

# OPSIS LiquidLINE KjelROC Distillation Unit

Distillation System with Unique Level  
of Serviceability and Automation



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# WHY KJELROC DISTILLATION UNIT?

In many tests there is a need to separate the substance of interest from the rest of the sample prior to analysis. e.g. SO<sub>2</sub> in food/wine and free fatty acids. Here a steam distillation often is the best solution and with the KjelROC Distillation Unit the control of the process is optimised.

OP SIS LiquidLINE and the KjelROC Distillation unit brings;

- Unique Level of Servicability with OP SIS LiquidLINE maintenance program and state-of-the-art service systems.
- Easily expandable system, possible to easily upgrade to a full KjelROC Analyzer.
- Complete Automatic System including Ethernet communication for simplified set-up and traceability.

## EXPANDABLE SYSTEM, LOWERS COSTS WHEN LAB REQUIREMENTS INCREASE

- The KjelROC Distillation Unit can easily be upgraded to a full KjelROC Analyzer at a later stage. This saves considerable cost in case you later require a full system.
- The KjelROC Distillation Unit and the KjelROC Analyzer share similar User Interfaces, which makes it easy for an operator to handle both systems.



UPGRADE YOUR DISTILLATION SYSTEM TO AN ANALYZER AT A LATER STAGE

## AUTOMATION AND TRACEABILITY INCREASES EFFICIENCY AND REDUCES COSTS

- Complete automation, including automatic addition of water and alkali
- Possibility to connect external Titrator
- OPSIS LiquidLINE LabConnect software simplifies registration and handling of results\*



LABCONNECT SOFTWARE FACILITATES ADMINISTRATION

## CHEMICAL RESISTANCE

- The OPSIS LiquidLINE BlackLINE coating\*\* provides unique corrosion protection
- OPSIS LiquidLINE service system, including an application Laboratory in Sweden

\* Included with KjelROC Auto Distillation Unit

\*\* OPSIS LiquidLINE BlackLINE coating is taken from latest development in Swedish corrosion technology. Similar coating is used in trucks and cars from Volvo and Scania.



PROTECTION WITH BLACKLINE AS WELL AS PTFE COATING AROUND SENSITIVE PARTS. POLYPROPYLENE SPLASHHEAD OPTIONAL.

# BENEFITS

After more than 25 years of experience within analysis, we will now raise the standard for Quality Instruments, Information Exchange and Analysis in samples like Food, Forage and Liquids. The KjelROC is prepared for the future with several new, unique, benefits.

## EXPANDABLE SYSTEM

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The KjelROC Distillation Unit is designed for easy expansion to a full KjelROC Analyzer system.

- Possible to upgrade from Manual Distillation to Automatic Distillation (KD-200 to KD-210).
- Possible to upgrade from Automatic Distillation to Analyzer (KD-210 to KD-310), adding the titration module.
- Possible to upgrade from Analyzer to an Autosampler (KD-310 to KD-625)



## FULL AUTOMATION

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The KjelROC Distillation Unit is a fully automatic system that requires no manual intervention.

- User defined automatic addition of Water and Alkali
- User defined addition of Receiver Solution (only KD-210)
- Possibility to connect to external titrator, for both Colorimetric and pH titration
- Steam Generator can be regulated, from 10 to 100%.
- User defined behaviour with programmable delay and selection of tube drain.
- Retrieve log files for easy maintenance support, which lowers maintenance costs.



## UNIQUE LEVEL OF SERVICEABILITY

The KjelROC Distillation Unit has the latest, state-of-the-art, service system. This can make considerable cost savings for maintenance.

- Unique system that allows individual test of every component in the instrument via a Service menu. Saves time when identifying a component failure.
- Follow lifetime of internal components by Instrument Log file and recommend exchange of components prior to possible breakdown
- Fluoropolymer coating in sensitive areas to protect against Alkali
- Distillation Log files makes it easy to send service information back to OPSIS LiquidLINE technical support. Saves time when identifying application or instrument issues.
- Automatic self test with recommendations for user actions and complete cleaning programs for daily maintenance
- Dedicated Managers menu to perform QC operations



A UNIQUE SYSTEM ALLOWS INDIVIDUAL TEST OF EVERY COMPONENT IN THE INSTRUMENT, WHICH REDUCES MAINTENANCE COSTS

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## ISO 17025 PREPARED WITH ADAPTIVE WORKFLOW

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Traceability of data files, QR component codes and user access levels to make it easy to implement ISO 17025. Use your existing Lab procedures or use our ready to use programs. The instrument is fully flexible to adapt to your demands which reduces integration costs.

- The KjellROC Analyzer can easily be qualified for your laboratory. Additional Installation, Operational and Performance Qualification documents can be purchased
- OPSIS Component traceability program allows tracking of components. It is also possible for a service engineer to retrieve lifetime status of main components.
- The KjellROC offers different access levels and menus according to GLP requirements. A dedicated menu allows the Lab manager to further control settings of the instrument such as Factory defaults and Time&Date.
- An extensive set-up of User Protection safety systems is included in the KjellROC Distillation Unit. Sensors will, for example, detect if tube is missing or if protection door is open. Automatic Tube Draining eliminates the need for handling hot reagents after distillation. Several other systems are also monitoring the operator activities.

## CONNECT YOUR LABORATORY\*

Connect the KjelROC Distillation Unit Auto to your Laboratory information flow. The LabConnect software is delivered together with all KjelROC KD-210 Auto Distillation units.

- Complete solution to register your weights and analyse your results, including direct import from connected balance and/or barcode scanner.
- Export your data to other LIMS systems or save in Excel, .CSV or PDF format
- Trusted IT security. No data is exchanged on the internet (no external cloud servers)

LabConnect software can also be upgraded with the LabConnect LIMS license

- Sample registration and Report modules
- One software for all your Protein, Moisture, Ash, Fiber and Fat analyses. The LabConnect LIMS will even work with instruments from other brands.
- User Management and Traceability of your data. Compliant with FDA Title 21 CFR Part 11



THE LABCONNECT SOFTWARE ALLOWS FOR EASY CONNECTIVITY TO YOUR LABORATORY



THE KJELROC DISTILLATION UNIT AUTO IS PROVIDED WITH A DEDICATED RECEIVER VESSEL, FOR EASIER USE TOGETHER WITH EXTERNAL TITRATORS

## EASY CONNECTION TO EXTERNAL TITRATORS\*

All KjelROC Distillation units can be connected to an external titrator. Additionally, the KjelROC KD-210 Auto Distillation unit has a dedicated Titration vessel to provide an easy set-up

- Dedicated locations for stirrer, electrode, receiver solution and destillate addition.
- Easy to remove and empty Titration vessel
- Can be used with manual start of Titration
- Possible to export Titrator results to OPSIS LiquidLINE LabConnect software\* (.csv export)

Several Options

- Optional Titration kit for automatic start of Titration
- Optional Rod Stirrer kit
- Optional Titration Vessel Drain kit

\* LabConnect software and Dedicated Receiver vessel are only delivered together with KjelROCKD-210 Auto Distillation unit

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*Specifications subject to change without notice*



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