

FOSS



The MilkoScan™ FT2
Opportunity through innovation

Dedicated Analytical Solutions



Standardisation and sustainability

Combining innovative technology with unrivalled experience in dairy analysis, the MilkoScan™ FT2 provides optimal standardisation of milk for higher yield and quality.

With the MilkoScan™ FT2 you can standardise products closer to your set targets for improved profit while making optimal use of raw material, helping you to work towards the twin goals of business growth and sustainable production.

Cost effective technology reduces the cost of testing while improving product consistency. You can also screen for abnormalities with the MilkoScan's unique built-in spectrum screening system at the same time as you are doing normal routine test-

ing. Internet networking allows experts to keep a continuous eye on instrument performance for optimal standardisation operations and improved use of increasingly valuable resources.

What can I measure

MilkoScan FT2 analyses milk, cream, whey, yoghurt and a wide range of other dairy products for a range of constituents. Milk can be tested for Fat, Protein, Lactose, Total Solids, Solids non fat, Total Acidity, Density, Urea and Casein. An optional module allows screening for abnormalities in milk and dairy products.

What can I measure with MilkoScan™ FT2?

The MilkoScan™ FT2 measures a wide range of constituents (fat, protein, sugars etc.) in:

- | | | |
|---------------------|----------------------------|----------------------------|
| • Milk | • Cream | • Sweetened condensed milk |
| • Concentrated milk | • Milkshake | • Ice cream mix |
| • Yoghurt | • Fermented products | • Dairy based desserts |
| • Whey | • Whey protein concentrate | • Quark |



A new era in testing

The MilkoScan FT2 is a new generation instrument providing unique functions designed for your evolving demands in milk testing. Accuracy and performance provides a solid platform for analysis operations with features including:

- A vibration-proof design for the same high accuracy in the laboratory or in production
- Accuracy on the same high level as other FOSS MilkoScan solutions
- Robust calibration based on a huge sample database
- Enhanced cleaning and flow system to avoid risk of sample carry over
- Unique performance in measuring freezing point depression - avoid poor quality milk due to added water

Service and support

With the MilkoScan FT2 you can get on with your business without worrying about maintenance, support or software updates.

Instrument stability and robustness ensures long intervals between maintenance. And when it is required, service and maintenance is performed by trained local personnel who are prepared to ensure that your MilkoScan FT2 runs optimally, hour after hour and year after year.

Services include application development, training, support plans and hotline assistance.

MilkoScan FT2 key performance figures for raw milk:

| | |
|---------------------|---|
| Analysis time: | 30 seconds |
| Accuracy: | < 0.8 % CV, coefficient of variation (F, P, L, TS, SNF in raw cow's milk) |
| Repeatability: | < 0.2 % CV |
| Sample Temperature: | 5-55°C |
| Sample Volume: | Programmable 4 - 25 ml, standard volume is 11 ml. |

Analysis evolution

With the MilkoScan FT2 you have all the great features of the renowned MilkoScan™ FT120 analyser, plus innovative developments to make your operations simpler and more cost effective.

The MilkoScan FT2 is designed for the production environment so that you can avoid wasted time walking to the laboratory for your results. In addition, a powerful flow system can pump a variety of sample types including some viscous samples undiluted.

Software features include:

- Automatic recording of measurement activity for improved quality assurance and traceability
- Intuitive 'touch and test' operator interface for routine operations
- Powerful Foss Integrator software for results handling and analysis
- Internet software for remote monitoring and maintenance of the instrument

Get connected

Making use in internet networking software, your MilkoScan can now be connected to a central control centre where experts in FTIR analysis can keep an eye on instrument performance. New calibrations can also be uploaded remotely. With

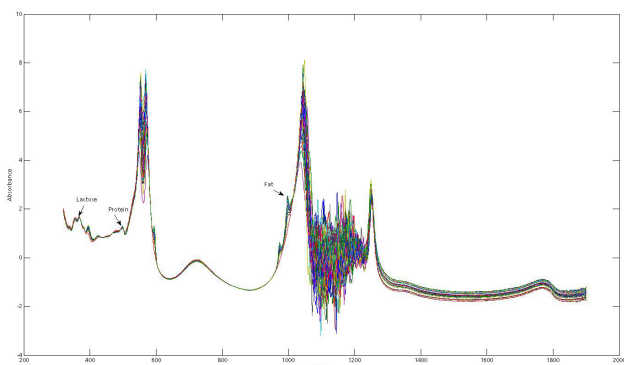
this networking option you can operate without having to worry about instrument performance and calibration updates.

Integrated quality assurance with spectrum screening

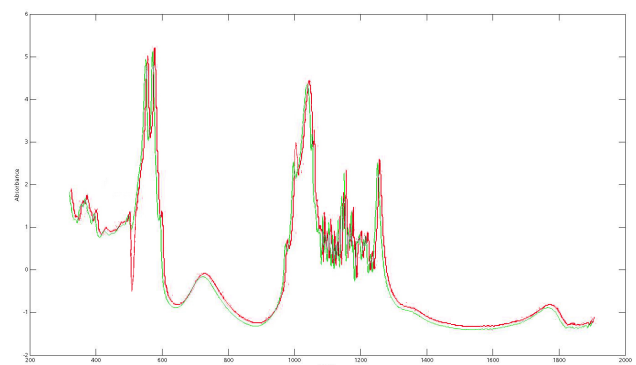
Improve food safety with integrated spectrum screening. You can check milk for abnormalities at the same time as other quality checks are performed. No extra equipment or time is required.

A sample of milk is tested against a profile for normal milk. A warning is given if there is a mismatch. This alerts you to the need for further testing to determine if there is a specific contaminant. With this simple procedure, MilkoScan FT2 provides a screening solution that is an integrated part of daily milk testing operations. As such, it can help to accelerate the detection of contaminants by allowing timely and more targeted tests with the appropriate laboratory equipment.

The same approach can be used to check for abnormalities in finished dairy products.



FTIR technology has the sensitivity to measure multiple parameters even when they are only present in quite low concentrations.



Natural raw milk has a particular spectrum – a unique fingerprint. Using FTIR analysis, it is possible to program an analyser to recognise the spectra (or fingerprint) representing pure raw milk. A warning is then given when samples do not meet the criteria for pure milk. If the sample is somehow different from pure milk it will be detected immediately as shown by the red line for an abnormal sample against the normal shown in green.



Flexibility throughout the process

Increasingly sophisticated consumer tastes demands flexibility in your analysis operations as you strive to keep production on track with changing demands.

The robust pumping system helps to reduce costs by allowing you to test a higher variety of products, including high viscosity samples without the need for sample preparation. This also makes it easier for anyone working in production to make measurements.

Wide variety of applications

Ready-made calibrations allow for the simultaneous analysis of major parameters in most raw, intermediate and finished dairy products allowing you to get straight to work on a range of samples, from standard drinking milk to yoghurt.

With unprecedented instrument stability, calibrations are transferable from one instrument to another and powerful calibration development WinISI™ software enables rapid calibration development for new applications.

Traceable results with FOSS software

Powerful new facilities in the FOSS Integrator software platform allow you to improve control and answer growing demands for documentation of results through traceable measurements. You can set user levels according to the level of operator skill so that everyone can make valid measurements with little or no training.

| | | | | | | | | |
|-----------|------|------|-----|-------|---|---|------|------|
| Fatmilk % | mean | 3,00 | std | 2,828 | 1 | 2 | 5,00 | 1,00 |
| Protein % | mean | 3,45 | std | 0,024 | 1 | 2 | 3,47 | 3,44 |
| Casein % | mean | 2,88 | std | 0,009 | 1 | 2 | 2,87 | 2,88 |
| Lactose % | mean | 4,55 | std | 0,186 | 1 | 2 | 4,41 | 4,68 |



FOSS and the dairy industry

For decades FOSS has helped dairies and milk testing laboratories to keep pace with their analysis demands. For instance, FOSS dedicated analytical solutions have proven significant for dairy-herd improvement, raw milk testing, standardisation in dairy production and verification of end-product quality.

Today, trends such as increasingly sophisticated consumer tastes and the relentless pressure for profit improvement make FOSS dedicated analytical solutions more relevant than ever. They provide convenience, speed and labour savings, while delivering high analytical capacity and low cost per sample.

MilkoScan™ FT2 is the ideal solution for dairies requiring, sophisticated, accurate at-line analyses with minimum sample handling. It offers the highest level of accuracy and reliability in a vibration and water proof design. The high accuracy allows

standardisation closer to target and analysis of low level components and the robust flow system enables measurement of many viscous products without time-consuming dilution steps.

Your calibrations can be transferred from one MilkoScan FT2 to another - and even from the MilkoScan™ FT120 thanks to FOSS' patented standardisation method. The FOSS Integrator software stores results as well as spectra and keeps records of every event taking place for full traceability.

The MilkoScan FT2 is a product of your demands for improved dairy production combined with over fifty years of experience of developing innovative analysis technology. The result is an instrument that raises standards in dairy production and that provides a long-term strategy for the challenges of dairy production today.

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