Pre-Processing of Bio-Samples

Homogenizer

Overview:

1. Prepare lysis tube   2. Process about 30 seconds   3. Centrifuge to pellet debris   4. Transfer cleared lysate

Sample
Buffer

about a minute

DNA
RNA
Protrin

Typical Samples:

* Human, animal, plant cells
* Micro-organisms
* Soil and sediments
* Swabs and feces
* Drugs, polymers, lotions, etc.

Features:

* "3D Rotating High Speed Motion" for quick disruption of those fibrous tissues and resistant cells.
* 50 Programmable memory settings and user optional condition settings.
* A wide range of rotation speed settings from 4.0m/s to 7.0m/s, increment 0.05m/s.
* Brushless motor realizing no brush particle generation and no brush replacement.
* Easy to remove sample tube holder and easy to fix sample tubes with the turn of the central knob.
* Easy to monitor the disruption process through the clear lid.
* Disposable tubes ensure no threat of cross-contamination.
* Most samples can be processed in 35 seconds or less.

Technical Parameters:

Model	HG-24
Speed Range	4.0 m/s~7.0 m/s (in steps of 0.05 m/s)
Cycle Duration	1~90 s (in step of 1 s)
Pause Time	1~90 s (in step of 1 s)
Acceleration	< 4s
Programmable	50
Number of Cycles	10
Display	OLED
Number of Samples	24*2ml / 1.5ml or 12*5ml
Tube Type	Grinding tube
Running Noise	< 70dB
Power Supply	AC110/220V±10%, 50/60Hz
External Size(L*D*H)	280*360*385mm
Package Size(L*D*H)	620*520*630mm
Net/Gross Weight	25kg/37kg

Semi Automated Plate Sealer

Features:
Safety

* If a hand or objects stuck in the drawer when it's moving, the drawer motor will reverse automatically.
  This feature prevents both user and the unit from injury.
* Special and smart design on the drawer, it can be detached from the main device.

Power Save Mode

If the unit is left on but inactive for long periods, it will enter a power saving mode.
* When the unit is inactive for 60min, it will switch into stand-by mode. Then the temperature will be reduced to 60C to save power.
* When the unit is inactive for 120min, it will switch into Power-Save mode. The display and heating element will be switched off. The user can awaken the unit by pressing any button.
* Rapid heating (reaching 170℃ in 300seconds)
* Adjustable Sealing Temperature: 80℃ ~200℃
* OLED display screen, high light.
* Applicable for different micro plates and heat seals.
* Precise temperature, timing and pressure for consistent sealing.

Technical Parameters:

Model	BK-PS1000
Display	OLED
Adjustable Sealing Temperature	80℃~200℃
Temperature Accurate	±1℃
Seal Time	0.5s~10s(increment of 0.1s)
Seals Plate Heights	9~48mm
Compatible Plate Materials	PP(Polypropylene); PS(Polystyrene); PE(Polyethylene)
Compatible Plate Types	Standard Assay Plates Deep-well Storage Plates PCR Plates: skirted, semi-skirted, non-skirted
Power	300W
Compatible Sealing Film Types	Foil-polypropylene laminate Clear polyester-polypropylene laminate Clear polymer Thin clear polymer
Sealing Temperature	OFF, 80℃~200℃ (increment of 1.0℃)
Temperature Uniformity	±1℃
Seal Plate Height	9~48mm
Voltage	AC110V or 220V/50-60HZ
Compact Footprint	178mm width*370mm depth
External Size (W*D*H)mm	370*178*330
Package Size (W*D*H)mm	420*270*460
Net/Gross Weight(kg)	12/13

Standard Blocks：

Number	Type
B01	Deep hole plate /ELISA plate adapters
B02	96-hole microtiter plate adapter

Optional Blocks：

Number	Type
B03	384 hole microtiter plate adapter

Denaturation & Hybridization System

Features:

* This instrument is adopted FISH processing step, which can reduce a lot of manual operating time and avoid the damage of harmful reagent.
* Full touch screen operation, friendly human interface.
* Support restart functionality runs an unexpected power outage, when power is restored can be scheduled to automatically back up and running.
* Supporting automatic cooling function after running over.
* Supporting automatic warm-up function.
* Platform high precision of temperature control, low fluctuation.
* Can deal with 12 slides.
* Support 105 custom programs stored functions.
* Integrated denaturation and hybridization, hybrid, multiple-step operation three modes of operation.

Technical Parameters:

Model	BK-DH2000
Temperature Control Range	RT+5℃~100℃
Temperature Setting Range	0℃~100℃
Capacity	12 Slides
Temperature Accuracy	≤±1℃
Temperature Uniformity	≤±1℃
Timing Range	1min~99h59min
Heating Time(37℃ to 95℃)	≤2min
Cooling Time(95℃ to 45℃)	≤6min
Power	350w
Power Supply	220V/50/60Hz
External Size(L*W*H)	440*220*120mm
Packing Size(W*D*H)	580*370*300mm
Gross Weight	7kg

Thermo Shaker Incubator

Features:

* LCD display. It is easy to setup and use.
* Reliable design with inner extra temperature protection.
* Each thermo shaker is equipped with lifter that is easy to replace different blocks.
* Digital accuracy and convenience.
* Precision wells for uniform thermal transfer.
* Assorted blocks for a wide variety of tube sizes.
* Brushless DC Motor: noiseless long service life maintenance-free.
* Conform to CE safety standard.
* Accurately control and display time, temperature and speed.

Technical Parameters:

Model	BK-TSI10	Model	BK-TSI10
Temperature Setting Range	0℃~100℃	Auto Heating	Yes
Temperature Control Range	RT-20℃~100℃	Auto Resume To Run	Yes
Timing Range	1min~99h59min/∞	Power Supply	150w
Temperature Accuracy	≤±0.3℃	Fuse	250V 3A Φ5×20
Temperature Uniformity	≤±0.3℃	Heating Time	≤15min
Shaking Speed	200rpm~1500rpm	Cooling Time	≤15min(RT~RT-20℃); ≤10min（100℃~-20℃）
Orbit	3mm	Voltage	AC110~220V/50~60Hz
Multi Point Running	Yes (Max 5points)	Dimension	260*195*150mm
Multi Cycle	Yes (Max 99times)	Packing Size(W*D*H)	410*320*310mm
Auto Running	Yes	Gross Weight	9.5kg
Storage At 4℃	Yes		

Optional Blocks:

Type	Test Tube Diameter	Type	Test Tube Diameter
B30	96*0.2ml	B36	24*5ml
B31	54*0.5ml	B37	15*10ml
B32	35*1.5ml	B38	12*15ml
B33	35*2.0ml	B39	6*50ml(round-shape bottom)
B34	15*0.5ml+20*1.5ml	B39-S	6*50ml(cone-shape bottom)
B35	96*0.2ml(elisa plate)	/	/

Microplates Shaker

Features:

* LCD display system status and parameters.
* Stable and reliable shaking.
* Easy to operate with one touch knob.
* Automatic fault detection and buzzer alarm function.
* 12-month warranty.

Technical Parameters:

Model	BK-TS100
Time Range	1min~99h59min
Mixing Orbit	3mm
Sample Capacity	4plates
Power Supply Voltage	AC110~240V, 50/60Hz
Speed Range	200~1600rpm
Speed Step Value	10rpm
Consumption	45W
Dimension	280*270*140mm
Packing Size(W*D*H)	440*360*260mm
Weight	4.0kg
Gross Weight	6.5kg

Digester

Microwave Digester

Parts:

Description:

BIOBASE Microwave Digester System adopts the international advanced double magnetron frequency microwave heating system and realizes the high-power microwave balanced magnetic field safety heating.

It is widely used in food, textile, plastic, geological, metallurgical, coal, biological medicine, petroleum chemical industry, environmental monitoring, sewage treatment, battery manufacturing, cosmetics, etc.

Features:

＊ Double magnetron variable frequency control system.

＊ High accuracy pressure sensor.

＊ 7" LCD color touch screen display the temperature and pressure curve in real time.

＊ Built-in prestored methods and other programmable methods.

＊ Optical fiber temperature control system.

＊ Multiple safety protection function.

＊ It has more than ten safety protection measures to ensure experiment safety, including temperature control system, pressure control system, explosion-proof security doors, thicken cavity with multi-layer TEFLON coating, High-power exhaust system, program with suspend or start at any time. Ladder-style control temperature system, the material is TFM for the vessel and aerospace composite material for the vessel cover, the vessel cap with PFA and the pressure shrapnel use PEEK.

＊ Video monitoring function for the BMD-1 model.

Technical Parameters:

Model	BMD-1	BMD-2
Cavity	48L Resonant Cavity	
Teflon Coating	10 layers	8 layers
Digestion Method	50 preinstalled methods, programmable 100 methods	20 preinstalled methods, programmable 50 methods
Max. Temp.	305℃	
Temp. Accuracy	±1℃	
Pressure Accuracy	±0.01Mpa	
Temperature Sensor	Optical Fiber Sensor	
Vessel Pressure Capacity	80Mpa	75Mpa
Vessel Quantity	12 Vessels	10 Vessels
Vessel Volume	100ml	
Microwave Cavity Material	SS316 with 10 layers Telflon	SS316 with 8 layers Telflon
Cooling Method	Forced air cooling	
Interface	USB, RS232	/
Consumption	1600W	
Power Supply	AC220V±10%, 50Hz	
External Size(W*D*H)	520*593*660mm	
Package Size(W*D*H)	830*900*970mm	
Gross Weight	107kg	

Microwave Digester

Features:

✽ All-steel industrial grade chamber, anti-corrosion and durable use.

✽ Aerospace composite fiber outer vessel, anti-explosion and anti-corrosion.

✽ Multi-functional safety bolt design, instead of safety membrane and other consumables.

✽ Precise pressure controlled by piezoelectric crystal without cross-contamination problem.

Technical Parameters:

Model	BMD-E1
Temp. Range	0~300℃
Temp. Accuracy	±1℃
Pressure Range	0~10Mpa
Pressure Accuracy	±0.01Mpa
Temperature Sensor	High-precision platinum resistor temperature sensor
Pressure Sensor	Piezoelectric crystal pressure sensor
Display	LCD display
Vessel Quantity	Standard 6 Vessels
Vessel Volume	100ml
Vessel Material	Aerospace composite fiber for outer Vessel, Modified TFM material for inner Vessel
Chamber Exhaust System	High-power anti-corrosion axial fan, exhaust speed: 3.1 m3/min
Digestion Method	Internal software, up to 20 methods can be stored
Consumption	1000W
Power Supply	AC220V±10%, 50/60Hz
External Size(W*D*H)	450*515*510mm
Package Size(W*D*H)	Main Body: 700*670*685mm; Accessory: 490*420*320mm
Gross Weight	Main Body: 61kg; Accessory: 9kg

Graphite Digester

Application:

BGD-420F Graphite Digester adopts globally advanced high-temperature infrared radiation heating technology and microprocessor control platform, accurate temperature control and quick temperature rise. It has two kinds of temperature rise mode: linear and curve temperature rise mode, and offers 20 digestion programs for control of temperature rise curves.

Features:

✽ Anti-corrosion design: TEFLON coating on the surface, acid/alkali proof.

✽ Heating uniform and fast: Adopt graphite block(antioxidant), heating faster and energy transfer faster, temperature between holes more uniform.

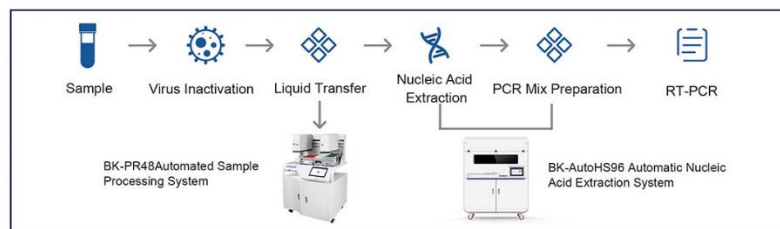✽ Safety protection: adopt unique air duct insulation tech, keep the temperature ultralow, protect operator

Technical Parameters:

Model	BGD-420F
Temperature Range	RT +5 - 450℃
Temperature Accuracy	±1℃(450℃)
Heating Method	Infrared heating and high-purity graphite conduction
Digestion Tube Capacity	300ml
Max. Capacity	20pcs/batch
Power Supply	AC 220 V±10%, 50HZ
Power Consumption	3600W
External Size(W*D*H)	474*509*636mm
Package Size(W*D*H)	540*570*830mm
Gross Weight	44kg

Automated Sample Processing System

Work Process:

Sample → Virus Inactivation → Liquid Transfer → Nucleic Acid Extraction → PCR Mix Preparation → RT-PCR

BK-PR48 Automated Sample Processing System

BK-AutoHS96 Automatic Nucleic Acid Extraction System

Introduction:

BK-PR48 Automated Sample Processing System can be used with a biological safety cabinet. Could complete lid opening/closing, dispensing, proteinase K/internal control addition, it only takes 16 minutes to transfer 48 samples at one time, which helps laboratories quickly improve their large-scale nucleic acid detection capabilities.

Application:

Sample processing for clinical diagnosis, epidemic surveillance, food safety, forensic identification, scientific research, etc., especially for samples of SARS-CoV-2 or other virulent infectious diseases.

Features:

Safety: BK-PR48 can be used with a biological safety cabinet, to effectively prevent aerosol pollution.
Efficient: Cooperative processing with dual robotic arms, 20s/PCs
Convenient: Visual interface operation, easy to operate
Compatibility: Compatible with a variety of pipette tips, deep well plates, sampling tubes.
(including blood collection tubes) specifications
Smart: One-key operation, smart dispensation

Parameters:

Model	BK-PR48
Throughput	1-48
Processing Time	48 samples/16min
Sample Type	Plasma, serum, whole blood, swab solution and other samples
Sample Rack	1Pcs, 6*8 with locking device (compatible with a variety of sampling tubes)
Robot Arm	2 pcs (Dispensation arm and Screw cap arm)
Plate Position	3 pcs (Compatible with multi-specification deep-well plates)
Tip Position	3 pcs (Including tip waste box position)
Reagent Rack	1 pcs (4*2ml centrifuge tube+4*2ml freezing tube+4*5ml freezing tube)
Protective Function	Can be used in a biological safety cabinet
	External droplet catch tray design
	With air-tight and anti-drip design
Liquid Detection	Pneumatic liquid level detection principle, intelligent detection of blocked needle
Pipetting Volume	5-1000ul (1000/50ul Tip)
Pipetting Accuracy	10ul, CV≤1.5%, Accuracy≤6.0%, 50ul Tip
	50ul, CV≤1.0%, Accuracy≤2.0%, 1000ul Tip
	100ul, CV≤0.5%, Accuracy≤2.0%,1000ul Tip
Power Supply	220V,50/60HZ;110V,60HZ
External Size (W*D*H)	827*794*1223mm
Net Weight	100kg
Package Size (W*D*H)	Main instrument: 925*925*817mm;
	Base cabinet:1030*995*1045
Gross Weight	Main instrument: 115kg;
	Base cabinet:105kg

Sample Concentrator

Features:
✻ High precision and wide range of tamp control.
✻ Blowing a large number of samples at one time.
✻ Blowing each sample independently.
✻ Amount of airflow can be adjusted.
✻ Easy operation; safe and reliable to use.
✻ 12-month warranty.

Technical Parameters:

Model	BK-SC100
Temp. Control Range	RT.+5℃-160℃
Temp. Uniformity	≤±0.5℃
Display Accuracy	0.1℃
Heating Time	≤15min (from 25℃ to 160℃)
Max Gas Usage	15L/min
Max Gas Pressure	0.02Mpa(Gas pin≤16pcs); 0.05Mpa (Gas pin>16pcs)
Max Power	300W
Dimension	260*220*450mm
Temp. Accuracy	±0.5℃ (@40℃)
Temp. Accuracy	±1℃ (@120℃)
Timing Range	1-99h59min/∞
Max Vertical Travel	200mm
Needle Length	150mm
Block Quantity	1
Voltage	220V 50/60Hz
Packing Size(W*D*H)	430*420*340mm
Weight(kg)	7.0
Gross Weight(kg)	9.0

Optional Blocks:

Type	Test Tube Diameter	Capacity
B03	10mm	12
B04	12mm	12
B05	13mm	12
B06	15mm	12
B07	16mm	12
B08	19mm	12
B09	20mm	12
B10	26mm	8
B11	28mm	4
B12	40mm	3
B15	1.5ml(centrifuge tube)	24
B16	2.0ml(centrifuge tube)	24

Sample Concentrator(visible)

Features:
✻ High precision and wide range of temp control.
✻ Blowing a large number of samples at one time.
✻ Blowing each sample independently.
✻ Amount of airflow can be adjusted.
✻ With special slotting-design block, surface location of.
✻ Concentrated samples can be observed.
✻ Easy operation; safe and reliable to use.

Technical Parameters:

Model	BK-SC400
Temp. Control Range	RT.+5℃-160℃
Temp. Uniformity	≤±0.5℃
Display Accuracy	0.1℃
Heating Time	≤15min (from 25℃ to 160℃)
Nitrogen Flow Rate	15L/min
Nitrogen Rressure	0.1Mpa
Max Power	500W
Dimension	260*220*475mm
Temp. Accuracy	±0.5℃ (@40℃)
Temp. Accuracy	±1℃ (@120℃)
Timing Range	1min-99h59min/∞
Needle Length	150mm
Block Quantity	1
Voltage	AC220V or AC110V, 50/60Hz
Packing Size(W*D*H)	430*420*340mm
Weight(kg)	7.3
Gross Weight(kg)	10.0

Optional Blocks:

Type	Diameter	Depth	Capacity
B02 027 001	10.5mm	50mm	12
B02 027 002	12.5mm	50mm	12
B02 027 003	13.5mm	50mm	12
B02 027 004	15.5mm	50mm	12
B02 027 005	16.5mm	50mm	12
B02 027 006	19.5mm	50mm	12
B02 027 007	20.5mm	50mm	12

Leakage Tester

Application:

Seal tester is used in food industry, beverage, pharmaceuticals, personal care etc.

By air compressor, seal tester's negative pressure is generated to test the hermetic sealing quality and performance of packaging bags, bottles and cans etc.

Features:
✻ Microcomputer control, test parameters can be set, automatic testing process
✻ LCD screen display
✻ Sealed chamber is made of high quality plexiglass tubing with 15mm thickness
✻ Backflush automatically to unload pressure

Technical Parameters:

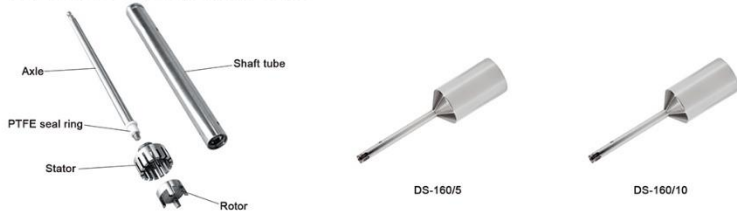| Model	BK-ST134
Vacuum Degree Range	-90~0kPa
Vacuum Precision	0.1KPa
Resolution	0.1KPa
Indication of Changes	≤1%
Vacuum Chamber Size	Φ270*210mm(standard). Note: customization is available for other sizes
Original Air Pressure	0.7MPa (Owned)
Original Air Connection	Φ6Polyurethane pipes
Control Method	Microcomputer control, automatic test procedure
Display	LCD display
Environmental Conditions	RT(20±10)℃, Relative humidity<85%
Power Supply	AC110/220V±10%, 50/60Hz
Optional Accessories	Vacuum Chamber: Φ360*H585mm
	Vacuum Chamber: Φ460*H330mm
	JW-032B Air Compressor
Dimensions	Sealed vacuum chamber: Φ300*350 mm
	Operation host (W*D*Hz): 320*420*120mm
Package Size(W*D*H)	400*620*600mm
Net Weight/Gross Weight	16kg/21kg

Homogenizer

Application:

D-160 can be used in bio-pharmaceuticals, genetic research, tissue destruction, fragmentation, cytoplasmization, pathological analysis, nano-material dispersion, polymerization, ink coatings, fine chemicals, pesticides, prospecting, environmental protection, energy and other fields.

Features:

＊ Lightweight design, handheld and can be operated with one hand.
＊ The application of different dispersing heads is suitable for liquid samples of 0.1-250ml.
＊ High-quality 316L stainless steel dispersing head, corrosion-resistant, high-temperature sterilization.
＊ The dispersing head is easy to disassemble and clean; high-speed and high-efficiency motor.
＊ The speed is adjustable in 10 gears, and the speed range: 8000-32000rpm.

Components of Dispersing Shaft:

Axle

Shaft tube

PTFE seal ring

Stator

Rotor

DS-160/5

DS-160/10

Optional Accessories:

Cat. No.	Combination Stator + Rotor	Model	Working Volume (ml)	Diameter of Stator	Diameter of Rotor	Min. / Max. Immersion Depth	Application
18900113	DS-160/5	D-160	0.1~50	5mm	3mm	7/50mm	Small amounts of solid-liquid mixtures
18900114	DS-160/10		1~250	10mm	6mm	10/120mm	

Technical Parameters:

Model	D-160
Item No.	8034111000
Recommended Configuration	Package 1: D160 drive, H370 Stand, DS-160/5 shaft, volumes from 0.1-50ml Package 2: D160 drive, H370 Stand, DS-160/10 shaft, volumes from 1-250ml
Speed Range	8000-32000rpm
Max. Circum. Speed	6.3-14m/s
Speed Control	10 stage
Working Volume (H_2O)	0.1-50ml (Dispersing shaft DS-160/5) 1-250ml (Dispersing shaft DS-160/10)
Max. Viscosity	5000mPa·s
Material of Dispersing Shaft	SS316 & PTFE seal ring
Noise	≤72dB
Ambient Temp.	0-40℃
Relative Humidity	85%RH
Protection Type	IP20
Consumption	160W
Motor Type	AC carbon brush motor
Power Supply	AC110/220V±10%, 50/60Hz(Customizable)
Standard Accessory	Base stand + DS-160/5 dispersing shaft Or Base stand + DS-160/10 dispersing shaft
External Size(W*D*H)	45*55*190 mm
Package Size (W*D*H)	290*240*220 mm
Gross Weight	4kg