



Patented online microwave moisture and density deviation measurement analyzer for Coffee & Cocoa Beans

MAIN FEATURES

- High performance resolution – better than 2% of reading
- High accuracy – better than 4% of reading
- High repeatability – better than 2 sigma
- Whole volume measurement of material
- No removal of packaging
- No physical contact with packages
- Minimal operator intervention
- Very low maintenance costs
- Calibration (checking) only once a year!
- Real time results
- Not sensitive to chemicals or color
- Not sensitive to ambient conditions
- Multi-scenario-based system for different product variations
- Automatic storage and analysis of results
- Compliance with all major industry standards

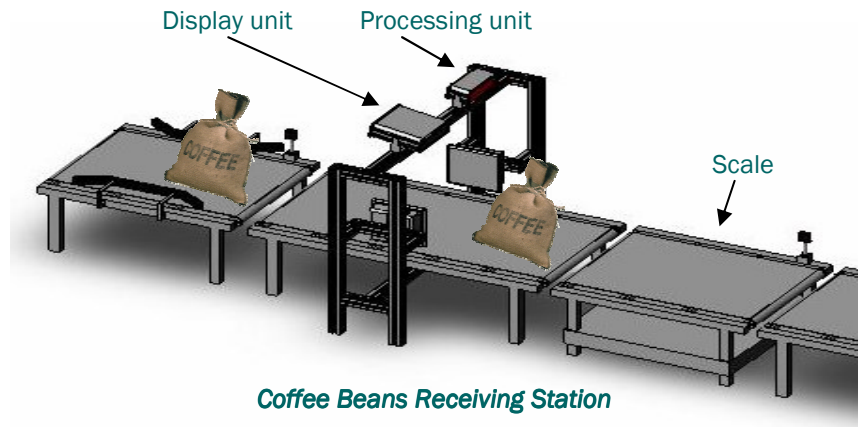
The MMA-6020 is a non-contact online analyzer which scans whole coffee and cocoa beans packages and measures internal moisture and density levels as well as detection of foreign objects inside the sacks.

Field proven and operational in more that 400 various industries and manufacturing sites worldwide, the MMA analyzer provides better accuracy than any of the traditional laboratory/instrumentation measurement methods.



MAIN BENEFITS

- Increased Profits (low cost & fast ROI)
- Increased productivity
- Improved product quality & consistency
- Reduced wastage and energy consumption
- Elimination of reprocessing, over/under roasting
- Increased customer satisfaction
- Better understanding of process



The MMA-6020 operates under both digital and analog links, enabling instant availability of all analysis results and data throughout the enterprise. Easy-to-read graphic displays allow engineers, plant managers and executives to interpret process conditions and make decisions, thereby reducing material costs and improving product quality and consistency.

The patented MMA-6020 system also offers a range of optional software packages. These include proprietary 3D microwave scanning and signal processing for critical real-time feedback on the internal moisture content as well as on material inconsistencies or foreign object existence. The stringent quality control procedures enabled by the MMA-6020 improves coffee and cocoas beans yields, reduce rejection and product degradation rates and increase profits throughout all stages of beans processing.



SPECIFICATIONS

Output Signals	0-10 VDC, 4-20 mA current signal; RS-232; moisture display (via DDU) and measuring indicator; alert signal (optional).
Input Signals	4-20 mA current signal; temperature sensor input - built in.
Scanning Speed	Less than 1msec per macro slice.
Operating Temperature	-5 °C to +50 °C .
Humidity	20-80%, non-condensing.
MCP-Tool s/w	Malcam's Loading Calibration and other parameters software tool via RS-232 , running under any Win2000 or XP windows PC
PRB-20 (optional)	Automatic pattern recognition profiler software for automatic detection of defects in real-time

HEADQUARTERS

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ABOUT MALCAM

MALCAM Ltd. Is an ISO-9001 company that specializes in online and offline moisture and density deviation measurements systems and advanced software tools for industries that automatically process bulk and packaged material.

Established in 1994, the company holds several international patents and its systems are operational in hundreds of sites worldwide.