

OPSIS LiquidLINE KjelROC Digestors

Reliable Digestion with
Many Possibilities



WHY OPSIS ?

After more than 30 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:

- Unique accuracy with OPSIS LiquidLINE Predictive Titration*
- Integrated workflow with OPSIS LiquidLINE LabConnect Software
- High Chemical Resistance with the unique OPSIS LiquidLINE BlackLINE coating and plastic material in critical areas

* *Patent Pending*



Intertek



Intertek



Intertek



Intertek



Automatic, Calibrated and Flexible

All KjelROC Digestors include automatic programs as well as the possibility to define your own digestion cycle.

- Pre-heat program and pre-defined programs make it easy to use for any Operator
- Three customizable programs can be used for all standard applications
- In addition, more than 50 special programs gives almost endless combinations for the advanced user. Theoretically, over 10,000 temperature steps can be programmed!
- Unique Calibration Feature allows easy measuring against external temperature probe with adjustment in software.
- Fast heating, from 20°C to 450°C within 45 minutes



Easy programming for all levels of users

Chemical Resistance and Safety



All KjelROC digestors have the OPSIS LiquidLINE Black LINE coating as well as a PTFE protection on the top cover

All KjelROC Digestors are built to withstand high temperatures and highly corrosive environments - all materials are carefully selected - from special chemical resistant PTFE coating to Viton tubes.

The KjelROC Digestors are recommended to be installed with a KjelROC Exhaust manifold, to reduce corrosive fumes in the lab and prolong the life of your KjelROC.

- The OPSIS LiquidLINE BlackLINE coating and chemical resistant PTFE coating on top covers to protect against stains from acid
- Solid PTFE rings, specially designed to seal against the tubes, withstand the demanding environment
- Exhaust manifolds with Borosilicate glass
- An automatic self test will warn the operator

Advanced Model with Automatic Lift*

The Advanced KjelROC Digestors offer easy to use motor lift with 3-step automation: heating-, cooling- and load positions.

Motor can be controlled manually, as part of a temperature/ time program or as part of the pre-loaded digestion programs. The KjelROC Automation Lift reduces the work load in the lab and saves costs.

- With SoxROC, you can extract as many as 42 samples per day with no loss in precision or accuracy* - up to five times faster than the classical Soxhlet technique
- Automation of all extraction steps and an innovative batch handling reduces risk for errors
- OPSIS LiquidLINE LabConnect** software simplifies registration and handling of results
- Automatic control of motor within the Pre-set programs
- Intelligent instrument feedback will instruct the operator when to place the rack in holder and automatically move the rack to cooling position after digestion
- Safety system with manual override at all times
- Specific load position at ergonomically correct height

* Motor lift only available in Digester Advanced



Reliable and Easy with a Small Footprint

The KjelROC Scrubbers are built to work in an environment with an excess of corrosive fumes and high heat. All materials are carefully selected.

- Cooler and containers in Borosilicate glass and connection tubes in Viton, in order to withstand the demanding environment and reduce maintenance costs
- Small footprint makes it easy to install the Scrubber close to the KjelROC Digestor
- Easy access to exchange containers, which are all made in high quality Borosilicate Glass
- No water is needed. Scrubber does not require any tap water and there is a built-in pump for suction power



Kjeldahl Tablets and Tubes



Name	Benefit	Size	Box	Composition	Recommendation
KT-211-A Missouri Tablet, Cu, 0.3%	Recommended. The best mix of Efficiency and Environmental impact	3.5g	1000 tablets	99,7% Potassium Sulphate 0,3% Copper(II) Sulphate 5-hydrate	A popular and universal tablet. Easy to use but low copper content gives slightly longer digestion time. Our Recommended solution for fast, efficient and environment friendly digestion.
KT-220-A Micro Copper, Cu, 9%	Reduced amount of chemicals	1.65g	1000 tablets	91% Potassium Sulphate 9% Copper(II) Sulphate 5-hydrate	Recommended for micro Kjeldahl applications.
KT-230-A Universal Copper, Cu, 9%	Fast, Safe and Efficient	5g	1000 tablets	91% Potassium Sulphate 9% Copper(II) Sulphate 5-hydrate	Our most universal and popular tablet. Good performance and low impact on the environment.
KT-240-A Titanium, Cu-TiO ₂	Saves time at low environmental impact	3.71g	1000 tablets	47,17% Sodium Sulphate 47,17% Potassium Sulphate 2,83% Copper(II) Sulphate 5-hydrate 2,83% Titanium (IV) Oxide	Perfect balance between environment and fast digestion.
KT-250-A Selenium, Se, 0.1%	Fast	3.5g	1000 tablets	99,9% Potassium Sulphate 0,1% Selenium	Fast digestion but not optimal for the environment.
KT-260-A Wieninger, Se-Cu, 2%	Fast according to Wieninger	3.5g	1000 tablets	96,5% Potassium Sulphate 1,5% Copper(II) Sulphate 5-hydrate 2% Selenium	
TU-214-A		250 ml	10 Tubes 20 Tubes	High Quality Borosilicate Glass.	
TU-223-A		450 ml	10 Tubes	High Quality Borosilicate Glass.	
TU-221-A		750 ml	4 Tubes	High Quality Borosilicate Glass.	

Digester

Digester Options

The KjelROC Digestion portfolio offers something for most labs



KjelROC Digestors, DI-210/220/221/310/320-C

Technical Data	
Operating Temperature	5°C - 40°C, max 80 % relative humidity
Power Supply	190-240 VAC, 50-60 Hz, 10 A
Power Consumption	Max 1200 W (10 position) Max 2200 W (20 position)
Dimensions (WxHxD)	360 x 132 x 329 mm (10 position) 360 x 132 x 439 mm (20 position)
Weight	12 kg without rack/exhaust (10 position) 18 kg without rack/exhaust (20 position)
KjelROC Digestors Auto	1 Pre-heat program, 4 pre-defined programs, 3 customizable P-programs (temperature, time, alarm) 104 customizable S-programs that can be linked to each other for total flexibility (Each program use a 255 steps algorithm where start and end temperature is set, together with amount of steps in between)
KjelROC Digestors Advanced	1 Pre-heat program, 4 pre-defined programs, 3 customizable P-programs (temperature, time, alarm) 54 customizable S-programs that can be linked to each other for total flexibility (Each program use a 255 steps algorithm where start and end temperature is set, together with amount of steps in between) Automatic Motor Lift with Exhaust

KjelROC Scrubber, DI-110-C

Technical Data	
Operating Temperature	5°C - 40°C, max 80 % relative humidity
Power Supply	190-240 VAC, 50-60 Hz, 10 A
Power Consumption	75 W
Dimensions (WxHxD)	330 x 470 x 335 mm
Weight	14 kg

KjelROC



Kjeldahl Distillation Unit

Digestor



Digestion Unit

Scrubber



Acid Neutralization Unit

SoxROC



Soxhlet Fat Extraction Unit

FiberROC



Acid Hydrolysis and Fiber
Analysis Unit

Consumables



Kjeldahl Tablets

Distillation Tubes

Soxhlet Thimbles

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