



A BETTER SOLUTION FOR RAW MIX PROPORTIONING

Introducing the
X-Series **RMX** Raw Meal Analyzer



LOWER COST FOR INSTRUMENT,
INSTALLATION AND ANALYSIS

LOCATED AFTER THE MILL, ALL
KILN FEED STREAMS ANALYZED

NO RADIOISOTOPES, SAFETY
WITH LOWER OPERATING COSTS

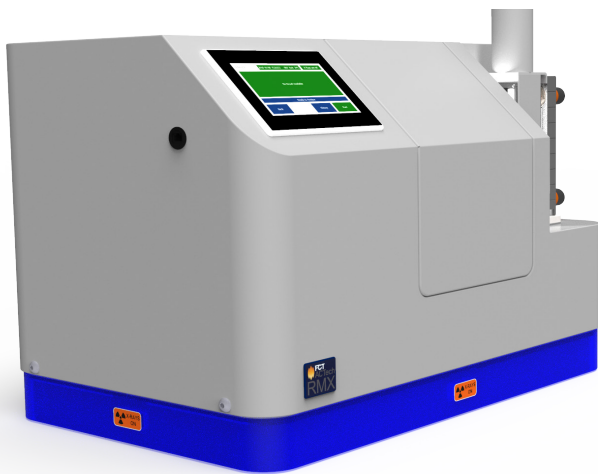
THE INNOVATIVE X-SERIES RMX ELEMENTAL ANALYZER FOR RAW MIX CONTROL

Improve kiln feed uniformity with the new RMX analyzer.

The RMX directly measures the elements Ca, Si, Al, Fe (S & Mg optional) and calculates the hypothetical compounds LSF, C_3S , C_2S , C_3A , C_4AF . The information is transmitted to the control room 20 times per hour for use with any raw mix proportioning system to reduce variation.

Similar to the other X-Series analyzers, the RMX incorporates a state-of-the-art integrated sample preparation robotics and presentation system.

A large sample size of 150g/min ($\frac{1}{3}$ pound per minute) ensures the result is highly representative and accurate for better process control, while reducing many of the errors associated with small sample sizes.



Raw meal is fed directly into the top of the analyzer for a continuous analysis.

The RMX analyzer sets a new benchmark in raw mix proportioning and control.

The RMX is designed to be located after the raw mill in the plant, close to an airstride where it continuously measures raw meal chemistry. The unique post mill installation position offers clear operational advantages:

- **Compact and adaptable:** With its small footprint and simple installation after the mill, the RMX provides timely, valuable raw mix data for process control in circumstances where other analyzers cannot due to limited space.
- **More representative analysis equals better raw mix control:** Post mill analysis can be more representative and offer more complete information than pre mill installations. With the RMX, the LSF and C_3S calculation can take into account kiln carryover dust or recirculating raw mill material that cannot be seen before the mill.
- **Bias-free material presentation:** Material analyzed after the mill is free from analytical bias caused by variation in belt chemistry, material layers, asymmetrical loading, variation in material mass, level or change in density.



Features & Benefits

- **Ultra fast analysis.** Analyzes the complete raw meal chemistry providing 20 elemental updates every hour. Directly measures Ca, Si, Al & Fe (additionally S and Mg is optional).
- **Installed in a better location.** Analysis after the raw mill can be more representative than pre-mill as LSF and C₃S control can account for kiln carryover dust or recirculating raw mill material.
- **Accurate and highly representative.** State-of-the-art x-ray based analytical module combined with a unique patented sample delivery system for continuous and reliable analysis of the entire sample stream.
- **Safety.** Sophisticated x-ray technology offers highly accurate results, avoiding the hazards and costs associated with radioisotopes and licensing requirements for other online analysis instruments.
- **Low installation and operational cost.** Simple, compact and lightweight requiring minimal installation and short commissioning time. Ultra-energy efficient x-ray system with long life x-ray tube reduces heat and power costs.
- **Stable, accurate calibration.** Highly reliable calibration utilizes an internal reference. X-ray output is constant throughout the life of the tube, providing constant analytical precision.
- **Bias and drift free operation.** The RMX includes a built-in transfer point and homogenizer that ensures representative analysis of all raw meal feed. Post-mill installation position removes analytical bias caused by variation in belt chemistry, material layers, asymmetrical loading, variation in material mass, level, or changing density.
- **Easy maintenance and diagnostics.** Low maintenance cost, reflecting design simplicity and extreme reliability. The RMX comes equipped with an industrial grade touchscreen computer interface for local diagnostics, operation and control.
- **Smooth integration.** Communicates directly to any 3rd party proportioning software or the plant raw mix control systems via Modbus TCP/IP.
- **RMX installation (optional).** Uses a matching, reliably engineered system to extract, analyze and return the sample to the process.

RMX Specifications

Dimensions

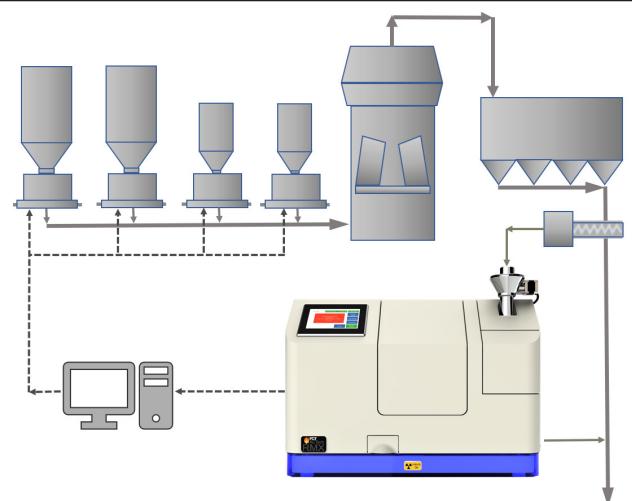
760 x 470 x 525mm (30 x 19 x 21 inches)

Weight

80kg (175lb)

Electrical specifications

110/220 VAC 50 or 60Hz, 750W, 1 Phase



Plant layout diagram showing RMX integration.





Why FCT ACTech?

For almost 20 years, FCT ACTech has been in the business of engineering tools for better process control. Our most recent breakthrough product is the ultra fast FLX free lime analyzer for improved kiln control which has proven to be extremely effective controlling clinker quality. The RMX raw meal analyzer is part of the "X" family of analyzers providing a big step forward for raw meal quality control.

Customers are fully supported by process engineers who have extensive cement industry experience. We design and manufacture the instrumentation that we know would have made profound improvements to the operations of the plants we once worked in.

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

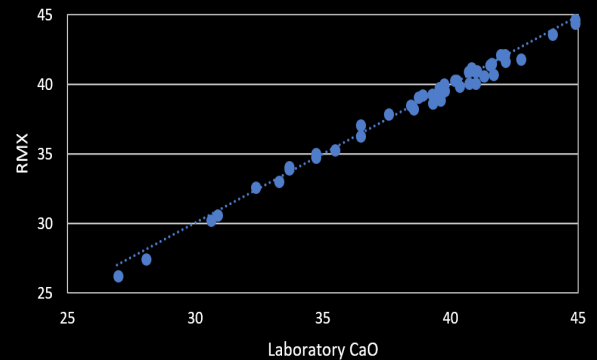
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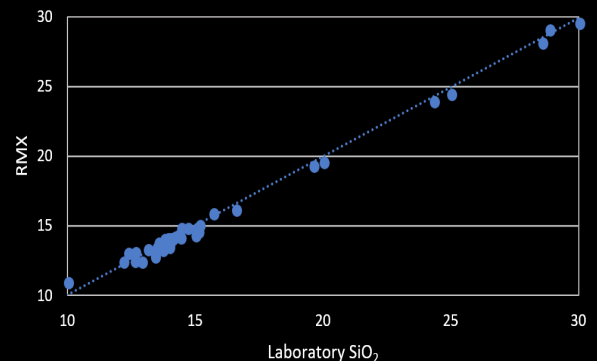
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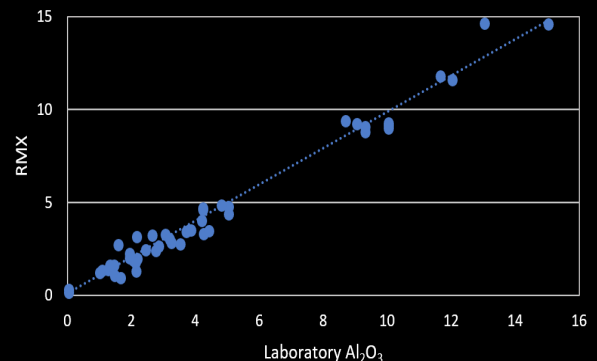
Calcium Oxide (CaO) percentage (%)



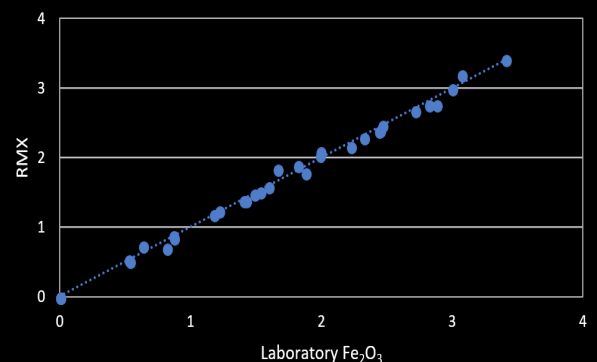
Silica (SiO₂) percentage (%)



Alumina (Al₂O₃) percentage (%)



Iron Oxide (Fe₂O₃) percentage (%)



RMX results are consistent across the entire analysis range.

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