

Sensor Monitoring

*From Composite Excellence
to Smart Intelligence*



Load / Web tension



Temperature
(surface & bearings)



Rotational speed (RPM)
& lifetime revolutions



Vibration & Acoustic
Emission Detection (AED)



Deflection / Bending



From Composite Excellence to Smart Intelligence

What Is Smart CFRP Roller

Beyond **lightweight** and **stiffness**, **Smart Rollers** bring intelligence into production lines. **Integrated sensors** and **data acquisition systems** transform each roller into a **digital asset**, enabling **monitoring**, predictive **maintenance**, and process **optimization**.

Measurement Capabilities (Indicatively)

- Load / Web tension
- Temperature (surface & bearings)
- Rotational speed (RPM) & lifetime revolutions
- Vibration & Acoustic Emission Detection (AED)
- Deflection / Bending

Key Benefits

- **Asset Management Ready:** Rollers can be integrated into systems like JAMES.
- **Process Optimization:** Data-driven control for films, foils, textiles, paper.
- **Predictive Maintenance:** Minimized downtime and service costs.
- **Customization:** Choose what you want to measure – we engineer it together.
- **Shape Reconstruction.**
- **Single or multi-point monitoring along the roller.**

Let's Engineer it together!

Smart CFRP Roller

Turning Rollers into
Digital Assets