

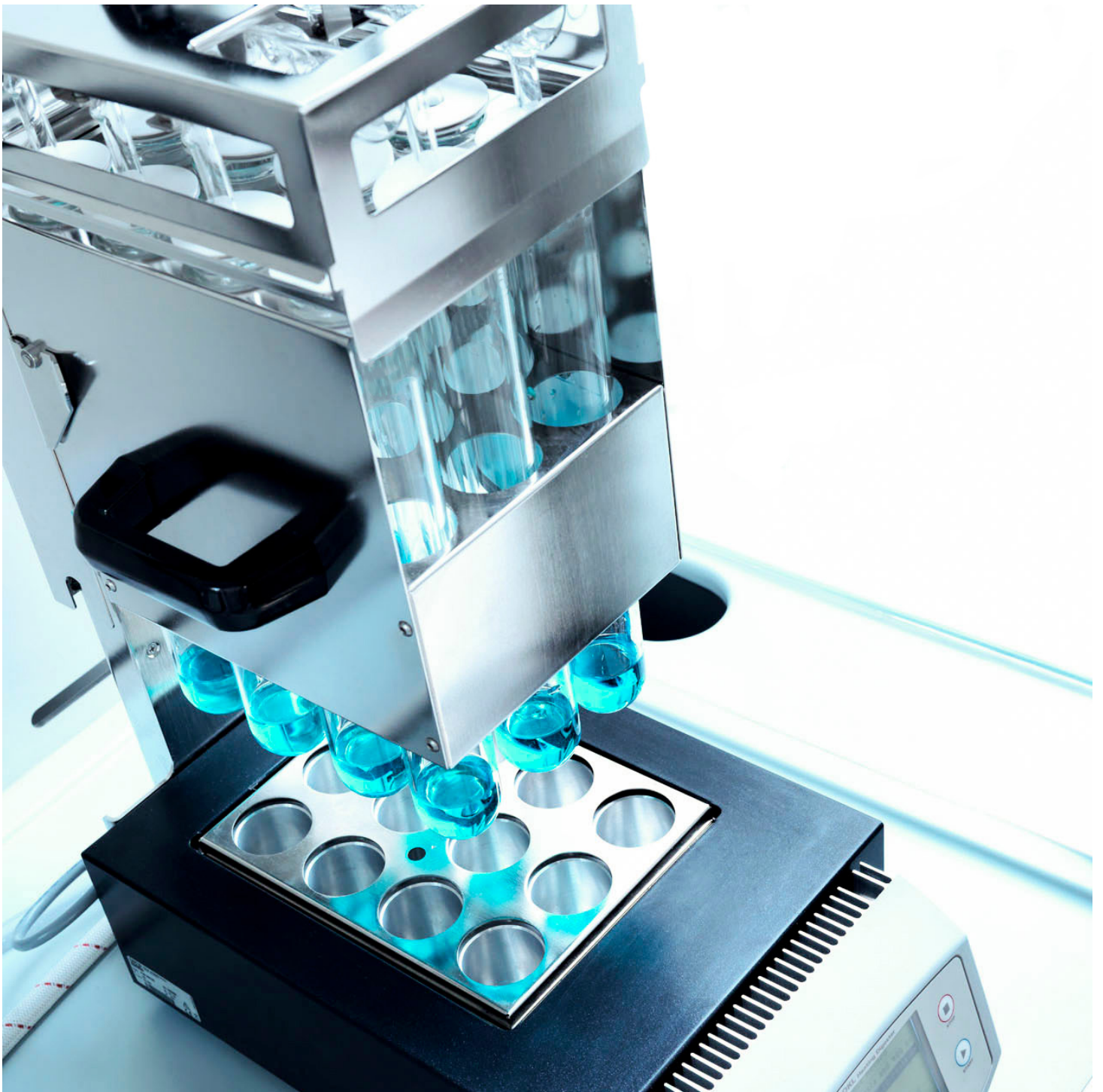
# DKL Series

## Fully Automatic Digestion Units

Fast, safe and compact aluminum heating block digesters for unattended operations.

velp<sup>®</sup>

Driven by curiosity



# DKL Automatic Digesters

The digester is a widely used instrument in laboratories performing analysis for diversified applications in food, feed & beverage (nitrogen, protein, Total Kjeldahl Nitrogen), environmental (COD, Total Kjeldahl Nitrogen, Heavy Metal Trace), chemical and pharmaceutical (organic nitrogen) industries. DKL digesters work in accordance with a variety of Standards (such as AOAC, ISO, EPA, DIN etc.)

## Fully Automatic Operation

- Auto-lift system reduces operator strain and minimizes manual handling
- Customizable programs ensure repeatable, unattended digestion processes

## Fast and Flexible Performance

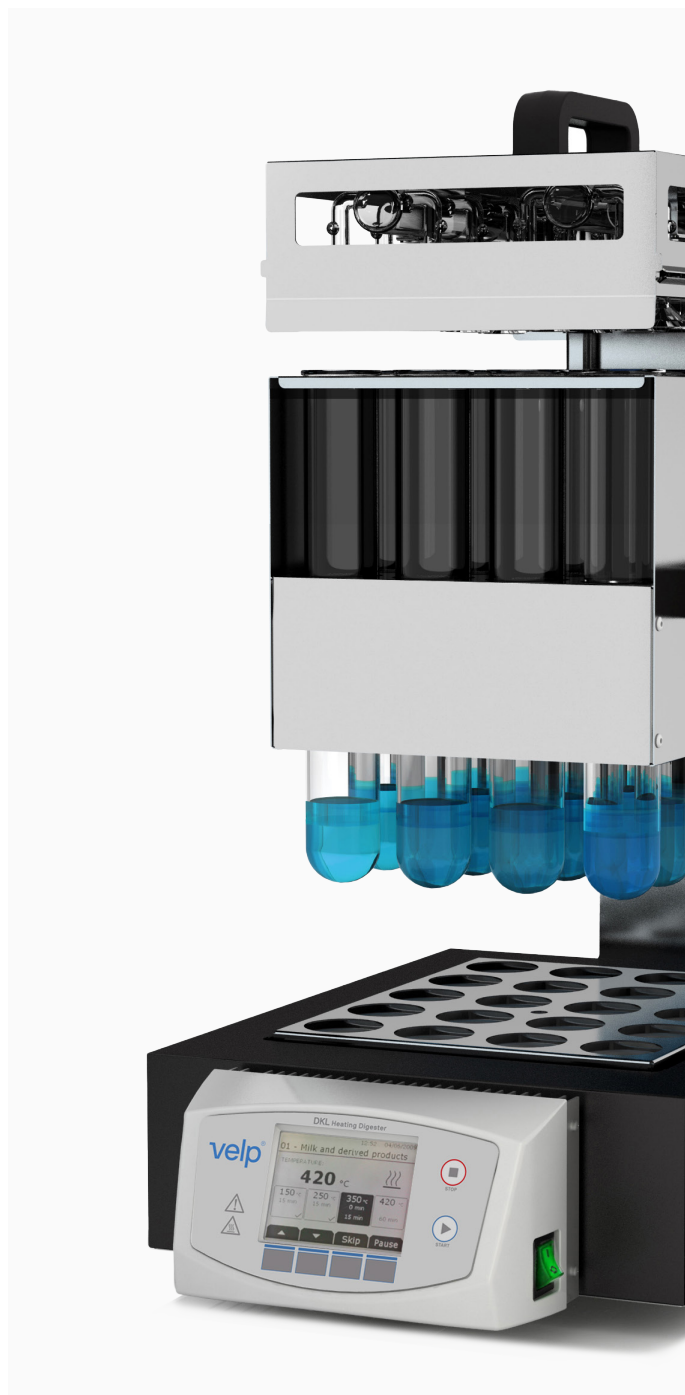
- High-speed aluminum heating block reaches 420 °C in just 20 minutes
- Maintains temperature with  $\pm 0.5$  °C accuracy for consistent results
- Wide range of accessories supports all sample types and volumes

## Safe, Robust, and Resistant

- Separated control panel protected from heat and spills for durability
- Microprocessor control with safety thermostat for reliable temperature management
- Corrosion-protected housing withstands harsh laboratory conditions

## User-Friendly and Space-Saving

- Intuitive control panel with preloaded standard methods, plus customizable programs
- Compact footprint saves valuable fume hood space for other instruments



## Configurations



**DKL 8**  
8-position model for Ø 42 mm  
test tubes



**DKL 12**  
12-position model for Ø 42 mm  
test tubes



**DKL 20**  
20-position model for Ø 42 mm  
test tubes



**DKL 42/26**  
42-position model for Ø 26 mm  
test tubes

# Kjeldahl Analysis Process

## Sample Preparation

# 1

Use genuine consumables designed to provide a solution for digestion, including catalyst tablets and nitrogen-free weighing boats.

## Digestion

# 2

Place the sample into the Velp Digesters. Choose automatic or semi-automatic models. Hazardous fumes generated during the digestion should be neutralized with the KS 1000 Scrubber.

## Distillation

# 3

Use the Velp Distillation Units for the determination of analytes in your sample.

## Titration

# 4

You can now perform the final step. Choose automatic titration with UDK 159-169 or external titration with UDK 149.

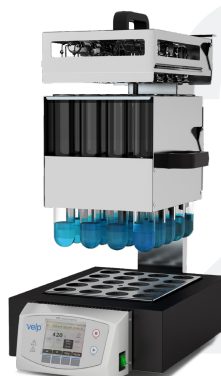
→ Nitrogen mg (Protein %)

## Fully Automated and Unsupervised Digestion in 3 steps

### Digestion



### Cooling



### Rack extraction and re-loading



## Optional Accessories

DKL 8 Stand for sample rack	A00000184
DKL 12 Stand for sample rack	A00000183
DKL 20, DKL 42/26 Stand for sample rack	A00000182
DKL 12, DKL 20 Test tube Ø 50x300 mm, 400 ml	A00000185
DKL 12 Sample rack for test tubes 400 ml	A00000181
DKL 20 Sample rack for test tubes 400 ml	A00000246
DKL 8, 12, 20 Glass cap	A00000243
DKL 20 Sample rack for COD analysis	A00000237
DKL 20 Test tubes Ø42x200mm, 200 ml with cone NS 29/32 (3pcs/box) for COD analysis	A00000145
DKL 20 Air refrigerator with ground cone for COD analysis	A00001041
DKL 20 Antisplash bell for COD analysis	A00001045
DKL 20 PTFE sheaths for 29/32 cones for COD analysis	A00001042
USB cable A/B 1,8mt	40002309
DKL IQ/OQ Manual	A00000186
KjTabs VCM - 1000 pcs/box	A00000274
KjTabs VKPC - 1000 pcs/box	A00000275
KjTabs VCT - 1000 pcs/box	A00000276
KjTabs VST - 1000 pcs/box	A00000277
KjTabs VTCT - 1000 pcs/box	A00000281
KjTabs VW - 1000 pcs/box	A00000282
KjTabs VS - 1000 pcs/box	A00000283
Adapter x probe Ø3mm for DK/DKL/ECO	A00000362



Use Genuine Velp consumables and accessories to get the best performance from your DKL.

## Instrument - Code

DKL 8	230 V / 50-60 Hz	S30100200
DKL 8	115 V / 50-60 Hz	S30110200
DKL 12	230 V / 50-60 Hz	S30100190
DKL 12	115 V / 50-60 Hz	S30110190
DKL 20	230 V / 50-60 Hz	S30100210
DKL 42/26	230 V / 50-60 Hz	S30100180

## Supplied with



Lift

DKL 8	A00000170
DKL 12	A00000176
DKL 20	A00000167
DKL 42/26	A00000167



Sample rack

DKL 8	A00000173
DKL 12	A00000172
DKL 20	A00000168
DKL 42/26	A00000180



Suction cap and drip tray

DKL 8	A00000175
DKL 12	A00000174
DKL 20	A00000169
DKL 42/26	A00000179



Test tubes

DKL 8	A00000144
DKL 12	A00000144
DKL 20	A00000144
DKL 42/26	A00000146

## Test Tubes and Kits



A00000144  
DKL 8, DKL 12,  
DKL 20  
Test tube 250 ml  
Ø 42x300 mm



A00000146  
DKL 42/26  
Test tube 100 ml  
Ø 26x300 mm



A00001088  
DKL 20  
Test tubes  
Ø 42x200 mm  
with cone NS  
29/32 (3pcs/box)



A00000185  
DKL 12, DKL 20  
Test tube 400 ml  
Ø 50x300 mm

## Fields of Application

The DKL Series is suitable for a variety of applications including the determination of nitrogen, protein, COD, TKN and more, in accordance with official methods.



### Food, Feed & Beverage

Meat, Fish, Poultry, Cereals, Bakery products, Milk, Dairy, Oils, Fats, Brewery, Oils Seeds, Pet food



### Environmental & Agro

Soils, Plants, Fertilizers, Waste, Wastewater, Water, Sludges, Sediments



### Chemical & Petrochemical

Rubber, Plastic, Lubricants, Petroleum products, Coal fuels, Coke



### Pharmaceutical & Life science

Pharmaceutical products, Vaccines, Active ingredients



### Cosmetics & Personal Care

Creams, Lotions, Powders

# KS 1000

The KS 1000 is a compact, tap-water-free scrubber designed to neutralize corrosive and toxic fumes—such as those from Kjeldahl digestion—via a two-stage process: first dissolving gases in a water-based tank, then neutralizing them with sodium hydroxide in a glass tank.

It fits neatly under a fume hood alongside Velp's DKL digesters, and offers an intuitive top-mounted interface with four adjustable suction levels for precise control. Built with durable materials like glass, Viton tubing, and metal/PVC components—and featuring eight perforated discs for enhanced efficiency—it ensures long-lasting, low-maintenance operation.

## Key Benefits:

- Eliminates exposure to harmful fumes for safer work environments
- No water supply needed—reduces consumption and avoids plumbing reliance
- Space-saving, fume hood-friendly design
- Easy-to-use controls, with adjustable suction tailored to digestion phases
- Built with robust materials for durability and easy upkeep



# Technical Data

	DKL 8	DKL 12	DKL 20	DKL 42/26
Construction material	Stainless steel with chemical resistant coating	Stainless steel with chemical resistant coating	Stainless steel with chemical resistant coating	Stainless steel with chemical resistant coating
Lift and suction cap control	Automatic	Automatic	Automatic	Automatic
Control system	Microprocessor with LCD Graphic Display	Microprocessor with LCD Graphic Display	Microprocessor with LCD Graphic Display	Microprocessor with LCD Graphic Display
Temperature range	Room temp. to 450 °C / 842 °F	Room temp. to 450 °C / 842 °F	Room temp. to 450 °C / 842 °F	Room temp. to 450 °C / 842 °F
Temperature accuracy	± 0.5 °C	± 0.5 °C	± 0.5 °C	± 0.5 °C
Set temperature	Digital Readout in °C, °F or K	Digital Readout in °C, °F or K	Digital Readout in °C, °F or K	Digital Readout in °C, °F or K
Temperature calibration	Automatic	Automatic	Automatic	Automatic
Program library	54 Program library, including 24 user-programmable memories	54 Program library, including 24 user-programmable memories	54 Program library, including 24 user-programmable memories	54 Program library, including 24 user-programmable memories
Temperature ramping	4 ramps per program	4 ramps per program	4 ramps per program	4 ramps per program
Time selection	1 to 999 Minutes - 1 Minute Steps	1 to 999 Minutes - 1 Minute Steps	1 to 999 Minutes - 1 Minute Steps	1 to 999 Minutes - 1 Minute Steps
Countdown	Digital Readout	Digital Readout	Digital Readout	Digital Readout
Languages	UK, I, E, F, RUS, CN + Additional downloadable	UK, I, E, F, RUS, CN + Additional downloadable	UK, I, E, F, RUS, CN + Additional downloadable	UK, I, E, F, RUS, CN + Additional downloadable
Interface	USB	USB	USB	USB
Run completed alert	Visual and Acoustic Signal	Visual and Acoustic Signal	Visual and Acoustic Signal	Visual and Acoustic Signal
Damaged temperature probe	Automatic Detection and Alarm Message	Automatic Detection and Alarm Message	Automatic Detection and Alarm Message	Automatic Detection and Alarm Message
Heating places	8	12	20	42
Size of tubes	250 ml	250 / 400 ml	250 / 400 ml	100 ml
Power	1150 W	1500 W	2300 W	2300 W
Overall dimension (WxHxD)	210x690x540 mm 8.3x27.2x21.3 in	266x690x540 mm 10.5x27.2x21.3 in	322x690x584 mm 12.7x27.2x23.0 in	322x690x584 mm 12.7x27.2x23.0 in
Overall weight	19.7 kg 43.5 lb	23.3 kg 51.4 lb	30.8 kg 68.0 lb	33.5 kg 74.0 lb

## Service & Support

Velp products are designed by our engineers to resist years of laboratory use.

Our products are manufactured with premium materials to guarantee the best performance with maximum safety.

According to our experience, a proper and regular maintenance is necessary to ensure the highest performance of analytical instrument. Velp Service Department and Velp Official Partners are always ready to offer you maintenance and service support tailored to your needs.

Get the support you need choosing the options:

- Help-desk and Remote support
- Technical Assistance
- Analytical Support

We reserve the right to make technical alterations  
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