### **FOSS**













Kjeldahl analysis with FOSS Kjeltec™ systems

– more clever than ever



## Your new Kjeltec™ – More clever than ever!

Based on the renowned accuracy, cost effectiveness and safety of FOSS Kjeldahl analysis solutions, the Kjeltec<sup>TM</sup> 8000 series takes Kjeldahl analysis to new levels of efficiency with facilities to match today's demands, including:

- Easy data-handling for reporting and traceability
- More versatility and reduced operational costs

#### A new era in Kjeldahl analysis

Thousands of laboratories around the globe are home to Kjeltec instruments that go on working, year after year. They were a good investment years ago, just as the Kjeltec series is today.

As your business develops, Kjeltec keeps your analysis up to date, matching ongoing demands for improved economy and traceability in the laboratory. Lab staff will be grateful for the proven reliability, ease of use and time saving facilities that make everyday operations simpler, safer and more convenient.

#### Safety first

Kjeltec™ instruments are synonymous with safety.

Fully protective safety doors, tube in place and replacement sensors combined with steam and reagent monitoring systems are standard.

They also provide a fast, reliable tube-emptying system that avoids manual handling of hot reagents after distillation.

The patented SAFE (Steam Addition for Equilibration) technology provides a modified reagent addition procedure which reduces the intensity of reactions due to concentration gradients.

### More analysis for less

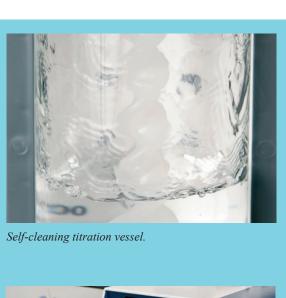
The Kjeltec<sup>™</sup> 8000 series builds on the proven FOSS reputation for safe, high-performance instruments, with innovative features to make your laboratory operations even simpler, more versatile and at the lowest cost per test available. These include:

- Intelligent cooling water control adjusts the flow according to temperature, thus minimising water consumption and costs
- A variable output steam generator provides the flexibility to analyse volatile parameters other than Nitrogen
- Higher capacity self-cleaning titration vessel with improved positive displacement burette for precise, reliable results
- An optional 20 or 60 place Autosampler provides the benefits of automation even at lower sample throughputs

 Compass PC software for fast reliable registration and tracking of samples according to GLP routines including simple foolproof connection of all peripherals such as balance, printer and PC, regardless of manufacturer

Other tried and tested aspects of the Kjeltec range include batch handling of samples for simplified loading and traceability. Autosampler options allow multiple tests to be run completely unattended for more than four hours.

Service costs are also minimised by the use of carefully selected, long-life components. Surfaces exposed to reagents are made of corrosion-free materials.





Just load your sample racks directly from the digestion block and Kjeltec<sup>TM</sup> will perform accurate analysis unattended for more than four hours.





Simple to use interface of Kjeltec<sup>TM</sup> 8400

Choice of sampler system provides benefits of automation regardless of sample loads

## **Unmatched accuracy**

The FOSS designed colorimetric titration system gives unmatched accuracy and is often the preferred methodology when new standards are issued by organisations such as the AOAC, ISO, IDF.

The superior performance of a Kjeltec<sup>™</sup> titration system is based on colorimetric measurement of a precise chemical reaction for end-point detection.

Accuracy is assured time after time with the additional benefits of long-term stability, wide working range, speed and simplicity without the need for repeated and costly calibration procedures.







# Adaptable to your business

Whether you own a basic distillation unit or a fully automated sampler system, with a FOSS solution you can get on with your business without worrying about how to get the best from your investment. That's because you can rely on the extra FOSS dimension – the features and services designed to help you get the best out of your FOSS instrument with minimal impact on your time and resources. These include:

- Validated applications according to official standards
- Ongoing support to meet your needs
- Upgrade options your system grows as your business grows
- Training by experienced local personnel
- Customised FossCare service programs to match the needs of your business

All of which ensures that your FOSS solution runs optimally, day after day and year after year.





Compass PC software for complete data handling

## Easier handling

Throw away those crumpled notebooks. Your new Kjeltec<sup>™</sup> allows you to register samples and track results online for improved operations and traceability.

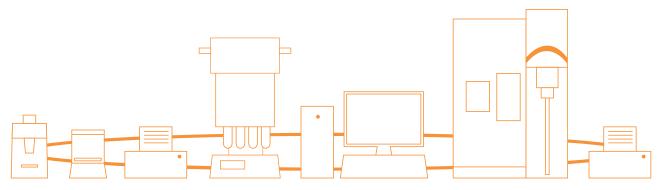
Samples can be registered via a PC connected to the instrument – simply click and send the batch to the analyser.

You can also connect the instrument to your laboratory network. The PC software works perfectly with your LIMS system so you won't need to enter sample weights twice. Plus, you will have all the information you need for reporting in one place.

#### Making operations easier

The smart design of the titration module eliminates much of the manual handling and the self-rinsing titration vessel ensures automatic cleaning after each batch. The system is always clean, ensuring a prolonged lifetime even with less manual maintenance. The titration module also minimises air bubbles in the system, allowing a quicker upstart while helping to ensure that you get correct results.

From the simple user interface of the smaller 8100 & 8200 distillation units to the fully automatic 8400 analyser with choice of sampler and PC software, all Kjeltecs are designed to make your life easier - easier to use, easier to clean, easier to maintain.



A typical flow of sample through a laboratory using a FOSS Kjeldahl system

DISTILLATION UNIT	KJELTEC™ 8100	KJELTEC™ 8200	KJELTEC™ 8400
Variable output steam generator	<b>✓</b>	<b>✓</b>	<b>✓</b>
Water saving system	✓	✓	<b>✓</b>
Cooling water flow control	✓	✓	<b>✓</b>
Distillate temperature monitor	✓	✓	<b>✓</b>
Polypropylene splash head	<b>✓</b>	<b>✓</b>	<b>~</b>
Polypropylene tube emptying vessel	<b>~</b>	<b>~</b>	<b>~</b>
Bellows pumps for reagent addition	<b>Y</b>	<b>V</b>	<b>Y</b>
Automatic alkali addition	<b>Y</b>	<b>V</b>	<b>Y</b>
Automatic dilution water addition	<b>~</b>	<b>Y</b>	<b>Y</b>
Automatic receiver solution addition	. 4	<b>Y</b>	
Tube emptying/Waste collection	× ×	<b>V</b>	
Reagent alarms	V V	<b>V</b>	
Removable drip tray	, and the second	, ,	Š
Interlocked safety door Removable safety door	Š	Š	Š
Tube-in-place safety	, in the second second	j	j j
Tube replacement sensor	, in the second second	j	
Colorimetric titration system	·	Upgradeable	V
External titrator connection		Optional	Optional
Interchangeable burette			<b>~</b>
Titration bypass			<b>✓</b>
Results calculation			✓
Storage of raw data in instrument			40 batches
Data management PC software			<b>✓</b>
Storage of raw data with PC software			Unlimited
Ethernet connection for:			
PC			<b>~</b>
Balance			<b>Y</b>
Printer			<b>~</b>
Autosampler system 8420:			
1 rack, 20 tubes, 250 & 400ml		Upgradeable	Optional
Autosampler system 8460:		Um mun el e e le l e	Omtional
3 racks, 60 tubes, 250 & 400ml		Upgradeable	Optional

#### **FOSS**

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