

INTRODUCTION >>>>

THE ENDLESS EFFORTS FOR
THE BEST EQUIPMENT IN THE WORLD.

www.n-biotek.com

Contents

INTRODUCTION

N-BIOTEK, INC. is a leading manufacturer and supplier of laboratory equipment relating to Biotechnology located in Korea with 20 years experience.

N-BIOTEK, INC. has been highly appreciated in many countries, due to good quality and competitive prices.

Unique features such like IR- Concentrator, Vibration Free Shaker (Magnetic Induction Type), User-Friendly Incubator (Co2 Incubator, Shaking Incubator), Shakers and Water Bath.

Our products are made to comply with, and exceed, the standards required for CE Certification.

We produce all its equipment using ISO9001 accredited conditions and procedure to further ensure safety for users worldwide.

HANDYLAB

Our main concept is to supply instruments for your personal laboratory. We call this concept **HandyLab**, all of our products are designed for your personal lab. Laboratory equipment are becoming more compact and customized. Our products exactly following this market trend.

We think the future of laboratory and it should be focused on individual labs.

If you choose **N-BIOTEK, INC.**, you will be ready for the future.

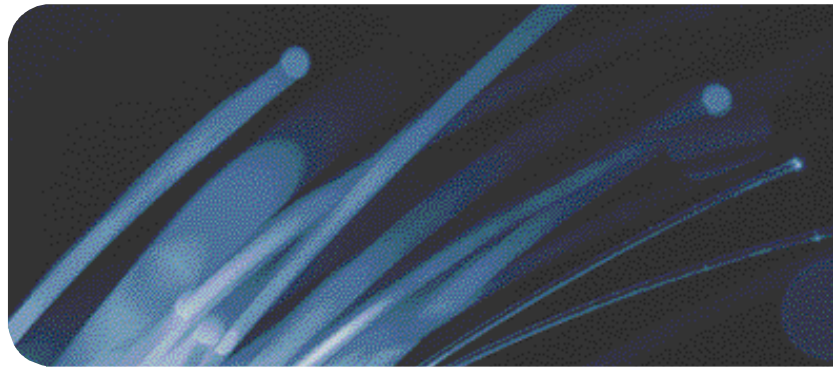


- IR CONCENTRATOR · 05
- INCUBATOR · 11
- SHAKER · 25
- WATER BATH · 31
- WORK STATION · 35
- OTHER · 38

IR CONCENTRATOR

NB-504CIR

IR CONCENTRATOR



- ❖ MAX-UP IR CONCENTRATOR
- ❖ DNA-VAC IR CONCENTRATOR
- ❖ MICRO IR CONCENTRATOR
- ❖ GAS BLOWING CONCENTRATOR



MAX-UP

Features

- ❖ **New IR-emitting Plate Glass Lid (Patent No. 10-0616063)**
By using infrared ray, the sample can be concentrated efficiently under vacuum condition, and it can measure 3 points temperature measuring sensors. Not only chamber temperature, but also sample or bucket temperature are monitored for perfect concentration and prevent denaturation of heat-sensitive samples.
- ❖ **Designed for wide range temperature working**
For heat-sensitive sample application from 4 to 80 .
- ❖ **Imbalance detector**
During an experiment, the imbalance of rotor, caused from different evaporation amounts of each sample is checked for it's safe working.
- ❖ **Pre-heat mode**
By setting the temperature before running, ideal temperature can be reached and provide loading sample.
- ❖ **No cross-contamination, No sample loss**
The contamination and sample loss is minimized because the exhalation hole for the vacuum is located on the center of the shaft.
- ❖ **Compact, mobile system**
Powerful Diaphragm Vacuum (Water free and resistant from chemical) and cold trap are built in to assist for high efficient evaporation.

www.n-biotek.com



• Vacuum port (Exhalation hole) is on the center of the shaft, so that contamination is minimized.



• Infra-red ray, emitted from lid save working time efficiently.



• Efficient and accurate result are provided, by checking temperatures of sample, bucket and chamber. Especially it is ideal for heat-sensitive samples such like protein.

IR CONCENTRATOR

NB-502CIR

Features

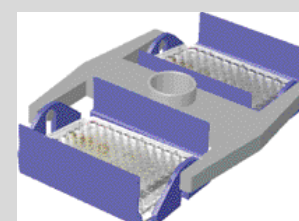
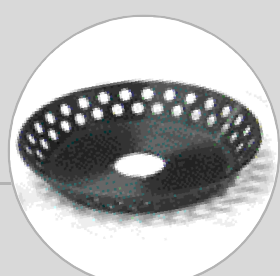
- ❖ **New IR-emitting Plate Glass Lid**(Patent No. 10-0616063)
By using infrared ray, the sample can be concentrated efficiently under a vacuum condition, and lid glass(IR-emitting) performs safe and fast evaporation of sample.
- ❖ **Rotor driving**(Brushless D.C motor)
The induction drive provides very stable working with very low vibration and noise.
- ❖ **No cross-contamination, No sample loss**
The contamination and sample loss is minimized because the exhalation hole for the vacuum is located on the center of the shaft.
- ❖ **Wide selection rotor**
Few micro-liters up to 50ml tube hold at once and plate rotor holds two 96well micro-titer plate, simply interchangeable.
- ❖ **Compact, bench-top model**
Built-in Diaphragm vacuum pump which is very safe from chemicals, suit for individual researchers with its limited space.



DNA-VAC

❖ Wide selection of rotors, micro-tubes up to 250ml tubes

Model No.	Tube size	Number
RO-1.5/136	1.5Mℓ micro-tube	136 ea
RO-1.5/58	1.5Mℓ micro-tube	58 ea
RO-15/12	15Mℓ(∅20 x 87mm) tube	12 ea
RO-50/08	50Mℓ(∅34 x 75mm) tube	8 ea
RO-250/04	250Mℓ(∅65 x 100mm) tube	4 ea
RO-plate	96 well micro-titer plate	2 ea



Specification	Unit	NB-504CIR(MAX-UP)
Temperature range		+4 to 80
control		Microprocessor digital PID
increment		0.1
standby		Pre-heat
Operating panel		Touch button
Heating mode		Selectable 3 mode IR / IR & Heat / Heat
Display		5 digit LED
Capacity	Mℓ, ea	1.5Mℓ micro-tube x 136 ea, 1.5Mℓ micro-tube x 58 ea, 15Mℓ tube x 12 ea, 50Mℓ tube x 8ea, 250Mℓ tube x 4 ea, 96 well micro-titer plate x 2 ea
Speed range	rpm	Max. up to 2,000rpm
Vacuum pump		Chemical resistant PTFE coated Diaphragm pump
ultimate pressure	mbar	2 mbar
gauge		Analogue vacuum gauge
Cold trap		-40 , 4 liter collector
Dimensions	mm	550(W) x 600(D) x 900(H)mm
Power	V/Hz	220V / 60Hz
Weight	kg	60kg

Specification	Unit	NB-502CIR(DNA-VAC)
Temperature range		Ambient + 5 to 80
control		Microprocessor digital PID
increment		0.1°
standby		Pre-heat
Operating panel		Touch button
Heating mode		Selectable 3 mode IR / IR & Heat / Heat
Display		5 digit LED
Capacity	Mℓ, ea	1.5Mℓ micro-tube x 136 ea, 1.5Mℓ micro-tube x 58 ea, 15Mℓ tube x 12 ea, 50Mℓ tube x 8 ea, 96 well micro-titer plate x 2 ea
Speed range	rpm	Max. up to 2,000 rpm
Vacuum pump		Chemical resistant PTFE coated Diaphragm pump
ultimate pressure	mbar	9 mbar
gauge		Analogue vacuum gauge
Dimensions	mm	400(W) x 500(D) x 300(H)mm
Power	V/Hz	220V / 60Hz

MICRO IR CONCENTRATOR

NB-503CIR

Features

- ❖ **New IR-emitting Plate Glass Lid**(Patent No. 10-0616063)
By using infrared ray, the sample can be concentrated efficiently under vacuum condition.
- ❖ **Rotor drive**(Brushless D.C motor)
Built in Magnetic Induction drive provide maintenance free, low noise and vibration.
- ❖ **Selectable 3 heating mode**
Optimum drying conditions select one mode of three modes.
- ❖ **Pre-heat mode**
For provide temperature loading sample.
- ❖ **No cross-contamination, No sample loss**
The contamination and sample loss is minimized because the exhalation hole for the vacuum is located on the top of the shaft.
- ❖ **Wide selection rotor**
Easy changeable and various rotors meet the need for any experiments.



MICRO-CENVAC

IR ray improve the evaporation rate efficiently, so the concentration is more 2 times faster than conservative concentration

Solvent	Sample Vol.	Tube Type	Temperature	Dry Time
Hexane	80Mℓ	30Mℓ	40	50 min.
Water	18Mℓ	1.5Mℓ	50	4 hrs
Methanol	96Mℓ	10Mℓ	40	58 min.
Water & Ethanol 50%	64Mℓ	10Mℓ	40	4 hrs

(The concentration speed depends on tube and circumstances)



Model No.	Tube size	Number
RO-1.5/24	1.5Mℓ micro-tube	24 ea
RO-10/16	10Mℓ (Ø 18x65mm) tube	16 ea
RO-15/12	15Mℓ (Ø 20x70mm) tube	12 ea
RO-30/08	30Mℓ (Ø 30x73mm) tube	8 ea
Real Scope		1 ea



MORE 2TIMES FASTER THAN REGURAL CONCENTRATOR

Specification	Unit	NB-503CIR
Temperature		
range		Ambient +5 to 70
control		Microprocessor digital PID
increment		0.1
standby		Pre-heat
Operating panel		Touch button
Heating mode		Selectable 3 mode IR / IR & Heat / Heat
Display		5 digit LED
Capacity	Mℓ, ea	1.5Mℓ micro-tube x 24 ea, 10Mℓ tube x 16 ea, 15Mℓ tube x 12 ea, 30Mℓ tube x 8 ea
Speed		
range	rpm	1700 rpm, 2500 rpm, 5000 rpm
control		Selector
Vacuum		
pump		Chemical resistant teflon coated Diaphragm vacuum pump
ultimate pressure	mbar	160 mbar
gauge		Analog vacuum gauge
Dimensions	mm	220(W) x 240(D) x 170(H)mm
Power	V/Hz	220V / 60Hz

GAS BLOWING CONCENTRATOR

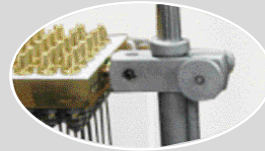
NB-503GBP

Features

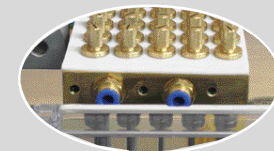
- Simultaneous or separate delivery gas to sample
Each nozzles in the manifold are adjusted pressurized nitrogen gas delivery to sample separately or simultaneously.
- Precision temperature stability
Temperature is controlled precisely by Microprocessor PID control.
- No sample contamination
Each nozzle also has the exhalation holes to prevent from contamination and safety for researcher.
- Wide range of modular blocks
Various Modular block of from 1.5Mℓ micro-tube to 13mm in diameter tube for wide application.



NB-503GBP



STAND



MANIFORD

Gas In - Outlet (Gas exhaust)
Contamination free



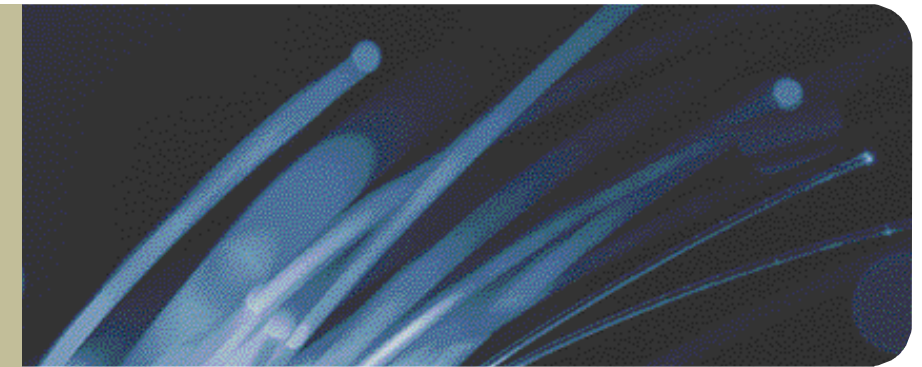
ALUMINUM BLOCK

2 large blocks
4 small blocks

Tube size	Holes	Diameter of hole
1.5Mℓ micro-tube	30	11mm
10Mℓ tube	30	13mm

Specification	Unit	NB-503GBP
Temperature range		Ambient + 5 to 120
increment		0.1
control		Microprocessor digital PID
Heating method		Heater
Operating panel		Touch button
Display		5 digit LED
Manifold size	mm	130(W) x 110(D) x 30(H)mm
Nozzle		Flow rate control by each nozzle
Stand		Pinion motion stand
Block dimensions	mm	110(W) x 90(D) x 45(H)mm
capacity	Mℓ, ea	1.5Mℓ micro-tube x 30 holes x 2 ea, 10Mℓ tube x 30 holes x 2 ea
Connecting port		Flow control valve
Operating temperature		10 to 50
Overall dimensions	mm	250(W) x 250(W) x 450(H)mm
Power	V/Hz	220V / 60Hz
Weight	kg	21kg

INCUBATOR



- QUALITY CO₂ INCUBATOR
- MINI CO₂ INCUBATOR
- CO₂ INCUBATOR & ROLLER
- CO₂ INCUBATOR & SHAKER
- QUALITY INCUBATOR
- GENERAL INCUBATOR
- HYBRIDIZATION INCUBATOR
- INCUBATOR & ROLLER
- INCUBATOR & SHAKER
- SHAKING INCUBATOR
- INCUBATING SHAKER
- VIBRATION INCUBATOR



QUALITY CO₂ INCUBATOR

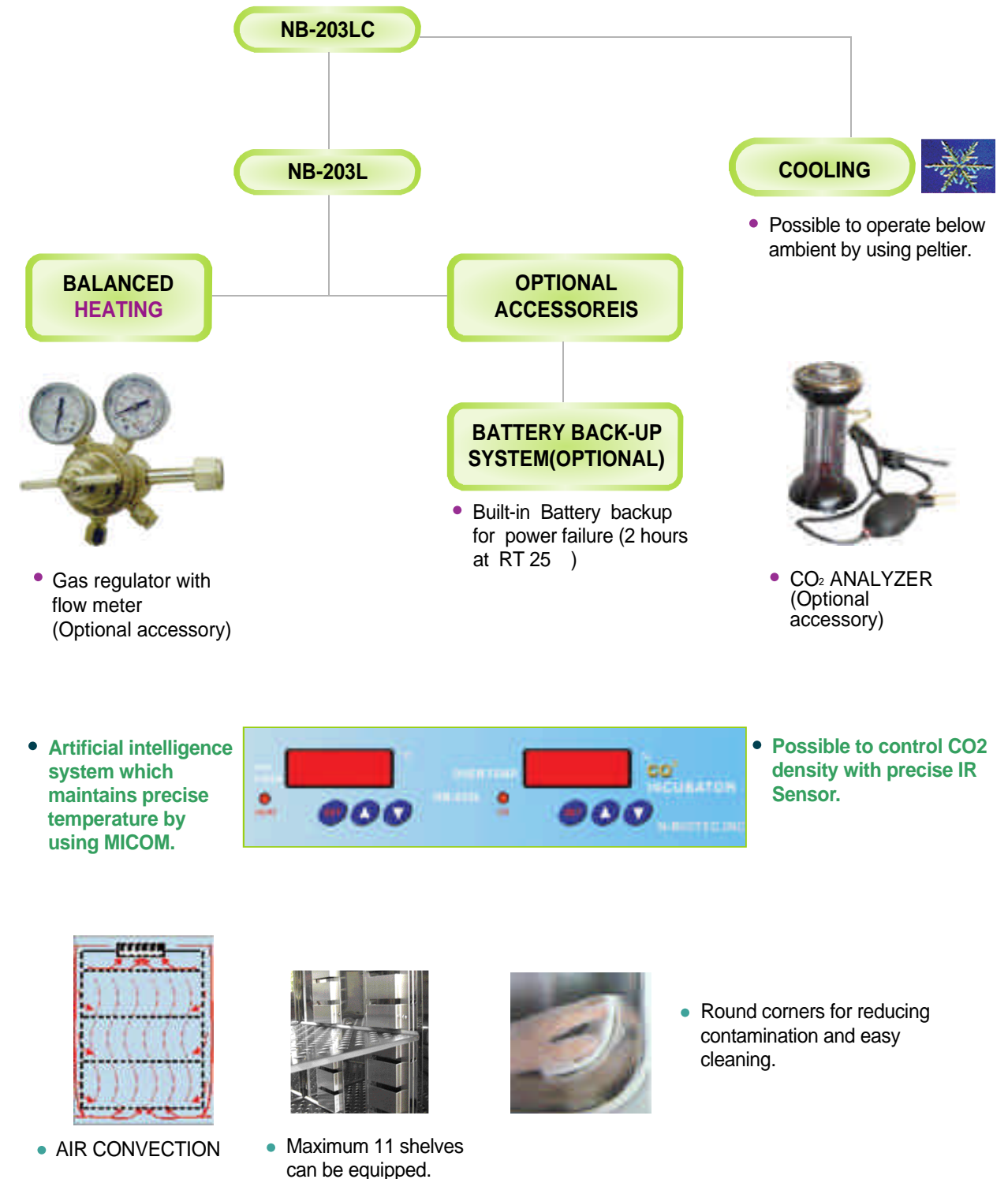
NB-203L / NB-203LC

Features

- ❖ **Low speed circulating system**
Slow-down air circulation like natural air convection keeps temperature uniformity and CO₂ rate in the chamber.
- ❖ **Microprocessor control for CO₂ and temperature**
Very accurate temperature and control CO₂ rate is possible by Microprocessor controller.
- ❖ **Uniform heating from 6 sides**
Special 6 sides heating keep temperature uniformity in the chamber, reduces potential for condensation and ensures faster temperature recovery.
- ❖ **IR CO₂ sensor**
Detect CO₂ concentration to as low as 0.1% and CO₂ recovery is rapid regardless variation of temperature and humidity the environment by IR sensor.
- ❖ **Tempered glass inner door**
Tempered glass inner door makes inside observation without dew condensation.
- ❖ **Convenient and easy for internal structure**
All inside corners are rounded for sterilization and easy-cleaning.
- ❖ **Stackable compact models to maximize lab space**
In limited space, it's construction is very efficient.
- ❖ **Cooling system by peltier(NB-203LC)**
Permit using below room temperature by built-in cooling system.



SAFETY SYSTEM FOR CO₂ INCUBATOR



Specification	Unit	NB-203L	NB-203LC
Temperature		Ambient +5 to 60	Ambient -5 to 60 (Peltier)
range			
accuracy		± 0.1 at 37	
increment		0.1	
control		Microprocessor digital PID	
CO₂			
range	%	0% to 20%	
accuracy	%	± 0.1% at 5% / 37	
increment	%	0.1 %	
inlet pressure sensor	mpa(bar)	0.1mpa(bar) IR CO ₂ Sensor	
Door			
outer		Silicon packing magnet door	
inner		Tempered safety glass door	
Operating panel		Individual 2 channel touch button	
Display		5 digit LED x 2	
Jacket type		6 sides heat dry wall type	
Chamber material		Stainless steel(#304)	
Chamber volume	liter	142 liters	
Number of shelves	ea	3 ea (Max. 11 ea)	
Chamber dimension	mm	480(W) x 430(D) x 690(H)mm	
Overall dimension	mm	545(W) x 530(D) x 865(H)mm	
Power	V/ Hz	220V / 60Hz	
Optional accessory		Battery back-Up system (Operating for 2 hours)	
Weight		82kg	

MINI CO₂ INCUBATOR NB-203 / NB-203C

Features

- ❖ **Natural convection circulation**
Air circulation like natural air convection keeps the temperature uniformity and CO₂ rate in the chamber.
- ❖ **Compact design**
The construction is very efficient to use limited amount of space.
- ❖ **Usable in clean bench for no contamination**
Equipped inside of clean bench with minimized contamination.
- ❖ **Convenient and easy for internal structure**
Corners are rounded for sterilization and easy-cleaning.
- ❖ **Cooling system by peltier(NB-203C)**
Permit using below room temperature by cooling system.

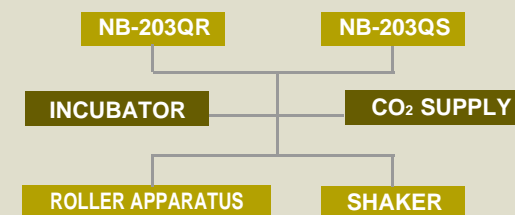


Specification	Unit	NB-203	NB-203C
Temperature		Ambient +5 to 60	Ambient -5 to 60 (Peltier)
range			
accuracy		± 0.1	/ 37
increment		0.1	
control		Microprocessor digital PID	
CO₂		0% to 20%	
range	%		
accuracy	%	± 0.1%	at 5% / 37
increment	%	0.1 %	
inlet pressure	mpa(bar)	0.1mpa(bar)	
sensor		IR CO ₂ Sensor	
Door		Silicon packing magnet door	
outer		Tempered safety glass door	
inner			
Operating panel		Individual 2 channel touch button	
Display		5 digit LED x 2	
Jacket type		6 sides Heat dry wall type	
Chamber material		Stainless steel(#304)	
Chamber volume	liter	42 liters	
Number of shelves	ea	2 ea (Max. 10 ea)	
Chamber dimension	mm	320(W) x 350(D) x 370(H)mm	
Overall dimension	mm	400(W) x 390(D) x 520(H)mm	
Power	V/Hz	220V / 60Hz	
Optional accessory		Battery back-up system (Operating for 2 hours)	
Weight		40kg	

CO₂ INCUBATOR & ROLLER/SHAKER NB-203QR / NB-203QS

Features

- ❖ **Natural convection circulation**
Air circulation like natural air-convection keeps the temperature uniformity and CO₂ rate in the chamber.
- ❖ **Quiet, vibration-free operation**
Low noise and vibration from shaker or roller apparatus.
- ❖ **CO incubation with roller culture(NB-203QR)**
Both of General CO incubating and roller CO incubating can be performed simultaneously.
- ❖ **CO incubation with shaking(NB-203QS)**
Both of General CO incubating and shaker CO incubating can be performed simultaneously.
- ❖ **Roller culture handles minimum of 4 bottles**
Up to 4 bottles (∅80, 150mm ~ 300) can be equipped.
- ❖ **Shaking handles minimum 250Mℓ x 13**
In case of 250Mℓ flask, Up to 13 holders can be equipped on the plate (100 ~ 2000Mℓ flask holder, spring wire rack and micro-plate rack)
- ❖ **Saves bench-top and incubator shelf space**
Bench-top style save space, 2 selves(up to 6 shelves) provide enough space for general incubating.



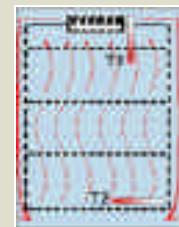
Specification	Unit	NB-203QR	NB-203QS
Temperature		Ambient +5 to 60	
range			
accuracy		± 0.1 at 37	
increment		0.1	
CO₂		0% to 20%	
range	%		
accuracy	%	± 0.1% at 5% / 37	
increment	%	0.1 %	
control		Microprocessor digital	
Speed		Roller apparatus	Shaker
range	rpm	0.1 rpm to 5 rpm	30 rpm to 300 rpm (standard type)
accuracy	%	± 0.1%	0 rpm to 100 rpm (low speed type)
increment	rpm	0.1 rpm	1 rpm
control		Microprocessor digital	
Time		or up to 48 hours	
range	hr		
memory(running)	hr	or up to 999 hr	
Door		Silicon packing magnet door	
outer		Tempered safety glass door	
inner			
Display		5 digit LED x 3	
Jacket type		6 sides heat dry wall type	
Chamber material		Stainless steel(#304)	
Chamber volume	liter	142 liters	
Number of shelves		2 stair roller + shelves	1 platform + shelves
Chamber dimension	mm	480(W) x 430(D) x 690(H)mm	
Overall dimension	mm	590(W) x 580(D) x 950(H)mm	
Power	V/Hz	220V / 60Hz	

QUALITY INCUBATOR

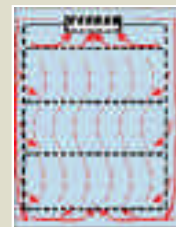
NB-201HL

Features

- Natural convection or forced convection circulation
Air convection can be selected between natural convection and forced convection to meet experiment's requirements.
- Two mode working(Natural convection or forced convection circulation)
NB-Tac control system (N-BIOTEK's unique control system) keeps the temperature uniformity and prevent from sample's drying and contamination.
- Viewing inner glass door without opening door
Equipped viewing glass door provide observation without opening door.
- A safety device to prevent temperature over-shoot
Safety switch is equipped to prohibit from over heating properly.



■ Possible to reduce contamination and dryness of samples (Uniform Temperature T1, T2 under natural convection)



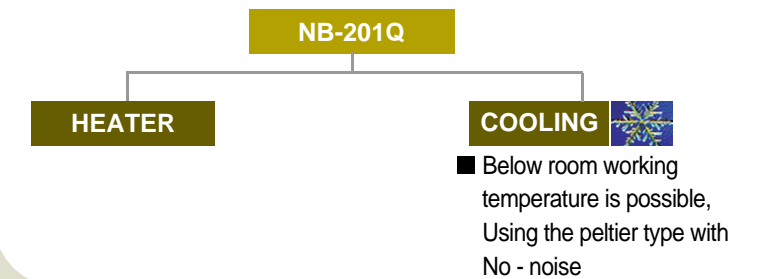
■ Possible to function like natural type adapting UP & DOWN method (Forced convection)

GENERAL INCUBATOR

NB-201Q / NB-201 / NB-201L

Features

- NB-Tac control system
NB-Tac control system (N-BIOTEK's unique control system) keeps the temperature uniform and prevent from sample's drying and contamination.
- Viewing outer glass door without opening door
Equipped viewing glass door provide observation without opening door.
- A safety device to prevent temperature over-shoot
Safety switch is equipped to prohibit from over heating.
- Cooling system by peltier(NB-201Q)
Below room working temperature is possible with built-in cooling system (Peltier)



Specification	Unit	NB-201HL	General type Incubator
Temperature range	°C	Ambient+5°C to 60°C	
accuracy	°C	± 0.1°C at 37°C	
increment	°C	0.1 °C	
control		Microprocessor digital PID	
Door			
outer		Silicon packing magnet door	
inner		Tempered safety glass door	
Operating panel		Touch button	
Display		5 digit LED	
Temp. uniformity		± 0.1°C with fan / ± 0.4°C without fan	
Air Flow		Natural convection & forced convection	Only Forced Air Convection
Convection		Selectable flow	Non-Selectable flow
Heating		6 sides heat dry wall type	1 side dry well type
Chamber material		304 stainless Steel	
Chamber volume	liter	142 liters	
Shelves material		Stainless steel(#304)	
Number of shelves	ea	3 ea	
Chamber dimension	mm	480(W) x 430(D) x 690(H)mm	
Overall dimension	mm	545(W) x 530(D) x 865(H)mm	
Power	V/Hz	220V / 60Hz	

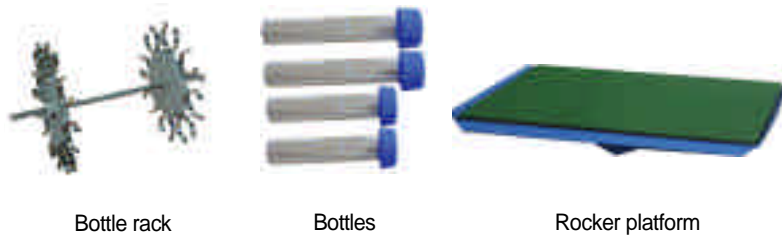
Specification	Unit	NB-201Q	NB-201	NB-201L
Temperature range		Ambient -5 to 60	Ambient +5 to 60	
accuracy			± 0.1 at 37	
increment			0.1	
cooling control		Peltier	Microprocessor digital PID	
Door				
outer			Silicon packing magnet door	
inner			Tempered safety glass door	
Operating panel			Touch button	
Display			5 digit LED	
Temp. uniformity			± 0.2	
Air flow			Forced Air	
Chamber material			Stainless steel(#304)	
Chamber volume	liter	42 liters		142 liters
Shelves material			Stainless steel(#304)	
Number of shelves	ea	2 ea		3 ea
Chamber dimension	mm	320(W) x 350(D) x 370(H)mm		480(W) x 430(D) x 690(H)mm
Overall dimension	mm	385(W) x 4500(D) x 520(H)mm		590(W) x 580(D) x 950(H)mm
Power	V/ Hz		220V / 60Hz	
weight		33kg		55kg

HYBRIDIZATION INCUBATOR

NB-202 / NB-202R

Features

- **Safely hybridization procedures**
Stable and safe hybridization provide very efficient results.
- **Microprocessor control**
Microprocessor control Provide precise temperature.
- **Stabilized rotation**
Keep stable working and low noise by stable rotation.
- **Viewing outer glass door without opening door**
Equiped viewing glass door provide observation without opening door.
- **A safety device to prevent temperature over-shoot**
Temperature safety switch is equipped to prohibit from over heating.
- **Easy-to-change bottle rack**
Bottle rack can be replace very easily to modify bottle holders.
- **Combines bottle rack and rocker(NB-202R)**
Rocker is built in the chamber so both of rotating and rocking culture are possible at the same time.

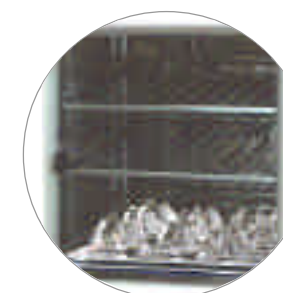


INCUBATOR & ROLLER/SHAKER

NB-205QR / NB-205Q/ NB-205QF

Features

- **Natural convection circulation**
Air circulation like natural air convection keeps the temperature uniformity.
- **Quiet, vibration-free operation**
Magnetic induction type of shaker provide very stable working.
- **Incubation with roller culture or shaking**
Roller & General incubating and Shaking incubating can be performed simultaneously.
- **Roller culture handles minimum of 4 bottles**
Up to 4 bottles (Ø80, 150mm ~ 300) can be equipped.
- **Shaking handles minimum 250 Ml x 13**
In case of 250Ml flask, Up to 13 x holders can be equipped on the plate. (100 ~ 2000ml flask holder, spring wire rack, micro-plate rack)
- **Saves bench-top and incubator shelf space**
Bench top style save space, 2 selves(up to 6 shelves) provide enough space for general incubating.
- **Cooling system by compressor(NB-205QF)**
Low temperature (5 ~ 60) is possible with Cooling system.



■ In case of High speed (up to 300rpm), shaker don't affect to sample on the shelves.



■ General incubator and shaking incubator takes place at the same time (NB-205Q)



■ General incubator and roller incubator takes place at the same time (NB-205QR)



■ Inside of chamber.

Specification	Unit	NB-202	NB-202R
Temperature range		Ambient +5 to 80	
accuracy		± 0.1 at +37	
uniformity		± 0.2	
safety control		Over temperature protector S/W Microprocessor digital PID	
Display		5 digit LED	
Speed range	rpm	Variable 4 to 45 rpm	
Rack capacity	mm, ea	40(Ø) x 200(L)mm x 8 ea	
Rocker platform	mm		300 x 250(mm)
Chamber dimension	mm	320(W) x 350(D) x 370(H)mm	
Overall dimension	mm	400(W) x 390(D) x 520(H)mm	
Power	V/ Hz	220V / 60Hz	

SHAKING INCUBATOR

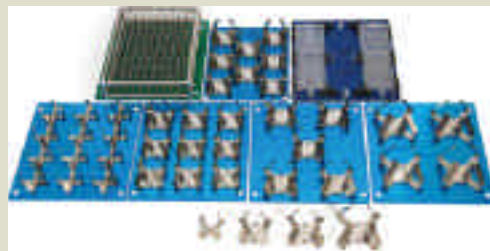
NB-205V / NB-205VN / NB-205VL

Features

- ❖ **Microprocessor control system**
The temperature and rpm are controlled by microprocessor control system precisely.
- ❖ **Natural convection circulation**
Air flow circulation of in the chamber keeps uniform through all chamber.
- ❖ **Quiet, vibration-free operation**
Plate type of BL DC motor realize utmost stable working.
- ❖ **Easy-to-change accessory platforms(sold separately)**
Various accessories can be replaced very easily.
- ❖ **Low-profile design**
It is convenient and easy to reach the sample without too much bending.
- ❖ **Safety stop motion**
When the cover opened, it automatically stops running for safety and convenience.
- ❖ **Watch dog function**
All of external factors such as power fail, working condition, etc. are checked and displayed.
- ❖ **Illumination system is possible (option)**

Various accessories (Flask holder, spring rack, micro-plate holder) are provided and replaced very easily.

Flask size	Number
100Mℓ	20 ea
250Mℓ	13 ea
500Mℓ	9 ea
Spring wire rack	1 ea
Tube rack	1 ea
96 well micro-plate	6 ea



Tube rack with flask holders



NB-205V

Specification	Unit	NB-205QR	NB-205Q	NB-205QF
Temperature		Ambient+5 to 60		+5 to 60
range				
accuracy		± 0.1 at 37		
increment		0.1		
control		Microprocessor digital PID		
Speed				
range	rpm	0.1 to 5 rpm	30 to 300 rpm	
accuracy	%		± 0.1%	
increment	rpm	0.1 rpm	1 rpm	
control		Microprocessor digital		
Time				
range	hr	or up to 999 hr(running time)	Continuous or up to 48 hrs	
accuracy	%		± 0.1%	
increment	min.		1 minute	
Door			Silicon packing magnet door	
outer			Tempered safety glass door	
inner				
Cooling	hp		¼ HP Compressor	
Operating panel		Individual 2 channel touch button		
Display		5 digit LED		
Jacket type		6 sides heat dry wall type		
Chamber material		Stainless steel(#304)		
Chamber volume	liter	142 liters		
Number of shelves		4 bottlesr, 2 stair	1 platform + 2 shelves	
Chamber dimension	mm	480(W) x 430(D) x 690(H)mm		
Overall dimension	mm	545(W) x 530(D) x 865(H)mm		545(W) x 530(D) x 1170(H)mm
Power	V/Hz	220V / 60Hz		
Weight	kg	82 kg		95 kg

Specification	Unit	NB-205V	NB-205VN	NB-205VL
Temperature				
range		0 to 60	Ambien +5 to 60	0 to 60
accuracy			± 0.1 at 37	
increment			0.1	
control		Microprocessor digital PID		
Speed				
range	rpm		30 to 340 rpm	
accuracy	rpm		± 1 rpm	
increment	rpm		1 rpm	
Time				
range	hr	1 minute to 48 hours or continuous operation		
accuracy	%	± 1%		
Door safety		Auto stop when door open		
Motor		Plate type brushless D.C motor		
Drive system		Beltless direct drive		
Stroke	mm	30mm		
Operating panel		Touch button		
Cooling	hp	¼ HP compressor		HP Compressor
Platform size	mm	450(W) x 450(D)mm		720(W) x 610(D)mm
Dust Filter		Attached side filter		
Platform capacity	Mℓ, ea	250Mℓ x 23 ea		500Mℓ x 30 ea
Dimensions	mm	565(W) x 630(D) x 980(H)mm		810(W) x 740(D) x 930(H)mm
Power	V/Hz	220V / 60Hz		
Weight	kg	90kg	75kg	110kg

DESKTOP INCUBATING SHAKER

NB-205

STRUCTURE FOR AIR CIRCULATION ALLOVER THE IN SIDE CHAMBER WHICH MAKES TEMPERATURE UNIFORMITY PRECISELY.



Low vibration and noise in spite of high speed running.
Maintenance free system.



Structure of N-BIOTEK, INC. (Air circulation is all over the inside chamber)



General structure (Air circulation is a part of the inside chamber)



Tube rack with flask holders

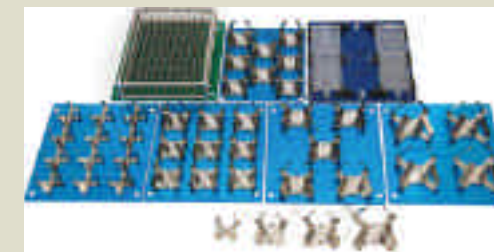


Spring wire rack

Flask size	NB-205V/VN	NB-205VL
100ml	36 ea	72 ea
250ml	23 ea	41 ea
500ml	16 ea	30 ea
1000ml	9 ea	16 ea
2000ml	4 ea	9 ea
Spring wire rack	1 ea	1 ea



NB-205



Wide and easy-to-change accessory platforms

Features

- ❖ **Microprocessor control system**
This control system controls temperature and rpm precisely.
- ❖ **Compact, minimal bench space**
Its compact size is very suitable for individual researchers and limited space.
- ❖ **One-piece construction with acrylic cover**
Trans-parent acrylic cover provides wide observation during experiment.
- ❖ **Watch dog function**
All of external factors such as power fail, etc. are checked and displayed.
- ❖ **Safety stops platform motion**
When the cover opened, it automatically stops for safety and convenience.
- ❖ **Wide and easy-to-change accessory platforms**
Various accessories(100ml ~ 500ml, spring wire rack and micro plate rack) can be replaced very easily.



Shaker platform location is considered for researcher convenience. So don't need to bend too much to put sample in chamber. (comfortable height)
The shaker platform location : 63cm from bottom.

Specification	Unit	NB-205
Temperature		
range		Ambient + 5 to 60
accuracy		± 0.1 at 37
increment		0.1
control		Microprocessor digital PID
Speed		
range	rpm	30 to 300 rpm
accuracy	rpm	± 1 rpm
increment	rpm	1 rpm
Time		
range	min., hur	1 minute to 48 hours or continuous operation
accuracy	%	± 1%
Door safety		Auto Stop when door open
Motor		Plate type brushless D.C motor
Drive system		Beltless direct drive
Stroke	mm	22mm
Operating panel		Touch button
Air circulation		In three dimensions
Platform size	mm	250(W) x 310(D)mm
Platform capacity	ea	250ml x 8 ea(standard)
Dimensions	mm	270(W) x 400(D) x 260(H)mm
Power	V/Hz	220V / 60Hz
weight		21kg

VIBRATION INCUBATOR

NB-205P

Features

- Accommodate four standard micro-plates
Up to 4ea x 96 well micro-plate can be equipped on the plate.
- Ideal for a variety of immunoassay procedures
Very wide application is suitable.
- Microprocessor control system
Temperature is controlled microprocessor control system precisely.
- Powerful shaking and stable movement
Strong vibration, stable working.
- Safety stops platform motion
When the cover opened, it automatically stops for safety and convenience.



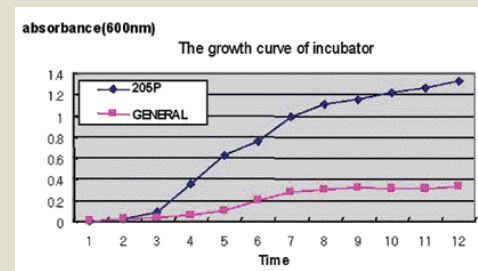
Stroke 3mm, 60~1300rpm
Easy changeable accessories.



NB-205P



INSIDE



SHAKER

- MIDIUM SHAKER
- MULTI SHAKER
- COMBINATION SHAKER
- STACKABLE SHAKER
- MINI SHAKER

Specification	Unit	NB-205P
Temperature		
range		Ambient + 5 to 60
accuracy		± 0.1 at 37
increment		0.1
Speed		
range	rpm	60 to 1300 rpm
accuracy	rpm	± 1 rpm
increment	rpm	1 rpm
Time		
range	min., hr	1 minute to 48 hours or continuous operation
accuracy	%	± 1%
Temp. controller		Microprocessor digital PID
Door safety		Auto stop when door open
Motor		Plate type brushless D.C motor
Drive system		Beltless direct drive
Stroke	mm	3mm
Operating panel		Touch button
Platform size	mm	250(W) x 310(D)mm
Platform capacity	mm	Microplate x 4ea
Dimensions		270(W) x 400(D) x 260(H)mm
Power	V/Hz	220V / 60Hz
weight		21kg



MIDIUM SHAKER

NB-101M / NB-101MH / NB-101MS

Features

- **Plate Brushless D.C motor**
Plate Type BL DC motor provides stable working at high speed running.
- **Microprocessor digital control**
RPM and time are controlled by Microprocessor, and all of indicate is displayed in digital mode.
- **Watch dog function**
All of external factors such as power fail, working condition, etc. are checked and displayed constantly.
- **Easy-to-change accessory platforms(sold separately)**
Various accessories(100Mℓ ~ 2000Mℓ of spring wire rack, micro plate rack) can be replaced very easily.

Flask size	NB-101M	NB-101L
100Mℓ	36 ea	72 ea
250Mℓ	23 ea	41 ea
500Mℓ	16 ea	30 ea
1000Mℓ	9 ea	16 ea
2000Mℓ	4 ea	9 ea
Spring wire rack	1 ea	1 ea



NB-101M



■ 2-Stair Platforms



NB-101MTS

- Stable working at high speed without vibration.



Selection lever

- Easy Changeable platform



Provides 2 function with orbital or reciprocating

MULTI SHAKER

NB-101MT / NB-101MTH / NB-101MTS

Features

- **Dual-action, orbital or reciprocating motions**
By the lever, the motion can be selected between orbital or reciprocation motion very easily.
- **Plate brushless D.C motor**
This motor provides stable working at high speed and very thin height.
- **Watch dog function**
All of external factors such as power fail, working condition, etc. are checked and displayed constantly.
- **Easy-to-change accessory platforms(sold separately)**
Various accessories(100Mℓ ~ 2000Mℓ of spring wire rack, micro plate rack) can be replaced very easily.
- **Vibration free system**
At high speed, its operation is very stable, even if the stroke is very wide (30mm)
- **Available use in cold chamber or incubator**
Working properly inside of cold camber or incubator (Operation temperature : 4 ~ 60)

Flask size	Q' ty
100Mℓ	36 ea
250Mℓ	23 ea
500Mℓ	16 ea
1000Mℓ	9 ea
2000Mℓ	4 ea
Spring wire rack	1 ea

Specification	Unit	NB-101M	NB-101MH	NB-101MS	NB-101L
Motion		Orbital			
Speed		30 to 340 rpm(optional high speed type up to 400 rpm)			
range	rpm				
accuracy	%	± 1%			
increment	rpm	1 rpm			
Time		Continuous or up to 48 hours			
range	hr				
accuracy	%	± 1%			
increment	min.	1 minute			
Control		Microprocessor digital			
Operating panel		Touch button			
Display		5 digit LED			
Motor		Plate type B/L D.C moter			
Drive system		Beltless direct drive			
Stroke	mm	30mm			
Platform size	mm	450(W) x 450(D)mm			770(W) x 510(D)mm
Dimensions	mm	455(W) x 455(D) x 120(H)mm			800 x 530 x 120mm
Holder		Rubber pad	250Mℓ x 23ea	Spring wire rack	Rubber pad
Weight	kg	37kg	40kg		60kg
Power	V/Hz	220V / 60Hz			

Specification	Unit	NB-101MT	NB-101MTH	NB-101MTS
Motion		Orbital or Reciprocating		
Speed		30 to 340 rpm		
range	rpm			
accuracy	%	± 1%		
increment	rpm	1 rpm		
Time		Continuous or up to 48 hours		
range	hr			
accuracy	%	± 1%		
increment	min.	1 minute		
Control		Microprocessor digital		
Mortion control		Lever operate		
Operating panel		Touch button		
Display		5 digit LED		
Motor		Plate type B/L D.C moter		
Drive system		Beltless direct drive		
Stroke	mm	30mm		
Platform size	mm	450(W) x 450(D)mm		
Diension	mm	455(W) x 455(D) x 120(H)mm		
Holder/ Rack		Rubber Pad	250Mℓ x 23(standard)	Spring wire rack
Power	V/Hz	220V / 60Hz		

COMBINATION SHAKER

NB-101MC

Features

- Dual-action, orbital and reciprocating motions**
 Simultaneously orbital and reciprocating motions are possible in 1-plate.
- Plate brushless D.C motor**
 This motor provides stable working at high speed and very thin height.
- Watch dog function**
 All of external factors such as power fail, working condition, etc. are checked and displayed constantly.
- Vibration free system**
 At high speed, its operation is very stable, even if the stroke is wide (30mm).
- Available use in cold chamber or incubator**
 Working properly inside of cold chamber or incubator. (Operation temperature : 4 ~ 60)



■ 1 instruments provide 2 motions at same time.



STACKABLE SHAKER

NB-101M4S

Features

- A separate stand-alone shaker**
 Each of 4 different shakers can be set individually, so they can meet your whole requirements.
- Available use culture room**
 Working properly inside of cold chamber. (Operation temperature : 4 ~ 60).
- External safe support**
 External frame provide stable working and safe stack.
- Quiet, vibration-free operation**
 At high speed, low noise and vibration are provide by plate type BLDC motor.

- Various shaker line can meet all of requirements for your perfect experiment.
- Selectable shaker by different shaker line.

Specification	Unit	NB-101MC
Motion		Orbital & Reciprocating
Speed		
range	rpm	25 to 340 rpm
accuracy	%	± 1%
increment	rpm	1 rpm
Time		
range	hr	Continuous or up to 48 hours
accuracy	%	± 1%
increment	min.	1 minute
Control		Microprocessor digital
Motion Control		Lever operate
Operating panel		Touch button
Display		5 digit LED
Motor		Plate type B/L D.C moter
Drive System		Beltless direct drive
Stroke	mm	30mm
Platform Size	mm	220(W) x 450(D)mm x 2 (Separated as 2 platform for 2 motions)
Dimension	mm	460(W) x 520(D) x 120(H)mm
Holder/ Rack		Spring wire rack
Power	V/Hz	220V / 60Hz

Specification	Unit	NB-101M4S (NB-101M, NB-101MH, NB-101MT, NB-101MC)
Speed		
range	rpm	25 to 340 rpm
accuracy	%	± 1%
increment	rpm	1 rpm
Time		
range	hr	Continuous or up to 48 hours
accuracy	%	± 1%
increment	min.	1 minute
Illumination		Attachable(Optional)
Control		Microprocessor digital
Operating panel		Touch button
Display		5 digit LED
Motor		Plate type B/L D.C moter
Drive system		Beltless direct drive
Stroke	mm	30mm
Platform size	mm	450(W) x 450(D)mm
Overall dimension	mm	540(W) x 530(D) x 1300(H)mm
Weight	kg	120kg (NB-101M Series x 4ea)
Power	V/Hz	220V / 60Hz

MINI SHAKER

NB-101S / NB-101SH / NB-101SS

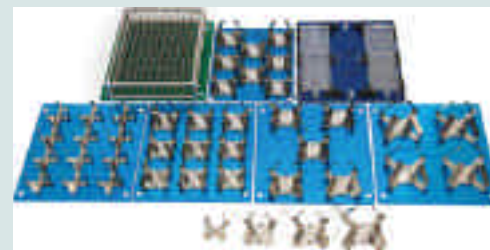
Features

- Quiet, trouble-free operation
Low vibration, noise and maintenance free system by plate type BLDC.
- Low-profile design ensures stability at high speed
Plate Type BLDC motor provides stable working at high speed running.
- Outer body is molded polyethylene
The main body is made by plastic with nice-looking design.
- Microprocessor digital control
RPM and time are controlled by microprocessor and all of indicate is displayed in digital mode.
- Easy-to-change accessory platforms(sold separately)
Various accessories(Spring wire rack, micro plate rack for 100Mℓ ~ 2000Mℓ) can be replaced very easily.

Flask size	Q' ty
100Mℓ	16 ea
250Mℓ	9 ea
500Mℓ	5 ea
1000Mℓ	4 ea
Spring wire rack	1 ea



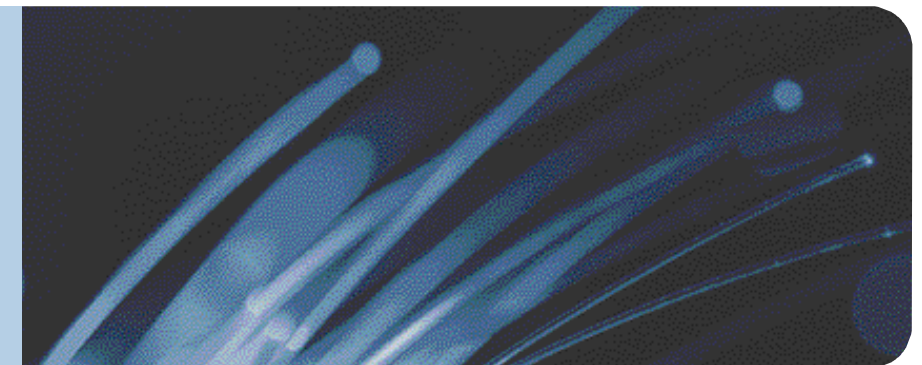
NB-101SH



■ Wide and easy-to-change accessory platforms

Specification	Unit	NB-101S	NB-101SH	NB-101SS
Speed				
range	rpm		30 to 300 rpm	
accuracy	%		± 1%	
increment	rpm		1 rpm	
Time				
range	hr		Continuous or up to 48 hours	
accuracy	%		± 1%	
increment	min.		1 minute	
Control			Microprocessor digital	
Stroke			25mm	
Motor			Plate type B/L D.C moter	
Drive System			Beltless direct drive	
Operating panel			Touch button	
Display			5 digit LED	
Platform size	mm		300(W) x 330(D)mm	
Dimension	mm		300(W) x 350(D) x 70(H)mm	
Holder/ Rack		Silicon rubber pad	250Mℓ x 9 ea(standard)	Spring wire rack
Weight	kg		7kg	
Power	V/ Hz		220V / 60Hz	

WATER BATH



- GENERAL WATER BATH
- STIRRING WATER BATH
- SHAKING WATER BATH
- THERMAL BLOCK(DRY BATH)



WATER BATH

NB-301 / NB-302 / NB-301L / NB-302L

Features

- ❖ **One-piece seamless tank**
The stable temperature is kept, and cleaning is easy.
- ❖ **A non-contact, recessed heating element**
Long life span is guaranteed and over-temperature is prohibited.
- ❖ **Microprocessor controls with LED display**
Temperature are controlled by Microprocessor precisely, and all of indicates are displayed in digital mode.
- ❖ **Built-in magnetic stirring(NB-302/NB-302L)**
Water circulation by Magnetic stirring bar on the bottom plate keeps the temperature uniformity and it can be used for general stirrer.



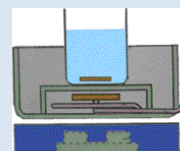
NB-301

NB-302



NB-302L

■ STRUCTURE OF STIRRING WATER BATH (NB-302, NB-302L)



NB-302



NB-302L



2 stirring points in NB-302L

Specification	Unit	NB-301	NB-302	NB-301L	NB-302L
Temperature range		Ambient +5 to 100			
accuracy		± 0.1 at 37			
controller		Microprocessor digital PID			
Speed range	rpm		60 to 1000 rpm		60 to 1000 rpm
controller			Solid state control		Solid state control
Bath capacity	liter	12 liters		22 liters	
Dimensions					
inner	mm	240(W) x 300(D) x 150(H)mm		500(W) x 290(D) x 150(H)mm	
outer	mm	270(W) x 350(D) x 210(H)mm		570(W) x 360(D) x 210(H)mm	
Power	V/Hz	220V / 60Hz			
Weight	kg	21kg		30kg	

SHAKING WATER BATH

NB-303 / NB-304

Features

- ❖ **A non-contact, recessed heating element**
Long life span is guaranteed and over-heating is prohibited.
- ❖ **Microprocessor controls with LED display**
Temperature are controlled by Microprocessor precisely, and all of indicates are displayed in digital mode.
- ❖ **Plate brushless D.C motor**
This motor provides stable working.
- ❖ **Built-in standard spring wire rack**
Built-in spring rack can accommodate all of kinds of containers.
- ❖ **Gable bath cover(option)**
When high temperature is required, the cover can improve the uniformity and heating speed.



Inside of Shaking water bath



NB-303



NB-304

Spring wire rack (standard accessory)
For high temperature, The cover is provided optionally.

Specification	Unit	NB-303	NB-304
Motion		Orbital	Reciprocating
Temp. range		Ambient +5 to 80	
Temp. accuracy		± 0.1 at 37	
Motor		Plate type B/L D.C moter	
Stroke	mm	30mm	
Speed range	rpm	30 to 200 rpm	
Time range	hr	1 minute to 48hours or continuous operation	
Controller		Microprocessor digital	
Bath capacity	liter	12 liters	
Dimensions	mm	270(W) x 350(D) x 210(H)mm	
Power	V/Hz	220V / 60Hz	
Weight	kg	21kg	
Optional acc.		Lid for high temperature	

THERMAL BLOCK (DRY BATH) NB-305CB / NB-305TB

Features

- ❖ **Precise temperature stability**
Precise temperature is provided by Microprocessor control
- ❖ **Solid anodized aluminum modular blocks**
Wide accessories (0.5Ml micro-tube ~ 20mm diameter tube) support your requirements.
- ❖ **Wide range of test tube simultaneously(NB-305TB)**
2 blocks can be accommodated simultaneously.
- ❖ **Chill, freeze and heat application(NB-305CB)**
High and low temperature are possible with peltier cooling.

Wide range of modular blocks

Tube size	Holes	Diameter of hole
0.5Ml micro- tube	42 (large) 18 (small)	8mm
1.5Ml micro- tube	30 (large) 15 (small)	11mm
10Ml tube	30 (large) 8 (small)	13mm
15Ml tube	20 (large) 8 (small)	16.5mm



NB- 305CB

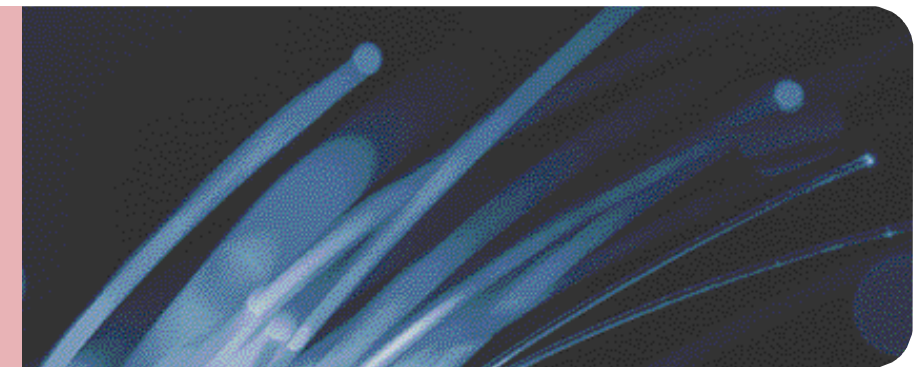


NB- 305TB



Modular blocks
2 large blocks or
4 small blocks

WORK STATION



- ❖ BIO & PCR WORK STATION
- ❖ BIOLOGICAL SAFETY CABINET

Specification	Unit	NB-305CB	NB-305TB
Temperature			
Range		-4 to 80	Ambient +5 to 120
accuracy		± 0.1	
Method		Peltier	Heater
Control		Microprocessor digital PID	
Operating panel		Touch button	
Display		5 digit LED	
Block material		Solid anodized aluminum	
Block capacity		1.5Ml micro-tube x 30 holes	1.5Ml micro-tube x 30 holes x 2 ea
Dimensions	mm	250(W) x 250(D) x 160(H)mm	
Power	V/Hz	220V / 60Hz	
Weight	kg	12kg	

www.n-biotek.com



BIO & PCR WORK STATION

NB-WS1 / NB-WS3 / NB-WSPCR

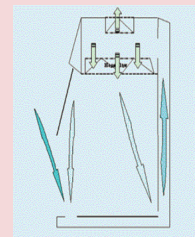
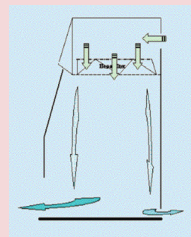
Features

- ❖ **HEPA filter removes 99.9% of contaminants**
Up to 0.3 μ m particles can be controlled and it suit for the level of class 100.
- ❖ **Built-in UV 254nm with 15W fluorescent lamp**
UV lamp for sterilization and fluorescent lamp are equipped.
- ❖ **Top-mounted blower**
During experiment, 30% of the full air flow can be controlled by exhaust HEPA filter.
- ❖ **Work surface is smooth, easy-to-clean**
Inside material is made of stainless steel for user convenience and easy-cleaning.
- ❖ **Cost-effective with a small footprint**
Desk-top style saves space efficiently.
- ❖ **PCR working are provided PCR work station (WSPCR) with 2 models.**

■ Air flow of NB-WS3/NB-WSPCR and NB-WS1/NB-WS2



NB- WS3



NB- WS1 & WS2



NB-WS1 BIO-WORK STATION



NB-WS3 & NB-WSPCR

Specification	Unit	NB-WS1	NB-WS3	NB-WSPCR
HEPA filters		99.99% efficiency on particles of 0.3 μ m		
Blower		Thermally protected motor-blower		
Fluorescent lamp		30W x 1	20W x 1	
Uv lamp		254nm germicidal UV light x 1		on and off
Foce velocity	fpm	105 fpm(30m/min)		on and off
Air Flow		Bio-Hazard Safety Flow		on and off
Cabinet		white polycarbonate		
interior		Type Stainless steel(#304)	Rear open	
opening		Sliding glass door		
work area	mm	900(W) x 750(D) x 550(H)mm	675(W) x 580(D) x 650(H)(mm)	
dimensions	mm	1000(W) x 820(D) x 1100(H)mm	700(W) x 600(D) x 960(H)(mm)	
Power	V/Hz	220V / 60Hz		

BIOLOGICAL SAFETY CABINET

NB-WS2 / NB-WS2L

Features

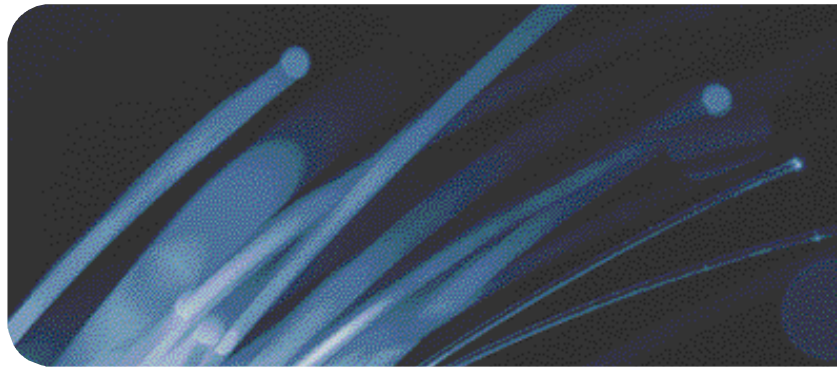
- ❖ **High efficiency filter**
HEFA filter and pre-filter keep pure air.
- ❖ **U.V.G Lamp**
Sterilization by U.V.G lamp minimize the contamination.
- ❖ **Blower**
Quiet and efficient blower provide stable operation.
- ❖ **Control panel**
Manometer indicate the filter level for replacement, and 3 steps of air flow system supports the experiment.



NB-WS2L

Specification	Unit	NB-WS2	NB-WS2L
Chamber dimensions	mm	740(W) x 600(D) x 620(H)mm	1200(W) x 600(D) x 620(H)mm
Overall dimensions	mm	870(W) x 790(D) x 1950(H)mm	1340(W) x 790(D) x 1950(H)mm
Illumination	W	F. L 20W x 2 ea	F.L 40W x 2 ea
Sterilization	W	U. V. G 20W x 2 ea	U. V. G 30W x 2 ea
Blower	hp	1/3 HP	1/2 HP
Main filter		HEPA Filter(0.3 μ m 99.99%)	
Pre filter		Nylon Filter	
Exhaust filter		HEPA Filter(0.3 μ m 99.99%)	
Purity		Class 100	
Wind velocity		0.3 - 0.45m/sec	
Flow rate		Exhaust 30%, Recirculation 70%	
Door type		Balance weight type	
Material		Stainless steel(SUS304) Polishing plate	
inner		SCP-1 with Powder coating	
outer		Sliding door tempered glass	
door			
Noise	db	Less than 60db	
Utility		Hour Meter, Gas Cock, Vacuum Dock	
Power	V, Hz, W	220V / 60Hz, 500W	220V / 60Hz, 700W

OTHER



- ❖ STIRRER
- ❖ ROTATOR
- ❖ ROCKER



www.n-biotek.com

STIRRERS NB-402S2 / NB-402S4



NB-402S2

NB-402S4

Features

- ❖ Each stirring position is individually control
Each of stirrer on the instrument can be controlled individually.
- ❖ Microprocessor Temperature digital control (NB-402S2)
In changing of electric condition, accurate working is possible by Microprocessor control.

Specification	Unit	NB-402S2	NB-402S4
Speed range	rpm	35 to 1500rpm	
Stirring position	Position	2 Positions	4 Positions
Plate material		Stainless steel(#304)	
Temperature			
temp. range		Ambient to 100	
temp. control		Micom-control	
temp. display		5 digit LED	
Dimensions	mm	600(W) x 300(D) x 60(H)mm	280(W) x 300(D) x 60(H)mm
Power	V/Hz	220V / 60Hz	
Weight	kg	6 kg	8 kg

ROTATOR & ROCKER NB-103 / NB-104



NB-103

NB-104

Features

- ❖ Quiet, trouble-free operation
Low noise and maintenance free system.
- ❖ Holds different-sized test tubes(NB-103)
Wide clip selection meets your specific requirements.
- ❖ Textured non-slip platform(NB-104)
Rubber pad provide stable working with various container from Petri-dish, flask, culture battle etc.
- ❖ Variable speed and time control(NB-104)
The speed can be controlled from 1 to 35 rpm and time setting up to 3 hours is possible by controller.

Specification	Unit	NB-103	NB-104
Speed range	rpm	5 to 40 rpm	10 to 35 rpm
Angle range	°	5 ° above horizontal to 90 °	± 7 ° from horizontal
Time range	hour	Up to 3 hours or continuous	
Platform size	mm	290(W) x 200(D)mm	
Capacity		16 to 25mm tube x 8 ea	96 well micro-plate x 4 ea
Dimensions	mm	150(W) x 220(D) x 300(H)mm	290(W) x 210(D) x 145(H)mm
Power	V/ Hz	220V / 60Hz	
Weight	kg	4 kg	5 kg