# **SHOCK MACHINE**

## Single-Drop Shock Testing System SDST-300, 500, 700, 900, 1100, 1500

SDST is specialized for carrying out some specified shock test conditions by simplifying the programmer system. This tester can apply various conditions by changing the programmer just by replacing it. This is the simplest model in our shock machine series.

#### Features

- High Reproducibility
- Easy Maintenance for Long Term Usage
- Easy-to-Use Test Settings
- Simple Setting by Simple Construction
- Set-up by Double-Layered Shock Absorber

### **Compliance Standard**

- JIS C 60068-2-27
- MIL-STD-810E
- IEC 60068-2-27
- JIS Z0202, ASTM D5487 (with optional programmer)

## Specification



**SDST** series

SDST-1500

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Model	SDST-300	SDST-500	SDST-700	SDST-900	SDST-1100	SDST-1500
Table size (mm)	300 × 300	500 × 500	700 × 700	920 × 920	1150 × 1150	1500 × 1500
Specimen max weight (kg)	50	80	100	200	300	500
Shock pulse	Half-sine					
Acceleration range (m/s <sup>2</sup> )	100 ~ 3000 (10 ~ 300G)					
Pulse duration range (ms)	3/6/11/20					
Size (W × D × H mm)	1100 × 640 × 2300	1300 × 700 × 2400	1600 × 900 × 2900	1800 × 1150 × 3200	2200 × 1300 × 3300	2500 × 1800 × 4100
Capacity (kg)	900	2500	4000	5000	9000	12000
Controller size (W × D × H mm)	520 × 400 × 950					
Power supply	AC200V, 3-p	hasese, 10A	AC200V, 3-phasese, 15A AC200V, 3-phase		hasese, 20A	

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



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# **Option for SHOCK MACHINE ( ASQ / MDST / SDST )**

## Automatic System of "rubber-height changeable device" (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-150



HGP-20

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#### 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

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\*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 pre vents 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 Fence

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.

\*Available to apply either requirement.