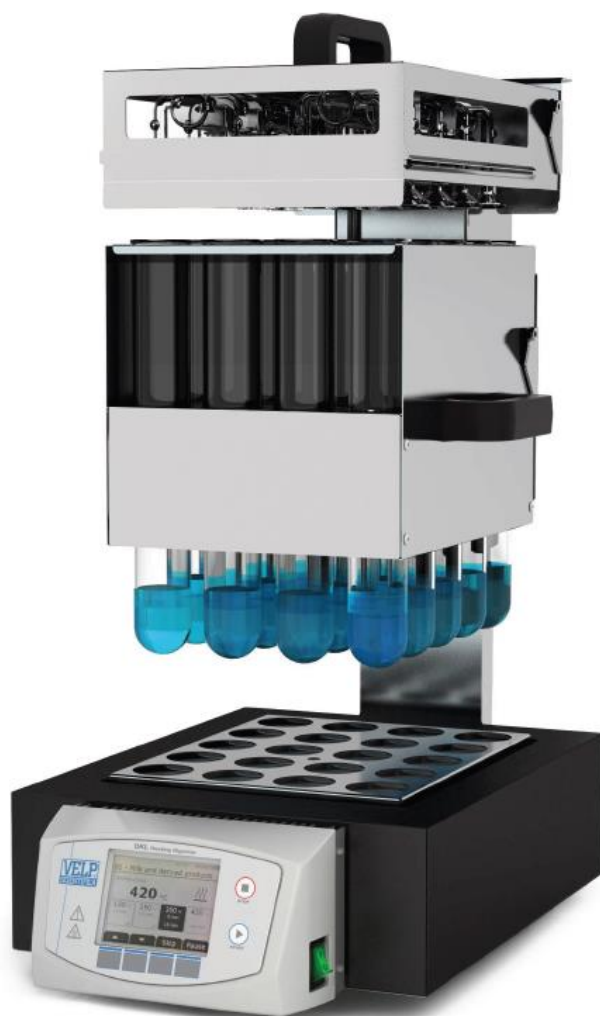




# DKL Series

## Fully Automatic Digestion Units

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



## DKL Fully Auto 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

The auto-lift facilitates the operator by reducing strain and time spent in manual tasks. The customizable programs allow for repeatable processes to run fully unattended.

### FAST AND FLEXIBLE

Extremely fast aluminum heating block is capable of reaching 420°C in just 20 min and maintaining temperature with an accuracy of  $\pm 0.5^\circ\text{C}$ . A complete set of available accessories allows for analysis of all sample types and quantities.

### SAFE AND ROBUST

The separated control panel is protected from heat and spills ensuring reliability and longevity. The innovative microprocessor controls the temperature of the block and is supported by safety thermostat.

### RESISTANT

The DKL Series is constructed with highly resistant materials such as the corrosion-protected housing that provides resistance to harsh working environments.

### USER FRIENDLY

The intuitive control panel makes operating and monitoring every stage of the analysis effortless. Many standard methods are pre-loaded and more can be customized and saved.

### COMPACT DESIGN

Thanks to the narrow footprint, the DKL Series saves valuable fume hood space to accommodate other instruments.



## VELP SOLUTIONS FOR KJELDAHL ANALYSIS

### SAMPLE



#### 1 DIGESTION

DKL SERIES / DK SERIES  
DIGESTERS

JP  
RECIRCULATING WATER VACUUM PUMP

SMS  
SCRUBBER

#### 2 DISTILLATION

UDK SERIES  
DISTILLATION UNITS

#### 3 TITRATION

UDK 149  
CONNECTIVITY TO EXTERNAL TITRATION  
SYSTEMS

UDK 159 / UDK 169  
INTEGRATED COLORIMETRIC TITRATION  
SYSTEM



NITROGEN mg (Protein %)

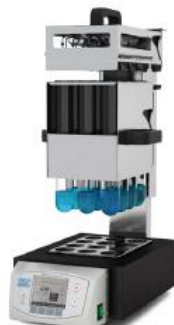
## Configurations

DKL 8



8 x 250 ml

DKL 12



12 x 250 / 400 ml

DKL 20



20 x 250 / 400 ml

DKL 42/26



42 x 100 ml

Microkjeldahl tubes (100 ml) are suitable for samples with a high nitrogen/protein content, 250 ml for standard Kjeldahl digestion and Jumbo tubes (400 ml) for samples with a low nitrogen/protein content.

## VELP Recommendation

In order to remove hazardous and noxious gases and vapors generated during the digestion process, every digester should be combined with a SMS Scrubber and a JP Pump to prevent potential damage to the digester and surrounding equipment.

### SMS SCRUBBER



SMS SCRUBBER is designed for the neutralization of toxic and corrosive fumes coming from digestion.

- HIGHLY COMPACT AND EFFICIENT
- USABLE FOR BOTH BASIC AND ACID NEUTRALIZATION
- SAFE AND ROBUST

### JP PUMP



JP WATER VACUUM PUMP is an innovative and reliable recirculating water pump for aspirating fumes with dual operating modes.

- AUTOMATION AND OPTIMIZATION OF VACUUM POWER
- REDUCED WATER CONSUMPTION
- HIGH EFFICIENCY

## FULLY AUTOMATED AND UNSUPERVISED DIGESTION IN 3 STEPS



1 DIGESTION

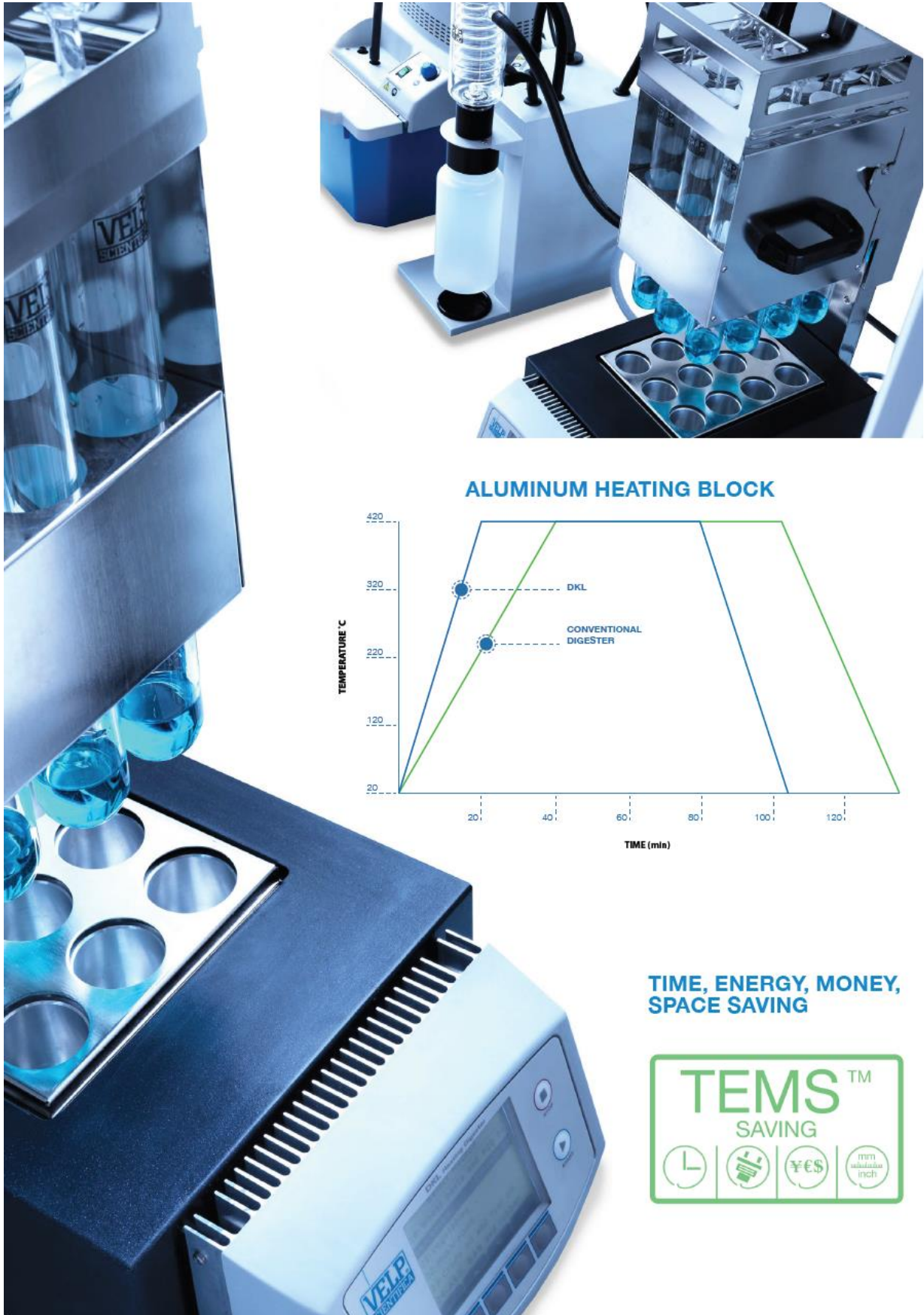


2 COOLING

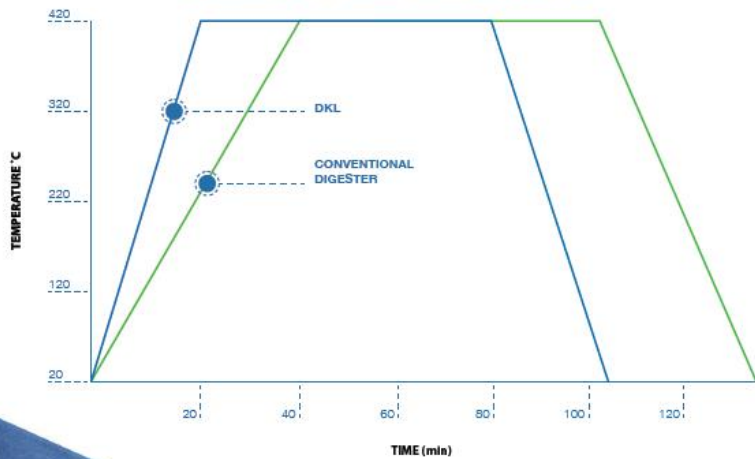


3 RACK EXTRACTION AND RE-LOADING





**ALUMINUM HEATING BLOCK**



**TIME, ENERGY, MONEY,  
SPACE SAVING**



## 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

## 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.



## 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



A00000144  
 DKL 8, DKL 12,  
 DKL 20  
 Test tubes  
 Ø 42x300 mm  
 250 ml (3pcs/box)



A00000145  
 DKL 20  
 Test tubes  
 Ø 42x200 mm  
 with cone NS  
 29/32 (3pcs/box)



A00000146  
 DKL 42/26  
 Test tubes  
 Ø 26x300 mm  
 100 ml (6pcs/box)



A00000185  
 DKL 12, DKL 20  
 Test tubes  
 Ø 50x300 mm  
 400 ml (3pcs/box)



## 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 460 °C / 842 °F	Room temp. to 460 °C / 842 °F	Room temp. to 460 °C / 842 °F	Room temp. to 460 °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	64 Program library, including 24 user-programmable memories	64 Program library, including 24 user-programmable memories	64 Program library, including 24 user-programmable memories	64 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	260 ml	260 / 400 ml	260 / 400 ml	100 ml
POWER	1160 W	1600 W	2300 W	2300 W
OVERALL DIMENSION (WxHxD)	210x690x640 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 Scientifica 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:

- Installation
- Preventive Maintenance
- Help-desk and Remote support
- Technical Assistance
- Analytical Support
- Calibration Certification



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