

100X Water Objective

The optical system of an optical microscope usually consists of the eyepiece, objective lens and lighting system.

Objective lens is the most important part of microscope, which directly determines the image quality of microscope. The core index of objective lens is numerical aperture (NA). For an objective lens of the same magnification, the larger the numerical aperture, the higher the resolution.

The distance between the surface of the front lens of the objective lens and the specimen being examined is the working distance of the objective lens.

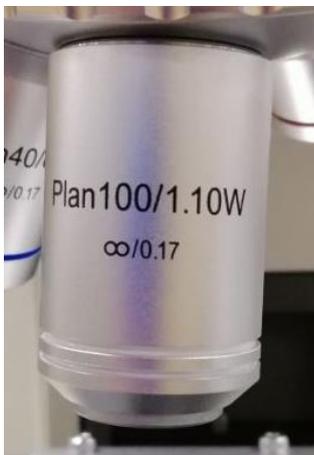
The numerical aperture of the objective is directly proportional to the resolution and inversely proportional to the working distance. As the numerical aperture increases, the resolution increases but the working distance decreases.

When the numerical aperture of the objective lens is greater than 1, cedar oil is added between the objective lens and the specimen being examined to increase the refractive index, so the 100X objective lens is usually an oil objective lens.

When the biological microscope is used, the operator often forgets to clean the 100X oil objective lens, which will make the oil become sticky and not easy to clean. Even if it is cleaned, it will also cause scratches on the lens, greatly shortening the life of the 100X objective lens.

However, the 100X water objective lens has been developed by us still maintains a high resolution, although the NA value is not as big as normal 1.25 oil objective lens. The biggest advantage is that there is no need to clean it after each use, which greatly extends the working life of 100X objective lens and reduces the workload of staff. It is very convenient for users who often use 100X objective lens.

Our 100X water objective lens has 3 specifications, which can be used on different brands microscopes.



NIS45-Plan100X(200mm)



NIS60-Plan100X(200mm)



NIS45-Plan100X(180mm)

Specification

Model	N.A.	W.D.	Tube Length	Parfocal Distance	Mount Thread	Apply to BestScope Models	Apply to other brands
NIS45-Plan100X (200mm)	1.10	0.2mm	200mm	45mm	RMS*	BS-2073	Nikon E100, E200
NIS60-Plan100X (200mm)	1.10	0.2mm	200mm	60mm	M25	BS-2074/BS-2081/BS-2083	Nikon Eclipse Ci-E/Ci-L/Ci-S
NIS45-Plan100X (180mm)	1.15	0.19mm	180mm	45mm	RMS	BS-2036/BS-2038/BS-2040/BS-2052/BS-2063/BS-2080	Olympus CX23, CX33, CX43, CX53, CX46

Table 1 - Microscope Optical Train Components

Manufacturer	Tube Lens Focal Length (Millimeters)	Parfocal Distance (Millimeters)	Thread Type
Leica	200	45	M25
Nikon	200	60	M25
Olympus	180	45	RMS
Zeiss	165	45	RMS

Note:

*. RMS and M25 is the thread size of the microscope objective and nosepiece.

RMS is 0.800"X1/36"(Diameter 20.32mm x thread pitch 0.706mm)

M25X0.75(Diameter 25mm x thread pitch 0.75mm)