Guide - Stage or Object Micrometers

The terms stage micrometer and object micrometer are the same thing.

- Stage micrometers are used to calibrate eyepiece reticles or imaging systems. They can be supplied with a certificate of calibration for customers who need traceability of measurement (For ISO or quality purposes).

- There are stage micrometers for transmitted (brightfield) light and reflected (incident) light. Transmitted light products are normally positive images (opaque lines on a clear background) and reflected light products are normally negative images (clear lines on an opaque background).

- You will note that Pyser offer both „S“ and „PS“ patterns. This is probably a good time to clarify the difference between the two. The „S“ pattern stage micrometers are constructed of a 16mm glass disc, with the graticule pattern on them, placed in the centre of a 75mm x 25mm black, anodised aluminium slide, and are presented in a plastic box. This slide does not have an identifying serial number on it. For this reason, we do not recommend this part if the customer requires any form of calibration certificate. The „PS“ patterns again have a 16mm glass disc, but this time it is centred on a 75mm x 25mm stainless steel slide, and is presented in a wooden box. The main difference from the „S“ pattern though is that it has a uniquely engraved serial number on the slide. This makes it ideal for calibration and should always be used when a certificate is required.

- All brightfield stage micrometers have a coverglass fitted over the image so that it replicates the normal specimen stage conditions.

- It is always best to use a stage micrometer with a scale length that is similar to the size of the measurements you are making.

- The higher the objective magnification of your microscope the smaller the scale you need for calibration.

- Size Conversions.

1mm = 1000µm	0.1mm = 100µm	0.01mm = 10µm	0.001mm = 1µm
1inch = 1000thou	0.1inch = 100thou	0.01inch = 10thou	1mm = 39.4thou
1thou = 0.0254mm			

For details of how to calibrate eyepiece reticles please refer to Technical Note PDF - *Microscope Calibrating with a Stage Micrometer.*