

BIOBASE



E-mail: export@biobase.com
www.biobase.cc / www.biobase.com

BIOBASE GROUP

Add: No.9 Gangxing Road, High-tech Zone,
Jinan City, Shandong Province, China
Tel: +86-531-81219803
E-mail: export@biobase.com
Website: www.biobase.cc / www.biobase.com



SOIL&PLANT&SEED INSTRUMENTS SOLUTION

.....
BIOBASE PROVIDES YOU WITH ONE-STOP SERVICE

Version 2023



INTRODUCTION

Established in 1999, after more than 20 years of development, BIOBASE has become a group type company, with the product line of Air Protection Series, Cold Chain Series, Disinfection & Sterilization Series, Agricultural Products, Incubators, Ovens, Centrifuges, Microscopes, Shakers, Water Baths, IVD Series, etc. With over 16 pcs of manufacturing factories and over 6500 employees, we can be sure of the prompt delivery time and fine products, to make your purchasing more convenient.

Our agricultural products include Soil Pretreating Equipments, Soil Nutrient Detecting Equipments, Soil Moisture Detecting Equipments, Soil Botany Equipments, Soil Analysis Instruments, Plant Physiological Instruments, Seed Instruments, etc.

Providing with high quality products and good service, BIOBASE would like to establish win-win business cooperation with distributors all over the world.

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Soil Pretreating Equipments

Soil Auger Kits



Introduction:

Soil Auger kits contains a complete set of soil borrowing accessories, which can be used to drill disturbed soil samples within 1-2 meters in soft soil areas or to drill 1-2 meters deep holes. Soil Auger is one of the main tools for collecting soil samples. The reliability, ease of operation and mobility of the borrow drill can not only reduce the workload of soil investigation, improve the efficiency of soil borrowing, but also expand the adaptability of soil sampling.

Features:

- The sampler is made of stainless steel, without pollution to sample
- Pedal type, more convenient, fast, reduce the labor intensity
- Take 15-20CM of the soil samples each time.
- The material is hard and the shape is not easy to be bent and twisted.
- The exterior of the soil sampler is marked with scale values, each scale is 100mm, which provides a reference for taking soil samples of different depths.
- The soil sampling head, the connecting pipe and the handle are all connected by thread, which does not occupy the volume after disassembly, and is convenient for transportation.
- When it is necessary to measure soil moisture data, it can be used as the connecting rod of the soil moisture sensor.
- The depth of sampling is: 1m, 1.5m, 2m.

Technical Parameters:

Model	BK-SAK2
Function	Drill disturbed soil samples within 1-2 meters in soft soil areas or to drill 1-2 meters deep holes
Total Length	1-2m adjustable
Accessories	1 brush, 1 spanner, 1 tape on 3meters, 1 scraper, 1 handle, 1 head, and 4tubes
Package Size(L*W*H) mm	675*315*180
Gross weight (kg)	7.3

Vertical Planetary Ball Mill(Semi-circle Type)

Application:

Planetary Ball Mill has four ball grinding tanks installed on one turntable. When the turntable rotates, the tank axis makes planetary movements, the balls and samples inside the tanks are impacted strongly in high speed movement, and samples are eventually ground into powder. Various kinds of different materials can be ground by the mill with dry or wet method. Minimum granularity of ground powder can be as small as 0.1μm.

Features:

- 3D curve shape design.
- Special gear with low noise.



Visual Window



Planetary Mechanism



Frequency Converter Control



Hole of Cooling Fan

Technical Parameters:

Model	BKBM-V0.4	BKBM-V2
Capacity	0.4L	2L
Volume of Each Capacity	50~100ml	50~500ml
Pot Quantity	4 pcs	
Running Time Range	1~9999min	
Reciprocal Running Time	1~999min	
Adjustable	Revolution	35~335rpm
Speed	Rotation	70~670rpm
Noise	58±5dB	60±5dB
Speed Control Mode	Frequency Control	
Transmission Mode	Gear Drive	
Working Mode	2 or 4 pots can be used each time	
Maximum Sample Volume (material + grinding ball)	2/3 of the volume of the ball mill tank	
Feed Size	Soft and Crispy material<10mm, Other materials<3mm	
Out-put Granularity	Minimum Granularity can be reached to 0.1um	
Adjusting Mode of Rotate Speed	Frequency converter with stepless speed regulation	
Consumption	0.25KW	0.75KW
Power Supply	AC110/220V±10%, 50/60Hz	
External Size(W*D*H)mm	530*300*340	750*470*565
Package Size(W*D*H)mm	595*360*485	820*530*720
Net Weight(kg)	29	80
Gross Weight(kg)	50	100

Note: Both pot and ball are optional. For a ball mill with a capacity of 2L, if the matching mill pot specification is 25ml or 50ml, you need to purchase a base holder separately.

Light Horizontal Planetary Ball Mill



Features:

- Horizontal structure of grinding pots.
- Special gear with low noise.



Planetary Mechanism



Frequency Converter Control



Hole of Cooling Fan



Pneumatic Rod

Technical Parameters:

Model		BKBM-H2L
Capacity		2L
Volume of Each Capacity		50~500ml
Pot Quantity		4 pcs
Running Time Range		1~9999min
Reciprocal Running Time		1~999min
Adjustable Speed	Revolution	35~335rpm
Revolution	Rotation	70~670rpm
Noise		60±5dB
Transmission Mode		Gear Drive
Working Mode		2 or 4 pots can be used each time
Maximum Sample Volume (material + grinding ball)		2/3 of the volume of the ball mill tank
Feed Size		Soft and Crispy material<10mm, Other materials<3mm
Out-put Granularity		Minimum Granularity can be reached to 0.1pm
Adjusting Mode of Rotate Speed		Frequency converter with stepless speed regulation
Speed Control Mode		Frequency Control
Consumption		0.75KW
Power Supply		AC110/220V±10%, 50/60Hz
External Size(W*D*H)mm		700*570*520
Package Size(W*D*H)mm		800*610*670
Net Weight(kg)		86
Gross Weight(kg)		110

Note: Both pot and ball are optional. For a ball mill with a capacity of 2L, if the matching mill pot specification is 25ml or 50ml, you need to purchase a base holder separately.

Optional:

Selection of pot's material: Pot's material has no pollution to the grinding materials and no effect to the appearance of powder.

Technical Parameters:

Category & Request of Grinding Material	Reference for Mill Pots' Material Option
Soil and other Materials which impurities are not allowed to be brought.	Agate Pot
Metal and non-metal materials which impurities are not allowed to be brought.	Zirconia Pot
High hardness materials like diamond, hard alloy.	Hard Alloy Pot
Strong acid and strong alkali substances, and materials under high temperature.	PTFE Mill Pot
Iron and steel minerals, impurities are not highly sensitive materials.	304 Stainless Steel Mill Pot
Pigment material, and materials which can be processed at high temperature.	Nylon Mill Pot
Containing aluminum material like ceramic glaze.	Corundum Pot
Electronic material like lithium battery.	Polyurethane Mill Pot
Easily oxidized materials which need to be protected by special gas.	Vacuum Mill Pot



Nylon Mill Pot



PTFE Mill Pot



Zirconia Pot



Hard Alloy Pot



Polyurethane Mill Pot



Stainless Steel Mill Pot

Vertical Planetary Ball Mill(Square Type)



Features:

- 3D curve shape design.
- Special gear with low noise.



Planetary Mechanism



Frequency Converter Control



Hole of Cooling Fan



Pneumatic Rod

Technical Parameters:

Model		BKBM-V2S
Capacity		2L
Volume of Each Capacity		50~500ml
Pot Quantity		4pcs
Running Time Range		1~9999min
Reciprocal Running Time		1~999min
Adjustable Speed	Revolution	35~335rpm
Revolution	Rotation	70~670rpm
Noise		60±5dB
Speed Control Mode		Frequency Control
Transmission Mode		Gear Drive
Working Mode		2 or 4 pots can be used each time
Maximum Sample Volume (material + grinding ball)		2/3 of the volume of the ball mill tank
Feed Size		Soft and Crispy material<10mm, Other materials<3mm
Out-put Granularity		Minimum Granularity can be reached to 0.1um
Adjusting Mode of Rotate Speed		Frequency converter with stepless speed regulation
Consumption		0.75KW
Power Supply		AC110/220V±10%, 50/60Hz
External Size(W*D*H)mm		770*470*570
Package Size(W*D*H)mm		820*540*680
Net Weight(kg)		93
Gross Weight(kg)		113

Note: Both pot and ball are optional. For a ball mill with a capacity of 2L, if the matching mill pot specification is 25ml or 50ml, you need to purchase a base holder separately.

Plant Disintegrator



Features:

- Grind by the action of rotating disk and fixed disk; the ideal equipment for grinding oiliness and fiber products.
- Featured by lightweight, small volume, compact structure, cotinuous working time, attractive appearance and high efficiency. Space between blades is adjustable according to material fineness.

Technical Parameters:

Model	MPD-102
Mesh Size (mm)	0.5/1/1.5
Working Time	Continuous
Grinding (Mesh)	60~120
Speed (rpm)	1400rpm
Consumption	180W
Power Supply	AC220V±10%, 50/60Hz
External Size(W*D*H) mm	300*185*280
Package Size(W*D*H) mm	465*240*290
Net Weight(kg)	11.3
Gross Weight(kg)	19.5

Grinding Machine



BK-24S/48S



BK-96S



BK-96LS



BK-96LDS

Application:

It is widely used in biochemistry, microbiology, pharmaceutical chemistry, surface chemistry, physical chemistry, zoology and other fields.

The types of samples processed include plant tissues (such as rice, corn, wheat, beans, peanuts), animal tissues (such as small intestine, heart, lung, fur, etc.), cells, bacteria, yeast, and various medicinal tissues, etc.



Features:

- The all-metal body improves the stability and safety of the whole machine.
- The safety lock of the working chamber ensures the safety of samples and laboratory.
- There is no cross-contamination, and the sample tube is fully enclosed during the crushing process.
- Good repeatability. The same procedure can be set for the same tissue sample to obtain the same grinding effect.
- A large number of simultaneous operations can be performed, and the effect is good.

Technical Parameters:

Model	BK-24S	BK-48S	BK-96S	BK-96LS	BK-96LDS
Standard Capacity	24*2ml PE adaptor, 1pc 24*2ml refrigerating adaptor, 1pc	48*2ml PE adaptor, 1pc 48*2ml refrigerating adaptor, 1pc	96*2ml PE adaptor, 1pc 96*2ml refrigerating adaptor, 1pc		
Refrigerating Function	No			Yes, 0 to -50°C	Yes, 20 to -50°C
Display Mode	Touch screen display				5 inches OLED touch screen display
Discharging Granularity	~5µm				
Acceptable Number of Grinding Tubes	> 2pcs				
Frequency	0-70Hz				
Time Setting	0-9999s				
Grinding Ball Material and Size	Alloy steel, chromium steel, zirconia, tungsten carbide, quartz sand; 0.1-30mm				
Noise Level	< 55dB				
Grinding Method	Wet grinding, dry grinding and low temperature grinding are all available				
Power Supply	220V 50/60Hz(standard), 110V 60Hz(optional)				
Optional Parts	1. Adaptor: Common type: 0.2ml*96; 2.0ml*24; 5.0ml*12; 15ml*8; 25ml*4; 50ml*2; 5.0ml*24; etc. Refrigerating type (can get -196°C): 2.0ml*24; 5.0ml*12; 15ml*8; 25ml*2; 50ml*2; etc. 2. 2-100ml refrigerating grinding tube. They can also be customized.				
Packing Size(mm)	480*350*510	530*400*560	570*490*680	850*590*560	550*550*950
Gross Weight(kg)	25	39	52	74	95

Grinding Machine

Tissue Grinding Machine

Introduction:

BHY1 is an efficient laboratory sample preparation instrument. DNA, RNA and protein from high-throughput samples (soil, animal and plant tissues, microorganisms, etc.) can be extracted and purified, greatly improving grinding efficiency and quality.

Application:

Widely used in biomedicine, animal and plant tissues, food safety, agriculture, environment, forensic medicine, plastics, polymers and so on.

Features:

- 5 inch touch screen, easy to operate.
- It can be used as a single machine to observe the running state of the instrument in real time through the display screen.
- Support any customized grinding jars of various specifications.
- Independent centrifuge tubes and disposable grinding beads avoid cross-contamination of samples and external contamination.
- Equipped with door lock sensor, stop immediately after opening the cover.
- Butterfly button lock, anti-fall.
- Innovative shock-proof principle, three-dimensional integrated operation mode, innovative grinding bead operation mode.

Technical Parameters:

Model	BHY1
Max. Speed	2500r/min
Grinding Jar	Standard: 24well 2ml Optional: 32well 2ml, 16well 5ml, customized.
Grinding Way	Vertical oscillation, dry grinding, wet grinding
Number Of Grinding Platforms	>2
Grinding Speed	Up to 32 samples (2ml) can be processed in 1 minute.
Grinding Time	0~99min, adjustable
Programming	Multi-stage operation setup is available (loop mode can be set)
Power Supply	Standard: 220V 50/60Hz Optional: 110V 50/60Hz
External Size	265*405*475mm
Package Size	510*375*640mm
Net/Gross Weight	28.5/41kg



Laboratory Test Sieve

Application:

BK-TS200 lab test sieve is suitable for particles distribution analysis. It is primarily used to determine particle size distribution for particles, powder and liquid in laboratory and quality control department.



Features:

- Screen mesh size range: from 4 mesh to 500 mesh.
- Timing range: 0~99min59s, time can be set from seconds to hours freely.
- Typically requires 50~150g of sample material.

Technical Parameters:

Model	BK-TS200	BK-TS300
Working Layer	1~8 layers	
Screen Mesh Size	1-10,10-250,250-350,350-400,450,500,550,600,635	
Diameter	200mm	300mm
Material	Stainless steel 304	
Timing Range	0~99min59s	
Speed	1400r/min	
Power Consumption	125W	180W
Power Supply	AC110/220V±10%, 60/50Hz	
Standard Accessory	Lid and Base	
External Size(W*D*H)	400*330*370mm	
Package Size(W*D*H)	580*490*460mm	
Gross Weight	47kg	

Kjeldahl Digestion Furnace



GDA-10



GDA-20

Features:

- Infrared radiation graphite conduction heating method, fast heating speed, the temperature difference between the holes is small, and the sample digestion is consistent.
- PID intelligent temperature control algorithm, accurate and stable control, adapt to different sample pretreatment.
- Two heating methods of curve heating and linear heating, 200 groups of digestion programs can be edited and stored, and each group can be set up to 25 segments.
- Temperature and time gradient to meet different experimental needs of users.
- Special anti-corrosion treatment to avoid the corrosion of acidic liquid on the machine.
- 7-inch high resolution LCD display, real-time display temperature curve.
- Overvoltage, overcurrent, overheating and other alarm Settings and leakage protection.
- New ceramic fiber insulation layer and air duct insulation technology.
- Standard digestive tube cooling rack and drip tray, the digestive tube can be cooled quickly.
- Exhaust hood, PTFE sealing cap seal, prevent operators from inhaling harmful gases.

Technical Parameters:

Model	GDA-10	GDA-20
Temp. Range	RT+5℃~450℃	
Temp. Accuracy	±1℃	
Capacity	10pcs	20pcs
Digestive Tube	Glass tube 300ml*10	Glass tube 300ml*20
Heating Mode	Infrared heating and high purity graphite conduction	
Insulation Mode	Ceramic fiber, split air duct insulation	
Display	7-inch high resolution color LCD screen	
Consumption	1.8KW	3.4KW
Power Supply	Standard: 220V±10%, 50/60Hz Optional: 110V±10%, 50/60Hz	
External Size	360*390*177mm	480*390*177mm
Package Size	620*500*560mm	700*610*770mm
Net Weight	20kg	26kg
Gross Weight	36kg	58kg

Introduction:

Graphite Digester adopts infrared radiation graphite conduction heating technology, accurate temperature control, uniform heating, fast heating speed.



Touch screen operation

Collection System

Reflux design

Application:

Food, medicine, agriculture, forestry, environmental protection, chemical, biochemical and other industries as well as quality inspection institutions, universities, scientific research departments to soil. Sample digestion processing prior to chemical analysis of grain, feed, food, water, plants, seeds, ores, heavy metals, etc



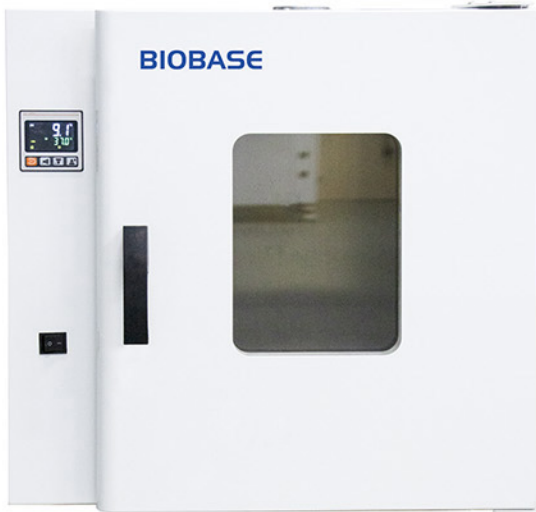
Food

Grain

Feed

Soil

Constant-Temperature Drying Oven



Features:

- LCD liquid crystal temperature display, with temperature deviation calibration function.
- Over-temperature alarm and automatic fault detection alarm function.
- Precisely control the heating time, the timing error is ≤1%.
- The four corners of the inner cavity are designed with a semi-circular arc structure.
- The heating device is placed at the bottom, and a new bottom wind plate structure is adopted to facilitate the cleaning of the cavity.

Technical Parameters:

Model	BJPX-HDO43	BJPX-HDO55	BJPX-HDO72	BJPX-HDO138	BJPX-HDO270
Capacity	43L	55L	72L	138L	270L
Heating Method	Bottom heating, natural convection				
Temp. Range	RT+10℃-250℃				
Display	LCD display				
Temp. Uniformity	≤Max temp.±3%				
Temp. Precision	0.1℃				
Inner Size(mm)	350*350*350	370*370*459	400*390*450	500*500*550	660*700*590
External Size(mm)	579*512*510	596*575*618	614*548*609	724*663*709	900*840*890
Shelves NO.	2	2	2	3	3
Power Supply	Standard: 220V 50/60Hz; optional: 110V 50/60Hz				
Packing Size (W*D*H)	690*710*660mm	835*710*850mm	830*700*800mm	870*795*850mm	1010*946*1050mm
Gross Weight(kg)	45kg	51kg	55kg	77kg	100kg

Soil Nutrient Tester

Application:

It is used to detect available nitrogen, available phosphorus, available potassium, organic matter, soil pH and soil salinity in soil, plant, chemical fertilizer.

Features:

- LCD display.
- Print testing date, sample number, sample items, sample contents, variety.
- Large capacity storage (time, place, fertilizers), datum can be checked at any time.
- Quickly test the N, P, K, organic matter, salinity, and pH in the soil, fertilizer and plants.
- With the function of time display, can automatically record and save the time of tested sample.
- Can set crop variety, crop yield, fertilizer variety, and automatically count the fertilizing amount.



Technical Parameters:

Model	BK-Y6A	BK-Y6PC	BK-Y7PC
Soil Nutrient	Stability	Absorbency of light drift < 0.003	
	Repeatability	Absorbency of light < 0.005	
	Linearity Errors	Red light for Copper sulfate, and blue light for potassium dichromate < 3.0%	
	Sensitivity	Red light ≥4.5*10 ⁻⁵ , Blue light ≥3.17*10 ⁻³	
	Wavelength Range	Red light 620±5nm; Blue light 440±5nm	
	Anti-Knocking Performance	Qualified	
PH	Testing Range	1~14	
	Error	±0.5%	
Salinity	Testing Range	0.01%~1.00%	
	Error	±5%	
Function	Test N, P, K, organic matter, soil pH, soil salinity, with storage function, built-in the amount of nutrients needed for growth of 73 kinds of crops, can provide guidance for fertilizing amount according to needs, with printing function		Moisture: Moisture unit: %(m / m) Accuracy: ±2% Resolution: 0.1% Testing range: 0~100% On the basis of BK-Y6PC, but can measure soil moisture
	On the basis of BK-Y6A, with a software, be able to connect to computer for data storage, tele-transmission and printing		
Power Supply	220V/110V±10%, 50/60Hz		
Package Size(W*D*H)	670*390*230mm		
Gross Weight	11kg		

Soil Moisture Detecting Equipments

Multi-parameter Soil Meter



Application:

Handheld Multi-parameter Soil Meter can acquire different parameters with different sensors and the tested parameter would be air temperature, humidity, soil temperature, soil moisture. It is widely used in facilities agriculture, forestry, horticulture, animal husbandry and other fields, and fulfills to carry out conduct of automatically monitor, automatic control and intelligent management to the facilities for comprehensive agricultural ecological information.

Technical Parameters:

Model		BSM-01	BSM-02	BSM-03	BSM-05
Soil Moisture	Range	0~100%			
	Accuracy	±3%			
	Resolution	0.1%			
Soil Temperature	Range	-50℃~100℃			
	Accuracy	±0.5℃			
	Resolution	0.1℃			
Air Temperature	Range	-40℃~80℃			
	Accuracy	±0.4℃			
	Resolution	0.1℃			
Air Humidity	Range	0~100%RH			
	Accuracy	±0.3%RH			
	Resolution	0.1%RH			
Dew Point	Range	-40℃~120℃			
	Accuracy	±0.4℃			
	Resolution	0.1℃			
Storage Capacity		Almost up to 30,000 groups in handset, and standard equipped with 4G Micro SD. Data-collection interval: 5min~99hour			
Power Supply		8.4V lithium battery			
Working Current		Stand-by power consumption 10mA, working power consumption according to the configuration.			
Package Size(mm)		415*340*155	390*420*200	390*420*200	430*390*260
Gross Weight(kg)		2.6	3.5	3.5	5.2

Digital Soil Water potential Meter

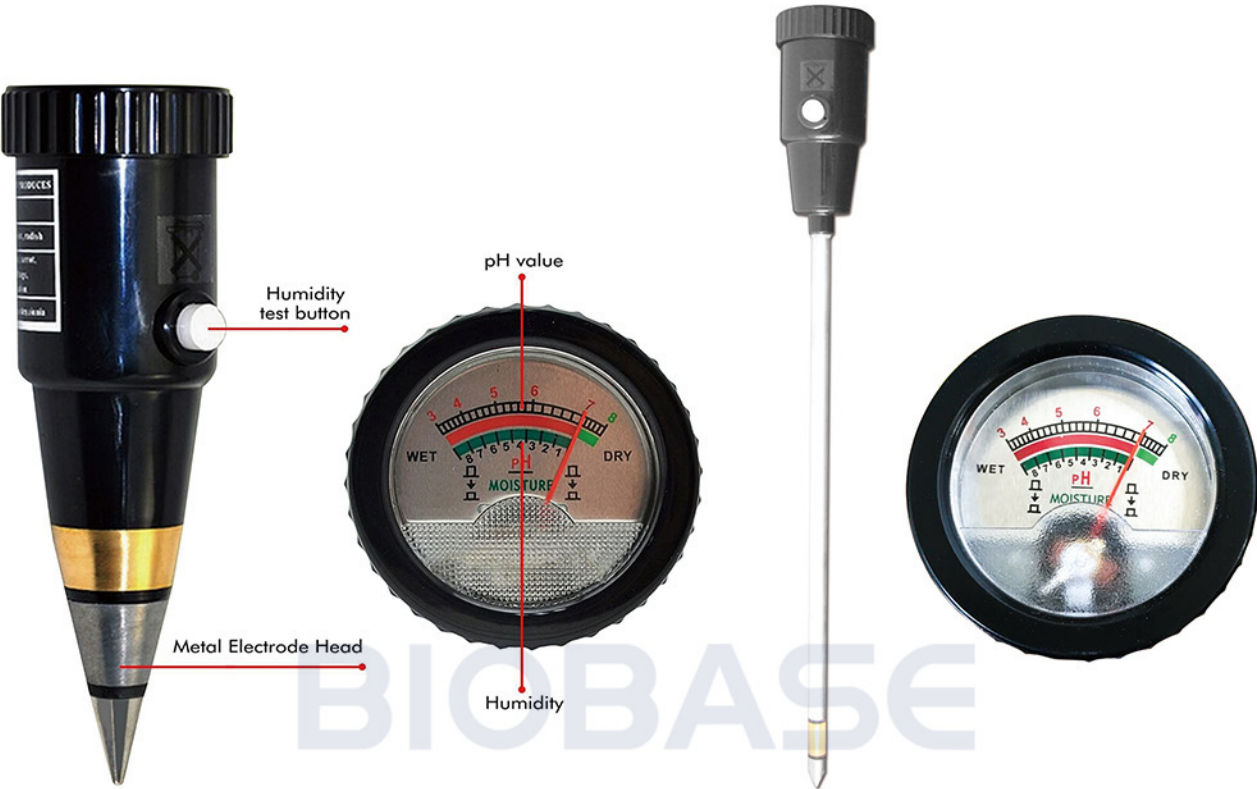


Features:

- High accuracy and high resolution can test soil temperature and water potential at the same time.
- Easy to operate, portable, flexible, can purchase one set with multi-probes.
- Automatically get the peak data of water potential.
- With time set, full scale set auto save function.
- Record temperature, water potential, time and storage No at the same time.
- Automatically turns off function.

Model	BK-SWP2
Max Load	100kpa
Resolution	0.01kpa
Accuracy	±1FS
Soil Temperature Testing Range	--55°C~150°C
Temperature Accuracy	±0.5
Probe Quantities	3
Function	Can test both soil water potential index and soil temperature index
Power Supply	9V battery
Packing Size	340*340*60mm, 550*60*60mm
Gross Weight	3.5kg

Soil PH-Moisture Meter



BSA-60

BSA-300

Introduction:

The soil PH is an important factor to limits the crops production and the quality. This instrument is simple and convenient, can directly insert the soil.

Technical Parameters:

Model	BSA-60	BSA-300
Function	Test depth: 6cm, suitable for surface soil acidic test	Test depth: 30cm, suitable in the depth soil acidic test
PH Range	3~8 PH	
PH Accuracy	±0.2PH	
Moisture Range	1 - 8%	
Moisture Accuracy	±1%	
Package Size(L*W*H) mm	200*110*120	590*150*135
Gross weight (kg)	0.5	0.5

Soil Moisture, Temperature, And Salinity Recorder

Features:

Handset:

- Small and exquisite, easy to carry and LCD display.
- Collect settings: working unattended can be set to timing or manual collect data, recording and save data automatically.
- Both AC and DC available, internal lithium battery: 8.4v 1500mAh, with function: charging protection, low voltage prompt. Also can be placed for a long time to record location.
- Storage capacity: up to 30,000 groups in handset, and standard equipped with 4G Micro SD.
- Data can be read on handset and also import to PC.
- Power-off memory function: data already saved in SD card won't lose when lose power.
- Probe to probe Consistency, handset can connect different kinds sensor by concentrator without influence on accuracy.
- Auto detection: when sensor connects to handset, you can search different sensor.
- Synchronous detection: 32 channels to detect same time as you combine.
- RS485 wire communication, sensor communication cables could reach about 100 meters.
- Low-power design, equipped with system monitor and protection function to avoid short circuit or interference from external.

Software:

- Showing the curve trends of each parameter, Max, Min, and Avg. Zoom in and out function.
- Coloring the overrun area function which is visual display.
- Save the data in EXCEL format as a copy.
- Be able to view period of parameter or graph, and can be printed.
- All curvilinear coordinates can be set and move, which make analysis easier.

Technical Parameters:

Model	SMTS-3P
Function	Detect soil moisture, content temperature, and salinity same time
Soil Temperature	Unit: °C; Range: -40°C~100°C; Accuracy: ±0.5°C; Resolution: 0.1°C
Soil Moisture Content	Unit: %(m³); Range: 0~100%; Response time: ≤ 2s; Relative error: ≤3%
Soil Salinity	Range: 0~19.99ms/cm; Sensors can be buried into soil.
Storage Capacity	Almost up to 30,000 groups in handset, and equipped with 4G Micro SD.
Data-Collection Interval	5min~99hour
Working Power Supply	Battery: 8.4V lithium battery; Power Adapter: 100~240V 50/60Hz
Working Current	Stand-by power consumption 10mA, working power consumption according to the configuration.
Package Size(L*W*H) mm	450*420*140
Gross weight (kg)	4



Portable Soil Heavy Metal Analyzer

Features:

- It can analyze 34 kinds of standard elements of K, Ca, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Y, Zr, Nb, Mo, Ag, Cd, Sn, Sb, W, Re, Pd, Au, Hg, Pb, Bi, Cs, Ba, Th, U.
- Small size, light weight, easy to carry, can be directly brought to the field for detection.
- Can analyze various types of soil, field soil, sand, sludge, solid waste, soil, mud, etc.
- High-speed processing chip, advanced algorithms and efficient software to make the instrument analysis faster.
- Can analyze the soil directly without sample, the whole process only needs 80s.
- Industrial resistance touch screen, compared to the capacitive screen has a better backlight performance, in the field of light is still clearly visible, while the field of special environment to avoid the risk of glove removal.
- It works at -20℃ to 50 ℃, when the temperature humidity is beyond the scope of application, will automatically alarm.
- Can be combined with the built-in GPS.



Technical Parameters:

Model	SHMA-B
Excitation Source	New integrated miniature X-ray tube, 6-50KV pressure/0-200uA tube flow with free adjustment, Ag target(standard)
Probe	With high sensitivity silicon drift detector, accuracy:<125 eV
Range	All element from Mg to U
Data	Built-in 32G memory for storing 300K spectral data and spectra.
Heat Dissipation	With a dedicated T-slot heat sink to improve the heat dissipation of the instrument without waiting for the detector to cool frequently
Safety	The package with Waterproof, dust-proof and shockproof
Supply Power	Battery: 7.2V lithium battery Power Adapter:100~240V 50/60Hz
External Size(L*W*H) mm	254*79*280
Net Weight (kg)	1.6Kg (with battery)
Package Size(L*W*H) mm	400*130*360
Gross Weight (kg)	3

Portable Soil Irrrometer Tensiometer



Introduction:

Soil Irrrometer tensiometer is made up of pressure gauge, acrylic tube and ceramic probe, after the acrylic tube filled with water, ceramic probe gets wet and it can prevent outside air into the ceramic probe. When there is pressure difference between measured soil water potential and tensiometer, the water in tensiometer will infiltrate into the measured soil until the balance reached. So at that moment, the value shown on the pressure gauge is the measured soil water potential.

Technical Parameters:

Model	Length(mm)	Testing Range	Package Size(L*W*H) mm	Gross weight (kg)
BST-15	150	0~1 Bar (1 Bar = 100 Kpa)	370*225*60	0.5
BST-30	300		440*150*70	1.0
BST-45	450		560*150*70	1.0
BST-60	600		700*150*70	1.2
BST-90	900		1000*150*70	1.5
BST-120	1200		1335*140*90	1.5

- Length can be made as customized. (Standard length is the length of transparent polycarbonate tube in the middle of tension meter tube)

Soil Respiration Meter



Introduction:

Soil respiration measurement is the main way for carbon to return to the atmosphere from terrestrial ecosystem, and it is also the characterization of life activities in soil. Accurate measurement of its release is the key to evaluate the biological process in ecosystem; By monitoring soil respiration and its related parameters, the response of root box soil microorganisms to climate change can be estimated. Soil CO₂ flux is affected by many complex physical and biological processes in time and space. Long-term, continuous and accurate measurement of soil carbon flux is of great significance to the study of terrestrial ecosystem carbon flux. The soil respiration meter can simultaneously display the CO₂ concentration, soil temperature, photosynthetic effective radiation intensity, flow, air temperature and humidity of the respiration chamber.

Features:

- Intuitive display: Chinese LCD 160*256 dot matrix, simple operation and clear interface.
- Data storage: Large Capacity SD card is used to store data, which has large data storage capacity and convenient export.
- Data acquisition: CO₂ concentration, soil temperature, air temperature, air humidity, photosynthetic effective radiation intensity, gas flow and other indicators can be collected at the same time. The stability, accuracy, attention and time response of the measurement are very good.
- Easy to use: small size, light weight, portable, single person operation, arbitrary movement, clear gas circuit and circuit connection.
- Wide application: users can choose breathing chambers with different volumes or other purpose breathing chambers, which can be widely used for the determination of respiration of soil, fruits and vegetables, seeds, plants and so on.
- Convenient power supply: it is equipped with standardized maintenance free lithium battery, which can be used for more than 10 hours at a time. It can also be powered by AC and DC.
- Instrument protection: microelectronic flowmeter is adopted, with the function of prompt protection for gas path blockage.

Technical Parameters:

Model	SRM-3051T
Carbon Dioxide Detection	Infrared carbon dioxide detection module
	Measurement range: 0~5000ppm
	Linearity: $\leq \pm 1\%$ F.S
	Repeatability: $\leq \pm 1\%$
	Response time: $\leq 15s$
Soil Temperature Detection	Zero drift: $\leq \pm 2\%$ f.s/24h
	End drift: $\leq \pm 2\%$ f.s/24h
	Micro fast response PT100 platinum resistance
Air Temperature Detection	Measurement range: 0~60 °C
	Resolution: 0.1 °C,
	Accuracy: ± 0.3 °C
Air Humidity Detection	Inlet temperature detection module
	Measurement range: - 20~95 °C
	Resolution: 0.1 °C
Light Detection	Accuracy: ± 0.2 °C
	inlet humidity detection module
	Measurement range: 0~100%
Flow Detection	Resolution: 0.1%
	Accuracy: $\pm 1.8\%$
	Silicon photocell with correction filter, response spectrum 400nm-700nm
Soil Respiration	Measurement range: 0-3000umol / m ² / s ⁻¹
	Resolution: 1umol / m ² / s ⁻¹
	Accuracy: $\pm 5\%$ umol /m ² / S ⁻¹
Storage	Microelectronic flowmeter
	Measurement range: 0~1.5l/m
	Resolution: 0.01l/min
Working Power Supply	Accuracy: $\pm 2\%$
	Volume 1.0L.
	Storage mode: 2GB memory card storage
Package Size(L*W*H) mm	Storage format: TXT document
	Battery: 8.4V lithium battery;
	Power Adapter:100~240V 50/60Hz
Gross Weight (kg)	550*350*250
	8

Soil Botany Equipments

Non-nuclear Soil Density Meter



Applications:

It is used for the measurement of wet density and moisture content of compacted materials in the following areas: excavation and backfill construction; underground passages, basements and foundations; backfilling and ditches, garbage; subgrade foundations and trench backfilling. It is mainly suitable for clay and non-cohesive soils, and can also be used for lime or cement improved soils, gravel soils and other soils.

Features:

- Fast, reliable, lightweight, robust, accurate, and reproducible real-time readings.
- Adopt high-quality and reliable point-to-point RF technology.
- 2-3 minutes to display the measurement results.
- Using digital DDS frequency synthesis technology, no calibration is required, and there will be no data drift during use.

Technical Parameters:

Model	BK-NDM4
Wet Density Accuracy	0-2% of standard tests
Water Content Accuracy	0-3% of standard tests
Display	5 inches touch screen
Detection Depth	Standard 150mm, maximum depth 300mm (need to customize steel needle)
Storage	50000 pcs data
USB Port	Yes
Power Supply	12V, 2600mAh lithium rechargeable battery, continuous work for 20 hours
Packing Size	190*160*70mm
Gross Weight	8.5kg

Ground Bearing Capacity Detector



Applications:

It is also called Micro Penetrator. It is mainly used to test the compactness and uniformity of large-area filling engineering after rolling. Such as highways, roads and bridges, municipal drainage, oil pipelines, water conservancy guards, industrial and civil construction. It is characterized by lightness, flexibility and speed, and can track rolling site monitoring anytime, anywhere.

Technical Parameters:

Model	BK-GBD12
Measuring Depth	0-30cm
Precision	≤0.5%
Storage	1000 groups of data
Configuration	Probe rod: 3 pcs Probe: 2 pcs Test data sheet: 1 set Instrument aluminum alloy box: 1 pc Computer data processing software: 1 set
Packing Size	415*370*170mm
Gross Weight	6kg

Soil Relative Density Meter



Applications:

- Airport runway.
- Excavation and backfill construction.
- Channel.
- Road and railway foundation construction.
- Construction of public facilities.
- The construction of the dam.
- Yard cover construction.
- Building foundation.

Technical Parameters:

Model	BK-SRM1
Metal Volume 1	250ml, diameter 5cm, height 12.7cm
Metal Volume 2	1000ml, diameter 10cm, height 12.75cm
Hammer	Mass 1.25KG, diameter 2cm, 10cm, drop height 15cm
Long Neck Funnel	Neck diameter:1.2cm
Conical Plug	Diameter:1.5cm
Sand Surface Smoother	Cruciform
Packing Size	480*230*160mm
Gross Weight	11kg

Soil Compaction Tester



Features:

- In the data viewing mode, you can view the data on the host or import it into the computer for viewing and analysis. The data that has been saved in the host will not be lost due to unexpected power failure.
- Display each sensor parameter and process curve trend, maximum value, minimum value, average value, zoom in, zoom out, etc.
- The measurement data of each sensor has been saved in EXCEL format. The data report and curve graph can be viewed by time period and can be printed by computer. The curve coordinates can be moved and the historical data can be clearly analyzed.
- It has the function of distinguishing the color of the out-of-limit area, and the display is intuitive and convenient.

Technical Parameters:

Model	SCM-3
Recording Time Interval	5 minutes to 99 hours
Longitude	0-180°
Latitude	0-90°
Measuring Range	0~10000kPa, 0~100Kg/cm², 0~1000N/cm²
Measuring Accuracy	±0.5%FS
Measuring Depth	375mm
Working Power Supply	7.4V large capacity lithium battery
Packing Size	600*200*100mm
Gross Weight	3kg

Soil Compaction Meter



Features:

Software:

- Showing the curve trends of each parameter, Max, Min, and Avg. Zoom in and out function.
- Coloring the overrun area function which is visual display.
- Save the data in EXCEL format as a copy.
- Be able to view period of parameter or graph, and can be printed.
- All curvilinear coordinates can be set and move, which make analysis easier.

Handset:

- Small and exquisite, easy to carry and LCD display.
- Collect settings: working unattended can be set to timing or manual collect data, recording and save data automatically.
- Both AC and DC available, internal lithium battery: 8.4v 1500mAh, with function:
charging protection, low voltage prompt. Also can be placed for a long time to record location.
- Storage capacity: up to 30,000 groups in handset, and standard equipped with 4G Micro SD.
- Data can be read on handset and also import to PC.
- Power-off memory function: data already saved in SD card won't lose when lose power.
- Probe to probe Consistency, handset can connect different kinds sensor by concentrator without influence on accuracy.
- Low-power design, equipped with system monitor and protection function to avoid short circuit or interference from external.

Technical Parameters:

Model	SCM-750-II
Function	General type, display soil compaction(KPa, kg/cm², N/cm²)directly, with data saving function
Range	0~10,000KPa; 0~100kg/cm²; 0~1,000N/cm² (switchable)
Depth	0~375mm (measuring rod is 400mm)
Accuracy	±0.5‰ FS
Position Accuracy	Three decimal ±0.05(≤50m)
Storage Capacity	Almost up to 30,000 groups in handset, and equipped with 4G Micro SD
Data-Collection Interval	5min~99hour
Working Power Supply	Battery: 8.4V lithium battery; Power Adapter:100~240V 50/60Hz
Working Current	Stand-by power consumption 10mA, working power consumption according to the configuration
Package Size(L*W*H) mm	540*170*300
Gross Weight (kg)	4

Soil Conductivity Meter



Application:

It is widely used in soil moisture detection, dry farming, water-saving irrigation, precision agriculture, forestry, geological exploration, plant cultivation, water conservancy, environmental protection and other fields.

Technical Parameters:

Model	BK-SCM1
Range	0~23ms/cm
Accuracy	±2%
Resolution	0.01mS/cm
Temperature Compensation	0-50 °C
Power Supply	110-240V, 50/60Hz
Packing Size	390*200*200mm
Gross Weight	2kg

Soil Permeameter



Application:

This instrument is used to measure the permeability of clayey soil under variable water head.

Technical Parameters:

Model	BK-SPM55
Sample Size	φ61.8mm, height: 40mm
Product Size	φ118mm (except the nozzle) height about 155mm
Net Weight	3.5kg
Packing Size	320*220*280mm
Gross Weight	5kg

Soil Bulk Density Tester



Application: The soil bulk density meter is suitable for on-site determination of the density of coarse-grained soil. It has a chassis, a sanding funnel, a bulk density bottle, and the valve is structurally strong and durable, and is made of stainless steel. The volume of the sand bottle is strictly calculated and the calibration error of the electronic balance is within 5g, which provides reliable data for the experiment. The sanding funnel is 135mm high and the volume of the sand bottle is 4L. The product also has a series of products (plastic, Iron sheet) is available.

Principle: Using the ring cutter method, the guide rod and the drop hammer are used to apply natural pressure to the ring cutter without affecting the original structure of the soil.

Technical Parameters:

Model	BK-SDT4
Configuration	2 ring cutters, 1 orientation cylinder, 1 guide rod, 1 drop hammer, 2 knobs
Packing Size	385*280*200mm
Gross Weight	14kg

Soil Analysis Instruments
Soil Aggregate Structure Meter

Introduction: Aggregate structure is the basis of fertility. The relationship between aggregate structure and soil fertility is mainly manifested in regulating the contradiction between soil moisture and air; coordinating the contradiction between soil nutrient consumption and accumulation; stabilizing soil temperature; improving soil tillage, which is conducive to the extension of crop root system.

- Features:**
- Stable performance and low failure rate.
 - Stable No noise, adjustable speed.
 - Stable With the function of timing setting, the running time of tube display is concise and clear.
 - Stable With emergency stop switch, it is convenient to cut off power in time when abnormal phenomena occur in the test and stop working.

Technical Parameters:

Model	SAS-100
Oscillation Frequency	4-45 times / min
Operation Mode	Vertical movement, stroke 50mm
Timing Range	0-60 minutes
Speed	1450 rpm
Standard Configuration	Sieve: Size: 20cm, height: 5cm Specification: 10mm, 7mm, 5mm, 3mm, 2mm, 1mm, 0.5mm, 0.25mm Material: stainless steel Oscillating rack: 3 supports simultaneous determination of 3 samples
Power Supply	220V±20% 50/60Hz, 120W
External Size(L*W*H) mm	512*512*760
Package Size(L*W*H) mm	610*590*950
Gross Weight (kg)	53



Plant Physiological Instruments

Leaf Thickness Gauge



Introduction:

The leaf thickness Gauge is mainly used to measure the leaf thickness of plants, so as to reflect the growth and nutritional status of plants through the measurement data.

Technical Parameters:

Model	LTG-1
Measuring Range	0~6mm
Resolution	0.01mm
Accuracy	0.015mm
Contact Area	Φ10 mm
Reader	Pointer
Net Weight	1kg

Plant Water Potential Analyzer



Introduction:

Plant Water Potential Analyzer is a device which be used for testing the plant water regime, its composition and get the plant conduit juice and doing component analysis. Simple operation, fast test speed, can be indoor and outdoor test.

Application:

Widely used in the research of plant physiology, ecology, agriculture, forestry and animal husbandry.

Features:

- MPa and Bar are two measuring units for choice.
- Powerful storage function, can store 4000 records.
- Delete all measurement data with one click.
- Upload the computer through the USB cable.
- The data can be viewed in the form of reports, and you can choose the period of query.
- Store the record data in EXCEL format backup and save, convenient call later.

Technical Parameters:

Model	PWP-II
Measuring Range	0~3.5Mpa
Accuracy	0.01Mpa
Measuring Mode	Automatic and manual, one-button switch
Display	LCD
Battery	12V/2.5AH lithium battery with clock function
Power Supply	220V 50/60Hz
External Size	630*400*310mm, 560*400*280mm
Package Size	685*445*360mm, 610*440*340mm
Net Weight	28kg
Gross Weight	32.3kg

Root Scanner



optional

Introduction:

Root analysis system is based on image recognition technology, it is professionally used for root analysis of plants after washing the roots in vitro. It has the characteristics of convenience, efficiency and high accuracy, which can improve the work efficiency of practitioners, reduce labor costs.

Features:

- * Clear interface design, modular function design.
- * User learning cost is lower, operation is more convenient and smoother.
- * The analysis results are more accurate.

Technical Parameters:

Model	RS-A
Power Supply	100~240V, 50/60Hz
Optional Accessory	computer
Package Size	805*235*395mm
Net Weight	8kg
Gross Weight	9.7kg

Overall Analysis Parameter:

Model	RS-A	
Root Tip	Number: the total number of root tips, equal to the number of termination points	
	Range	0~1000
	Accuracy	error <5%
Root System	Length: total root system length, including main root and secondary roots	
	Range	0~10000mm
	Accuracy	error <3.65%
	Average Diameter: the average diameter of the root system	
	Range	0~20mm
	Accuracy	error <0.04%
	Projected Area: the projected area of the root system as a whole	
	Range	0~200000mm ²
	Accuracy	error <4.02%
	Surface Area: the overall surface area	
	Range	0~1000000mm ²
	Accuracy	error <3.75%
	Volume: overall volume	
	Range	0~2000000000mm ³
	Accuracy	error <3.82%

Topological Analysis Parameter (requires relatively complete root system):

Model	RS-A
Quantity: the sum of the number of roots at all levels	
Range	0~100
Number of Connections: the sum of the number of connections on the side roots at all levels	
Range	0~100
Length: the sum of the lengths of the lateral roots at all levels	
Range	0~10000mm
Diameter: the average diameter of each side root	
Range	0~20mm
Surface Area: the sum of the surface area of each side root	
Range	0~1000000mm ²
Volume: the sum of the volume of each side root	
Range	0~2000000000mm ³
Projected Area: the sum of the projected area of each side root	
Range	0~200000mm ²

Leaf Temperature Gap Meter



Features:

- Small size, easy to carry.
- LCD display, friendly man-machine interface.
- Reasonable mechanism, accurate measurement, simple use, good stability and maintenance free.
- Perfect power management scheme, it will shut down automatically when there is no key operation for a long time.

Technical Parameters:

Model	LTG-A
Measuring Range	0℃~60℃
Resolution	0.1 ℃
Reaction Time	< 3 seconds
Measurement Error	±0.5℃
Linearity	maximum offset 1%
Storage	SD card storage(2GB)
Battery	4.2V rechargeable lithium battery
Power Supply	110V~240V, 50/60Hz
Working Temp	0℃~75℃
Package Size	270*210*140mm
Net Weight	0.5kg
Gross Weight	1kg

Plant Disease Tester



Introduction:

The Plant Disease Tester can accurately diagnose the vegetable dyes pathogens in the early stages of infection, and also can help farmers to determine the varieties of pesticide use quickly and accurately, then to reduce the losses and increase the efficiency.

Application:

Applicable to a variety of crops, plants, fruits, vegetables and tea, etc.

Features:

- Various types of plant stalk, stem, leaf and fruit can be sampled.
- Large - screen liquid crystal display and prompts, easy to use.
- Automatic control, automatic calculation, automatic calibration, automatic printing, and has high precision.
- Quickly diagnose a variety of viruses and bacteria.
- Continuous testing of multiple samples, low-cost test.
- Automatic printer integrated design, can be connected to the computer and the printer.

Technical Parameters:

Model	PDT-II
Test Speed	Single Test: 60 parts/h Continuous Test: 120 parts/h
Diagnosis Type	Fungus: botrytis, downy mildew, damping off, yellows, morning and late Pestilence, stem wilt, gummy stem blight, scab, black spot, rust disease, ring spot, powdery mildew, alternaria leaf spot, shot hole, full rot Bacterial Diseases: ulcers disease, bacterial spot, soft rot, bacterial wilt Viral Diseases: stubby disease, plexus dwarf, mosaic virus disease
Print Method	Thermal printer
Consumption	≤30W
Power Supply	220V, 50/60Hz
Package Size	560*410*295mm
Net Weight	8kg
Gross Weight	10kg

Portable Leaf Area Meter

Application:

Portable leaf area meter is mainly used for determination plant leaf, is a portable instrument can work in the field. The leaf area and related parameters of the leaves can be measured accurately, quickly and without damage, the area of the plant leaves and other flakes can also be measured. Widely used in agriculture, meteorology, forestry and other departments.



Technical Parameters:

Model	LAM-A	LAM-B
Unit	Millimeter, Square Centimeter	Millimeter, Square Millimeter
Precision	±2%	
Resolution	0.01cm2	
Measuring Length	≤1000mm	≤ 2000mm
Measuring Width	≤160mm	≤ 210mm
Thickness	≤8mm	
Data Capacity	≥1000Groups	
Packing Size(W*D*H)	390*230*220mm	580*250*200mm
Gross Weight	2kg	2.8kg

Features:

- Easy to operate. With Micro-computer technology, LCD display.
- Test many kinds of data, such as leaf area, average area, length of leaf, width of leaf, perimeter and ratio of length and width.
- USB link with computer by software, you can put the data into computer, and convert data to excel format and print.
(Only for LAM-B)

Portable Leaf Area Meter

Application:

Portable leaf area meter is mainly used for determination plant leaf, is a portable instrument can work in the field. The leaf area and related parameters of the leaves can be measured accurately, quickly and without damage, the area of the plant leaves and other flakes can also be measured. Widely used in agriculture, meteorology, forestry and other departments.

Features:

- Easy to operate. With Micro-computer technology, LCD display.
- Test many kinds of data, such as leaf area, average area, length of leaf, width of leaf.
- USB link with computer by software, you can put the data into computer, and convert data to excel format and print.

Technical Parameters:

Model	LA-B
Unit	Millimeter, Square Centimeter
Precision	±2%
Measuring Length	0~1000mm
Measuring Width	0~155mm
Date Capacity	10000Groups
Package Size(W*D*H)	400*200*150mm
Gross Weight	2kg



Portable Chlorophyll Meter



Application:

Chlorophyll Meter is able to measure chlorophyll content of plants and leaf temperature. Chlorophyll content and leaf nitrogen content have a very close relationship. Thus, chlorophyll content can reflect plants demand for nitro. Using the instrument can put nitrogen fertilizer reasonably, improve utilization of nitrogen and protect environment.

Technical Parameters:

Model	PCM-B
Measuring Area	2mm*2mm
Measuring Mode	2-wavelength concentration difference of optical methods
Sensors	Silicon semiconductor photodiode
Display Mode	Measuring value: 3 digits liquid crystal display Measuring time: 2 digits liquid crystal display
Min Measuring Interval	<3s
Measuring Range	0.0-99.9 SPAD, 0-60℃
Accuracy	±1.0 SPAD, ±1℃
Repeat	±0.3 SPAD
Power Supply	4.2V, -2000Mah rechargeable Li battery
Memory Capacity	SD card, 2GB
Package Size(W*D*H)	300*250*150mm
Gross Weight	1kg

Portable Chlorophyll Meter



Application:

Chlorophyll Meter is able to measure chlorophyll content of plants and leaf temperature. Chlorophyll content and leaf nitrogen content have a very close relationship. Thus, chlorophyll content can reflect plants demand for nitro. Using the instrument can put nitrogen fertilizer reasonably, improve utilization of nitrogen and protect environment.

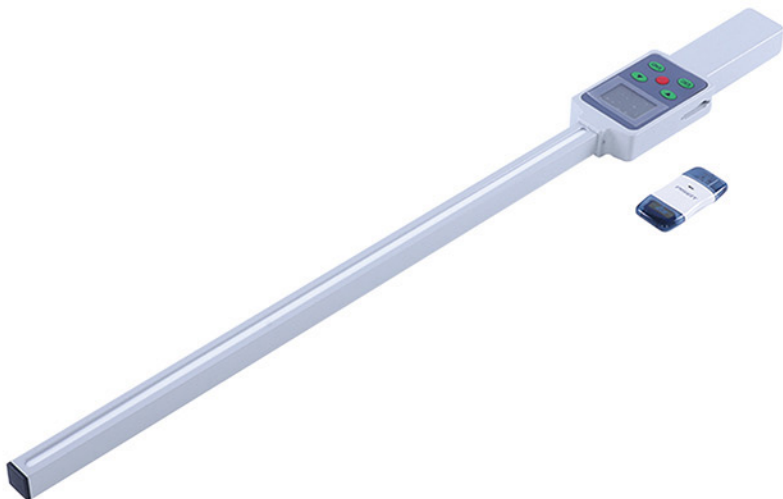
Application:

- Enter the name of the plant, the standard nitrogen content and utilization, the standard fertilizer can be directly calculated.
- Chlorophyll, leaf temperature are displayed on same screen at the same time, and can be stored at the same time.
- USB interface can be connected to the computer to export the measured data, to facilitate the management and analysis of plant nutrients. (Only for CM-B)

Technical Parameters:

Model	CM-B
Measuring Area	2mm*2mm
Measuring Mode	2-wavelength concentration difference of optical methods
Sensors	Silicon semiconductor photodiode
Display Mode	Measuring value: 3 digits liquid crystal display Measuring times: 2 digits liquid crystal display
Min Measuring Interval	< 3s
Measuring Range	0.0~99.9 SPAD; -10~99.9°C
Accuracy	±3.0 SPAD; ±0.5°C
Repeat	±0.3SPAD; ±0.2°C
Power Supply	4.2V -2000Mah rechargeable Li battery
Memory Capacity	30Kb, automatically calculate and show the average
Package Size(W*D*H)	270*250*200mm
Gross Weight	2kg

Plant Canopy Analyzer



Introduction:

Plant canopy analyzer is widely applied for farming production and agricultural research, canopy energy resource investigation, measure the light interception among plant canopy, and research the relation between plant growth and development, production quality and light utilization.

Features:

-
-

Technical Parameters:

Model	PCA-1000
Measuring Range	0~2700μmol m ² /s
Resolution	1μmol m ² /s
Response Time	10μs
Auto-Collecting Interval	1~99 min
Auto-Collecting Times	1~99 times
Store Capacity	2GB(SD card)
Meter Length	750mm
Probe Length	500mm
Qty of Sensors	25pcs(standard)
Power Supply	2*AA batteries
Working Temp	0~60°C
Working Humidity	100%RH
Package Size	810*210*160mm
Net/Gross Weight	2/3kg

Plant Photosynthesis Meter



Application:

The Plant Photosynthesis Meter applies for measuring Photosynthesis rate of crops, fruits and vegetables, grass etc.

Features:

- LCD widescreen display.
- Use - friendly: small in size, light - weight, portable, single - person operation, clear connection of gas circuit and electrical circuit, the leaf chamber open and lock automatically.
- Excellent performance: high stability, accuracy, repeatability, and good time response. It is able to measure simultaneously Pn, CO₂, PAR, T etc.
- Widely application: equip different type leaf chamber, it can widely apply for field crop, fruits and vegetables, forest and wood, grass etc. equip standard maintain - free Li - Ion, AC/DC are available, RS232 available.

Technical Parameters:

Model		PPM-C
CO ₂	Measure Range	0~1500ppm
	Accuracy	3%ppm
Leaf Temperature	Measure Range	0~50℃
	Accuracy	±0.5℃
Air Temperature	Measure Range	0~50℃
	Accuracy	±0.5℃
PAR	Measure Range	0~2500μmol·m ⁻² ·s ⁻¹
	Accuracy	<5μmol·m ⁻² ·s ⁻¹
RH(chamber humidity)	Measure Range	0~100%
	Accuracy	2%
Power Supply		110~220V, 50/60Hz
Packing Size(W*D*H)		700*500*300mm
Gross Weight		10kg

Plant Nutrition Analyzer



Application:

The Plant Nutrient Analyzer simultaneously saves three parameters (chlorophyll, nitrogen content and leaf temperature).

Plant chlorophyll, nitrogen content and leaf temperature are important nutrients. They are an important basis for plant fertilization and irrigation.

Features:

- Rapid determination: Simultaneous determination of plant chlorophyll, nitrogen and leaf temperature.
- It can save chlorophyll, nitrogen and leaf temperature data at the same time.
- Non-destructive testing of plants is fast and does not affect plant growth.
- Manual measurement mode.
- Testing objects: nitrogen, chlorophyll, leaf temperature, and leaf humidity.

Technical Parameters:

Model		PNA-4
Chlorophyll	Measure Range	0.0~99.9SPAD
	Accuracy	±1SPAD
Nitrogen	Measure Range	0.0~99.9mg/g
	Accuracy	±5%
Leaf Temperature	Measure Range	- 10~99.9℃
	Accuracy	±0.5℃
Leaf Humidity	Measure Range	0.0~99.9RH%
	Accuracy	± 0.5%
Power Supply		4.2V 2000mah Recharge Li - ion battery
Packing Size(W*D*H)		290*295*140mm
Gross Weight		1.5kg

Plant Culm-strength Meter



Features:

- High precision, high resolution, easy operation, easy to carry.
- Automatically save test pressure, time and test serial number.

Technical Parameters:

Model	PCM-1A	PCM-1B
Max Load	50N	500N
Load Accuracy	±0.5%	
Resolution	0.01N	0.1N
Culm Width Range	0~100mm	
Unit	N, kg	
Output Interface	RS232	
Power	9V battery	
External Size(W*D*H)	295*130*36mm	
Net Weight	0.6kg	
Packing Size(W*D*H)	315*220*105mm	
Gross Weight	1.6kg	

Plant Transpiration Rate Meter



Features:

- Multiple parameters tested: test air temperature, leaf temperature, air humidity, PAR etc at same time, and count the transpiration rate and Stomatal conductance accordingly.
- Small size, light, portable and one - person operation.
- Widely application: with different leaf chamber, the meter is able to be used in field crops, fruit and vegetables, hay etc which are in different shape.

Technical Parameters:

Model	PTRM-1000	
Air Temperature	Range	0~50℃
	Resolution	0.1℃
	Error	±0.2℃
Leaf Temperature	Range	0~50℃
	Resolution	0.1℃
	Error	±0.2℃
Air Humidity	Range	0~100%
	Resolution	0.1%
	Error	≤±3%
PAR	Range	0~2500μmol·m ⁻² ·s ⁻¹
	Accuracy	<5μmol·m ⁻² ·s ⁻¹
Size of Leaf Chamber	55*20mm, customized available	
Work Environment	Temperature: 20℃~50℃; Relative humidity: 0 - 100% (without condensation of moisture)	
Power	DC7.4V Li - ion Battery, 7 - 9hours continuously working	
Display	320×160 lattice	
External Size(W*D*H)	260*260*130mm	
Net Weight	3.25kg	
Packing Size(W*D*H)	560*360*250mm	
Gross Weight	9kg	

Fruit And Vegetable Respirator



Introduction:

Fruit and vegetable respirator is specially used to test and research fruit and vegetables under the conditions of normal temperature, cold storage, supermarket freezers and so on. It can choose different respiratory chambers according to the size of fruit and vegetables which can speed up the balance and measuring time. It has the characteristics of multifunction, high precision, fast, efficiency and convenience.

Features:

- High precision, accurate measurement.
- Uniform temperature control.
- Temperature and humidity display and directly getting concentration values.
- Can measure constantly.

Technical Parameters:

Model		BK-FVR3051
CO ₂	Min Measuring Range	0~1000ppm
	Linearity	≤±2%F·S
	Repeatability	≤±1%
	Response Time	≤15s
	Zero Shift	≤±2%F·S/24h
	Destination Shift	≤±2%F·S/24h
O ₂	Measuring Range	0~25%
	Linearity	≤±2%F·S
	Repeatability	≤±1%
	Response Time	30s
	Zero Shift	≤±2%F·S/24h
	Destination Shift	≤±2%F·S/24h
Temp	Measuring Range	0~50℃
	Resolution	0.1℃
	Accuracy	±0.2℃
Humidity	Measuring Range	0~100%
	Resolution	0.1%
	Accuracy	±0.2%F·S
Pre-Heating Time		2 hours
Power Supply		110~240V, 50/60Hz
Respiratory Chamber		Standard:Φ120*170mm, Φ60*90mm, Φ40*80mm
External Size		320*483*133mm
Package Size		505*190*340mm
Net/Gross Weight		9/11kg

Fruit And Vegetable Respirator



Introduction:

Fruit and vegetable respirator is specially used to test and research fruit and vegetables under the conditions of normal temperature, cold storage, supermarket freezers and so on. It can choose different respiratory chambers according to the size of fruit and vegetables which can speed up the balance and measuring time. It has the characteristics of multifunction, high precision, fast, efficiency and convenience.

Features:

- Simple operation, clear interface.
- Large capacity SD card storage data, data storage, easy to export.
- Calibration function, boot can choose whether to calibrate, improve the accuracy of the instrument.
- Equipped with special software to calculate respiratory intensity.
- The gas flow can be adjusted.

Technical Parameters:

Model		BK-FVR10
CO ₂	Min Measuring Range	0~2000ppm
	Linearity	≤±1%F·S
	Repeatability	≤±1%
	Response Time	≤15s
	Zero Shift	≤±2%F·S/24h
	Destination Shift	≤±2%F·S/24h
O ₂	Measuring Range	0~30%
	Linearity	≤±2%F·S
	Repeatability	≤±1%
	Response Time	30s
	Zero Shift	≤±2%F·S/24h
	Destination Shift	≤±2%F·S/24h
Temp	Measuring Range	-20~95℃
	Resolution	0.1℃
	Accuracy	±0.2℃
Humidity	Measuring Range	0~100%
	Resolution	0.1%
	Accuracy	±0.2%F·S
Pre-Heating Time		30min
Power Supply		Standard: AC220V±10%, 50/60Hz Optional: AC110V±10%, 50/60Hz
Respiratory Chamber		Φ120*180mm, Φ60*89mm, Φ40*80mm Standard one, choose one of three types.
External Size		260*260*130mm
Package Size		550*400*250mm
Net/Gross Weight		3.25kg/8kg

Digital Fruit Sclerometer



Features:

- Can store 896 peaks of data. The LED shows the peaks of data, and get rid of the data.
- Can output data; analyze the data by connected with computer.
- With digital peak value holding function, hold the peak value for 2 seconds and the peak value will be automatically can celled.
- Green environmental - protective: If you do not operate the machine after 10 seconds, the machine will be shut down automatically.

Technical Parameters:

Model	BK-DFS4	
Range	0.2 - 15 Kg/cm ² (×10 ⁵ Pa)	0.4 - 30 Kg/cm ² (×10 ⁵ Pa)
Division Value	0.01 Kg/cm ²	0.01 Kg/cm ²
Pressure Head Diameter	1# φ11.1mm	2# φ7.9mm
Precision	±1%	
Display Mode	Digital	
Net Weight	About 0.6KG	
Insertion Depth of Pressure Head	10mm	
Power Supply	220V 50Hz, 110V 60Hz	
Packing Size	290*190*120mm	
Gross Weight	1.6kg	

Seed Instruments Multi-rice Wheat Thresher



Features:

- Easy to thresh and with small loss.
- Portable moving and easy cleaning.
- Surface of the machine is treated by spraying plastic.
- With strong corrosion resistance.

Technical Parameters:

Model	BK-MWT150
Roller Diameter	175 mm
Roller Rotation Speed	900 rpm
Overall Size	450*350*800mm
Weight	25kg
Power Supply	Standard: 220V 50Hz, optional: 110V 60Hz
Packing Size	540*420*910mm
Gross Weight	40kg

Vacuum Seed Counting& Placing Instrument



Features:

- Used for seed counting, suction and placing in the course of seed germination.
- Made up of main machine, suction tube and suction head.
- With control button to control the suction power according to seed size.
- With 5 different seed suction heads, its size and specification match with Petri dish, meet needs of different seed germination.

Technical Parameters:

Model	BK-SCP2000
Temperature	≤ 40 °C
Power	1200W at 220V 50Hz
Power Supply	Standard: 220V 50Hz, optional: 110V 60Hz
Suction Plate	5pcs
Suction Size	12*8.8 (25 holes, for corn, 1pc); 16.7*12 (1pc);10.3*10.3 (25 holes, 2pcs), Φ8 (25 holes/pc)
Packing Size	540*390*490mm
Gross Weight	14kg

Sort	Sucked Seed	Sucked amount	Figure	Incubation utensil
A	Corn/Bean/Cotton Seed/Big Granule Vegetable Seed	25	Rectangle	PL18 PH18
B	Rice/Wheat/Barley/Kaoliang	100	Rectangle	PL18 PH18
C	Rice/Wheat/Barley/Kaoliang	100	Square	PL12 PH12
D	Rape seed and middle or small granule vegetable seed	100	Square	PL12 PH12
E	Small granule vegetable seed	100	Roundness	φ9mm glass utensil

Automatic Seed Counter



Application:

Automatic seed Counter can automatic count many kinds of grains by setting number. In agriculture it is mainly used in grain count, exp. Rice, wheat, sorghum, corn, vegetables seed and so on.

Features:

- Two modes: Free count and bulk count.
- The counting speed is adjustable.
- High accuracy: Sensitivity levels for different size of particles.
- Automatic deceleration: when counting number is close to the seting numbe, the counting speed slow down automatically.
- Automatic motor Protection: the motor will stop work once it detects there is no particles on the plate for 60seconds.
- User-friendly interface: LCD screen, mode selection, counting time, level and number of particles display clearly.
- Widely application: suitable for particles includes but is not limited to: crops seeds, vegetable seeds, feed, diamond, tablet.

Technical Parameters:

Model	ASC-C plus
Count Range	1~12mm
Count Accuracy	±2‰
Count Speed	≥1000 /3min (Sesame)
Counting Range	1~99999
Noise	<70db
Power Supply	AC220/110V, 50/60Hz
Operation Environment	-10℃~ 50℃, <85% RH
External Size(W*D*H)	285*210*176mm
Packing Size(W*D*H)	430*280*230mm
Gross Weight	9.5kg