

**FOSS**

# OIL PROCESSING SOLUTIONS

THE COMPLETE PRODUCT RANGE

ANALYTICS BEYOND MEASURE



# PRODUCT RANGE



## Infratec™ NOVA

The whole grain and oilseed analyser Infratec™ NOVA is officially approved and established worldwide as the standard for determining protein, moisture, oil and starch. Unique ANN calibrations built on harvest data comprising over 50,000 samples, enable analysis of any type of sample with outstanding accuracy. Monitor and control instruments with networking tools and access remote diagnostics for rapid problem solving. Optional modules for flour analysis, test weight and flexible sample handling are available.

### Sample types

Oilseeds, grains, beans and pulses, oilseed meals and more.

### Parameters

Moisture, protein, oil, test weight, starch, wet gluten, fibre, ash and many more.



## Infratec™

Solid, straightforward and reliable, the whole grain analyser Infratec™ draws on the latest advances in NIR transmittance technology, connectivity and usability. Comprehensive ANN calibrations coupled with the best repeatability and transferability in the industry. Advanced connectivity let's you keep an eye on instrument performance and operator SOP-compliance from anywhere. It makes the job of quality control easier and less time-consuming as a reliable corner-stone for any grain handling operation.

### Sample types

Oilseeds, grains, beans, pulses, oilseed meals and more.

### Parameters

Moisture, protein, oil, test weight, starch, wet gluten, fibre, ash and many more.



## NIRS™ DS3 for oil processing

The innovative NIRS™ DS3 combines unique analytical performance with the latest software and networking services, making reliable test data for decision-making more available than ever. Unique accuracy for measuring protein, moisture and oil content in oilseed products such as meal and cake helps oil crushers to boost yield, while robustness coupled with groundbreaking performance in near infrared (NIR) guarantees highly accurate results.

### Sample types

Whole oilseeds, flakes, press cake, oilseed meals and pellets.

### Parameters

Protein, moisture, fat, fibre, ash, colour and oleic and linoleic acids.



## ProFoss™ 2

ProFoss™ 2 is an in-line process analysis solution measuring solid products in pipes, chain conveyors or over conveyor belts. ProFoss 2 employs high-resolution technology for accurate monitoring of the production process. Advantages include improved yield and profit achieved through savings in raw materials and consistent product quality.

### Sample types

Whole grains and oilseeds, oilseed meals, olive pomace and other solid products.

### Parameters

Protein, moisture, oil, ash, fibre, depending on the application.



## NIRS™ DS2500 L

NIRS™ DS2500 L offers easy-to-use and rapid, multi-parameter testing of liquid oil using near infrared (NIR) technology. Standardised units deliver consistent results for constant optimisation of oil production processes. All monitoring and adjustments are taken care of by connectivity-enabled support services.

### Sample types

Direct measurements of oils and liquid samples.

### Parameters

Free fatty acids (FFA)/acidity, iodine value, colour and more. Access to relevant reference analysis makes it possible to develop calibrations.



## NIRS™ DA1650

The NIRS™ DA1650 Oil Crush Analyser provides reliable measurements for whole seeds, cake, flakes, meals and crude oils, while true networking capabilities and simple touch-screen operations keep running costs lower than other NIR solutions. The NIRS™ DA1650 is ISO 12099 compliant and IP65 certified to withstand dust and moisture making it ideal for accurate routine analysis in the laboratory or close to the production line.

### Sample types

Oilseed products and other oil crop products. Direct measurements of solid and liquid samples.

### Parameters

Solids: Protein, moisture and oil.

Liquids: Moisture, peroxide value, iodine value, FFA, phosphorus.



## Infratec™ Sofia

The fully portable Infratec™ Sofia whole grain analyser measures protein, moisture, oil and wet gluten in the field or at smaller receival sites. Calibrations are based on those of the Infratec grain analyser, officially approved and widely used for on the spot grain testing on-farm or at grain receiving stations.

### Sample types

Oilseeds, wheat, barley, durum, corn and more.

### Parameters

Moisture, protein, oil and wet gluten.



## GAC® 2500-C

Use a simple, yet accurate solution for moisture tests instead of having to use a more sophisticated multi-parameter analyser. UGMA compliant impedance measurement at 149 MHz gives a representative moisture analysis of the whole kernel. A result for test weight is delivered simultaneously. Test hot or frozen grain within a wide temperature range from -20 to +45°C. It is fully-connected via the Foss-Manager™ networking software that supports grain networks around the world.

### Sample types

Oilseeds, grains, beans and pulses.

### Parameters

Moisture and test weight.



## Olivia™

Olivia™ is a robust, simple-to-use instrument providing an accurate measurement of fat and moisture in olive paste or pomace within one minute. This allows small and medium olive processors to make informed decisions about their raw materials and to improve the yield in olive oil production.

### Sample types

Olive paste, olive pomace.

### Parameters

Fat (oils) and moisture.

# REFERENCE ANALYSIS



## Kjeltec™ 8400

Kjeltec™ 8400 is a fully automated Kjeldahl analyser with self-cleaning colorimetric titration and optional auto samplers for fully unattended operation of up to 60 samples. Take your protein and nitrogen analysis to new levels of efficiency with renowned accuracy, cost effectiveness and safety. Compass software provides easy data-handling and reporting. Register samples and track results online for improved operations and traceability. Works perfectly with your LIMS system.

### Sample types

Raw materials and finished products in food, feed and agriculture.

### Parameters

Nitrogen, protein.



## Kjeltec™ 8420/8460

An optional 20 or 60 place auto sampler provides the benefits of automation even at lower sample throughputs. Just load your sample racks directly from the digestion block and Kjeltec™ will perform accurate analysis unattended for more than four hours.



## Digester 2508 and 2520 with Lift

The Tecator™ Line Digester with the Lift system, based on a digester and a tube rack with 8 or 20 tubes, facilitates fully automated procedures, eliminating heavy and risky handling of hot chemicals. A tube rack is placed in the lift, the application selected, press start and it controls the entire process. Two way PC communication supports traceability and GLP.

## Digester 2508 and 2520 with Racking system

The Tecator™ Line Digester with the racking system follows the same procedure as the digester with the lift system. An exception to this is the combining/separating of the tube rack and exhaust manifold and movement into the cooling position which is performed manually when the signal is heard.

### Sample types

Raw materials and finished products in food, feed, agriculture and related matrices. Water and wastewater and a wide range of industrial compounds.

### Parameters

Kjeldahl digestions, chemical oxygen demand and other reflux chemistries, trace metal analysis by AAS or ICP instruments.



## Dumatel™

Reliable Dumas results in just three minutes at a low cost per sample. Reduce start-up time while extending consumable lifetime and unique software functions allow desktop-operation and traceability.

### Sample types

Cereals, oilseeds, food and animal feed, liquid, paste and solid samples.

### Parameters

Nitrogen/protein.



## Soxtec™ 8000

The Soxtec™ 8000 extraction unit is a fully automated system with 6 positions. Two units can be combined to make a 12-place system for up to 84 samples per day, making it perfect for the busy laboratory. The unique solvent handling feature reduces the operator's exposure to solvents, ensuring a safe and efficient work environment. For total fat analysis, the Hydrocap™ filter is transferred from the hydrolysis unit to the extraction unit using batch handling tools to ensure fast and safe handling of samples and cups, while preventing contamination.

### Sample types

Raw materials, intermediates and finished products in food, animal feed and pet food.

### Parameters

Crude fat, total fat and extractable matter.



## Hydrotec™ 8000

The Hydrotec™ 8000, with up to 12 positions, is ideal for the busy laboratory requiring a high throughput of samples. It is an innovative, fully automated system that performs automated acid hydrolysis and neutralisation without sample transfer. It has a small footprint and unique batch-handling features that enable limited exposure to hydrochloric acid. The Hydrotec™ is designed to be used with the Soxtec™ 8000 or ST 255 Soxtec™ for final extraction.

### Sample types

Intermediates and finished products in food, animal feed and petfood.

### Parameters

Total fat.



## Fibertec™ 8000

This is a fully automatic system that uses internally preheated reagents added to a closed system to minimise contact with hot reagents. It determines fibre content according to Weende, van Soest and other recognised methods. Single or sequential extractions including boiling, rinsing and filtration are performed under reproducible and controlled conditions.

### Sample types

Raw materials and finished products in feed and agriculture.

### Parameters

Crude Fibre (CF), Neutral Detergent Fibre (NDF), amylase treated Neutral Detergent Fibre (aNDF), Acid Detergent Fibre (ADF), and Acid Detergent Lignin (ADL).

## SAMPLE MILLS



### CM 290 Cemotec™

The CM 290 Cemotec™ laboratory mill is ideal for preparation of samples with low fat and low moisture content, e.g. grain or seed samples. The Cemotec™ is designed to grind samples without losing any moisture content and is excellent for sample preparation where the requirements for fineness and uniformity of particle size are moderate.



### CT 293 Cyclotec™

The CT 293 Cyclotec™ laboratory mill is ideal for rapid and flexible preparation of a wide variety of feeds, grains, leaves and other low fat and low moisture samples. Cyclotec™ has a high grinding speed and is excellent for sample preparation where the requirements for fineness and uniformity of particle size is essential. A modern design ensures easy operation and maintenance.



### KN 295 Knifetec™

The KN 295 Knifetec™ laboratory mill is ideal for preparation of high fat, high moisture and fibrous samples. The grinding chamber is water cooled to protect heat sensitive high fat samples, while the robust design makes it easy to maintain and clean between samples. The built-in timer ensures consistent results.

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