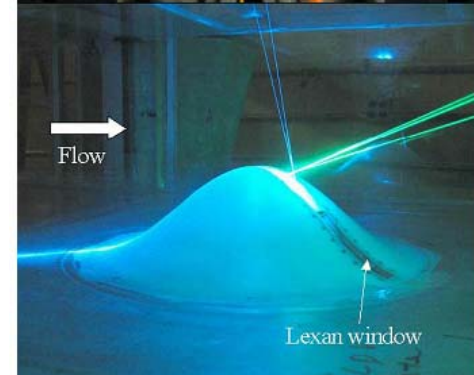
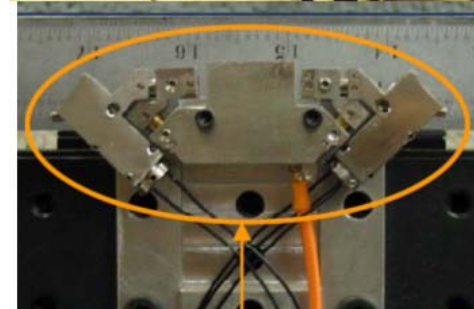
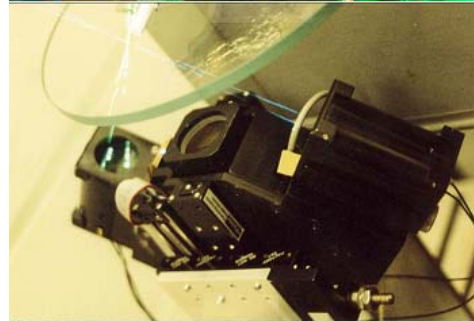
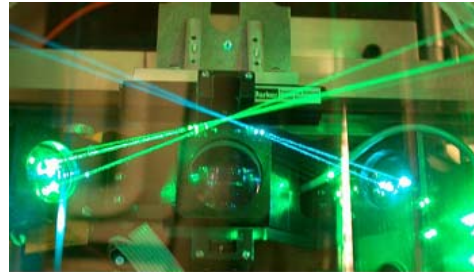


# Custom Laser Doppler Velocimeters

Drawing upon extensive experience in developing cutting-edge laser Doppler flow measurement technology, we offer customized non-intrusive flow measurement solutions for your application.

## Features

- **Guaranteed performance**
- **On-site installation and alignment**
- **17% Reduced complexity compared with conventional 3-velocity component systems**
- **Many probe sizes possible using fiber optic technologies— from sub-miniature to extended-access systems**
- **User-friendly data acquisition and processing**
- **Instrument diagnostics nearly eliminate downtime**
- **Wide range of applications**
- **Proven track record of innovation**
- **Greatly enhanced spatial resolution systems available**



(Photos from Bennington 2004, Kuhl 2001, Byun 2005; these and additional literature available upon request)



## Applied University Research

605 Preston Avenue

Blacksburg, VA 24060 USA

Ph: 540-797-0643/FAX: 540-231-9632

Email: [toddLowe@gmail.com](mailto:toddLowe@gmail.com)

---

## General Specifications

Three-component probe access lengths	Up to 600 mm
Probe configuration	Two-color fiber optic; two-beams for single-component head (488 nm) and three-beams for two-component head (514.5 nm)
Spatial resolution	Down to 30 microns
Fringe spacing	1 micron to 8 microns
Probe construction	Anodized aluminum
Transmitting fibers	Armored 4 micron diameter polarization-preserving fibers with damage-tolerant ferrules at coupling end
Receiving fiber	Multimode
Probe Optics	All achromatic lenses except in sub-miniature designs
Light detection	Photomultiplier tubes
Data Acquisition System	250 MS/s PC-controlled digitizer with industrial rack-mount PC. Optional contiguous measurement durations of 0.032 s, 0.256 s or 1.024 s.
Data Acquisition Software	LabView, we can customize to your flow needs
Signal Processing Software	LabView online processing or offline WINXP or UNIX (C++ source available)
Signal Processing Method	Frequency-domain processing using FFT

## Custom Laser Doppler Sub-systems Available

- Fiber optic probes
- Data acquisition and signal processing systems
- Laser-to-fiber optical train
- Ultra low-noise color-discriminating light detection and signal conditioning
- Seeding systems for low-speed applications
- Traverse systems

Contact us today to discuss your applications or request more information.



**Applied University Research**

605 Preston Avenue

Blacksburg, VA 24060 USA

Ph: 540-797-0643/FAX: 540-231-9632

Email: [toddLowe@gmail.com](mailto:toddLowe@gmail.com)