

Specifications

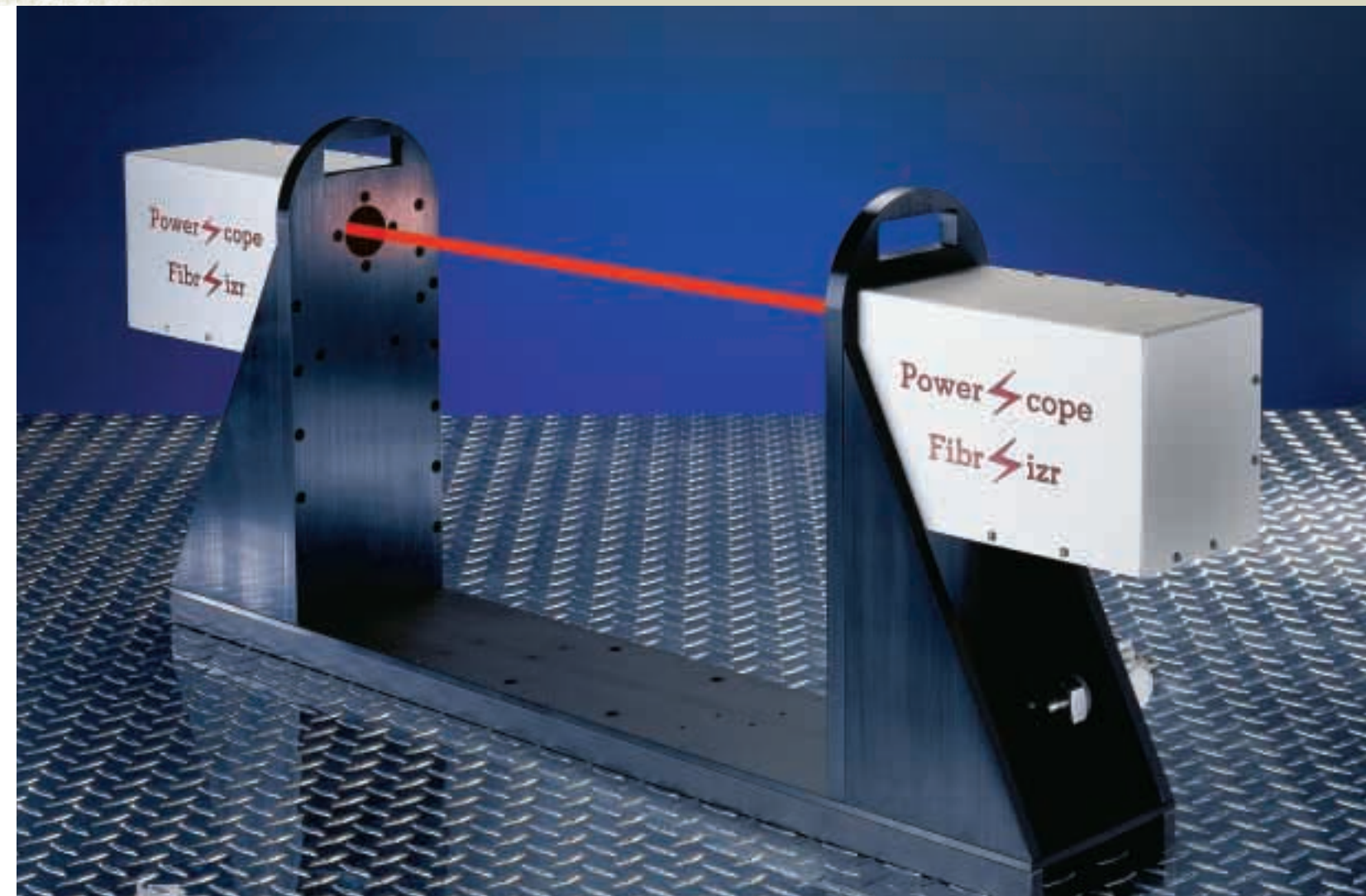
- Standard fiber size range: 2.5-100 μm mean*
- Accuracy of mean size: 5% or 0.5 μm
- Accuracy of standard deviation: 10%
- Minimum light transmission: 35%†
- Maximum light transmission: 99%
- Operating temperature: 0-40 °C

*For other fiber size ranges or special requirements contact Powerscope Incorporated.

†May need to thin out dense webs for accurate measurement.

Requirements

- AC Power (110 or 220V)
- Computer with USB port
- Compressed air (if using on-line)

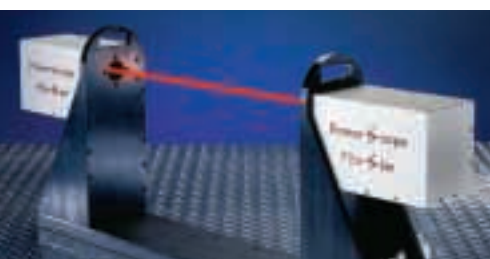


Introducing a revolutionary technology for the sizing of fibers.

Fibr izer™

The On-line/Off-line Fiber Size Measurement System from

Power scope™ Incorporated



Power scope™
Fiber Measurement Solutions

Powerscope Incorporated
1313 Fifth Street SE
Suite 106B
Minneapolis, MN 55414

Tel: 612-331-4247
Fax: 612-623-3928
E-mail: info@powerscopetech.com
Web: www.powerscopetech.com



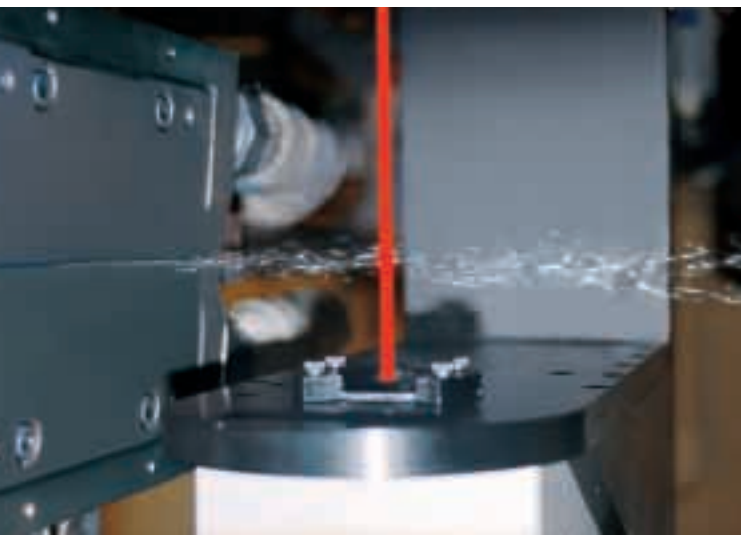
Fibrizr™

Powerful results from an easy-to-use instrument.

In today's competitive economic environment, measuring and controlling fiber size distributions (or fiber denier) is a critical element to producing nearly all value-added fiber products.

After years of dedicated development, Powerscope Incorporated is pleased to introduce a new optical technology for both on-line and off-line measurement of fiber sizes.

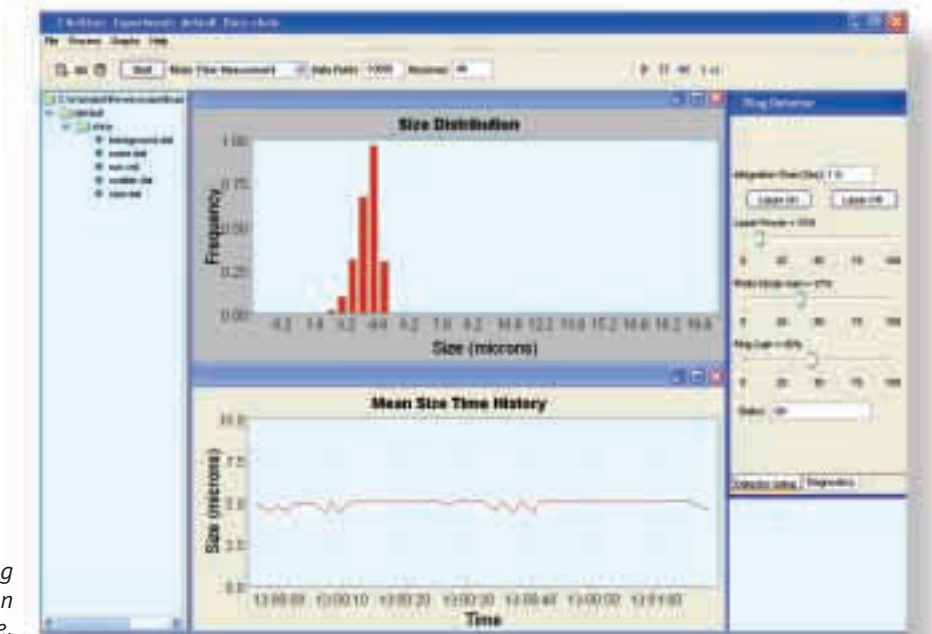
Fibrizr technology is based on ensemble laser diffraction and takes into account the non-ideal characteristics of real-life fibers. A patent is pending on this innovative new technology.



On-line measurements on a meltblown pilot line.

Fibrizr is based on the latest technologies

- Digital Electronics: Field programmable devices combine processing speed, flexibility and compactness.
- Mathematical Solutions: State-of-the-art non-linear solver calculates fiber size distribution in a fraction of a second.
- Data Transfer: Connects to any PC via Universal Serial Bus (USB); no boards required.
- Optoelectronics: Custom-built detector array and latest in laser-diode technology ensure efficient response and insensitivity to thermal effects.
- Software: Simple yet powerful user interface manages and controls system operation and allows user to customize the results.



Software screenshot showing realtime data collection on a meltblown line.

Innovative and User-Friendly

- Single probe combines optics and electronics: pre-aligned assembly of the transmitter and receiver for standard applications.
- Detachable transmitter and receiver for applications with limited physical access.
- Adjustable laser power and detector gain to cover a wide range of fiber sizes (denier) and fiber densities.
- Integrated purge air system to ensure clean optics.
- Steel frame to minimize thermal distortions.
- Optional traverse allows for convenient movement of the probe.
- Less than a second temporal resolution.
- Variable spatial resolution: user selectable laser beam diameter from 1 to 12 mm.
- Calibration feature trains the system to measure new materials and processing methods.
- Detection of shot and fiber entanglement effects.

Typical Uses:

- Research and development of new products
- Quality control
- On-line process control

Typical Applications:

- Polymer, glass, ceramic, and metal fibers.
- Variety of production methods/treatment methods (meltblown, spunbond, meltspun, carded, chemical bonded, needlepunched, spunlaced, stitchbonded, thermal bonded, rotary fiberizing, etc.)