

## B-290 Series



2 Laboratory

2 Laboratory

## Best Value-for-Money Solutions & Versatile Use

### SUITABLE FOR UNIVERSITIES, EXPERTS & ROUTINE LABS

- » The ideal choice for common lab requirements
- » Simply engineered for life-science
- » Ready for phase contrast and darkfield

### EXCELLENT PRICE/PERFORMANCE RATIO

- » N-PLAN objectives (160 mm or IOS) for flat images on 20 mm FN
- » Fixed Koehler illumination for crisp and contrasted images
- » Rounded edge, rackless stage to prevent scratches

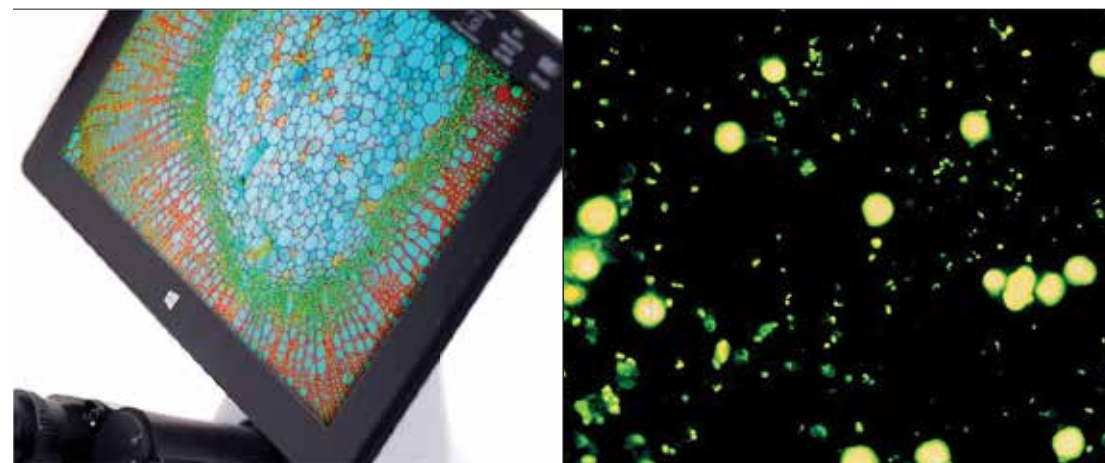


### B-290TB - BREAK NEW GROUND WITH WINDOWS TABLET

- » Large touch-screen of 10.1" with fast, responsive and smooth control
- » 360° rotatable, tiltable and easily detachable
- » Simultaneous camera & power connection for long-term operation

### B-290LD SERIES - ON-FIELD TBC & MALARIA DIAGNOSIS

- » Ultra-convenient LED fluorescence, blue filter
- » No waiting time, immediate operation
- » Cost-effective, money-saving technology



**Biosite**  
MEDICAL INSTRUMENTS

Entry-Level Lab Upright Microscopes

**MANILA** Biosite Medical Instruments Inc. 8000 Alabaster Drive, Suite 100, Alabaster, AL 36850, USA  
**CEBU** Biosite Medical Instruments Inc. 8000 Alabaster Drive, Suite 100, Alabaster, AL 36850, USA  
**DAVAO** Biosite Medical Instruments Inc. 8000 Alabaster Drive, Suite 100, Alabaster, AL 36850, USA  
Email Address: [customerservice@biositegh.com](mailto:customerservice@biositegh.com)  
Sales Department: 09371 115008  
Technical Service Department: 09371 114008  
[www.biositegh.com](http://www.biositegh.com) @biositemedicalinstruments



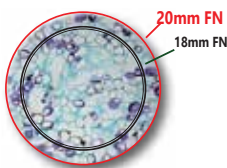
Laboratory

Laboratory

## Entry-Level Lab Upright Microscopes

### Laboratory Grade Optics, N-PLAN & IOS N-PLAN System

OPTIKA N-PLAN objectives ensure bright, clear images with excellent flatness and compensation for chromatic aberration. IOS Infinity-corrected optical system prevents image deterioration even if other optical components are added, such as polarizers, beamsplitters and so on.



### Large Specimen View (20 mm Field Number)

The **F.O.V.** (field of view) is based on a comfortable diameter of 20 mm. This means that a wide area of the sample can be inspected and allows a natural and easy view, particularly needed in a laboratory environment.

### Easy Transportation

B-290 has a carefully shaped design that gives stability and ease in the transportation. Thanks to the handle on the back, it can be safely moved around the classroom or the laboratory.



## Get the most out of our accessories

### M-666.290 Heating stage

Use the temperature controlled heating stage for specific applications where accurate temperature selection up to 50° C and programmable settings are needed. Requested in research arenas such as microbiology, biochemistry, material science, pharmacology, crystallographic characterization, surface quality control, and in all the temperature related inspections.

### M-184 Darkfield condenser

With optional diaphragm M-184 you can easily obtain a darkfield view for dry objectives. M-184 can be placed directly under the condenser without the need of additional operations.

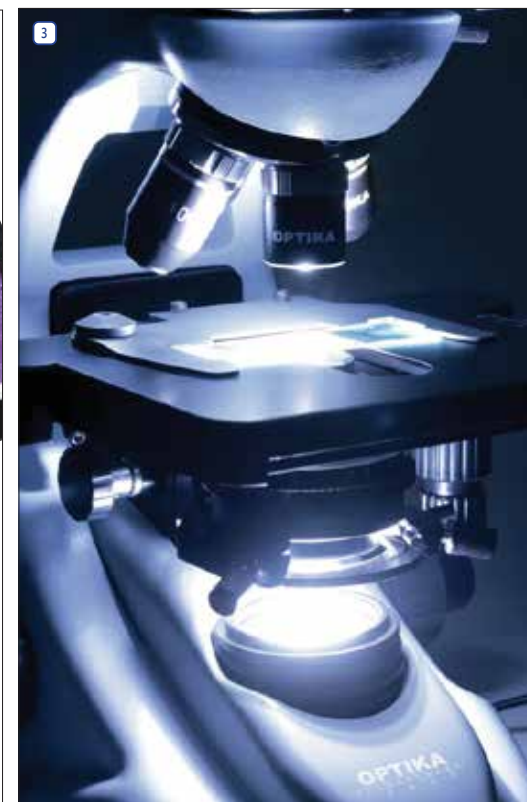
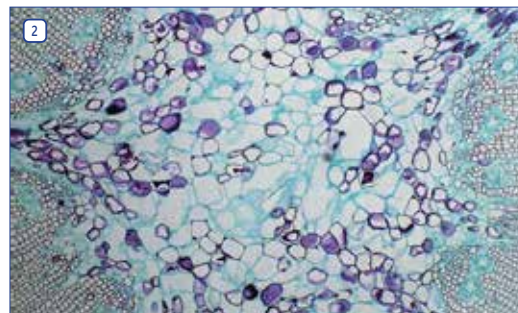
**DARKFIELD CONDENSER**



### Legend

1. B-290TB with 360° rotating tablet PC for discussion.
2. Pine, one year stem, with B-292 and 10x objective.
3. B-290 Series exclusive X-LED<sup>3</sup> illumination system.
4. B-293 used by a teacher.
5. Lilly pollen, with B-292PLi and 20x objective.
6. Ascaris female, with B-293 and 40x objective.
7. Student setting the right focusing on a B-290TB.

## B-290 Series







### MANILA

305 Col. Bonny Serrano Ave.,  
San Juan City, 1500  
Metro Manila, Philippines  
Technical Services Department: 09171114008  
Sales Department: 09171115008  
Email Address: [customerservice@biositeph.com](mailto:customerservice@biositeph.com)  
Customer Service: [customerservice@biositeph.com](mailto:customerservice@biositeph.com)  
[www.biositeph.com](http://www.biositeph.com) | [www.biositeph.com](http://www.biositeph.com) | [www.biositeph.com](http://www.biositeph.com)

2

Laboratory

2

Laboratory

## B-290 Series - Brightfield Models

### B-292



Binocular head with N-PLAN objectives, rackless stage and exclusive **X-LED<sup>3</sup>** for unmatched performance, powerful and uniform illumination.

**Observation mode:** Brightfield.

**Head:** Binocular, 30° inclined and 360° rotating. Interpupillary distance 48-75 mm.

**Dioptric adjustment:** On both eyepieces.

**Eyepieces:** WF10x/20 mm, high eye-point and secured by screw.

**Nosepiece:** Quadruple revolving nosepiece, rotation on ball bearings.

**Objectives:**

N-PLAN 4x/0.10 N-PLAN 10x/0.25  
N-PLAN 40x/0.65 N-PLAN 100x/1.25 (Oil/Water)  
All with anti-fungus treatment.

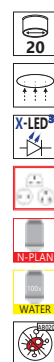
**Specimen stage:** Double layer rackless mechanical sliding stage, 150x139 mm, 75x33 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.

**Condenser:** Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and centerable.

**Illumination (Fixed Koehler type):** X-LED<sup>3</sup> with white 3.6 W LED (6,300 K) and light intensity control. Multi-plug 100-240Vac/6Vdc external power supply.

### B-293



Trinocular head with N-PLAN objectives, rackless stage and exclusive **X-LED<sup>3</sup>** for unmatched performance, powerful and uniform illumination.

**Observation mode:** Brightfield.

**Head:** Trinocular (fixed, 50/50), 360° rotating and 30° inclined. Interpupillary distance 55-75 mm.

**Dioptric adjustment:** On both eyepieces.

**Eyepieces:** WF10x/20 mm, high eye-point and secured by screw.

**Nosepiece:** Quadruple revolving nosepiece, rotation on ball bearings.

**Objectives:**

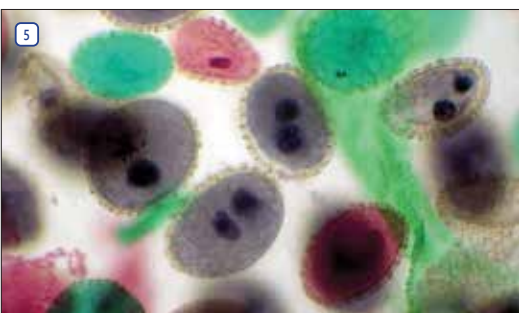
N-PLAN 4x/0.10 N-PLAN 10x/0.25  
N-PLAN 40x/0.65 N-PLAN 100x/1.25 (Oil/Water)  
All with anti-fungus treatment.

**Specimen stage:** Double layer rackless mechanical sliding stage, 150x139 mm, 75x33 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.

**Condenser:** Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and centerable.

**Illumination (Fixed Koehler type):** X-LED<sup>3</sup> type with white 3.6 W LED (6,300 K) and light intensity control. Multi-plug 100-240Vac/6Vdc external power supply.



# B-290TB - Digital Microscope with Camera & Tablet

The latest OPTIKA digital microscopes with Windows tablet PC open new microscopy horizons, combining high-end optics with innovative digital technology for microscopic imaging. B-290TB includes a 3MP camera with a 10.1" Windows tablet. View, capture, analyze and share your images with simplicity and reliability.

TABLET TECHNICAL SPECIFICATIONS	
Operating system	Windows 10 (64Bit)
CPU	Gemini-Lake, N4100
CPU speed	1.10 GHz
Graphic card	Intel® HD Graphics 600
RAM	Ram 6 GB LPDDR3
Display size	LED 10.1" IPS Multi Touch Screen
Display resolution	1920x1200
Storage	Hdd 128 GB
Network	WiFi (2.4G / 5G) - Bluetooth 5.0
Input ports	USB-C (1 USB2.0 for battery charge, 1 USB3.0) - Micro SD card reader
Output ports	Microphone - Headphone - Micro HDMI
Battery Type	Lithium-ion
Battery capacity	6500 mAh
Power consumption	24.05W
Power supply	12V 2A EU
Dimensions (mm)	261 x 167 X 9
Weight (Kg)	0.53
Language	Multilanguage
Weight	530 g
Tablet accessories included	USB cable USB-B to USB-A (0.5m)

## Intuitive, Yet Powerful Software

Simple and user-friendly, ideal for students and experienced users.



## 360° Rotating & Tilting



## Detachable

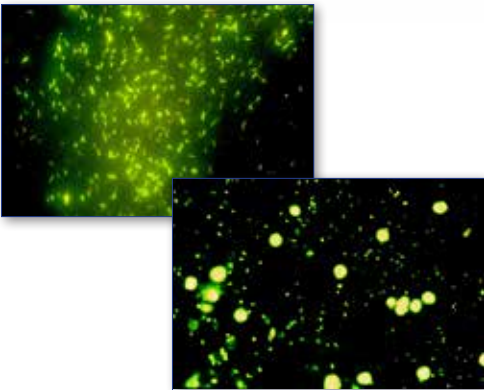


TB-KBD1 - Accessory keyboard for tablet

CAMERA TECHNICAL SPECIFICATIONS	
Digital camera resolution	3MP
Signal output	USB 2.0
Sensor Size	1/2.5"
Sensor technology	CMOS
Image format	4\3
Full Image size	2048 x 1536
Pixel size	2.2 x 2.2 micron
Frame rate full resolution	5 frames/sec
Frame rate other resolutions	8 fps (1280x1024) - 30 fps (640x480)
Automatic White Balance	Auto - Man
Automatic Gain Control	Auto - Man
Automatic Back light control	Auto - Man
Exposure control	Auto - Man

Laboratory

# B-290LD - LED Fluorescence Microscopes



Fluorescence binocular and trinocular microscopes especially designed for tuberculosis and malaria analysis.

<b>Observation mode:</b> Brightfield.
<b>Head:</b> Binocular or trinocular, 360° rotating and 30° inclined. Interpupillary distance 55-75mm.
<b>Dioptic adjustment:</b> On both eyepieces.
<b>Eyepieces:</b> WF10x/20 mm, high eye-point and secured by a screw.
<b>Nosepiece:</b> Quadruple revolving nosepiece, rotation on ball bearings.
<b>Specimen stage:</b> Double layer rackless mechanical sliding stage, 150x139 mm, 75x33 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.
<b>Focusing:</b> Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.
<b>Condenser:</b> Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and centerable.
<b>Brightfield Illumination (Fixed Koehler type):</b> X-LED <sup>3</sup> with white 3.6 W LED (6,300 K) and light intensity control. Multi-plug 100-240VAc/6Vdc external power supply.
<b>Fluorescence Illumination:</b> Extra efficiency LED, with light intensity control. Peak wavelength: 465 nm, Power: 3.6W.
<b>Epi Fluorescence Attachment:</b> Slider with 3 positions (2 fluorescence, 1 brightfield), with 1 included filterset: Fluorescence B: EX 460-490, DM 505, EM 515LP: Acridine Yellow, Acridine Orange, Auramine, DiO, DTAF, FITC, GFP, YFP, etc.
<b>Part number: B-292LD1.50</b> Equipped with binocular head and following objectives: IOS N-PLAN 10x/0.25 (Cover/No Cover), with anti-fungus treatment IOS N-PLAN 20x/0.40 (Cover/No Cover), with anti-fungus treatment IOS N-PLAN 40x/0.65 (Cover/No Cover), with anti-fungus treatment IOS W-PLAN MET 50x/0.75 (No Cover), with anti-fungus treatment.
<b>Part number: B-293LD1.50</b> Trinocular version of B-292LD1.50.
<b>Part number: B-292LD1</b> Equipped with binocular head and following objectives: IOS N-PLAN 10x/0.25 (Cover/No Cover), with anti-fungus treatment IOS N-PLAN 20x/0.40 (Cover/No Cover), with anti-fungus treatment IOS N-PLAN 40x/0.65 (Cover/No Cover), with anti-fungus treatment IOS W-PLAN 100x/0.80 (No Cover, Dry), with anti-fungus treatment.
<b>Part number: B-293LD1</b> Trinocular version of B-292LD1.

Standard filterset			
Name	Excitation filter (nm)	Dichroic mirror cut-off (nm)	Emission filter (nm)
B (Blue)	460 – 490	505	515LP



**Biosite**  
MEDICAL INSTRUMENTS  
MANILA  
100 C.A. Avenue, Alabang, Muntinlupa City, Philippines 144008  
Tel: +63 (0)2 855 1000  
Email: info@biosite.com.ph  
Website: www.biosite.com.ph



## B-290 Series - Brightfield Models

### B-292PLI



Binocular head with IOS N-PLAN (infinity corrected) objectives, rackless stage and exclusive **X-LED<sup>3</sup>** for incredibly bright illumination.

**Observation mode:** Brightfield.

**Head:** Binocular, 360° rotating and 30° inclined. Interpupillary distance 48-75 mm.

**Dioptric adjustment:** On both eyepieces.

**Eyepieces:** WF10x/20 mm, high eye-point and secured by screw.

**Nosepiece:** Quadruple revolving nosepiece, rotation on ball bearings.

**Objectives:**

IOS N-PLAN 4x/0.10 IOS N-PLAN 10x/0.25  
IOS N-PLAN 40x/0.65 IOS N-PLAN 100x/1.25 (Oil/Water)  
All with anti-fungus treatment.

**Specimen stage:** Double layer rackless mechanical sliding stage, 150x139 mm, 75x33 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.

**Condenser:** Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and centerable.

**Illumination (Fixed Koehler type):** X-LED<sup>3</sup> type with white 3.6 W LED (6,300 K) and light intensity control. Multi-plug 100-240Vac/6Vdc external power supply.

Laboratory

### B-293PLI



Trinocular head with IOS N-PLAN (infinity corrected) objectives, rackless stage and exclusive **X-LED<sup>3</sup>** for incredibly bright illumination.

**Observation mode:** Brightfield.

**Head:** Trinocular (fixed, 50/50), 360° rotating and 30° inclined. Interpupillary distance 55-75 mm.

**Dioptric adjustment:** On both eyepieces.

**Eyepieces:** WF10x/20 mm, high eye-point and secured by screw.

**Nosepiece:** Quadruple revolving nosepiece, rotation on ball bearings.

**Objectives:**

IOS N-PLAN 4x/0.10 IOS N-PLAN 10x/0.25  
IOS N-PLAN 40x/0.65 IOS N-PLAN 100x/1.25 (Oil/Water)  
All with anti-fungus treatment.

**Specimen stage:** Double layer rackless mechanical sliding stage, 150x139 mm, 75x33 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.

**Condenser:** Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and centerable.

**Illumination (Fixed Koehler type):** X-LED<sup>3</sup> type with white 3.6 W LED (6,300 K) and light intensity control. Multi-plug 100-240Vac/6Vdc external power supply.

## B-290TB - Digital Microscope with Camera & Tablet

### B-290TB



**PATENTED**

3.1 MP Built-in camera and 10.8" Windows tablet PC with N-PLAN objectives, rackless stage and exclusive **X-LED<sup>3</sup>** for unmatched performance in illumination. Ideal for discussion group with 360° rotating tablet.

**Observation mode:** Brightfield.

**Head:** Binocular, 360° rotating and 30° inclined. Interpupillary distance from 48 to 75 mm; dioptic adjustment on left eyepiece. Built-in 3.1 MP camera.

**Dioptric adjustment:** On both eyepieces.

**Eyepieces:** WF10x/20 mm, high eye-point and secured by screw.

**Nosepiece:** Quadruple revolving nosepiece, rotation on ball bearings.

**Objectives:**

N-PLAN 4x/0.10 N-PLAN 10x/0.25  
N-PLAN 40x/0.65 N-PLAN 100x/1.25 (Oil/Water)  
All with anti-fungus treatment.

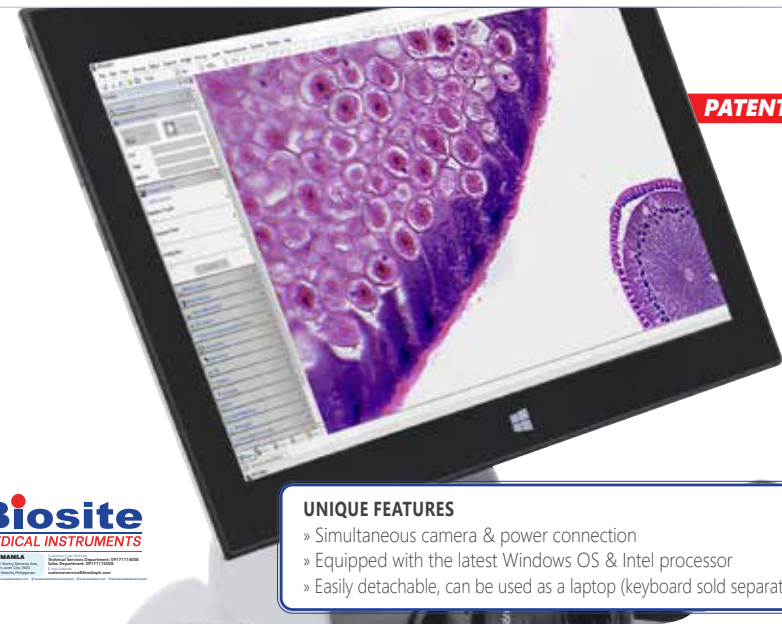
**Specimen stage:** Double layer rackless mechanical sliding stage, 150x139 mm, 75x33 mm X-Y movement range. Vernier scale on the two axes, accuracy: 0.1 mm.

**Focusing:** Coaxial coarse and fine focusing mechanism with limit stop to prevent the contact between objective and specimen. Adjustable tension of coarse focusing knob.

**Condenser:** Abbe N.A. 1.25, with objective-coded iris diaphragm, focusable and centerable.

**Illumination (Fixed Koehler type):** X-LED<sup>3</sup> type with white 3.6 W LED (6,300 K) and light intensity control. Multi-plug 100-240Vac/6Vdc external power supply.

Laboratory



**PATENTED**



**Biosite**  
MEDICAL INSTRUMENTS

#### UNIQUE FEATURES

- » Simultaneous camera & power connection
- » Equipped with the latest Windows OS & Intel processor
- » Easily detachable, can be used as a laptop (keyboard sold separately)

# IOS & Professional Features

## LABORATORY GRADE OPTICS FOR OUTSTANDING IMAGES

- » Planachromatic optics
- » Designed to ensure field flatness on 20 mm (N-PLAN)
- » IOS Infinity corrected optical system

## FULL CONTROL OF YOUR IMAGES

- » Fully settable condenser for perfect imaging
- » Easy to set objective-coded iris diaphragm, focusable & centrabale
- » Phase contrast and darkfield slider available

2

Laboratory

2

Laboratory



**Biosite**  
MEDICAL INSTRUMENTS

### MANILA

305 Col. Bonny Serrano Ave.,  
San Juan City 1500  
Metro Manila, Philippines

Customer Care Hotline:  
Technical Service Department: 09171114008  
Sales Department: 09171115008  
E-mail Address:  
customerservice@biositeph.com

## B-290 Series



This series incorporates all the experience gathered by OPTIKA Microscopes in the field of light microscopy, adapted specifically for common laboratory applications. Suitable for routine microscopy with brightfield, darkfield, phase contrast and LED fluorescence, designed to last.

### X-LED<sup>3</sup> Exclusive Lighting Source

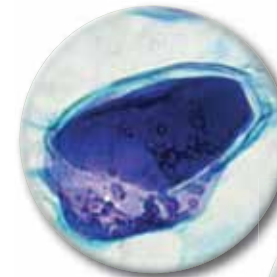
Special technology able to double the light intensity for incomparable performance, ensuring constant pure-white colour temperature (6,300K colour temperature). Relevant money and energy saving thanks to the incredibly low energy consumptions which allows you to cut the electricity bills by 90%! The electric consumption (3.6 W only) proves the high efficiency of this system: incredibly high light intensity combined with low consumption.

### Safe And Convenient Operations

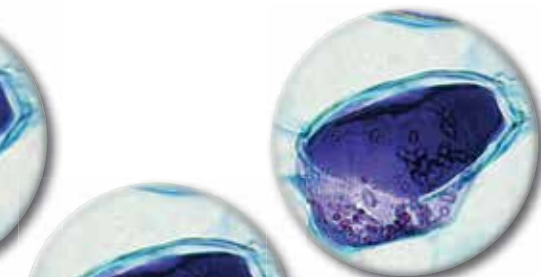
Rounded edge rackless stage has been designed with a belt-driven mechanism that allows a smooth movement without any protruding part. This design gives you a more compact solution and lowers any risk of injury after accidentally hitting the rack with your hands.

### Clear Observation With 100x Objective

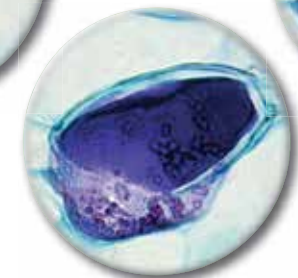
Students and basic users will enjoy B-290 Series for the clear and sharp images they can get using 100x objective with water, thanks to the extremely bright X-LED<sup>3</sup> light source and the fully centerable Abbe condenser. Forget about the tedious lens cleaning you are used to when using 100x objective: dirt and dust will not affect your objective.



100x DRY



100x OIL



100x WATER

### Pine, one year stem.

For a professional use, immersion oil is the recommended solution to get the best performance available from any 100x objective.



## 100x Oil/Water Objective – Only at OPTIKA

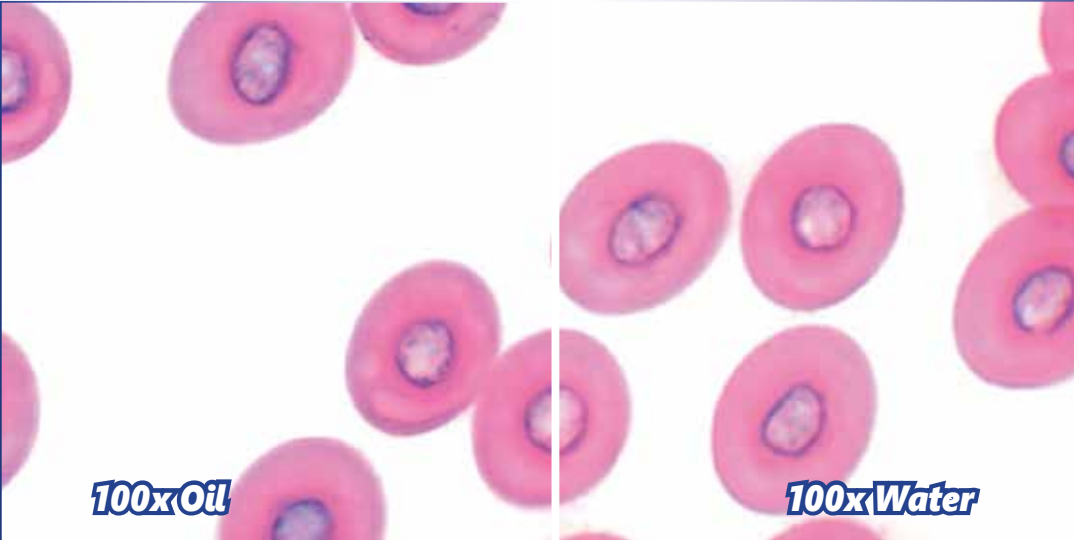
### SAME OBJECTIVE FOR OIL AND WATER USE

- » Oil represents the best media for high numerical aperture
- » Water combines results with convenience
- » Water is recommended especially for educational purposes

### UNPARALLELED TIME & MONEY SAVING

- » Save time by forgetting about tedious cleaning
- » No time-wasting procedures for maintenance
- » No additional expenses due to inappropriate cleaning

Laboratory



100xOil

100xWater

## X-LED<sup>3</sup> – Only Available at OPTIKA

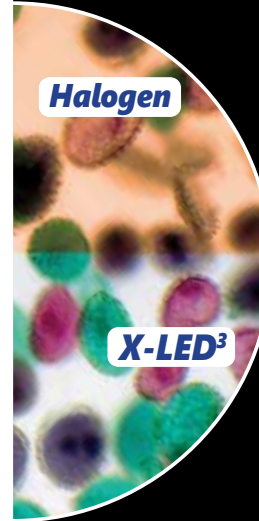
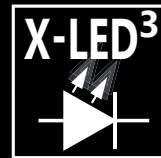
### STATE-OF-THE-ART ILLUMINATION SYSTEM

- » Uncomparable light intensity, exclusive lens & collector design
- » Constant pure-white colour temperature at all intensity levels
- » Unmatched color fidelity, uniformity and brightness

### CUT ELECTRICITY BILLS BY 90%

- » Money & energy saving, only 3.6 W
- » More efficient brightness than a 50 W halogen lamp
- » LED long lifetime (65,000 hours = 22 years at 8 hours/day usage)

Laboratory



Multi-plug power supply

