

# LABORATORY EQUIPMENT

Science is the hope of humanity  
Scientists are our future

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**FINEPCR®**





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*Science is the hope of humanity  
Scientists are our future*



A representative research article which were performed by our equipments.

Cancer Cell  
**Article**

**Cell**  
PRESS

## ***Runx3* Inactivation Is a Crucial Early Event in the Development of Lung Adenocarcinoma**

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### **SUMMARY**

Targeted inactivation of *Runx3* in mouse lung induced mucinous and nonmucinous adenomas and markedly shortened latency of adenocarcinoma formation induced by oncogenic *K-Ras*. *RUNX3* was frequently inactivated in *K-RAS* mutated human lung adenocarcinomas. A functional genetic screen of a fly mutant library and molecular analysis in cultured cell lines revealed that *Runx3* forms a complex with *BRD2* in a *K-Ras*-dependent manner in the early phase of the cell cycle; this complex induces expression of *p14<sup>ARF</sup>/p19<sup>Arf</sup>* and *p21<sup>WAF/CIP</sup>*. When *K-Ras* was constitutively activated, the *Runx3*-*BRD2* complex was stably maintained and expression of both *p14<sup>ARF</sup>* and *p21<sup>WAF/CIP</sup>* was prolonged. These results provide a missing link between oncogenic *K-Ras* and the *p14<sup>ARF</sup>*-*p53* pathway, and may explain how cells defend against oncogenic *K-Ras*.



# LABORATORY EQUIPMENT

## Finepcr system icon



The platform moves in a twist motion



The platform moves in a circular motion



The platform rotary at a tilting angle



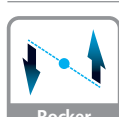
The product has incubating system



The product has cooling system



The powerful movement, such as the activity of the arm



The platform moves in a seesaw motion



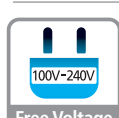
The platform moves from side to side



The move on spinning action



The product can control digital type



The power cord is a AC 100-240 V



The product has sealing system

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38. combi-SV12 : Shaking incubator | Ambient +5°C ~ 80°C
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### magnetic STIRRER

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### COOL BLOCK

46. ALB6400 : Peltier cooling system | 1 block capacity | 0°C ~ 120°C 27

### THERMO BATH

47. ALB-H1 : 1 block capacity | Ambient 5°C ~ 150°C
48. ALB-H2 : 2 blocks capacity | Ambient 5°C ~ 150°C
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### COOL BLOCK

50. ALB-C1 : Peltier cooling system | 1 block capacity (Large) | 0°C ~ 120°C 29



# ARM SHAKER™



## ■ ASH3 / moving such as the activity of the arm

- A powerful drop speed

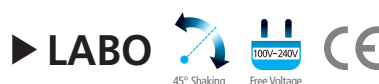
## ■ LABO / Powerful and stable movement

- Including rack for 15ml, 50ml conical tubes

### ► Common facts

- Various speed and mixing angle 45°, as like arm
- Convenient magnetic holder, easy to replace accessories
- Simple silicon holders for easy installation with tubes
- Easy and simple but sturdy and reliable

- An examples to use
- Optimal for DNA extraction and pretreatment of enzyme reactions



## PLATE INSTALLATION

- Simple silicon holders allow easy and quick to install
- Magnets make it easy to attach and detach accessories.



## ASH3 ACCESSORIES (Platform)



R1512



R155



R503

## LABO ACCESSORIES (Platform)



R158



R505

## Specification

Model	ASH3	LABO
Speed range	10 ~ 90 rpm	10 ~ 90 rpm
Tilt angle	45°	
Loadable Wright	2kg	4kg
Weight	4.5kg	5kg
platform(mm)	W140 x D125	W210 x D125
Dimension(mm)	W225 x D175 x H220	W240 x D210 x H220
Wattage	35W	
Power	Free voltage (AC100-240V)	
Frequency	50/60HZ	

## ASH3 Accessories

Model Number	Description
R1512	1.5ml centrifuge tube - capacity : 12ea
R155	15ml conical tube - capacity : 5ea
R 503	50ml conical tube - capacity : 3ea

## LABO Accessories

Model Number	Description
R158	15ml conical tube - capacity : 8ea
R505	50ml conical tube - capacity : 5ea



## 4S

### Simple

Any other accessories are unnecessary.  
Universal rack can be used for several kinds of tubes.

### Smooth touch

### Strong

Powerful and stable motion  
without noise on 3,000rpm.

### Stable

Special Rubber feet with shock-absorber  
system prevent it from moving around on a desk.

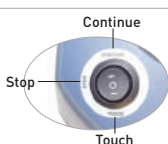
► An examples to use  
· DNA / RNA Extraction



► FINEV ● RTEXTM  

### Specification

Model	FINEVORTEX
Orbit range	4mm
Speed range	0 ~ 3000rpm
Temp.Resist	5°C~ 40°C
Weight	1.9kg (packing : 2.5kg)
Dimensions (mm)	W145xD175xH140
Wattage	35W
Power	AC 100-240V (*220-230V : CE cert)
Frequency	50/60Hz



### 3 STEP SWITCH



### Universal Rack

All kinds of test tubes can be loaded  
on the universal rack.



### Shock-absorber feet

Anti-vibration during the vortexing  
The shock-absorber feet is  
holding the ground not to slip.



### Rubber platform (RP-70)

Rubber platform provides easier vortexing for two  
or three tubes at the same time.

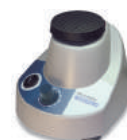
### COLOR



● DARK BLUE



○ WHITE



● GRAY

### HOW TO USE

#### ■ Touching mode



1.5ml Tube



15ml Tube



50ml Tube



Flask

#### ■ Continuous mode



1.5ml centrifuge Tube



15ml Conical Tube

#### ■ Using Rubber platform mode (RP-70)



Using two  
tubes at the same time



Smooth touching  
with 15ml tube



# compact ROCKER™

- An examples to use
- Western blotting
  - Gel staining
  - Immunoprecipitation
  - DNA / RNA Extraction

## ■ CR100 / Compact rocker in timed and continuous operation

- Variable speed control from 8 and 70rpm
- Continuous or timed operation

## ■ CR300 / Large capacity platforms and smooth rocking motion

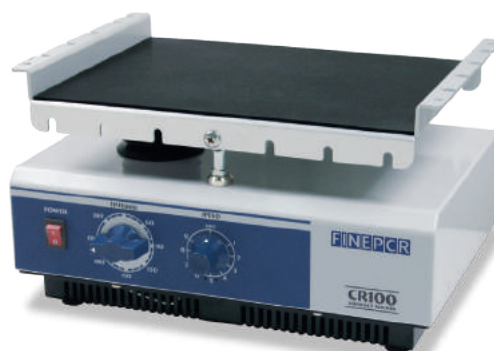
- Variable speed control from 8 and 70rpm
- Continuous or timed operation
- Large platform for variety of flasks and tubes

## ► Common facts

- Sturdy and durable construction for use at variable temperature
- Non-slip mat as standard, optional dimpled pad prevents tubes from rolling around
- All moving parts of the rocking platform are combined with ball joints for smooth operation
- Optional second platform available to double the working area



### ► CR300



### ► CR100



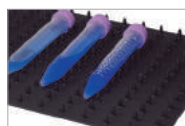
## Specification

Model	CR100	CR300
Tilt Angle	±9°	
Speed Range	8 ~ 70 rpm	
Motor	DC Warm Gear Motor	
Timer (speed)	180min	
Temp. Resist	Lower than 65°C(Dry air)	
Loadable Weight	7Kg	10Kg
Weight	5Kg	7Kg
Dimensions (mm)	W310×D200×H170	W330×D300×H203
Platform (mm)	W290×D200	W300×D300
Wattage	35W	
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

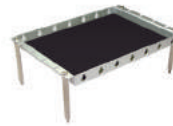
## Accessories

Model	Model Number	Description
CR100	DP-100	Dimpled Pad (W290×D200 mm)
	TY100	Second platform (with posts: 4ea)
CR300	DP-300	Dimpled Pad (W300×D300 mm)
	TY300	Second platform (with posts : 4ea)
	UP400	Upper Platform (W400×D400 mm)

## ACCESSORIES (CR100)



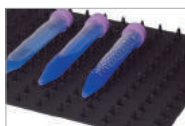
DP-100



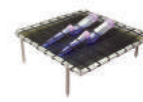
TY100



## ACCESSORIES (CR300)



DP-300



TY300



UP400



# compact ROCKER™

## ■ CR2030 / Compact rocker in timed and continuous operation

## ■ CR3030 / Large capacity platforms and smooth rocking motion

- Large platform for variety of flasks and tubes

### ► Common facts

- Variable speed control from 8 and 70rpm
- Continuous or timed operation
- Sturdy and durable construction for use variable temperature
- Non-slip mat as standard, optional dimpled pad prevents tubes from rolling around
- All moving parts of the rocking platform are combined with ball joints for smooth operation
- Optional second platform available to double the working area
- LED display shows actual speed or time

- An examples to use
- Western blotting
  - Gel staining
  - Immunoprecipitation
  - DNA / RNA Extraction



### ► CR3030



### ► CR2030



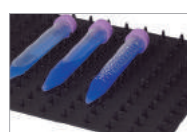
### Specification

Model	CR2030	CR3030
Tilt Angle	±9°	
Speed Range	8 ~ 70rpm	
Motor	DC Warm Gear Motor	
Timer (speed)	99hour 59min	
Temp. Resist	Lower than 65°C(Dry air)	
Loadable Weight	7Kg	10Kg
Weight	5Kg	7Kg
Dimensions (mm)	W200×D360×H175	W300×D400×H185
Platform (mm)	W200×D290	W300×D300
Wattage	35W	
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

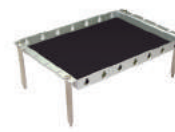
### Accessories

Model	Model Number	Description
CR2030	DP-100	Dimpled Pad (W290×D200 mm)
	TY100	Second platform (with posts: 4ea)
CR3030	DP-300	Dimpled Pad (W300×D300 mm)
	TY300	Second platform (with posts : 4ea)
	UP400	Upper Platform (W400×D400 mm)

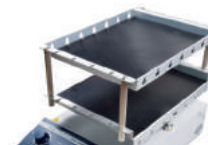
### ACCESSORIES (CR2030)



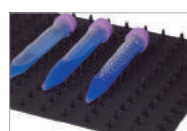
DP-100



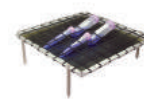
TY100



### ACCESSORIES (CR3030)



DP-300



TY300



UP400



# CONICAL TUBE MIXER™ INCUBATOR-CONICAL TUBE MIXER™



## ■ confido-S50 new4 / Ingenious mixing for conical tube

- Special motion and Ingenious mixing

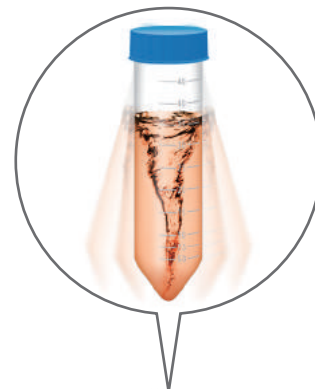
## ■ confido-S50H new4 / Ideal mixing & heating for conical tube

- Digital micro processor control [PID] for highest accuracy
- Effective ventilation system guarantees accurate temperature control
- "UP and OVER" door
- safety features:
  - Flashing alarm lamp to warn over-temperature
  - Over-temperature cut-out with safety thermostat

## ► Common facts

- A sturdy double rack for stable shaking
- High quality DC brushless motor for gentle and powerful motion
- Continuous or digital timed operation
- Needless other accessory
- LED display shows actual speed and time

- Ingenious mixing for conical tube



## ► confido-S50 new4



## ► confido-S50H new4

### Specification

Model	confido-S50 new4	confido-S50H new4
Orbit Range		6mm
Speed Range		60 ~600rpm
Capacity	conical tube 50ml	12ea
	conical tube 15ml	16ea
Temp. Range	-	Ambient +5°C~65°C
Temp. Accuracy	-	±0.2°C
Motor		BLDC Motor
Timer (temp.)	-	99hour59min
Timer (speed)	99hour59min	-
Dimensions (mm)	W210×D365×H227	W280×D423×H257
Weight	9kg	15kg
Wattage	35W	330W
Power	Free Voltage (AC100-240V)	AC 100-240V (*220-230V : CE cert)
Frequency	50/60Hz	50/60Hz



# MICROMIXER

## ■ MX2 / Ideal mixing combination

- Compact mixer with vibration and small orbit for effective mixing
- Smooth vibrating motion

## ■ MX4 / Reliable shaking motion

- Orbital of 3mm for efficient mixing in small sample vessels.
- High quality DC brushless motor for gentle and powerful motion

## ► Common facts

- Continuous or timed operation
- Optional rack for 1.5ml centrifuge tube
- Simple silicon holders for easy installation with plate.



► MX2  CE

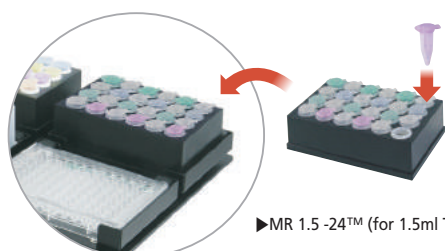
► MX4   CE

## PLATE INSTALLATION



- Simple silicon holders allow easy and quick to install of micro well plates or optional rack for 1.5ml centrifuge tube.

## ACCESSORY



► MR 1.5 -24™ (for 1.5ml Tubes)

## Specification

Model		MX2	MX4
Orbit Range		Vibration	3mm
Speed	micro well plate & 1.5ml tube	0 ~ 2000rpm	300 ~ 1400rpm
	deep well plate	-	300 ~ 1000rpm
Capacity	micro well plate	2ea	4ea
	deep well plate	-	4ea
	1.5ml tube	48ea	96ea
Motor		DC Motor	BLDC Motor
Timer (speed)		60min	180min
Weight		3kg	8kg
Dimensions (mm)		W176xD339xH110	W290xD320xH130
Wattage		4.4W	20W
Power		AC 100-240V (*220-230V : CE cert)	Free Voltage (AC 100-240V)
Frequency		50/60Hz	50/60Hz

## Accessory

MR1.5-24	Tube Rack / 1.5ml centrifuge tube capacity: 24ea
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# MICROMIXER

## ■ confido-S20 / Ideal mixing combination

- Compact mixer and small orbit for effective mixing

## ■ confido-S202 / Reliable shaking motion

- Effective rack for standard microplates, including deep well plates
- Variable speed across a broad range, making them useful for variety of applications

## ► Common facts

- High quality DC brushless motor for gentle and powerful motion
- Orbital of 3mm for efficient mixing in small sample vessels.
- Continuous or timed operation
- Optional rack for 1.5ml centrifuge tube
- Simple silicon holders for easy installation with plate
- LED display shows actual speed or time

## ► confido-S20



## ► confido-S202

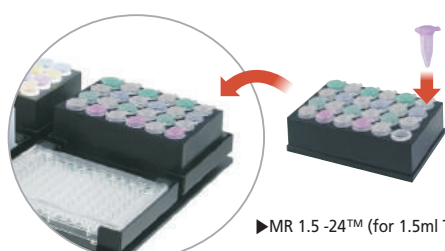


## PLATE INSTALLATION



- Simple silicon holders allow easy and quick to install of micro well plates or optional rack for 1.5ml centrifuge tube.

## ACCESSORY



- MR 1.5-24™ (for 1.5ml Tubes)

## Specification

Model	confido-S20	confido-S202
Orbit Range	3mm	
Speed	micro well plate & 1.5ml tube	300 ~ 2000rpm
	deep well plate	300 ~ 1600rpm
Capacity	micro well plate	2ea
	deep well plate	4ea
	1.5ml tube	48ea
Motor	BLDC Motor	
Timer (speed)	99hour 59min	
Dimensions (mm)	W180xD330x H131	W290xD325xH140
Weight	5kg	6kg
Wattage	20W	
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

## Accessory

MR1.5-24

Tube Rack / 1.5ml centrifuge tube capacity: 24ea



# THERMO MICROMIXER



"UP and OVER"  
door

## ► confido-S20H



"UP and OVER"  
door

## ► confido-S202H



### Specification

Model		confido-S20H	confido-S202H
Orbit Range		3mm	
Speed	micro well plate & 1.5ml tube	300 ~ 2000rpm	300 ~ 1600rpm
	deep well plate	300 ~ 1400rpm	
Capacity	micro well plate	2ea	4ea
	deep well plate	2ea	4ea
	1.5ml tube	48ea	96ea
Temp. Range		Ambient +5°C~65°C	
Temp. Accuracy		±0.2°C	
Motor		BLDC Motor	
Timer (temp.)		99hour 59min	
Dimensions (mm)		W280×D423×H257	W384×D423×H257
Weight		11kg	13kg
Wattage		180W	
Power		AC 100-240V (*220-230V : CE cert)	
Frequency		50/60Hz	

### Accessory

MR1.5-24 Tube Rack / 1.5ml centrifuge tube capacity: 24ea

### ■ confido-S20H / compact mixer with incubation

- Compact mixer and small orbit for effective mixing

### ■ confido-S202H / Well designed for mixing and heating

- Effective rack for standard microplates, including deep well plates
- Variable speed across a broad range, making them useful for a variety of applications

### ► Common facts

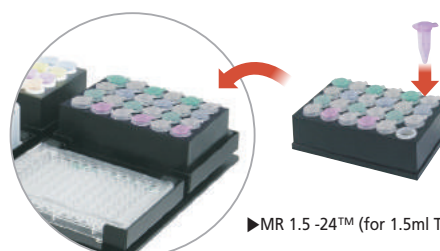
- Digital micro processor control [PID] for highest accuracy
- Effective ventilation system guarantees accurate temperature control
- High quality DC brushless motor for gentle and powerful motion
- Orbital of 3mm for efficient mixing in sample vessels.
- Continuous or timed operation
- Optional rack for 1.5ml centrifuge tube
- Simple silicon holders for easy installation with plate
- LED display shows actual speed and time
- "UP and OVER" door
- safety features:
  - Flashing alarm lamp to warn over-temperature
  - Over-temperature cut-out with safety thermostat

### PLATE INSTALLATION



- Simple silicon holders allow easy and quick to install of micro well plates or optional rack for 1.5ml centrifuge tube.

### ACCESSORY



►MR 1.5 -24™ (for 1.5ml Tubes)



# SHAKING INCUBATOR™ [for micro well plate]

2D motion

## ■ BAE07-H2000 / Large capacity shaking Incubator

- Quick and easy control heating system

## ■ BAE07-C2000 / Well design for cooling shaking Incubator

- Controls heating and cooling level easy and quickly
- Effective ventilation system guarantees accurate temperature control

### ► Common facts

- Digital micro processor control [PID] for highest accuracy
- Chamber is separated to keep constant temperature.
- Standard platform for six micro well plates
- Simple silicon holders for easy plate installation with plate
- Variable speed between 300 to 1800rpm
- LED display shows actual speed and time
- "Up and OVER" door
- safety features:
  - Flashing alarm lamp to warn over-temperature
  - Over-temperature cut-out with safety thermostat

- An examples to use
- Bacteria / yeast culture (small scale)



## ► BAE07-H2000



## ► BAE07-C2000

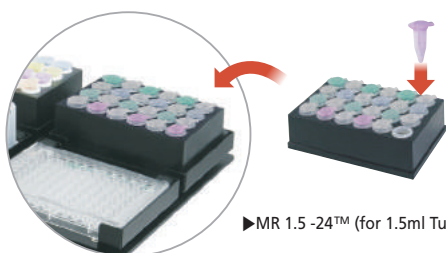


### PLATE INSTALLATION



- Simple silicon holders allow easy and quick to install of micro well plates or optional rack for 1.5ml centrifuge tube.

### ACCESSORY



- MR 1.5-24™ (for 1.5ml Tubes)

### Specification

Model	BAE07-H2000	BAE07-C2000
Speed Range	300-1800rpm	
Capacity	micro well plate	6ea
	deep well plate	6ea
	1.5ml tube	144ea
Orbit Range	3mm	
Temp. Range	Ambient +5°C~65.0°C	15.0°C~65.0°C
Temp. Accuracy	±0.2°C	±0.4°C
Motor	BLDC Motor	
Timer (temp.)	99hour 59min	
Dimensions(mm)	W470xD630xH410	W470xD647xH410
Weight	34kg	39kg
Wattage	610W	810W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	

### Shaking Capacities

Model Number	BAE07-H2000	BAE07-C2000
1.5ml Tubes	144ea	
Micro Well Plate	6ea	
Deep Well Plate	6ea	

### Accessory

MR1.5-24	Tube Rack / 1.5ml centrifuge tube capacity: 24ea
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# SHAKING INCUBATOR™

2D&3D motion



## ■ BAE07-H300 / Variable plate for heating shaking Incubator

- Quick and easy control heating system

## ■ BAE07-C300 / Special movement shaking Incubator

- Effective ventilation system guarantees accurate temperature control

### ► Common facts

- Digital micro processor control [PID] for highest accuracy
- Chamber is separated to keep constant temperature.
- BAE MECHANISM (patented, 5step angle adjustment system) allows orbital motion and various twist movement
- Dual mat to accommodate each vessel
- LED display shows actual speed and time
- "Up and OVER" door
- safety features:
  - Flashing alarm lamp to warn over-temperature
  - Over-temperature cut-out with safety thermostat

- An examples to use
- Bacteria / Yeast culture



CE ► BAE07-H300



CE ► BAE07-C300

### Specification

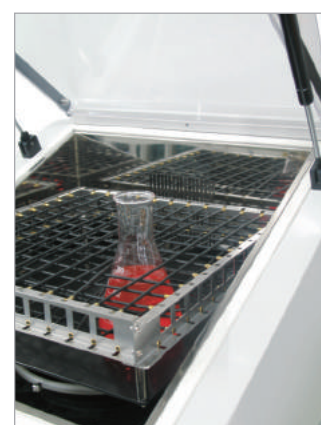
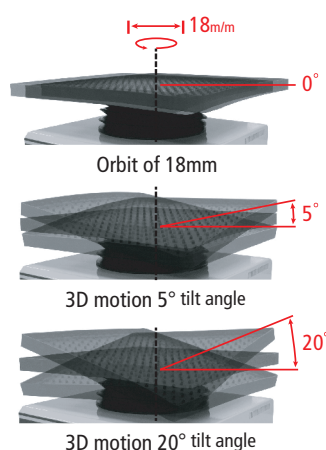
Model	BAE07-H300	BAE07-C300
Speed Range	30-300rpm	
Shaking Angle	orbital range-18mm	
	3D twist 5°	
	3D twist 10°	
	3D twist 15°	
	3D twist 20°	
Temp. Range	Ambient +5°C~80.0°C	15.0°C~65.0°C
Temp. Accuracy	±0.2°C	±0.4°C
Motor	BLDC Motor	
Timer (temp.)	99hour 59min	
Dimensions(mm)	W470×D630×H410	W470×D647×H410
Weight	34kg	37kg
Wattage	610W	810W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	

### Shaking Capacities

Model Number	BAE07-H300	BAE07-C300
50ml Flask	13ea	
100ml Flask	13ea	
250ml Flask	8ea	

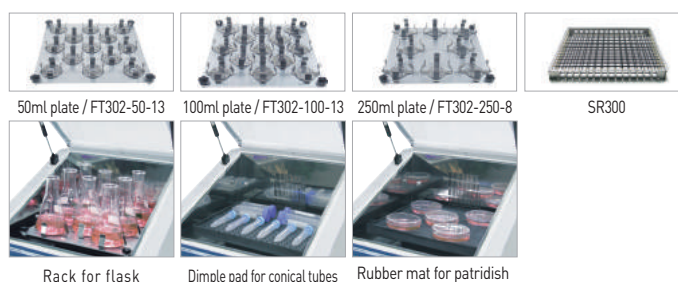
### Accessories

Model Number	Description
FT302-50-13	Flask Table for 50ml flask - Capacity : 13ea
FT302-100-13	Flask Table for 100ml flask - Capacity : 13ea
FT302-250-8	Flask Table for 250ml flask - Capacity : 8ea
SR300	Flexible silicon wire rack (W300×D300mm)



※The rack available up to 250ml flasks.

### ACCESSORIES





# orbital / reciprocating SHAKER

## ► SH30



### ■ Standard size orbital shaker

- Smooth and powerful orbital motion at low speed

### ■ Standard size reciprocating shaker

- Smooth and powerful reciprocating motion at low speed

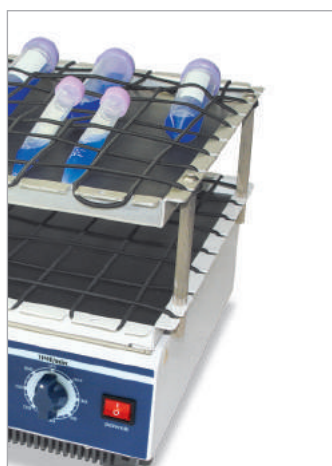
### ► Common facts

- Continuous or timed operation
- Optional second platform available to double the working area, large upper platform for a variety of flasks and tubes
- Other type flask platform also available upon special request
- Standard elastic ties for easy fitting of flasks and conical tubes
- Non-slip mat as standard, optional dimpled pad prevents tubes from rolling around

## ► SH30L



- An examples to use
- Bacteria / Yeast culture



### Specification

Model	SH30	SH30L
Orbital range	14mm	-
Reciprocate range	-	28mm
Speed range	40 ~ 300 rpm	
Motor	DC Motor	
Timer (speed)	180min	
Temp. Resist	Lower than 65°C(Dry air)	
Loadable weight	8kg	
Weight	10kg	
Dimensions (mm)	W330xD330xH157	W330xD330xH162
Platform (mm)	W300xD300	
Wattage	35W	
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

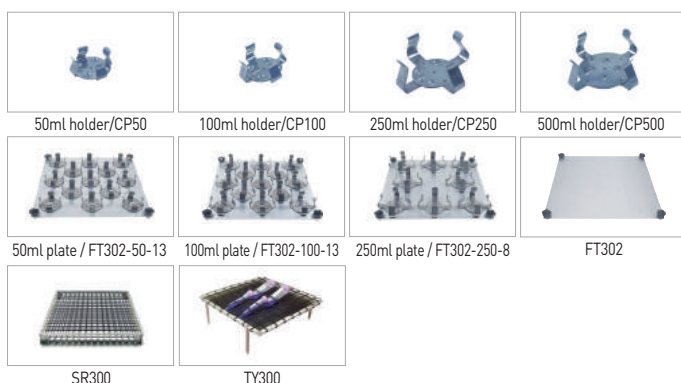
### Accessories

Model Number	Description
DP-300	Dimpled Pad (W300xD300mm)
TY300	Second platform (with posts : 4ea)
SR300	Flexible silicon wire rack (W300xD300mm)

### Other Accessories

Model Number	Description
CP50	50ml flask holder
CP100	100ml flask holder
CP250	250ml flask holder
CP500	500ml flask holder
FT302	Universal Table for flask holder
FT302-50-13	Flask Table for 50ml flask-Capacity : 13ea
FT302-100-13	Flask Table for 100ml flask-Capacity : 13ea
FT302-250-8	Flask Table for 250ml flask-Capacity : 8ea

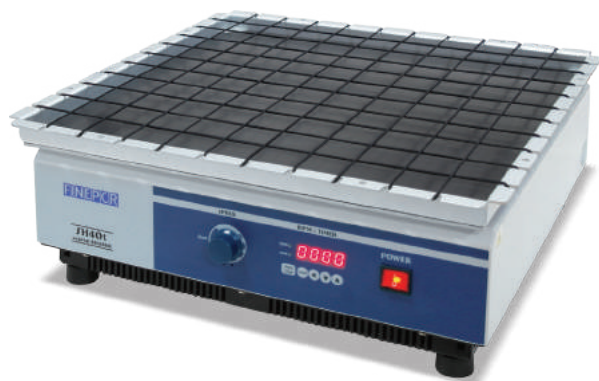
### ACCESSORIES





# orbital / reciprocating SHAKER

## ► SH40t



## ■ SH40t / Large size orbital SHAKER

- Wide variety of large capacity platform

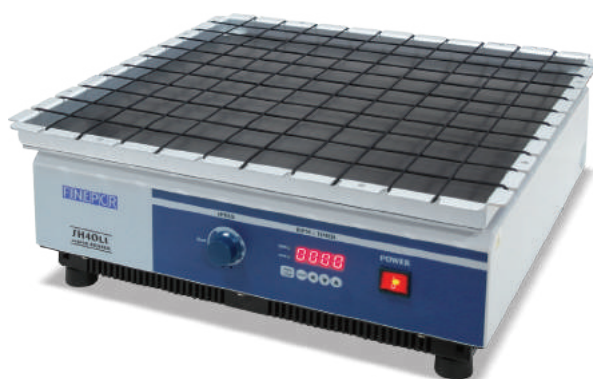
## ■ SH40Lt / Large size reciprocating SHAKER

- Large capacity platform - smooth reciprocating motion

## ► Common facts

- Large size upper platform for a variety of flasks and tubes
- Continuous or timed operation
- Optional second platform available to double the working.
- Other type flask platform also available upon special request
- Standard elastic ties for easy fitting of flasks and conical tubes
- Non-Slip mat as standard

## ► SH40Lt



- An examples to use
- Bacteria / Yeast culture



## Specification

Model	SH40t	SH40Lt
Orbital range	14mm	-
Reciprocating range	-	28mm
Speed range	40 ~ 300 rpm	70-400rpm (max. 10kg) 40-300rpm (max. 15kg)
Motor	DC Motor	
Timer (speed)	99hours 59min	
Loadable weight	20kg	15kg
Weight	13kg	13.5kg
platform(mm)	W400 x D400	
Dimension(mm)	W430 x D430 x H159	W430 x D430 x H163
Wattage	35W	
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

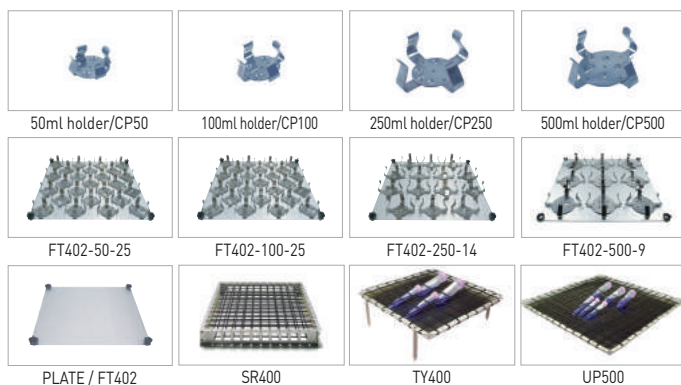
## Accessories

Model Number	Description
TY400	Second platform (with posts -4ea)
UP500	500x500mm upper platform
SR400	Flexible silicon wire rack (W400 x D400mm)

## Other Accessories

Model Number	Description
CP50	50ml flask holder
CP100	100ml flask holder
CP250	250ml flask holder
CP500	500ml flask holder
FT402	universal table for flask holder
FT402-50-25	Flask table for 50ml flask - capacity : 25ea
FT402-100-25	Flask table for 100ml flask - capacity : 25ea
FT402-250-14	Flask table for 250ml flask - capacity : 14ea
FT402-500-9	Flask table for 500ml flask - capacity : 9ea
SR400	Flexible silicon wire rack (W400 x D400mm)

## ACCESSORIES





# DUAL MOTION SHAKER

## ► 2D-300



### ■ 2D-300 / Standard size / Change the motion to orbital or reciprocating

- Installed 300X300 size platform

### ■ 2D-400 / Large size / Change the motion to orbital or reciprocating

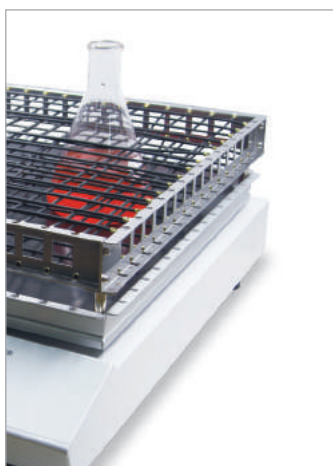
- Installed 400X400 size platform

#### ► Common facts

- Smooth and powerful orbital or reciprocating motion at low speed
- Optional platform for flasks
- Flexible silicon wire rack for various tubes, flasks, etc.
- High quality DC brushless motor for gentle and powerful motion
- Continuous or timed operation
- LED display shows actual speed or time

- An examples to use  
· Bacteria / Yeast culture

## ► 2D-400



### Specification

Model	2D-300	2D-400
Orbital range	14mm	
Reciprocating range	28mm	
Speed Range	45 - 400rpm	
Motor	BLDC motor	
Timer (speed)	99hour 59min	
Temp. Resist	Lower than 55°C	
Loadable weight	4kg	6kg
Weight	13kg	17kg
Dimensions(mm)	W320xD410xH140	W430xD520xH140
Platform(mm)	W300xD300	W400xD400
Wattage	30W	
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

### Accessories (2D-300)

Model Number	Description
FT302	Universal Table for flask holder (300x300mm)
FT302-50-13	Flask Table for 50ml flask-capacity : 13ea
FT302-100-13	Flask Table for 100ml flask-capacity : 13ea
FT302-250-8	Flask Table for 250ml flask -capacity : 8ea
SR300	Flexible silicon wire rack (W300xD300mm)

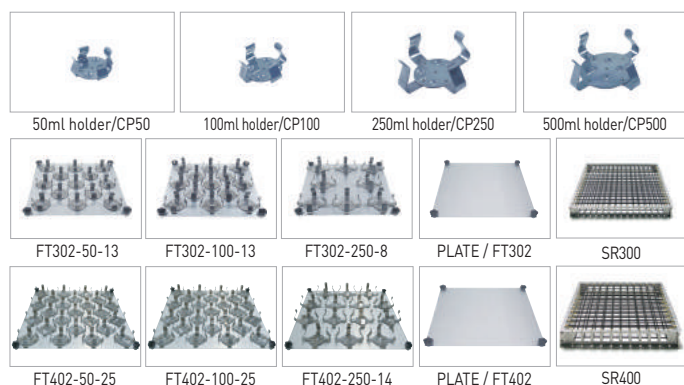
### Accessories (2D-400)

Model Number	Description
FT402	Universal Table for flask holder (400x400mm)
FT402-50-25	Flask Table for 50ml Flask-capacity : 25ea
FT402-100-25	Flask Table for 100ml flask-capacity : 25ea
FT402-250-14	Flask Table for 250ml flask -capacity : 14ea
SR400	Flexible silicon wire rack (W400xD400mm)

### Other Accessories

Model Number	Description
CP50	50ml flask holder
CP100	100ml flask holder
CP250	250ml flask holder
CP500	500ml flask holder

### ACCESSORIES

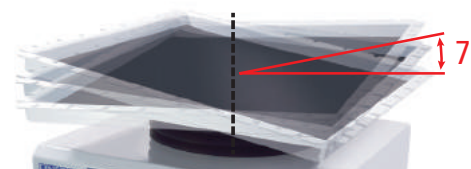




### Powerful and reliable 3D orbital motion

- Gentle 3D motion and sturdy construction for high capacity
- Continuous or timed operation
- Standard elastic ties for easy fitting of flasks and conical tubes
- Optional second platform available to double the working area, large upper platform for variety of flasks and tubes
- Non-slip mat as standard, optional dimpled pad prevents tubes from rolling around
- Rubber bellows for protecting the user's finger from inadvertent accident

- An examples to use
- Western blotting
  - Gel staining
  - Immunoprecipitation
  - Bacteria / Yest culture



3D motion 7° tilt angle



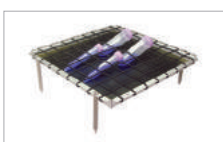
► TW3



### ACCESSORIES



DP-300



TY300



UP400

### Specification

Model	TW3
Tilt Angle	±7°
Speed Range	8 ~ 70 rpm
Motor	DC Warm Geard Motor
Timer (Speed )	180min
Temp. Resist	Lower than 65°C(Dry air)
Loadable Weight	5Kg
Weight	7Kg
Dimensions (mm)	W330xD330xH178
Platform (mm)	W300xD300
Wattage	35W
Power	Free Voltage (AC100-240V)
Frequency	50/60Hz

### Accessories

Model Number	Description
DP-300	Dimpled Pad (W300 X D300 mm)
TY300	Second platform, (with posts : 4ea)
UP400	Upper platform (W400 X D400 mm)



# MULTI SHAKER™

## 2D&3D motion

### FMS2 / Compact multi shaker

- 200X200mm platform for efficient incubator operation

### FMS3 / Extremely quiet operation with various movement position

- High quality DC brushless motor for gentle and powerful motion
- Installed 300X300mm platform
- Continuous or timed operation

#### Common facts

- BAE MECHANISM (patented, 5 step angle adjustment system) allows orbital motion and various twist movement
- Orbit of 18mm for best mixing result especially for gel and blotting
- Dual mat to accommodate each vessel
- Simple and easy of angle adjustment

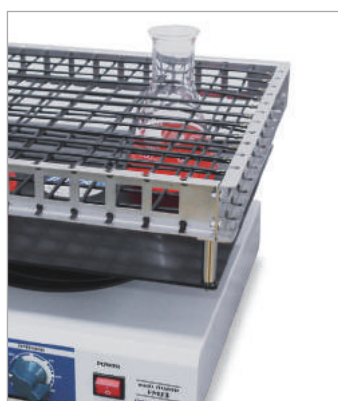
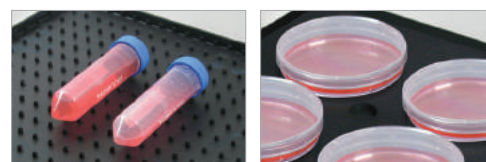
- An examples to use
- Western blotting
  - Gel staining
  - Immunoprecipitation
  - Bacteria / Yest culture



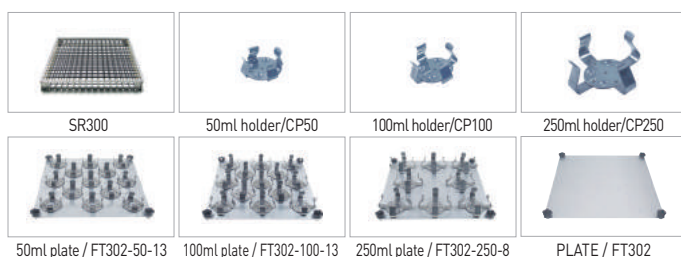
### ► FMS3



### ► FMS2



### ACCESSORIES (FMS3)



### Specification

Model	FMS2	FMS3
Speed range	5 ~ 90 rpm	30 ~ 300 rpm
Shaking Angle	orbital range-18mm 3D twist 5° 3D twist 10° 3D twist 15° 3D twist 20°	
Motor	DC Warm Gear Motor	BLDC Motor
Temp. Resist	Lower than 65°C(Hum 90%)	Lower than 55°C(Dry air)
Loadable weight	1Kg	3Kg
Timer (speed)	-	180min
Weight	5Kg	11Kg
Dimensions (mm)	W200xD280xH147	W300xD300xH155
Platform (mm)	W200xD200	W300xD300
Wattage	35W	50W
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

### Accessories (FMS3)

Model Number	Description
SR300	Flexible silicon wire rack (W300xD300mm)
CP50	50ml flask holder
CP100	100ml flask holder
CP250	250ml flask holder
FT302	Universal Table for flask holder
FT302-50-13	Flask Table for 50ml flask-Capacity : 13ea
FT302-100-13	Flask Table for 100ml flask-Capacity : 13ea
FT302-250-8	Flask Table for 250ml flask-Capacity : 8ea



# MULTI SHAKER™

## 2D&3D motion

### ■ 3D-200 / Compact multi shaker

- 200X200mm platform for efficient incubator operation

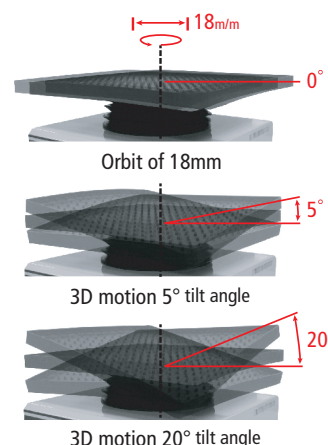
### ■ 3D-300 / Extremely quiet operation with various movement position

- High quality DC brushless motor for gentle and powerful motion
- Installed 300X300mm platform

#### ► Common facts

- BAE MECHANISM (patented, 5 step angle adjustment system) allows orbital motion and various twist movement
- Orbit of 18mm for best mixing result especially for gel and blotting
- Dual mat to accommodate each vessel
- Continuous or timed operation
- LED display shows actual speed or time

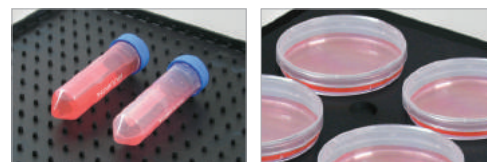
- An examples to use
- Western blotting
  - Gel staining
  - Immunoprecipitation
  - Bacteria / Yest culture



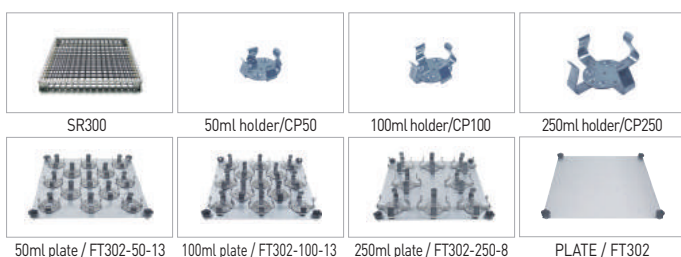
### ► 3D-200



### ► 3D-300



### ACCESSORIES (3D-300)



### Specification

Model	3D-200	3D-300
Speed range	5 ~ 90 rpm	30 ~ 300 rpm
Shaking Angle	orbital range-18mm 3D twist 5° 3D twist 10° 3D twist 15° 3D twist 20°	
Motor	DC Warm Gear Motor	BLDC Motor
Temp. Resist	Lower than 65°C(Hum 90%)	Lower than 55°C(Dry air)
Loadable weight	1Kg	3Kg
Timer (speed)	99hour 59min	99hour 59min
Weight	5Kg	12Kg
Dimensions (mm)	W200xD280xH147	W300xD380xH170
Platform (mm)	W200xD200	W300xD300
Wattage	35W	50W
Power	Free Voltage (AC100-240V)	
Frequency	50/60Hz	

### Accessories (3D-300)

Model Number	Description
SR300	Flexible silicon wire rack (W300xD300mm)
CP50	50ml flask holder
CP100	100ml flask holder
CP250	250ml flask holder
FT302	Universal Table for flask holder
FT302-50-13	Flask table for 50ml flask-Capacity : 13ea
FT302-100-13	Flask table for 100ml flask-Capacity : 13ea
FT302-250-8	Flask table for 250ml flask-Capacity : 8ea



# ROTATOR

## ■ AG / Adjustable speed and angle of rotation

- Durable construction for long-term operation

## ■ HAG / Use with a wide variety of accessories

- Optional rocking platform for washing

## ► Common facts

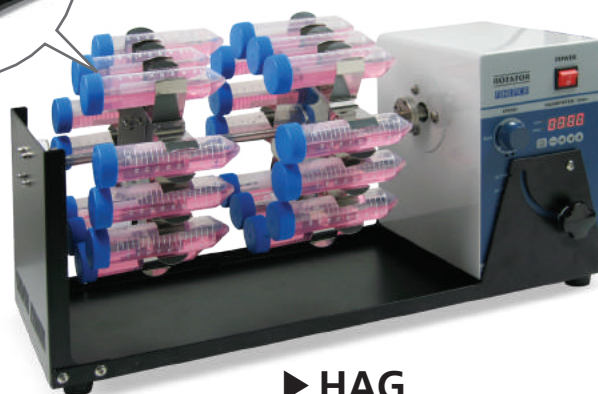
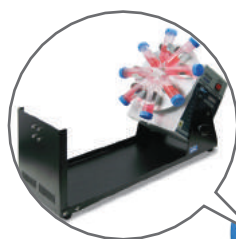
- Various speed and adjustable mixing angle 0°~90°
- Continuous or timed operation
- Wide choice of accessories to be used, including conical tubes, bottles and 250ml flasks
- Add up to 2 disks together for application
- LED display (shown actual speed or time)

### ► An examples to use

- Bacteria / Yeast culture (small scale)
- Genomic DNA preparation
- Plasmid preparation



► AG



► HAG



## Specification

Model	AG	HAG
Angle Range	0° ~ 90°	
Speed Range	7 ~ 70rpm	
Timer (speed)	99hour 59min	
Temp.Resist	Lower than 65°C(Dry air)	
Weight	4kg	6kg
Dimensions (mm)	W220xD236xH246	W510xD236xH246
Wattage	35W	
Power	Free Voltage (AC100~240V)	
Frequency	50/60Hz	

## Disk

Model Number	Description
D50-8	Disk / 50ml conical tube-capacity : 8ea
D15-16	Disk / 15ml conical tube-capacity : 16ea
D1.5-32	Disk / 1.5ml centrifuge tube-capacity : 32ea
D1.5-60	Disk / 1.5ml centrifuge tube-capacity : 60ea
D250-4	Disk / 250ml Flask-capacity: 4ea
PO-4	Post for disks

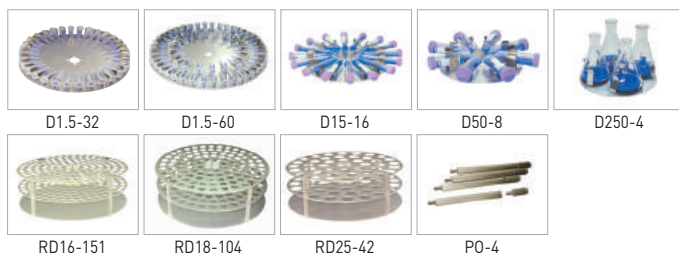
## Roller Drum

Model Number	Description
RD16-151	Roller Drum / Up to 15mm Diameter tube-capacity : 151ea
RD18-104	Roller Drum / Up to 17mm Diameter tube-capacity : 104ea
RD25-42	Roller Drum / Up to 29mm Diameter tube-capacity : 42ea

## Rotisseries (for HAG)

Model Number	Description
12RT-4	80mm Diameter 200mm length bottle-capacity : 4ea
12RT-6	60mm Diameter 200mm length bottle-capacity : 6ea
12RT-10	40mm Diameter 200mm length bottle-capacity : 10ea 40mm Diameter 120mm length bottle-capacity : 20ea
12RT-8V	50ml Conical tube-capacity : 8ea-vertical mount
12RT-16V	50ml Conical tube-capacity : 16ea-vertical mount
12RT-24H	50ml Conical tube-capacity : 24ea-horizontal mount
12RT-200-64	1.5ml Centrifuge tube-capacity : 64ea
12RT-200-96	1.5ml Centrifuge tube-capacity : 96ea
12RT-200-128	1.5ml Centrifuge tube-capacity : 128ea
12RT-300-120	1.5ml Centrifuge tube-capacity : 120ea
12RT-300-180	1.5ml Centrifuge tube-capacity : 180ea
12RT-300-240	1.5ml Centrifuge tube-capacity : 240ea
12RK-HAG	Rocking Platform(W285xD195xH65, tilt angle : ±7°)

## ACCESSORIES (AG / HAG)



## ACCESSORIES (HAG)



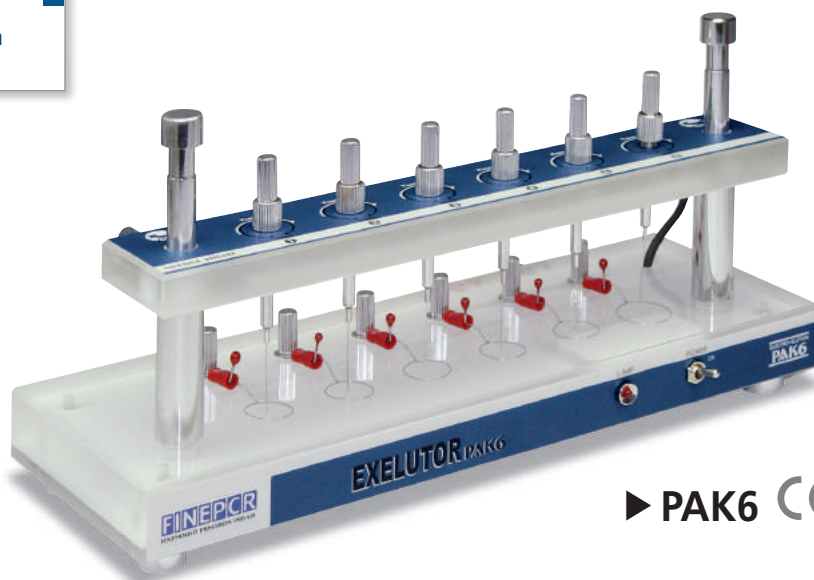


# Gel Eluter

## ■ Economic & quick equipment with the high yield

- 95% elution within 4minutes (DNA, RNA)
- Sturdy, small and easy to handle
- 6 different samples can be applied simultaneously
- 0.2 - 0.5ml of buffer is sufficient for elution (high concentration)

- An examples to use
- DNA / RNA extraction from agarose gel



► PAK6 CE

## HOW TO USE

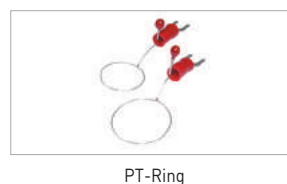
- Top plate stopping knob**  
Lift up the top plate and fix it up by the stopping knob.
- Place the disposable parafilm under the electronic ring.**
- Place a gel slice on the center of the electronic ring.**
- Lift the top plate down.**
- The Electrode should be touched on the gel slice.**
- Add the buffer out inside the electronic ring enough to cover the gel slice.**
- Confirm the switch and the lamp off. Connect power supply**
- Control the voltage in the between 20V ~ 30V on power supply. If the voltage is over 50V, the lamp and electrode could defected.**
- Turn on the switch.**
- Small bubbles will arise from the gel slice.**
- Using UV lamp (long wave). The DNA coming out from gel slice could be seen.**
- After 2 ~ 4min, turn out the switch.**
- Lift the top plate.**
- Take the buffer**

## Specification

Model	PAK6
Applicable Sample	ds DNA, ss RNA, Protein
Electro-rod & Electro-Ring	Platinum
Capacity	6 sample
Dimensions (mm)	W290xD135xH150
Weight	1.8kg

- It is possible to purify samples within an hour. You can apply agarose and polyacrylamide gel slices including nucleic acid or protein on the EXELUTOR Pak6 and apply at 20 ~ 30V for 2 ~ 4min.
- In case of incomplete elution, a second attempt can be made by replacing the buffers.
- The Elution time is flexible according to the kinds and sizes of samples and in case of linear DNA, 4min is sufficient for the size up to 10kb. Eluted DNA can be extracted with phenol / chloroform once and then ethanol-precipitated according to the routine methods. High yield of more than 90%.
- Since disposable parafilm is used for the sample plate, you don't have to worry about contamination.
- 0.2-0.5ml of buffer is sufficient for elution.
- There is nearly no trouble.
- It is easy to handle.

## ACCESSORIES



PT-Ring



PT-Rod



# compact INCUBATOR™

- An examples to use
- DNA Extraction



- Optional use 2xshelf



## ACCESSORY



6 shelf

## AR6 / compact Incubator

- Digital microprocessor control[PID] for highest accuracy
- safety features:
- Flashing alarm lamp to warn over- temperature
- Over-temperature cut-out with safety thermostat

## Specification

Model	AR6
Temp. Range	Ambient +5°C~65°C
Temp. Accuracy	±0.2°C
Temp. System	Air circulation (PID system)
Timer (temp.)	99hour 59min
Weight	15kg
Dimensions (mm)	Overall : W392xD405xH412 Internal : W310xD280xH270
Wattage	450W
Power	AC 100-240V (*220-230V : CE cent)
Frequency	50/60Hz

## Accessories

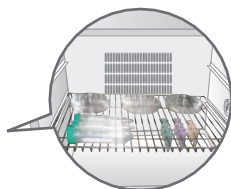
Model Number	Description
6Shelf	Shelf (W300mmxD270mm)

# hybridization INCUBATOR™

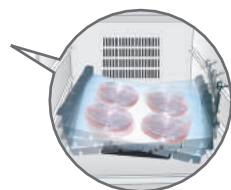
- An examples to use
- Northern blotting • Southern blotting
- Immuno blotting • DNA Extraction



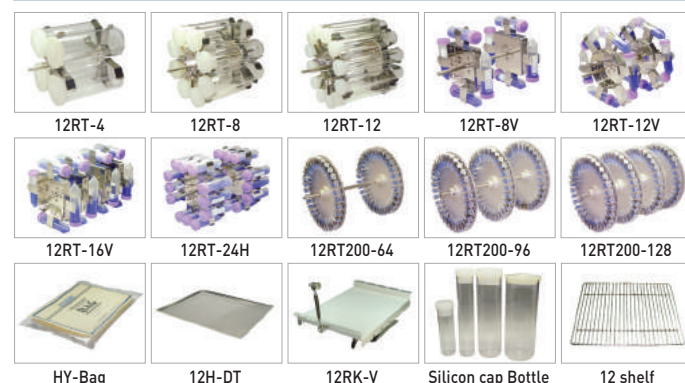
- Optional use 2xshelf



- Optional use rocking platform for washing



## ACCESSORIES



12RT-4

12RT-8

12RT-12

12RT-8V

12RT-12V

12RT-16V

12RT-24H

12RT200-64

12RT200-96

12RT200-128

HY-Bag

12H-DT

12RK-V

Silicon cap Bottle

12 shelf

## combi-V12 / Vertical type construction for efficient bench space

- A wide choice of rotisseries, especially large capacity rotisseries for small and large bottles
- Optional rocking platform of washing

## Specification

Model	combi-V12
Temp. Range	Ambient +5°C~80°C
Temp. Accuracy	±0.2°C
Timer (temp.)	99hour 59min
Rotational Speed	0 ~ 40 rpm
Material	Inside chamber : Stainless steel
Weight	33kg
Dimensions (mm)	Overall : W468xD435xH443 Internal : W365xD280xH286
Wattage	400W
Frequency	AC100V / AC110V / AC220V / AC240V / 50/60Hz AC230V / 50/60Hz(CE cert)

## Rotisseries

Model Number	Description
12RT-4	80mm Diameterx200mm length bottle - capacity : 4ea
12RT-8	60mm Diameterx200mm length bottle - capacity : 8ea
12RT-12	40mm Diameterx200mm length bottle - capacity : 12ea
12RT-8V	or 40mm Diameterx120mm length bottle - capacity : 24ea
12RT-12V	50ml Conical tube - capacity : 12ea - vertical mount
12RT-16V	50ml Conical tube - capacity : 16ea - vertical mount
12RT-24H	50ml Conical tube - capacity : 24ea - horizontal mount
12RT200-64	1.5ml Centrifuge tube - capacity : 64ea
12RT200-96	1.5ml Centrifuge tube - capacity : 96ea
12RT200-128	1.5ml Centrifuge tube - capacity : 128ea

## Bottles

Model Number	Description
BT40-120	40mm Diameterx120mm length bottle with silicon cap
BT40-200	40mm Diameterx200mm length bottle with silicon cap
BT60-200	60mm Diameterx200mm length bottle with silicon cap
BT80-200	80mm Diameterx200mm length bottle with silicon cap

## Other Accessories

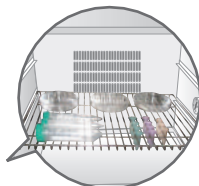
Model Number	Description
12H-DT	Drip Tray (W360xD300mm)
12RK-V	Rocking Platform (W285xD195xH165, tilt angle : ±7°)
HY-Bag	Hybridization Bag, Polypropylene (W160xD220mm)
12 Shelf	Shelf, Petridish : 6ea (W336xD250mm)



# hybridization INCUBATOR™



- Optional use 2xshelf



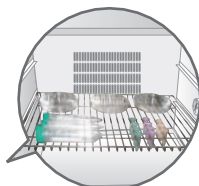
- Optional use rocking platform for washing



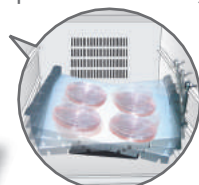
## ► combi-H12



- Optional use 4xshelf



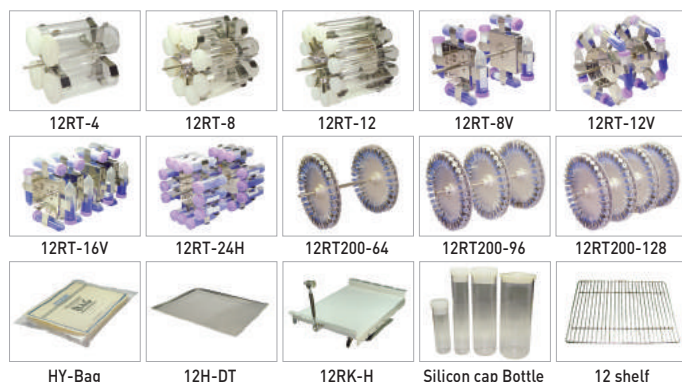
- Optional use rocking platform for washing



## ► combi-D24



### ACCESSORIES



## ■ combi-H12 / Standard Incubator - high capacity rotisseries

- A wide choice of rotisseries, especially large capacity rotisseries for small and large bottles

## ■ combi-D24 / Dual chambers for multi-purpose application

- Dual chambers with independent controls

### ► Common facts

- Digital microprocessor control[PID] for highest accuracy
- Optional rocking platform for washing and shelves
- Rubber magnet sealed door
- Unique dual insulation construction for recovering the set temperature rapidly after opening the door
- safety features:
  - Flashing alarm lamp to warn over-temperature
  - Over-temperature cut-out with safety thermostat

- An examples to use
- Northern blotting
  - Southern blotting
  - Immuno blotting
  - DNA Extraction

### Specification

Model	combi-H12	combi-D24
Temp. Range	Ambient +5°C~80°C	
Temp. Accuracy	±0.2°C	
Timer (temp.)	99hour 59min	
Rotational Speed	7 ~ 40 rpm	
Material	Inside chamber : Stainless steel	
Weight	25kg	45kg
Dimensions (mm)	Overall :	Overall :
	W520xD420xH360	W520xD420xH717
	Internal :	Internal :
	W365xD280xH286	W365xD280xH286
Wattage	450W	900W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	

### Rotisseries

Model Number	Description
12RT-4	80mm Diameterx200mm length bottle - capacity : 4ea
12RT-8	60mm Diameterx200mm length bottle - capacity : 8ea
12RT-12	40mm Diameterx200mm length bottle - capacity : 12ea / or 40mm Diameterx120mm length bottle - capacity : 24ea
12RT-8V	50ml Conical tube - capacity : 8ea - vertical mount
12RT-12V	50ml Conical tube - capacity : 12ea - vertical mount
12RT-16V	50ml Conical tube - capacity : 16ea - vertical mount
12RT-24H	50ml Conical tube - capacity : 24ea - horizontal mount
12RT200-64	1.5ml Centrifuge tube - capacity : 64ea
12RT200-96	1.5ml Centrifuge tube - capacity : 96ea
12RT200-128	1.5ml Centrifuge tube - capacity : 128ea

### Bottles

Model Number	Description
BT40-120	40mm Diameterx120mm length bottle with silicon cap
BT40-200	40mm Diameterx200mm length bottle with silicon cap
BT60-200	60mm Diameterx200mm length bottle with silicon cap
BT80-200	80mm Diameterx200mm length bottle with silicon cap

### Other Accessories

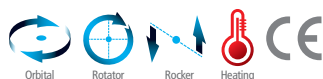
Model Number	Description
12H-DT	Drip Tray (W360xD300mm)
12RK-H	Rocking Platform (W285xD195xH65, tilt angle : ±7°)
HY-Bag	Hybridization Bag, Polypropylene (W160xD220mm)
12 Shelf	Shelf, Petridish : 6ea (W336xD250mm)



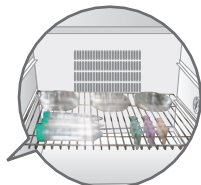
# hybridization INCUBATOR™



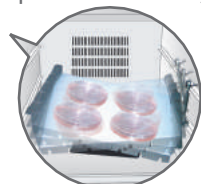
## ► combi-SV12



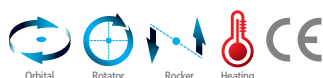
- Optional use 2xshelf



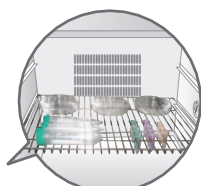
- Optional use rocking platform for washing



## ► combi-SV120



- Optional use 4xshelf



- Optional use rocking platform for washing



### ■ combi-SV12 / Rotisseries and shaker in one unit

### ■ combi-SV120 / Shaking plate for high capacity & rotisseries all in one

- Simultaneous operation of the shaker and the upped rotisseries

#### ► Common facts

- Digital microprocessor control[PID] for highest accuracy
- Rubber magnet sealed door
- Orbital shaking platform with clamps for 6X250ml flasks
- A wide choice of rotisseries, especially large capacity rotisseries for small and large bottles
- Optional rocking platform for washing and shelves
- Unique dual insulation construction for recovering the set temperature rapidly after opening the door
- safety features:
  - Flashing alarm lamp to warn over-temperature
  - Over-temperature cut-out with safety thermostat

#### ► An examples to use

- Northern blotting
- Southern blotting
- Immuno blotting
- DNA Extraction

#### Specification

Model	combi-SV12	combi-SV120
Temp. Range	Ambient +5°C ~80°C	
Temp. Accuracy	±0.2°C	
Speed	Rotation	7 ~ 40 rpm
	shaker	40 ~ 300 rpm
Timer (temp.)	99hour 59min	
Material	Inside chamber : Stainless steel	
Weight	36kg	44kg
	Overall :	Overall :
	W485xD425xH460	W485xD425xH720
Dimensions (mm)	Internal :	Internal :
	W365xD280xH286	W363xD278xH545
Wattage	450W	900W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	

#### Rotisseries

Model Number	Description
12RT-4	80mm Diameterx200mm length bottle - capacity : 4ea
12RT-8	60mm Diameterx200mm length bottle - capacity : 8ea
12RT-12	40mm Diameterx200mm length bottle - capacity : 12ea / or 40mm Diameterx120mm length bottle - capacity : 24ea
12RT-8V	50ml Conical tube - capacity : 8ea - vertical mount
12RT-12V	50ml Conical tube - capacity : 12ea - vertical mount
12RT-16V	50ml Conical tube - capacity : 16ea - vertical mount
12RT-24H	50ml Conical tube - capacity : 24ea - horizontal mount
12RT200-64	1.5ml Centrifuge tube - capacity : 64ea
12RT200-96	1.5ml Centrifuge tube - capacity : 96ea
12RT200-128	1.5ml Centrifuge tube - capacity : 128ea

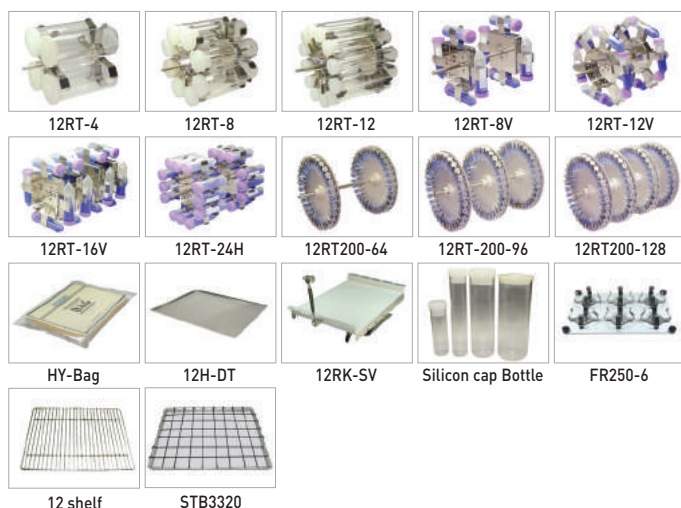
#### Bottles

Model Number	Description
BT40-120	40mm Diameterx120mm length bottle with silicon cap
BT40-200	40mm Diameterx200mm length bottle with silicon cap
BT60-200	60mm Diameterx200mm length bottle with silicon cap
BT80-200	80mm Diameterx200mm length bottle with silicon cap

#### Other Accessories

Model Number	Description
12H-DT	Drip Tray (W360xD300mm)
12RK-SV	Rocking Platform (W285xD195xH65, tilt angle : ±7°)
HY-Bag	Hybridization Bag, Polypropylene (W160xD220mm)
FR250-6	Shaking platform(W330xD247)for 250ml flask-capacity:6ea
STB3320	Shaking platform(W336xD250mm)
12 Shelf	Shelf, Patridish:6ea (W336xD250mm)

#### ACCESSORIES





# magnetic STIRRER

## Low profile - High performance

- Multi-position magnetic stirrer, without heating
- High quality DC brushless motor for quiet and powerful stirring
- Variable speed control from 0 to 1,300rpm
- Stainless steel top plate for the protection against the penetration of liquids
- Stable low profile body for convenient and safe experiment



### Specification

Model	ST5	ST10
Speed Range	0 ~1300rpm	
Distance Between Stirring Point	90mm	
Capacity	250ml - 5ea	250ml - 10ea
Weight	3kg	5kg
Dimensions (mm)	W115xD560xH65	W200xD560xH65
Wattage	15W	30W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	

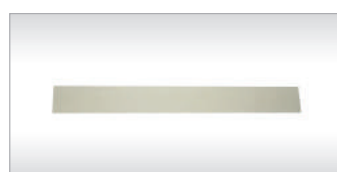
# Heat Sealer

## Compact and easy to use

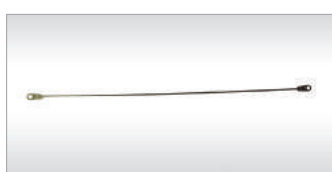
- SK-series fits nearly everywhere for world-wide use in laboratory.
- Polyethylene, polypropylene films can be easily sealed.
- Easy to handle with convenient and reasonable structure.
- Powerful transformer and high quality circuit components guarantee years operation.



### ACCESSORIES



Teflon cloth



Heating element

### Specification

Model	SK210	SK310
Available Resin	polyethylene, polypropylene	
Sealing Width	2mm	
Sealing Length	200mm(7.9")	300mm(11.8")
Weight	3.4kg	5kg
Dimensions (mm)	W320xD85xH160	W455xD85xH175
Wattage	380W	390W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	



# THERMO BATH

## ■ High temperature heating without oil and water

- Digital microprocessor control [PID] for highest accuracy
- Various of interchangeable insert blocks
- Block combined with the close fit of the tubes for efficient heat transfer
- Special thicker blocks guarantee excellent temperature stability
- Standard flat covers for protecting the user from heat
  - safety features:
- Flashing alarm lamp to warn over-temperature
- Over-temperature cut-out with safety thermostat

▶ An examples to use  
· DNA Extraction

### ▶ ALB64



### ▶ ALB128



#### Specification

Model	ALB 64	ALB 128
Temp. Range	Ambient +5°C~150°C	
Temp. Accuracy	±0.2°C	
Timer (temp.)	99hour 59min	
Heating Method	Cartridge Heater	
Capacity	1Block	2Block
Material	Heating plate and block : Aluminum Bath : Stainless steel	
Weight	3kg(without block)	5kg(without block)
Dimensions (mm)	W148×D230×H170	W238×D230×H170
Wattage	310W	630W
Power	AC 100-240V (*220-230V : CE cert)	
Frequency	50/60Hz	

#### Block

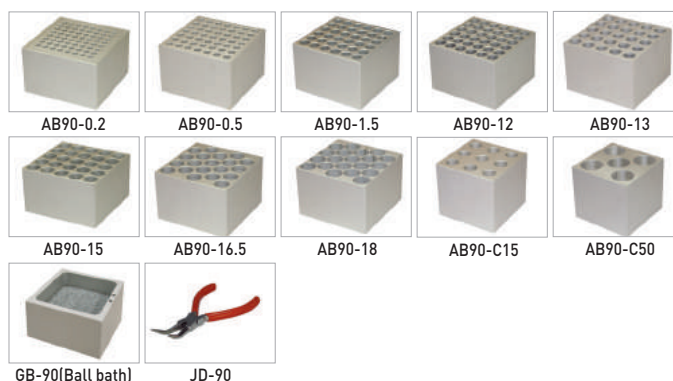
AB90-0.2	Block / 0.2ml centrifuge tube (90×90×H60) - capacity : 64ea
AB90-0.5	Block / 0.5ml centrifuge tube (90×90×H60) - capacity : 49ea
AB90-1.5	Block / 1.5ml centrifuge tube (90×90×H60) - capacity : 36ea
AB90-12	Block / 12øTest tube (90×90×H60) - capacity : 36ea
AB90-13	Block / 13øTest tube (90×90×H60) - capacity : 25ea
AB90-15	Block / 15øTest tube (90×90×H60) - capacity : 25ea
AB90-16.5	Block / 16.5øTest tube (90×90×H60) - capacity : 20ea
AB90-18	Block / 18øTest tube (90×90×H60) - capacity : 20ea
AB90-C15	Block / 15ml conical tube (90×90×H80) - capacity : 9ea
AB90-C50	Block / 50ml conical tube (90×90×H80) - capacity : 5ea

#### Other Accessories

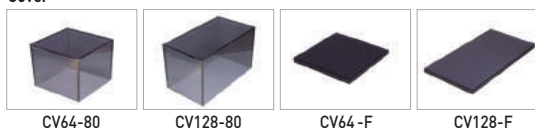
Model Number	Description
JD90	Block transfer tool
GB90	Ball bath (with zinc ball)
CV64-80	High cover for Test tube (W116×D116×H120mm)
CV128-80	High cover for Test tube (W206×D116×H120mm)

※Various types of blocks are available upon special request

#### ACCESSORIES



#### Cover





# COOL BLOCK

## Cooling and heating in one unit

- Digital microprocessor control [PID] for highest accuracy
- Independent cooling and heating systems for years of trouble-free operation
- Various of interchangeable insert blocks
- Block combined with the close fit of the tubes for efficient heat transfer
- Special thicker blocks guarantee excellent temperature stability
  - safety features:
- Flashing alarm lamp to warn over-temperature
- Over-temperature cut-out with safety thermostat

► An examples to use  
· DNA / RNA Extraction



## ► ALB6400



### Specification

Model	ALB 6400
Temp. Range	0°C - 120°C
Temp. Accuracy	±0.2°C
Timer (temp.)	99hour 59min
Cooling Method	Peltier
Heating Method	Cartridge heater
Block Capacity	1 Block
Material	Heating plate and block : Aluminum Bath : Stainless steel
Weight	9kg (without block)
Dimensions (mm)	W190×D278×H237
Wattage	300W
Power	AC 100-240V (*220-230V : CE cert)
Frequency	50/60Hz

### Block

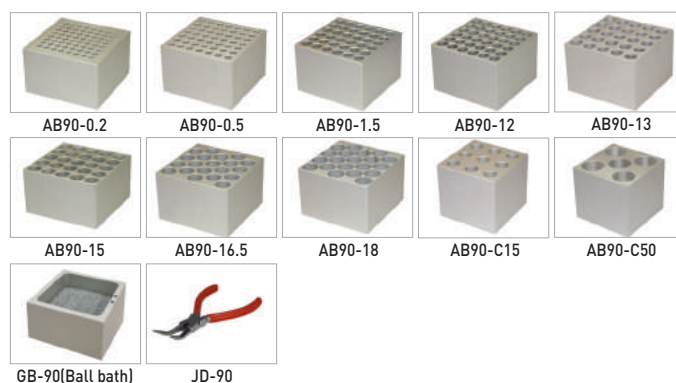
Model Number	Description
AB90-0.2	Block / 0.2ml centrifuge tube (90×90×H60) - capacity : 64ea
AB90-0.5	Block / 0.5ml centrifuge tube (90×90×H60) - capacity : 49ea
AB90-1.5	Block / 1.5ml centrifuge tube (90×90×H60) - capacity : 36ea
AB90-12	Block / 12øTest tube (90×90×H60) - capacity : 36ea
AB90-13	Block / 13øTest tube (90×90×H60) - capacity : 25ea
AB90-15	Block / 15øTest tube (90×90×H60) - capacity : 25ea
AB90-16.5	Block / 16.5øTest tube (90×90×H60) - capacity : 20ea
AB90-18	Block / 18øTest tube (90×90×H60) - capacity : 20ea
AB90-C15	Block / 15ml conical tube (90×90×H80) - capacity : 9ea
AB90-C50	Block / 50ml conical tube (90×90×H80) - capacity : 5ea

### Other Accessories

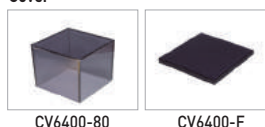
Model Number	Description
JD90	Block transfer tool
GB90	Ball bath (with zinc ball)
CV6400-80	High cover for test tube (W116×D116×H120mm)

※Various types of blocks are available upon special request

### ACCESSORIES



### Cover





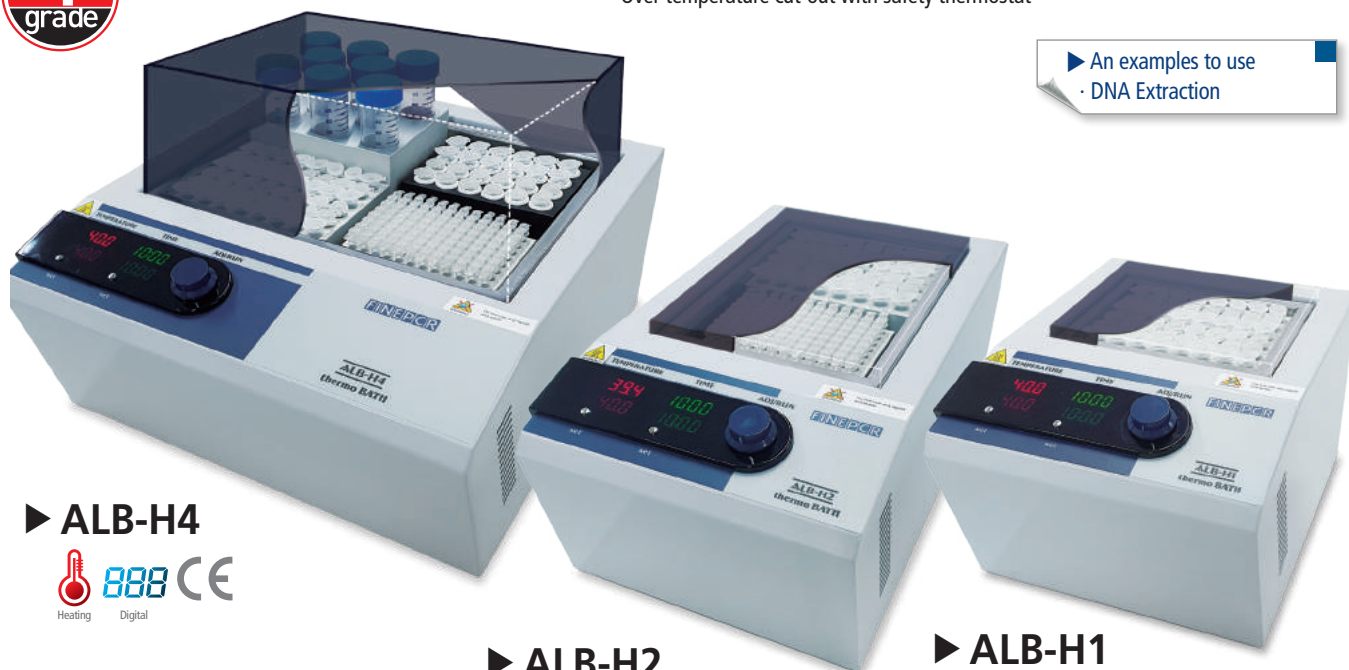
# THERMO BATH



## Special thicker blocks guarantee excellent temperature stability

- Digital microprocessor control [PID] for highest accuracy
- Various of interchangeable insert blocks
- Block combined with the close fit of the tubes for efficient heat transfer
- Standard flat covers for protecting the user from heat
  - safety features:
- Flashing alarm lamp to warn over-temperature
- Over-temperature cut-out with safety thermostat

► An examples to use  
· DNA Extraction



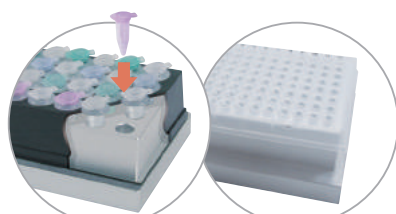
### ► ALB-H4



### ► ALB-H2



### ► ALB-H1



1.5ml-24 tubes

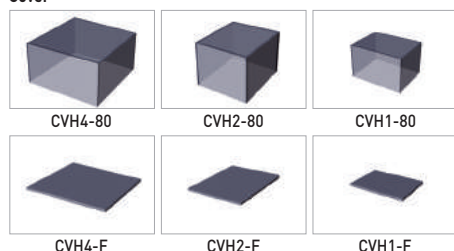
micro well plate (or pcr plate)

※Various types of blocks are available upon special request

## ACCESSORIES



## Cover



## Specification

Model	ALB-H1	ALB-H2	ALB-H4
Temp. Range	Ambient +5°C~150.0°C		
Temp. Accuracy	±0.2°C		
Timer (temp.)	99hour 59min		
Heating Method	cartridge Heater		
Block Capacity	1 Block	2 Block	4 Block
Material	Heating plate and block : Aluminum Bath : Stainless steel		
Dimensions(mm)	W205xD263xH163	W205xD360xH163	W335xD360xH163
Wattage	310W	630W	1200W
Weight	4kg (without block)	6kg (without block)	9kg (without block)
Power	AC 100-240V (*220-230V : CE cert)		
Frequency	50/60Hz		

## Block

Model Number	Description
AB100-96	Block / 96PCR plate - capacity : 1ea or 8 strip tube - capacity : 12ea
AB100-0563	Block / 0.5ml centrifuge tube - capacity : 63ea
AB100-1548	Block / 1.5ml centrifuge tube - capacity : 48ea
AB100-1524	Block / 1.5ml centrifuge tube - capacity : 24ea with tube rack
AB100-1516	Block / 15ml conical tube - capacity : 16ea
AB100-508	Block / 50ml conical tube - capacity : 8ea

## Other Accessories

Model Number	Description
JD90	Block transfer tool
CVH1-80	High cover for conical tube (W154xD125xH76mm)
CVH2-80	High cover for conical tube (W225xD154xH76mm)
CVH4-80	High cover for conical tube (W283xD225xH76mm)



# COOL BLOCK

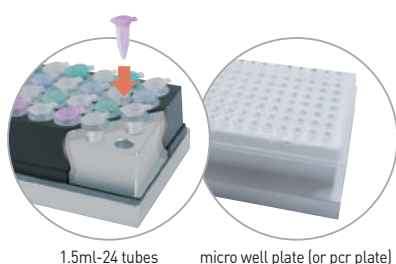
## ■ Special thicker blocks guarantee excellent temperature stability

- Digital microprocessor control [PID] for highest accuracy
- Various of interchangeable insert blocks
- Block combined with the close fit of the tubes for efficient heat transfer
- Standard flat covers for protecting the user from heat
  - safety features:
- Flashing alarm lamp to warn over-temperature
- Over-temperature cut-out with safety thermostat

- An examples to use
- DNA / RNA Extraction



### ► ALB-C1



1.5ml-24 tubes

micro well plate (or pcr plate)

※Various types of blocks are available upon special request

## ACCESSORIES



AB100-1524(with Rack)

AB100-0563

AB100-1548

AB100-96

AB100-508

AB100-1516

JD-90

### Cover



CVC1-80

CVC1-F

## Specification

Model	ALB-C1
Temp. Range	0°C - 120°C
Temp. Accuracy	±0.2 °C
Timer (temp.)	99hour 59min
Cooling Method	Peltier
Heating Method	Cartridge heater
Block Capacity	1 Block
Material	Heating plate and sample block : Aluminum Bath : Stainless steel
Weight	9kg (without block)
Dimensions (mm)	W215xD327xH215
Wattage	360W
Power	AC 100-240V (*220-230V : CE cert)
Frequency	50/60Hz

## Block

Model Number	Description
AB100-96	Block / 96PCR plate - capacity : 1ea or 8 strip tube - capacity : 12ea
AB100-0563	Block / 0.5ml centrifuge tube - capacity : 63ea
AB100-1548	Block / 1.5ml centrifuge tube - capacity : 48ea
AB100-1524	Block / 1.5ml centrifuge tube - capacity : 24ea with tube rack
AB100-1516	Block / 15ml conical tube - capacity : 16ea
AB100-508	Block / 50ml conical tube - capacity : 8ea

## Other Accessories

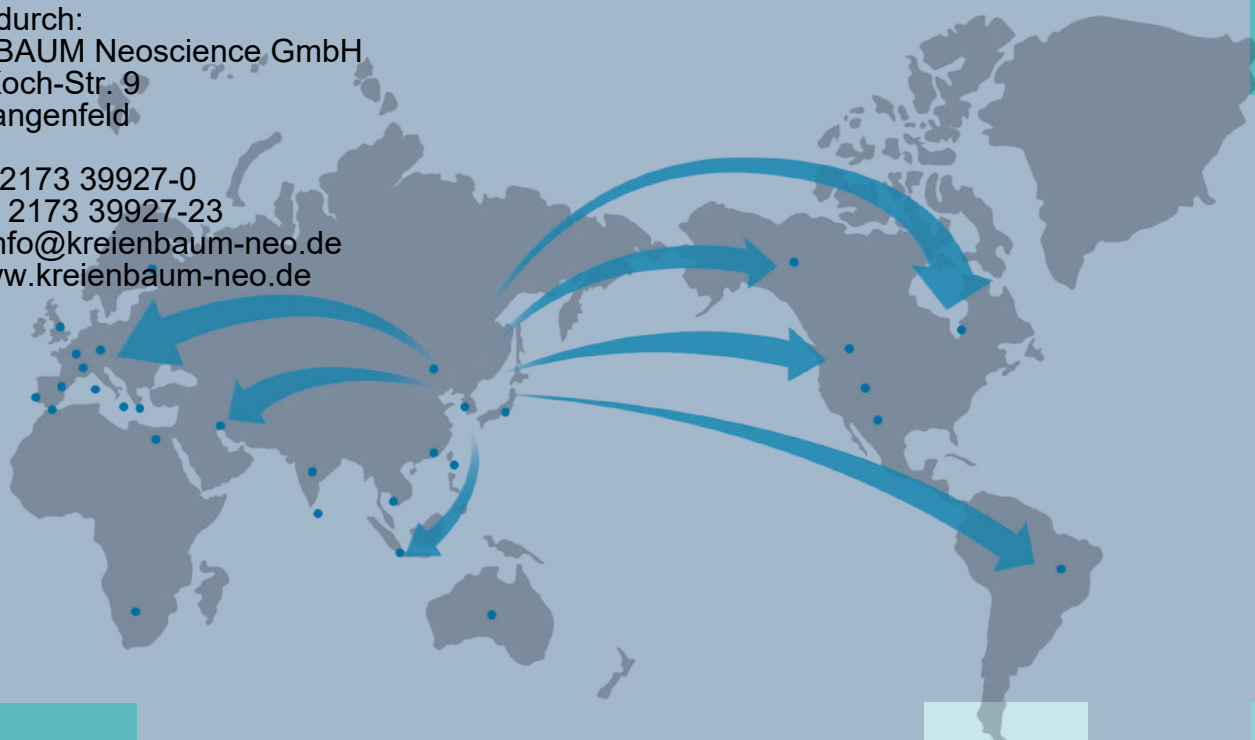
Model Number	Description
JD90	Block transfer tool
CVC1-80	High cover for conical tube (W154xD125xH76mm)





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