



The SA300 achieves two-dimensional shaking, horizontally or vertically, while the SA320 enables rotary shaking that yields a higher shaking effect. The SA400 is a double-sided vertical shaking type.

Model		
SA300	SA320	SA400
Shaking Method		
Horizontal / Vertical	Rotary & Horizontal / Rotary & Vertical	Double-sided Vertical
Shaking Number		
20 to 300	20 to 210	20 to 300
Shaking Width		
40 mm		

- The main unit themselves shake vertically, but it can be laid on their side so that they shake horizontally.
- The various holders can be easily attached and removed, and are extremely durable.
- The SA400 is a double-sided vertical shaker and its 1 liter liquid load holder can shake 6 sample holders simultaneously.
- With the adoption of a spare direct-flow motor, the SA400 can generate stable shaking frequencies and high-torque shaking power.
- Though compact, it is equipped with added weight (10kg for one side).
- Easy-to-use dial settings for shaking frequency, and digital displays. Possible to switch between timer operation and continuous operation.

#### ■ Specifications

Model	SA300	SA320	SA400
Shaking method	Horizontal / Vertical reciprocate shakings	Horizontal / Vertical rotary shakings	Double sided vertical reciprocate shaking
Holder maximum rack number	100ml x 5 , 200ml x 4 , 300ml x 4 500ml x 4 , 1000ml x 3 , 2000ml x 2		100ml x 10 , 200ml x 8 , 300ml x 8 500ml x 8 , 1,000ml x 6 , 2000ml x 4
Shaking speed	Approx. 20 to 300 times/min. (Horizontal shaking)	Approx. 20 to 210 times/min. (Horizontal rotary shaking)	Approx. 20 to 300 times/min. (Vertical shaking)
Speed control display	Dial Setting		Dial setting/ Digital display
Timer	0 to 60min.		
Motor	DC motor, 90W		
External dimensions	460×460×423 (mm)		520×460×483 (mm)
Power source 50/60Hz	100/220V, single phase, 2.2/1.0A		100/220V, with external transformer, single phase, 2.2/1.0A
Weight	Approx. 55.5 kg		Approx. 39 kg
<b>Accessories</b>			
	Fuse 1 pcs.		
	Carbon brush 1 set		



Horizontal Shaking

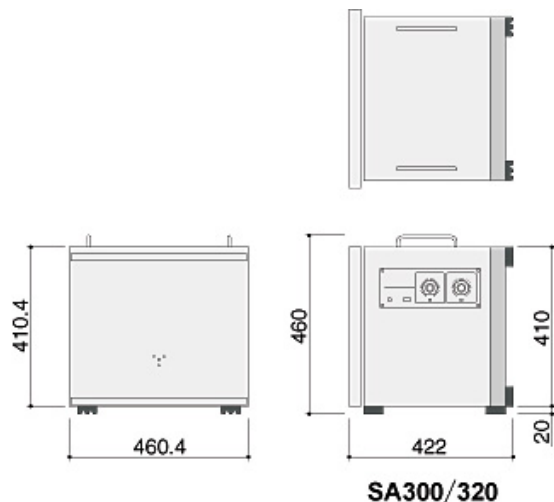


Rotary Shaking



Vertical Shaking

■ Dimensional drawing (mm)



■ Optional items (glass equipments are not included)

**Centrifugal tube holder  
(SA300/320/400)**



For Horizontal / vertical shaking

Product code	Specification
232087	Dia 16 - 35mm Length 110 - 130mm Max. 18pcs support

**Test tube holder  
(SA300/320)**



For Horizontal Shaking

Product code	Specification
232086	Dia 16.5 - 18mm Length 160 - 190 Max. 18pcs support

**2L separatory funnel holder  
(SA300/320/400)**



For Vertical Shaking

Product code	Specification
232089	50ml 100ml - 1,000ml 2,000ml

**Separatory funnel holder  
(SA300/320/400)**



For Vertical Shaking

Product code	Specification
232096	100ml - 1,000ml

**Test tube rack holder  
(SA300/320)**



For Horizontal Shaking

Product code	Specification
232088	Maximum test tube rack can be installed W238 x D121 x H105
2 stages	

**Non-slip Sheet for clamp fixing stage (SA300/320)  
(Clamp fixing stage is necessary)**



For Horizontal Shaking

Product code	Specification
232071	1mm thickness W450 x D396

**Erlenmeyer flask holder  
(SA300/320)**



For Horizontal Shaking

Product code	Specification
232097	100 - 1000ml

**Erlenmeyer flask nail clamp (SA300/320)  
(Clamp fixing stage is necessary)**



For Horizontal Shaking

Product code	Capacity	Number of sets
232062	For 100ml	10pcs
232063	For 200ml	9pcs
232064	For 300ml	5pcs
232065	For 500ml	4pcs
232066	For 1L	2pcs

**Clamp fixing stage  
(SA300/320)**



For Horizontal Shaking

Product code	Specification
232095	Erlenmeyer Flask Fixable Clamp Qty. For 100ml 28pcs For 200ml 19pcs For 500ml 14pcs For 1000ml 9pcs

**Shaking rack (SA300/320)  
(Clamp fixing stage is necessary)**



For Horizontal Shaking

**Erlenmeyer flask nail clamp**

Product code	Capacity
232067	For 100ml
232068	For 200ml
232069	For 300ml

**Inclined test tube**

Product code	Diameter	Quantity
232080	Φ12mm	50pcs
232081	Φ16.5mm	20pcs
232082	Φ18mm	20pcs

**2 layers spring shaking rack  
(SA300/320)**



For Horizontal Shaking

Product code	Specification
232079	For Test tube Φ16mm x 320pcs (20mm pitch)