
- Sub-stage condenser N.A. 1.2 with rack and pinion movement.

OPTICS:

Eye-piece : WF x10
Objectives : Achromatic x4, x10, x40 (SL) and x100 (SL) oil immersion.

LABORATORY MICROSCOPE, MODEL SS 1000 ML **A**

With plano concave mirror reflector which is replaceable by an electric illuminator, 220V 15 W

B10100

LABORATORY MICROSCOPE, MODEL 1000 HL **B**

With 6V-20W halogen lamp, with transformer built in the base, with luminosity control mechanism, giving a sharp and bright image.

B10105

ADVANCED MICROSCOPES, XLB SERIES

Professional microscopes for use in biological, medical, industrial laboratories and hospitals etc.

General Features

- Broad, well shaped stand to ensure stability.
- Monocular/binocular head inclined at 45°, rotatable 360° and fitted with anti-reflection coated prisms.
- Separate knobs for coarse and fine focussing. Coarse knob is with tension adjustment arrangement. Fine adjustment knob is graduated to 0.002 mm.
- Quadruple nose-piece.
- Large rectangular stage 130 x 120 mm fitted with two non-removable stage clips.
- Detachable mechanical stage with graduated scales and verniers
- Two lens Abbe condenser N.A. 1.2 with iris diaphragm, filter holder and blue filter, movable by rack and pinion mechanism.
- 6 V-20 W halogen lamp with transformer built in the base, with luminosity control regulator.
- Colour corrected optics to provide a flat, high resolution image through parfocal and precentered achromatic objectives and wide-field eye-pieces.
- Safety stopper to prevent damage to slides and objectives.
- Supplied complete with mains cable, dust cover, and cleaning cloth .
- Packed in wooden cabinet with lock and key or in Styrofoam box.

MONOCULAR MICROSCOPE MODEL XLB 111 C

Description as above, but with monocular head, inclined at 45° rotatable through 360°

OPTICS :

Eye-pieces : WF x10, WF x 15
Objectives : Achromatic. x 4, x 10, x 40 (SL) and x 100 (SL) oil immersion.

B10120

MONOCULAR MICROSCOPE MODEL XLB 111

As above, but with built-in mechanical stage with co-axial movements.

B10122

BINOCULAR MICROSCOPE MODEL XLB 121

As per above general description, but with **Binocular Head** inclined at 45° and rotating 360°

OPTICS :

Eye-pieces : WF x10 (paired) and WF x15 (paired)
Objectives : Achromatic x4, x10, x40 (SL) and x100 (SL) oil immersion.

B10130

BINOCULAR MICROSCOPE MODEL XLB 121 D

As above but fitted with built-in co-axial mechanical stage.

B10135



BIOSTAR MICROSCOPES CXL SERIES

High performance microscopes with co-axial focussing for maximum ease of operation and halogen illumination for brighter and sharper images.

General Features

- 45° inclined monocular/binocular head rotatable through 360° for convenience of working and multiple viewing.
- Large base with built-in hand rest contours.
- A robust arm with focussing knobs on both sides based on a 4-stage gear reduction system travelling on ball guides. The co-axial focussing system provides a high degree of working convenience.
- A large stage fitted with built-in mechanical stage having low drive co-axial knob for X - Y movements in horizontal plane.
- A sub-stage condenser with iris diaphragm and filter holder, with rack & pinion movement.
- A low friction four-nose objective turret on a dust proof carrier provides lasting smooth rotation. The built-in click stops bring each objective to perfect alignment.
- High degree performance and resolution.
- With 6V-20W halogen light source built in the base with on/off switch and electronic light intensity regulator. The lamp is easily replaceable.
- Complete with power cord.
- Packed in moulded Styrofoam box or in wooden cabinet with lock and key.

OPTICS :

- Eye-pieces : WF x10 (paired for binocular head) with high eyepoint.
- Objectives : Achromatic x4, x10, x40 (SL) and x100 (SL) oil immersion.

BIOSTAR MONOCULAR MICROSCOPE **A**

B10140

BIOSTAR BINOCULAR MICROSCOPE **B**

B10145



ACCESSORIES & SPARES FOR MICROSCOPES

EYE-PIECE, HUYGENIAN **C**

B10303	x 5
B10304	x10
B10305	x15

EYE-PIECE, WIDE FIELD **D**

B10308	WF x10
B10310	WF x15

EYE-PIECE, EXTRA WIDE FIELD

B10315	HKW x10
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POINTER EYE PIECE

B10320	Huygenian	x10
B10322	Wide field	x10

OBJECTIVES

Achromatic, standard international threads, interchangeable. x40, x 60 and x100 objectives are spring loaded and are retractable for safety of slides and to avoid damage to objective lens.

ST SERIES **E**

Parfocal distance 37 mm

Magnification

B10335	x4
B10337	x10
B10338	x20
B10340	x40 (spring loaded)
B10343	x60 (spring loaded)
B10345	x100 (spring loaded) oil immersion
B10350	x100,(SL)oil immersion, high performance, for research and advanced pathological work.

DIN SERIES

Parfocal distance 45 mm

Magnification

B10355	x4
B10357	x10
B10358	x20
B10360	x40 (SL)
B10363	x60 (SL)
B10370	x100 (SL) oil immersion





MECHANICAL STAGE **A**

Detachable, for fitting on the fixed stage of microscope. The two graduated X and Y movements are adjusted by rack & pinion mechanism and have vernier scales reading to 0.1 mm.

B10380



MICROSCOPE ILLUMINATOR **B**

220 volt, 15 watt, to replace day-light mirror reflector, fits into microscope body.

B10384

SPARE LAMP

B 10388 Tungsten, 220 V, 15 W

B 10390 Halogen, 6 V, 20 W

MICROSCOPE LAMP, LOW VOLTAGE **C**

Mounted on stand, fully adjustable for height and angle. The lamp holder is fitted with a ground glass diffuser, complete with 6 volt, 20 watt lamp and flexible leads.

B10394



STAGE MICROMETER

For calibrating eyepiece graticules. Glass micrometer scale 0.1 mm x 0.01 mm is set in matt black finish aluminium slide 76x26 mm. in clear plastic case

B10400

EYE-PIECE GRATICULE

For estimating the size of objects under the microscope. The graticule is inserted into the eye-piece and calibrated, with a stage micrometer, for each objective. Graduation 0-10 mm in 100 parts of 0.1, dia 21 mm

B10403

ABBE CONDENSER **D**

N.A. 1.2, mounted with adjustable iris diaphragm.
B10406



REFLECTOR **E**

50 mm diameter, plane and concave mirror reflectors in metal frame.
B10410



DOUBLE DEMONSTRATION EYEPIECE **F**

Comprising a beam splitting prism of optical glass ensuring perfect view to the teacher as well as the students. With a pointer which covers the whole field, rotatable 360°
B10420



CAMERA LUCIDA **G**

Mirror type, to trace the image of a microscopic object on paper. A beam splitting prism of optical glass is positioned over the eyepiece with a large size swinging mirror which causes the image of the object to appear on a plane surface enabling its tracing.

B10425



CAMERA LUCIDA **H**

Prism type, both the object and the paper are simultaneously visible to the observer, for drawing the image of the specimen under the microscope. It fits on the eye piece tube of all standard microscopes. Supplied in velvet lined case.

B10427





PROJECTION MICROSCOPE

A greatly enlarged image of the specimen slide is projected on the screen, providing a high contrast, sharp and distortion free image. The microscope is highly suitable for group discussions as well as for teaching purposes.

General Features

- Stable and robust stand
- Monocular fixed straight tube body. Mechanical tube length 160 mm.
- Separate knobs for coarse and fine focussing.
- Fixed square stage 110 x 110 mm with graduated detachable mechanical stage.
- Triple revolving nose-piece with click stops and positive centering.
- Fixed built-in Abbe condenser N. A 0.65
- Illumination by 6V 20 W halogen lamp with solid state variable light control knob for adjusting the intensity of light.
- Grainless, optically true circular glass projection screen rotatable through 360° on microscope tube.

Eyepiece : Huygenian x10
Objectives : Achromatic: x5, x10, x20.



PROJECTION MICROSCOPE **A**

As above, with screen of 150 mm diameter.
B10432

PROJECTION MICROSCOPE

As above, but with screen of 100 mm diameter.
B10434

FIELD MICROSCOPE **B**

A simple microscope designed for field work. Focussing is by rack and pinion. With Huygenian eyepiece x10 and achromatic objective x10. A battery holder clamp is provided to take a pencil torch to provide illumination to the object. In rexine bag for easy transportation.

B10446

B10448 Torch for field Microscope



DISSECTING MICROSCOPE **C**

Useful for fine dissection work etc. On heavy circular base. The distance between the eye lens and the stage is sufficient for convenient dissection. The eye-piece is mounted on a jointed revolving arm so as to be able to scan every part of the stage. The stage has two spring clips and a sub-stage reversible mirror/opal face illuminator. Focussing is by rack and pinion mechanism. Complete with detachable hand rests which provide support while doing dissection. Complete with two eye pieces x10 and x20.

B10455

DISSECTING MICROSCOPE, BULL EYE **D**

Heavy stable round base, stage fitted with two spring clips and a substage reversible mirror/opal face illuminator. Focussing is by rack and pinion mechanism, with detachable hand rests. A jointed revolving arm is provided for moving magnifying lens over full area of the stage and is easily replaceable by a special bull eye lens 80 mm dia. to increase the field of vision and for convenience of work.

Supplied complete with x10, x20 eyepieces and 80 mm dia. bull eye lens.

B10460



STEREO MICROSCOPES

Stereo-microscopes are required where an image of high quality, erect, magnified and with full preception of depth is needed. These are designed to have a long working distance and three dimensional viewing to facilitate mechanical interaction with the specimen e.g. in dissection of small specimen, study of living organism, study of rocks and minerals, inspection of electronic and other small components.

STEREO MICROSCOPE MODEL SM 501 **E**

- Straight binocular head fitted with precision prism system.
- Interpupillary distance is adjustable 50-75 mm
- Focussing is by large knobs on both sides through rack and pinion mechanism.
- Interchangeable circular black/ white stage plate is positioned in the base which also has two stage clips.
- Eyepiece : Wide field x10 (paired)
- Objective : Achromatic x2 (paired)
- Magnification : x20
- Supplied with dust cover.

In moulded styrofoam box or in wooden box

B10505



STEREO MICROSCOPE, INCLINED MODEL SM 505 **F**

- 45° inclined binocular head for ease of observation, fitted with precision prism system.
- Interpupillary distance is adjustable 50-75 mm with independent compensating adjustment on the left eye tube.
- Focussing is by large knobs on both sides by rack and pinion arrangement.
- With removable white/black plate in base with stage clips
- Eyepieces : WF x10 (paired)
- Objectives : Achromatic x2 (paired) and x4 (paired) with sliding arrangement
- Magnification : x20, x40
- With dust cover

In moulded styrofoam box or in wooden box

B10508



STEREO MICROSCOPE MODEL SM 511 **A**

This is an ideal stereo microscope which provides a crisp, erect image over a wide field of view. The transmitted and incident illuminations assure the best results.

Stereo binocular head is inclined at 45° for ease of viewing, is rotatable through 360° and can be locked in any position. Interpupillary distance is adjustable 50-75 mm.



- Independent compensating adjustment is provided on the left eye tube.
- Focussing is by rack and pinion system.
- Illumination is through two tungsten lamps which provide transmitted and incident light. One is fitted below the translucent stage plate in the base and the other near the objective turret. The illuminators may be used either individually or simultaneously through a selector switch. A built-in transformer is also provided in the base.

Operates on 220V 50Hz mains supply.

- Eyepieces : WF x10 (paired).
- Objectives : x2 (paired) and x4 (paired) mounted on a quick changing turret which keeps the specimen in focus on change of objectives. The objectives are parfocussed and precentered.
- Magnification: x20 & x40

Supplied in moulded styrofoam box or in wooden box

B10510

ALSO AVAILABLE

- **POLARIZING MICROSCOPES**
- **FLUORESCENCE MICROSCOPES**
- **DARK FIELD MICROSCOPES**
- **INVERTED MICROSCOPES**
- **ZOOM STEREO MICROSCOPES**