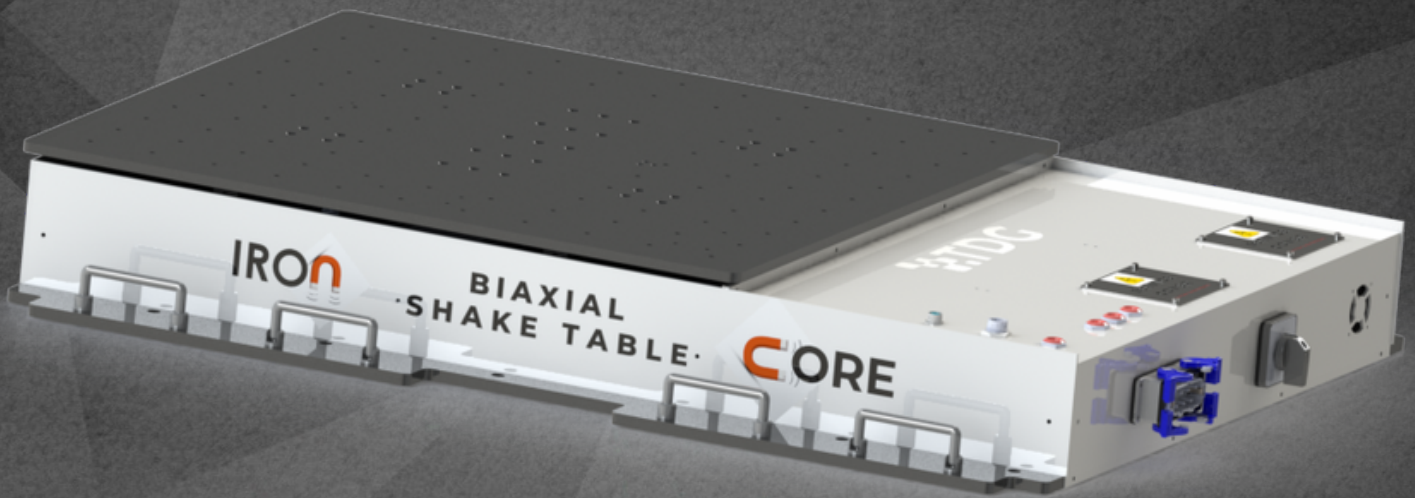


# TDG SHAKE TABLE BIAXIAL

## IRON CORE



SHAKE TABLE BIAXIAL IRON CORE is a linear-drive dual-axis earthquake simulator that allows users to test the stability and integrity of structures, equipment, and products under simulated seismic conditions. This unique product is capable of generating waves at speeds of up to 1000 mm/s.

In addition to its impressive speed and accuracy, SHAKE TABLE BIAXIAL IRON CORE also comes with EASYTEST SHAKE TABLE, user-friendly software that allows users to easily control and monitor the simulator. This software makes it easy to set up and run tests, as well as analyze the results in real time.

SHAKE TABLE BIAXIAL IRON CORE is ideal for testing the resilience and performance of structures, materials, and systems under simulated earthquake conditions. It is commonly used in the construction, engineering, and research industries for evaluating the performance of buildings, bridges, roads, pipelines, and other critical infrastructure during an earthquake.

One of the unique features of SHAKE TABLE BIAXIAL IRON CORE is its iron core linear motor, which provides a high level of precision and control over the simulated motion. This allows users to replicate a wide range of earthquake scenarios and test a variety of different materials and structures under different conditions. In addition to its powerful performance capabilities, the shake table is also designed for easy operation and maintenance. It features a user-friendly control panel and a durable and reliable construction, ensuring reliable and consistent operation over long periods.

## FEATURES

- Highest Control Resolution with Linear Motor
- Closed Loop PID Control
- Up to 100 kg payload (@±1 g)
- 75x75 cm Upper Table
- Velocity up to 1000 mm/s
- ±100 mm stroke (200 mm in total)
- Operational Frequency up to 20 Hz
- Anti-cogging technique for minimal cogging without magnet skewing
- High force density
- Stainless steel magnet way covers
- High position accuracy and resolution

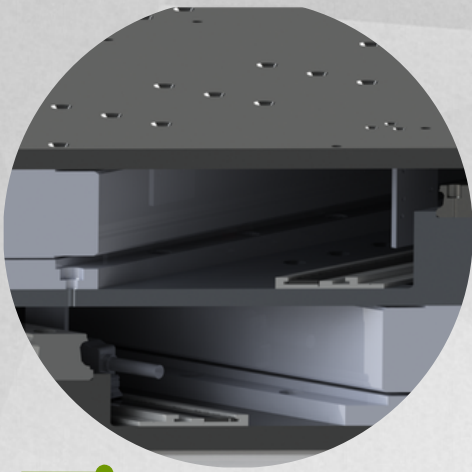
## ADVANTAGES

**High system dynamics**

**High Velocity Capability**

**Super Low Friction**

**No Wear or Maintenance**



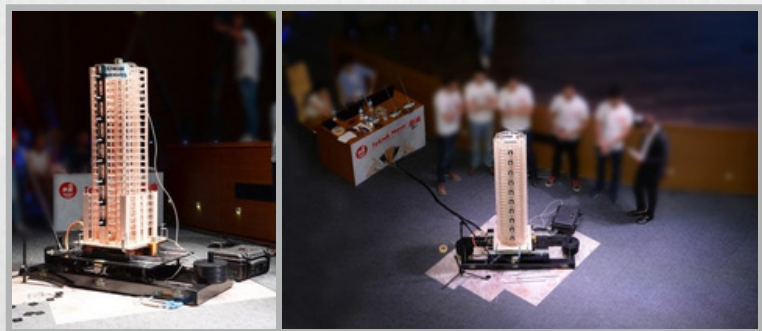
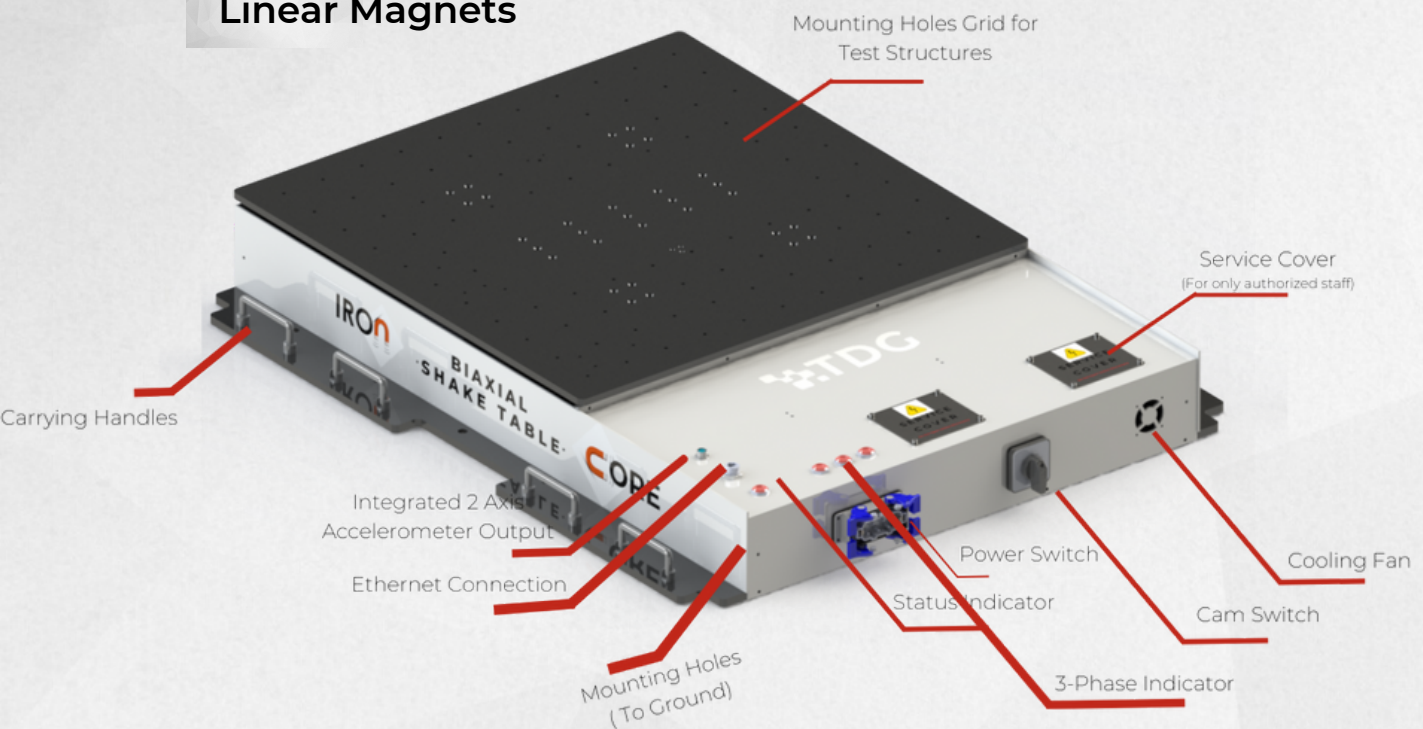
• **COMPACT DESIGN**



• **INTEGRATED LIMIT SWITCH FOR INCREASED SAFETY**

• **AUTOMATIC CENTERING / HOME POSITIONING**

**Super Low Friction  
Linear Magnets**

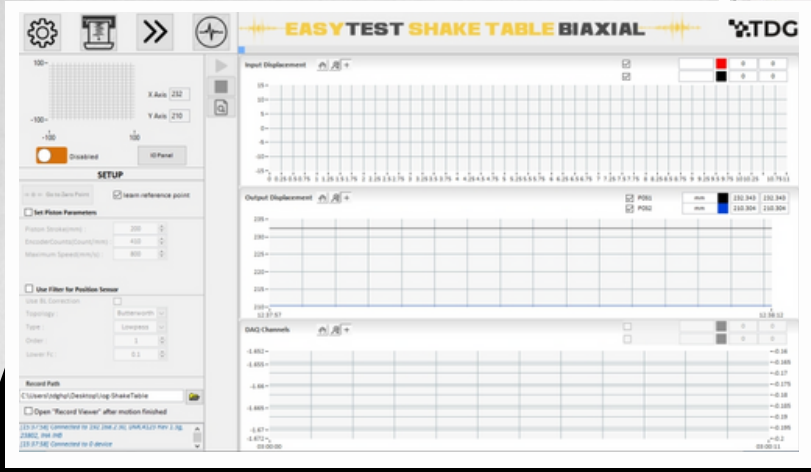
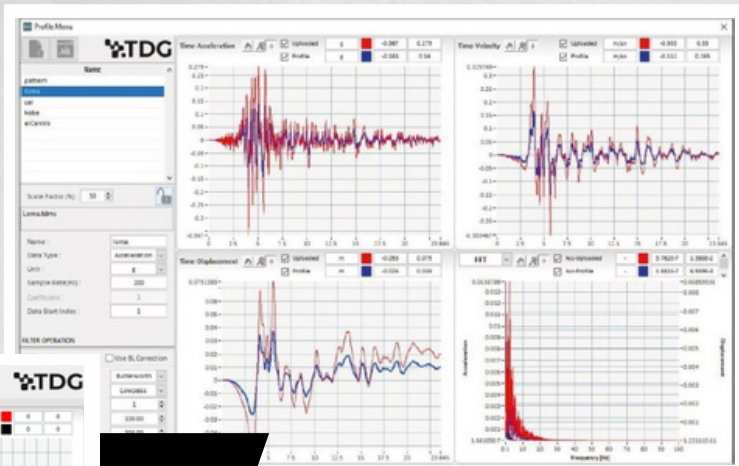


**CHOICE OF DASK (NATURAL DISASTER INSURANCE INSTITUTE) SINCE 2014**

TDG-SHAKETABLE is used as the earthquake simulator, together with TESTBOX2010 digitizer, SENSEBOX7001 accelerometer in "Earthquake Resistant Building Design Competition" organized by DASK, since it was first arranged at year 2014.

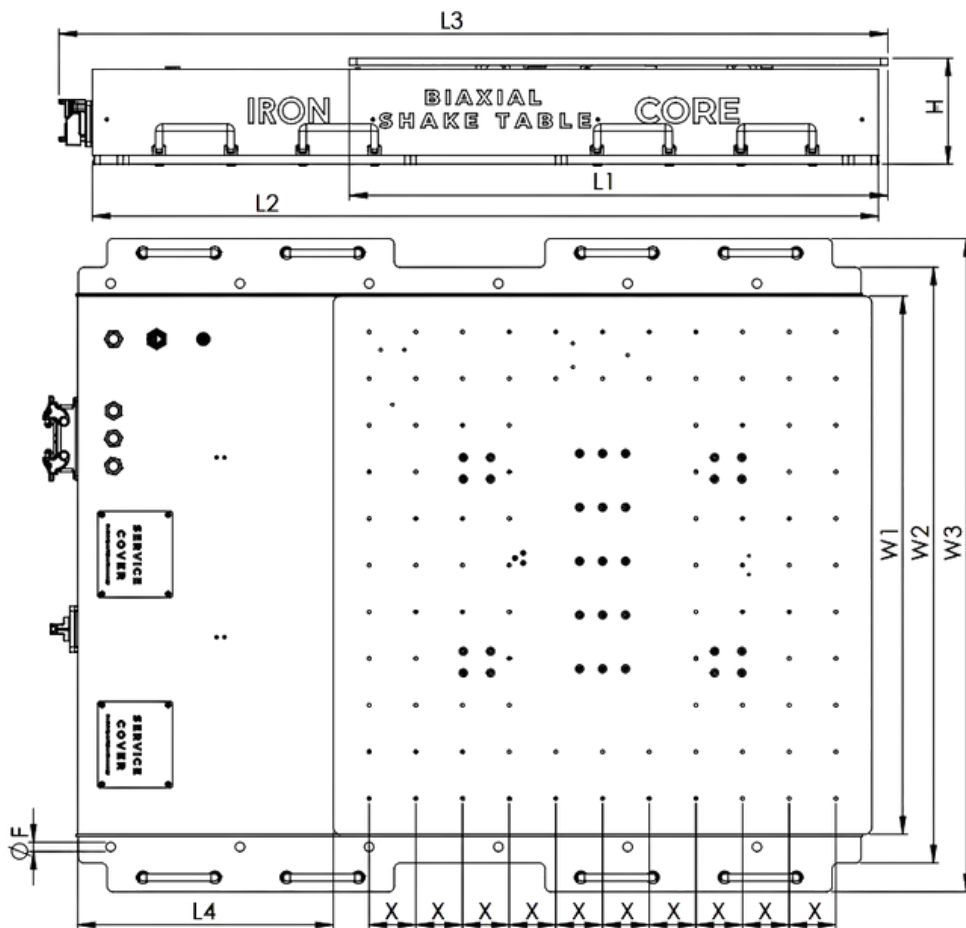
# EASYTEST SHAKE TABLE BIAxIAL

DAQ Support, Calibration, Filtering, Record  
 User-friendly Software  
 Uploading Real Earthquake Data  
 Automated Data-logging  
 Amplitude, Frequency Sweep, White Noise  
 Unlimited Profile Length, Continuous Operation



Real-time Monitoring & Detailed Analysis  
 Sine & Triangle, Sawtooth, Arbitrary Waveforms  
 Time Series, FFT, and Response Spectra Graphs  
 Save/Load Profile and Motion Parameters

## DESIGN of TDG SHAKE TABLE BIAxIAL IRON CORE



# TDG SHAKE TABLE BIAXIAL IRON CORE

## Technical Specifications

### Test Capacity

Degree of Freedom	Double
Movement Direction	Horizontal
Table Dimension	750 x 750 mm
Payload Capacity	100 kg @ $\pm 1g$ $\pm 4g$ @ < 10 kg
Velocity	1000 mm/s
Stroke	$\pm 100$ mm (200 mm)
Frequency	20 Hz

Controller	Closed Loop PID Controller
Position Feedback	Magnetic Linear Encoder
Acceleration Feedback	Integrated Accelerometer
Encoder Resolution	596 counts/mm

### Physical&Environmental

Overall Dimensions	1155 x 910 x 150 mm (L x W x H)
Weight	96 kg
Operating Temperature	0-50 C

### Power&Electrical

Mains Connection	400-480 V AC, 50-60 Hz
Pc Connection	Ethernet
Power Consumption	4 kW Max

### Certification

CE	Valid for all versions LVD (2014/35/EU) EMC(2014/30/EU) TDG Calibration Lab Factory Calibration Certificate
Caliibration	

### Software

EasyTest Shake Table BIAXIAL	Developed by TDG Included in the package
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Scan to see the action!

