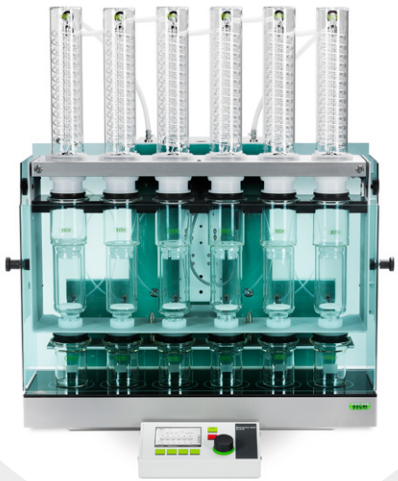
Extraction Unit E-816 ECE
Economic and automated fat determination

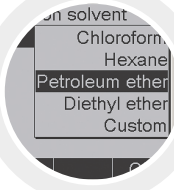
Perform economic fat determination in food and feed samples with the E-816 ECE (Economic Continuous Extraction). The automated continuous extraction method ensures simple method selection and easy operation. Highest solvent recovery and reduced solvent consumption guarantee cost savings.

Economic
Minimum solvent consumption and more than 90% recovery



Convenient
Quick method selection and easy sample loading

Fast and reliable
Shortened extraction time with high reproducibility



Extraction Unit E-816 ECE
Key features and advantages

ECE extraction chamber

Extraction Unit E-816 ECE
6 samples in one run

«The operation of the BUCHI extractor E-816 ECE is just as easy as the E-816 Soxhlet and provides comparable results. It is faster, more convenient and uses less solvent»
Food inspection, canton of Zug, Switzerland

Economic continuous extraction

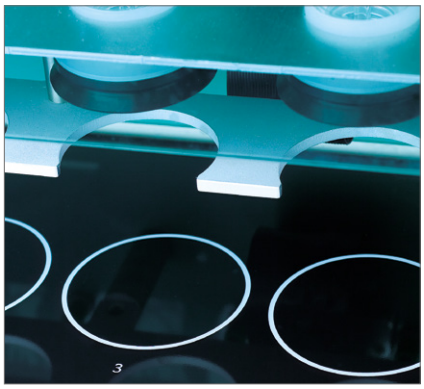
The compact design accelerates the entire process and requires less initial solvent. In addition with the high solvent recovery and the simplistic method application, economic operation is guaranteed.

Compliance

Complies with official methods for total fat determination (e.g. ISO, LFGB, Commission Regulation (EC), AOAC).

Continuous hot extraction

Twisselmann method is a continuous hot extraction. The higher extraction temperature improves solubility and shortens the extraction time.



High speed heating

Ceramic surface with integrated individual heating zones. They ensure heat conductivity with immediate heat-up (< 5 min) for gentle drying and reliable results without fat alteration.

Solvent library

Choose the solvent from the library and the respective settings are loaded. Programming is accomplished by the push of a button.

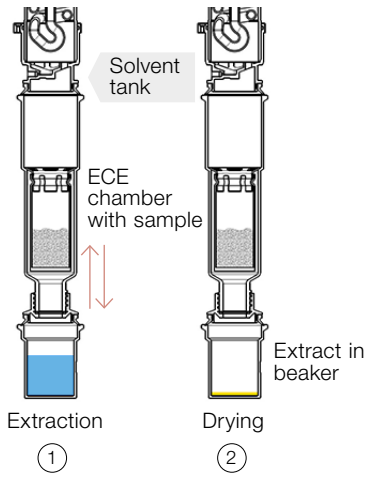
Solvent recovery rates >90%

Insulated tank with condenser ensures high solvent recovery rates. Unpleasant odor and solvent vapor emission are eliminated.

Economic fat determination

In comparison with the glassware apparatus, the compliant automated continuous extraction results in up to four times higher sample throughput. As with the Soxhlet glass assembly, the sample and the boiling solvent/ extract are separated. This results in higher reproducibility compared to hot extraction.

The solvent is interacting with the sample twice ① – on the way up (hot vapor) and the way down (condensed solvent). Finally the extract is gently dried ② while the solvent is collected in the tank. The extraction process steps follow an automated workflow without supervision.



E-816 ECE: Your most important benefits

Economic

· Low solvent consumption due to the compact design of the glass assembly
· More than 90 % recycling yields thanks to minimized solvent emission and cooled tank

Convenient

· Quick and simple method selection thanks to intuitive solvent library
· Minimal operator intervention thanks to easy sample loading
· Increase operator availability due to unattended process for walk-away

Fast and reliable

· Up to four times faster compared to extractions using classical glassware
· High reproducibility and reliable results thanks to continuous extraction method
· Automated and compliant Twisselmann extraction (according to ISO, LFGB, Commission Regulation (EC), AOAC).
· High speed heating due to ceramic plates and individual heating zones

Complete your portfolio

Hydrolysis Unit
E-416 / B-411
Safe and fast acid digestion

Recirculating Chiller
F-305 / F-308 / F-314
The efficient and water saving way of cooling

KjelMaster System
K-375 / K-376 / K-377
Steam distillation, titration and auto sampling

NIRMaster™
IP54 / Pro IP65
FT-NIR spectroscopy