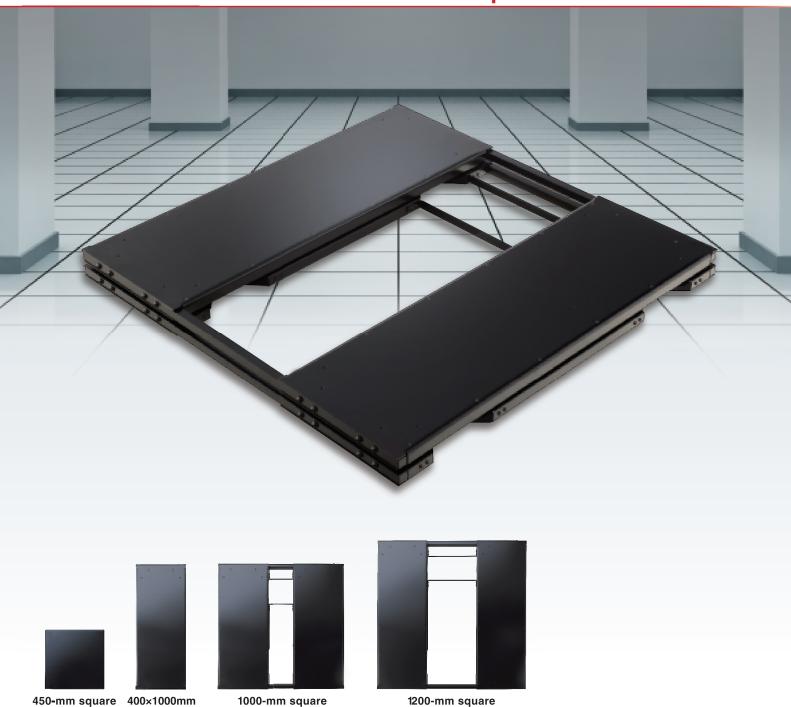




for server computers and other vital devices

Seismic Isolation Table Model TSD

To help ensure business continuity when earthquakes strike



Seismic isolation tables for earthquake protection. Easily installed, they are your first line of defense to ensure business continuity.

It is vital to take concrete step in business continuity, rather than shaping large-scale plans without implementing them. THK seismic isolation devices are deployed in a wide array of settings and situations to help protect vital devices.

To enable the rapid resumption of core operations in the aftermath of a destructive earthquake, a business must have measures in place to secure the necessary personnel, goods, financial resources, and information. In the quest for a comprehensive strategy, however, practical measures may be postponed or overlooked. The implementation of an effective practical measure—deploying easily installed Seismic Isolation Tables to protect vital assets—is your best option: the crucial first step toward ensuring overall business continuity.



Data center

Preserving vital data is the key to rapid recovery of business operations following an earthquake. You can protect your vital data from earthquakes by deploying Seismic Isolation Tables Model TSD in your data centers, in configurations sufficient to safeguard all data-storage devices.

TSD-1200: 4-module configuration.

Trigger-A attachment

Server computers

Seismic Isolation Tables Model TSD can be easily connected and configured to accommodate a single server computer or multiple servers, providing essential protection for vital data in the event of an earthquake.



Antiquities and artworks

The biggest threat to statuary and other artwork of historical value is the danger of toppling in an earthquake. The use of Seismic Isolation Tables Model TSD is a highly effective preventive measure.



TSD-1200 statue of the wooden god of a national treasure (Ganjojuin temple, Japan)



TSD-1000
"Warrior of Capestrano" Naples National Archaeological Museum, Italy.

Optical devices and other precision instruments

If an optical device or precision instrument is damaged, considerable time can be lost waiting for repairs and resumption of service. Seismic Isolation Tables Model TSD are easily installed and offer highly effective earthquake protection, essential for ensuring business continuity.



TSD-1000: 4-module configuration.

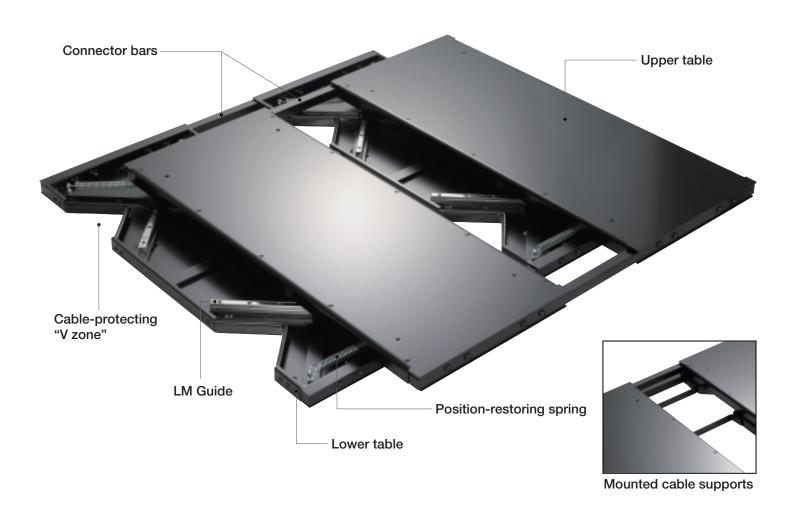


TSD-1000:

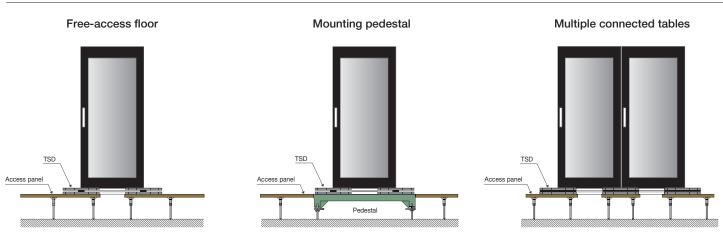
TSD-450: Microscope.

Seismic Isolation Table Model TSD: Technical data

Structure



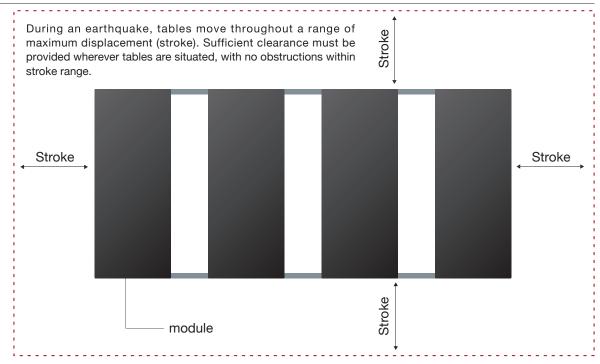
Sample configurations



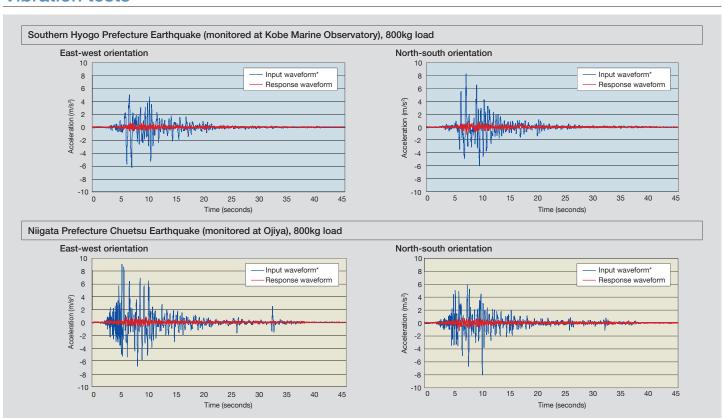
The Model TSD is easy to set up—simply place it on the floor.

No special construction is required. Tables are easily connected and almost any configuration can be expanded to handle a larger load.

Required clearance



Vibration tests



^{*}Input waveform: Acceleration rate for top surface of shaking table.

Response waveform: Response acceleration rate for top surface of TSD.

Seismic Isolation Table Model TSD: Technical data

Dimensions and specifications

	Basic type	
Model	TSD-450	TSD-400
Dimensions	450	8-M8 400 000't
	80	06
	450 (W) × 450 (D) × 80 (H)	400 (W) × 1,000 (D) × 90 (H)
Seismic isolation effect	Acceleration of 0.2G or less in response to input acceleration of 0.8G	
Maximum displacement	-	±200mm on x - y axis
Load	30kg - 100kg	50kg - 150kg
Orientation		Horizontal

^{*}For loads exceeding 800kg, please consult THK.

20kg

Standard accessories

Table weight

①Instruction manual ②Rubber mats ③Marking tape ④Wire (sleeves included) ⑤Hex. bolts, washers ⑥Cable supports (set screws included) ⑦Hex. wrenches Note: TSD-450 comes with accessories 1 and 3 only. TSD-400 comes with accessories 1 though 5 only.

Consult the manual for instructions on using accessories.

Optional accessories

Trigger for TSD (stadby lock mechanism)





45kg

Trigger-A

Trigger-B

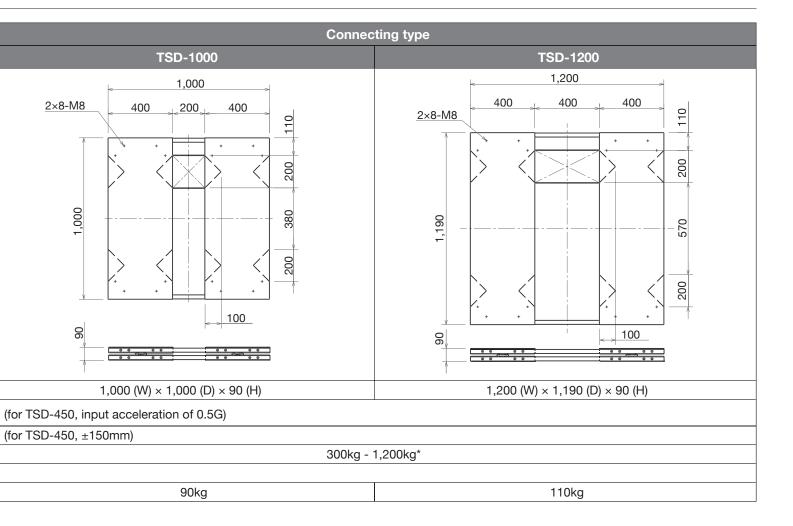
Trigger-A, Trigger-B

Both types unlock in response to seismic motion. Either type can be attached to a table already in place (excluding the TSD-450).

- Trigger-A is designed for repeated use; at least two must be attached. Trigger-A is relocked manually after the table has completed its motion.
- Trigger-B, made of plastic, is designed for one-time use only. At least four must be attached, all of which must be replaced with new locks after the table has completed its motion.

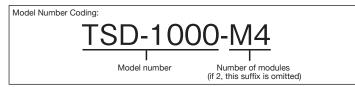
Note: The optimal number of locks is determined by the weight of the load—please consult THK for further details.

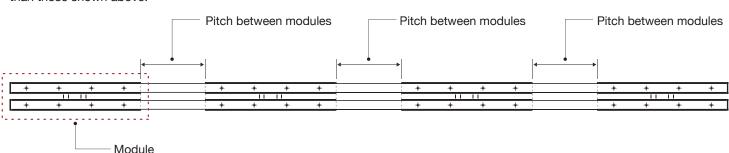
THK offers four types of Seismic Isolation Tables Model TSD for a variety of applications. Additional modules can be added to the TSD-1000 and TSD-1200 for expanded coverage, and the pitch between modules can be adjusted as needed.



Connecting modules: TSD-1000 and TSD-1200

With TSD-1000 and TSD 1200, more modules can be added to accommodate larger loads. The pitch between modules can be adjusted in 50mm increments within a range of 200 to 400mm. Consult THK for details on configurations for dimensions other than those shown above.





TIHK Seismic Isolation Table Model TSD



Safety precautions

Use of Seismic Isolation Tables

- Please read the instruction manual carefully before using the Seismic Isolation
- · Do not dismantle or attempt to modify the Seismic Isolation Table. Any such action could cause the table to malfunction.
- · Seismic Isolation Tables are designed for indoor use only.

Setup

- To prevent the possibility of injury during an earthquake, make sure there are no objects within the table's range of motion (the maximum displacement stated in the catalog) and that all personnel stay clear as well.
- To ensure proper performance, make sure the table load is within the weight range stated in the catalog. Do not load the table with any object that has a high center of gravity or that would topple if pushed.
- For proper seismic isolation, the table must be placed on a level, even surface; placement on a slanted or uneven surface could cause misalignment, undue strain or irregular movement. When dealing with slanted or uneven surfaces, please obtain professional assistance or consult your local distributor.
- Position the load so that its center of gravity is situated over the center of the table. Improper positioning of a load or loading of objects that are outside the stated weight range could result in an unstable load and adversely affect the
- Make sure the table is locked in place with the anchoring hardware before loading any object onto it. Make sure the table is locked before operating any device loaded onto the table.

During an earthquake

- If a seismic tremor occurs, move away from the seismic isolation table immediately to prevent any possibility of injury through accidental contact with the moving table.
- If an earthquake of intensity-level 6 or greater (on the Japanese scale) occurs, review the post-setup checklist in the instruction manual following the earthquake and follow the directions provided.

Warranty

- (1) This product is designed to attenuate horizontal seismic motion; it is not intended to be effective against vertical seismic motion. This table will reduce the effect of tremors on an object loaded onto it, but there is no quarantee that the object will not move or topple
- (2) In the event of seismic motion stronger than this product is designed to absorb, the table can be expected to strike the stopper, exerting an impact on any object atop the table.

Warranty period

The warranty period is one year from the date of delivery.

Scope of warranty

This warranty covers repairs to or replacement of a Seismic Isolation Table. It does not cover accidental damage, loss of business profits, interruption of business activities, loss or alteration of data, or the like, arising from the use of this product or due to the product being out of service.

Disclaimer

THK is not liable for any Seismic Isolation Table malfunction arising from any of the

- Tsunami, lightning, flooding, fire, or another such accident or disaster.
- Damage to or collapse of a building due to an earthquake.
 Damage caused by the actions of a third party, intentional or unintentional misuse of the product by the customer, or use of the product under abnormal
- Loading of an object that is not within the table-load weight range stated in the product specifications.
 Seismic input exceeding the product capacity stated in the specifications or
- input exceeding the maximum displacement stated in the specifications
- Damage to an object located within range of the table's maximum displacement or caused by the presence of an object that obstructs the table's movement.
- Loading of an object that does not conform to the stated restrictions concerning
- Placement or setup of a Seismic Isolation Table other than in conformity with the instructions for correct placement and setup set forth in the instruction manual.

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