



The Fibermetric™ System

Designed for faster, better, easier fiber analysis

Turning insight into value

Now, direct observation and measurement of micro and nano fibers is faster, better and easier than ever before. With the Fibermetric™ system from FEI, you can load and image samples in about 30 seconds. Magnifications up to 24,000 times produce accurate information on a large range of fibers as small as 100nm in diameter. Automated measurement generates all the statistical data you need in minutes, and unlike other SEM-based solutions, no laboratory infrastructure or trained microscopists are required.

- Save time
- Get all your statistical data, automatically
- See and measure nearly any micro/nano fiber

The Fibermetric system is a new member of the FEI® Phenom™ family – the world's first personal electron microscopes. These high-resolution desktop imaging tools are easy to operate; everyone on your team can now see beyond the power of light to generate more accurate measurement data, faster than ever before. With its affordable price, ease-of-use, speed and accuracy, the Fibermetric system gives you a rapid return on investment and a sustainable competitive advantage.

Automated measurement

CFM – Click Fiber Measure. This feature will determine automatically if the image elements selected are fibers or pores. For fibers, it will measure thickness. For pores, it will measure enclosed surface area.

AIC – Automated Image Characterization. After manually selecting an area of interest on the image, automated measurements of fiber diameter and pore surface area are readily available. The area of interest can be the entire image or any area selected from the image by the user.

Specifications

System

- Imaging module
- 17" monitor
- Keyboard and mouse
- "Eee Box" PC (with Ethernet, Windows XP)
- Diaphragm vacuum pump
- Power supply
- USB 2.0 flash drive

Imaging Modes

- Light Optical
 - Magnification fixed: 20x
- Electron Optical
 - Magnification range: 120x to 24,000x (Digital zoom: 12x)

Illumination

- Light Optical
 - Selectable axial and off-axis illumination
- Electron Optical
 - Long lifetime thermionic source

Digital Image Detection

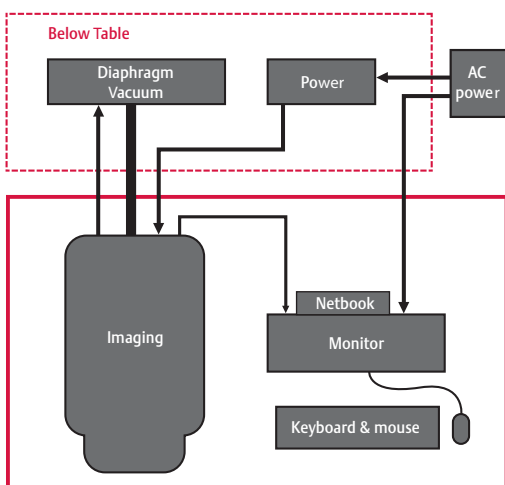
- Light Optical
 - CCD Camera
- Electron Optical
 - High Sensitivity Backscatter Electron Detector (multi-mode)

Image Format

- JPEG, TIFF

Image Resolution Options

- 456 x 456 pixels
- 684 x 684 pixels
- 1024 x 1024 pixels
- 2048 x 2048 pixels



Fibermetric System configuration Table 120 x 75 cm

Data Storage

- USB 2.0 Flash drive and/or network storage

Sample Stage

- Computer controlled motorized X and Y

Sample Size

- 25mm (dia) x 30mm (h)

Sample Loading Time

- Light Optical
 - <5s
- Electron Optical
 - <30s

Dimensions & Weight

- Imaging module
 - 286(w) x 566(d) x 495(h)mm, 50kg
- Diaphragm vacuum pump
 - 145(w) x 220(d) x 213(h)mm, 4.5kg
- Power supply
 - 156(w) x 300(d) x 74(h)mm, 3kg
- Monitor
 - 355(w) x 340(w) x 203(h) mm, 5.5kg

Room Temperature

- 15°C ~ 30°C (59°F ~ 86°F)

Humidity

- <80%RH

Power

- Single phase AC 110 - 240Volt, 50/60Hz, 300W (max.)
- Total of 3 wall outlets are required

Recommended Table Size

- 120 x 75cm, load rating of 100kg



See Beyond at phenom-world.com/fiber

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