

SHOCK MACHINE

ASQ series

Automatic Square Drop Shock Tester ASQ-500, 700, 900, 1100, 1500, 2000

ASQ is the best application shock machine which not only can apply half-sine wave, but also trapezoidal wave. Damage Boundary Curve will also be described from this testing system. In addition, this model has a "Multi-shock pulse generator", to generate multi shock test conditions, changeable shock durations, by a single programmer.

Features

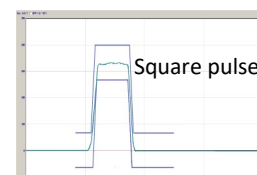
- Half-sine and Trapezoidal pulse generator
- Multi shock pulse generator
- Simple setting by auto-control system
- Damage Boundary Test
- High Reproducibility
- Easy Maintenance for Long Term Usage
- Set-up by Double-Layered Shock Absorber

Compliance Standard

- JIS C 60068-2-27, Z 0119-94, Z 0202-94
- MIL-STD-810E-89 516.3
- IEC 60068-2-27
- ASTM D3332, D5487



ASQ-1500



Specification

Model	ASQ-500	ASQ-700	ASQ-900	ASQ-1100	ASQ-1500
Maximum drop height (mm)	1500				
Table size (W × D mm)	500 × 500	700 × 700	920 × 920	1150 × 1150	1500 × 1500
Specimen max weight (kg)	75	100	200	300	500
Shock pulse	Trapezoidal and half-sine				
Acceleration range Half-sine (m/s ²)	5880 (600G) *1			4900 (500G)	
Trapezoidal (m/s ²)	1470 (150G)				1100 (110G)
Max. velocity change Half-sine (m/s)	7.6	8.4	7.5	5.9	5.0
Trapezoidal (m/s)	7.3	8.0	7.0	8.0	8.0
Pulse duration range Half-sine (ms)	2.5 / 6 / 11 / 20 (at single programmer) (optional Multi-Shock Generator: 4 to 25)				
Trapezoidal (ms)	6 ~ 60		6 - 55	6 ~ 60	
Size (W × D × H mm) *2	1300 × 700 × 2950	1600 × 900 × 3180	1800 × 1150 × 3240	2200 × 1300 × 3300	2500 × 1800 × 3300
Weight (kg) *2	1800	4170	5800	9000	15000
Seismic base	Pneumatic spring and hydraulic damper device				
Brake mechanism	Pneumatic-hydraulic friction brake system				
Controller	a. Operation control (security) b. Automatic operation setting control section c. Waveform measuring indicator d. Power supply & compressor				
Controller size (W × D × H mm)	575 × 750 × 820 *2				
Power supply	AC200V, 3 phase, 20A				

*1 using a single programmer at 2.5 ms

*2 by normal spec.

* (Available for customization) The above are standard specifications. Please contact us if you have any request to customize.



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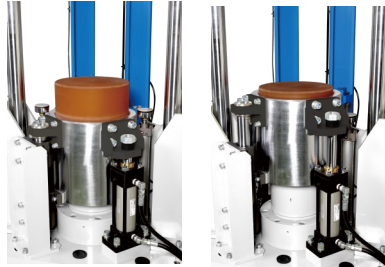
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Option for SHOCK MACHINE (ASQ / MDST / SDST)

Multi-shock Generator System (ASQ/MDST only)

This system makes it possible to apply wide range test conditions by controlling the height of rubber automatically. Although this system is usually a manual changeable system, the automatic system can be selected upon request. This system will assist in conducting the shock test stress-freely.



"low-impulse generator" System

To apply low acceleration, this system controls drop speed of drop table by making it slower. It generates lower acceleration which can hardly be applied by standard models.

High speed lifting system

By implementing the high speed lifting system via wire and electromagnet, the test cycle becomes almost twice quicker than the standard model. For large amounts of continuous test, this contributes to shortening the time to test effectively.

Customizable table size

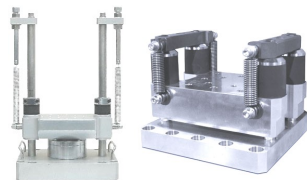
For various specimen sizes, we can customize the table to a larger size while taking into consideration the whole balance. Our record for the maximum size is 2000×2000mm.

Specialized Programmer for Drop Test of Packaging

Short duration programmer with less than 3msec is selectable optionally. The equivalent drop test for packaging, based on ASTM D5487, via the shock machine can be conducted using this programmer.

Shock Amplifier, HGP series

This device can generate the high amplitude shock pulse by collaborating with the shock machine. There are 2 type of amplifier, HGP-20 up to 5,000G with 0.2ms duration, and HGP-120 up to 30,000G with 0.1ms.



HGP-20

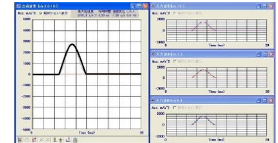
HGP-150

Shock Manager SM-500

It can contribute to the measurement and analysis of shock test. It is able to incorporate a max of 10 channels of accelerometers* and assist in monitoring its test result. With useful functions like SR and SRS analysis, it can analyze various specimens.



- User-Friendly Operation
- Multi analyzing functions



- *10 channels for only the piezoelectric or build-in amplifier type
- 5 channels each for the piezoelectric and build-in amplifier type (Total 10 channels)

Safety Installations

The test should be carried out not only correctly, but also safely. These installations contribute in assuring its safety.

- Safety Fence (soundproofing)
To lower external noise levels and prevents injuries during tests. It covers the whole tester. When the door is closed, those risks would be reduced.
- Signal Light
Its color changes corresponding to the action at that point of time. These changes can announce the situation of tester to whoever is around the tester.
- Safety Mat Switch
This mat surrounds the tester and stops the movement when anything is on it. Its size and quantity can be arrange as per required.
- Photoelectric Sensor
It detects anything that cuts off its photoelectric range. These sensors need minimal space to install and keeps high sensitivity.



Safety Fence

*Available to apply either requirement.