Introducing the Next-Gen X-Series CMXγ Continuous on-stream Mineral Analyzer for cement blends and other dry powder materials

REAL TIME MINERAL ANALYSIS IS HERE

INCORPORATED SAMPLE PREPARATION ROBOTICS

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

REAL TIME MONITORING FOR TIGHTER PROCESS CONTROL
Introducing the X-Series CMX\(\gamma\): the world’s most advanced on-line continuous x-ray diffraction analyzer which reports the quantitative composition of selected crystalline phases in a material.

The results are reported in real time for use in the control room for automatic correction of feeders or other dosing equipment.

The CMX\(\gamma\) is designed for measuring and reporting gypsum, lime, alumina, magnesia, iron oxide and sulphur trioxide, as well as pozzolan or fly-ash additions, for unparalleled cement blends quality control.

CMX\(\gamma\) 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 analyzed sample at 2\(\theta\) 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.

Similar to its predecessor, the CMX\(\gamma\) provides a direct means of monitoring the mineralogical 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\(\gamma\) is first and foremost a performance and quality assurance tool, enabling plants to automatically adjust feeders to maximize gypsum and limestone additions while ensuring consistent cement blend recipes.

The CMX\(\gamma\) is designed to reduce process variability by increasing and improving control.
Features & Benefits

• Ultra fast, continuous on-stream or "fast batch" analyzer delivers complete, real time mineralogical results of target minerals
• Intuitive and easy to use
• Designed for indoor or outdoor continuous online or at-line operation
• In-built, automatic precision sample preparation robotics replace the need for a separate pulverizer and pellet press
• Large processed sample quality 150g/min (¼lb) generates results that are 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 other 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
• Self-referencing internal calibration minimizes drift and increases accuracy
• Array of proprietary, state-of-the-art, high resolution solid state detectors displayed in a fixed pattern to detect all minerals in cement blends 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 batch analysis or at-line configurations
• Powered by ClassX proprietary software incorporating smart GUI, Rietveld quantitative software, diagnostics, advanced analysis, and control

CMX Specifications

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

Weight
180kg (400lbs)

Electrical specifications
110/240 VAC 50 or 60 Hz, 900W, 1 Phase
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 CMXγ 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 cement blends control.

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