# Water Bath Shaker NTS-4000A · 4000B · 4000C

Highly durable and silent shaking mechanism.

Three types, 7 models available to cover small/large volume samples.

Three heater output available, 300W (L type), 700W (M type), 1300W (H type).

Simultaneous operation of 4 units (300W) or 2 units (700W) is possible by 15A outlet.



# **Features**

- Temperature, shaking speed and shaking time are controlled by microprocessor. Microprocessor controls every setting and stops heating/shaking when sensor detects abnormal signal. Shaking time integration function is provided.
- With newly designed shaking mechanism, low noise level (less 55dB) is realized.
- Auto-start and auto-stop function is provided as standard. 4 step program function is also provided to realize

- auto-start with different setting after one sequence shaking.
- Anti bacteria stainless steel bath can be dismounted for cleaning.
  - The unit is equipped with drain cock and water in the bath can easily be drained after shaking.
- Slow-up function prevents bath water overflooding.
- One touch mounting/dismounting of both shaking chamber and water bath.

## **Specifications**

Product Name	Water Bath Shaker						
Model	NTS-4000AL	NTS-4000AM	NTS-4000BL	NTS-4000BM	NTS-4000BH	NTS-4000CM	NTS-4000CH
Cat. No.	211850/211858	211869/211868	211870/211878	211889/219888	211890	211900/211908	211910
Shaking method		•	Red	ciprocating shakir	ng	*	
Temp. setting range				10~80°C			
Temp. control accuracy	±0.1 (at 37°C)						
Shaking speed & stroke	20~180rpm • 25mm			~160rpm •25mm	1	20~140rpm•40mm	
Temp. control range	RT+5°C∼60°C	RT+5°C~80°C	RT+5°C~40°C	RT+5°C∼60°C	RT+5°C~80°C	RT+5°C~40°C	RT+5°C~70°C
Temp. control	Microprocessor P.I.D. control, Auto tuning function						
Temp. setting & display	Sheetkey input • digital setting & display, min. setting 0.1°C						
Program	Auto start, Auto stop, Step program						
Heater	300W (SUS316L)	700W (SUS316L)	300W (SUS316L)	700W (SUS316L)	1300W (SUS316L)	700W (SUS316L)	1300W (SUS316L
Safety features	Self diagnosis (Heater brake, Sensor error, Limit temp. alarm, Motor malfunction), Empty heating protection, Independent over heating protection, Leak/over current breaker, Fuse						
Shaking chamber size	Shelf OD 150W x 220D Shelf OD 230W x 280D Shelf OD 380W x 3880				80W x 388D		
(mm)	Shelf ID 130W x 199D Shelf ID 210W x 259D Shelf ID 360W x				0W x 350D		
Dimensions (mm) & weight	220W x 490D	k 342H 18.5kg	330W x 540D x 342H 22.5kg			450W x 660D :	442H 36.5kg
Power source		750VA AC115V 1.7kVA AC220V	350VA AC115V 770VA AC220V	750VA AC115V 1.5kVA AC220V	1.35kVA AC100V	800VA AC100V 1.7kVA AC220V	1.4kVA AC100V

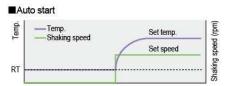
One touch mounting/detaching of shaking chamber.

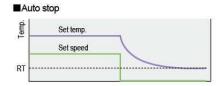
Stainless bath can also be detached by one touch for easy cleaning.

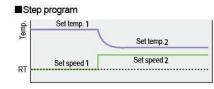


Drain cock is provided for easy draining of remaining water in bath after shaking.

#### Program operation





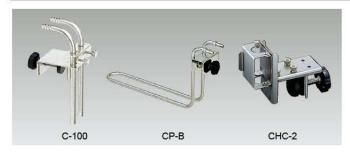


## ■Mountable vessel according to shelf

Shelf	Shelf (Standard)			Shelf (Option)				
	NTS-4000A	NTS-4000B	NTS-4000C	NTS-4000A	NTS-4000B	NTS-4000A	NTS-4000B	
				Shelf for micro tube		Shelf for test tube		
				MTR-1.5A	MTR-1.5B	SSR-A	SSR-B	
Micro tube	1.5mL	1 <del>-1</del> 3	1 <del></del> 1	, t=3	54	120	-	, <del></del> 0
Tarres	φ12	84	180	(289)	5 <del>1 - 5</del> 5	-	45	80
Test tube	φ16.5	39	90	289	<b>%</b> ₩\$	<u>=</u>	23	40
Centrifugal tube	50mL	12	30	(72)	(3 <del>-1</del> 5	<del>-</del>	11	20
	50mL	8	20	(49)	::	-	_	·—
	100mL	6	12	(25)	9 <del>-0</del> 8	-		1940
	200mL	3	8	(16)	6 <del>—</del> 8	<u>-</u>	_	<u></u>
Friangular flask	300mL	2	6	16	8 <u></u> 6	<u> </u>	<u>-</u> ii	7_3
	500mL	1	4	9	H <u>—</u> 41	10		7_5
	1L	0	1	4		=	-	
	2L	0	0	2	o <del></del> 0	_		( <del></del>

 $\divideontimes$  ( ) is possible by changing height of bottom plate.

#### Options



# Circulation hose clamp, Cooling pipe, Cooler clamp

Product name	Model	Cat. No.	Applicable	Cooling circulator	
Cooling	C-100	113200	NTS-4000B		
hose clamp	C-300	113220	NTS-4000C	-	
Cooling pipe	CP-B	211920	NTS-4000B	Nozzle dia.	
	CP-C	211930	NTS-4000C	10.5mm	
Cooler clamp	CHC-2	181840	NTS-4000B NTS-4000C	ECS-0SS	



### Bath cover

Model	Cat. No.	Applicable
RBC-A	212020	NTS-4000A
RBC-B	212030	NTS-4000B
RBC-C	212040	NTS-4000C



# Shelf for microtube

Application	Model	Cat. No.	Applicable	
1.5mL 54 vessels	MTR-1.5A	211980	NTS-4000A	
1.5mL 120 vessels	MTR-1.5B	212000	NTS-4000B	
Shelf support	SRS-A	211960	NTS-4000A	
(2 pcs)	SRS-B	212010	NTS-4000B	



# Sliding shelf for test tube

Application	Model	Cat. No.	Applicable
Shelf for 11-45 tubes	SSR-A	211940	NTS-4000A
Shelf for 20-80 tubes	SSR-B	211950	NTS-4000B
Shelf support	SRS-A	211960	NTS-4000A
(2 pcs)	SRS-B	212010	NTS-4000B

12

13