

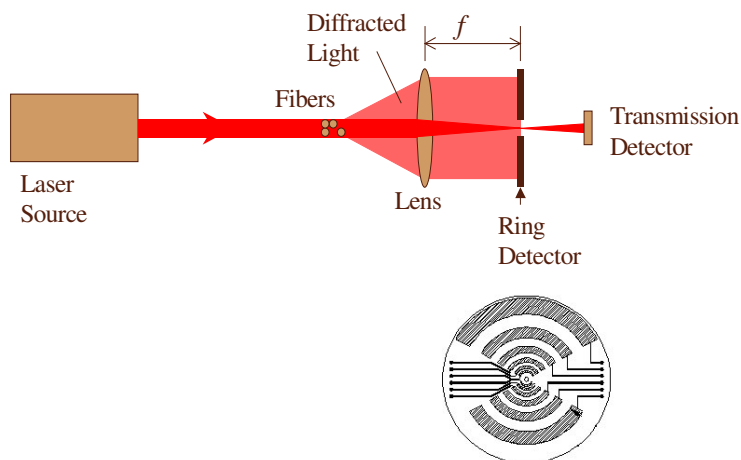
# Powerful Results

## Fibr izr™

FibrSizr™ was introduced in the marketplace by Powerscope™ in 2003 to address the need of an online real-time fiber sizing technique. Today's third generation design is easy to use and gives accurate size results with a minimum of setup time.

### How it works???

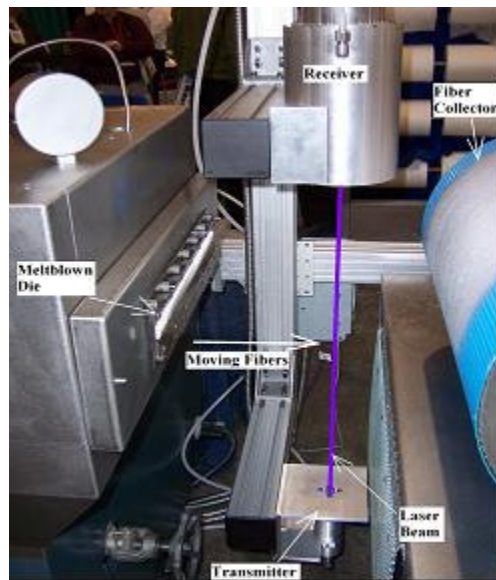
Fiber diameters are measured by the laser light they scatter. The edges of the fibers diffract light and the near-forward scattering pattern is measured as a function of angle by a ring detector. From this scattering pattern a size distribution can be calculated.



### Features

The latest version of FibrSizr has the following features which result in a robust, full-featured system:

1. Separate transmitting and receiving heads that can be custom mounted for each individual application.
2. Easy to use software and computer control via Universal Serial Bus (USB).
3. Measurable fiber diameter range of 0.5um-100um (violet) or 2um-250um (red).
4. Spatial resolution: approximately 2 mm
5. Time resolution: 100 msec - 1 hour (typically 1-30 sec)



Along with fiber diameter, FibrSizr technology can also provide useful information on the following: production of shot, fiber crystallization, fiber entanglement, and fiber solidification.

## ***Purchase, Lease, or Contract Measurements—We will work with you to help you find a solution to your Fiber Characterization needs!!***

### ***Relevant Technical Papers:***

- E. M. Moore, R. L. Shambaugh & D. V. Papavassiliou, "Ensemble Laser Diffraction for Online Measurement of Fiber Diameter Distribution During the Melt Blowing Process," International Nonwovens Journal, Summer 2004, pp. 42–47
- C. W. Fandrey and A. A. Naqwi, "Ensemble Diffraction for On- And Off-Line Sizing of Nonwoven Fibers," INTC03: International Nonwovens Technical Conference, Baltimore, Maryland, Sept. 15–18, 2003
- C. W. Fandrey and A. A. Naqwi, "A Laser Instrument for On- and Off-line Sizing of Nonwoven Fibers," 13th TANDEC International Nonwovens Conference, November 18-20, 2003, Knoxville, Tennessee
- C. W. Fandrey and A. A. Naqwi, "Recent Enhancements to Ensemble Laser Diffraction Technique for On-Line and Off-Line Sizing Of Fibers," INTC04: International Nonwovens Technical Conference, Toronto, Ontario, Sept. 20–23, 2004
- C. W. Fandrey and A. A. Naqwi, "Recent Developments and Applications of Ensemble Laser Diffraction Technology for Diagnostics of Nonwovens," 14<sup>th</sup> TANDEC International Nonwovens Conference, November 9-11, 2004, Knoxville, Tennessee
- C. W. Fandrey and A. A. Naqwi, "An Ensemble Laser Diffraction Technique for On-Line Characterization of Electrospun Fibers," INTC05: International Nonwovens Technical Conference, St. Louis, MO, Sept. 19–22, 2005
- C.W. Fandrey and A. A. Naqwi, "Online Optical Measurement of Electrospun Fibers," 15<sup>th</sup> TANDEC International Nonwovens Conference, April 18-20, 2006, Knoxville, Tennessee

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