

MiniFlex XpC

Compact, powerful, automation-ready
X-ray diffraction solution for industrial quality & process control



MiniFlex XpC – Xpress Connect is a compact, automation-ready X-ray diffractometer designed specifically for industrial process control. It delivers lab-grade performance directly on the production floor, combining speed, precision, and ease of use in a scalable and cost-efficient platform.

Key features:

- **Right-sized for process control:** Optimized for high-performance-to-cost ratio in industrial environments. Compact footprint (approx. 1 m²) with minimal infrastructure requirements
- **Accurate and reliable results in minutes:** High angular resolution comparable to high-end diffractometers, using a high-speed 1D detector with a large detection area
- **Energy efficient 800 W X-ray source:** Reduces power consumption by approximately 40%
- **High-throughput and automation:** Features a robotic 24 position sample changer or full compatibility with conveyor belt integration
- **Easy to use:** EasyX software enables 3-click measurement, automated reporting and pass/fail QC
- **Robust industrial design:** Fully enclosed, low maintenance components designed for continuous operation
- **Worry-free operation:** Rugged construction for harsh industrial environments, plug and play installation, and optional on-demand XRD expert support for method development

Typical applications:

- **Cement:** High-throughput phase quantification for process control
- **Mining:** Mineral identification, quantification and impurity analysis
- **Battery materials:** Crystalline phase monitoring of cathode and anode materials
- **Metals & alloys:** Oxidation and polymorph analysis

Core specifications:

- **X-ray generator:** 800 W, Cu tube, 20-40 kV.
- **Detector:** D/teX Ultra250, 384 mm² sensor.
- **Goniometer:** θ - θ horizontal, 150 mm radius
- **Sample holders:** Industrial-sized sample holders (51.5 mm and 40 mm), air-tight options, and multiple specialty holders including zero background and glass holders



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[Application notes](#)