APE explains why a vibration dampener is not used with APE Vibros
Some claim that a vibration dampener must be used with a vibro to suppress the vibration to the crane. This is not true when using APE Vibros on the job.

**THE VIBRATORY DAMPER**
for the Pile Driving and Caisson Industry

- Easily and effectively reduces damage to cranes
- Maximizes the safety of the crane work being done
  - Decreases extraction time
- Minimal set up and maintenance
- Extends the life expectancy of the crane
- Can be used on all model cranes

Visit us at the SC&RA Annual Conference April 30 - Orlando, FL - Booth #20
To purchase, contact Jay Mooncotch | jmooncotch@piledrivingsolutions.com | 708-774-5562
Let's look at the Vibration Dampener from a practical point of view and what its original design was intended to accomplish.
In the past, Chinese manufactured electric vibratory driver/extractors use Rail Road Car Springs as their vibration suppressor. (As seen to the right)

These electric vibratory hammers did not have a built in Suppressor to keep the vibration out of the boom of the crane.

Their answer to boom shake was the “Spring Vibration Suppressor” and though it was rudimentary at best, it did it’s job and kept the vibration out of the boom of the crane.
The Vibration Dampener was originally made for the Tunkers Vibratory hammer as seen below. The Tunkers vibratory hammer does NOT have a built in vibration suppressor system.
The reason for the Tunkers Vibration Dampener was the fact that the Tunkers Vibratory Hammers do NOT have a built in Vibration Suppressor System.

The APE Two-Stage Suppressor, below, is the highest state of the art suppressor system available on the market.
Tunkers solution to NO Suppressor is the “Vibration Dampener”
APE vs Tunkers

The APE vibratory hammer has a built in state of the art Two Stage Suppressor which eliminates boom shake.

Tunkers vibratory hammer is designed and built with no suppressor. Needing something to eliminate boom shake, Tunkers added the vibration dampener.
For over 25 years APE has been driving and pulling piles with our vibratory driver/extractors and our state of the art Two-Stage Suppressor System.
During all these years, APE has never damaged a crane boom due to excessive vibration. This is due to the APE Two-Stage Suppressor which is the BEST vibration dampening system in the foundation industry and is superior to any other suppressor system available to the contractor, including the Tunkers vibration dampener.
I would like to introduce you to the APE Two-Stage Suppressor Technology 

Understanding Vibro Suppressors

Old Technology
Single Stage Suppressor

New Technology
APE Two-Stage Suppressor System
APE Two-Stage Suppressor

Relaxed or Driving Position
All Elastomers are in neutral suspension

Small Elastomers
Stiffer but higher capacity line pull

Large Elastomer
Much Softer with lower capacity line pull

1st Stage Line Pull
Vibration Dampening

Large SOFT Elastomers
Initially start with line pull of crane with no residual vibration to the boom

Depending on size of vibro this 1st Stage is good for up to 90 Tons of line pull

2nd Stage
Small elastomers pick up the difference between the maximum line pull and where the large elastomers leave off.

Much more capacity with no vibration to the crane line.
The Tunkers Vibration Dampener capacity is maximum 90 Tons of total line pull and when fully collapsed does nothing and may fail causing catastrophic damage to the crane and the equipment.

This Tunkers vibration suppressor limits the amount of line pull reducing the efficiency of the vibro suppressor.

Built in APE Two-Stage Suppressor good for up to 90 Tons of line pull in the first Large Elastomer "Soft" Stage with a total line pull of 250 Tons.
This Vibration Dampener is Dangerous to personnel as well as to the crane!

This vibration Dampener is a safety hazard! There are multiple reasons why you should not use this when using an APE vibro.

1) Reduces Line Pull Capacity
2) Multiple connections may cause failure
3) NO built in SAFETY device

Shackle on both sides may fail

Multiple cables may break

If the cables break there is NO connection to the crane and there is NO built in safety connection!

Pins and cotter pins may come loose and fail

If the cables break or come apart this vibration ball will fall and can kill someone or do damage to the crane or other equipment
Large "Soft" Elastomers absorb the vibration in soft driving and soft extraction up to 90 Tons of line pull on some models.

APE Two-Stage Suppressor has a built in safety "STOP" Pin in the event that all the elastomers fail. This gives us a 100% connection to the crane at all times which takes away the potential for damage to the crane and equipment in case of failure.

The Small elastomers increase line pull capacity up to 250 Tons on some models.
Bottom Line

The APE Two-Stage Suppressor System is time proven by the contractors that use them in the Foundation Industry World Wide! APE Vibratory Driver/ Extractor with the Two-Stage Suppressor does NOT need a vibration dampener as a solution to vibration.

APE already has the solution to the vibration issue. The APE Two-Stage Suppressor! It has been in use for over 25 years with out damaging a single crane due to excessive vibration!

APE will let History speak for itself. Talk to any of the contractors in the Foundation Industry that have used APE equipment and they will testify that the Two-Stage Suppressor stands the test of time!