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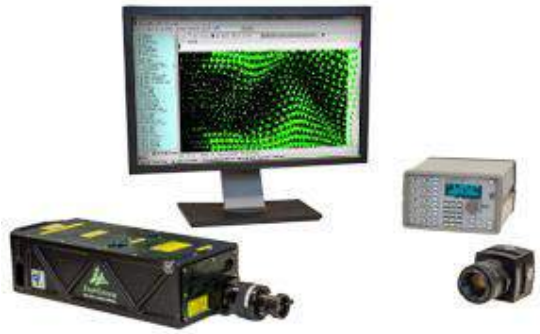
Particle Image Velocimetry (PIV)



DESCRIPTION

PIV systems measure velocity by determining particle displacement over a precisely selected time using a double-pulsed laser technique. A laser light sheet illuminates a plane in the flow, and the positions of particles (naturally present or added to the flow to have sufficient number of scatters) in that plane are recorded using a digital camera. A short time (micro or milliseconds) later, a second pulse illuminates the same plane, creating a second set of particle image velocimetry.

From these sets of images, unique micro PIV and stereo PIV analysis algorithms obtain the particle displacements for the imaged region, to give the velocity information at thousands of locations-quickly, easily, reliably. Flow properties such as vorticity and strain rates are obtained for the entire region. Mean velocity, turbulence intensity, and higher order statistics are also obtained.

Few of our PIV Systems include :
PIV System 2D Measurement
Stereo PIV System
Time Resolved PIV System

PIV SYSTEM 2D MEASUREMENT

Measures the instantaneous global velocity field in a flowing fluid.

SETREO PIV SYSTEM

Stereoscopic imaging of particles in an illuminated plane in the flow

TIME RESOLVED PIV SYSTEM

Flow measurements with very high update rates.

PIV System Global Sizing Velocimeter :
Measures droplet size and velocity simultaneously in sprays and other multiphase flows.