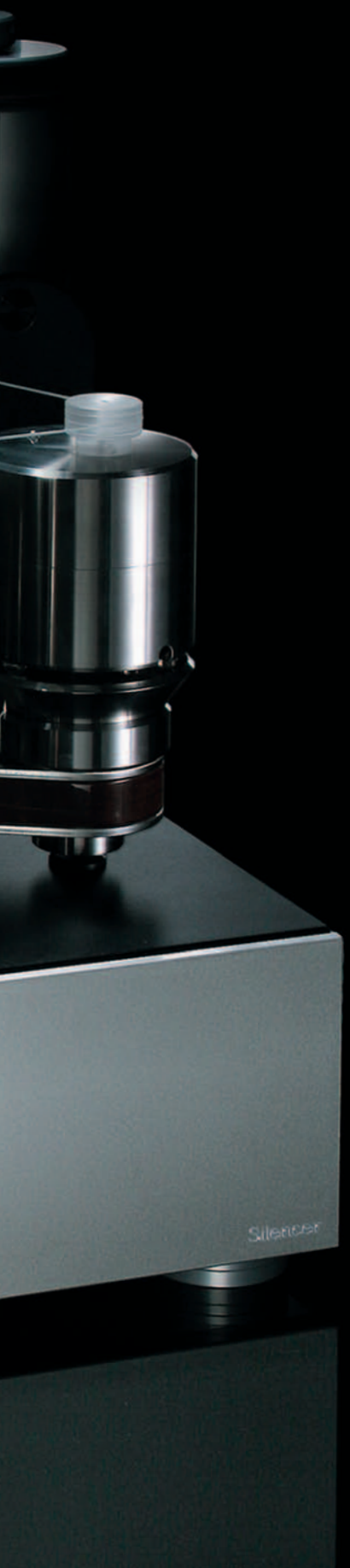
Silencer

Ultimate Perfection in Vibration Isolation

ACCURION

Nothing but Sound



Silencer – Pure Music

People who possess high-end audio systems are fastidious. They demand an absolutely authentic rendition of their music. The Silencer takes you one gigantic step closer to this goal.

The disturbing influence of vibration has its origins in buildings, in people moving through the room and also in airbourne sound input from the loudspeakers. All these sources of disturbance lead to a distorted rendition of audiosignals. The Silencer's active damping system suppresses these disturbances masterfully, delivering spectacular results that are simply not available with passive vibration isolation systems.

The Silencer focusses on high grade, analog record-players, CD-players, power amplifiers as well as other audio components sensitive to vibration. And it offers you a new kind of absolute sound – the ultimate listening experience!

Technological Elegance

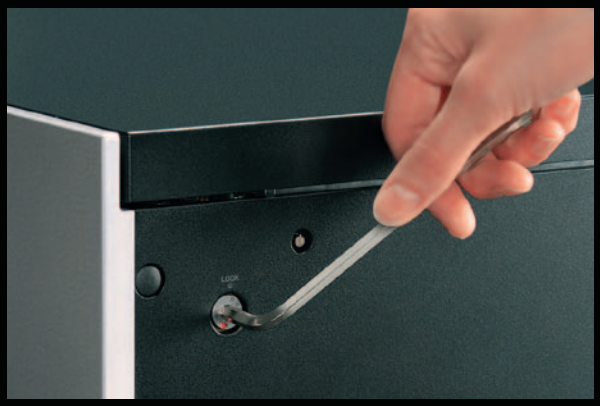
High-Tech for Ultimate Listening Pleasure

The Silencer is something of an understatement. It's sophisticated metal surface is only interrupted by one single switch on the front panel. LEDs alone hint at its inner activities: ultra-fast control engineering absorbs vibration amplitudes in the micron-area. In recent years, this technology has become an essential part in modern, nanotechnological applications. And now the Silencer is introducing it to the high-end audio world!

Technology in Detail

Installation – The Easy Way is Best

Although it's filled with high-tech, the Silencer is easy to install and operate! It requires a stable installation location and electricity. Uneven surfaces can be balanced out with the adjustable housing leg. The most important thing is to adjust the Silencer to the weight of the application. The handy Allen wrench that comes with the Silencer is perfect for this. And it doesn't take longer than 2 minutes!



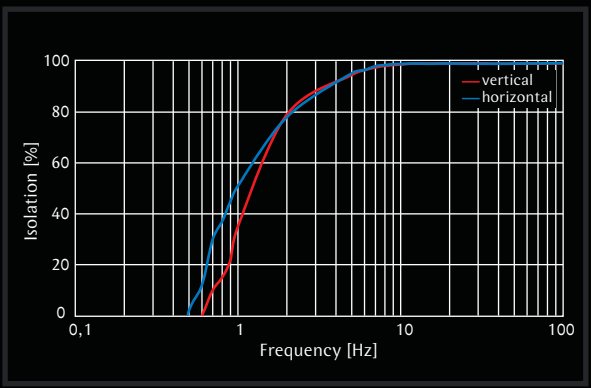
So that's it: unpack, connect, put the record- or CD-player or another device on top, adjust – go! Enjoy the amazing sound!

Active Vibration Isolation

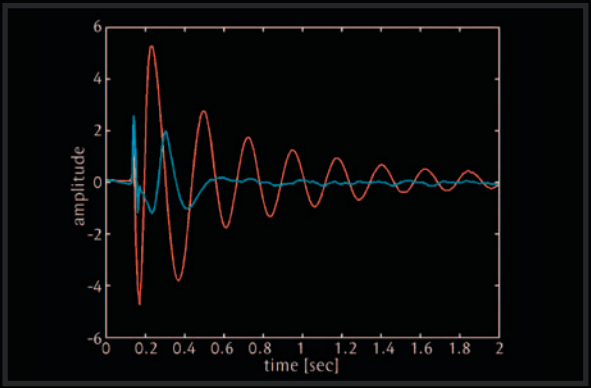
Silencers contain sensors and actuators that are joined as axes mechanically to eachother. Vibrations occuring on the upper plate are measured and processed in a fast, analog control loop. An amplifier controlling electrodynamic actuators creates correction forces that compensate for the incoming vibration. This leads to short response- and settling times as well as highest vibration isolation!

Compared to a passive isolation system, the Silencer has a great advantage. By using dynamic powers of correction, pulse excitations can be dampened much faster than possible with any passive spring-mass combination. Passive systems continue to oscillate for a longer time. Furthermore, all passive pneumatic isolation systems suffer from their resonance frequency behaviour. This low frequency resonance typically ranges from 1 to 4Hz. In that particular frequency range a passive system ends up amplifying vibration – instead of dampening it!

The Silencer doesn't have these kind of problems - it works without low frequency resonance. Thus, it is able to provide a sound experience never achieved before!



Vibration Isolation: The Silencer Performs.



Settling time: The Silencer (blue) surpasses conventional, passive vibration isolation system (red).

Table of Specifications

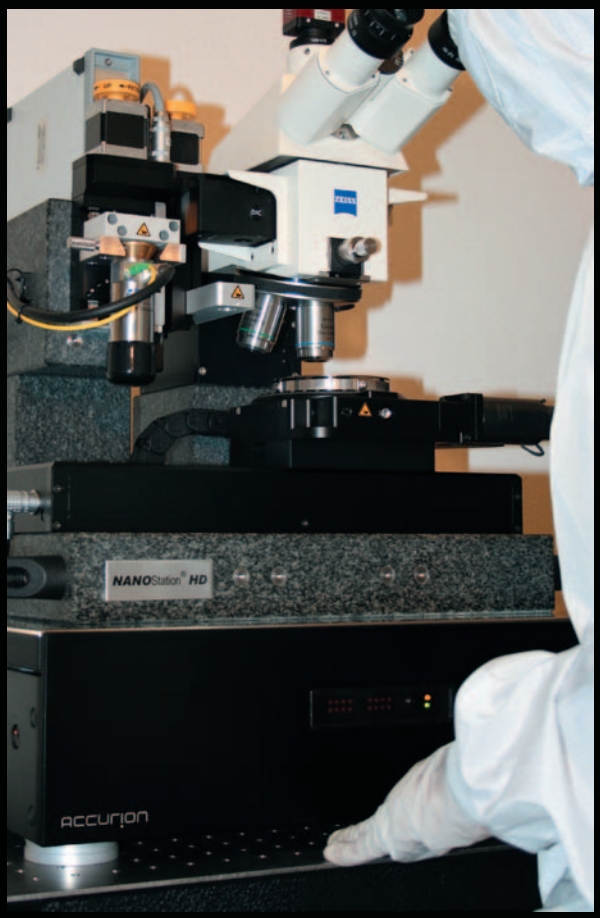
Dimensions and Weight	
Outer dimensions	484 x 432 x 144 mm³ (W x D x H)
Weight:	32 kg (70 lbs)
Load capacity	90 kg (200 lbs) – for centered pay load
Technology	
Isolation principle	Spring-mass-system with coupled 8 sensor-actuator units, control circuit based on Sky-Hook principle
Force directions	All six degrees of freedom actively dampen
Bandwidth	0.6 to 200 Hz active › 200 Hz passive vibration isolation
Isolation performance	› 5 Hz = - 25 dB (94.4% isolation) › 10 Hz = - 40 dB (99.0% isolation)
Response time	5 ms
Settling time (for pulse exitation)	‹ 300 ms
Maximum dynamic forces	± 8 N in vertical direction ± 4 N in horizontal direction
Requirements	
Electrical voltage	100–250 V / 47–63 Hz
Electrical power	typically 10-20 W, max. 50 W
Teperature range (in use)	10 – 40 °C (50–104 F)
Humidity	0 – 60 %
Altitude (air-pressure)	‹ 2500 m (8100 ft)

State-of-the-Art

Technology Transfer

Accurion, developer and manufacturer of the Silencer, possesses specific know-how in vibration isolation gained through long-term experience and expertise. This technical expertise, otherwise implemented in modern nanotechnology, has paved the way for the Silencer.

Example: Atomic-Force-Microscope (AFM) used on a Accurion Semi 50. The Semi 50 is a special Accurion product version optimized for use in cleanroom environments in modern biotech- or semiconductor industries. The Semi 50 fulfils the highest demands for vibration isolation. Thanks to Halcyonics' active damping technology the AFM achives its highest image resolution (structures with sizes in the sub-nanometer range) even on the intensely vibrating floors of laboratories in semiconductor plants.



References

Awards:

- *Stereophile Recommended Component 2006 and 2007*
  (Products: MOD-1M plus & Micro 40)
- *Editor's Choice Award 2006 and 2007, The Absolute Sound, Harry Pearson*
  (Products: MOD-1M plus & Micro 40)
- *Stereotimes Most Wanted Component Award 2006*
  (Product: Micro 40)

Review:

"The Halcyonics Micro 40 has made a believer out of me. In every application I tried, the Micro 40 reduced distortion and improved musical detail retrieval and articulation. I could find no circumstance in which I could attribute negative results to this technology. ... I suspect that anyone able to try a Halcyonics product will be as surprised, and as pleased, as I was at the results. Highly recommended."
Will Wright, Positive Feedback Online, Issue 29

Accurion

Accurion was founded in 1996 as Halcyonics and is the leading company in the world for two specialised product lines: Halcyonics Active Vibration Isolation for any vibration sensitive application and Nanofilm Imaging Ellipsometry for surface metrology.

The company and it's know how for ambitious solutions in the field of active vibration isolation is acknowledged in research and industry. The applications vary from semiconductor industry to materials research and biotechnology. Accurion's headquarter is located in Goettingen/Germany.

Accurion enforce it's claim: best possible vibration isolation in sophisticated design. The Silencer combines the knowledge in a specialised high tech instrument for the audiophile connoisseur.

ACCURION

Accurion GmbH
Stresemannstr. 30
37079 Goettingen
Germany
Phone: +49 (0) 551 9 99 60-0
Fax: +49 (0) 551 9 99 60-10
info@accurion.com
www.silencer-audio.com