

Isostage

Active Vibration Isolation System

300

Active vibration isolation in all six degrees of freedom

Can be used with any Nanosurf AFM and STM system

Spike-Guard for disturbance-free images



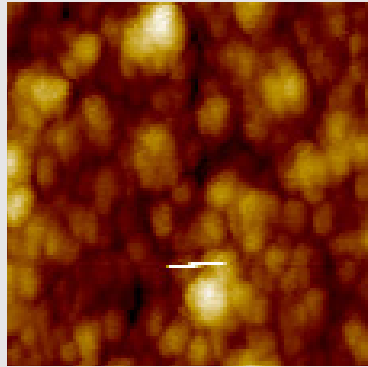
Isostage 300 — Active vibration isolation system for AFM

The Isostage 300 protects all your measurements against vibration disturbances. It can directly host standard Nanosurf AFM sample stages, and is available with adapters for the NaoAFM and NaoSTM. Isolation begins at 1 Hz and reaches 99.0% isolation (−40 dB) at 15 Hz.

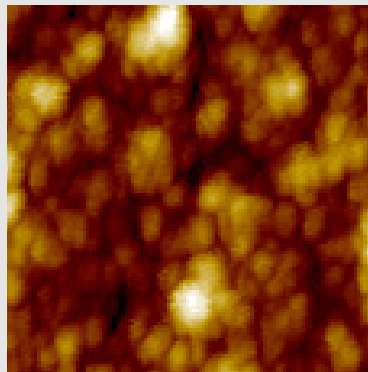
The unique Spike-Guard feature of the Isostage 300 eliminates glitches during AFM imaging when coupled with a Nanosurf C3000 AFM controller. Although any vibration isolation system will compensate for regular environmental vibrations, glitches can still occur when disturbances become too severe (e.g. when someone accidentally hits the table that hosts your AFM). Spike-Guard detects such anomalies and directs the AFM software and controller to automatically rescan the line for a disturbance-free image. You won't find this functionality anywhere else!

Key features

- Active vibration isolation in all six degrees of freedom
- Can be used with any Nanosurf AFM system
- Spike-Guard for disturbance-free images



Spike-Guard OFF



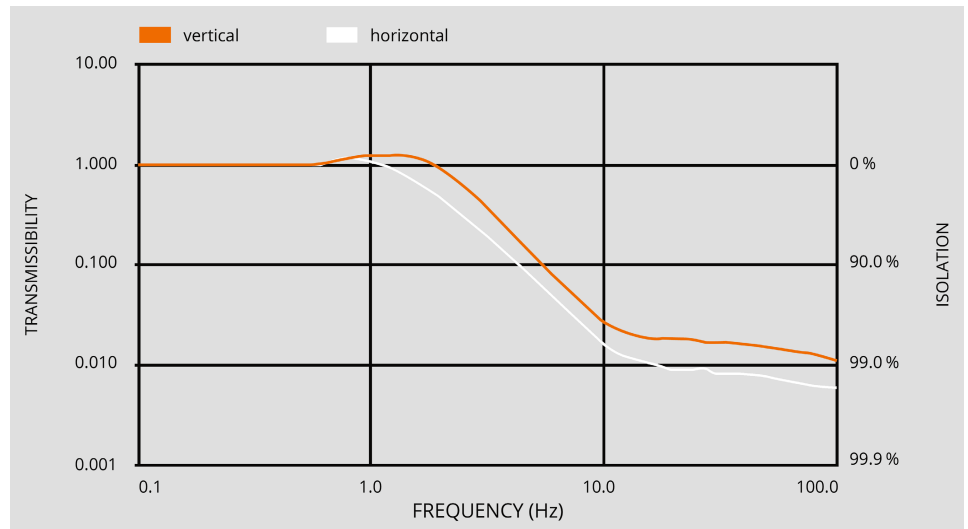
Spike-Guard ON



Spike-Guard automatically eliminates glitches during AFM imaging by rescanning affected lines for a distortion-free image.

Specifications

Active bandwidth	1.0–200 Hz (passive isolation above 200 Hz)
Max. correction force	± 8 N vertical / ± 4 N horizontal
Max. compensation level	55 μm/s at 2 Hz and 8 kg / 350 μm/s at 6 Hz and 8 kg
Load capacity	2–12 kg / 10–20 kg
Settling time	300 ms
Stroke of actuators	1 mm
Weight (table/controller)	9 kg / 2.5 kg
Dimensions (table/controller)	300×300×85 mm / 204×204×90 mm
Operating temperature / Relative humidity	16–40°C / 0–60%
Electrical Voltage / Power consumption	100–250 VAC (@ 47–63 Hz) / 50 VA (typical)



Transmission graph of the Nanosurf Isostage 300. Measurements were performed with a velocity of 100 μm/s and a payload of 8 kg (17.6 lbs).

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