

Training and Discussion Microscopes

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Abstract

There are many types of training or teaching microscopes available in the market today. These microscopes are used in many areas, including electronics, for training new technicians, hospitals, for training future doctors and consulting with colleagues and educational institutions for classroom use. There two primary types of training microscopes are multi-headed systems and video based systems.

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Introduction

Training microscope come in a variety of forms: dual headed stereo microscopes, multiheaded compound microscopes for medical consultation or education and video microscope for projection of microscopic images on a screen for viewing by a large group of people.

Multi Headed Systems

Industrial Training Microscopes

The most common training microscope in industrial applications is the dual headed stereo microscope. Stereo microscopes allow the user to visualize a 3D image in the eyepieces while working. Stereo microscopes are used extensively in electronics and medical device assembly and inspection. Using a training scope allows supervisor to show new operators exactly how to complete a process in the same way they would under the microscope they will be working on during their daily work. The operators can then switch places with a trainer and complete a procedure while the trainer is observing. This offers the operator a “real life” training experience before going on a production line.

Life Sciences Training Microscopes

People performing dissection, surgery or any other procedure with small live organism can also benefit for training under a dual headed microscope. Delicate procedures can be taught via direct observation instead of utilizing a movie or still images. In addition, the teacher and student can change places quickly.

In the clinic/hospital

Pathologists perform multiple diagnoses daily in a hospital/clinic setting. Diagnoses are reviewed by their peers to make sure there is not an error. Most pathologists will have a microscope at their desk to be able to do their work. These microscopes are dual headed to make a peer review easy. Both pathologists can view a tissue sample at the same time and have a discussion as to a diagnosis or prognosis.

In the classroom

Teacher

Entire class

Video Microscopes

Industrial Training Microscopes

Video

DVM

Life Sciences Training Microscopes

In the hospital

Tumor Boards