

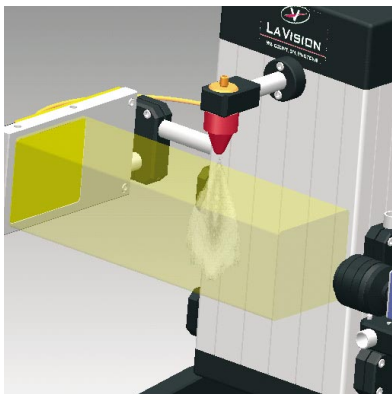
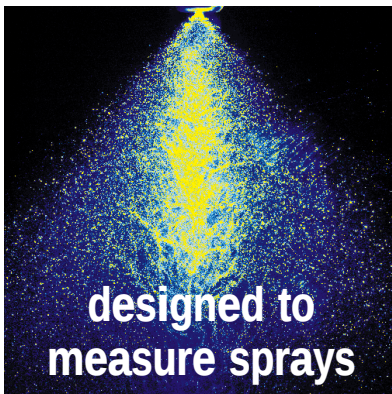


LAVISION

WE COUNT ON PHOTONS

SprayMaster inspex

optical spray inspection
for industrial applications



backlight **inspex**
configuration

Advanced spray vision system for online and in-situ spray inspection. The modular system design allows light sheet illumination as well as backlight or bright field configurations. Quantitative spray imaging is performed with high spatial and temporal resolution to obtain online information on:

- ▶ **geometrical spray analysis, patterning**
(spray symmetry, spray angle, tip penetration, statistics)
- ▶ **spray density distribution**
- ▶ **global spray characterization**
- ▶ high resolution imaging of single droplets (**upgrade option**)



light sheet **inspex**
configuration

features

- ▶ ultra compact, high performance CCD imaging system
- ▶ image recording up to 40Hz
- ▶ interchangeable light source module (pulsed or cw)
- ▶ time resolved or time integrated spray data
- ▶ interchangeable front-end illumination optics
- ▶ flexible fiber optic light transmission
- ▶ remote system control
- ▶ light sheet and image correction, intensity calibration
- ▶ 3-dimensional spray imaging using light sheet scanning
- ▶ customized test protocols
- ▶ user-friendly (non-expert) operation system
- ▶ high degree of mounting flexibility
- ▶ robust design

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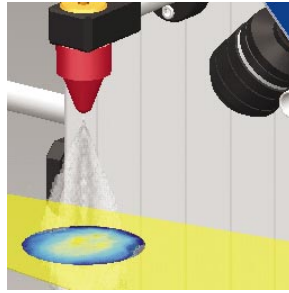
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light sheet **inspex**
configuration

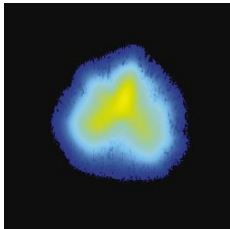
focus on industrial spray inspection

SprayMaster inspeX meets the spray industry's demands for increasingly finer control over the quality of manufactured parts. Optical spray inspection allows quality standards that far surpass the precision of older technologies.

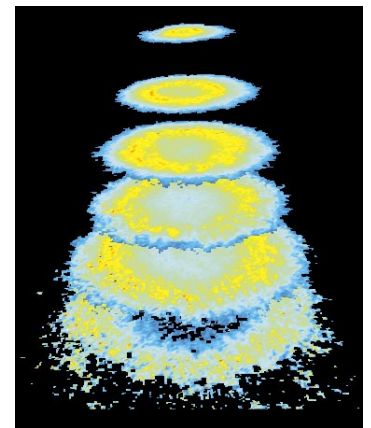
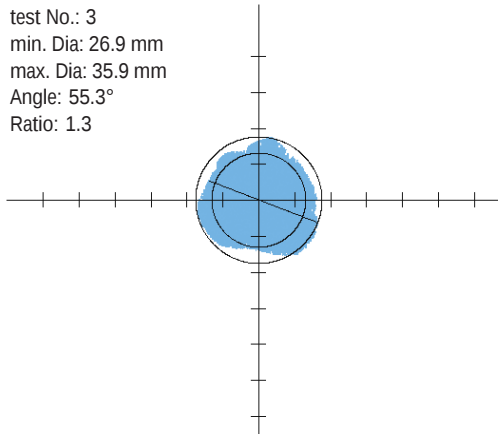
SprayMaster inspeX is a robust, flexible and compact optical spray inspection system which can be integrated into industrial process lines. Due to its fiber optic illuminators, ultra compact remote camera head and mounting flexibility **SprayMaster inspeX** can even be used under tight space constraints and challenging working conditions.

operating principles

Mie scattering is applied using light sheets illuminating the spray at user-defined locations. Diffuse lighting is used for shadow (backlight) or bright field techniques. Spray images are converted online into meaningful spray test data. Spray structures and their fluctuations in space and time are recorded. The temporal evolution of the spray formation as well as time integrated data can be measured. Light sheet scanning methods can be applied for 3-dimensional measurements.



test No.: 3
min. Dia: 26.9 mm
max. Dia: 35.9 mm
Angle: 55.3°
Ratio: 1.3



key system elements

The system consists of a pulsed or cw light source fiber optically coupled with the appropriate front-end light projection module, an ultra compact, high performance CCD camera system, imaging optics with filters, PC with interface cards and the **SprayMaster** image acquisition, data processing and visualization software.

customized solutions

Customized system designs are offered for application-specific measurements.