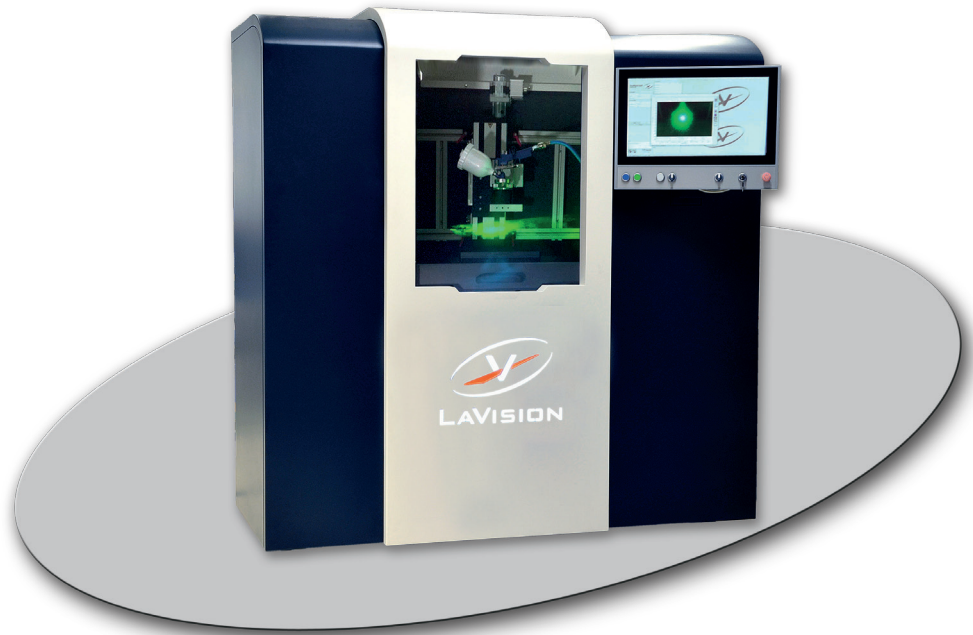


Spray and Droplet Inspection

LaVision's **SprayMaster inspex** systems measure spray pattern and spray plume geometries of spray and aerosol generating devices. The light sheet-based imaging systems use eye-safe LED lamps for illumination or lasers in case of very fast pulsed sprays.



Laboratory testing and quality control

The **SprayMaster inspex** laboratory test chamber is designed for operator-based quality testing of samples and production prototypes. The **SprayMaster inspex** software generates in real-time process relevant data from the spray image and applies quality criteria for spray acceptance.

- ▶ contactless light sheet intersection of the spray plume
- ▶ plume and pattern geometry and dimensions
- ▶ angle, size, orientation, homogeneity, circularity, and more
- ▶ validation against reference patterns and tolerances

System features

The versatile design allows quickly switching between different spray nozzles and spray directions. The software-controlled traverse scans the spray cone at variable height.

- ▶ spray pattern sizes up to 300 x 300 mm
- ▶ flexible mechanical mounting
- ▶ optional motorized traverse for measurements at different spray positions
- ▶ internal air flow to remove spray mist
- ▶ self-contained design, including space for customer's spray supply
- ▶ safe operation, LED or laser
- ▶ quality control spray software for recipe-based testing
- ▶ pdf-report generation

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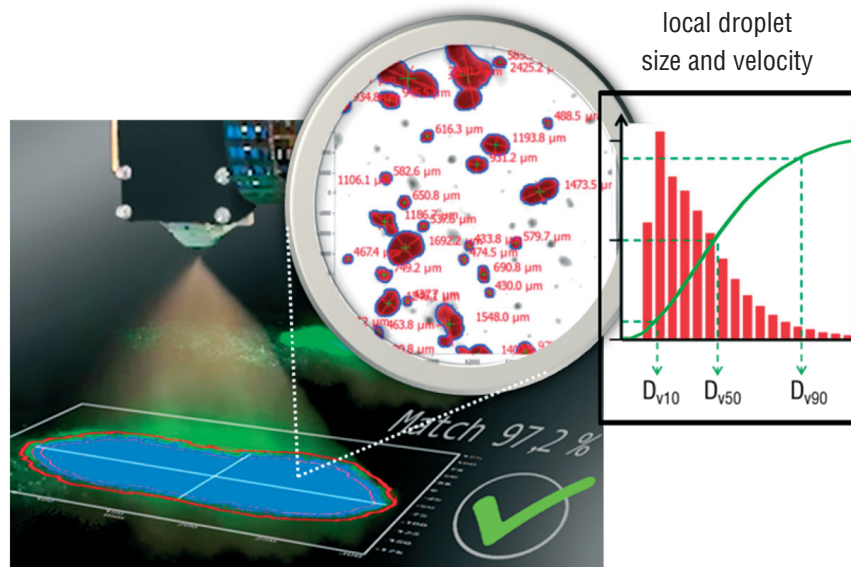
Combining spray and droplet
characterization

Droplet size and velocity

Global spray imaging on a light sheet can be combined with local droplet size and velocity measurements at a predefined location within the light sheet. Such a combined spray pattern and spray droplet imaging system for a comprehensive spray nozzle test is shown as an example of a highly integrated spray imaging solution.

LaVision's **ParticleMaster inspex** system is especially designed for quality control applications in industrial environments. It serves as a highly integrated laboratory and testing tool for the measurement of size, shape and velocity of spray droplets, particles and grains.

The **ParticleMaster inspex** combines the advantages of high-magnification shadow imaging with an easy-to-use design. When particle properties are important process parameters and have to be monitored in real time or inline, our **ParticleMaster inspex** shadow systems are the right choice.



global spray patternation

local droplet
size and velocity

The **ParticleMaster inspex** is the perfect supplement for detailed spray characterization, and can be included in the **SprayMaster inspex** test chamber.

In-line testing

Both, the **SprayMaster inspex** and the **ParticleMaster inspex** systems are available as models for in-line production monitoring. Supporting common interfaces, such as Modbus, TCP/IP or direct 24 V I/O, allows a seamless integration into production environment for 24/7 automatic quality control.

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.

May-20

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