

# LactoScape FTIR

Dairy Analyzer

Official Approvals:  
AOAC, IDF



Milk, Cream, Yogurt & Whey



Fat, Protein, Lactose & Total Solids



Efficient Use of Laboratory Space



Easy to Use

Process & Laboratories



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# LactoScope FTIR Advanced Mid-IR Dairy Analyzer.



**The LactoScope FTIR Milk Analyzer** method is AOAC and IDF approved for the analysis of fat, protein, lactose, and total solids in milk. It's a state-of-the-art instrument, with modern FTIR optics, and simple to use but powerful software. The LactoScope FTIR can test other products such as cream, yogurt and whey thereby increasing its value and versatility.

**The Delta LactoScope™ FTIR Advanced (FTA)** incorporates the latest technology based on Fourier transform infrared principles. The instrument's modular construction minimizes the vibration of the FTIR bench and its integrated design provides efficient use of laboratory space. The LactoScope ensures a low ownership cost, minimum downtime, ensured accuracy, and world-class support for every dairy processor.

## Providing Industry-Leading Capabilities for Dairy Component Analysis

### Lactoscope FTIR Advanced features and benefits

**Auto-Clean and Auto-Zero** automatically maintain sample pumping unit and measuring cell. Reduces the need for technician maintenance and preparation time. Improves reliability and accuracy by ensuring cleaning is performed.

**Sample pre-heat** and homogenization standardize the temperature and particle size of the fat globules.

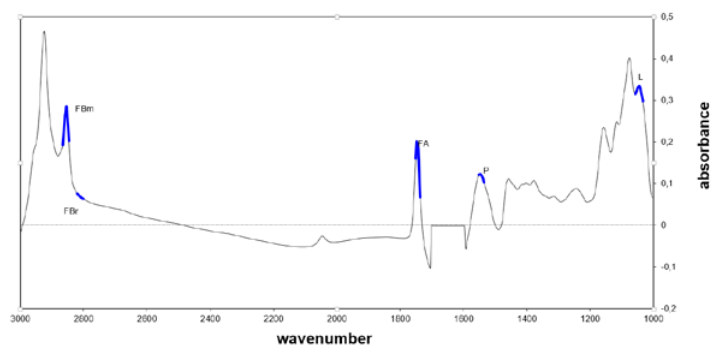
**Full-spectrum** analysis enables quantification of all components.

**Intuitive software** means rapid implementation with minimal training. Calibrations and data can be password-protected. Compatible with LIMS systems.

**Instruments are pre-loaded** with calibrations for all dairy applications. Ready-to-analyze standard products for fast startup and implementation.



Complete milk spectrum



## Products

Milk, cream, whey, condensed (milk and cream), ice cream mix, yogurt mix, cheese milk, flavored milk, UHT, WPC.

Milk payment samples.

Optional solid cheese analysis.

## Components

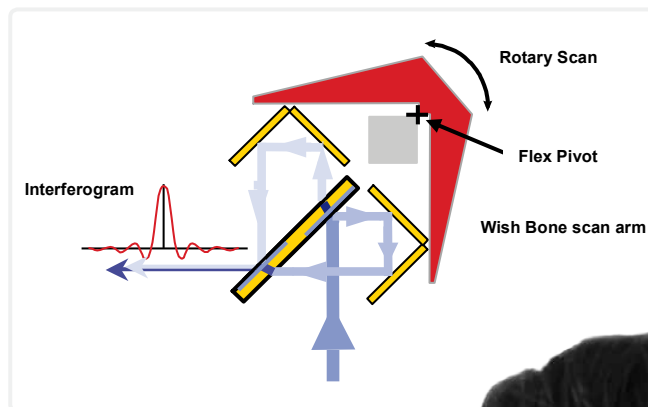
Butterfat, protein, lactose, total solids, SNF.

Added water, true protein, casein, NPN/calculated urea, free fatty acids, pH, citric acid, density, other carbohydrates.



## Patented Wishbone FTIR Spectrophotometer

The LactoScope FTIR Advanced uses Fourier transform infrared technology and measures the complete spectrum of the dairy sample. The pre-aligned wishbone design is at the heart of the spectrophotometer; it ensures absolute wavelength reproducibility and easy and accurate calibration transferability. The LactoScope FT mid-IR method is AOAC and IDF approved for the analysis of butterfat and protein in milk.



## Accessories

We offer a full line of consumables and accessories to ensure optimal system performance.

## Specifications

**Standard parameters:** Butterfat, protein, lactose, total solids, SNF

**Additional parameters:** Added water, true protein, casein, NPN/calculated urea, free fatty acids, pH, citric acid, density, other carbohydrates

**Measuring speed:** 80-120 samples/hour

**Measuring range for undiluted samples:** Fat 0%-55%, Protein 0%-25%, Carbohydrates 0%-25%, Total solids 0%-60%

**Repeatability in general (CV\*):**  $\leq 0.25\%$

**Accuracy typically (CV\*):**  $\leq 1\%$  (bulk samples from cow milk)

**Sample volume:** Typical 10 ml

**Sample temperature:** 2°C to +50°C (36°F to +122°F)

**System dimensions (D x W x H):** 17.72" x 33.46" x 19.70" (45 cm x 230 cm x 50 cm)

**Weight:** 190 lb (86kg)

**Power supply:** 110 V-240V, 50 to 60 Hz, 650 VA incl. PC

**Standard/approvals:**  EMC directive 89/336/EC, Low-voltage directive 73/23/EC, IDF 141C

\*CV, Coefficient of Variation is equal to the standard deviation divided by the average of the sample tested, times 100. Rose-Gottlieb for fat, Kjeldahl for protein, HPCL for lactose, and oven method for total solids.

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