

DESCRIPTION

ACUCAL Pathological / Biological Microscopes are Compound Research Microscopes which is a complete System with illumination system for proper viewing and enumeration of individual cells, even living ones with high magnification using two eye lenses to reduce the eyestrain.

Compound Microscopes are primarily used to observe and study organism and microorganisms. These Microscopes are usually used to observe transparent and translucent objects, such as animal and plant cells, tissues, bacteria as well as various kinds of tiny particles by means of sectioning.

**APPLICATIONS**

- To Detect acid fast bacilli in sputum smear and other materials for use in Tuberculosis Control Programme.
- Widely used in Hospitals, Microbiological Laboratories, Schools, Wastewater treatment plants, Veterinary, Histology and Pathology.
- To View blood cells, cheek cells, parasites, bacteria, algae, tissue, and thin sections of organs.
- To view samples that cannot be seen with the naked eye.

FEATURES

- Anti-fungus treatment for component durability; an effective anti-fungus treatment is applied to the objectives, eyepieces and observation tube for consistent image clarity and long operating life in hot and humid work conditions.
- Well contoured modular design places all moveable parts within comfortable reach of the operator thus enabling fatigue free operation over long periods of use.
- High performance aspheric lenses in the abbe condenser and light relay system for bright and uniform illumination.
- Component security – student proof.
- Smooth, sharp focusing.
- Ultra smooth quadruple revolving nosepiece having inward facing design allows unobstructed view of the sample. Also enables easy identification of objectives in light path. Knurled gripped.
- CE standards compliant for safety.

TECHNICAL SPECIFICATION**Main Body**

- Upright Modular single mold C Shaped Frame, Built-in Window for easy carriage and lifting, Ergonomic Design, Sturdy & Highly rigid stable base stand, Non Hinged type, vibration free Aluminium alloy die casting, with transmitted light LED power supply & Brightness Control integrated in the base. Robust mechanics with dust-proof mount combined with improved optical performance.
- All optical parts including objectives, eyepieces, condenser and prisms are of high quality glass & Vacuum coated Prism for better transmission with an anti-reflective coating which gives an anti-fungal property. All optical parts are Best colour coated corrected & Par-centered & Parfocal on CNC Machines.
- All metallic parts are corrosion-proof, acid proof, and stain-proof.
- A durable textured acid resistant finish.
- All moving parts on Ball bearing Guides to give highly sensitive and smooth working.

Optical System : Plan Finite or Plan Infinity

- Vacuum coated Prism & Optics for better transmission and Antifungal character.
- Fully corrected Objectives and Eyepieces to enable Spherical and Chromatic Aberration free image.
- Conforming to Pathological IS:4381 latest, Research IS:5204 latest Indian Standards.

Observation Head : Monocular or Binocular or Trinocular

- Sliding Observation head inclined at 30° or 45°, 360° rotatable, Anti fungal coated
- Sidentopf (Butterfly Design) Observation head inclined at 30° or 45°, 360° rotatable. (Optional)
- High quality Prisms to ensure highly accurate collimation for stain free observation.
- Inter-pupillary distance from 47mm to 75mm.
- Vertical phototube for micro photography. (In Trinocular)

Eyepiece

- Huygenian or Compensating Aplanatic, Achromatic, Wide field 10X (paired) Field of view 18mm/20mm/22mm & Field Number 18 or 20 or 22, Antifungal Coated.
- Inbuilt Pointer Eyepieces available. (Optional)
- Binocular eyepieces confirming to the requirements of IS : 8275 / 1976(latest).
- High Quality, Anti mould, Anti Fungal & Anti reflected eyepieces to get the Image of object well defined over the entire field with good contrast rendition and free from spurious color effects.
- Diopter adjustment Facility ± 5 on left ocular eye tube.

Nose Piece

- Ball Bearing loaded, Life long smooth interchangeable and built in, Inward Quadruple type, Precise & Positive click stops for centered alignment for a common center to hold 04 objectives.
- Rubbered grip for easy rotation mounted on a precision ball bearing mechanism for smooth and accurate alignment so that object at the center of the field should not appear displaced by more than 0.02 mm in the object plane in any direction.

Objectives: SEMI PLAN Achromatic OR PLAN Achromatic Flat Field OR Infinity PLAN Achromatic , Anti-fungus & Anti-reflection, Interchangeable & Par focal, Uniformly Centred objectives for Bright Field.

- 4X (NA 0.10), WD. 20mm
- 40X (Spring, NA 0.65) , WD. 0.6mm
- Objectives have Suitable prominent marking for easy identification : Color coded ring, magnification, NA and nature of objective mentioned
- Provided with Immersion oil & Unbreakable containers for storing the objectives.
- 20X(NA 0.45), WD 5mm (Optional).
- 10X (NA 0.25) , WD. 6.7mm
- 100X (Spring, Oil, NA 1.25) , WD. 0.17mm

Mechanical Stage

- Low position Coaxial Graduated uniformly horizontal Mechanical Rectangular Stage with fine Vernier Micrometer graduation.
- Mechanical Stage Size 140x140mm, adjustment for slide manipulation allows smooth travel in transverse directions through X/Y 76 x 45 mm or customized
- Maintenance free built in Low position /Low drive right handled movement.
- Ball Bearing Loaded with soft feel drive with Coaxial Control.
- Ceramic coated surface for scratch resistance. Well contoured SS Specimen Slides holder spring clip to prevents damage to slides. can accommodate up to 3"x 2" slides.
- Rackless wire driven Stage for friction and jerk free movement. (Optional).

Condenser

- Centerable Sub Stage Abbe Condenser NA 1.25 with Aspheric Lens, Rack & pinion focusable.
- Continuously variable Inbuilt Aperture Iris Diaphragm with swing in and out filter holder.
- Suitable for Bright field.

Focusing Control

- Co axial Coarse and Fine focusing Mechanism on ball drive system for smooth operations on both sides, with maximum height lockable stopper (upper limit focus stopper preventing contact between objective and specimen for slide safety), Ergonomically designed for easy grip with torque adjustment ring.
- Based on a 4- gear reduction system traveling on ball bearing guides with highly sensitivity fine motion with a graduation reading to 0.002mm. The Co-axial system provides highest deg. of working convenience and precision.

Transmitted Illumination

Scientific grade natural White LED 3W or Halogen illumination with variable intensity control, on-off switch and LED life of more than 50,000 Hrs.

- Intensity control regulator and well designed collector lamp optics enable homogenous balanced illumination of entire field of view.
- LED Battery Backup Feature with rechargeable batteries & ECO mode to save light and increase light life (Optional)

Electronics

- Universal Input Power Supply 100-240 V AC, 50/60 Hz, Built in voltage stabilizer..
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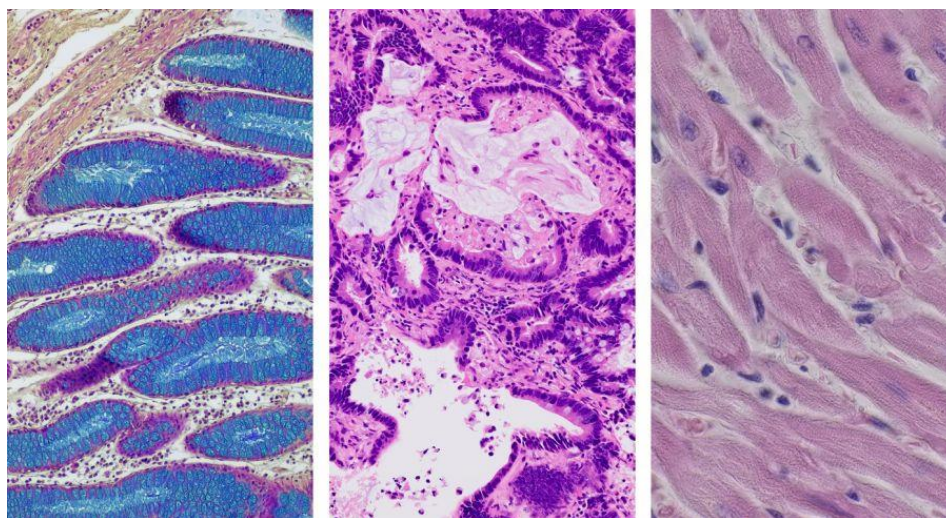
Standard Accessories

- Operating Manual, Dust Cover, Guarantee Card, cleaning cloth and detachable power cord and Thermocole Molded packing & outer corrugated box.
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Optional Accessories

- High Resolution Microscopy Camera, Eyepieces, Quintuple Nosepiece.
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EXCELLENCE THROUGH EXPERIENCE



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