ALVA 阿尔瓦

FOCUS ON SINCERE PROFESSIONAL SERVICES

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Company Profile

Jinan Alva Instruments Co., Ltd., founded in 2011, is an integrated analytical instrument company focusing on research, development, production, and sales. Based in Jinan, China, the company offers a wide range of products including nitrogen/protein analyzers, fiber analyzers, dietary fiber analyzer, fat extraction analyzers, and various laboratory instruments for solid-liquid and liquid-liquid extraction. Alva Instruments has obtained certifications such as the ISO9001 Quality Management System, CE, and TUV, and possesses numerous invention patents and utility model patents. As a strategic partner of the Chinese Academy of Sciences and other organizations, Jinan Alva Instruments Co., Ltd. has been involved in the development of national standards across various industries in China, including the feed industry.

Honor And Qualification










01

Protein Measuring Instrument



Kjeldahl nitrogen analyzer is widely used in fields such as food processing, grains, feed, water, soil, pharmaceuticals, tobacco, animal husbandry, soil fertilizers, environmental monitoring, medicine, agriculture, scientific research, teaching, quality supervision, etc., for the determination of nitrogen or protein content.

It can also be used for the detection of ammonium salts, volatile fatty acids/alkalis, soil cation exchange capacity, etc.

Kjeldahl Nitrogen Analyzer
Fully Automatic



Model		KD580	KD680	KD780
Measuring Range		0.1-250 mgN		
Measuring Speed		3-5min /sample		
Sample Capacity		Solid ≤ 20g, Liquid ≤ 20ml		
RSD		≤0.3%		
Recovery Rate		≥99.5%		
Storage Capacity		Data:9,000 sets, Solutions: 10,000 sets		
Titration Accuracy		1μl/ step	Standard Titration:1μl/ step Precise Titration: 0.016μl/ step	
Standard Function	Titration While Distillation	——	● (Standard)	
	Digestion Tube Drain automatically	——	● (Standard)	
	Import Data to PC	——	——	●(Standard)
	Master Computer Control	——	——	●(Standard)
Optional Function	Audit Trail	——	○ (Optional)	
	Ultra low acid module	——	○ (Optional)	

Features

- Arc safety door, simple and elegant, easy to open and close.
- Full touch screen operation, Smart OneKey interface, realizing one-key measuring.
- High-quality distilled fluororubber head, higher temperature and aging resistance
- Safety sample holder, press down and sample in.
- Built-in printer, One-click printing experimental results.
- External plug and switch, improves safety and beauty.

Kjeldahl Nitrogen Analyzer
Semi-Auto

Model	KD520	KD620
Measuring Range	0.1-250 mgN	
Measuring Speed	3-5min/ sample	
Sample Capacity	Solid ≤ 20g Liquid ≤ 20ml	
RSD	≤0.3%	
Recovery Rate	≥99.5%	
Storage Capacity	Solutions: 10000 sets	
Digestion Tube Drain Automatically	——	● (Standard)



Features

- Safety door design, easy to open and close.
- Full touch screen interface, one click measurement, simple operation.
- High-quality distilled fluororubber head, higher temperature and aging resistance.
- Safety sample holder, press down and sample in.
- Super quiet brushless motor, whole pump core ceramic, good sealing with longer life.
- External plug and switch, improves safety and beauty.

Note: The KD520 has the same appearance as the KD620

Cationic Content Measuring Instrument

The KYD580 Fully Automatic Cationic Content Measurement Instrument is used to evaluate soil's cation exchange capacity. This instrument can detect ammonium salt and volatile fatty acids/alkalis, nitrogen, and protein content. Utilizing the ammonium acetate exchange method and customized variations for different soil types, this device features an integrated display screen and a printing function.

It finds applications across various sectors, including food processing, grain, feed, water, soil, pharmaceuticals, tobacco, animal husbandry, soil and fertilizer analysis, environmental monitoring, healthcare, agriculture, scientific research, education, and quality supervision.

Model		KYD580
Measuring Range		0.1-250 mgN
Sample Capacity		Solid ≤ 20g, Liquid ≤ 20ml
Recovery Rate		≥99.5%
Storage Capacity		Data:9,000 sets, Solutions: 10,000 sets
Standard Function	Automatic Distillation	● (Standard)
	Titration While Distillation	——
	Digestion Tube Drain Automatically	——
	Import Data to PC	——
	Master Computer Control	——



Features

- Arc safety door, simple and elegant, easy to open and close.
- Full touch screen operation, Smart OneKey interface, realizing one-key measuring.
- High-quality distilled fluororubber head, higher temperature and aging resistance
- Safety sample holder, press down and sample in.
- Built-in printer, One-click printing experimental results.
- External plug and switch, improves safety and beauty.

Volatile Base Nitrogen Analyzer



This instrument is designed to accurately quantify the volatile base nitrogen content in various samples, primarily targeting meat products (including fish, shrimp, diverse animal meats, eggs, and dairy) as well as plant-based samples (such as foods, grains, feeds, water, soil, and related pharmaceutical and tobacco products). This analytical capability is essential for assessing the potential deterioration of samples. The instrument employs an automated semi-trace nitrogen determination method. The analytical process involves the heating and distillation of samples within a controlled acidic environment, followed by measurement through a high-sensitivity electrode or a colorimetric detection unit.

Model	KHD520
Measuring Range	0.1-250 mgN
Sample Capacity	Solid ≤ 20g Liquid ≤ 20ml
Recovery Rate	≥99.5%
Storage Capacity	Data:9,000 sets, Solutions: 10,000 sets
Automatic Distillation	● (Standard)
Digestion Tube Drain Automatically	——

Features

- Safety door design, easy to open and close.
- Full touch screen interface, one click measurement, simple operation.
- High-quality distilled fluororubber head, higher temperature and aging resistance.
- Safety sample holder, press down and sample in.
- Super quiet brushless motor, whole pump core ceramic, good sealing with longer life.
- External plug and switch, improves safety and beauty.

Note: The KHD520 has the same appearance as the KD520

02

Fat Measuring Instrument



Fat Measuring Instrument has a wide range of applications in the chemical industry.

Determine the fat content in various samples such as food, feed, grains, and seeds.

Extract oils and fats from wastewater and sludge.

Extract semi-volatile organic compounds, pesticides, herbicides, etc. from soil.

Extract plasticizers from plastics, rosin from paper and cardboard, oils and fats from leather, etc.

Serve as pretreatment for digestion of solid samples for gas chromatography and liquid chromatography.

Used for extracting soluble compounds or other tests for determining fat.

Soxhlet Fat Analyzer

Model	SD-A2/SD-A6	SD-P6/SD-P6S
Sample Capacity	0.5-15g	
Solvent Bottle Specifications	120ml	
Measuring Object	Fat Soxhlet Extraction	Any Object Soxhlet Extraction
Control mode	Hand Controller Control	Wirless tablet Control
MAX. Temperature	80℃	300℃
Solvent Recovery Rate	≥ 88%	≥ 93%
RSD	≤0.8%	≤0.8%
Shortened Extraction Time	Typical 2 hours Depending on sample type	Typical 1 hours Depending on sample type
Storage Capacity	10 sets	1000 sets
Batch Measuring Capacity	SD-A2: 2 pcs/batch SD-A6: 6 pcs/batch	6 pcs/batch
Automatic Reagent Addition	——	SD-P6: ○ (Optional) SD-P6S: ● (Standard)



Features

- Separate structure design, ensures higher recovery rate.
- High-quality components ensure stable operation and accurate experimental data.
- Full Touch Screen Operation, simple operation and One click measurement.
- Data Automatic Printing with Built-in printer.
- High-quality distilled fluororubber head, higher temperature and aging resistance.
- External plug and switch, improves safety and beauty.

Filter Bag Fat Analyzer







GD Series Filter Bag Fat Analyzer employing three-dimensional filter bag approach and adhering to the analytical principle of Soxhlet extraction.
It is suitable for measuring the crude fat in feed, food, edible fungi, cereal grains, oilseed crops, as well as the total fat content in meat and meat products, natural or processed starch.

Model	GD15/GD16	GD17/GD18
Test Range	0.1~100%	
Solvent Recovery Rate	≥ 97%	
RSD	≤±0.5%	
Max Temperature	100℃	
Temperature Control Accuracy	±1%	
Operation Mode	Semi-Auto	Fully Auto
Batch Processing Capabilities	GD15: 16 pcs/batch GD16: 22 pcs/batch	GD17: 16 pcs/batch GD18: 22 pcs/batch
Automatic Liquid Addition	——	● (Standard)

Features

- Full Touch Screen Operation, simple operation and One click measurement.
- Sealed boiling technology, steam sealed inside equipment without cooling water.
- More convenient fingerprint login without user name and password.
- Three-dimensional ultrafine filtration technology with 3μm filter bag porosity, MAX. 22 pcs measuring capacity with higher efficiency.
- Various interfaces and connection are available.
- External plug and switch, improves safety and beauty.

Hydrolyzed Fat Analyzer

Fully automatic hydrolysis fat analyzer is suitable for determination of fat in substances such as meat, mixed foods, milk powder, dairy products, and fish that contain both free fat and have a relatively high content of bound fat. For determination of fat content in liquid samples such as dairy beverages and plant protein beverages.For determination of fat content in colloidal samples such as jelly and eggs. For determination of fat in products that are difficult to dry or will be denatured after drying.

Model	HD6
Temperature Control Method	PID
Temperature Control Accuracy	±1 ℃
Heating Temperature	Heating Medium:Water - 100℃ Other Medium: Determined by Melting Point
Reagent Addition Accuracy	0.01 mL
Reagent Addition Speed	11 ml/s
Reagent Channels	Independent 6 Channels
Batch Measuring Capacity	6 pcs/ batch
Extraction Bottle Specifications	236 mL
Collection Bottle Specifications	232 mL



Features

- Full touch screen operation, Smart OneKey interface, realizing one-key measuring.
- X-Y high-precision two-axis linkage mechanical arm for reagents adding, faster and more efficient.
- Customized high-quality glass accessories, more secure and efficient.
- High-quality distilled fluororubber head, higher temperature and aging resistance.
- Super quiet brushless motor, whole pump core ceramic, good sealing with longer life.
- External plug and switch, improves safety and beauty.

Water Bath Fat Analyzer

Model	SED206
Measurement range	0.1-100%
Batch capacity	6 / batch
Sample volume	0.5-15g
Solvent cup solvent	80ml
Temperature range	room temperature - 300 ºC
Solvent recovery	≥ 85%
Repeatability	Relative Error ± 1%
Reduction of extraction time	Typical 3 hours, depending on sample type



Features

SED series fully automatic fat analyzer is an ideal instrument for determining fat in industries such as food, oilseeds, and feed. It is also applicable to the extraction or determination of soluble compounds in different fields such as agriculture, environment, and industry.

03

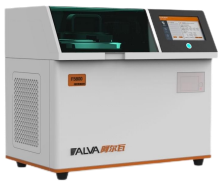
Fiber Measuring Instrument

Fiber Measuring Instrument is suitable for the determination of crude fiber (CF), acid detergent fiber (ADF) and neutral detergent fiber (NDF), which can be used for assays in the following fields:

- Grain and oil inspection: Determination of crude cellulose content in grains.
- Tea inspection: Determination of crude fiber in tea.
- Feed inspection: Determination of crude fiber content in feed.
- Plant food inspection: Determination of crude fiber in plant-based foods.



Fiber Analyzer





Model	FD1600	FD5800	FD2600	FD6800
MAX.Temperature	110℃			
Sampling Weight	0.2 - 5g			
Fiber Test Range	0 - 100%			
Time Settings	0 - 999 min			
Standard Error Of The Result	≤ ±3%			
RSD	≤ 1%			
Temperature Control Accuracy	±2℃			
Batch Processing Capacity	16 pcs/batch		36 pcs/batch	
Reagent Amount of Sigle Measurement	1.5L		3L	
Reagent Addition Method	Manual	Automatically	Manual	Automatically
Reagent Leak Detection Function	——	● (Standard)	——	● (Standard)

Features

- Full touch screen operation, Smart OneKey interface, realizing one-key measuring.
- Standard interface of Instrument inlet and outlet and liquid level sensor.
- Conveniently of One-click printing of experimental results.
- Teflon tray of Filter bag with better corrosion resistance.
- Super quiet brushless motor, whole pump core ceramic, good sealing with longer life.
- External plug and switch, improves safety and beauty.

04

Distillation Apparatus



Distillation Apparatus is specifically designed for：

- Distillation and digestion treatment of volatile phenols, cyanides, ammonia nitrogen, and chemical oxygen demand (COD) in samples.
- Water quality analysis: applicable to the determination of sulfides, volatile phenols, cyanides, and ammonia nitrogen in water quality.
- Soil analysis: Suitable for the determination of cyanides and total cyanides in soil.Grain and oil inspection: Determination of crude cellulose content in grains.

Distillation Apparatus

Model	DN6	DM6	DL6	DL6S
Heating - up time	≤15 min			
Heating Unit	6			
Receiving Bottle Specifications	Diameter <84mm, Height < 155mm			
Reagent Addition Method	Manual	Each Independent Station Can Add 4 Different Types of Reagents with an Accuracy of ±3%		
Distillation Mode	Manual	Strong Boiling Mode, Intelligent Micro-boiling Mode, Manual Micro-boiling Mode		
Trigger the end mode that automatically ends the distillation experiment	——	Weight Mode (Range: 0-600g) Time Mode (Range: 0-999 minutes)		
Distillation Precision	——	Weight Mode: 0.1g; Time Mode: Configurable.		
Cooling Water Circulation	——	——	Automatically	
Condensate effluent stirring function	——	○ (Optional)		● (Standard)



Features

- Equipped with Distillation flask stand to protect the distillation bottle from damage.
- 0.01 grams High-precision weighing module combined with self-developed interference control technology.
- Full touch screen operation, Smart OneKey interface, realizing one-key measuring.
- Support any size volumetric flask or colorimetric tube as receiving bottle.
- Customized high-quality glass accessories, more secure and efficient.
- Inert gas flow control, support Nitrogen or other inert gases, meet the detection of sulfur dioxide and sulfide in food and medicine samples.

05

Extraction Instrument



Solid-Liquid Extractor is based on the Soxhlet extraction principle.

- Suitable for fat determination in industries such as food, oil, and feed.
- Suitable for the extraction or determination of soluble compounds in various fields including agriculture, environment, and industry.

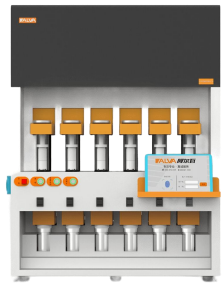
Liquid-Liquid Extractor adopting gas-liquid two-way mixing technology.

- Used for liquid-liquid extraction pretreatment of items such as oil in water, volatile phenol, and anions in laboratory water quality detection.
- Widely applicable to occasions where extraction treatment is required in laboratories such as environmental protection, health and epidemic prevention, water supply and drainage, universities, scientific research institutes, and related enterprises

Solid-Liquid Extractor

Model	HD-P6	HD-P6S
Measuring Object	Any Object Soxhlet Extraction	
Sample Capacity	0.5-15g	
Solvent Bottle Specifications	120ml	
Control mode	Wirless tablet Control	
MAX. Temperature	300℃	
Solvent Recovery Rate	≥ 93%	
RSD	≤0.8%	
Shortened Extraction Time	Typical 1 hours, depending on sample type	
Storage Capacity	≥1,000 sets	
Batch Measuring Capacity	6 pcs/batch	
Reagent Addition Method	Manual	Automatically
Addition Reagent Channels	——	2
Hot Extraction	○ (Optional)	● (Standard)





Features

- Six stations are completely independent controled in mechanical structure and program.
- Full corrosion protection structure, greatly improves durability and stability, reduces costs of use and maintenance.
- Intelligent alarm system with built-in organic solvent leakage monitoring function.
- External plug and switch, improves safety and beauty.
- Original sample tube design for conveninetly take and place samples.
- Simple learning and operation of operating software which based on Android system , realize remote monitoring and control instrument.

Liquid-Liquid Extractor

Model	ED4/ED4 Plus	ED6/ED6 Plus
Screen Size	7-inch Full-color Touch Screen	
Extraction Time Range	1-9999 s	
Extraction Strength	1-100% Continuously Adjustable	
Automatic Cleaning	Automatic execution according to the cleaning parameters set in the experimental scheme.	
Automatic Waste Discharge	Activated Carbon Filtration, Automatic Collection	
Automatic Liquid Addition	PLUS Series Support 4-Channel Automatic Reagent Addition	
Test Unit	4 Units	6 Units
Funnel Specifications	Support 250ml、500ml、1000ml Separatory Funnel	



Features

- 7" full color touch screen operation, easy to control.
- Support variety specifications of separatory funnel: 250ml, 500ml, 1000ml.
- Customized high-quality glass accessories, more secure and efficient.
- More convenient fingerprint login without user name and password.
- Activated carbon filtration waste liquid, safety and environmental protection.
- External plug and switch, improves safety and beauty.

06

Digestion Instrument



Digestion Instrument is suitable for sample digestion treatment before chemical analysis of soil, grains, feeds, food, water, soil, plants, seeds, ores, COD, heavy metals, total phosphorus, arsenic, etc. in industries such as food, medicine, agriculture, forestry, environmental protection, chemical industry, biochemistry and quality inspection institutions, colleges and universities, and scientific research departments.

Automatic Graphite Digester

Model	AD30	AD60	AD72
Temperature Control Method	PID	PID	PID
Temperature Control Accuracy	±1℃	±1℃	±1℃
Heating Temperature	Graphite Heating Module — 230℃ Aluminum Heating Module — 450℃		
Reagent Addition Accuracy	0.01mL	0.01mL	0.01mL
Reagent Addition Rate	11ml/s	11ml/s	11ml/s
Reagent Channels	Independent 9 channels	Independent 9 channels	Independent 9 channels
Batch Measuring Capacity	30 pcs / batch	60 pcs / batch	72 pcs / batch

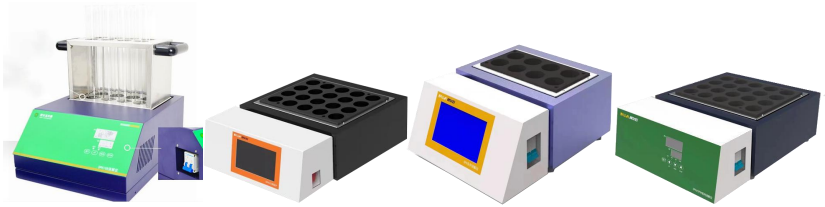


Features

- Full color touch screen operating interface,simple learning and operation to improve the utilization of products.
- Digestive tube stand be lifted automatically for bottom separated from heating module for cooling, settable cooling time to ensure safety during acid adding process.
- Automatic lifting oscillation system, mechanically oscillated and mixed Min.30 samples together with adjustable of oscillating intensity,variable speed and time.
- Standard air filter window with HEPA-level, continuous purification system air to avoid pollution of sample.
- Teflon material Digestion tube with higher resistant to strong acid and alkali for longer service life.
- Stainless steel Digestive tube stand with Teflon sprayed surface, resistant to strong acid and alkali.

Digestion Instrument

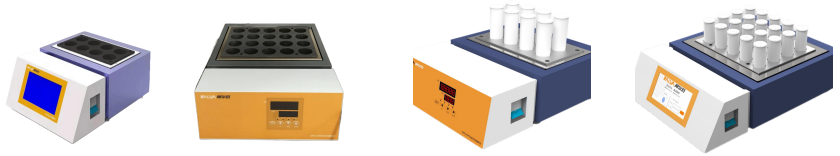
Model	SPD108 Series	SPD120 Series	SPD608 Series	SPD620 Series
Temperature Range	Max500℃			
Insulation Materials	High Density Aluminum Silicate			
Digestion Tube Specifications	300ml			
Sample Specifications	Solid ≤ 20g, Liquid ≤ 20ml			
Heating Module	Aluminum Heating, Graphite Heating			
Temperature Stability (100℃)	±1			
Temperature Stability (400℃)	±2			
Over Temperature Alarm	● (Standard)			
Display Control Mode	Intelligent Digital Display		Touch LCD	
Batch Digestion Capacity	8 pcs / batch	20 pcs / batch	8 pcs / batch	20 pcs / batch



Features

- Conveniently touch screen operation with fast learning.
- The unique reflux technology ensures the integrity of digestion.
- Aluminum and graphite heating module optional, to ensure the temperature between the digestion hole uniform.
- Waste discharge system support digestion and waste removal configuration, Combined use to collect all digestion gas.
- Double thermal insulation with air and aluminum silicate layer for safety and environmental protection.

Heavy Digestion Instrument



Model	SPMD108 Series	SPMD120 Series	SPMD608 Series	SPMD620 Series
Temperature Range	Max240℃			
Insulation Materials	High Density Aluminum Silicate			
Digestion Tube Specifications	300ml			
Sample Specifications	Solid ≤ 20g Liquid ≤ 20ml			
Heating Module	Aluminum Heating Graphite Heating			
Temperature Stability (100℃)	±1			
Temperature Stability (400℃)	±2			
Over Temperature Alarm	● (Standard)			
Display Control Mode	Intelligent Digital Display		Touch LCD	
Batch Digestion Capacity	8 pcs / batch	20 pcs / batch	8 pcs / batch	20 pcs / batch

Features

- Conveniently touch screen operation with fast learning.
- The unique reflux technology ensures the integrity of digestion.
- Aluminum and graphite heating module optional, to ensure the temperature between the digestion hole uniform.
- Waste discharge system support digestion and waste removal configuration, Combined use to collect all digestion gas.
- Double thermal insulation with air and aluminum silicate layer for safety and environmental protection.

07

Waste Gas Absorption



Exhaust gas absorption is supporting equipment of digestion instrument. Main function is to absorb the acid fog and other exhaust gases generated in the digestion process, prevent exhaust gas from leaking out to the experimental environment and experimental personnel.

Model	FDD120
Power Supply	AC220V±10% 50Hz
Power	435W
Exhaust Gas Absorption Rate	＞ 99%
Flow	60L/min
Exhaust gas absorber container	3L
Machine Material	Anti-Corrosion, High Temperature Resistant, Structurally Stable ABS Engineering Plastic
Dimensions	450mm*460mm*600mm
Weight	15kg

08

Acid Hydrolysis Apparatus



Acid Hydrolysis Apparatus is the auxiliary equipment of water bath fat analyzer, soxhlet fat analyzer, soxlet solid-liquid extractor and filter bag fat analyzer.

Mainly used for acid hydrolysis pretreatment of sample, converting the bound fat into free fat, measuring the total fat content with the above equipment.

It can also be used in other situations where it is necessary to convert the bound fat in the sample to the free fat.

Model	CDP20
Power	1310W
Power Supply	AC220V±10% 50Hz
Dimensions	220mm*360mm*300mm
Main engine weight	25KG
Exhaust gas removal function	●(Standard)
Reagent condensation reflux function	●(Standard)
Hydrolyzed container cleaning function	●(Standard)
Sample processing capacity per batch	1-40 pcs/batch
Test dosage used in single batch treatment of the sample	1.5L
Batch Processing Time	Typical 1.5 hours

09

Dietary Fiber Analyzer



The dietary fiber analyzer is suitable for dietary fiber detection and analysis in the fields of food, feed, beverage and other analytical research.

It is a sophisticated equipment developed and manufactured in full accordance with national standards GB/T 5099.88-2008 and AOAC 991.43, AACC 32-07.01, NMKL 129,2003 and other relevant standards. Its design is full of rigorous scientificity, and it makes extensive use of today's mature and reliable advanced technology to reduce more than 30 lengthy steps in traditional methods such as national standards and AOAC to more than a dozen, avoiding many chronic diseases in traditional methods and reducing the interference of human factors on data.

Model	FS-6A
Power	Peak power: 2500W Normal power: 200W
Power Supply	AC220V±10% 50Hz
Dimensions	1328mm x 360mm x 975mm
Main engine weight	70KG
Batch processing capabilities	6
Result standard deviation	≤1%
Sample weight	0.1g-5g
Sampling time	The TDF (total dietary fiber) sampling time is 3 hours (special samples need to be adjusted according to actual conditions)
	IDF (insoluble dietary fiber) sampling time is 1 hour (special samples need to be adjusted according to actual conditions)
	SDF (soluble dietary fiber) sampling time is 1 hour (special samples need to be adjusted according to actual conditions)
Control System	Android
Reagent Addition Method	Automatically
Login method	User password login method