

DESCRIPTION

ACUCAL Pathological / Biological Fluorescent 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 allow 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 combined with improved optical performance.
- All optical parts are Par-centered & Parfocal on CNC Machines.
- All metallic parts are corrosion-proof, acid proof, and stain-proof and extended base for hand rest.
- All moving parts on Ball bearing Guides to give highly sensitive and smooth working.
- Available to observe the specimen from rear of the body.
- Comfortable Operation with Low Position Coarse & Fine Adjustment Knobs
- Sharp Image Display with Excellent Optical Function.

Optical System

- Plan Finite, Anti Fungus coated optics.
- 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: Binocular

- Siedentop type Observation head inclined at 30°, 360° rotatable.
- High quality Prisms to ensure highly accurate collimation for stain free observation.
- Inter-pupillary distance from 50 mm to 75mm.

Eyepiece

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

Nose Piece

- Ball Bearing loaded, interchangeable, Inward Quadruple type, Precise & Positive click stops for centered alignment 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: PLAN Achromatic Flat Field Infinity, Anti-fungus & Anti-reflection, Interchangeable & Par focal, Uniformly Centred objectives for Bright Field.

- 4X (NA 0.10), WD. 20mm
- 10X (NA 0.25) , WD. 6.7mm
- 20X (NA 0.5) , WD. 3.4mm
- 40X (Spring Loaded, NA 0.65) , WD. 0.6mm
- 100X (Spring Loaded, Oil, NA 1.25) , WD. 0.17mm
- 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.



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 52 mm.
- 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.

Condenser

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

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), fine focusing interval 0.002mm , Ergonomically designed for easy grip with torque adjustment ring.

Transmitted Illumination : Scientific grade natural White LED 3W illumination with variable intensity control, on-off switch and LED life of more than 10,000 Hrs.

- Intensity control regulator and well designed collector lamp optics enable homogenous balanced illumination of entire field of view.

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

EPI –FLUORESCENCE ATTACHMENT

The Epi-fluorescent Attachment can be equipped flexibly with ordinary microscope as an Epi-fluorescent Microscope. Which present Excellent image quality and widely used in venereal disease examination and immune less diagnosis.

Reflected Light Source: Blue, Green Exciting Light Filter System and O Ordinary Light System

Illumination: 100W Ultra Hi-voltage Spherical Mercury Lamp

Protection Barrier: Barrier to Resist the Ultraviolet Light

Universal Power Supplier: AC Input 85V – 265V,

Digital Display and Timer

Immersion oil: Fluorescence Free Oil

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

Optional Accessories : High Resolution Microscopy Camera, Eyepieces.

