

**Motic**<sup>®</sup> MICROSCOPES

**5 years**  
warranty

# **B3** Professional Series Microscope

Clinical &  
Laboratory Microscope



**B3-223ASC**

▪ Anti - fungus device available ▪

The Motic B3

## Observation Tubes

### Binocular Tube

Siedentopf design binocular tube can be rotated 360° inclined 30° from horizontal, and has constant tube length with graduated interpupillary adjustment from 55mm to 75mm. Diopter adjustment can be made on the left eyepiece tube  $\pm 5$ . Magnification factor 1X.

### Trinocular Tube

Siedentopf design binocular body, inclined 30° from horizontal, has constant tube length with graduated interpupillary adjustment from 55mm to 75mm, vertical photo tube; two-way prism slider for 100% visual or 20% / 80% photo. Diopter adjustment can be made on the left eyepiece tube  $\pm 5$ . Magnification factor 1X.



Objective parfocal distance 45mm

### Revolving Nosepiece

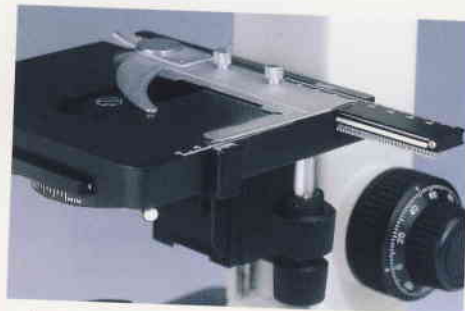
The ball bearing mounted reversed quintuple nosepiece has a ribbed grip for easy rotation and is positioned back closer to the microscope body for easier access to the stage area.



Condenser

### Condenser

Abbe condenser N.A.1.25 with built-in iris diaphragm permits increase of image contrast and resolution (axial).



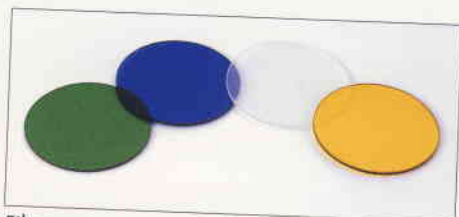
Ball-bearing mounted triangular rail guide track mechanical stage

### Stage

Rectangular 140mmX135mm surface area. 78mmX50mm cross travel range using low-positioned coaxial X and Y motion control knob on right hand side. Detachable specimen holder and scale graduated to 1mm with vernier reading to 0.1mm.

### Substage

With rack and pinion focusing and centerable, circular dovetail condenser mount. Vertical movement range 28mm.



Filters

Accepts 45mm filters on field lens.  
Standard filters: Blue, Green, Yellow and Frosted  
Condenser Swing-out Filter Holder  $\varnothing 32$ mm



## B3 Stand

The corrosion protected aluminum die cast stand with abrasion resistant enamel finish affords protection against solvents, acids and dyes. The large base is sealed and therefore protects the illumination optics against dust. A transformer is built into the base of the stand and therefore not only provides stability because of the low-lying center of gravity, but also saves space on the bench top. The brightness can be continually adjusted by means of the control knob conveniently placed immediately below the focus controls. On/off switch with pilot lamp is on the back of the stand. The 12V/20W halogen Köhler illumination system provides bright and even illumination at all magnifications. The lamp is pre-centered and pre-focused. The field diaphragm is easily accessible from the front and makes setting of illumination easy.



Focusing Knob & Scale

### Coarse and Fine Focusing

Vertical stage movement range 27mm with coarse adjustment upper limit stopper. Control knobs coaxially positioned. Movement per rotation: fine 0.2mm with 2 $\mu$ m scale increments. Coarse motion torque adjustable.



B3-220PL

Two special versions of the B3 series system microscopes for special application in the clinical and laboratory industry.



B3 ClinLab

### **B3 ClinLab is designed for clinical laboratories**

**Features**

- Widefield eyepiece WF10x (FN 20)
- Objectives - Plan achromatic lenses offer a crisp, brilliant and flat field images up to the periphery of the field of view  
Plan PL4x / 0.10  
Plan PL10xPH / 0.25 phase contrast application  
Plan PL40xPH / 0.65 spring phase contrast application  
Plan PL100xPH / 1.25 oil spring phase contrast application
- Special 5-hole turret type condenser N.A. 1.25 with choices for  
Brightfield  
Darkfield  
10x phase ring  
40x phase ring  
100x phase ring
- Centering telescope
- Standard blue, green, yellow and frosted filters for brightfield and phase applications



B3 Med

### **B3 Med for general practitioners and specialists**

**Features**

- Widefield eyepiece WF10x (FN 20)
- Objective - Plan achromatic lenses offer a crisp, brilliant and flat field images up to the periphery of the field of view  
Plan PL4x / 0.10  
Plan PL10x / 0.25  
Plan PL 40xPH / 0.65 spring phase contrast application  
Plan PL100x / 1.25 oil spring
- Plug in phase attachment 40x, an easy add on attachment to the standard condenser
- Plug in darkfield attachment, an easy add on attachment to the standard condenser enables darkfield observation from 4x through 40x
- Standard blue, green, yellow and frosted filters for brightfield and phase applications

## Motic Objectives and Eyepieces

### Objectives for Brightfield and Darkfield

Tube Length 160mm  
 Parfocal Distance 45mm  
 Objective Thread Size 20.3mm (RMS)

Tube Length 160mm  
 Eyepiece tube (Inside Diameter) 23.2mm

Motic No.	Achromat	Colour code for Magnification	Remarks
SG01_S01217	Achromat Super Contrast 4X / 0.10	Red	
SG01_S02217	Achromat Super Contrast 10X / 0.25	Yellow	
SG01_S04217	Achromat Super Contrast 40X / 0.65	Light Blue	Spring loaded
SG01_S06217	Achromat Super Contrast 100X / 1.25 Oil	White	Spring loaded

Motic No.	Plan Achromat	Colour code for Magnification	Remarks
SG01_S01222	Plan Achromat 4X / 0.10	Red	
SG01_S02222	Plan Achromat 10X / 0.25	Yellow	
SG01_S03222	Plan Achromat 20X / 0.40	Green	
SG01_S04222	Plan Achromat 40X / 0.65	Light Blue	
SG01_S05222	Plan Achromat 60X / 0.85	Blue	Spring loaded
SG01_S06222	Plan Achromat 100X / 1.25 Oil	White	Spring loaded

### Eyepieces

Motic No.	
SG02_S0121	Widefield Highpoint Eyepiece WF 10X / 20
SG02_S0105	Widefield Highpoint Eyepiece WF 10X / 18
SG02_S0204	Widefield Eyepiece WF 15X / 12
SG02_S0405	Widefield Eyepiece WF 20X / 11
SG02_S0138	Micrometer Eyepiece WF10X/18 100 deviser in 10mm



Plan Objectives



Achromatic Super Contrast Objectives



Eyepieces

Motic No.

RS08\_000005

### Phase Contrast Attachment

The Phase Contrast is useful for viewing detailed structures of unstained or living specimens. The turret condenser has four phase positions (10x, 20x, 40x, 100x), and a brightfield position with an iris diaphragm.

Objective Phase Plan PH10x/0.25

Objective Phase Plan PH20x/0.40

Objective Phase Plan PH40x/0.65

Objective Phase Plan PH100x/1.25 oil

Phase centering telescope

Green, blue and yellow filters for maximum contrast

SW01\_1833B Simple phase contrast ring 40x

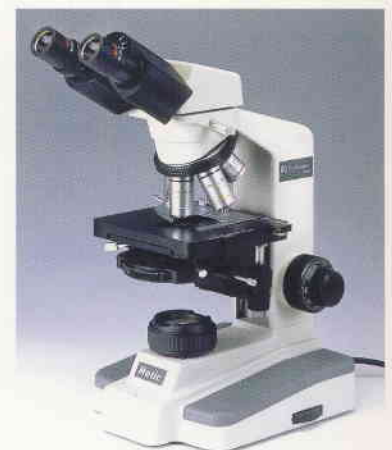
SW01\_2391B Simple darkfield ring for low magnification darkfield effect



40X Phase Contrast Attachment  
(Simple plug in type)



Phase Contrast Set



B3 with Phase Contrast attachment



Polarizing Set

**Motic No. Polarizing Filter set for Transmitted light**

SP08. 0014 The attachment consists of a polarizing filter attached under the condenser and an analyzer placed under the eyepiece tube. A graduated rotating slider holder to attach to the mechanical stage.

**Motic No. Accessories**

- SG06. 0727 Blue filter (45mm diameter)
- SG06. 0726 Green filter (45mm diameter)
- SG06. 0728 Yellow filter (45mm diameter)
- SG06. 0729 Frosted filter (45mm diameter)
- SB15. 0001 Eyecups (pair)
- SB11. 0005 Dust cover
- SB99. 0181 Aluminum carrying case
- SE06. 0098 Spare halogen bulb 12V/20W
- SW01. 1362 Photo adaptor (2.5X)
- SW01. 1364 CCD adaptor (0.5X)



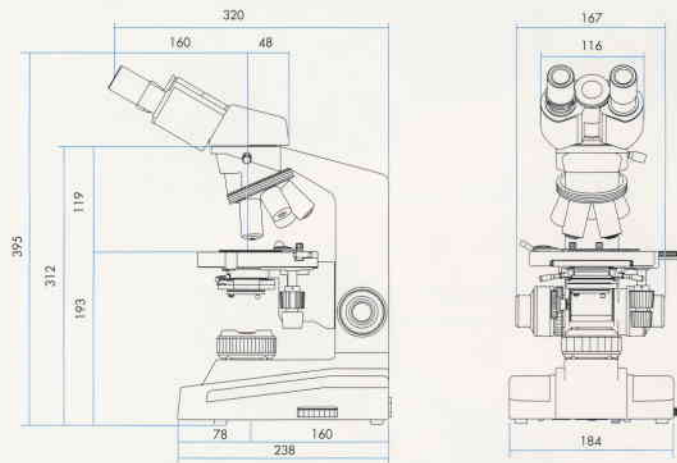
Aluminum carrying case

## Parts

### Specifications

Magnification range	40X -1000X
Mechanical tube length	160mm
Nosepiece	Reversed quintuple revolving with ball bearings
Stage	Rectangular 140mm X 135mm surface area . Cross travel range 78mm X 50mm using low positioned coaxial control knob.
Substage	Rack and pinion, vertical range of movement 28mm.
Condenser	Abbe 1.25 NA with aperture diaphragm. Vertically adjustable and centerable. Accepts 32mm filters.
Observation tube	Binocular 30° inclined, 360° rotatable, magnification 1X, diopter adjustment on left eyepiece tube ±5 diopter.
Trinocular photo tube	Interpupillary adjustment from 55mm to 75mm.
Illumination	Two-way prism slider for 100% visual or 20% visual / 80% photo 12V / 20W quartz halogen lamp pre-centered with field diaphragm. On/off switch with dimmer on right side of base
Contrasting Techniques	Phase Contrast Darkfield Polarization

### Dimensions for B3 Series



### B3 Series Order Code

Model No.	Order No.
B3-220ASC	PB37.511.E01
B3-223ASC	PB38.511.E01
B3-220PL	PB37.531.E01
B3-223PL	PB38.531.E01
B3 Med	PB35.591.E01
B3 Clinlab	PB36.591.E01



**Five Years Warranty:** All Motic instruments are warranted against defects in material and workmanship for five years. Damage resulted from repair by unauthorized parties or damage due to accident, alteration, misuse or abuse is not covered.

Warranty service is provided by Speed Fair Co., Ltd. or its authorized dealers. Defective Motic instruments covered by the warranty will be repaired free of charge when they are returned, postpaid, to Speed Fair Co., Ltd. or its authorized dealers in your region.

**Design Change:** The manufacturer reserves the right to make changes in instrument design in accordance with scientific and mechanical progress without notice and without obligation.

Some models may not be available in your market. Please contact your local distributor for availability.