

# Brunel Microscopes Ltd



**Brunel SP400 Microscope**

The Brunel SP400 series are quality multipurpose universal microscopes that have a range of illumination options including brightfield, transmitted and incident and darkfield incident illumination systems. The objective turrets are equipped with excellent infinity corrected plan objectives (non coverslip), that are parfocal with spring loaded elements in the x40 and x60 lenses. x80 and x100 (dry) objectives are available as accessories.



**Mechanical Stage**



**Infinity Corrected Plan Objectives**

The SP400 series are supplied with x10 widefield eyepieces as standard. x15, x20 and measuring eyepieces are available as accessories. The large rectangular mechanical stage has long arm drop down controls and a removable glass plate that allows transmitted illumination and also serves as a support for opaque specimens. The substage condenser (SP400L & SP400BD) is fully focusing and centring with iris diaphragm and filter carrier.

Within the trinocular head is an analyser filter that can be inserted via a push/pull lever into the optical path for both the transmitted and incident illumination. The analyser is fully rotating via a linkage to an external graduated thumb wheel. The analyser can be removed from the optical path for plain polarised lighting.



**Graduated fine focus**



**Incident illumination system**

The transmitted lighting (SP400L & SP400BD) is 6 volt 30 watt quartz halogen that is rheostat controlled. The field iris allows Kohler illumination. For polarised lighting the field lens is capped with a polarisation filter. The incident illumination system incorporates a separate light housing with 6v 30 watt quartz halogen source for the SP400 and SP400L and a 6 volt 50 watt system for the bright/dark field (SP400BD) unit. The bulb filament can be accurately positioned using the lamp housing adjusters. The incident light path has an adjustable focus lens, double iris with centring mechanism. There is a rotating plate with filter options.

The trinocular tube will accommodate adapters for CCTV and digital still cameras, including a parallax system for SLR camera backs. A push/pull lever diverts light via a sliding prism to the camera tube. The SP400 is a modern design series of instruments with an excellent optical performance at a very affordable price.

Objective	magnification	N.A.	W.D. mm
x5	x50	0.10	26.1
x10	x100	0.25	5.00
x40	x400	0.40	3.98
x60	x600	0.65	1.22

Objective	magnification	N.A.	W.D. mm
x5	x50	0.12	8.40
x10	x100	0.25	9.30
x40	x400	0.60	3.00
x60	x600	0.70	1.95

**Brightfield configuration SP400 and SP400L**

**Brightfield/Darkfield configuration SP400BD**



**SP400 Metallurgical Microscope**

## SP400 Accessories

The full list of current accessory prices is available on our web site [www.brunelmicroscopes.co.uk](http://www.brunelmicroscopes.co.uk), however the more specialised items are listed below

x10 measuring eyepiece	<b>SP400-01</b>	Phase Contrast set	<b>SP400-07</b>
x15 widefield eyepieces	<b>SP400-02</b>	Stage micrometer	<b>SP400-08</b>
T2 ring (state camera make)	<b>SP400-03</b>	x80 brightfield objective	<b>SP400-09</b>
CCTV adapter	<b>SP400-04</b>	x80 bright/darkfield objective	<b>SP400-10</b>
Dark ground condenser dry	<b>SP400-05</b>	SLR camera adapter	<b>SP400-11</b>
Unilink digital camera adapter	<b>SP400-06</b>	6 volt 20 watt bulb	<b>SP400-12</b>

Brunel Microscopes has a suite of Microscopy and Computing related websites.

**[Brunel website](http://www.brunelmicroscopes.co.uk)**

[www.brunelmicroscopes.co.uk](http://www.brunelmicroscopes.co.uk)

**[Brunel Online shop](http://www.brunelmicroscopessecure.co.uk)**

[www.brunelmicroscopessecure.co.uk](http://www.brunelmicroscopessecure.co.uk)

**[Used Microscopes range](http://www.usedmicroscopes.co.uk)**

[www.usedmicroscopes.co.uk](http://www.usedmicroscopes.co.uk)

**[Microscopy Training Courses](http://www.microscopytraining.co.uk)**

[www.microscopytraining.co.uk](http://www.microscopytraining.co.uk)

**[Microscopy Auctions](http://www.microscopeauctions.co.uk)**

[www.microscopeauctions.co.uk](http://www.microscopeauctions.co.uk)

**[Image Capture](http://www.microscopyimaging.co.uk)**

[www.microscopyimaging.co.uk](http://www.microscopyimaging.co.uk)

**[Digital Microscopy](http://www.digital-microscopes.co.uk)**

[www.digital-microscopes.co.uk](http://www.digital-microscopes.co.uk)

**[Educational Microscopes](http://www.educationalmicroscopes.co.uk)**

[www.educationalmicroscopes.co.uk](http://www.educationalmicroscopes.co.uk)

**[Microscopy Safety](http://www.microscopysafety.co.uk)**

[www.microscopysafety.co.uk](http://www.microscopysafety.co.uk)

**[Brunel Computing](http://www.brunelcomputing.com)**

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## SP400 2D Dimensional Drawing

