



How to recommend a Labomed Inc. microscope to the customer

1. Make sure which area the customer needs the microscope, what type of the microscope the customer looks for, such as biological microscope, stereo microscope, polarizing microscope, metallurgical microscope or fluorescent microscope etc.

Sometimes, the customer also doesn't know what kind of microscope to choose, you can recommend them proper models according to their specimen and the requirement of the magnification.

For biological slides, pathological analysis, it is better to use biological microscopes.

For circuit board, small parts inspection, inset research and areas which does not need high magnification, we can recommend stereo microscopes to customer.

For mineral stone, pharmaceutical and crystalline material, use Polarizing microscope.

For metal, alloy and similar material, use Metallurgical microscope.

If the customer requires the magnification lower than 100X, consider Stereo microscope in first priority.

2. Choose Inverted or Upright microscope once confirmed the microscope type.

Biological microscopes and Metallurgical microscopes have inverted and upright models. For tissue culture and live cells in biology and big specimen in metallurgy, usually use Inverted type. Otherwise, choose the upright type.



If we know the application area, then we can recommend proper models according to the eyepiece, objective, stage, nosepiece, condenser, illumination, whether need dark field attachment, phase contrast attachment, fluorescent attached. Then according to customers requirements, and decide whether to recommend digital camera. If the microscope has trinocular, usually it need a camera. Except fluorescent microscope, for other microscopes, we can recommend cameras. For fluorescent microscopes, we usually recommend CCD digital cameras (If the customer need high sensitivity or long time exposure, we recommend high sensitivity CCD camera. If the customer need high resolution, we usually recommend 5.0MP or 6.0MP CCD digital camera). Metallurgical microscopes usually have requirement of high resolution, we usually recommend 5.0MP or 10.0MP camera. For other application (biological, stereo, polarizing, gemological microscopes, etc), we usually recommend 3.0MP or 5.0MP CMOS camera.

3. After the application confirmed, you can according to the detailed specifications recommend the customer the best model, such as Optical System, Eyepiece, Objectives, Illumination, Stage, Nosepiece and Condenser etc., as well as the accessories, such as Dark Field, Phase Contrast Kit, Fluorescent Attachment.

Notice for choosing different microscopes:

1. Biological Microscope:

Recommend models according to Optical System, Eyepiece, Objective, Nosepiece, Stage, Condenser, and Illumination, accessories like Dark Field, Phase Contrast Kit and Fluorescence Attachment. For issue culture and live cells, we usually use Inverted type.



(1). Optical System has Finite optical system and Infinite optical system. Finite optical system is often used in basic and medium level microscopes, Infinite optical system is for medium and high level microscopes.

(2). The WF10x/18 eyepiece is usually used for basic and medium level microscopes, WF10x/20 is usually used for medium and high level microscopes, and WF10x/22 is usually used for higher level microscopes.

(3). Objectives are divided into finite and infinite, each kind of finite or infinite objective includes achromatic objectives, semi-plan achromatic objectives and plan achromatic objectives from low level to high level.

(4). Nosepiece is Quadruple, Quintuple and Sextuple(from low level to high level).

(5). You can judge the level of microscope outfit according to the size and moving range of stage. Usually the larger the size, the bigger the move range, the higher level the microscope.

(6). We usually have NA0.9, NA1.2, NA1.25 Condenser, NA1.25 condenser is mostly used for biological microscopes. Swing out condenser is usually for high level microscopes (such as LB-280).

(7). Illumination includes LED lamp, Halogen lamp (20W, 30W and 100W) and Mercury lamp. LED illumination is more and more popular because it saves energy and has long working life. Halogen lamps are similar to natural light, and are still used in the high level microscopes and research level microscopes. Mercury lamp is used in fluorescent microscopes.

All the biological microscopes except LB-210 series can be attached with Dark Field, Phase Contrast Kit and Fluorescence attachment.

2. Stereo Microscope: mainly check the eyepiece and zoom ratio, then confirm if need accessories like auxiliary objectives, universal stand and cold light source.

3. Polarizing Microscope:



mainly check illumination: transmitted or reflected. Transmitted illumination is usually for transparent and semi-transparent specimens, while reflected illumination is for un-transparent specimens. Then check optical system, eyepiece, objective, stage, condenser, illumination (20W, 30W, 50W or 100W) and others.

4. Metallurgical Microscope: firstly make sure the type: upright or inverted. Then confirm if need dark field, and then check the detailed specifications like eyepiece, objectives and illumination to confirm the model.

5. Fluorescent Microscope: firstly make sure the type: inverted or upright. Then check the light source: mercury or LED (only upright fluorescent microscopes have LED fluorescent illumination).

6. Gemological Microscope: mainly check zoom ratio and illumination.

For the details of most of other microscopes selection, you can refer to the selections of Biological Microscopes.