

# bScope® metallurgical

# HIGHLIGHTS

- Materials science microscopes
- Trinocular models
- WF 10x/22 mm eyepieces
- Reversed ball-bearing quadruple nosepiece with slot for polarization filter
   Plan M-IOS objectives
- Polarizer and analyzer filters
- Rackless integrated X-Y mechanical stage
   3 W NeoLED<sup>™</sup> adjustable transmitted and reflected NeoLED<sup>™</sup> illumination
- Integrated carrying grip
- · integrated carrying grip
- Cable Storage System and anti-theft system

# SPECIFICATIONS

#### **EYEPIECES**

Wide field WF 10x/22 mm eyepieces with 22 mm field of view (Ø 30 mm tube)

# HEAD

The bScope<sup>®</sup> is equipped with:

- a Siedentopf type head, 360° rotatable
- 30° inclined tubes
- $a \pm 5$  diopter adjustment on left eyepiece

The interpupillary distance is adjustable between 48 to 76 mm. The trinocular head comes with a Ø 23.2 mm tube, ensuring maximum flexibility. The prisms inside the heads are designed to minimize the light absorption for perfect digital imaging. The trinocular head has a light path selector (100:0 / 0:100) and generates an erect image

#### NOSEPIECE

Revolving and reversed ball-bearing quadruple nosepiece

# OBJECTIVES

The state-of-the-art production techniques and multi layer coatings used for the manufacturing of the bScope<sup>®</sup> objectives enables the bScope<sup>®</sup> to be used for the most demanding applications. World class spherical aberration correction and modern CNC and assembly technology ensure perfect centering of the objectives

Infinity corrected achromatic DIN plan M-IOS 5x/0.12, 10x/0.25, 20x/0.40, 50x/0.70 IOS objectives. Optional plan M-IOS S80x/0.80 and S100x/0.85 DIN IOS objective are also available



The S80x and S100x objectives are spring loaded All optics are anti-fungus treated and anti-reflection coated for maximum light

### FOCUSING

throughput

- Double coaxial, low-positioned coarse and fine adjustments with 180 graduations
- Precision 1.1 μm, 200 μm per rotation, total travel range is approximately 19 mm
- Supplied with an adjustable rack stop to prevent damage to sample and objectives
- The coarse adjustment is equipped with friction control

#### STAGE

- The bScope<sup>®</sup> is equipped with: a scratch resistant 185 x 140 mm stage with integrated 74 x 48 mm X-Y rackless mechanical stage, Vernier scale, soft-close removable specimen holder
- The rackless stage has no protruding parts, enables more smooth movements and is safer in use. Low-positioned X-Y control knobs prevent fatigue during long working sessions



#### **CONDENSER FOR BRIGHTFIELD**

The standard height adjustable Abbe N.A. 1.25 condenser for brightfield comes with an iris diaphragm and swing-out filter holder

#### POLARIZATION

The bScope<sup>®</sup> has an integrated slot above the nosepiece for an optional polarization filter for transmitted illumination

#### **NEOLED™ REFLECTED ILLUMINATION**

Reflected intensity adjustable 3 W NeoLED<sup>™</sup> Köhler illumination with external power supply, push-pull type rotatable polarizer and push-pull analyzer, built-in condenser with iris diaphragm and field iris diaphragm. Integrated rotating filter disc with green, blue, yellow and white filters

#### **NEOLED™ TRANSMITTED ILLUMINATION**

The 3 W adjustable Köhler NeoLED<sup>™</sup> diascopic illumination is powered by an internal 100-240 V power supply making it suitable for worldwide use. The innovative NeoLED<sup>™</sup> design offers larger apertures, allowing the optical system of the bScope<sup>®</sup> microscope to produce images at higher resolutions, very close to the theoretical diffraction limit of the optics. Other benefits of the NeoLED<sup>™</sup> is the low energy consumption, no heating and a long operating lifetime

#### **KÖHLER ILLUMINATION**

Köhler illumination ensures for all infinity corrected IOS models the highest possible contrast and the maximum achievable resolving power. Generates a uniform illumination of the sample and eliminates all interference from dust on lenses and side glare of the light source

#### **CORDLESS USE**

The optional rechargeable batteries turn the bScope<sup>®</sup> into a cordless system (only available for the transmitted illumination)

# **CSS - CABLE STORAGE SYSTEM**

This system allows users to easily stow away excess cable length into the back of the instrument during operation and to roll up the power cable for easy storage



#### **CARRYING GRIP**

The integrated carrying grip at the back of the microscope ensures safe transportation of the microscope

#### **ANTI-THEFT SLOT**

At the back of the microscope a Kensington Security Slot is placed, which can be used to secure the instrument from theft

# **PACKAGE CONTENT**

Smart Styrofoam packaging ensures a low environmental footprint while maintaining maximum safety during transport. Supplied with power cord, dust cover, tools, a spare fuse, white filter and user manual

MODEL	Trinocular	WF 10x/22 mm eyepieces	PLMi 5x/10x/20x/50x IOS objectives	Transmitted NeoLED™ Köhler illumination	Relfected NeoLED™ Köhler illumination
BS.1053-PLMi	•	•	•	•	•

Optional: PLMi 100x IOS objective



# ACCESSORIES AND SPARE PARTS

# EYEPIECES

 BS.6310
 WF 10x/22 mm eyepiece

 BS.6310-M
 WF 10x/22 mm eyepiece

 BS.6315
 WF 15x/12 mm eyepiece, Ø 30 mm tube

 BS.6399
 Pair of eyecups, Ø 30 mm tube

# OBJECTIVES

BS.8105 Plan M-IOS DIN 5x/0.12 infinity corrected objective. WD 26.1 mm
BS.8110 Plan M-IOS DIN 10x/0.25 infinity corrected objective. WD 20.20 mm
BS.8120 Plan M-IOS DIN 20x/0.40 infinity corrected objective. WD 8.80 mm
BS.8150 Plan M-IOS DIN 50x/0.70 infinity corrected objective. WD 3.68 mm
BS.8180 Plan M-IOS DIN 80x/0.80 infinity corrected objective. WD 1.25 mm
BS.8100 Plan M-IOS DIN 100x/0.85 infinity corrected objective. WD 0.40 mm

#### POLARIZATION

BS.9602 Analyzer in mount for under nosepieceBS.9645 Polarizer, for lamphouseBS.9601-R Polarizer in slider for reflected illumination attachment

#### CAMERA ACCESSORIES

- **AE.5130** Universal Ø 23.2 mm tube adapter with built-in 2x lens for SLR photo camera with APS-C sensor. Needs T2 adapter
- AE.5025 T2 ring for Nikon D SLR digital camera
- AE.5040 T2 ring for Canon EOS SLR digital camera

### MISCELLANEOUS

AE.1370	Set of rechar	geable bat	teries,	three	pieces

- **BS.9515** Metal plain insert for mechanical stage
- **BS.9518** Glass plain insert for mechanical stage

# DISPOSABLES

PB	8.5155	Microscope slides 76 x 26 mm, ground edges, 50 pieces
PB	8.5165	Cover glasses 18 x 18 mm, thickness 0.13-0.17 mm, 100 pieces
PB	8.5168	Cover glasses 22 x 22 mm, thickness 0.13-0.17 mm, 100 pieces
PB	8.5245	Lens cleaning paper, 100 sheets per pack
PB	8.5255	Immersion oil (25 ml). n = 1.482
PB	8.5274	lsopropyl alcohol 99% (200 ml)
PB	8.5275	Cleaning kit: lens cleaning fluid, lint free lens tissue/paper, brush,
		air blower, cotton swabs
PB	8.5276	Microscope maintenance and servicing kit, 16pcs: cleaning brush, 6
		pcs screwdriver set, air blower, 3 pcs Allen key,
		1.5, 2, 2.5 mm, lens cleaning fluid 20 ml, cleaning cloth
		140 x 140 mm, 100 pcs Lens tissue sheets, tube of maintenance
		grease, 10 ml bottle of oil, packed in a nice toolbox

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