



Motic®

MORE THAN MICROSCOPY

AE30

**Upgradeable Live Cell
Microscope
Platform**



AE30

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With the introduction of its premium **AE30 Series of Inverted Microscopes**, Motic joined the group of manufacturers capable of providing **High-End optics, ergonomic design** and craftsmanship as well as **durable product quality**. Motic doing so, however, all at an **affordable price point**. The AE 30 Series quickly became the perfect solution for all kind of **routine microbiological work** in clinical and pharmaceutical laboratories as well as in demanding University teaching and research environments.

Designed for Routine as well as Research applications, the AE30 Series meets most of the requirements of an Inverted microscope. Motic's proven **CCIS® Infinity Optics** guarantees **superb image quality** and **maximum reliability**. The model's long-working distance objectives ensure an efficient work through a wide variety of laboratory applications.







AE30

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Microscope Stand

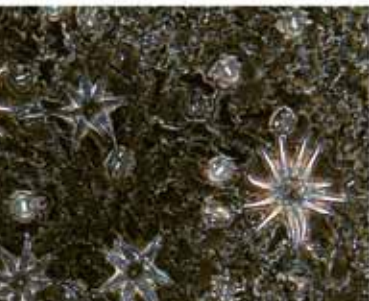
Designed as an Inverted microscope series with **multiple applications** in mind, the AE30 is available in **3 stand variations**: a Binocular and (2) different Trinocular versions - each coming with a small footprint to meet limited space conditions in modern laboratories. Also, the instrument's "Y" shaped base provides extra lateral stability. **Effective ergonomic design** has been implemented in the AE30 Series to allow **easy and quick access to all important functions**.



AE31 (Trinocular)



AE30 (Binocular)



Eyepiece Tubes

For all stand types, a **viewing angle of 45°** is realized for comfort and posture management. The **interpupillary distance** can be adjusted between **55-75mm**, ensuring fatigue-free observation.

Besides the standard Binocular stand, the Trinocular versions come with **2 different beam-split options**. For **light-sensitive methods** like Fluorescence, Motic recommends the **100:0/0:100 beam split**, allowing 100% of the light to pass through to the photo exit and thus simplifying imaging work especially with living samples. For **standard applications** like Bright field and Phase contrast, the **100:0/20:80 split** may be more appropriate.

Eyepieces

In the AE30 Series, Motic's Infinity Corrected CCIS® Optical System displays field flatness across its entire 22mm intermediate image plane. The **high eye point** principle of the AE30's eyepieces ensures **true colour** and **sharp resolution**, while minimizing eye fatigue and strain. Each eyepiece contains a **diopter adjustment**, an integral part to help spectacle wearers, in addition to optimized reticule usage.

All eyepiece tubes come with a 22mm Field of View (FOV 22) that allows a fast screening and easy sample detection for improved daily workflow.

Objectives

Long working distance (LWD) objectives are essential for use with all Inverted Microscopes. This lens design allows **easy focussing** through the bottom of various culture media into the nutrition media, especially in cases of non-adherent cells. Further, optical compensation is designed for thick vessel bottoms of Petri dishes or well plates to ensure **maximum image quality**. Motic's **AE30 CCIS®** objectives fulfil two criteria critical for optimal sample viewing: these Plan Achromats are designed for **improved contrast** as well as **field flatness over the entire 22mm** Field of View.



Stage

The AE30's convenient **low positioned fixed stage plate**, optimized for viewer posture and easy access, has a **hard coated surface** resistant against abrasion and corrosion.

The standard stage plate of 200x260mm can be enlarged by adding a pair of **auxiliary plates**. The **optional attachable x/y stage** comes with a well plate holder of 128x86mm included.



Illumination

The AE30's **6V/30W Halogen light source** provides a bright and even illuminated image at any magnification. Its **centerable lamp house** can be adjusted by external knobs without any special tool.

The illuminated field can be varied by a **built-in field diaphragm**; while a filter holder may carry different glass filters for colour temperature adjustments or other imaging requirements. Together with the condenser system, perfect Koehler illumination setup can be performed.



AE31 with fluorescence attachment

Fluorescence

The modular concept of the AE30 Series allows an **easy upgrade to an EPI-Fluorescence microscope** by using the fluorescence attachment. This slider-device may carry up to 3 filter cubes. The optional Fluorescence package consists of:

- Fluorescence attachment with three filter positions
- XBE-HBO 100W lamp house with mirror for improved brightness
- Starter unit

Condenser

The **standard condenser** of Motic's AE30 Series has a **working distance of 72mm**, giving sufficient working space for most vessels. It can be adjusted in height by a brass rack and pinion system. This material ensures a **long life time** and **precise movement**. Together with the field diaphragm located in the illumination arm, Koehler illumination is easily set up.

A **complete range of filter cubes** is available, covering all routine applications from UV to NIR excitation. Supplied with band pass barrier filters, multi colour applications can also be performed. **Specialized filter combinations are available upon request.**



Documentation

Today, accurate documentation is becoming an increasingly important part in most natural science applications.

The combination of an AE30 with a member of the **Moticam series** of digital cameras delivers **excellent live images, which can easily be stored for future usage**. All Motic cameras come equipped with software to transform the AE30 into an analysis and documentation workstation. For the Binocular AE30, eyepiece adapters for Motic cameras are available.

Motic offers a complete range of digital cameras, starting with a basic resolution of 1.3MP (CMOS) up to the **research grade Moticam Pro Line (CCD)** with a maximum of (at the moment) 5MP, including **Monochrome and Cooled versions**. These Moticam cameras deliver sharp live images with an easy post-capture handling.



General Specifications

- Binocular/Trinocular head, 45° inclined (light split in Trino head 100:0/20:80; option: 100:0/0:100)
- Interpupillary distance 55-75mm
- Widefield High eyepoint eyepieces, WFPL10X/22mm, with diopter adjustment on both eyepieces, with rubber eyecups
- Reversed quintuple revolving nosepiece, left side orientated
- CCIS® PL4X, PL PH10X, LWD PL PH20X, LWD PL PH40X
- Coaxial coarse and fine focussing system, with torque adjustment for coarse focus
- Total coarse movement 10mm, by nosepiece
- Fine focus with 2µm minimum increment
- Stage 200X260mm
- Condenser ELWD N.A. 0.3, working distance 72mm
- 3-Position Phase slider, with Phase ring Ph1 (10X, 20X) and Ph3 (40X)
- Koehler 6V/30W Quartz Halogen illumination with intensity control
- Universal power supply 100-240V
- Metal stage plate, glass stage plate, blue filter, green filter, phase centering keys, phase centering telescope, power cord and vinyl dust cover are included

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