

Solid Tech's - Disc Of Silence



Solid Tech

With more than 15 years of experience in optimizing high end audio reference systems, we have developed and designed an audio support system that is not merely a carrier or holder of equipment, but rather an important component in the system. By implementing highly efficient isolation and resonance control system, we allow the audio system to unhindered reproduce all the emotional and expressional qualities of the music, combined, this make listening a truly High-End experience.

Nowadays, most audiophiles are aware of the supporting materials influence (and the coupling to it) on the musical reproduction. Reason for that is the resonance response that all gear such as amplifiers, CD players as well as D/A converters are permitted to

generate, causing coloration and masking of the musical reproduction in the frequency spectrum where the material and the coupling resonance appear. Many are those who have tried some form of rubber puck or a cone, just to discover that no major improvement occurs pertaining to low level information, improved soundstage, increased separation of instruments, more detailed overtone spectrum or a better transient response. All that happens is a tonal shift, with accentuation of a specific frequency area.

This might affect the tonal balance of the system, and in some situations it might be beneficial, however our view on high end audio is that two wrongs do not make a right. Our belief is that only by offering optimal working environment without a tone or signature of its own, can we compose a musical system, that allows us to hear what is there - no more no less, for better or worse.

Q: What are the prerequisites for effective isolation and for accomplishing unadulterated musical reproduction within the audible range?

A: The resonance frequency of the isolator is of utmost importance, since it determines when the isolation actually becomes effective. The audio isolator should have a resonance frequency bellow 5 Hz. This will assure an effective isolation, avoiding tonal highlighting, even at the lowest audio frequencies. Unlike most isolation devices, our technology will produce a repeatable and predictable improvement irrespective of working environment.



As an example, the resonance frequency of a loaded rubber puck falls into the most critical area of the bas, resulting in all the frequencies bellow going unhindered trough the puck, besides when the frequency of the vibration coincide with the natural resonance frequency of the puck, the modal activity is amplified. This unavoidably leads to a darkened and veiled reproduction.

Regarding cones, we would not even like to talk about functioning isolation what so ever. It is rather a question of vibration transmitting. It is not a coincidence that this type of technique does not exist as vibration isolator in the industry (see the vibration analysis of one of the leading high tech cone done by an independent company).

Naturally, a firm and solid cone cannot reduce the bending, twisting and flexing

motion (vibration) forced upon it by the foundation, rather it will unavoidably transmit the motion. The foundation of the cone, its placement, choice of material determines what resonance signature will be transmitted, thus coloring the reproduction. Since most of the cones are made of hard material, with a high resonance frequency signature (basically with no isolation) they will cause the apparatus to highlight the upper frequencies.

What has been accomplished is not a better working environment for the apparatus, but rather just different, resulting in tuning the added resonance to a higher frequency with its corresponding resonance response. What is then an isolator? As the name implies, it is a device that prevents one bject from affecting another. With a Solid Tech isolation-system, one of the objects is allowed to vibrate without transmitting the energy of that vibration to the other object.

What are the demands on an isolator to accomplish above mentioned criteria's?

You don't need a PhD degree in physics to realise that a firm and solid body has no option but to transmit the bending, twisting and flexing motions (vibrations) to the isolated object. Since the vibrations and resonances have undesirable quality of acting in all planes, there is a need for a freedom of movement in all planes between the two objects in order for to accomplish effective isolation. By using spring and O-ring suspension, with high degree of freedom of movement (with low resonance frequency and transmitting characteristics) in all planes, we effectively avoid the bending, twisting and flexing motions (vibrations) to be transmitted to the system.



One of the fundamental rules of physics is that energy cannot be destroyed, but that it rather transforms into another form. The energy, (the movement) is transformed into heat by the extracting and contracting spring – a harmless energy form for the audio system.

In order to be able to accomplish this in an effective manner, especially with a wide load span, all our isolation systems consist of adaptable amount of O-rings and springs – a necessity for optimal isolation at various weight loads.

It should be mentioned that no isolation system in the world ever will be 100% effective. Even if only one of our isolation systems offer great improvements, the Solid Tech rack system facilitates implementation of multiple isolation stages, in order to

achieve close to 100% isolation. Like some other audio support manufacturers, we could of course fill this space with more or less suspicious theories and claims. However we do not need to hide behind smoke screens, but rather with pride we would like to show you a complete analysis performed by an independent company (Jor AB – www.jor.se).

This thorough analysis is performed with the most degrading low frequencies that a rack system can be exposed for, and the comparing measurements are done on the foundation (the floor) and the rack. Nothing has been left to the chance, nor has anything been swept under the rug. The analysis comprise of measurements in all planes (x, y, and z).

Please note that we do not hesitate to show the performance of the isolation system, even at the resonance frequency of the floor, the frequency where the vibration amplitude is at its highest. The question remains; why the majority of the “serious” audio support manufacturers do not show thorough vibration analysis performed by independent companies who could attest their claimed performance?

This is generally mandatory within the isolation industry, and a necessity in order to enable a correct choice of isolator for a specific application. The sad truth is that the claimed performance nowhere near lives up to the measurements. We are offering an opportunity and space for other serious audio support manufacturers to contact us for adding a link to their vibration analysis.

Vibration measurements that show the effectiveness of our products.

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