DIGITAL VIDEO IMAGING
SURGICAL OPERATING MICROSCOPE

SEILER

The first surgical microscope was introduced into medicine in 1954 in the United States.

Once an exotic piece of scientific equipment, it has now become commonplace in surgical operating rooms, doctors offices, endodontic offices , general dental practitioners offices, and in factories manufacturing electronic components and integrated circuits for computers. As microscope use has grown, so has the technology encompassing the microscope. The fastest growing technology on the microscope is the imaging sector of surgical microscopy. Seiler offers the most advanced technical imaging for both Video and Digital for the surgical microscopes.

Benefits of Video/Digital Imaging:

1. Excellent for ALL Documentation Purposes
2. Increase Patient Acceptance and Awareness
3. Great Teaching Tool
4. Ease for Assistant Viewing
5. Better ergonomics and can help relieve eye strain

A few helpful definitions of some imaging accessories:

Beamsplitter: An optical device that splits a beam of light in two. It is the crucial part of most interferometers

Seiler has created a specific Beamsplitter to attain the highest quality imaging. Seiler utilizes a two-prism system within their dual port beamsplitter. Seiler Instrument Company has engineered our beamsplitter to have one port contain a 50/50 prism and the other port a 20/80 prism system. Video and Digital cameras require different light measurements, with video requiring lesser light than a digital camera. Hence, the 50/50 prism allows more light to be refracted into the digital adaptor to attain the best digital picture, and the 20/80 port is utilized for video imaging purposes.

Video and Digital Adaptor: Equipped with glass and optics to display the image from the microscope to the camera.

Seiler has created two different types of adaptors: Universal Digital Adaptor and a Video Camera Adaptor. The Universal Digital Adaptor allows the user to attach ANY DSLR or HD Handy Cam to the microscope while the video adaptor is used for the HD Video Camera, or a CCD Camera.

VIDEO IMAGING

Live video is a very important tool in any doctor's practice with the surgical microscope. The live video imaging allows exactly what the doctor is viewing through the microscope to be projected onto a Monitor, Computer or Projector. This is especially helpful for patients and assistants viewing. Seiler Instrument Company now offers two different High Quality CCD Video cameras: NEW HD Camera, and a Single chip CCD Camera.

HD Camera (ST-HDC)

- 60FPS ExView progressive scan CCD
- Full HD TV resolution
- A 16:9 aspect ratio
- An HDMI direct to monitor connection
- An On-screen menu for user-friendly settings adjustment
- 28 configurable DSP profiles on the camera

Single Chip CCD Camera

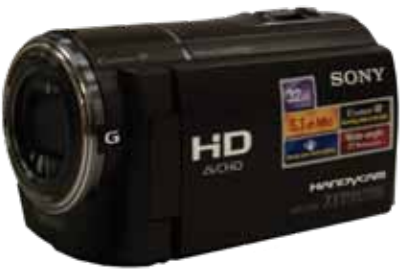
- 1/2" CCD Image Censor
- 625 Lines of resolution
- NTSC/PAL
- Auto Iris
- S-Video and Composite Connection

DIGITAL IMAGING

With recent advances in Digital Cameras, many medical and dental professionals are now utilizing DSLR and HD Handycams for their imaging needs. ALL New DSLR cameras and HD Handycams have the ability to not only take fantastic still images, but can now stream live 1080p video to a monitor or computer. Seiler Instrument Company has created a Universal Digital Adaptor that will allow a user to use any DSLR Camera or Handycam device with our microscope.


Sony NEX 5, Canon EOS Rebel, Nikon D90


Sony HD Handycam

Seiler Instrument and Manufacturing Co., Inc. was established in 1945. In 1913, Eric H. Seiler entered the prestigious Zeis-Jena School of Fine Optics in Germany where he obtained his Masters Degree in Fine Optics. In the aftermath of World War I, Eric moved to the United States and opened Seiler's door in 1945. Seiler is now a five-division company: Manufacturing for the United States Military, Microscope, Survey, Planetarium and Night Vision. Seiler Instrument is built on quality, honesty and service.

1913
Eric H. Seiler enters Zeiss-Jena School of Fine Optics in Jena, Germany and graduates with his Masters in Fine Optics. The Masters in Fine Optics will allow him to train others in the art of fine optics.

1945
After moving to the US and working for 20 years for another optical company, Eric H. Seiler and Dora L. Seiler start their own Optical Equipment and Repair Company in St. Louis, MO.

1947
Eric H. Seiler designs his first set of survey instruments for distribution

1949
Seiler Instrument manufactures over 100 products, confirming the arrival of both the Seiler Manufacturing Division and Survey Division.

1950
Seiler Microscope Division is formed to distribute Carl Zeiss (Jena) Microscopes to North America.

1968
Seiler Instrument and Manufacturing moves its headquarters from downtown St. Louis to a 50,000 sq. ft. facility in Webster Groves, MO. Seiler later purchases 2 other neighboring facilities for an expansion ultimately totalling around 78,000 sq ft.

1987
Seiler Planetarium Division is established, representing Zeiss Planetaria throughout the United States and Canada.

1999
Seiler opens the Night Vision Division that would make and distribute day/night vision precision rifle scopes for the police and US Military.

2003
Seiler Instrument and Manufacturing earns the ISO 9001:2000 mark for all of its manufacturing practices. exemplifying a worldwide quality standard.

2009
Seiler Instrument unites all of its operations under one roof again with the purchase of a new 150,000 sq. ft. facility located at 3433 Tree Court Industrial Blvd., Kirkwood, MO 63122.

2011
Seiler Microscope Division launched a brand new line of Microscopes and Colposcopes for both Medical and Dental applications.

SEILER

PRECISION MICROSCOPES

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Since 1945, A Commitment to Excellence