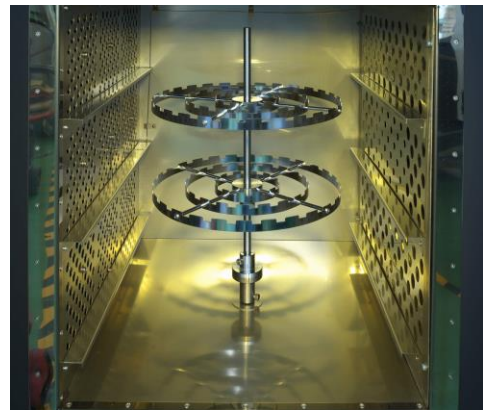




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## No. 272 Geer type Oven

*Forced air circulation oven type thermal accelerated aging tester (with turbulent air flow)*



Sample rotating rack (Specimen hanger)



Operation panel

### ■ APPLICATION

The **Geer type Oven** is widely used for evaluating thermal aging of plastics and rubber by the oven method. There are many kinds of thermostatic chamber generally known as the “oven”. Problems have often been encountered in use of these ovens – if these ovens which differ in their mechanisms were used carelessly, the results of testing differ very widely.

TOYO SEIKI's Geer type Oven has been especially designed and manufactured exclusively for aging tests and not as an ordinary drier or thermostatic chamber. Important factors such as temperature control precision, temperature distribution, temperature recovery after opening the door, air speed inside the oven, air change rate and sealing mechanism of the intermediate chamber, etc. have been fully taken into consideration in designing and constructing this oven.

## ■ SPECIFICATIONS

### 45 cm square ovens

Model	A45A2	A45	S45
Interior dimensions	W450 x D450 x H500mm		
Temperature range	Room temperature + 20°C to 300°C		
Temperature accuracy	<ul style="list-style-type: none"> <li>■ ±1°C (Up to 100°C)</li> <li>■ ±2°C (125°C to 300°C)</li> </ul>		
Temperature distribution (9 points)	<ul style="list-style-type: none"> <li>■ 2°C or less (Up to 100°C)</li> <li>■ 4°C or less (101°C to 200°C)</li> <li>■ 6°C or less (201°C to 300°C)</li> </ul>		
Air speed (Average of 18 points)	0.5±0.1m/s		
Air change (ventilation) rate	2 to 20* air changes/hour (*Up to 60 air changes/hour is possible)		
Damper (Air change rate) adjustment	Automatic	Manual	Manual
Air change meter (Air change rate measuring device)	Equipped (Built-in type)	Equipped (Built-in type)	Option (External type)
Sample rotating rack rotation speed	8 to 10rpm		
Power requirement	Three-phase, AC200V, 50Hz or 60Hz, 3.8kVA		
Exterior dimensions	W1090 x D800 x H1430mm		
Net weight	Approx. 200kg		





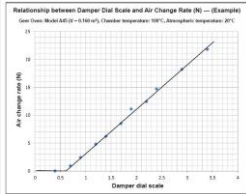


### 60cm square ovens

Model	A60A2	A60	S60
Interior dimensions	W600 x D600 x H600mm		
Temperature range	Room temperature + 20°C to 300°C		
Temperature accuracy	<ul style="list-style-type: none"> <li>■ ±1°C (Up to 100°C)</li> <li>■ ±2°C (125°C to 300°C)</li> </ul>		
Temperature distribution (9 points)	<ul style="list-style-type: none"> <li>■ 2°C or less (Up to 100°C)</li> <li>■ 4°C or less (101°C to 200°C)</li> <li>■ 6°C or less (201°C to 300°C)</li> </ul>		
Air speed (Average of 18 points)	0.5±0.1m/s		
Air change (ventilation) rate	2 to 20* air changes/hour (*Up to 50 air changes/hour is possible)		
Damper (Air change rate) adjustment	Automatic	Manual	Manual
Air change meter (Air change rate measuring device)	Equipped (Built-in type)	Equipped (Built-in type)	Option (External type)
Sample rotating rack rotation speed	8 to 10rpm		
Power requirement	Three-phase, AC200V, 50Hz or 60Hz, 4.8kVA		
Exterior dimensions	W1170 x D920 x H1550mm		
Net weight	Approx. 290kg		

## Related standards

Test methods	
ISO 188	Rubber, vulcanized or thermoplastics-Accelerated ageing and heat resistance tests
JIS K 6257	Rubber, vulcanized or thermoplastic-Determination of heat ageing properties
ISO 45717	Polypropylene and propylene-copolymers-Determination of thermal oxidative stability in air-Oven method
JIS K 7212	Plastics-Determination of thermal stability of thermoplastics-Oven method
JIS C 3005	Test method for rubber or plastic insulated wires and cables
Apparatus	
JIS B 7757	Forced air circulation oven type thermal accelerated aging testers

## Air change rate measurement & damper setting

	Air change rate (Power consumption) measurement	Air change rate calculation	Damper (Air change rate) setting
A45A2/A60A2	By built-in air change meter 	Automatic calculation by built-in air change meter 	Automatic setting by stepper motor (Possible to save to memory up to 5 points of damper position) 
A45/A60	Same as A45A2/A60A2	Same as A45A2/A60A2	Manual setting by dial   
S45/S60	By optional portable (external type) air change meter 	Hand calculation	Same as A45/A60

## ■ ACCESSORIES & OPTIONS

● Included ○ Optional × Not available

	Name	Model	Part No.	A45A2 A60A2	A45 A60	S45 S60
1	Sample rotating rack (Specimen hanger)	----	----	●	●	●
2	Sample clips (60 pcs.)	----	2100380	●	●	●
3	Shelf for 45 cm square model (Possible to install up to 3 pcs)	SHLF45	----	○	○	○
4	Shelf for 60 cm square model (Possible to install up to 3 pcs)	SHLF60	----	○	○	○
5	Automatic damper (air change rate) setting	----	----	●	×	×
6	Built-in air change meter	----	----	●	●	×
7	Portable air change meter (For 3-phase, AC200V, 50Hz)	2PA5-2	----	×	×	○
8	Portable air change meter (For 3-phase, AC200V, 60Hz)	2PA6-2	----	×	×	○
9	Stacking option	----	----	○	○	○
10	Upward exhaust port option (Note: Downward is standard)	----	----	○	○	○
11	External output (Recorder, Data logger)	----	----	○	○	○
12	Built-in step down transformer For three-phase, AC220V	30T-4K	----	○	○	○
13	External step down transformer For three-phase, AC220V	30K-4K	----	○	○	○
14	Built-in step down transformer For three-phase, AC380V	3ST-4K	----	○	○	○
15	External step down transformer For three-phase, AC380V	3SK-4K	----	○	○	○



1. Sample rotating rack (Specimen hanger)



2. Sample clips



3, 4. Shelf



7, 8. Portable air change meter



9. Stacking option



10. Upward exhaust port option





*Specifications are subject to change without notice.*

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