

Online particle data monitoring for cold spray and high velocity flame spray



Robot mountable sensor offering gapless particle
data from your spray process

- Detect issues with spray system immediately
- Avoid needless offline time and scrap
- Avoid quality exceptions
- Monitor the condition of your equipment

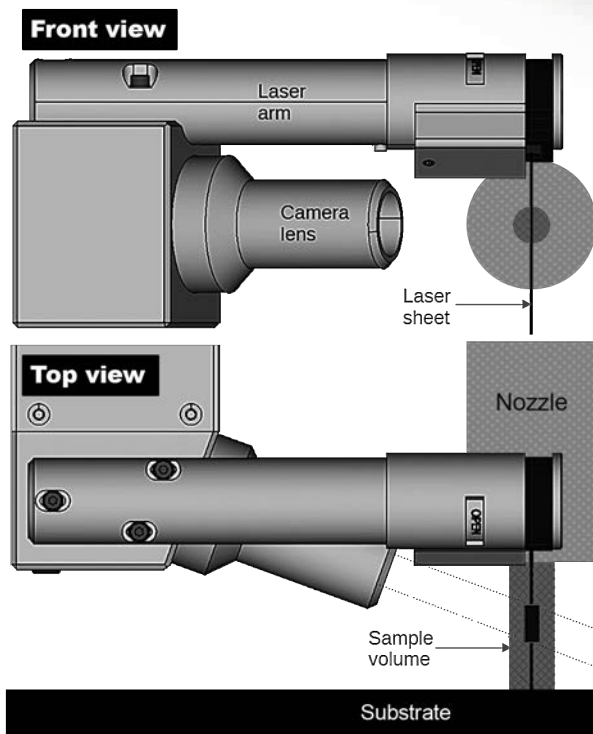
*Know the state
of your spray process
anytime*

HiWatch

oseir.com/hiwatch-cs-q

HiWatch

HiWatch CS-Q is designed for mounting to your industrial robot, at the side of the spray gun. The measurement volume is approximately at 15-20mm from the nozzle exit, depending on the nozzle diameter near the exit plane. The lightweight sensor can stay operational under complex robot movement patterns and deliver accurate results even during long duration additive manufacturing processes.



System features	
Measurements	Particle velocity, position, diameter
Measurement area	~ 8x6 mm ²
Measurement depth	~ 0,5 mm
Particle velocity range	0-2000 m/s
Particle diameter range	5-1000 µm
Capture speed	max 30 fps
Camera resolution	1440 x 1080
Dimensions (WxHxD)	60 x 80 x 270 mm
Weight	1.5 kg
Laser wavelength	~ 800 nm
Laser safety	IEC Class 3B
Cooling	Filtered compressed air

NOTE: values indicated are typical but not absolute. The range may depend on the process and application.

All measurements are factory calibrated, no need for field calibration.

OPTIONAL: remote data collection, level alerts and sensor control (OPC UA interface).

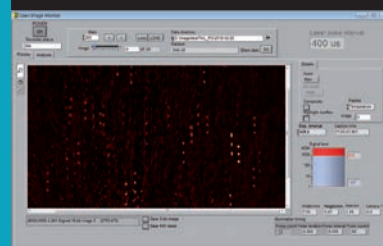


Oseir Ltd.
Hermiankatu 12 D
33720 Tampere
Finland

Tel. +358 40 773 6311
info@oseir.com
https://oseir.com

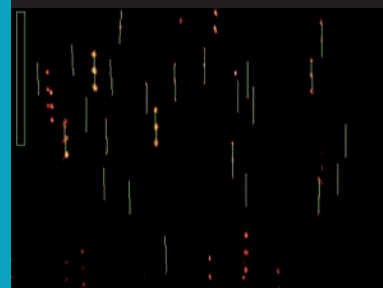


Informative user interface



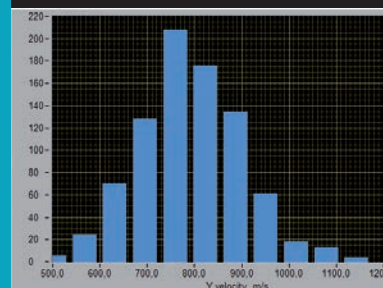
Measured parameters are: particle speed, size, position in the plume, total number of particles in the sample and plume density.

Particle tracking velocimetry



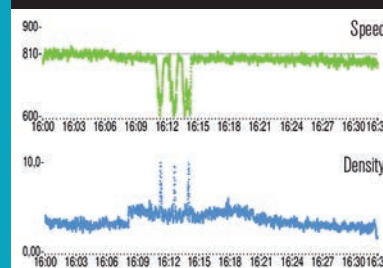
Automatic particle detection and analysis either in real time or post processing from stored images.

Property distributions



Distribution of particle speed, plume density and particle size.

Long term monitoring



Stream and store particle averages to files for later review, or over network (with remote control option).



Class 3B Laser Product
WARNING - LASER RADIATION
AVOID EXPOSURE TO BEAM