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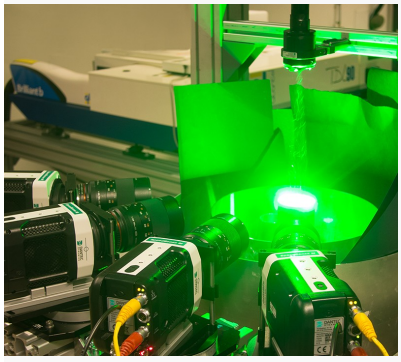
Particle Image Velocimetry

Particle Image Velocimetry (PIV) is a non-intrusive laser optical measurement technique for research and diagnostics into flow, turbulence, microfluidics, spray atomization and combustion processes. Measures two velocity components in a plane (2D2C) using a USB camera and an LED light source.

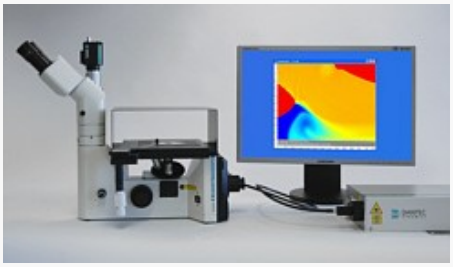
Various Types of PIV:

✔ **Stereo PIV** measures three velocity components in a plane (2D3C) using two cameras.

✔ **Time resolved PIV** benefits from the advances in CMOS camera technology to acquire high resolution PIV images at frame rates up to 25600 fps (frames per second) with full camera resolution.



✔ **Volumetric PIV** (also known as TOMO PIV) measures three velocity components in a volume (3D3C) using two, or more cameras.



✔ **Micro PIV** is used for flow studies in micro-channels in lab-on-a-Chip devices.

Features of PIV:

✶Non intrusive and non contact based system	✶Statistics, spatial correlations and other relevant data are available
✶2 - 3 velocity components with multi camera system	✶Measurement areas from smaller than 1 mm^2 up to bigger than 1 m^2
✶Snapshots of flowfields	✶Instantaneous and average velocity vector maps in a cross-section or volume of the flow
✶Velocity range from few cm/s to supersonic	
✶CDF validations e.g. Large Eddy Simulations	

Advantages of PIV:

- ♦ Hardware auto-detection interconnection diagram
- ♦ Ensemble database structure
- ♦ Distributed acquisition, storage and analysis including GPU support
- ♦ Unmatched flexibility in auto-processing – works on multiple projects
- ♦ Easy and sequential analysis with batch processing
- ♦ Easy data export formats for presentation and further processing
- ♦ Easy and reliable upgrading of system in future

PIV_V-2.0
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For more information and price please Email to marketing@josts.in

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