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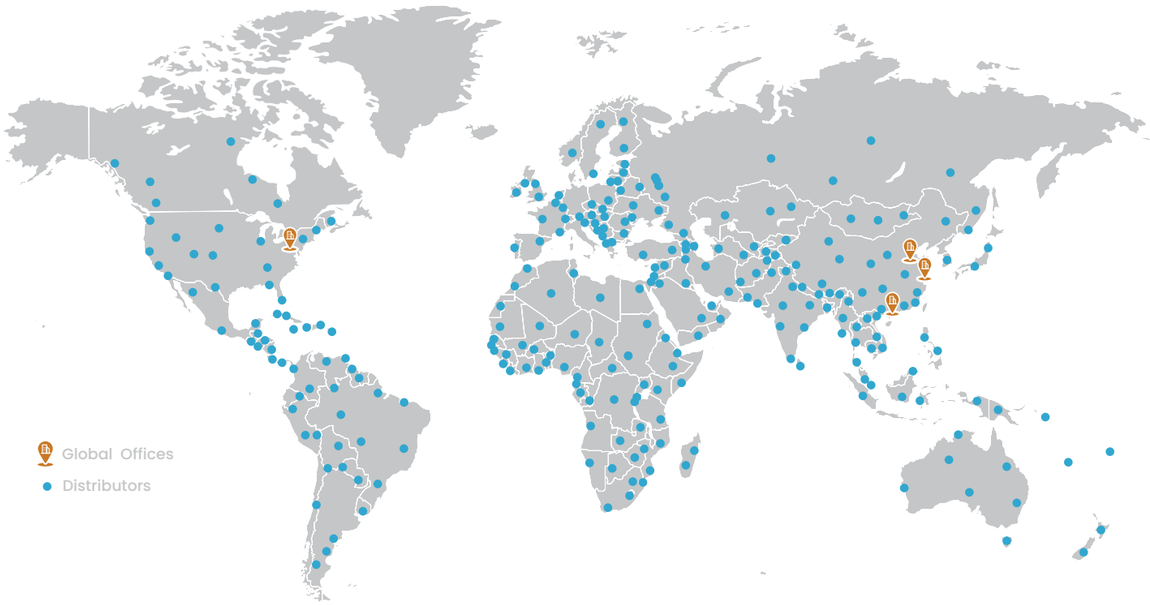


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**Infitek**

# Kjeldahl System

**Laboratory and Medical equipment one-stop solution provider**

INFITEK CO., LTD.

• V.01

# Kjeldahl Analyzer

## KJA-9840

## Application

It is widely used in food processing, feed production, tobacco, livestock, soil fertility, environmental monitoring, medicine, agriculture, scientific research, teaching, quality control and other fields for the test of nitrogen or protein content, can also be used for the test of ammonium, volatile fatty acid / alkali, and so on.

## Features

Automatic accurate distribute alkali and boric acid solution.

Perfect safety protection system gives distiller and tubes measurement and protection against over temperature and over pressure.

Calibration function: Dilution water calibration, Alkali solution calibration, Boric acid solution calibration and washing flow calibration.

Safety door, digestion tube and cooling water condition are displayed at real time when running.

## Specifications

| Model | KJA-9840 |
|---|---|
| Measuring Range | 0.1～240mg N |
| Recovery | ≥99.5% |
| Sample Capacity | Solid≤ 6g/sample, liquid≤16ml/sample |
| Distillation Speed | 3-6mins/sample |
| Cooling Water Consumption | 1.5L/min |
| Operating Mode | Manual/automatic mode |
| Display Modes | 4.3" LCD screen |
| Power Supply | 220VAC±10%, 50Hz |
| Power | 1.3kW |
| Dimensions | 400mm*385mm*735mm |
| Net Weight | 30kg |





## Characteristics

Calibration Function: Dilution water calibration, Alkali solution calibration, Boric acid solution calibration and Washing flow calibration.

Manual/Automatic mode changeover free.
Automatic or manual filling mode is optional according to test need.

Automatic Alkali pipeline washing function.

Emergency stop operation is able to deal with unexpected accidents.

## Characteristics

Display: 4.3 inch color screen.

Safety door, Digestion tube and cooling water condition are displayed at real time when running.

Built in-testing model to detect most functions condition.

Intelligent design of nitrogen tube peripheral facilities including safety designs and displacement hint.

Automatic cleaning of control system and distiller, ensuring high measurement accuracy.

Intelligent cooling water control system achieves cooling water control and test.

Distillation time can be edited freely, and automatic alarming upon completion.

Automatic fault detection and intelligent audible and visual alarm system are available.

# Automatic Kjeldahl Analyzer

## KJA-9860

## Description

This product is widely used in food processing, feed production, tobacco, animal husbandry, soil and fertilizer, environmental monitoring, medicine, agriculture, scientific research, teaching, quality supervision and other fields to determine nitrogen or protein content.

## Specifications

| Model | KJA-9860 |
|---|---|
| Measuring Range | 0.1~240mgN |
| Analysis Time | 5~10min/sample |
| RSD | ≤0.5% |
| Recovery | ≥99.5% |
| Burette Volume | 2.0μL/step |
| Capacity | Solid≤ 5g/sample, Liquid≤20mL/sample |
| Water Consumption in the Distillation Process | 1.5L/min |
| Data Storage Capacity | 1000 groups |
| Electricity | 220VAC±10%, 50Hz |
| Power | 2kW |
| External Dimension | 455*391*730mm |
| Net Weight | 38kg |





## Features

Automatic cleaning ensures operators' safety and saves time.

External titration cup design gives the operator real-time control of the whole test process.

High-precision charging pump and titration system ensure the accuracy of test results.

The temperature of the distilled liquid is detected real-time. If the temperature of the distilled liquid is abnormal, the instrument will stop working to ensure the accuracy of experiment result.

Easy maintenance: Pre-install functions of cleaning, including receiving cup cleaning, alkali pipeline cleaning, boric acid pipeline cleaning, acid washing, steam bottle evacuation. Support customers make the routine maintenance easily.

High accuracy dozing and working.

High titration accuracy, up to 2.0μ L/step.

Integrated printer on the instruments.

# Automatic Kjeldahl Analyzer

## KJA-S06

## Application

It is widely used in the fields of food processing, feed production, tobacco animal husbandry, soil and fertilizer, environmental monitoring, medicine, agriculture, scientific research, teaching, quality supervision, etc. to determine nitrogen content or protein content and cation exchange capacity.

## Features

Brand-new multi-core ARM operating system, 10-inch LED high-definition color LCD touch screen, real-time monitoring and display of experimental process.

The Kjeldahl method is used: Digestion of samples in concentrated sulfuric acid environment, Steam distillation in alkaline environment, Boric acid absorption, Indicator titration endpoint color determination method.

The ultra-trace nitrogen content can be accurately tested to 10ppm.

There are 2 working modes as standard, and the nitrate nitrogen and high nitrogen automatic testing modules can be added according to needs.

Fully automatic reagent addition, distillation, titration, titration cylinder waste discharge, calibration, liquid level monitoring, calculation, data storage, test report generation and upload, the entire experimental process is fully automated and simple.

Double distillation mode, steam flow rate is adjustable from 0-100%.

High-precision titration system and professional integrated plunger ensure test accuracy and reliability.

The splash-proof bottle is made of polymer material, which is resistant to high temperature and strong alkali, and at the same time ensures that ammonia does not leak and the recovery rate is not low.

External titration cup, the experimental process is visible in real time, the titration system lighting configuration and mature color endpoint determination software are combined to minimize the impact of external light sources.

The titration system adopts dynamic titration technology and automatic speed titration technology. The titration system automatically detects and switches the titration speed, truly achieving the simultaneous completion of the distillation, titration and calculation processes, reducing the experimental time by 40%.

The titration color can be calibrated automatically or manually. The titration endpoint is determined by using a high-precision 16-bit three-primary color digital signal color sensor to collect color signals.





## Features

Fully automatic fault monitoring: safety door and digestion tube in place detection; the distillation generator has multiple protections such as pressure sensor, steam over-pressure protection, temperature sensor, temperature protection switch, water level float and potential dual detection; distillation distillate temperature and volume detection to avoid excessive temperature or distillation volume fluctuations affecting the test results; real-time monitoring of cooling water flow, low water pressure alarm, automatic termination of operation when water is cut off; condensate effluent temperature monitoring to ensure complete condensation of samples and accurate and reliable experimental results.

The pump body adopts polytetrafluoroethylene bellows pump: resistant to strong acid and alkali corrosion, excellent particle clogging resistance structure, stepper motor control, stable liquid addition. Negative pressure suction is safe.

The instrument can store 100,000 sets of data, and the test results can be expressed in 12 ways, including Word and Excel.

The liquid level in the reagent barrel is monitored to ensure that there is no lack of liquid during the experiment.

The instrument has self-check function, one-key reset, built-in operation assistant, and is more intelligent.

304 stainless steel distillation reaction chamber, Teflon treated visual safety door.

The distillation system specially designed according to the law of ammonia escape ensures high and reliable test recovery rate.

## Specification

| Model | KJA-S06 |
|---|---|
| Measuring Range | 0.1~240mgN(conventional nitrogen) |
| Measuring Speed | 3-7mins/sample |
| Recovery Rate | ≥99.5% |
| Repeatability Error | ≤0.5% |
| Linear Range | RSD≤1% |
| | (The sample in the digestive tube is within the range of 1-3 times the nitrogen content) |
| Distillation Flow Rate | 0～100% adjustable |
| Titration Accuracy | 0.1μL/step |
| Measured Sample Amount | Solid: ≤6g, liquid ≤25mL |
| Data Storage Capacity | 100,000 (inside the instrument) |
| User-Defined Solution | 500set |
| Consumption of Cooling Water | 0.5L/min (cooling water temperature is 15℃); |
| | 1.5L/min (cooling water temperature is 25℃); |
| | The cooling water temperature should be kept below 35℃ for normal use of the instrument. |
| External Dimension | 500*460*780mm |
| Net Weight | 52kg |

# Kjeldahl Analyzer

## KJA-S1305

## Application

It is used to detect nitrogen content or protein content, cation exchange capacity in the fields of food, medicine, soil, chemical industry, agriculture, forestry, materials, environmental monitoring, etc.

## Features

Reliable PTFE bellows pump, special anti-corrosion, resistant to particle clogging, stable liquid addition, no danger of negative pressure suction.

The distillation system specially designed according to the law of ammonia escape ensures high and reliable test recovery rate.

The facilities around the digestive tract are intelligently designed, with a transparent acrylic protective cover to avoid danger.

It has a self-check function, which can detect whether each function is normal.





## Features

Color LCD touch screen, distillation time and reagent addition are set through the screen, and the conditions can be automatically saved.

The Kjeldahl method is used: Digestion of samples in concentrated sulfuric acid environment, Steam distillation in alkaline environment, Boric acid absorption, Indicator titration endpoint color determination method.

ABS engineering plastic panel, corrosion-resistant, waterproof and anti-electricity.

Automatically add dilution water, reagents (alkali solution and absorption solution), distill, and equipped with calculation software, the calculation results are convenient and fast.

Water-saving design, circulating water flow ≥ 1.5L/min, circulating water is only turned on during the distillation process. Real-time monitoring of cooling circulating water flow, low water pressure alarm display, automatic termination of operation prompt when water is cut off.

Safety door in place, digestion tube in place, steam boiler liquid level, steam boiler temperature, cooling water temperature monitoring and prompts.

Adopts stable steam generator technology, automatic preheating, water replenishment, automatic control of steam pressure, automatic dry burning prevention, and automatic cleaning.

Automatically control steam pressure within a safe range, away from the danger of steam over-pressure.

Adopts double distillation mode, manual and automatic switching at will.

## Specification

| Model | KJA-S1305 |
|---|---|
| Measuring Range | 0.1~240mgN (conventional nitrogen, nitrate nitrogen) |
| Measuring Speed | 3-8mins/sample |
| Recovery Rate | ≥99.5%(100%±0.5%) |
| Repeatability Error | ±0.5% |
| Measured Sample Amount | Solid: ≤6g, liquid ≤ 25mL |
| Steam Flow Setting | 0～100% |
| Consumption of Cooling Water | ≥1.5L/min |
| Distillation Time | 0～99 minutes |
| Distillation Delay | 0～99 minutes |
| Electricity | AC 220V±10%, 50Hz |
| Power | 1800W |
| External Dimension | 420*365*720mm |
| N.W./G.W. | 37kg/41kg |
| Shipping Dimension | 530*480*950mm |

# Automatic Kjeldahl Analyzer

## KJA-S1306

## Application

It is used to detect nitrogen content or protein content, cation exchange capacity in the fields of food, medicine, soil, chemical industry, agriculture, forestry, materials, environmental monitoring, etc.

## Features

Reliable PTFE bellows pump, special anti-corrosion, resistant to particle clogging, stable liquid addition, no danger of negative pressure suction.

The distillation system specially designed according to the law of ammonia escape ensures a highly reliable test recovery rate.

The instrument has self-check, one-key reset function.

The facilities around the digestive tract are intelligently designed, with a transparent acrylic protective cover to avoid danger.

Fully automatic fault detection and prompting: safety door, digestion tube in place monitoring and prompting, reagent level monitoring and prompting, steam furnace level and temperature detection and prompting.

Water-saving design, circulating water flow rate 1.5L/min, cooling water is only turned on during the distillation process, cooling water flow is monitored in real time, low water pressure alarm is displayed, and the operation is automatically terminated when the water is cut off.





## Features

Color LCD touch screen, real-time monitoring and display of experimental process, conditions can be automatically saved.

The Kjeldahl method is used: Digestion of samples in concentrated sulfuric acid environment, Steam distillation in alkaline environment, Boric acid absorption, Indicator titration endpoint color determination method.

2.0μL high-precision titration system and professional integrated precision plunger ensure the test accuracy and reliability of use.

Can store 1000 sets of complete test data.

Fully automatic addition of alkali and acid, fully automatic distillation titration, fully automatic waste discharge and cleaning of the titration cup, fully automatic calibration, fully automatic fault detection, fully automatic solution level monitoring, fully automatic calculation, data storage, and test report generation.

The titration color can be calibrated automatically or manually. The titration endpoint is determined by using a high-precision 16-bit three-primary color digital signal color sensor to collect color signals.

Polymer material splash-proof bottle design; Reagent barrel liquid level monitoring ensures that there is no liquid shortage during the experiment.

Adopts stable steam generator technology, automatic preheating, water replenishment, automatic control of steam pressure, automatic dry burning prevention, and automatic cleaning.

Automatically control steam pressure within a safe range, away from the danger of steam over-pressure.

Dual distillation mode, manual and automatic switching at will.

The steam generator has multiple protections such as pressure sensor, temperature sensor, temperature protection switch, and water level double detection.

## Specification

| Model | KJA-S1306 |
|---|---|
| Measuring Range | 0.1~240mgN |
| Measuring Speed | 3-8mins/sample |
| Recovery Rate | ≥99.5% |
| Repeatability Error | ≤0.5% |
| Measured Sample Amount | Solid: ≤5g, liquid ≤ 25mL |
| Steam Flow Setting | 0-100%(enhanced version) |
| Distillation Time | 0-99 minutes dynamic continuous adjustable |
| Distillation Delay | 0-999minutes |
| Consumption of Cooling Water | ≥1.5L/min |
| Electricity | AC 220V±10%, 50Hz |
| Power | 1800W |
| External Dimension | 420*365*720mm |
| N.W./G.W. | 40kg/43kg |
| Package Dimension | 530*480*950mm |

# Kjeldahl Analyzer

## KJA-T200E

### Selling point

- Measuring range:0.1mgN-200mgN(Nitrogen content: 0.1%-99%)
- Recovery rate: ≥99% (relative error, include digestion process)
- Repetition rate: relative standard deviation＜±1%
- Distillation time: 5-15 minutes

## Specifications

| Model | KJA-T200E |
|---|---|
| Measuring range | 0.1mgN-200mgN（Nitrogen content: 0.1%-99%） |
| Measurement variety | Food stuff, feed stuff, foods, dairy products, drink, soil, water, medicine, precipitate and chemical. |
| Recovery rate | ≥99%（relative error, include digestion process） |
| Repetition rate | Relative standard deviation＜±1% |
| Working mode | Automatic and manual (without titration) |
| Storing data | 250 datum |
| Working time | Distillation time: 5-15 minutes;<br>The user can set automatically according to different samples. |
| Cooling water consumption | Distillation fraction: 3L /min（Water temperature is less than 20 ℃） |
| Voltage | AC 220V, 50Hz |
| Electricity of distillation fraction | 1000W |





### Description

It adopts microcomputer control process, which can distill various samples such as food, feed, food, dairy products, beverage food, feed, etc. There are manual mode and automatic mode, which can be set and switched according to user needs

### Features

- Large array LCD display, touch key, easy to operate;
- Automatic distillation control, water addition, water level control, and automatic water stop;
- Various security protections: digestive system security device, steam generator water shortage alarm, water level detection fault alarm.
- Stored operation procedure quantity: 250
- The shell of the instrument is made of special plastic-sprayed steel plate, and the working area is made of ABS anti-corrosion panel, which is resistant to chemical reagent corrosion and mechanical damage, and is resistant to acid and alkali.
- Once detected fault, controlling system will power off automatically.
- KJA-T200E Automatic Kjeldahl Analyzer is generally used with Digestive Furnace KJD-T4E, KJD-T8E, KJD-T20E

# Kjeldahl Analyzer

## KJA-P500

### Accuracy

Intermittent alkali addition ensures that the acid-base reaction is controllable to eliminate splashing during sample distillation.

The constant pressure design prevents the solution from being sucked back into the collection bottle.

### Application

It is widely used to detect the overall content of ammonia nitrogen and protein nitrogen in grain, oil, food, dairy products, beverages, feed, soil, chemical fertilizers, drugs, sediments and chemical products. It is an important physical and chemical analysis instrument for product quality inspection.

### Beautiful Appearance

The instrument shell is made of ABS engineering plastic mold, which is resistant to strong acid and alkali, and heat insulated.

High temperature, acid and alkali resistant materials are used to ensure the internal anti-corrosion, anti-leakage and sealing inside the instrument.

High temperature resistant, acid and alkali resistant materials are used to ensure the internal corrosion resistance, leakage prevention and sealing of the instrument.





### Safety

The distiller adopts double liquid level control (double safety) to prevent dry burning.

### Convenience

One-touch start of operation interface, LCD touch screen, easy to operate and enter the test program with one step.

Large LCD screen display, independent circuit, water and gas, external reagent bucket.

Alkali can be added manually at any time during the distillation to ensure the accuracy of sample data.

Manual and auto mode can be switched freely, and the entire test process can be tracked and displayed in real time.

Data storage and editing methods: Automatic preheating, cleaning and acid/alkali/dilution addition, and 999 programs can be stored.

### Specification

| Model | KJA-P500 |
|---|---|
| Measuring Range | 0.1～240mgN |
| Measured Sample Volume | Solid < 6g, liquid <16mL |
| Recovery Rate | ≥ 99.5% (1~210mgN) |
| Repeatability (RSD) | ≤ 0.5% (1~210mgN) |
| Sample Testing Time | 3-8min |
| Distillation Time | 1-99min |
| Distillation Power | 1,500W, adjustable |
| Delay Time | 0-1,800s (easy to detect fertilizer) |
| Distillation Capacity | 15-30mL/min, adjustable |
| Data Storage | 999 distillation programs |
| Water Supply | Water pressure > 0.15MPa |
| Cooling Water Consumption | > 1.5L/min (Water temperature ≤ 20°C) |
| Shell | One-time molding by using ABS engineering plastics |
| Function | Automatic addition of acid, alkali, dilute solution, automatic replenishment of water, automatic distillation and data storage, etc. |
| Electricity | AC 220V ± 10%, 50-60Hz |
| External Dimension | 370*300*680mm |
| N.W./G.W. | 15kg/26kg |
| Package Dimension | 495*440*860mm |

# Automatic Kjeldahl Analyzer

## KJA-P2800

### Beautiful Appearance

The whole instrument is made of ABS engineering plastics: it has the characteristics of corrosion resistance, long life, high strength and excellent insulation performance.

Pipeline corrosion resistance: corrosion-resistant pipes are used inside the instrument.

### Application

It is widely used to detect the overall content of ammonia nitrogen and protein nitrogen in grain, oil, food, dairy products, beverages, feed, soil, chemical fertilizers, drugs, sediments and chemical products. It is an important physical and chemical analysis instrument for product quality inspection.

## Accuracy

### Color determination method

Reliable three primary colors of red, green and blue are used, with three curves, standard acid amount and protein (nitrogen) content displayed in real time. It helps users to monitor the distillation, calculation and titration process in real time.

### Intermittent alkali addition

ensures that the acid-base reaction is controllable to avoid the escape of ammonia caused by violent acid-base reaction in the absence of steam.

### True uninterrupted distillation

constant steam, uninterrupted steam during water replenishment to ensure smooth vaporization of ammonia.

### Adjustable distillation power

ensure good recovery of low concentration samples.





## Safety

It has the function of real-time detection and control of the temperature of the distillation flask. If the temperature is too high, the instrument will automatically stop heating.

It can automatically detect pressure sensor, cooling water flow and water pressure in real time and alarm.

The distiller adopts double liquid level control (double safety). If the distillation flask is short of water, the instrument automatically stops heating to prevent the distillation flask from dry burning.

It has the safety door status and digestion tube in-place monitoring function to prevent accidents.

## Convenience

Built-in test plan: it can be directly retrieved from the instrument database to efficiently complete the testing tasks without writing it into the database again.

Automatic acid addition, automatic alkali addition, automatic dilution addition, automatic distillation, titration (distillation and titration are carried out at the same time), automatic storage, automatic printing, calculation results, automatic recording of all analysis data.

Optional data transmission function: sample data, weight results, batch information and analysis results can be uploaded to the computer via USB or wireless transmission system. Automatic recording and data uploading can significantly reduce the risk of error, realize full traceability of sample parameters, and ensure that all data is safely stored on the computer for future reference, report and audit.

Optional permission classification function can realize data traceability management.

## Specification

| Model | KJA-P2800 |
|---|---|
| Measuring Range | 0.1~240mgN |
| Measuring Speed | 3-8min/sample (Extra-large titration flask ensures long-term distillation and large-volume titration, and the distillation time can be set according to samples) |
| Repeatability (RSD) | ≤ 0.5% (1~210mgN) |
| Recovery Rate | ≥99.5% (1~210mgN) |
| Measured Sample Amount | Solid <5g, liquid <20mL |
| Distillation Time | 0-20min, continuously adjustable, steam flow rate adjustable |
| Distillation Capacity | 15~25mL/min, adjustable |
| Titration Accuracy | RSD ≤ 0.01μL/step |
| Delay Time | 0-1800s (Suitable for measuring nitrate nitrogen) |
| Staged Alkali Addition | Interval 0-9s |
| Host Memory | 10,000 groups of data |
| Printer | Ribbon printer, permanent data storage without color fading |
| Electricity | AC 220V ± 10%, 50-60Hz |
| Digestion Tube Dimension | 300mL |
| External Dimension | 500*350*720mm |
| N.W./G.W. | 23kg/32kg |
| Package Dimension | 585*440*828mm |

# Kjeldahl Aluminium Alloy Digester

## KJD-E08 KJD-E20

KJD-E08

KJD-E20

## Features

Color LCD touch screen, easy to operate.

510 groups of user-defined schemes, each with up to 21 custom heating stages; 0-999 minutes digestion time for each stage; 2 independent timing modes for each stage: start timing from heating and start timing from reaching target temperature.

The machine shell is sprayed with Teflon and has good corrosion resistance.

It adopts anti-corrosion isolation design and has a guide groove structure to prevent acid from corroding the instrument.

Over-voltage, over-current and overheating protection, real-time monitoring of sensor status and instrument working environment temperature with sound and alarm prompts.

## Application

It can be used for sample digestion preparation for nitrogen and protein testing, COD digestion, sample pretreatment for total phosphorus, arsenic, etc., and sample pretreatment for heavy metal detection (lead, copper, zinc, tin, etc.).

## Specifications

| Model | KJD-E08 | KJD-E20 |
|---|---|---|
| Processing Capacity Per Batch | 8 | 20 |
| Digestive Tube Specification | 300ml | 300ml |
| Sample Amount for Digestion (Solid) | ≤6g/sample | ≤6g/sample |
| Sample Amount for Digestion (Liquid) | ≤25ml/sample | ≤25ml/sample |
| Temperature Range | RT.~450℃ | |
| Temperature Control Accuracy | ±1℃ | |
| Thermal Insulation Material | Ceramic fiber, using ceramic and air duct insulation | |
| Automatic Lifting Frame | Optional | Optional |
| Electricity | AC 220V±10%, 50Hz | |
| Power | 1500W | 2500W |
| External Dimension | 320*290*200 | 320*450*200 |
| N.W./G.W. | 20/23kg | 36/40kg |
| Package Dimension | 380*370*580mm | 500*600*620mm |

# Kjeldahl Digester

**KJD-P20L KJD-P08L**

- KJD-P20L

- KJD-P08L

## Application

It is mainly used for digestion treatment of samples such as plants, seeds, feed, soil, and minerals before chemical analysis in agriculture, forestry, environmental protection, geology, petroleum, chemical industry, food and other departments as well as colleges and universities and scientific research departments.





## Features

The surface of the aluminum alloy heating module adopts aviation industry coating technology, which is beautiful and durable.

PID

LCD display for the temperature controller with timed shutdown and alarm functions. Intelligent PID control technology is used with high temperature control accuracy and small temperature impact range, simple and easy to learn.

The instrument tabletop and test tube rack are welded with brushed stainless steel plates to prevent corrosion.

The optional exhaust system is corrosion and temperature-resistant, so that SO2 and other harmful gases escaping from the digestion tube can be discharged from the water into the sewer through the sewage pipe and the suction pump to effectively inhibiting the escape of harmful gases.

## Specification

| Model | KJD-P20L | KJD-P08L |
|---|---|---|
| Number of Sample Holes | 20 | 8 |
| Pore Size | ϕ 43.5mm | |
| Heating Module | Aluminium alloy | |
| Design Temperature | 450℃ | |
| Temperature Control Accuracy | ±1℃ | |
| Heating Rate | About 8~15°C/min | |
| Timed Shutdown | 1-999min | |
| Electricity | AC 220V/50Hz | |
| Heating Power | 2.8kW | 1.3kW |
| External Dimension | 330 x 530 x 210mm | 290 x 480 x 170mm |
| N.W./G.W. | 21kg/29kg | 13kg/21kg |
| Package Dimension | 870 x 460 x 460mm | 620 x 420 x 490mm |

# Exhausting System

## KJD-SCB

### Description

Mould design, compact appearance.

Absorption device area is translucence design, easy for inspection and changing.

The suction intensity and negative pressure can be adjusted in real time to avoid acid gas overflow and evacuation.

Anti-corrosion vacuum pump, low noise, large suction, reduce wasted gas exhausting and environmental friendly

Ternary filtration system (water condensation, alkali neutralization and active carbon filtration) ensure perfect neutralization and absorption performance.

PTFE anti-corrosion pipe design can improve using life.

### Specification

| | |
|---|---|
| Power supply | AC（220±22）V；（50±1）Hz |
| Power | 320W |
| Weight | 25kg |
| Dimension | 390mm×340mm ×550mm(L×W×H) |

### Product detail picture

# Waste Gas Collection Hood

## KJD-WGH

### Description

A necessary part for collecting digester's waste gas

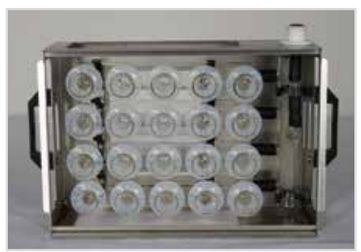
Using PFA sealing cover with longer service life and better sealing.

Clip-on sealing cover, easy for changing.

Adopting specialized water jet vacuum pump, no electricity needed.

The drip tray reducing corrosion damage from acid solutions.

### Product detail picture



# Kjeldahl Digestion System

## KJD-T8E

KJD-T8E

## Selling point

- ✓ Sample holes:4/8/20
- ✓ Digestive pipe capacity:300
- ✓ Measurement range:0.1mgN-200mgN (mg nitrogen)
- ✓ Digestion time:60-90 min/batch (according to sample quantity)

## Description

- The box of this product is made of special sprayed steel plate, and the work surface is made of stainless steel; At the same time, it has good corrosion resistance, easy to use.

## Features

- Adopts quartz infrared heating pipe, which is mainly radiation and supplemented by conduction; and has short heating time and high efficiency;
- Machine box adopts specially made plastic spray steel; Working area adopts stainless steel materials, has good corrosion resistance.
- Double-layer shell design, air insulation layer and aluminum silicate insulation layer, with double insulation effect
- Has multiple protection: over-pressure, over-current, over-heating
- The whole machine is small and beautiful, easy to operate, convenient and fast to use.

## Specifications

| Model | KJD-T8E |
|---|---|
| Sample holes | 8 |
| Digestive pipe capacity | 300ml |
| Heating module material | Infrared |
| Temp.control mode | Digital |
| Temp.control range | RT~500℃ |
| Temp. control accuracy | ±1℃ |
| Measurement range | 0.1mgN-200mgN (mg nitrogen) |
| Digestion time | 60-90 min/batch (according to sample quantity) |
| Power | 1.5 kW |
| Electricity | AC220V/50Hz |

# Waste Gas Collection Hood

## KJD-WGH-E08

### Application

Effectively control waste gas emissions during the digestion process and protect experimental equipment and the environment.

### Features

PFA sealing cover exhaust gas collection hood, corrosion-resistant and temperature-resistant.

The drip tray design prevents acid from dripping and contaminating the laboratory table after digestion.

The connection pipe is made of imported special acid-resistant and high-temperature resistant material.

### Specification

| Model | KJD-WGH-E08 |
|---|---|
| Collection Port | 8 |
| Extraction Opening | 1 |





# Waste Gas Collection Hood

## KJD-WGH-E20

### Application

Effectively control waste gas emissions during the digestion process and protect experimental equipment and the environment.

### Features

PFA sealing cover exhaust gas collection hood, corrosion-resistant and temperature-resistant.

The drip tray design prevents acid from dripping and contaminating the laboratory table after digestion.

The connection pipe is made of imported special acid-resistant and high-temperature resistant material.

### Specification

| Model | KJD-WGH-E20 |
|---|---|
| Collection Port | 20 |
| Extraction Opening | 2 |

# Waste Gas Collection Hood

## KJD-WGH-P08L

### Description

The waste gas collection hood is specially designed for digesters to collect acid gas (acid mist) generated during sample digestion. It should be connected to a suitable scrubber unit.

After neutralization, the discharged gas complies with environmental emission standards.

### Features

- The sealing cover is made of fluorine rubber, which is resistant to high temperatures and strong acids.
- The collection tubes extend deep into the digestion tubes for reliable acid gas collection.
- The stainless steel shell provides excellent corrosion resistance.

### Specification

| Model | KJD-WGH-P08L |
|---|---|
| Collection Port | 8 |
| Extraction Opening | 1 |





# Waste Gas Collection Hood

## KJD-WGH-P20L

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- The collection tubes extend deep into the digestion tubes for reliable acid gas collection.
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### Specification

| Model | KJD-WGH-P20L |
|---|---|
| Collection Port | 20 |
| Extraction Opening | 2 |

# Graphite Digester

## KJD-8E

## Application

The digester is a sample digestion and transformation equipment developed according to the classical wet digestion principle. Mainly used in agriculture, forestry, environmental protection, geology, petroleum, chemical industry, food and other departments, as well as universities, scientific research departments to digest plants, seeds, feed, soil, ores and other samples before chemical analysis, is the Kjeldahl nitrogen analyzer.



## Features

- This series of products has redesigned and improved the heating system, the improved temperature uniformity between wells has been greatly improved, and the sample digestion is good.
- The surface of the aluminum alloy heating module adopts the aviation industry coating technology, which is durable, and the design temperature is 450 ℃
- Adopt liquid crystal display temperature controller, with timed shutdown and alarm function, PID intelligent control technology, high temperature control accuracy, small temperature shock amplitude, simple and easy to learn
- The instrument table and test tube rack are welded by brushed stainless steel plate with certain anti-corrosion ability

## Specification

| Model | KJD-8E |
|---|---|
| Number of sample holes | 8 holes |
| Hole size | Φ43.5mm |
| Heating module material | 6061 aluminium alloy |
| Designed temperature | 450℃ |
| Temperature control accuracy | ±1℃ |
| Heating rate | ≈8-15℃/min |
| Operating system | Liquid crystal temperature controller |
| Control mode | / |
| Recipe management | / |
| Timing shutdown | 1—999 minutes |
| Working voltage | AC220V/50Hz |
| Heating power | 2.1Kw |
| Net weight（Kg） | 18kg |

# Graphite Digester

**KJD-10S KJD-15S KJD-20S**

## Features

The furnace shell adopts a front-and-rear isolation design; its strong ventilation and cooling ensure the long-term and stable operation of the equipment.

The shell surface is equipped with an over-temperature protection sensor; when the temperature of the surface is too high, it will alarm and stop to prevent accidents.

The surface of the 6061 aluminum alloy heating block adopts a coating process from the aviation industry; with its beautiful appearance, rapid heating speed, and long lifespan, it is currently a widely used material and the design temperature can reach 450℃.

The table top is made of 304 brushed stainless steel, which offers corrosion resistance and a beautiful appearance.

The equipped digestion tube is made of 2mm high-quality borosilicate glass with high transparency and durability.

The digestion tube holder is made of 304 stainless steel material, which is corrosion-resistant and practical.

## Specifications

| Model | KJD-10S | KJD-15S | KJD-20S |
|---|---|---|---|
| Number of Sample Holes | 10 holes | 15 holes | 20 holes |
| Aperture | φ 43.5mm | | |
| Heating Module Material | 6061 Aluminum Alloy | | |
| Designed Temperature | 450℃ | | |
| Temperature Control Accuracy | ±1℃ | | |
| Heating Rate | ≈8-15℃/min | | |
| Operating System | 5.5-inch color touch screen | | |
| Recipe Management | 9 groups | | |
| Timing Shutdown | 1-999 minutes | | |
| Electricity | AC 220V/50Hz | | |
| Heating Power | 1.4kW | 2.1kW | 2.8kW |
| Net Weight | 18kg | 21kg | 26kg |

KJD-10S

KJD-15S

KJD-20S

The intelligent temperature control system adopts a 5.5-inch color touch screen; the information displayed is detailed, easy to understand, and easy to operate.

The input method for the recipe program is a tabular fast input method with clear logic, high speed, and low error rates.

0-40 segments of the program can be arbitrarily selected and set.

Dual modes of single-point heating and curve heating can be arbitrarily selected. Intelligent PID self-adjustment provides high precision, reliability, and stability.

The electrical control system uses solid-state relays (regulating module) for silent operation and strong anti-interference capability.

Segmented power supply and restart functions avoid potential risks caused by power failure.

# Exhaust Gas Collection Hood

## KJD-WGH-8 KJD-WGH-10 KJD-WGH-15 KJD-WGH-20

KJD-WGH-8

KJD-WGH-10

KJD-WGH-15

KJD-WGH-20

### Features

The sealing cover is made of fluorinerubber, resistant to high temperature and strong acid.

The alkali pipe is made by American CPC company, resistant to strong acid and has a long service life.

The collection tube with high reliability, is deep in the tube to collect acid gas.

The stainless steel shell has certain corrosion resistance.

### Description

The exhaust gas collection device is specially designed for digestors. It collects acid gas (acid mist) generated during sample digestion. The exhasut gas collection device should be connected to a suitable scrubber unit. After being neutralised, the gas (acid mist) can reach the discharge standard.

### Specifications

| Model | KJD-WGH-8 | KJD-WGH-10 | KJD-WGH-15 | KJD-WGH-20 |
|---|---|---|---|---|
| Collection port | 8 | 10 | 15 | 20 |
| Extraction opening | 1 | 1 | 2 | 2 |





# Exhausting System/Scrubber

## KJD-SCB-A

### Description

The sample digestion process will produce a large amount of acid mist, which will cause serious pollution to the environment and damage facilities. This device is a good equipment for collecting, neutralizing and filtering acid mist because it consists of three-stage filters. In the first stage, the acid mist is neutralized by an alkaline solution of corresponding concentration. In the second stage, distilled water is used to continue filtering the residual waste gas. In the third stage, the residual waste gas enters the buffer bottle for buffering. The gas after three-stage filtration can meet the emission standards and will not cause harm to the environment and facilities, ultimately achieving pollution-free emissions.

### Specifications

| Model | KJD-SCB-A |
|---|---|
| Extraction Flow Rate | 18L/min |
| Air Extraction Port | φ8-10mm |
| Alkali Solution Bottle | 1.8L |
| Distilled Water Bottle | 1.8L |
| Lye Concentration | 15%~30% |
| Electricity | AC 220V/50Hz |
| Power | 120W |
| Net Weight | 10kg |
| External Dimension | 300*300*390mm |

### Features

This product is an acid and alkali neutralization equipment with negative pressure pump. The pump has large flow rate, long lifespan, and user-friendly operation.

The three-stage absorption of lye, distilled water and gas ensures the reliability of gas exclusion.

The instrument is simple, safe and reliable to use.

The replacement of neutralization solution is convenient and easy to operate.

# Exhausting System/Scrubber

## KJD-SCB-P

- Extraction Flow Rate: 20 L/min
- Alkali Solution Bottles: 1.8 Lx2
- Distilled Water Bottle: 1.8 L
- With triple-filtration system

## Specifications

| Model | KJD-SCB-P | |
|---|---|---|
| Extraction Flow Rate | 20 L/min | |
| Alkali Solution Bottles | 1.8 Lx2 | |
| Distilled Water Bottle | 1.8 L | |
| Alkali Concentration | 15%-20% | |
| Electricity | AC 220V/50Hz | |
| Power | 120W | |
| External Dimensions | 360x180x273 mm (main unit) | 470x165x255 mm (reagent rack) |
| Net Weight | 13.5kg | |

## Description

It is capable of condensation recovery, water neutralization, alkali neutralization, and activated carbon adsorption drying for harmful gases such as acid fumes generated during experiments, reducing exhaust emissions, saving energy, protecting the environment, and maximizing workplace safety.

## Features

- The entire unit features a clean and sleek appearance.
- The triple-filtration system consisting of water neutralization, dual-alkali neutralization, and activated carbon filtration provides excellent neutralization and adsorption efficiency, effectively neutralizing acid mist and reaction gases generated during Kjeldahl analysis or other processes.
- The corrosion-resistant piping design extends the overall service life of the instrument.
- **Exhaust Gas Absorption Device:**

  (1) During the exhaust neutralization process, both cooling and chemical absorption methods are utilized to recover exhaust gases, improving recovery efficiency.

  (2) The exhaust absorption system features three-stage neutralization: the first stage uses 1.8 L of distilled water to cool and neutralize acid mist; the second stage uses two 1.8 L alkali solution bottles to neutralize acid mist; and the third stage uses an activated carbon filter screen to adsorb odors.

  (3) The display is an LCD touch screen that allows users to set the absorption time, with an option for either a single pump or dual pumps.

## Combination & Matching Scheme

| Combination & Matching Scheme | Kjeldahl Analyzer Model | KJA-P500<br>KJA-P2800 | KJA-9840<br>KJA-9860 | KJA-S1305<br>KJA-S1306<br>KJA-S06 | KJA-T200E |
|---|---|---|---|---|---|
| Digestion Scheme 1 | KJD-8E KJD-WGH-8 KJD-SCB-A | | ✓ | | |
| Digestion Scheme 2 | KJD-10S KJD-WGH-10 KJD-SCB-A | | ✓ | | |
| Digestion Scheme 3 | KJD-15S KJD-WGH-15 KJD-SCB-A | | ✓ | | |
| Digestion Scheme 4 | KJD-20S KJD-WGH-20 KJD-SCB-A | | ✓ | | |
| Digestion Scheme 5 | KJD-E08 KJD-WGH-E08 | | | ✓ | |
| Digestion Scheme 6 | KJD-E20 KJD-WGH-E20 | | | ✓ | |
| Digestion Scheme 7 | KJD-P08L KJD-WGH-P08L KJD-SCB-P | ✓ | | | |
| Digestion Scheme 8 | KJD-P20L KJD-WGH-P20L KJD-SCB-P | ✓ | | | |
| Digester | KJD-T8E | | | | ✓ |