

# Manon



## Hanon Group

-  Mianon Organic Element Analysis
-  SINEO Sample Pretreatment
-  WOLKING Spectrum & Chromatography
-  GAS GC-IMS
-  Hacoco Instruments Pharma Testing
-  BAYE SMART Lab Glassware Washer

All brands are subsidiaries of Hanon Group, with all products manufactured by Hanon.



ISO9001:2015

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# About Hanon Group

Founded in 2006, Hanon Advanced Technology Group Co., Ltd. is a premier manufacturer specializing in advanced, high-quality instruments for laboratories worldwide. The company is also publicly listed on the BSE (Stock Code: 920476).

Hanon Group is committed to providing high-quality and reliable analytical instruments and total solutions for food, pharmaceutical, life science, agriculture, chemical, medical, environmental protection, and other fields. Over the years, we extend our product application field to organic elemental analysis, sample pretreatment, electrochemistry, physical optics, GC-IMS, spectroscopy, chromatography, etc.



# Our History



- Nov. 2006 Hanon Founded
- Aug. 2009 R & D Shanghai Founded
- Jan. 24, 2014 Launched on NEEQ stock market to be a public company. NEEQ: 430476
- Dec. 2014 Built New Production Base (133,300 m<sup>2</sup>)
- Aug. 2015 Acquired SINEO Brand
- July 2016 Acquired G.A.S. Brand
- Dec. 2017 Extend product line to HPCE
- Apr. 2018 Wooking Founded for HPLC
- Nov. 2018 Suzhou R&D Center Founded
- Jan. 2019 Haosoo Instruments Founded for Drugs
- Feb. 2021 Changed Company Name  
(From Jinan Hanon Instruments Co., Ltd. to Hanon Advanced Technology Group Co., Ltd.)
- Oct. 2022 Listed on Beijing Stock Exchange (BSE:430476)
- May. 2024 Holding Baye Smart, extend product line to Lab Glassware washer
- Oct. 2025 Changed BSE code into 920476



## Whole Industry Chain Mode: In-House Production





## Our Customer

Hanon Group is providing analytical instruments and analytical methods to more laborers and technicians with an integrated solution for food, pharmaceutical, feed, environmental protection, agriculture, geology, chemical, medical care and other fields. Users from enterprises, government agencies and research institutes. At present, Hanon already service more than 30,000 customers, the products are sold to more than 140 countries.

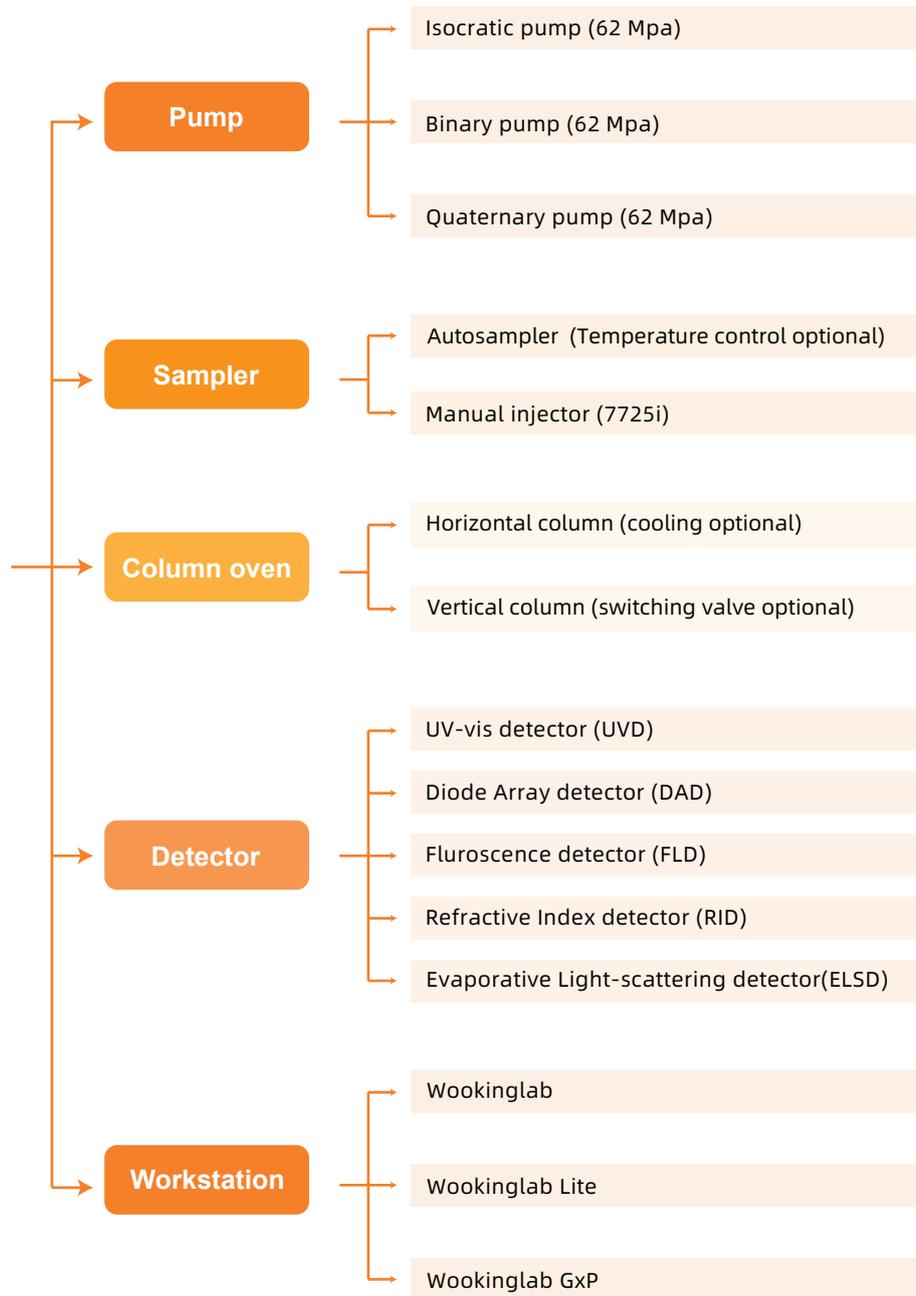


## K2025

# High Performance Liquid Chromatography



Wooking K2025





### Reliability

With the reliable design and high-quality components, K2025 passes the reliability test performed by authority, ensuring the long-term running in optimum condition.

### Precision

The precision and accuracy of the results are guaranteed with our unique pumping and sampling technology, high sensitivity detector, and powerful data processing software.

### Ease of use

The operation is more convenient and efficient with a variety of user-friendly designs in Wookinglab.

### Compliance

Wookinglab fully complies with FDA 21 CFR Part 11 with database mode and data traceability.

## Main Functions and Features

- **Precision Reciprocating Piston Pump:** Full-floating piston design (Patent: ZL202021896102.3), maximum pressure resistance up to 62 MPa, with dynamic pressure pulsation suppression algorithm (Patent: ZL202011206244.7) for stable delivery pressure and precise flow rate control.
- **Auto Sampler:** Constant pressure needle system (Patent: L202021159205.1), ultra-low cross-contamination, 5-second sampling time with pre-load sampling technology (Patents: ZL202022977790.2).
- **Air-Driven Sampling:** Limits sample loss to 0-5  $\mu$ L, temperature control range 4-45 ° C for sensitive sample handling (Patent: ZL202022509860.1).
- **Column Oven:** Utilizing fuzzy-PID control with forced convection, it regulates temperature at 4-90 ° C ( $\pm$ 0.1 ° C) through adaptive thermal management.
- **UV/VIS Detector:** Wavelength range 190-900 nm, linearity >2.5 AU, auto-calibration function, full-spectrum scanning capability.
- **Photodiode Array Detector:** Equipped with 1024-diode array (190-800 nm), it provides selectable 1/2/4/8 nm bandwidth and real-time 12-channel data acquisition at >2.0 AU linearity.
- **Wookinglab Workstation:** User-friendly interface for one-stop operation, enabling rapid completion of method development, data acquisition and analysis, report editing, and batch printing (Software Copyright: 2019SRO122952).

## Application

Widely applied in biochemistry, food analysis, pharmaceutical research, environmental analysis, scientific research, and other fields.

## D50/D200 Dumas Nitrogen Protein Analyzer

### Main Functions and Features

- **Fast:** To analyze a single sample in 3~4 minutes without pretreatment.
- **Accurate:** The instrument can detect total nitrogen content for more precise test results.
- **Automatic:** Equipped with a multi-port autosampler for unattended, automatic sample testing.
- **Eco-friendly:** No need for corrosive chemical reagents, resulting in no waste liquids or harmful gas emissions.

### Application

Widely used for measuring nitrogen/protein in food, grains, dairy products, fertilizers, animal feed, plants, tobacco, crop seeds, and organic materials.



## K1160+K1124 Automatic Kjeldahl Nitrogen Protein Analyzer

### Main Functions and Features

- 24-position Autosampler saving labor costs;
- Designed for compliance to FDA 21 CFR Part 11;
- Equipped with a 10-inch HD color touchscreen and Android OS for smooth operation;
- Metal condensing unit enhances accuracy for low-content samples and saves 50% water. Achieve real-time condenser temperature monitoring.
- Fully automatic reagent addition, distillation, titration, calculation and storage; automatic discharging and cleaning.
- 16 GB of storage capacity for 1,000 custom methods and 1 million test data.

### Application

Primarily used for nitrogen or protein determination in food processing, feed production, tobacco, animal husbandry, soil and fertilizer, environmental monitoring, pharmaceuticals, agriculture, scientific research, teaching, and quality supervision.



## K1100F Automatic Kjeldahl Nitrogen Protein Analyzer

### Main Functions and Features

- **Full automation:** Covers distillation, titration, calculation, printing, automatic discharge, and cleaning for safe, time-saving operation.
- **Flexible Modes:** Adjustable steam flow and dual distillation modes to meet diverse experimental needs.
- **Efficiency:** Simultaneous distillation and titration increase experimental efficiency by over 30%.
- **Safety:** Metal steam generator with multiple safety monitoring devices for real-time status checks and operator protection.

### Application

Mainly used for nitrogen or protein determination in food processing, feed production, tobacco, animal husbandry, soil and fertilizer, environmental monitoring, pharmaceuticals, agriculture, scientific research, teaching, and quality supervision.



## K9860 Kjeldahl Nitrogen Protein Analyzer

### Main Functions and Features

- **Full automation:** Handles distillation, titration, calculation, printing, automatic discharge, and cleaning for safe, time-saving use.
- **Operator control:** External titration cup design allows real-time monitoring and adjustment.
- **High precision:** Equipped with a high-precision liquid delivery pump and titration system to ensure result accuracy.
- **Comprehensive safety:** Features safety doors, condensate water sensors, steam generator monitors, and multiple sensors for real-time instrument status tracking.

### Application

Primarily used for nitrogen or protein determination in food processing, feed production, tobacco, animal husbandry, soil and fertilizer, environmental monitoring, pharmaceuticals, agriculture, scientific research, teaching, and quality supervision.



## K9840 Automatic Kjeldahl Distillation Unit

### Main Functions and Features

**Automation:** Automatic accurate distribute alkali and boric acid solution.

**Safety protection system:** Giving distiller and tubes measurement and protection against over temperature and over pressure.

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

### Application

Widely used for measuring nitrogen/protein in food, grains, dairy products, fertilizers, animal feed, plants, tobacco, crop seeds, and organic materials.



## SH420F/ 220F Kjeldahl Digestion System

### Main Functions and Features

- **Efficient Digestion Capability:** The instrument can digest up to 20 samples simultaneously. It uses infrared radiation graphite conduction heating, allowing it to reach 400 ° C from room temperature in just 25 minutes.
- **Flexible Heating Modes:** The instrument offers both curve and linear heating modes. It also allows for the editing and storage of digestion programs to meet different experimental needs.
- **Corrosion-Resistant Design:** The instrument surface is coated with Teflon, and the entire machine is treated for corrosion resistance to prevent damage from acidic liquids during experiments.
- **Multiple Safety Protections:** The instrument features overpressure, overcurrent, and overheating protections, with an overheating alarm to ensure laboratory safety.
- **Exhaust Management:** Compatible with the WD03 exhaust hood and S402 exhaust neutralization system, which eliminate acidic gases through condensation, neutralization, and drying.
- **WD03 Exhaust System:** Equipped with a PFA sealing cap and a water-jet vacuum pump.

### Application

The instrument is suitable for digestion treatment in food, pharmaceutical, agricultural, forestry, environmental, chemical, and biochemical industries, as well as in higher education institutions and scientific research departments. It is ideal for processing samples such as food, pharmaceuticals, soil, feed, plants, seeds, and ores before nitrogen and protein analysis.



## SH520/ 508 Kjeldahl Digestion System

### Main Functions and Features

- **Fully automated operation:** Synchronizes control of lifting and exhaust neutralization devices, enhancing efficiency while minimizing exhaust leakage risks.
- **Automatic lifting & cooling:** Standard-equipped automatic lifter raises the digestion rack post-experiment for rapid cooling, no manual oversight needed.
- **Efficient heating:** Adopts an aluminum deep-hole heating module to optimize digestion system heating efficiency and performance.
- **Flexible data transmission:** Supports WiFi and USB for data backup and historical data review.



## SOX406 Fat Analyzer

### Main Functions and Features

- **Electrically Isolated Extraction Design:** Hanon's Air Insulation Technology ensures complete isolation between circuits and extraction space, enhancing thermal insulation to maintain the device exterior at ambient temperature.
- **Multi-Mode Alert System:** Integrated sound alarms, visual signals, and screen notifications activate automatically during overheating or overtime scenarios.
- **Automated Sealed Metal Bath Heating:** Equipped with temperature-controlled sealed metal bath technology for concurrent testing of six samples.
- **Full-Machine Anti-Corrosion Treatment:** Anti-corrosion technology effectively avoids environmental impact on the machine.
- **Integrated metal bath heating module:** provides a wider temperature control range and effectively extends the life of the heating plate.



### Application

Widely used in agriculture, food, environmental, and industrial fields for fat content extraction in samples such as food, oil, and feed.

## SOX606 Automatic Soxhlet Extractor



### Main Functions and Features

- **Efficiency:** Offers five extraction methods including standard Soxhlet (national standard), hot extraction, continuous flow, and CH standard hot extraction. The integrated metal heating module can increase experimental efficiency by 20% to 80% compared to traditional methods.
- **Flexibility:** Features a separate external LCD touch control panel, which aligns with smartphone operation habits and keeps the user away from high-temperature environments, extending the instrument's lifespan.
- **Safety:** Equipped with an ether leak detection device to effectively prevent air pollution and ensure experimental safety.
- **Versatility:** Uses polytetrafluoroethylene (PTFE) as sealing material, suitable for most organic solvents.

### Application

Widely used in agriculture, food, environmental, and industrial fields for fat extraction, and also applicable to the extraction of soluble organic compounds in drugs, sludge, detergents, etc.

## F2000 Automatic Fiber Analyzer

### Main Functions and Features

- **Android OS-powered automation:** Handles liquid addition, digestion, stirring, cleaning, and waste discharge independently, requiring no manual supervision.
- **High sample throughput:** Accommodates over 24 samples, drastically boosting per-unit-time experimental efficiency.
- **Filter bag technology:** Eliminates sample agglomeration and blockage risks during filtration (a common issue in traditional methods), ideal for CF, NDF, ADF, and ADL determination.
- **Integrated metal digestion tank:** Features multi-directional stirring to reduce solution leakage risks, with strong safety and corrosion resistance.

### Application

Suitable for the determination of crude fiber, acid detergent fiber, cellulose, hemicellulose, and acid detergent lignin in plants, feed, food, and other agricultural and sideline products.



## F800 Fiber Analyzer

### Main Functions and Features

- **Uniform heating performance:** Uses a ceramic infrared integrated heating plate, with insulation layers on digestion tube ends to solve uneven crucible heating, ensuring result accuracy.
- **Built-in pre-heating function:** Significantly shortens the overall experimental process.
- **Corrosion protection:** Corrosive liquids avoid contact with pump bodies, preventing pump corrosion in traditional designs.
- **Versatile expansion:** Paired with the F800-B cold extraction device, it addresses pre-fat removal, lignin detection, and more—expanding the instrument's application range.

### Application

Suitable for the determination of crude fiber, acid detergent fiber, cellulose, hemicellulose, and acid detergent lignin in plants, feed, food, and other agricultural and sideline products.



## TANK Microwave Digestion/Extraction System

### Main Functions and Features

- Comprehensive safety guarantee, combined with anti-corrosion capability;
- Dual magnetron inverter control system ensures consistent sample digestion;
- Two LCD screen, displaying real-time operation and experiment status;
- Full-vessel pressure control technology;
- Full-vessel precise temperature control and monitoring;
- Smart software operation, conforming to FDA 21 CFR Part 11;
- 40-position, 24-position, 18-position and 12-position rotors optional;
- High-pressure vessels and Auto-release vessels optional.

### Application

Ideal for sample preparation in UV-Vis, AAS, AFS, ICP and ICP-MS analysis, with applications spanning food, feed, pharmaceuticals, environmental testing, chemical, agricultural, cosmetic and other industries.



## TANK eco Microwave Digestion/Extraction System

### Main Functions and Features

- The fully-enclosed high-pressure digestion technology effectively improves the recovery rate and ensures the accuracy of results;
- Outer vessel made of high-strength aerospace composite fiber, with both mechanical strength and anti-corrosion ability;
- The patented safety bolt design can provide quantitative and safe pressure relief;
- Full-vessel pressure control technology;
- Full-vessel precise temperature control and monitoring;
- Smart software operation, conforming to FDA 21 CFR Part 11;
- 7-inch LCD touch screen clearly displays the digestion status and experiment process;
- 10-position, 8-position and 6-position rotors optional.

### Application

Ideal for sample preparation in UV-Vis, AAS, AFS, ICP and ICP-MS analysis, with applications spanning food, feed, pharmaceuticals, environmental testing, chemical, agricultural, cosmetic and other industries.



## UWave-2000

### Multifunctional Microwave Chemistry Reaction Workstation

#### Main Functions and Features

- Integrates the atmospheric pressure and pressurized reactions, microwave heating, ultrasonic wave and ultraviolet irradiation.
- Multiple reaction vessels, 50-2000ml Glass flasks, Quartz reaction flasks and sealed high pressure vessels available for different applications;
- Ultrasonic source with a maximum power of 800W, frequency of 28KHZ;
- Ultraviolet source with LED type UV lamp power of 100W, dominant wavelength of 365nm;
- High pressure function can meet the reaction process under 2Mpa;
- IR and PT sensors Dual-channel temperature detection DTD technology;
- Piezoelectric crystal pressure sensor for pressure control;
- 7-inch touch screen can realize real-time display of reaction process.

#### Application

Widely used in organic extraction, pharmaceutical research, protein chemistry, novel material science, research of the graphene, polymer synthesis and many other fields.



## MAS-II Plus

### Microwave Synthesis/Extraction Reaction Workstation

#### Main Functions and Features

- Stainless steel cavity with large volume, multilayer anticorrosive PFA Teflon painting;
- Dual-channel temperature detection (DTD) technology, with IR and PT sensors;
- Built-in furnace camera and 7-inch TFT-LCD for real-time process display;
- Supports both mechanical and magnetic stirring;
- 50-2000ml Glass flasks available for reaction.

#### Application

Widely used in researches, such as organic synthesis, pharmaceutical chemistry, organic extraction, food science, analytical chemistry, inorganic chemistry, protein research, petrochemical engineering and materials chemistry, etc.



## SPE100/200/400

### Fully Automatic Solid Phase Extraction



#### Main Functions and Features

- **Sealing Technology:** The instrument uses a pan seal structure for sealing, equipped with an H-axis clamp for excellent sealing performance.
- **Precise Robotic Arm:** Suspended test tube rack with 3D robotic arm for accurate positioning.
- **Remote Control:** Supports Wi-Fi or Ethernet for automated, unattended operation.
- **Integrated pipeline design:** compatible with samples of different volumes, enhancing processing efficiency.
- **Efficient cleaning technology:** effectively prevents cross-contamination.

#### Application

Pesticide testing projects

Organophosphates/Organochlorines/Pyrethroids and Carbamates

Veterinary drug residue testing projects

Sulfonamides/Tetracycline/Chloramphenicol/Nitrofurans/Malachite

Green/Quinolones/Hormones

Food additive testing projects

Pigments/Melamine

Mycotoxins: Aflatoxins/Ochratoxins/Vomitoxins

Others: Polycyclic Aromatic Hydrocarbons (PAHs)/Polychlorinated Biphenyls

(PCBs)/Nitrobenzenes/Antibiotics

## N-20 Sample Concentrator

Hanon N-20 Sample Concentrator is mainly used in the concentration of samples in batches, such as drug screening, hormone analysis, liquid/gas phase, as well as mass spectrum analysis.

The use of sample concentration instead of the commonly used rotary evaporimeter for concentration, can have simultaneous concentration of dozens of samples, which can short the sample preparation time greatly, and has the advantages of time-saving, easy operation and fast.

### Main Functions and Features

- Sample visualization.
- Module optional, with 5ml /12 hole, 5ml /24 hole, 20ml /12 hole, 20ml / 24 hole.
- Automatic fault detection and alarming.
- Built-in over-temperature protection device.
- Flow-meter pressure reducing valve is optional.



Each blowing needle can be controlled independently, the height of gas cavity is adjustable

## SH230N Heavy Metal Digestor

Hanon SH230N Heavy Metal Digestor, with the advantages of rapid disintegration, high efficiency, convenience and large processing capacity. It is suitable for use with atomic absorption, atomic fluorescence, ICP-AES and other analytical instruments.

### Main Functions and Features

- **Temperature Control:** Precise and uniform temperature control with efficient heating and easy operation.
- **Corrosion & Safety:** Teflon coating and deflector tank design for corrosion prevention and safety.
- **Intelligent Operation:** Real-time monitoring, intelligent control, and automatic shutdown.
- **Durability:** Eco-friendly insulation and anti-oxidation treated graphite for long life.
- **Compatibility:** Compatible with Teflon and borosilicate glass test tubes.



### Application

It is suitable for food, medicine, agriculture, forestry, environmental protection, chemical, biochemical and other industries, as well as higher education institutions, scientific research departments on soil, feed, food, ore, etc.

## T960 Automatic Titrator



### Main Functions and Features

- **Hybrid Synchronous Liquid Delivery System:** Supports 4 precise titration units + 4 auxiliary liquid delivery units working in coordination.
- **Diverse Titration Platforms:** Modular design allows for flexible combinations.
- **Autosampler Options:** Available in 12, 16, and 18-position capacities for batch sample processing.
- **High-Resolution Titration:** Resolution of 1/1,500,000.
- **Multiple Measurement Modes:** pH/mV/T measurement, pH calibration, endpoint setting, constant volume titration, second-order derivative titration (chloride ion measurement), dynamic titration, etc.
- **Main Titration Types:** Acid-base, non-aqueous, redox, precipitation, complexometric, and potentiometric titration.
- **Regulatory Compliance:** User management, audit trails, electronic signatures, password aging, and tamper-proof data output in accordance with FDA 21 CFR Part 11.

### Application

- **Industries:** Food, pharmaceuticals, disease control, commodity inspection, water treatment, petroleum, chemical, marine, power, environmental protection, new energy, education, and research.
- **Typical Applications:** Determination of acid value, peroxide value, reducing sugar, fatty acid value, free fatty acids, organic matter in soil, COD in wastewater, surfactants, electrolytes, mercaptan sulfur, chloride ions in cement, etc.

## T930 Volumetric KF Titrator

## T931 Coulometric KF Titrator



### Main Functions and Features

- **10-inch Android Touchscreen:** Modular menu for quick access and real-time monitoring of titration curves, parameters, and results.
- **Reagent Management:** Closed system prevents moisture ingress and reduces balance time; minimizes contact with toxic reagents.
- **Waste Liquid Overflow Prevention:** Anti-overflow device prevents spills when the waste bottle is full.
- **Dynamic Continuous Liquid Addition (T930):** Speed adjustable from 0.00002 mL/s to 0.1 mL/s, with high-resolution drift value control.
- **Multiple Electrolysis Currents (T931):** Automatically adjusts current based on moisture content for accurate analysis.
- **Pre-set Analysis Methods:** One-touch start for titration, blank, and moisture measurement; automatic sample detection.
- **Compliance and Data Security:** Four-level permission management, electronic signatures, and tamper-proof data output.
- **Compatibility with Accessories:** Connects to sample heaters for processing difficult-to-dissolve samples.

### Application

Widely used in petroleum, chemical, food, cosmetics, and pharmaceuticals for moisture analysis.

## T860 Automatic Titrator

### Main Functions and Features

- **Integrated design :** Compact appearance, the whole body is splash-proof, the titration platform is equipped with a liquid drainage design to prevent liquid deposition and penetration.
- **Multiple titration modes:** Support MET, DET, EP and other titration modes, can finish acid-base, precipitation, nonaqueous, redox, complexation and solvent preparation, etc.
- **Efficient management:** Equipped with a database, method library, formula library, and reagent library for efficient management of the entire experimental process.
- **Security Features:** The system has four-tier ID management with password protection, electronic signatures, and tamper-proof data function to ensure safety.



### Application

It can be used to detect multiple indicators such as acid value, peroxide value, fatty acid, chloride ion, chemical oxygen demand (COD), and acidity in samples from various fields including food, grain and oil, medicine, agriculture, aquatic products, dairy products, chemicals, soil, water quality, plants, fertilizers, animal feed, tobacco, and environmental monitoring.

## OS280 Cooking Oil Tester

Hanon OS280 is a rapid and efficient cooking oil tester designed for on-site quality inspection. It measures Total Polar Materials (TPM) in minutes, ensuring oil safety and compliance.

### Main Features

- Easy operation, field testing, suitable for a variety of testing conditions.
- Fast measurement, getting result within 10 seconds with sound-light alarm.
- Adopting food-grade materials, safe and eco-friendly for probes.
- Waterproof design, class IP68.
- The probe is easy to be replaced and no need to be recalibrated.
- With storage of 10,000 pieces testing results.
- Multi-choice for data exporting

### Application

Suitable for quality control in restaurants, food manufacturers, and laboratories.



## P810/ 850 Automatic Polarimeter

## P810 Pro/ P850 Pro Automatic Polarimeter

### Main Functions and Features

- Meet FDA 21 CFR Part 11(P810Pro/P850 Pro).
- $\pm 89.99^\circ$  Arc ensuring the measuring range widely
- Wavelength: 589.3nm
- The Peltier system automatically controls the sample temperature
- Adopt formula editor for setting multistage or piecewise function Calculation (except for P810).
- Multi ports for data exporting

### Application

By detecting the optical rotation, the density, content and purity of substances can be analyzed and determined. It's widely used in pharmaceutical, petroleum, food, chemicals, flavors, spices, sugar marking and other industries, and universities and research institutes.



## MP420/ 430 Video Melting Point Apparatus

## MP450/ 470/ 490 Automatic Video Melting Point Apparatus

### Main Functions and Features

- Visual and Automatic Determination
- Available Testing 4 Samples Concurrently
- The methods, atlas and detailed result are available for storage. Connecting printer or all data export are both available.
- Compliant with GLP, GMP (EU, UPS & CN) and FDA 21CFR part 11
- Calibration Function: Up to 6-point calibration can be performed using standard substances for multiple temperature points.

### Application

It provides users with reliable melting point test results, suitable for Chemical industry, pharmaceutical research, medicines, fragrances, dyes, and other crystal materials.



## MP360 Automatic Slip Melting Point Apparatus

### Main Functions and Features

- Adopt an 8-inch touch screen
- 720P HD camera and 8x optical magnification to achieve sample detail magnification and sample detail changes are clearly visible
- Heating rate can be adjusted from 0.1 to 20°C
- Can connect to external recirculating water bath to guarantee testing temperature; Achieve to store testing methods, history results, videos and curves;
- May store at longest 10000 minutes video data;
- Optional to connect printers, like Thermal Printer; Laser Printer; Wireless Printer; Can generate testing reports in PDF or Excel version;
- Built-in data retrieval function for quick check-up; Through multi-point calibration method to do calibration.
- Compliant FDA 21 CFR Part 11.



### Application

Widely used in Chemical, Industrial, Food, and Cosmetics Fields: Essential for the production of fats and waxes, and for measuring the melting points (or slip points) of other non-crystalline substances.

## A630/ A670 Automatic Digital Refractometer

### Main Functions and Features

- Meet the requirements of FDA 21CFR part.11.
- High measuring resolution up to 0.00001(nD)/0.01%(Brix) (A670 only).
- Peltier accurate temperature control system is built-in, accuracy up to 0.02°C.
- High brightness LED light source with service life more than 100000 hours.
- 7-inch colour touch screen with Android system and 4GB RAM let methods and data expanding excellent.
- Data exporting: 2 x USB, 1 x RS232, 1 x Ethernet

### Application

It can automatically measure the refractive index (nD) of transparent, translucent, dark, viscous and other types liquid sample, also can measure sugar degree (Brix) of sugar solution.



## i Series UV-VIS Spectrophotometer



### Main Functions and Features

- Single/Double- beam optical system
- The Main unit and PC software can independently implement functions of Quantitative; Kinetics; Wavelength Scan;
- Multi Wavelength; DNA/Protein and Data Printing, PC software can complete the function of data processing. 24-bit high speed and high precision A/D conversion, and improve the sensitivity of the instrument.
- 0.5/1.0/2.0/4.0/5.0 bandwidth can be adjusted automatically (high models)
- Multi sample cell or autosample available

### Application

Ideal for scientific research in physics, chemistry, medicine, biology, and geology, it is a vital quality control instrument used in chemical engineering, pharmaceuticals, metallurgy, environmental protection, and medical testing. It is a standard piece of equipment in laboratories

## Recirculating Chiller FC1500

### Main Functions and Features

- Molded water tank, uni-body with 316 stainless steel, anti-rust, anti-corrosion.
- Motor driven mold turbine quiet pump 10L/min, fully realized hydro-power separation.
- Compact structural layout with removable grille for easy maintenance and drainage.
- Using advanced fuzzy PID temperature control technology, it can accurately and quickly achieve stable temperature control effect.
- Multiple protection design: over current protection, high and low temperature protection, over temperature protection, low liquid level sound and light alarm, prevent dry burning protection.



## Refrigerated and Heating Circulator

Hanon F Series Refrigerated and Heating Circulator can be widely used in oil, physical, chemical, pharmaceutical, environmental protection and other fields of science, precision temperature control equipment.

### Main Features

- **Convenience:** Parameters memory function, temperature correction.
- **Eco-Friendly:** Uses R134a refrigerant and a high-quality compressor for an environmentally friendly and powerful cooling system.
- **Low Noise design:** Uses high quality compressor and mute pump.
- **Robust water tank:** ultra-slushing and rust-proof.
- **Bright LCD Display:** Clear temperature display for easy monitoring.
- **Compact Design:** Removable venting grid for convenient cleaning, maintaining cooling performance and easy water drainage.

### Application

Experiment that needs heating and cooling, Fermentation Tank, Polarimeter, Refractometer, Spectrophotometer, Electrophoresis System, Chromatographic Column, Viscometer, Rotation Evaporation Instrument, Rheometer.



## Recirculating Chiller FC1200/FC1200E



A Corollary Equipment: Kjeldahl Apparatus, Soxhlet Extractor, Crude Fiber Analyzer, AAS, ICP-MS, Electrophoresis System, Rheometer, Automatic Synthesizer, Fermentation Apparatus, Rotary Evaporator, Extraction and Condensation Device, SPE Apparatus.

### Main Function

- **Compressor:** Uses a TECUMSEH compressor to ensure high cooling efficiency and reduce noise.
- **Temperature Control:** Employs PID temperature control technology. The cooling method is not traditional on/off type; instead, EEV (Electronic Expansion Valve) technology is used to enhance stability.
- **Over-Temperature Protection:** Equipped with over-temperature protection and auto-alarm functions to prevent damage to the temperature medium caused by abnormal liquid temperatures.
- **Water Level Management:** Features a water level observation window and automatic water level detection device. It provides an automatic alarm when the liquid level is low.
- **Water Flow Detection:** Includes a water current detection device. If the external circulation is closed or blocked, the internal circulation will automatically switch on.
- **Circulating Water Pump:** High-performance pump ensures long-term continuous operation with good sealing to prevent leakage. The pump pressure ranges from 0 to 1.5 bar, adjustable via a rotary knob, with the pressure value displayed.
- **Display:** A color LCD screen shows more running data and dynamic indicators, making it easy to monitor the system.

## P20/P60 Diaphragm Vacuum Pump



### Main Functions and Features

- **Teflon Composite Diaphragm:** Extremely resistant to strong chemical corrosion
- **Enhanced Durability:** Improves fatigue resistance and effectively extends the service life of the diaphragm.
- **Oil-Free Operation:** No oil mist pollution problem.
- **Superior Performance:** Compared with rubber diaphragms, it excels in air tightness, corrosion resistance, and strength.
- **Maintenance-Free:** No pollution, no maintenance required.
- **Quiet Operation:** Low noise and low vibration.
- **Safety Features:** Overheat protection.

### Application

- Rotary evaporation
- Vacuum filtration
- Distillation under reduced pressure
- Solid phase extraction
- Vacuum drying
- Vacuum concentration and so on

## BS280CD Laboratory Glassware Washer

### Main Functions and Features

- **Cleaning Capabilities:** Suitable for cleaning, sanitizing, and drying various laboratory glassware (beakers, volumetric flasks, test tubes, pipettes, sample vials, etc.) as well as plastic or rubber containers.
- **Interior volume:** 180L capacity, capable of loading two racks and equipped with four wash modules that can be freely combined to meet the needs of cleaning different specifications of labware simultaneously.
- **Aesthetic Design:** Features a glossy black mirror finish paired with a brushed steel surface to enhance spatial texture.
- **Cleaning Performance:** Achieves ppb-level cleanliness, suitable for trace analysis requirements.

### Application

Widely applicable in various industry labs, such as pharmaceuticals, scientific research, food, medical, chemical, energy, materials, biology, universities, government, and third-party testing.



## BS580D Laboratory Glassware Washer

### Main Functions and Features

- **Cleaning Capabilities:** Suitable for cleaning, sanitizing, and drying various laboratory glassware (beakers, volumetric flasks, test tubes, pipettes, sample vials, etc.) as well as plastic or rubber containers.
- **Interior Volume:** 360L capacity, capable of loading three (up to four) racks and typically equipped with six cleaning modules that can be freely combined to meet the needs of cleaning different specifications of labware simultaneously.
- **Aesthetic Design:** Features a glossy black mirror finish paired with a brushed steel surface to enhance spatial texture.
- **Cleaning Performance:** Achieves ppb-level cleanliness, suitable for trace analysis requirements.

### Application

Widely applicable in various industry labs.



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