



Solutions for Flour and Milling

Wet Chemistry Analyses for Mills and producers of Flour

Crude Protein

OP SIS LiquidLINE has solutions for determination of Kjeldahl (TKN) protein following standard methods.

The samples are digested with sulphuric acid to convert nitrogen into ammonium sulphate. The samples are further distilled by steam distillation followed by titration.

Examples: Protein in flour, starch, starch derived products, molasses, soybean meal and other oil-seed byproducts

Our Solution

- The KjelROC Digester Advanced motor lift makes the digestion efficient and saves valuable operator time.
- OP SIS LiquidLINE Kjeldahl catalyst tablets and glass tubes ensure stable and reliable results.
- KjelROC Analyzer with integrated Titration offers titration with low relative standard deviation saving time and costs.

Standards

ISO 3188:1978
AOAC 969.37, AOAC 920.87
AOCS Ba 4b-87

Application Notes

LA1000 Application Guide Kjeldahl
LA1013 Determination of nitrogen in corn starch (maize)
Further Notes on request

Crude Fat

OP SIS LiquidLINE provides instruments to determine Crude Fat with Hot Solvent extraction.

The sample is prepared and thereafter extracted in hot solvents. Calculation of fat content follows after the extract has been dried to a constant weight.

Examples: Fat in wheat flour, corn flour and soy flour. Fat in feeds and mixed feeds.

Our Solution

- The SoxROC extraction unit with batch handling and full automation facilitates the extraction.
- The instrument provides significant time savings versus cold extraction and a recovery of over 90% of used solvents.

Standards

AOAC 922.06
AOAC 920.39
AACC 30-25

Application Notes

LA1002, Appl. Guide Solvent Extraction
Further Notes on request

Total Fat

OP SIS LiquidLINE provides instruments to determine Total Fat according to the standard methods.

The sample is hydrolysed and thereafter extracted in hot solvents. Calculation of total fat content follows after the extract has been dried to a constant weight.

Our Solution

- The HydROC hydrolysis unit offers a unique filter technology that saves time and reduces the risk of errors when moving samples between hydrolysis and extraction.
- The SoxROC extraction unit with batch handling and full automation facilitates the extraction.

Standards

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Application Notes

LA1002, Appl. Guide Solvent Extraction
Further Notes on request

Crude Fiber

OPSIS LiquidLINE has instruments to determine Crude Fiber (CF) according to the Weende reference method.

Examples: Crude fiber in flour, starch, molasses, soybean meal and other oil-seed byproducts

Our Solution

- The FiberROC Auto and FiberROC Advanced units manages the different steps in the method. Addition of solution, boiling and rinsing is done automatically. Every step is monitored and the operator will be notified when ready.
- The FiberROC Manual unit facilitates manual determination of Crude Fiber, providing an efficient and safe environment.
- Our solutions provides significant time and cost savings compared to the manual method.

Standards

Weende method for Crude Fiber

Application Notes

Notes on request

Detergent Fiber

OPSIS LiquidLINE provides solutions to determine Acid Detergent (ADF), Neutral Detergent (ADF) and Acid Lignin Fiber (ADL) according to the Van Soest method. Examples: Detergent Fiber in flour and starch.

Our Solution

- The FiberROC Auto and FiberROC Advanced units manages the different steps in the method. Addition of solution, boiling and rinsing is done automatically. Every step is monitored and the operator will be notified when ready.
- FiberROC provides a High throughput, Low operating costs and an Unified solution with LabConnect software.

Standards

Van Soest method for Acid Detergent (ADF), Neutral Detergent (ADF) and Acid Lignin Fiber (ADL).

Application Notes

Notes on request

OPSIS LIQUIDLINE - INNOVATIVE WET CHEMISTRY

OPSIS AB, founded in 1985 in Sweden, took the concept of measuring gases with light and developed it into a commercially viable product. In 2013, we took another step and moved our innovative technology into Wet Chemistry and Liquids.

- AN APPLICATION LABORATORY READY TO ASSIST
- CUSTOMIZED TRAINING AND SUPPORT FROM SWEDEN
- THE LATEST IN MAINTENANCE
- A COMPLETE PORTFOLIO



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