FCT ACTech

REAL TIME MINERAL ANALYSIS IS HERE

Introducing the Next-Gen X-Series **CMX$_\alpha$** Continuous on-stream Mineral Analyzer for dry powder material

INCORPORATED SAMPLE PREPARATION ROBOTICS

OVER 500 TIMES MORE MATERIAL ANALYZED PER HOUR. ULTRA HIGH ACCURACY AND REPEATABILITY

REAL TIME MONITORING FOR TIGHTER PROCESS CONTROL

CONTINUOUS REAL TIME MINERALOGICAL ANALYSIS. MADE. EASY.

Increase your recovery yield and optimize environmental control with the power of the X-Series CMX$_\alpha$ Continuous Mineralogical Analyzer, designed to deliver unparalleled levels of analysis of all major minerals of interest for process control.

CMX$_\alpha$ is an on-line x-ray diffraction analyzer, which reports the quantitative composition of selected crystalline phases in the material continuously passing through the instrument. Results are reported in real-time as a moving trend to the plant control room for manual action or may be integrated into the plant control system for automatic correction.

Monitor your feed, intermediate streams and tailings directly*. Continuously. Always. The ruggedized CMX$_\alpha$ machine brings certainty to your production rates and product quality.

CMX$_\alpha$ uses an array of state-of-the-art, proprietary Nova SxD silicon strip detectors, specifically developed by FCT ACTech to enable the system to operate in a fixed-geometry pattern, replacing the need for a moving goniometer.

The incoming x-rays are diffracted from the anayzed sample at 2θ angles and the sensors are pre-positioned to intercept and measure only the minerals of interest (application specific). This results in increased reliability and uptime of the analysis apparatus and minimum MTBF.

The CMXα provides a direct means of monitoring the mineralogial and crystalline components of dry powder materials, in real time for true process control.

Seamlessly integrates sample preparation robotics, ultra fast detection and analysis into one accurate automated process.

The CMX$_\alpha$ is first and foremost a performance control tool, enabling operators to continuously adjust their feeders or reagents dosing systems. The CMX$_\alpha$ is designed to reduce process variability by increasing and improving control.

*For slurry applications, the optional DRX continuous in line drier is required.

Features & Benefits

- Ultra fast, continuous on-stream or "fast batch" analyzer delivers real time mineralogial results of target minerals
- Intuitive and easy to use
- Designed for indoor or outdoor continuous online or at-line operation
- In-built, automatic precision robotics replaces the need for a separate pulverizer and pellet press
- Large processed sample quality 150g/min (¼lb) generates results that are far more representative of the process than any other available methods
- No radiation sources, uses a high efficiency x-ray tube which can be easily turned off for safe planned maintenance and checks
- Rapid analysis with continuous trending and control compared to any conventional sampling and laboratory testing
- Unique patented sample delivery system delivers outstanding accuracy and repeatability
- Designed for remote unattended operation, 24/7/365
- Array of proprietary state-of-the-art, high resolution solid state detectors (application specific), positioned in a fixed pattern to detect minerals of interest for accurate, high-speed XRD analysis
- Ultra efficient x-ray system decreases power consumption and heat generation
- Industrial grade HD touchscreen computer interface for easy operation, diagnostics and control
- Integrated Modbus over ethernet protocol for fast and easy data transfer
- Modular system allows for multiple, ultra-fast batch analysis or continuous at-line configurations
- Optional ruggedization module for outdoor configuration
- Powered by ClassX proprietary software incorporating smart GUI, Rietveld quantitative analysis, fundamental parameters, diagnostics, advanced analysis, and control

CMX$_\alpha$ Specifications

Dimensions
1200 x 900 x 750mm (47 x 35 x 30 inches)

Weight
180kg (400lb)

Electrical specifications
110/240 VAC 50 or 60Hz, 900W, 1 Phase

- Optional HE DRX in line drier system (for slurry applictions)

Why FCT ACTech?

For almost 20 years, FCT ACTech has been in the business of engineering tools for better process control.

With our new X-series online and fast batch analyzers, we have introduced advanced levels of precision and accuracy to process, recovery and control matching or bettering any classic standard "laboratory" instrument.

The CMX$_\alpha$ is the most advanced mineral analyzer in the X family of products, incorporating XRD technologies and sample preparation robotics, to deliver unparalleled levels of analysis for all major minerals of interest for process control.

When you purchase an FCT ACTech product, you get local support backed by a global network of professionals with intimate industry knowledge.

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