

Brunel Microscopes Ltd



Brunel SP98F Inverted Microscope

The Brunel SP98F Inverted is a modern bright field transmission and incident fluorescence inverted microscope, finished to a high standard. The large mechanical stage will accept most types of laboratory apparatus, and the condenser assembly can be removed from the optical path for particularly tall objects. The SP98F Inverted is equipped with long working distance plan objectives and plan phase contrast objectives. Offering a magnification range of x100 to x400. It has plan long working objectives x10, x25 and x40, plan phase contrast objectives x10, x25 and x40, and x10 widefield eyepieces. The microscope has a long working distance condenser with phase contrast options, which has a working distance of 50mm. There is the option of an ultra long working distance unit with a practical working distance of 70mm.



SP98F Inverted



SP98F Inverted mechanical stage

A notable feature of the SP98F Inverted is the very large mechanical stage with long drop down movement controls. The potential specimen vessels for this type of microscope is very varied and the mechanical stage arrangement has been designed as an attachment that can be removed in order to accommodate unusual sized specimen equipment.



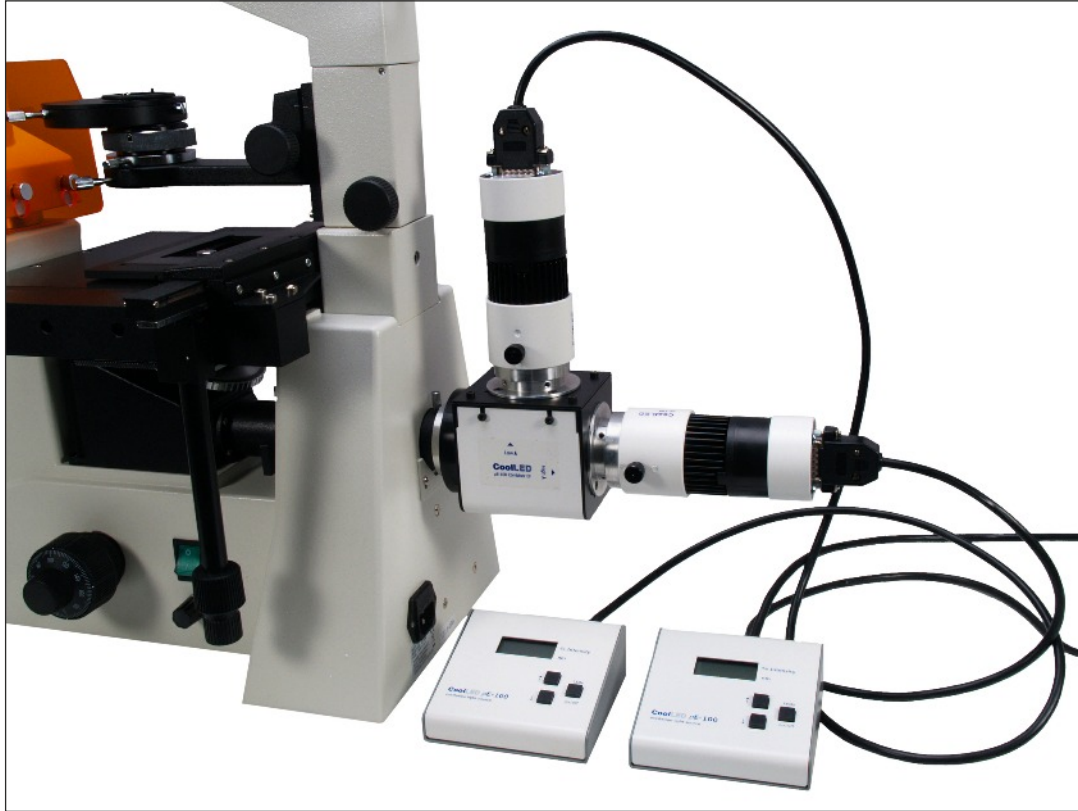
SP98F Inverted



pE_100 single wavelength

The SP98F Inverted has low position coaxial coarse and fine focus controls with inbuilt tension adjustment and variable safety stop. The fine focus control is graduated in 2 micron units as an indicator of depth. There are two illumination systems, a transmitted bright field lighting system with a 6v 30 watt tungsten halogen lamp, and a reflected light system, mercury vapour lamp output 100 watt DC power supply. The SP98F Inverted can be supplied with either 110 or 240 voltage options.

The SP98F Inverted has a Fluorescent lighting system and has the capability of providing four excitation filter systems, UV (ultraviolet) 330 - 400nm, V (violet) 395 - 415nm, B (blue) 420 - 485nm, and G (green) 460 - 550nm. The appropriate safety screen is attached to the rear of the trinocular head to protect the operator and should always be used. The advent of LED lighting systems has made significant advances in fluorescence microscopy. There are many advantages with this type of lighting, but there are also disadvantages that relate mainly to the start up costs and flexibility of the lighting unit. Mercury vapour lighting has a relatively large wavelength spread which can be harnessed by the appropriate use of the correct wavelength excitation filters.



SP98F Inverted pE-combiner with 2 units

LED illumination on the other hand has relatively narrow wavelength bands because of the specificity of the LED light source, and a number of specific wavelength light sources are needed to cover the full potential wavelength spectrum of the traditional mercury vapour wavelength emissions. However there are a number of powerful advantages. LED light sources are cool and can be turned on and off endlessly and have a life length massively superior to the Hg vapour lamp. As a consequence these units are growing rapidly in popularity and in co-operation with CoolLED we have ensured that the appropriate adapters are available to fit these units to our own range of fluorescence microscopes including the SP98F Inverted. The CoolLED light units fit easily to the SP98F light port with an adapter made specifically for this model, and the digital control box allows rapid light intensity variation at the touch of a button and the light source can be turned on and off as frequently as required.

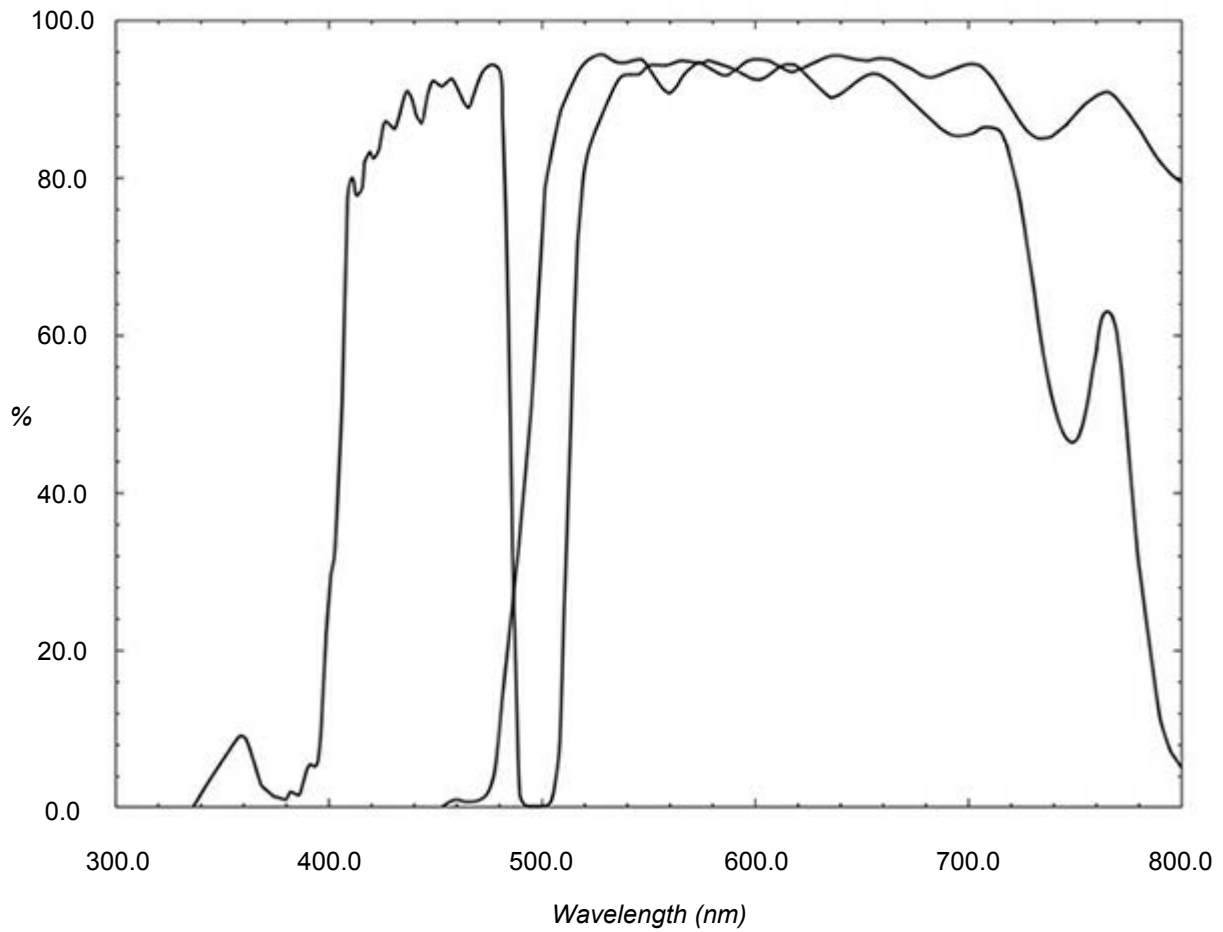
The **pE100** is a single wavelength unit which can be configured using any one of the CoolLED range of wavelengths to suit the fluorophore to be used.

The **pE-Combiner** offers the ability to use two pE-100 units for dual staining applications.

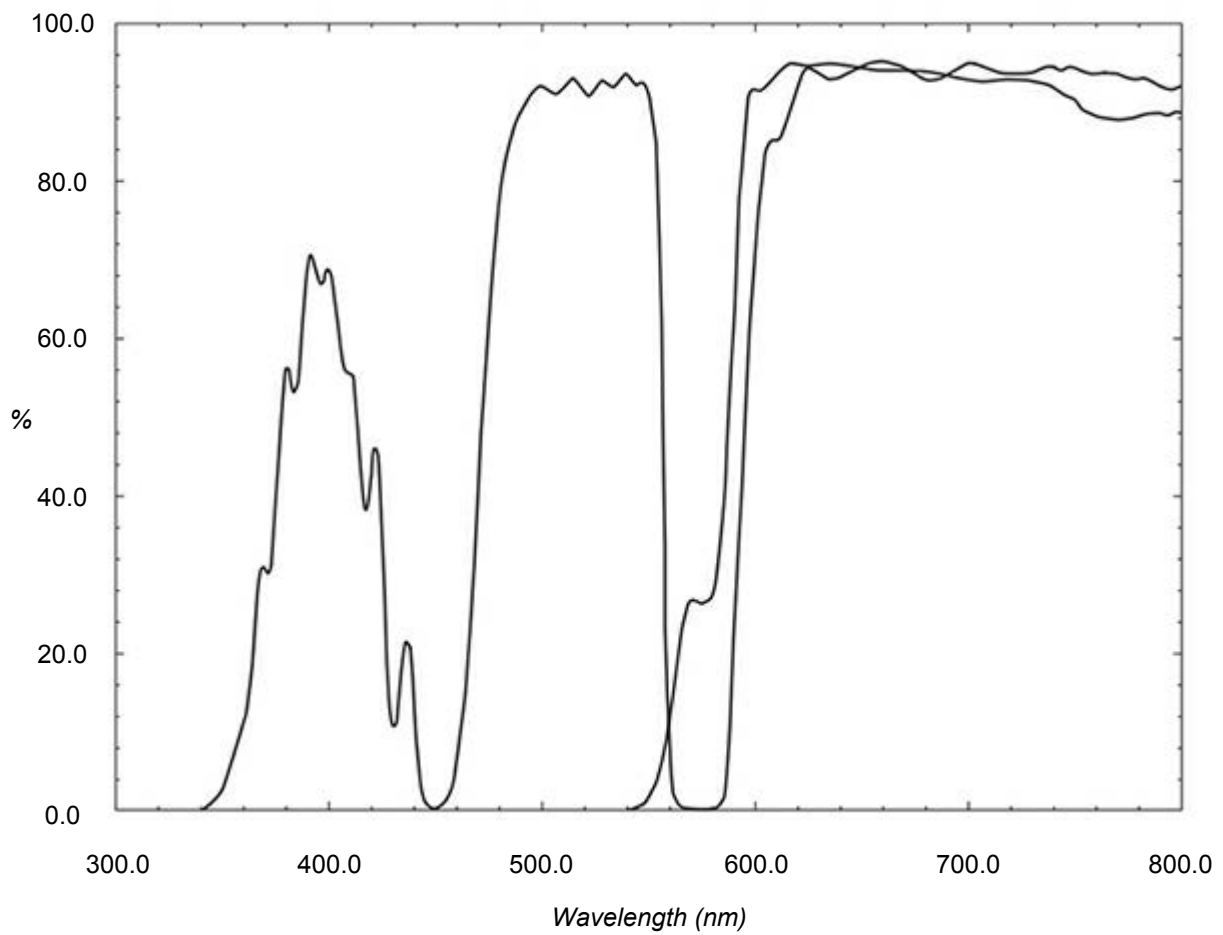
The **pE-200** is a two wavelength unit which can be specified in one of three commonly used wavelength configurations.

365nm and 470nm - suitable for DAPI, Calcofluor, Hoechst, GFP, FITC, Alexa 488, Acridine, Auramine
470nm and 530nm - suitable for GFP, FITC, Alexa 488, Acridine, Auramine, TRITC, Rhodamine, RFP
365nm and 530nm - suitable for Calcofluor White, Hoechst, TRITC, Rhodamine, RFP, Cy3 etc.

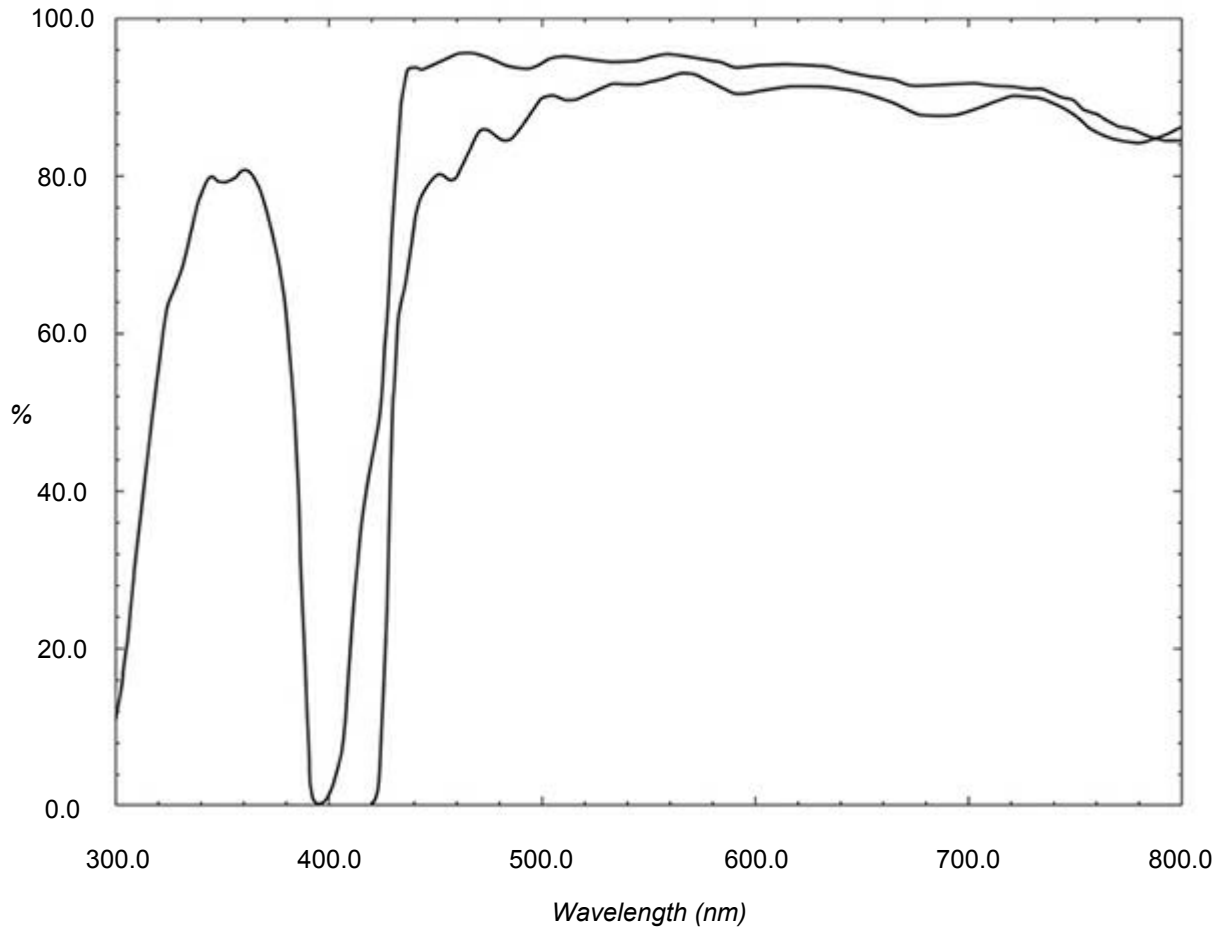
We would be pleased to provide a quotation for the SP98F Inverted equipped with any of these units as an alternative to the mercury vapour lamp or using the Dual Adapt unit both LED and Mercury vapour.



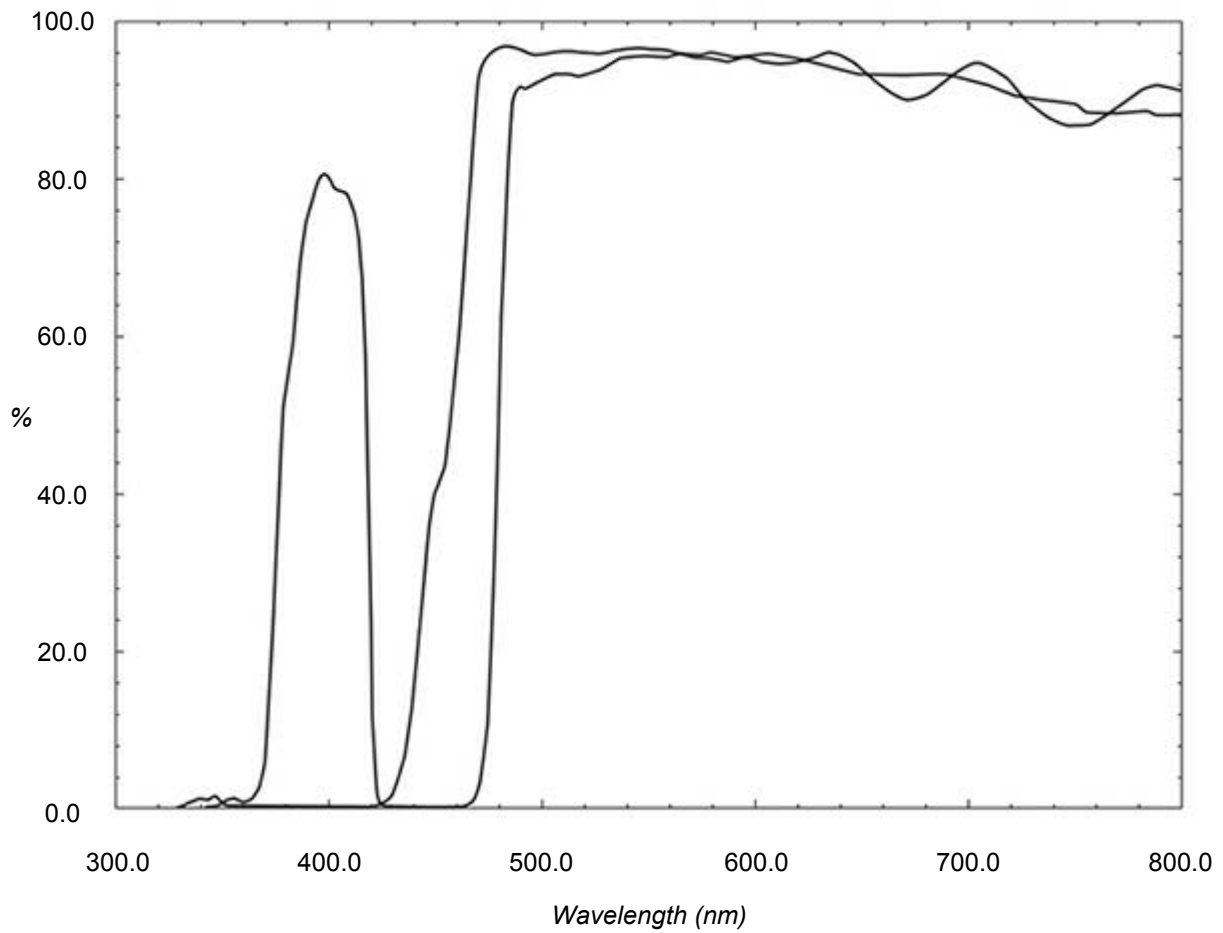
Blue



Green



Ultraviolet



Violet

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

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SP98F 2D Dimensional Drawing

