

# Fast and accurate cold particle data to maximize your results



Fast data collection and analysis for cold spray and similar processes:

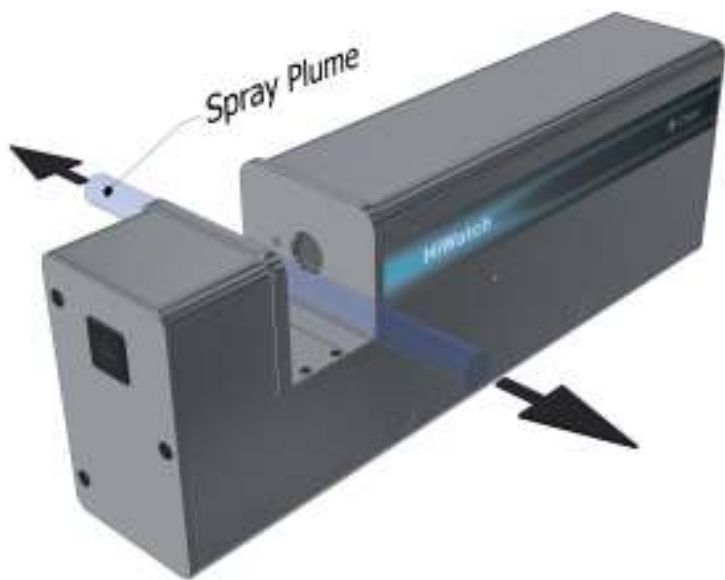
- Optimize coating performance & deposition efficiency
- Offering best control of coating thickness per pass
- Minimizing use of materials and resources and waste to save cost and the environment
- Maximizing your profitability

**HiWatch**

[oseir.com/hiwatch-hr2](http://oseir.com/hiwatch-hr2)

*Best choice for highest  
accuracy in research &  
development*

# HiWatch



Using a uniform laser backlight opposite to the camera allows for the best particle size measurement down to 5  $\mu\text{m}$  in cold spray without sacrificing particle velocity measurement accuracy. All the necessary equipment is built into a single package, which can be mounted either vertically or horizontally on a suitable table, shelf or such for easy working.

## System features

Measurements	Particle velocity, position, diameter
Measurement area	~ 8x6 mm <sup>2</sup>
Measurement depth	~ 400 $\mu\text{m}$
Particle velocity range	0-2000 m/s
Particle diameter range	5-1000 $\mu\text{m}$
Capture speed	> 10 fps
Camera resolution	4000 x 3000
Dimensions (WxHxD)	100 x 165 x 500 mm
Weight	8,5 kg
Control PC	Win10 Pro, Core i5, 8GB, USB3.1
Laser wavelength	~800 nm
Laser safety	IEC Class 3R
Cooling	Filtered compressed air

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

All measurements are factory calibrated no need for field calibration.

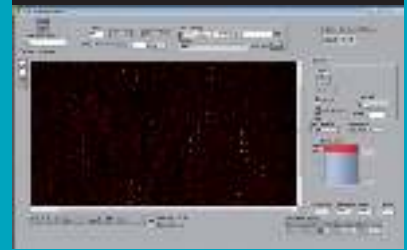


Oseir Ltd.  
Ahertajankatu 17  
33720 Tampere  
Finland

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



## Informative user interface



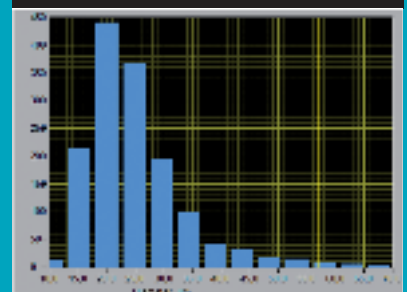
Measured parameters are: particle speed, size, position in the plume, total number of particles in the sample and plume density.

## Particle tracking velocimetry



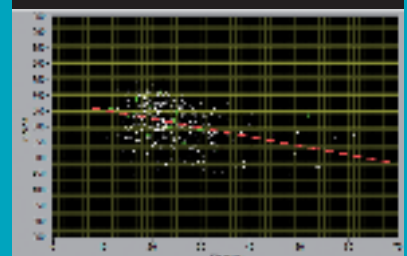
Automatic particle detection and analysis either in real time or post processing from stored images.

## Property distributions



Distribution of particle speed, position in the plume and particle size.

## Property crossplots



Model fitting between any two measured parameters.