

Choose the right microscope lens for high quality images and efficient quality control

Choosing the right lens can make all the difference when you are looking at fine details through a digital microscope. Opting for a lens with a higher depth of field at large magnification levels will result in one ultra-sharp image despite of height differences on your object and thus increase efficiency and accuracy of quality control.

When looking at small objects using a digital microscope, it might be necessary to use high magnification levels to see the details of an object. However, achieving high magnification levels using a small lens can result in unfocused images with only certain areas of the image in focus. Using a larger lens will on the other hand have a higher depth of field, enabling the digital microscope to create one image will all elements on the object in focus. This eliminates extra processes usually needed to create one ultra-sharp image and thus increases efficiency of quality control.

Why choosing the right lens matters

Let us look at it this way: An operator currently has a +5 lens mounted on their digital microscope. To see the details of the object beneath the camera properly, the user needs to zoom to 50x magnification. This provides a fairly clear image, but not all elements are in focus. Why? Because obtaining high magnification levels using a smaller lens puts the digital microscope close to its maximum zoom, resulting in a lower depth of field. But when changing to a higher, say, +10 lens with the same magnification

level, the user is presented with a higher depth of field and thus all elements in focus. This is because the camera is not yet at its maximum zoom, enabling it to have a higher depth of field.

Instant lens change to fit the process

Changing from one lens to another can take time and cause moments of irritation in the process, especially if lenses are to be changed frequently. But different processes may require different magnifications levels and hence different lenses. By using a magnetic lens ring, the appropriate lens will simply click right into place once positioned underneath the camera head with no time wasted, enabling the operators to work more efficiently.

About TAGARNO

TAGARNOs digital microscopes are used for visual inspection and quality control in a range of industries globally. In combination with the high-definition cameras that magnify objects in excellent image quality, the user-friendly software applications pave the way for accurate and objective analyses, ready to be captured and shared with colleagues and supply chain partners.

Read more about TAGARNO

Questions?

Contact TAGARNO Sales and Marketing Coordinator Gitte Engkjær
ge@tagarno.com / +45 76251124

