



accuraspray CS

**Great coatings
every run**
Cold spray
sensor

tecnar

Innovate to differentiate.



Production-friendly cold spray sensor

Our goal is to help you achieve high-quality, consistent coatings with every run. To ensure this, spray conditions must be optimal at all times. That is exactly why we created the Accuraspray CS, a precise, reliable, easy-to-use, and affordable sensor.



Work with the industry leader

Tecnar is a global leader in delivering cutting-edge spray sensors to the shop floor. With over 1,000 sensor heads in operation daily across more than 25 countries, we are committed to driving innovation in the industry. From the start, we have invested heavily in R&D and in understanding our clients' needs. This dedication ensures our spray sensors consistently deliver the best performance for our customers.

Why use our spray sensor?

Powder lot validation

Process IP archiving

Optimized gun maintenance

Reduced coupon usage

Reduced powder waste

Minimized downtime

Less operator dependency

Instant go/no-go tool

Proactive problem resolution

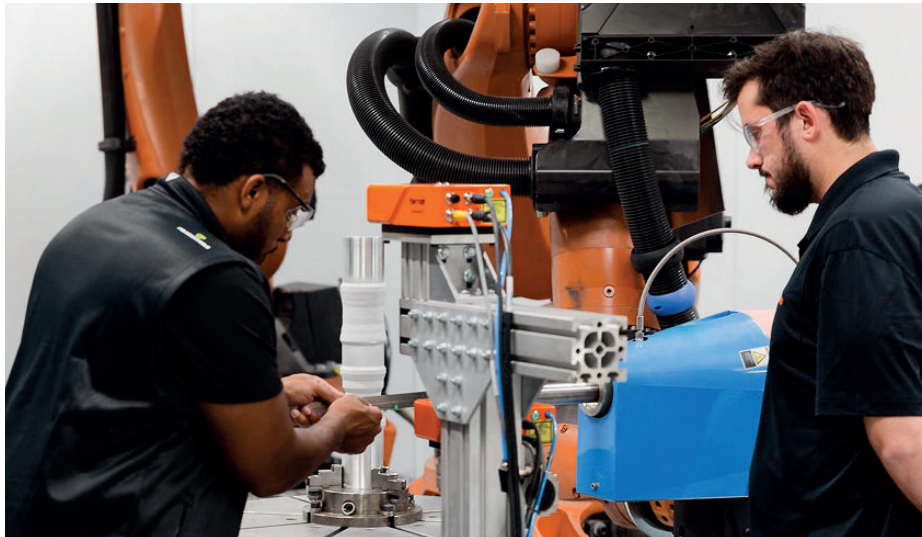
Effortless process optimization

Quick booth qualification

Efficient process development

Industry-leading accuracy

Accuraspray's measurement principle is process-independent, ensuring reliable readings. Advanced filtering algorithms certify accuracy, while factory calibration on NIST-traceable stations guarantees precise metrics for real-world conditions.



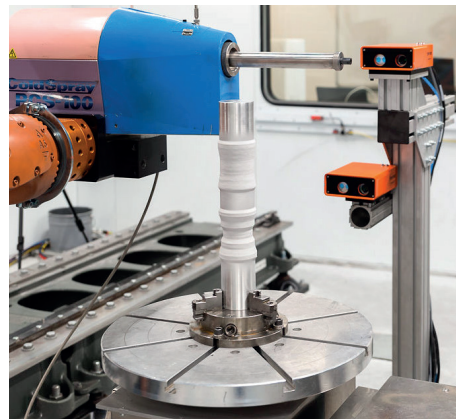
@Polycontrols

Expert support, every step of the way

Our dedicated team provides reliable, proactive solutions to keep your operations running smoothly. With deep expertise and a customer-first approach, we offer transparent service, detailed documentation, free upgrades and preventive support to minimize downtime and maximize performance.

Absolute repeatability

For this new generation of the product, we envisioned that the Accuraspray would spread the use of sensors for process parameters transfer, parameter development and process consistency to each and every booth in the world. We believe that building trust in the product's consistency is the key to democratizing the use of sensors.



Industry 4.0 ready

The Accuraspray CS provides a web-based interface for easy access from any computer, allowing for full 4.0 booth integration via HTTP or external PLC.

Install and set-up yourself

We deliver the unit with detailed documentation for installation and set-up, plus a free remote training session. When it arrives, you will be fully capable of installing and using the equipment.

Build your intellectual property on what really counts



Relative feed rate



Process stability



In-flight particle velocity



Substrate temperature (optional)

Technical specifications

Measurements

| | |
|---------------------------------|---|
| Particle velocity range | 5-1200 m/s (15-4000 ft/s) at 2% accuracy |
| Relative feed rate | Normalized a.u. |
| Substrate temperature pyrometer | 0-500°C (32-932°F) |
| Process stability | Automatic instability detection |

Measurement area information

| | |
|------------------|--|
| Measurement area | Ø3.4 mm = 9 mm ² (Ø0.13 in. = 0.014 in. ²) |
| Working distance | 200 mm (7.87 in.) |

Laser characteristics

| | |
|-----------------------|------------------------|
| Laser wavelength | 940 nm |
| Nominal laser power | 20 W |
| Nominal power density | 15.7 W/cm ² |
| Laser type | Class IV |

Plant supplies

| | |
|-------------------------|--|
| Electrical requirements | 120/230 VAC, Auto-Switch 50/60Hz 3/2A |
| Air supply | 2.4 bar (35 psi) |
| Positioning bracket | Refer to mechanical drawing in manual |

Dimensions and weight

| | |
|--------------|--|
| Sensor head | 205 mm x 149 mm x 62 mm (8.1 in. x 5.8 in. x 2.4 in.) 3.2 kg (7.1 lb) |
| Controller | 400 mm x 400 mm x 200 mm (15.7 in. x 15.7 in. x 7.9 in.) 13.9 kg (28.7 lb) |
| HMI | 238 mm x 110 mm x 126 mm (9.4 in. x 4.3 in. x 5 in.) 1.8 kg (4 lb) |
| Total weight | 18.9 kg (41.7 lb) |

User interface



Keep your process within its window of tolerance

Simplify the operator's daily tasks by offering a straightforward indication of the spray condition.

This is achieved through a colour-coded system:

- Spray conditions nominal
- Preventive maintenance required
- Spray conditions out of range

earlier insight changes everything

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Learn more
about the
Accuraspray CS



“At PolyCSAM, we use the *Accuraspray CS* for monitoring the in-flight particle’s velocity within our Cold Spray Additive Manufacturing process. The sensor has helped us identify changes in the CSAM system, as reflected by particle velocities. The *Accuraspray CS* is very sensitive to changes in the velocity of particles, which has a direct impact on the resultant coating/build-up. In our facility, it’s a great addition for process monitoring and quality control.”

Fernanda Caio, Operations Manager
PolyCSAM