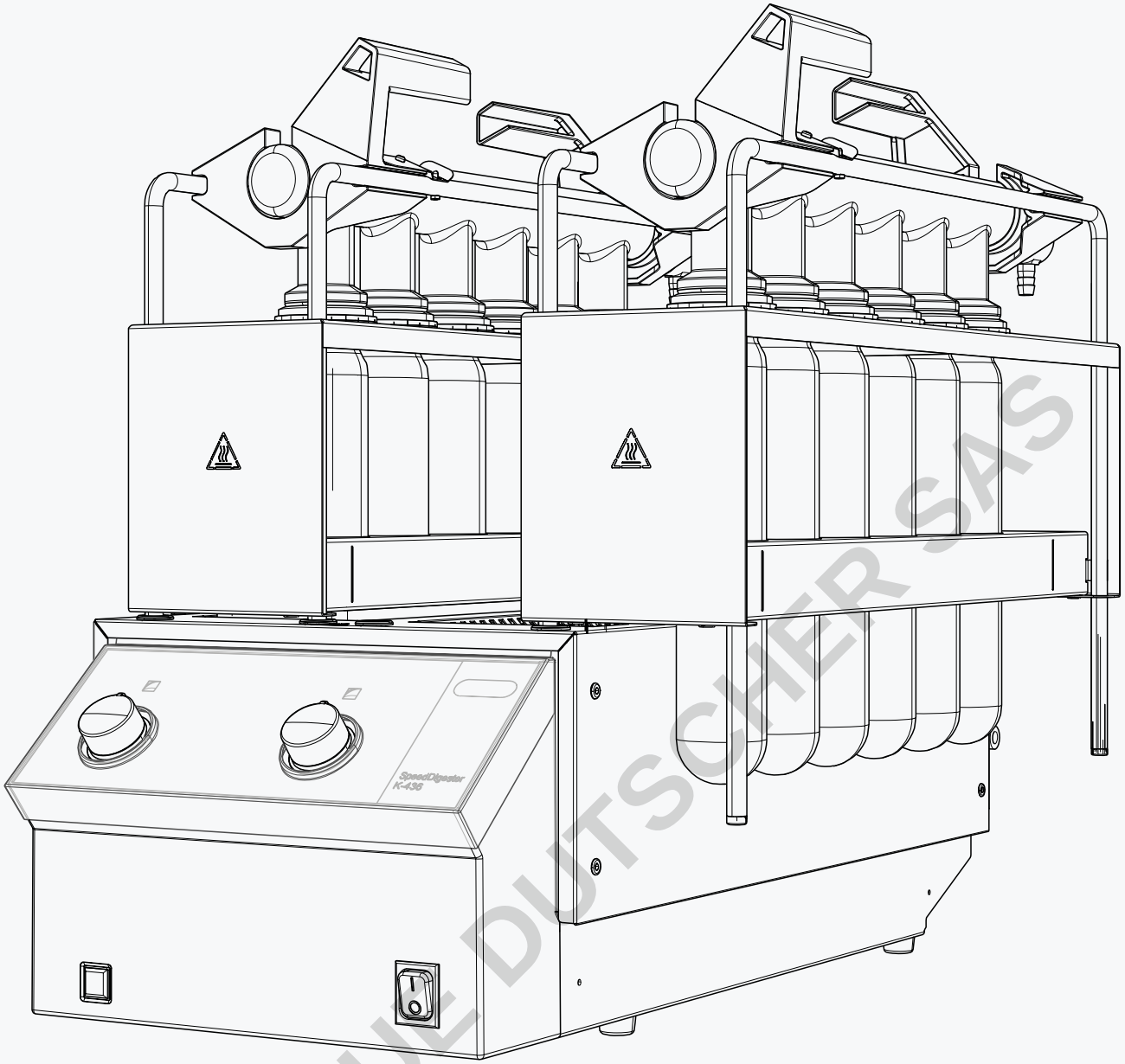


DOMINIQUE DUTSCHER SAS

Technical data sheet

SpeedDigester K-425 / K-436

On these two systems the heating level is adjusted using continuous controls. The optimized design of the heating chambers reliably ensures that all samples are homogeneously heated, an aspect that prevents the foaming of critical samples. With the K-436 the two heating chambers can be controlled individually.

Scope of delivery

The SpeedDigester matches different and changing needs, and is available ready to be used with 100 mL, 300 mL, 500 mL, ground joint or 250 mL 3rd party sample tubes.

The delivered rack and suction module type is depending on the sample tube size. For all configurations with 300 mL sample tubes three different suction module variants are available (standard, with condensate trap and for H_2O_2 addition). The configuration “only digester” does not contain any accessory, and can be used for individual configurations like micro-Kjeldahl, or reflux digestion (e.g. COD or aqua regia).

The scope of delivery is not valid for the configuration “only digester” and depends on the ordered instrument configuration:

	K-425	K-436
Insulation plate	1	2
Hose set (EPDM)	1	1
Rack	1	2
Connecter to suction module	1	2
Suction module (incl. FKM seals)	1	2
Sample tubes (300 mL)*	8	12
Sample tubes (500 mL)*	5	10
Micro sample tubes (100 mL)*	8	12
Rubber plug for connecter to suction module	-	1
Weighing Boats	20	20

* either 100 mL, 300 mL or 500 mL

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Order code

Choose the configuration according to your needs:



Instrument model

425 SpeedDigester K-425
436 SpeedDigester K-436

Supply voltage

1 110–120 V ±10 50/60 Hz (only K-425)
2 220–240 V ±10 50/60 Hz

SpeedDigester K-425 / K-436 configuraion

0 Only digester (without any accessory for individual configuration)
1 300 mL sample tubes and standard suction module
2 300 mL sample tubes and suction module with condensate trap
3 300 mL sample tubes and suction module for H2O2 addition
4 Suction module for 250 mL 3rd party sample tubes
5 500 mL sample tubes and suction module with condensate trap
6 100 mL sample tubes (micro-Kjeldahl) and standard suction module

Sample tube configurations and max. number of samples

Sample tube configuration	Max. number of samples K-425	Max. number of samples K-436
100 mL tubes (micro-Kjeldahl)	6	12
300 mL tubes (standard Kjeldahl)	6	12
500 mL tubes (TKN)	5	10
Ground joint tubes (NS 29/32; COD / reflux)	6	12
3rd party tubes	6	12

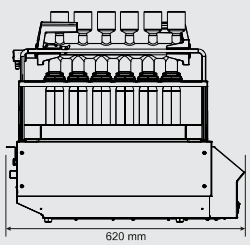
DOMINIQUE DUTSCHER SAS

Technical data

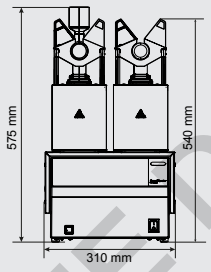
SpeedDigester

	K-425	K-436
Dimensions (W x D x H)	310 mm x 620 mm x 540 mm	310 mm x 620 mm x 540 mm
Weight	12 kg	15.5 kg
Operating voltage	110–120 V ±10 % / 220–240 V ±10 %	220–240 V ±10 %
Frequency	50 / 60 Hz	50 / 60 Hz
Power consumption	1,280 W	2,550 W
Temperature range	70–580 °C	70–580 °C
IP Code	IP20	IP20
Certificate	CE / CSA	CE / CSA

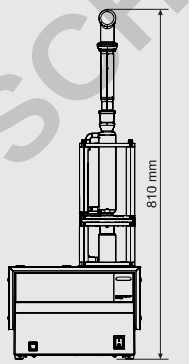
Dimensions



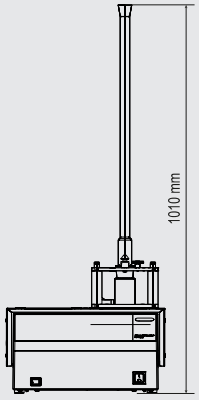
Side view



Front view



Water reflux setup for aqua regia digestion



Air reflux setup for COD digestion

Ambient conditions

For indoor use only.

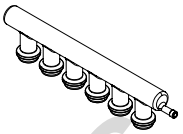
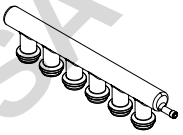
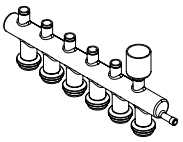
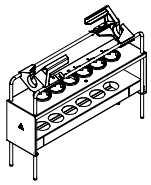
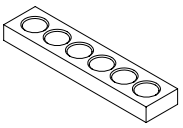
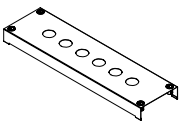
Specification	Value
Max. altitude above sea level	2,000 m
Ambient and storage temperature	5–40 °C
Max. relative humidity	80% for temperatures up to 31 °C decreasing linearly to 50% relative humidity at 40 °C

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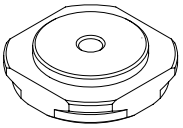
Spare parts and accessories

Accessories

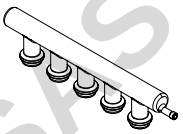
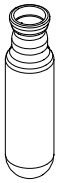
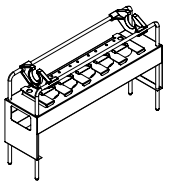
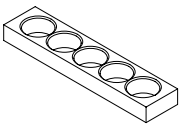
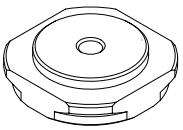
For 300 mL tubes

	Order no.	Image
Suction module standard Suitable for most applications	11055849	
Suction module with condensate trap For aqueous samples, prevents backflow of condensate into the sample tube	11055865	
Suction module for H2O2 addition	11055853	
Sample tubes 300 mL, 4 pcs. For sample volumes up to 200 mL or 5 g in weight	037377	
Sample tubes 300 mL 20 pcs.	11059690	
Rack for 300 mL/micro tubes	11055248	
Insulation plate for 300 mL tubes	11055142	
Bed-plate to rasing the sample tubes For raising the 300 mL sample tubes in the rack, for easier removal	11055943	

DOMINIQUE DUTSCHER SAS

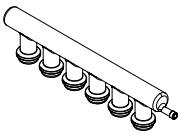
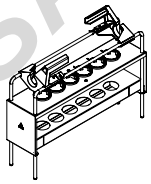
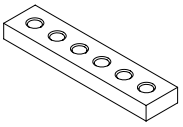
	Order no.	Image
Insulation cap for unused positions To cover individual unoccupied positions of the insulation plate, for 300 mL and 500 mL sample tubes	11056024	

For 500 mL tubes

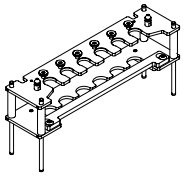
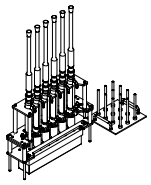
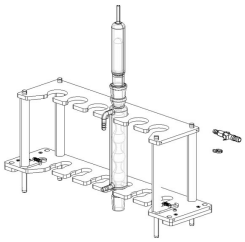
	Order no.	Image
Suction module with condensate trap	11055851	
Sample tubes 500 mL, 4 pcs. For sample volumes up to 400 mL in volume or more than 4 g in weight	043982	
Rack for 500 mL tubes (incl. base and interlock spring)	11056966	
Insulation plate for 500 mL tubes	11055143	
Insulation cap for unused positions To cover individual unoccupied positions of the insulation plate, for 300 mL and 500 mL sample tubes	11056024	

DOMINIQUE DUTSCHER SAS

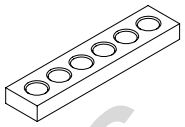
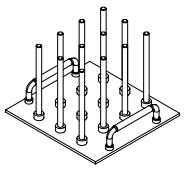
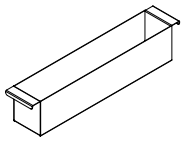
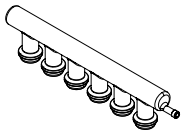
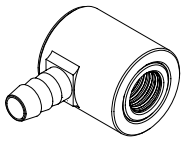
For micro-Kjeldahl tubes

	Order no.	Image
Suction module standard Suitable for most applications	11055849	
Sample tubes micro (100 mL), 4 pcs. For sample volumes up to 3 mL in volume or 0.2 g in weight. Reduction of chemicals of approx. 80% compared to the 300 mL tubes.	11057442	
Rack for 300 mL/micro tubes	11055248	
Insulation plate for micro tubes	11055204	

For reflux and COD digestion

	Order no.	Image
Reflux rack For reflux digestion and COD digestion	11058226	
Air reflux condenser, 6 pcs. For COD digestion, length 700 mm, NS 29/32	11058300	
Water reflux setup For reflux digestion, incl. holder with 6 water condensers, 6 absorption vessels and silicone hoses with quick coupling Add insulation plate for reflux (11055877) and reflux rack and ground joint sample tubes (11058697) for complete set	11058227	

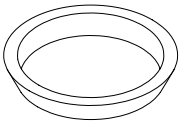
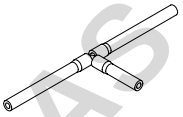
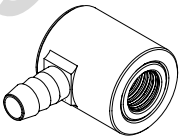
DOMINIQUE DUTSCHER SAS

	Order no.	Image
Absorption vessels for water reflux For reflux digestion	11058377	
Insulation plate (reflux and 3rd party tubes)	11055877	
Sample tubes ground joint (NS 29/32) For reflux digestion and COD digestion	11058697	
Stand for air reflux condensers For COD digestion, stand for 12 condensers	11058700	
Cooling tray For COD digestion, to cool the sample tubes when adding the chemicals	11058701	
Suction module standard Suitable for most applications	11055849	
Connecter to suction module (PVDF)	11056804	

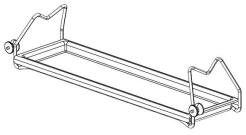
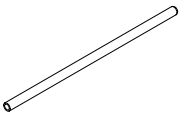
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High resistance parts

For digestions using nitric acid, hydrochloric acid or aqua regia, special system requirements are necessary.

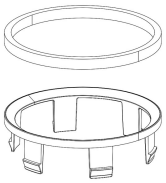
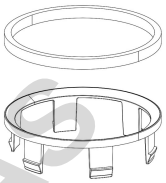
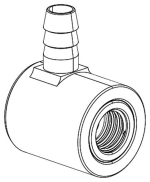
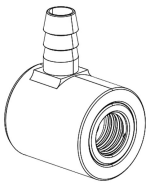
	Order no.	Image
Sealing (PTFE)	022442	
Hose set (FKM)	11056891	
Connecter to suction module (PVDF)	11056804	

General accessories

	Order no.	Image
Weighing boats Nitrogen-free weighing paper 58 x 10 x 10 mm, 100 pcs.	11060522	
Glass caps, 4 pcs. For occupying empty sample positions, to close the suction circuit	040049	
Stand with drip tray (for suction manifold)	11055216	
Connection cable to digester The Scrubber is controlled by the digester by the cable connection (already incl. at Scrubber ECO models)	030973	
Digestion rods To prevent boiling delays,10 pcs.	043087	
Scrubber K-415 For the corresponding order number see Technical Data Sheet K-415		

DOMINIQUE DUTSCHER SAS

Spare parts

	Order no.	Image
Set weldering spring holder 6 pcs.	11055984	
Set weldering spring holder 4 × 6 pcs.	11085445	
Hose coupling	11055367	
Hose coupling 4 pcs.	11085450	
Set gasket Viton 6 pcs.	038122	
Set gasket Viton 4 × 6 pcs.	11085452	

Kjeldahl tablets

	Order no.
Kjeldahl Tablets Titanium For efficient digestions, 1000 tablets (3.5 g K_2SO_4 / 0.105 g $CuSO_4$ * 5 H_2O / 0.105 g TiO_2)	11072627
Kjeldahl Tablets Titanium Micro For small sample sizes, 1000 tablets (1.5 g K_2SO_4 / 0.045 g $CuSO_4$ * 5 H_2O / 0.045 g TiO_2)	11072628
Kjeldahl Tablets Missouri For efficient digestions without Titanium, 1000 tablets (4.98 g K_2SO_4 / 0.02 g $CuSO_4$ * 5 H_2O)	11072629
Kjeldahl Tablets ECO For eco-friendly digestions with minimum amount of copper, 1000 tablets (3.998 g K_2SO_4 / 0.002 $CuSO_4$ * 5 H_2O)	11072630

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	Order no.
Kjeldahl Tablets Antifoam	11072631
For foaming samples in digestions to avoid cross contamination due to foaming, 1000 tablets (0.97 g Na_2SO_4 / 0.03 g Silicone)	
Kjeldahl Tablets Copper Micro	11072632
For small sample sizes without Titanium, 1000 tablets (1.5 g K_2SO_4 / 0.15 g $CuSO_4$ * 5 H_2O)	

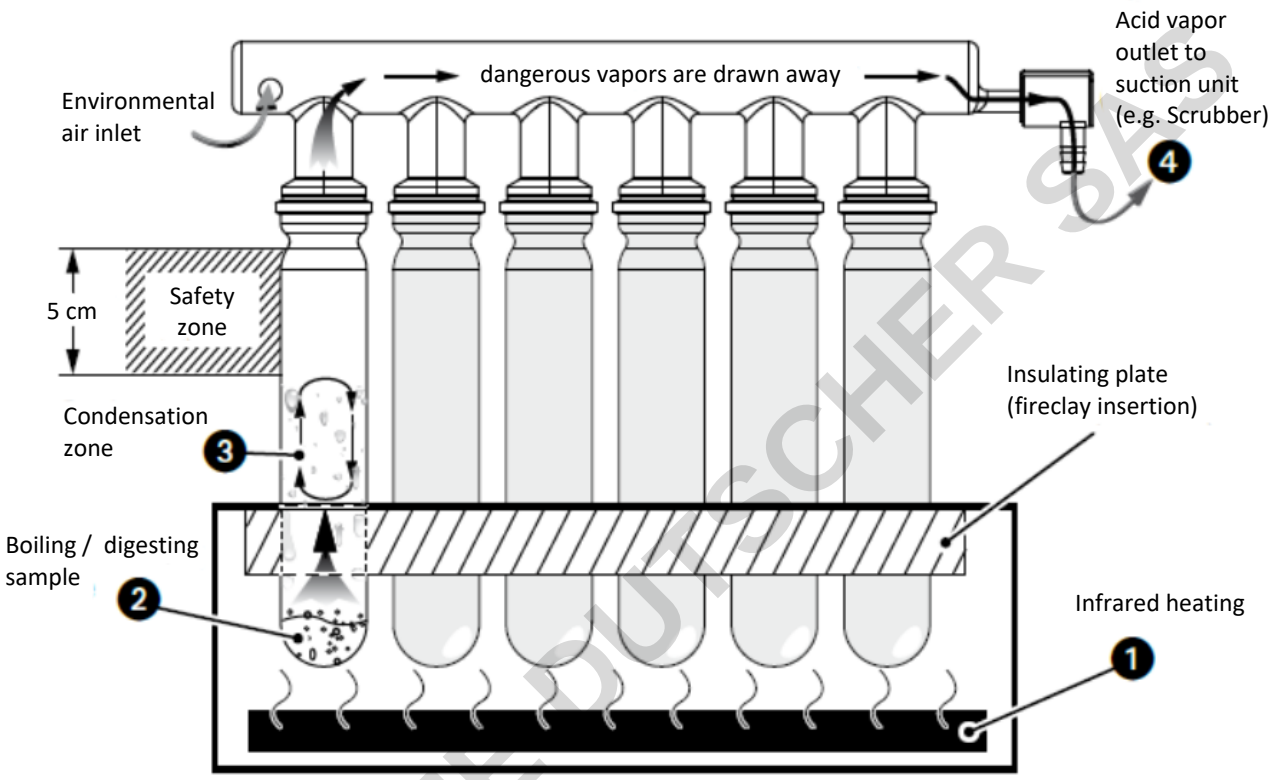
Documentation

	Order no.
Kjeldahl Guide (EN)	11055033
Comprehensive guide covering all aspects of the theoretical and practical know-how	
Kjeldahl Practice Guide (EN)	11592548
Provides theoretical background information, useful hints and calculation tables for daily routine work	
Kjeldahl Practice Guide (DE)	11592547
Kjeldahl Practice Guide (CN)	11592549

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Functional principle

The infrared heating (1) generates high temperatures in the sample (2).
The sample (2) is digested in the constantly boiling acid.
Hot acid fumes rise into the condensation zone (3), condense and rinse back down to the sample creating a constant reflux.
Residual fumes which escape the condensation zone are highly corrosive and must be withdrawn and efficiently neutralized (i.e. with the Scrubber K-415) (4).



DOMINIQUE DUTSCHER SAS

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11594703I en SpeedDigester K-425 / K-436 11.2025
Technical data are subject to change without notice
Quality Systems ISO 9001

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