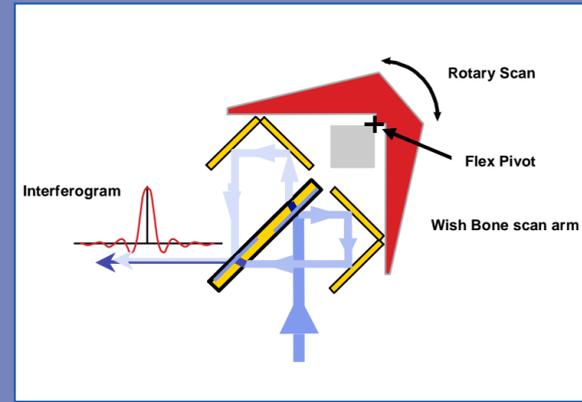


✓ **FTIR Technology**

The LactoScope FTIR is based on Fourier Transform InfraRed technology and **measures the complete spectrum of the dairy sample**. The spectrum provides a tremendous amount of information of dairy products. This information increases the possibilities of determination of various components.

Patented Wish Bone FTIR spectrometer  
The redesigned FTIR spectrometer of the LactoScope FTIR Advanced is based on the patented Wish Bone interferometer. The pre-aligned Wish Bone is the heart of the spectrometer and this brings several advantages, including a robust and stable construction and easy calibration transferability, which is supported by absolute wavelength reproducibility.



Technical specifications

**Performance Data**

Standard Parameters: Fat, Protein, Carbohydrates, Solids and Solids non Fat  
Additional Parameters: pH, Free Fatty Acids, Citric Acids, NPN/Calculated Urea, Casein, Density, Freezing Point Depression, NPN, True Protein

Measuring speed: 80-120 samples per hour

**Measuring range for undiluted samples:**

Fat	0-55%
Protein	0-15%
Carbohydrates	0-25%
Total solids	0-60%

**Specifications Standard Parameters:**

Repeatability in general:	≤ 0,25%
Accuracy typically:	≤ 1% = (bulk samples from cow milk)
Purging efficiency:	99%
Sample volume:	typical 10 ml
Sample temperature:	2-50°C
System dimensions (HWD):	45*85*50 cm
Weight:	86 kg
Power supply:	110-230 Volt 50-60 Hz, 650VA incl. PC

**Standards / Approvals**

- EMC Directive 89/ 336/ EEC
- Low Voltage Directive 73/23/EEC
- IDF 141C



**DeltaInstruments**  
An Advanced Instruments Company

New Horizons in Dairy Analysis



Fat, Protein, Carbohydrates, Total Solids, pH, Free Fatty Acids, Citric Acids, NPN/Calculated Urea, Casein, Density, True Protein, Freezing Point Depression... and more

LactoScope FTIR Advanced



**Delta Instruments**

Delta Instruments, an Advanced Instruments company, is a well-established manufacturer of rapid routine analytical instrumentation for the analysis of milk and milk derivatives. Our product portfolio includes milk analyzers for dairy processing industries and for payment and dairy herd improvement laboratories, all to the same high quality.

For more than 25 years the Delta Instruments team has focused on customer satisfaction, technological progress and premier quality. The dairy industry is our core business.

**Representative**



Your Partner in Dairy Analysis

**Delta Instruments BV**  
P.O.Box 379 - 9200 AJ Drachten  
The Netherlands

tel. +31 (0)512 54 30 13  
fax +31 (0)512 51 33 79

www.deltainstruments.com  
sales@deltainstruments.com

LactoScope FTIR Advanced



DeltaInstruments  
An Advanced Instruments Company

# The Ultimate Analyzer for Every Dairy Lab

## A NEW HORIZON IN DAIRY ANALYSIS

The Lactoscope FTIR Advanced is a state of the art instrument incorporating the latest technologies and software platforms available. The newly designed Lactoscope FTIR Advanced will be a smart and profitable addition to any dairy laboratory. You can get more money out of your milk with the LactoScope FTIR Advanced.

## ✓ Low Cost of Ownership

Low cost of ownership through long life expectancy, minimum down time and low operational and maintenance costs is realized by high quality engineering, use of gold plated contacts, a stable Wish Bone FTIR interferometer and a proven reliable hydraulic pump system.

Easy, front-end accessibility to vital parts and the modular construction, ensure low maintenance costs and a minimum down time with respect to maintenance and service.

## ✓ Quality Assurance of Your Analysis

The quality of the data is ensured by the continuous monitoring of various parameters by the LactoScope FTIR Advanced and FTIR Advanced software. This monitoring guarantees that the analysis takes place under controlled, optimal instrumental conditions. To optimize laboratory performance, the FTIR interferometer has been redesigned for stable and reliable analysis and is still based on the stable and well proven Wish Bone FTIR interferometer technology, also used for satellites.

Good Laboratory Practice (GLP) is incorporated into the LactoScope FTIR Advanced. The FTIR Scope Advanced software makes traceability of the analyses simple, due to the newly designed transparent database structure.

## ✓ Integrated Design

The design combines efficient use of laboratory space and the robustness for installation in a production environment. Reliable analysis is guaranteed, even under tough conditions, by an integrated design where all functionality is integrated into one instrument housing, resulting in a stable analysis environment within the LactoScope FTIR Advanced. A full day of operation is possible without the need for refilling the liquid compartments with cleaning and zeroing liquids.

## ✓ Easy to Use Software

The FTIR Scope Advanced software is easy to use for laboratory staff and production operators. The software guides the user through all standard operation routines such as calibrations and analysis. User friendliness is ensured by using Windows and through the user interface, which has been developed together with laboratory staff and production operators. Instrument operation and calibration routines are password protected.

The FTIR Scope Advanced software has high flexibility and top quality performance, utilizing object oriented and data-base driven architecture, using modern techniques such as XML for a stable and fast operation. For trend analysis and management information, the analysis data can easily be transferred to Laboratory Information Management System (LIMS) or common programs such as Excel.

## ✓ Good Laboratory Practice (GLP) Made Easy

The LactoScope FTIR Advanced makes GLP simple. All operator and instrument actions are stored in a GLP log, running in the background. This contributes to the traceability of zero settings, cleaning, adjusting calibrations, alarms, etc. This provides for the displays of routine operation and analysis screens in a clear and unambiguous way.



## ✓ Balance Option

To simplify laboratory measurements for high viscous or solid products such as cheese, a balance can be connected to the computer. The FTIR Scope Advanced software will automatically calculate dilution factors and results.



## ✓ Calibration Synchronization

To reduce cost of calibration samples, the FTIR Scope Advanced software introduces a unique concept of calibration synchronization. This concept allows comparable products to be calibrated with one set of calibration samples. Valuable laboratory time is saved while securing the end results.

## ✓ Analyze Cheese for a Fraction of Chemical Costs

The LactoScope FTIR Advanced extends your capabilities by analyzing cheese as well, without the need of investing in expensive NIR equipment. A patented solvent to liquefy the cheese and a dedicated mixer allows analysis of cheese on the LactoScope FTIR Advanced. Fat, protein, salt, moisture, and pH can be measured in various types of cheese, using the power of mid infrared technology. Only a small number of calibration samples are needed to analyze your cheese samples effectively.

