

NASOTEC VEM CLAMP...Truely Mechanical & Truly Work?!

By [Dato' Danon Han](#) on [Monday, May 25, 2020](#)

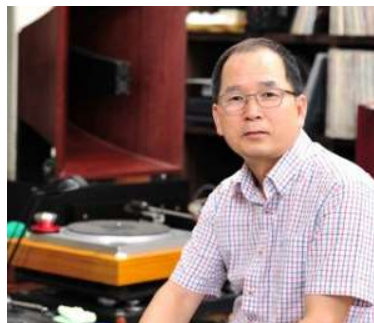
<http://analoguefellowship.com/2020/05/25/nasotec-vem-clamp-truely-mechanical-truly-work/?fbclid=IwAR10-Fgts0I4ENOKy1nm8G00nDvRrRB2Xz8r9sJAj49AHj-Xh3eIxsqm0TA>



NASOTEC VIBRATION EXTINCTION MECHANISM CLAMP, KOREA

The Man, the Thought, the Idea, and the Execution

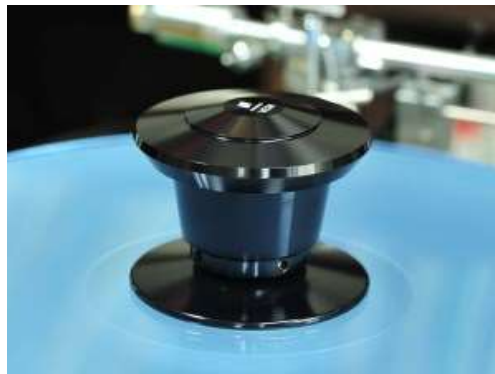
I remembered that a couple of years ago, there was a lot of postings (the postings still continue today) at the social network about the Swing Headshell (patented) and a Vibration Extinction Mechanism clamp (hereinafter referred to as the VEM clamp) from **Nasotec**, South Korea. Out of curiosity, I decided to contact **Dong-chan Son**, the chief designer at Nasotec (established since 1999). After a brief and courteous communication, he sent me both the headshell and the clamp for possible review.



I learned that *Dong-chan Son* used to be with **LG Electronics**, a major supplier of electronic home appliances, and an **audiophile**. Having been at LG Electronics, one can imagine his *knowledge, expertise* and contacts with *networks* of relevant electronic, mechanical and parts suppliers...and being an audiophile, an analogue enthusiast, one can appreciate his *knowledge on the detrimental effect of vibration*.



He believes that any record player, the turntable of whatever design is a source of (***internal***) ***vibration*** (from the motor, revolving platter, bearing, etc), that inevitably transmit that vibration to the pick up transducer, the phono cartridge. Therefore, the more elaborate turntable designs always incorporate mechanical vibration elimination (/extinction as the term preferred by Nasotec) contraption(s), which ultimately the higher retail price.



He added that (***external***) ***vibration*** (from the loudspeakers, air, floor, air conditioner, etc) also manage to travel to that phono cartridge. Therefore, the electrical signal that the ever sensitive phono cartridge produces for the phono amplifier is not entirely from the grooves alone but includes influences from both internal and external vibrations. Similarly, the same appreciation has given birth to some elaborate designs at the tonearm, rack, footers, clamps, etc...in the name of vibration elimination/ extinction/ control.



When it comes to the *design of clamp(s)*, I find its design mostly concentrate on the use of *material(s)*. Personally, I find most designers design the clamp to *achieve certain coloration* in tonality instead of vibrational control. They know each material resonate at and accentuate certain frequencies, and a combination of materials for (maybe) a wider bandwidth of desired frequencies...ultimately, to obtain the desired tonality.



Material alone is *inert* and without any ‘mechanical assistance’, I doubt any clamp design with the sole use of material(s) will be able to ‘extinct’ the vibration (simple physics?).

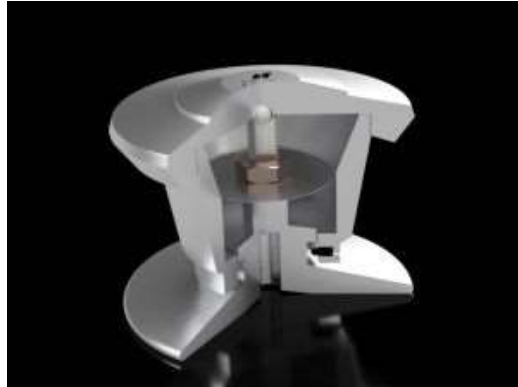


I believe that *Dong-chan Son* figured out that most clamp designs are based on material(s) which are not an effective “vibration extinction mechanism”, and that other vibration elimination/control devices, except those in the record player, are located further away from the sensitive phono cartridge. That prompted him to design and develop two devices *nearest to the phono cartridge* to “extinct” the vibration before being transmitted as signal to the phono amplifier, the Nasotec VEM clamp and the Nasotec Swing Headshell.



True Mechanical Clamp

I have in my collection about thirteen clamps including the Nasotec VEM clamp. None is as *complicated* and none is constructed with that *many parts*, and none is as *mechanical* when compare to the VEM clamp. It is not the usual clamp of a single piece material or a few pieces of materials fixed together. It is a *mechanical construct* of *multiple pieces* and in *different materials*. The main chassis and base of the clamp is of *composite metals*.



The base of the clamp is of a *separate piece* connected to the main chassis with a screw-locked cap which is decoupled by a *ceramic ball* at the apex of the pin. Thus, the base is free to *rotate independently*.

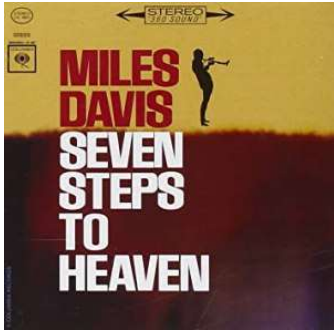


Within the main chassis of the clamp where the cavity is divided into two compartments with a '*stainless steel diaphragm*' that is locked into position with a *pure copper nut*. That '*stainless steel diaphragm*' of a *certain thickness* is designed to *transfer vibration* from one compartment to the other compartment. Both compartments are filled with *two types of damping materials* (a recipe not to be disclosed?). Shake the clamp and it will act as a small maracas...and one will appreciate where the vibrational energy being dealt with.



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With and Without the VEM Clamp?

. Any effective audio product will give out an immediate effect upon use/ installation/ connection...whether the effect is positive (or negative). The VEM clamp will give out an immediate effect upon use on the spinning platter of a turntable.



Here, I have the VEM clamp on the spindle of the *Sperling L-1* turntable (with *Sperling TA-1* Tonearm and *SoundSmith StrainGauge* Phono System) spinning Miles Davis “**Seven Steps To Heaven**” (Columbia Stereo CS 8851/ Analogue Productions APJ 8851-45).

Immediately, Miles’s trumpet *snapped into focus* with a *clear cut delineation and definition*. I might add that its *vividness* is of the “*in your face*” kind. Its not the forward kind, but the kind of “*floated out and step forward from the rest of the accompanying musicians*”.

. The *intricacies, nuances, transient and detail of air flow* from within Miles’ trumpet becomes more obvious. I might add that *George Coleman’s sax* has a more *palpable presence, and definition*, at the far right of the soundstage.



Next, I play on the same turntable, **Joe Henderson “Our Thing” (Blue Note ST-84152/ Music Matters MMBST-84152)**. Again, the effect of with and without the VEM clamp is immediate. Before the VEM clamp is introduced, the whole presentation, good as it is, sounds *slightly vague in comparison (only)*. The funny thing about audio is that until the listener/audiophile hears something better, the current(/previous) set up is the best. Therefore, the *Sperling L-1* turntable sounds *mightily fine* without a clamp (as per my review here). However, with the “*right clamp*” (I must qualify) like the VEM clamp, the projected images *tightened*, and with slightly more *palpability, tangibility* and *density*.

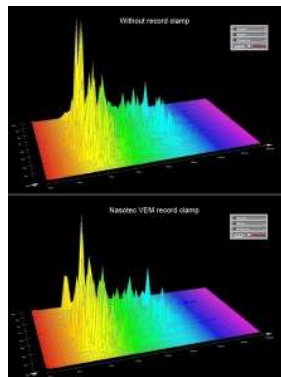
. Here, *Andrew Hill’s piano* holds a *weightier* presence, and *Eddie Khan’s bass line* is more *articulate* and *define*, (even) all the way to the *low frequencies*. Therefore, the above amounted to better *separation*, more *articulation* at the low bass and ultimately, more *energetic* presentation



On a lighter mood, I dig out to play one of my ol'time favorite anime soundtrack, **Genesis Climber Mospeada (Victor JBX-25029...where in the USA, it is under the Robotechseries)**. The title song, **"In Search Of Lost Dreams (...lonely soldier boy)"** where I find the vocalist, *Andy Koyama's* voice tends to *lose its presence* amidst the accompanying music. However, the addition of the VEM clamp resulted in *Koyama's* voice being **cleaned up** and **stood out**. I find similar result at the final track/song, **"Blue Rain"**, where both vocalists', *Koyama* and *Mine Matsuki*, voices become more **pronounce** and their **presence** more *obvious, tangible, focus* and *individualize*.



The above results from the addition of the VEM clamp; images snapped into *focus* and into *position*, also resulted a certain *clarity* into the **soundstage** and *its depth*. I appreciate that more in the presentation of a larger assembly of musicians in an equally larger recording venue, as per the City of Prague Philharmonic Orchestra in **007 It's Bond And Beyond (VII Pillars/ Silva Screen Records)**. Here, the VEM clamp also contributed in presenting a **more open, enveloping** and **faithful scale** soundstage. The assembly of musicians is presented with grandiose with each's **individuality**, *separated, spaced* and the **grandness of the number** of musicians.



To satisfy the scientific minded audiophile, Nasotec has submitted their graphical findings with and without the VEM clamp on the turntable. In short and simplification, the result shows that the use of the VEM clamp on the turntable will “*smoothly balance off*” the *low* and the *high frequencies*.



Finally, I wish to add another subjective finding. In regards to ***tonality***, I find that the *Sperling L-1*, the *TechDas Air Force One*, the *Kronos Pro Ltd* and the *Clearaudio Statement* sound ***closely similar*** with and without the VEM clamp. It is my belief that the VEM clamp is there to *balance off the unwanted peaks* at both extreme of the frequencies and *maintain the main midrange*. Therefore, it does not change that much the tonality in total.

CLAMP TO HAVE!

Personally, I *lean towards having a clamp than not*...it just sounded more *accurate*. The main concern has been the ***coupling*** of the vinyl record with the platter. A ***weight*** on the record (especially, a [not too] wrapped record) do help in that coupling and consequently, both record and the platter be spinning at the *same (accurate) speed*. I admit using different clamps to reach the *desired tonality* and *sound coloration*. That explained my collection of clamps.



The VEM clamp's mechanical attributes that "*extinct*" vibration at a point closest to the first transducer, the phono cartridge, and at the same time *satisfying* the above mentioned concerns.



I cannot find any reason not to have it and *strongly recommend* fellow analogue enthusiast to have it...**Listen to the analogue source closest to what is meant to be!**

Website: highendcity.com

Features declared by the manufacturer

VEM – Vibration Extinction Mechanism integrated system designed to absorb unwanted vibrations associated with playing vinyl records

Weight: 430g

Dimensions: base plate diameter 80mm, height 62mm

Accessory: silicone o-ring support.