Herz - creating the most stable environment for measurement.

Support stand for improving the Vibration Isolation performance of the TS series...

An Active Vibration Isolation System controls transmission of vibrations with amplitudes from a few micrometers to several hundred micrometers. If your bench or table is not rigid, it will reduce the isolation performance of the







system offers optimal performance

Mounting Plates with Drilled and Tapped Holes Available



At left, you can see a TS mounting plate with an M6-25mmXY grid of drilled and tapped holes. The mounting plate consists of a paramagnetic stainless steel plate and an aluminum plate bonded together. These plates are available for all four models of TS. We can also drill custom hole configurations to the customers specifications. Certain tap sizes may not be available. Please ask if you are interested in a specific degree of surface precision.

Specifications

Model	TS-140	TS-150	TS-300LT	TS-300
※ Format	TS-140∕TP25	TS-150∕TP25	TS-300LT/TP25	TS-300∕TP25
System configuration	Fully integrated system			
Active control range	About 0.7Hz - 100Hz (Passive isolation beyond 100 Hz)			
Adjustment for environment	Automatic gain and offset adjustment			
Load adjustment	Automatic load adjustment feature			
Locking Mechanism	Automatic Lock Dow n feature for use in transporting the system			
Vibration level monitoring	Real-time vibration levels are displayed on the front display.			
Mounting plate size	500×600mm	400x450mm	600×800mm	
Overall dimensions (Approx.)	500x600x84Hmm	400x450x78Hmm	600×800×121Hmm	
Load Capacity	100Kg	100Kg	90kg(均等)	230kg
System weight	About 29Kg	About18Kg	About55kg	About60kg
Electric supply source/voltage	100-230VAC±10% 50-60Hz			
Power consumption	Normal 10W, 50W maximum (70VA)			
Operating temperature limits	5°C~40°C			
Operating humidity limits	$10 \sim 90\% (5 \sim 30^{\circ}C) \cdot 10 \sim 60\% (30 \sim 40^{\circ}C)$			
Indoor / Outdoor Use	Indoors only			
Operating altitude limit	Less than 2,000m			
%TP25 mounting plate material	The surface of the mounting plate is paramagnetic stainless steel SUS410.			
Unpainted brushed steel finishing	The machined mounting plate with M6/25XY mm matrix. Effective depth of the tap is 6mm			
Accessory (2)	Remote on/off sw itch.			
Accessory (3)	Ultra rigid support frame with built-in damping (Extra charge for custom sizes)			

*The specifications of the TS Series are subject to change without notice.

Other Products

- Acoustic enclosures AEk Three dimensional vibration isolation - TDI series
- Active vibration isolation series TS, AVI

HERZ CO., LTD.

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Active Vibration Isolation System from Table Stable







The ultimate isolation for high precision imaging, inspection, and metrology instruments.

Active Vibration Isolation System

We are the exclusive distributor in Asia (w/o India and Australia) for products from Table Stable Ltd. (Switzerland).

Herz Co.,Ltd.



Today's demanding applications require isolation in the low frequency range at 5 Hz and below.

The TS is an advanced, fully-automatic vibration control system with turn-key installation.

TS-140.TS-150.TS-300LT.TS-300

Active isolation in six degrees of freedom, from 0.7 Hz to 100 Hz. The TS features automatic load adjustment which maintains height and level

with an instrument loaded on top.

The TS System offers great performance in a compact, lightweight package. It is an extremely high value-added vibration control system.

The 21st century is the age of nanotechnology. This is represented by semiconductor and information technology. genetic therapy and biological breakthroughs, micromachines that are assembled on the molecular or atomic level, and new materials synthesized by manipulating atoms. Nantotechnology is changing every industry from high level research to basic production. So these industries must develop environments that can effectively use nanotechnology. Measuring environments can be disturbed by vibrations, noise, magnetic fields, heat, humidity, and air movements. Of these, vibrations are the foremost cause of disturbance. Because air tables can not isolate low frequency vibrations, these vibrations may reduce the reliability of your results. So we are proud to off the TS series as The High Performance Solution... the premier isolation system for the 21st century. Through continuous development, the TS will soon become the standard of the Nanotechnology Age.

The Compact Solution...

The TS is a low profile isolation system. It offers cutting edge performance in a compact package. Depending on your application, it can be used on the tabletop or can be integrated into your existing setup. It can support loads up to 230 kg.

The lightweight solution...

The TS system is lightweight, starting at only 18 kg. This makes it extremely easy to move and place whereever you need it.

The Easy to Use Solution...

The TS provides auto leveling upon the instrument being loaded or moved. So it will maintain stability even when the load is off center.

When an instrument's center of gravity is high, passive air isolation systems often struggle to achieve balance. However, the TS uses a coil spring so it can easily and quickly compensate for high center of gravity loads.

The TS offers an automatic lock down feature to protect the system while being moved or transported. This feature can be activated with the push of a button.

The front display shows real time vibration levels in X, Y, and Z. This provides feedback on vibration levels and diagnostic information on performance of the isolation. You can also monitor the accelerometer signals by connecting an oscilliscope to the BNC connector on the back of the system.

The TS is also available with a remote switch that activates/deactivates the active isolation. (Sold separately)

TS series actively isolates from 0.7Hz to 100Hz in all six dearees of freedom.

Transmissibility of the TS -150



the TS System

Performance of The following data is a comparison of vibration levels on the TS -150 and on the table of a precise positioning machine. The data clearly shows the high level of isolation that the TS offers.



Example of Vibration Isolation performance of THE TS Series...

These images were taken with a Zvgo NewView 5000 3D surface profiler while loaded on a TS-300. The first image shows imaging done while the active isolation is off (passive isolation only. Diagonal ridges, caused by vibrations, are clearly visible. (Upper image)

The second image was taken with the active isolation turned on. The image is not affected by vibrations at all. (Lower Image)



Typical Applications...

The TS system can increase the reliability and repeatability of your precision instruments.

For example. Scanning probe microscope in air Small interferometer / A three-

An LB film generator / Electrophysiological instrument etc.



It was well known that ultra-high resolution measurement and evaluation instrument are easily affected by vibrations, but it has become clear that acoustic disturbances must also be considered.

We have developed the AEK acoustic enclosure for ultra-high resolution applications like SPM imaging of atoms and molecules. The combination of the AEK and the TS provides the quietest environment possible for sensitive instruments.



Japan Inc

support stand for AFM (Right) This support offers damping and does not make extraneous resonances that could interfere with the TS's



performance

dimensional non-contact surface profiler / micro hardness tester / beam spot measurement Laser Doppler measurement instrument for micro displacement / magnetic halance / Ultramicrotome /

Photo by Tec corporation Photo by Morita laboratory in Osaka University