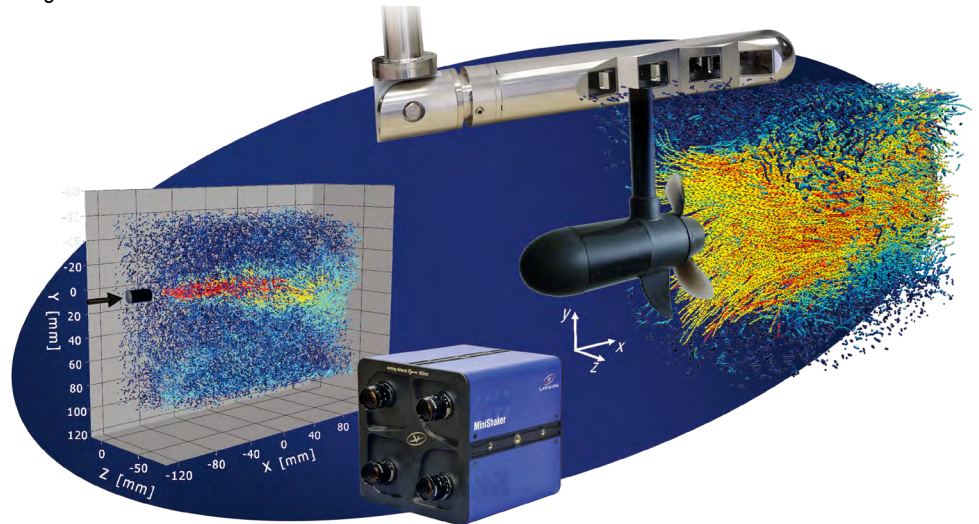


Hydrodynamic Flow Measurements

From laboratory channels to
large-scale marine facilities

With over 35 years of expertise, LaVision is a market leader in imaging measurement technology. Our advanced optical flow diagnostics enable researchers to investigate the complex dynamics of fluid flow. Combining innovative hardware with powerful algorithms, we deliver fast, accurate and high-resolution measurements.



Our mission

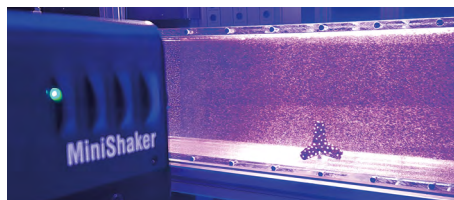
Our mission is to deliver advanced optical flow diagnostics that transform complex flow phenomena into reliable measurement data. Combining cutting-edge technology with deep application expertise, we support innovation in hydrodynamic and fluid-structure interaction (FSI) investigations.

Typical Hydrodynamic Applications

- ▶ Experimental data for ship body modelling (CFD)
- ▶ Propeller design and cavitation
- ▶ Flow field around submerged objects
- ▶ Sediment observation and analysis
- ▶ Wave tank experiments
- ▶ Tidal effects and coastal flow analysis

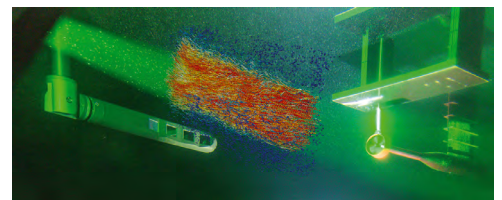
Our key solutions for hydrodynamic research

Water Channels and Flumes



The **MiniShaker**, our pre-aligned multi camera solution provides rapid volumetric flow measurements for water channels and flumes. Its compact design enables easy setup and high quality 3D flow data using advanced Shake-the-Box processing.

Towing Tanks and Marine Facilities



For demanding hydrodynamic applications, **MiniShaker Underwater** brings the measurement system directly into the flow. The integrated, watertight multi-camera system enables quick installation and easy operation in towing tank environments.

LaVisionUK Ltd

2 Minton Place / Victoria Road
Bicester, Oxon / OX26 6QB / United Kingdom
E-Mail: sales@lavision.com / www.lavisionuk.com
Phone: +44-(0)-870-997-6532 / Fax: +44-(0)-870-762-6252

LaVision GmbH

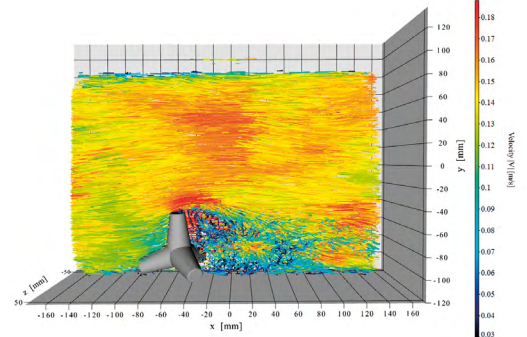
Anna-Vandenhoeck-Ring 19
37081 Göttingen / Germany
E-Mail: info@lavision.com / www.lavision.com
Tel. +49-(0)551-9004-0 / Fax +49-(0)551-9004-100

LaVision Inc.

211 W. Michigan Ave. / Suite 100
Ypsilanti, MI 48197 / USA
E-Mail: sales@lavisioninc.com / www.lavisioninc.com
Phone: (734) 485 - 0913 / Fax: (240) 465 - 4306

Technology highlights

- ▶ **MiniShaker** – Pre-aligned, out-of-the-box multi-camera system for rapid setup.
- ▶ **Flexible illumination** – Laser-based or eyesafe LED solutions for a wide range of applications.
- ▶ **DaVis software platform** – Complete integration of hardware, acquisition and advanced data processing for a seamless measurement workflow.
- ▶ **Object-aware Shake-the-Box (OA-STB)** – Advanced particle tracking for accurate and fast high-resolution volumetric measurements around complex geometries by integrating object information into the particle tracking algorithm.
- ▶ **Omni-PIV** – 360° flow measurements around objects in water channels and flumes in a single snapshot.



STB tracks around a wave breaker model in an Omni-PIV concept.

(Data generated in collaboration with Dr. Leonardo Corredor-Garcia and Dr. Tim Marjoribanks from Loughborough University Fluids Network, UK)

Beyond Flow Measurements

Many hydrodynamic applications require more than flow measurements alone. LaVision's modular measurement platform supports:

Flow Measurements (PIV/LPT): Planar and volumetric flow measurements for hydrodynamic applications.

Structural Measurements (DIC): Full-field deformation and strain measurements using non-contact Digital Image Correlation.

Fluid-Structure Interaction (FSI): Combined PIV and DIC measurements for simultaneous analysis of flow and structural response.

*All measurement techniques are supported within the DaVis software platform and can, in many applications, be performed using **the same integrated hardware**, providing a modular solution for flow, deformation, and coupled fluid-structure measurements.*

Contract work

From one-off diagnostic campaigns to long-term cooperation, we help you plan, execute and interpret tests tailored to your research challenge.

Why work with LaVision?

- ▶ Proven global partner in imaging measurement technology across aerospace, energy and advanced research.
- ▶ Comprehensive portfolio of optical measurement solutions and services for flow, combustion, sprays and structural testing.
- ▶ Strong track record in supporting challenging R&D and test programs with tailored diagnostics and expert support.

Interested?

Data provided by LaVision are believed to be true. However, no responsibility is assumed for possible inaccuracies or omissions. All data are subject to change without notice.

Aug-26

LaVisionUK Ltd

2 Minton Place / Victoria Road
Bicester, Oxon / OX26 6QB / United Kingdom
E-Mail: sales@lvision.com / www.lvisionuk.com
Phone: +44-(0)-870-997-6532 / Fax: +44-(0)-870-762-6252

LaVision GmbH

Anna-Vandenhoeck-Ring 19
37081 Göttingen / Germany
E-Mail: info@lvision.com / www.lvision.com
Tel. +49-(0)551-9004-0 / Fax +49-(0)551-9004-100

LaVision Inc.

211 W. Michigan Ave. / Suite 100
Ypsilanti, MI 48197 / USA
E-Mail: sales@lvisioninc.com / www.lvisioninc.com
Phone: (734) 485 - 0913 / Fax: (240) 465 - 4306