

KJELDIG-D450

Infrared Kjeldahl Digestor • Infrared + graphite • 20 positions • 400 °C in 25 min • 20 programs

KJELDIG-D450 Infrared Kjeldahl Digestor is a 20-position Kjeldahl digestor with infrared heating and high-purity graphite conduction. It reaches 400 °C in 25 min, controls from room temperature +5 °C to 450 °C with ± 1 °C accuracy and stores 20 digestion programs with linear or curve heating on a 5.6" colour screen. The PTFE-coated housing, air-duct insulation, cooling rack and fume collection hood are standard; the optional EXSC5 scrubber completes a safe digestion station.

KJELDAHL DIGESTOR

INFRARED + GRAPHITE

20 POSITIONS

400 °C IN 25 MIN

± 1 °C

20 PROGRAMS

5.6" COLOUR SCREEN

HOOD + COOLING RACK

Document type: Technical Specification Sheet

Product: KJELDIG-D450 Infrared Kjeldahl Digestor

SKU: PRO3576

Format: A4 landscape • 5 pages

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ORGANIC ELEMENTAL ANALYSIS — OVERVIEW

ORGANIC ELEMENTAL ANALYSIS CATALOGUE

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KJELDIG-D450 • Infrared Kjeldahl Digestor



Complete Kjeldahl system • digestor, scrubber and analyzer from one source

MODEL / SKU

**KJELDIG-D450
PRO3576**

ADDRESS / HQ

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KJELDIG-D450 • technical specification

Fast infrared-graphite digestion with 20 programs and complete fume handling

20 × 300 ML

400 °C IN 25 MIN

UP TO 450 °C

±1 °C

20 PROGRAMS

— Fast, reproducible digestion for busy food, feed and environmental laboratories



Product Overview

Application profile

High-throughput protein labs: 20 samples per batch with short heat-up.

Soil, plants and fertilizers: total nitrogen digestion before distillation.

Water and wastewater: digestion for total Kjeldahl nitrogen (TKN).

Demanding matrices: fatty and foaming samples with stepped programs.

Key features

Positions: 20 tubes $\varnothing 42$ mm × 300 mL per batch.

Heating: infrared + graphite; 400 °C in 25 min; up to 450 °C, ± 1 °C.

Programs: 20 digestion programs, linear or curve heating, 5.6" colour screen.

Protection: over-current, overload and high-temperature warning.

Size and power: 515 × 458 × 730 mm, 40 kg, 3.6 kW.

Core technical summary

Parameter	Specification
Model	KJELDIG-D450
SKU	PRO3576
Instrument type	Infrared Kjeldahl digester
Positions	20
Heat-up	400 °C in 25 min
Temperature range	room temperature +5 °C to 450 °C
Temperature accuracy	± 1 °C
Programs	20 digestion programs
Display	5.6" colour screen
Rated power	3.6 kW

Value for the laboratory

Fast heat-up: infrared heating with graphite conduction reaches 400 °C in 25 min.

Controlled foaming: 20 programs with linear or curve heating — foaming is controlled by the method, not by special glassware.

Durable build: anti-oxidation treated graphite, PTFE-coated housing and air-duct insulation.

Complete station: fume hood and cooling rack included; standard $\varnothing 42$ mm tubes; EXSC5 scrubber as option.

HEAT-UP TO 400 °C
25 min

MAX. TEMPERATURE
450 °C

ACCURACY
 ± 1 °C

PROGRAMS
20

Technical values are provided for product selection; the delivered configuration is confirmed in the official COLO.Science quotation. Every Kjeldahl system is supported by COLO.Science with installation, operator training, method validation on your sample and local service.

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Technical Parameters

Parameter	Specification	Parameter	Specification
Model	KJELDIG-D450	Heating profile	linear or curve
SKU	PRO3576	Display	5.6" colour screen
Instrument type	Infrared Kjeldahl digester	Housing	PTFE-coated
Positions	20	Fume collection	hood with sealed caps, water-jet suction and drip tray (included)
Digestion tubes	φ42 mm, 300 mL (standard, open format)	Cooling rack	included
Temperature range	room temperature +5 °C to 450 °C	Protection	over-current, overload, high-temperature warning
Temperature accuracy	±1 °C	Power supply	220 V AC ±10 %, 50 Hz
Heat-up	400 °C in 25 min	Rated power	3.6 kW
Heating	infrared + high-purity graphite conduction, anti-oxidation treated	Dimensions (W×D×H)	515 × 458 × 730 mm
Insulation	air-duct insulation	Weight	40 kg
Programs	20 digestion programs		

Specification notes

Foaming: controlled by the method — programmable step heating (linear or curve), sample and acid amount — not by special glassware.

Methods: for the digestion step of classical Kjeldahl methods such as ISO 8968-1 (milk), ISO 5983-2 (feed), ISO 20483 (cereals), ISO 1871 (food), ISO 11261 (soil), ISO 5663 / EPA 351.3 (water, TKN) and AOAC 2001.11.

Operation: no automatic lift — the tube rack is moved to the cooling rack by hand; the EXSC5 scrubber is recommended outside a fume cupboard.

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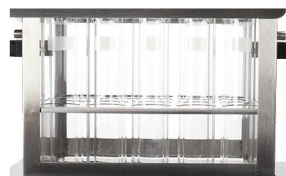
Options and accessories



Fume collection hood

Sealed clip-on caps, water-jet suction without electric power and a drip tray against acid corrosion.

Standard delivery



Cooling rack

Holds the hot tube rack after digestion for safe cooling.

Standard delivery



PRO5814

EXSC5 scrubber

Three-stage neutralization: water condensation, alkali, activated carbon; adjustable suction.

Optional



Digestion tubes $\varnothing 42 \times 300$ mL (set)

Standard open-format tubes for all KJELDIG digestors and KJELFAST / KJELFASTER units — one tube from digestion to distillation.

Optional



PRO3574

KJELFAST-K300 distillation unit

Automatic steam distillation, 3–6 min per sample, 0.1–240 mg N; titration separate.

Optional



PRO3573

KJELFASTER-K500 automatic analyzer

Distillation + titration, 2.0 μ L/step, 1000 results, integrated printer.

Optional



PRO3571

KJELFASTER-K700 automatic analyzer

Titration during distillation, 1.0 μ L/step, adjustable steam, 1800 results.

Optional



PRO3572

KJELFASTER-K900 fully automatic analyzer

10" touchscreen, 0.2–1.0 μ L/step, 21 CFR Part 11, 1 million results, 0.5 L/min water.

Optional

More options and consumables

SKU	Item	Use	Status
—	Kjeldahl catalyst tablets	Digestion — consumable, ordered separately	Optional
—	Reagents: sulfuric acid, NaOH 40 %, boric acid with indicator, standard acid	Consumables — ordered separately	Optional

Standard delivery: KJELDIG-D450 digester with fume collection hood and cooling rack. Digestion tubes, catalyst tablets and reagents are ordered separately. Standard delivery is confirmed in the quotation.

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KJELDIG-D450 infrared Kjeldahl digester

Ordering information

Item	Value
Model	KJELDIG-D450
SKU	PRO3576
Instrument type	Infrared Kjeldahl digester
Included	fume collection hood, cooling rack
Digestion tubes	φ42 mm × 300 mL (standard)
Options	EXSC5 scrubber; KJELFAST / KJELFASTER units
Power supply	220 V AC ±10 %, 50 Hz

Configuration checklist

Samples per batch: 20 tubes × 300 mL.

Heat-up: 25 min to 400 °C; for a lower-cost block compare the KJELDIG-D250.

Fumes: EXSC5 scrubber or a fume cupboard.

Distillation: K300, K500, K700 or K900 use the same tubes — see page 4.

MANUFACTURER AND SUPPORT

COLO Lab Experts

Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: KJELDIG-D450 is selected when a laboratory wants fast infrared-graphite heating, 20 stored programs and a complete station with hood and cooling rack. For routine work at lower cost choose the KJELDIG-D250.

QUICK CONTACT

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COLO.SCIENCE · KJELDAHL SYSTEM CONFIGURATION SUPPORT

Need help configuring your Kjeldahl system?

Tell us the sample types and daily number of samples. COLO.Science will configure the system with the KJELDIG-D450 (digester, scrubber, analyzer), validate the method on your sample and send a quotation.

Web: colo.si

Ask us:

Price and current discount, delivery time, system configuration for your samples, installation and operator training, method validation, digestion tubes, reagents and spare parts — write to sales@colo.si or call us.

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