

Micral™

Accelerate your element analysis



ANALYTICS BEYOND MEASURE

Micral™ speeds up test capacity and provides valid results for key elements such as calcium, magnesium, phosphorus and more in only one minute per sample. Say goodbye to chemicals and complicated methods and deliver many more results quickly, sustainably, and profitably.

Let real-time data support your decisions

Get accurate data about mineral composition of the livestock basal diet and adjust mineral levels for optimal growth and performance. Fast results and low cost enables regular testing throughout the year, reducing overuse and environmental impact of feed additives.

Speed up operations

Get precision quantitative testing of 6 macro and 6 micro elements, with no use of chemicals and without the need for special training. Increase time to result and reduce cost per sample with the autosampler cassette, allowing analysis of 60 samples in one go.

Automate for better flow

Exploits advances in software and networking connectivity to boost productivity and evolve lab operations. Benefit from ready-to-use analytics packages, traceable results with sample ID barcode and digital tools to develop and expand analytics for other matrices.

Sample types

Grass silage, corn silage, alfalfa/legume hay, hay, fresh grass, haylage, mixed hay, sorghum, straw, grass and clover and barley silage (whole crop silage).

Parameters

6 macro elements: calcium (Ca), magnesium (Mg), phosphorus (P), potassium (K), sodium (Na), sulphur (S).

6 micro elements: aluminium (Al), boron (B), copper (Cu), iron (Fe), manganese (Mn), zinc (Zn).

Technology

Laser Induced Breakdown Spectroscopy (LIBS). Micral is the first fully automated solution to measure elements in a broad variety of agricultural samples such as feed and forage.

Specifications

Micral™ LIBS	
Analysis time	1 minute
Autosampler capacity	60 samples
N ₂ consumption (during measurement only)	3 l/min
Wavelength range	178-427 nm
Optical resolution	0.1 nm
Voltage	100-240 VAC, 50/60 Hz
Power consumption	100 W
Dimensions (W x D x H)	500 x 471 x 426 mm
Weight	40 kg

	Micral™ Press	Micral™ Searing
Voltage	110 VAC, 60 Hz or 230 VAC, 50 Hz	100-240 VAC, 50/60 Hz
Power consumption	500 W	90 W
Dimensions (W x D x H)	305 x 496 x 434 mm	265 x 496 x 428 mm
Weight	100 kg	25 kg

Installation requirements	
Bench space	300 x 80 cm
Bench strength	Needs to support 175 kg
Gas requirement	Nitrogen, propane
Ventilation	Minimum ventilation rate is 150 m ³ /h
PC and network connections	2 PCs with LAN connection
Temperature	15-30 °C
Relative humidity	≤80%

Consumables

- Micral standardization 250g
- Sample container, 1.000 pc
- Dry tissues
- Wet tissues
- Cassette assy
- Batching tray assy
- Press shaft Ø14 mm
- Measuring spoon 1.5mL T-shape
- Measuring spoon 0.75mL T-shape

This instrument is SmartAnalytics™ enabled. Turn your data into actionable insights that give you full control of your production across sites. Increase your efficiency, accuracy and uptime to ensure the safe and consistently high-quality food and feed products your customers expect.

Contact your local sales representative to learn more about the potential value in your business.

