# SHOCK TEST APPLICATIONS FOR BATTERY TESTING

### KOKUSAI FULLY ELECTRIC SERVOMORTOR DRIVE SHOCK TESTER

The most important feature of the servomotor is its precise positioning controllability. Therefore its typical application is in precision machines and industrial robots. The AC servomotor debuted in the 1970s was subsequently used in applications for NC control and the robotic industry and now advanced to be the leading player of variable speed motion drive systems in the factory automation field. Kokusai has accumulated abundant servomotor control technologies through long years of manufacturing servo drive dynamic balancing machines. Kokusai offers servomotor control testers with high precision controllability, high motion response and a highly ecological performance.

Reproducing

Real Environment Time Efficiency

Quick Start ECO Low Consumption

## Variety of shock testers depends on your battery size

SMALI



#### ➤ HST150/60 Impact Type

Table size	600 x 600 mm
Max. payload	150 kg
Shock duration	Max. 15 ms
Max. acceleration	150G peak - 6ms @ 50kg payload 50G peak - 11ms @ 50kg payload
Respected standards	ECE-R100 P2 UN38.3 GBT31467.3



## ► HST500/150 Impact Type

Table size	1500 x 1500 mm
Max. payload	500 kg
Shock duration	Max. 25 ms
Max. acceleration	150G peak - 6ms @ 150kg payload 50G peak - 11ms @ 150kg payload
Respected standards	ECE-R100 P2 UN38.3 GBT31467.3



## MEDIUM



V D G E

#### ► HST1000/1800 Impact Bulk-head Type

Table size	1800 x 1800 mm
Max. payload	1000 kg
Shock duration	Max. 20 ms
Max. acceleration	150G peak - 6ms @ 350kg payload 50G peak - 11ms @ 350kg payload
Respected standards	ECE-R100 P2 UN38.3 GBT31467.3





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### NEW DEVELOPED ACCELERATION AND DECELERATION DUAL SHOCK TESTER

The system utilizes the same proprietary servomotor technology we use in our servomotor-based vibration test systems. The characteristics are extremely low inertia while maintaining high torque capabilities. By utilizing this technology to its fullest extent, we were able to build a machine allowing highly accurate reproduction of various kinds of wave patterns in addition to high test repeatability. It supports sled- as well as conventional deceleration-type shock testing through the use of a plastic programmer. This combination of functionality usually provided by two separate machines makes our system extremely versatile and space efficient.

Reproducing

Real Environment

Time Efficiency

Quick Start

Variety

of shock wave pattern



#### **Acceleration Shock**

Impact Acceleration: 1G – 50G Shock pulse duration: 5ms – 100ms

- High precision wave form reproduction and repeatability.
- Covers a wide range of shock accelerations.
- Thanks to our low inertia motor a precise simulation of various waveforms become possible in very short distance.

#### **Acceleration Shock**

Impact Acceleration: – 150G Shock pulse duration: – 11ms

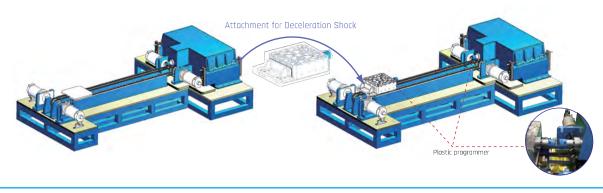
- Supports high speed testing through the use of the programmer.

Acceleration Shock

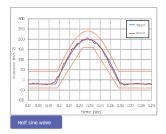


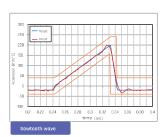


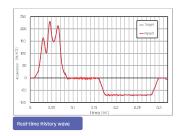
Deceleration Shock

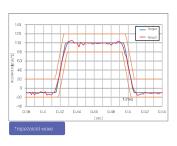


#### **ACCURATE REPRODUCTION OF VARIOUS SHOCK PATTERNS**











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